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Earth–Venus Trajectories, 1970

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FOREWORD

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

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

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

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

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

I. INTRODUCTION

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

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

A. Heliocentric Conic Computation

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

B. Planetocentric Conic Computation

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

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

C. Differential Corrections

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

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

D. Mid-Course Guidance

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

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

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

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

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

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

E. Orbit Determination

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

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

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

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

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

F. Accuracy of Computations

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

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

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

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

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

II. ANALYTICAL MODEL FOR INTERPLANETARY TRAJECTORIES

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

A. Heliocentric Motion

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

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

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

1. Determination of Planar Orientation

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

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

[2] Hyperbolic heliocentric motion is not considered herein.

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

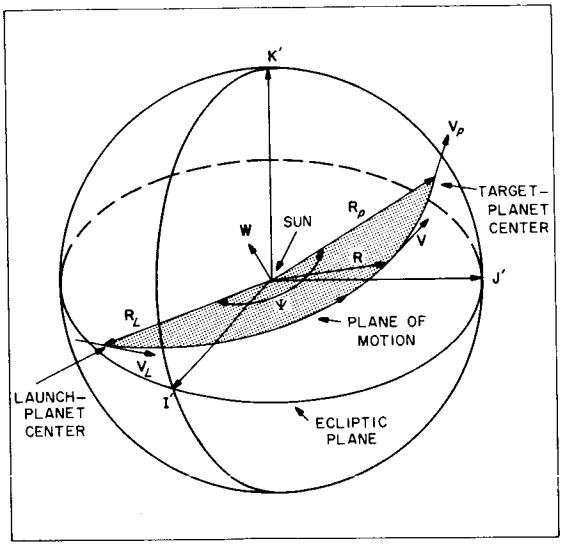

Fig. 1. Heliocentric transfer geometry

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

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

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

2. In-Plane Relations

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

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

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

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

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

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

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

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

and the path angle Γ is found from

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

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

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

3. Lambert's Theorem

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

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

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

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

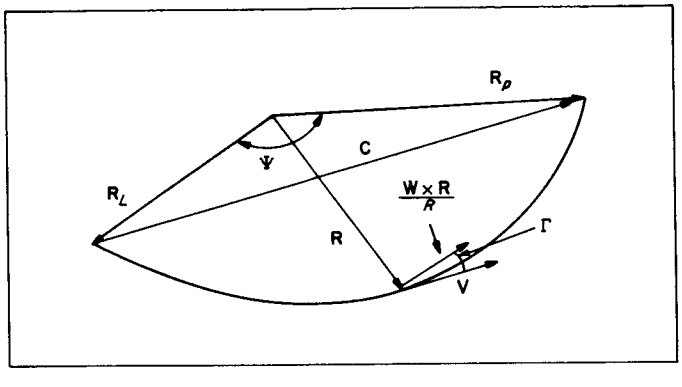

Fig. 2. In-plane transfer geometry

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

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

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

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

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

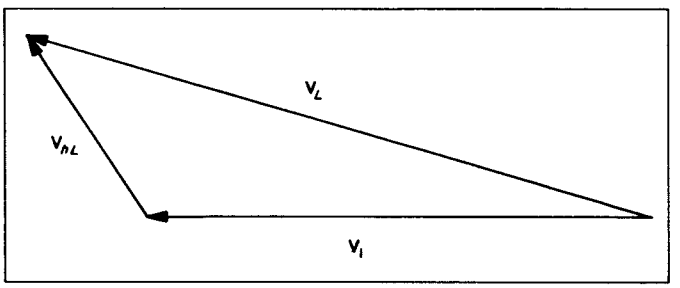

Fig. 3. Determination of the hyperbolic-excess velocity vector $\mathbf{V}_{hL}$

B. Launch Planet Escape Hyperbola

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

1. Assumptions

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

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

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

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

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

2. Size and Shape of the Escape Hyperbola

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

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

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

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

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

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

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

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

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

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

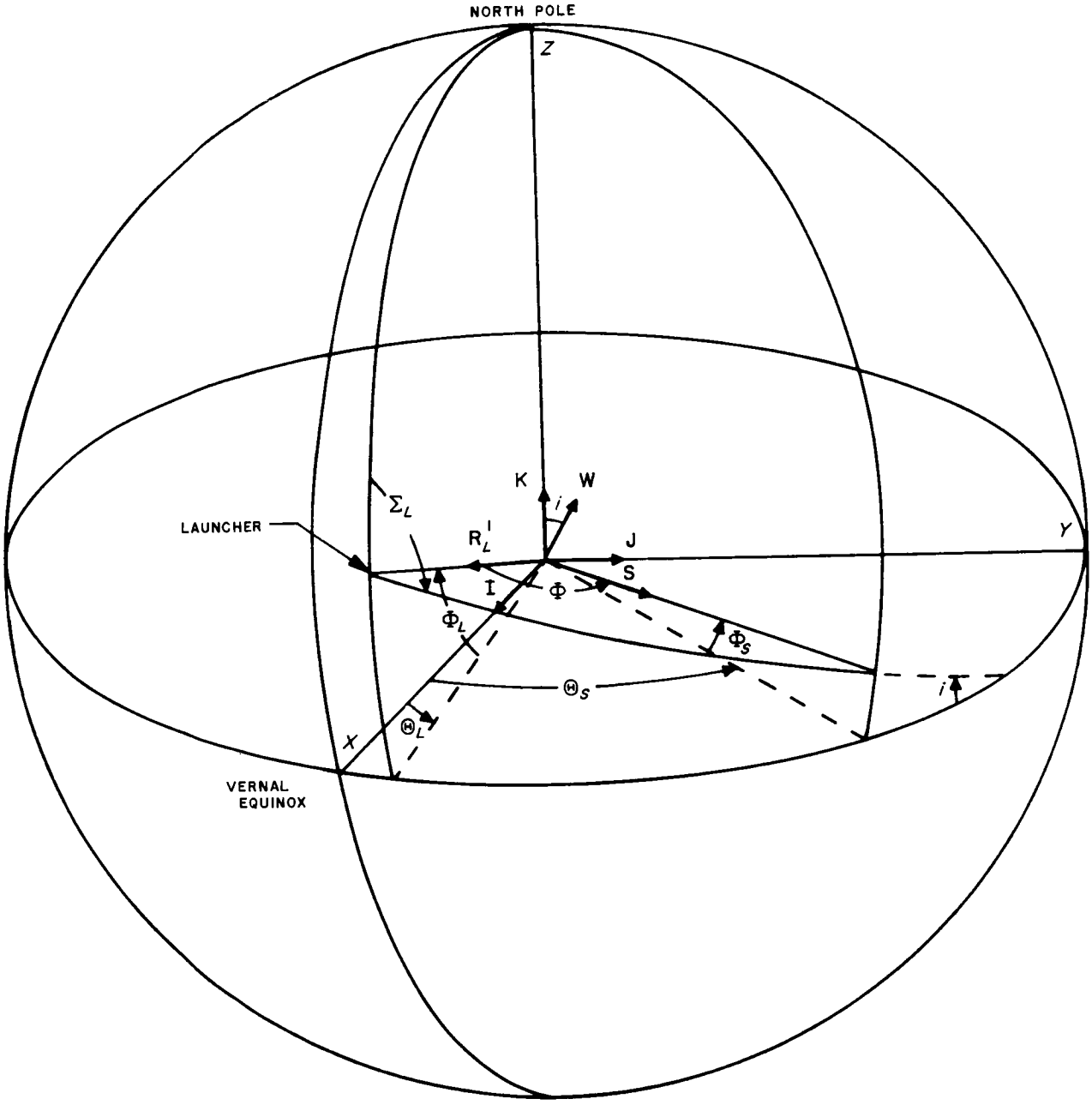

Fig. 4. Vehicle flight plane

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

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

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

C. *Differential Corrections*

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

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

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

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

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

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

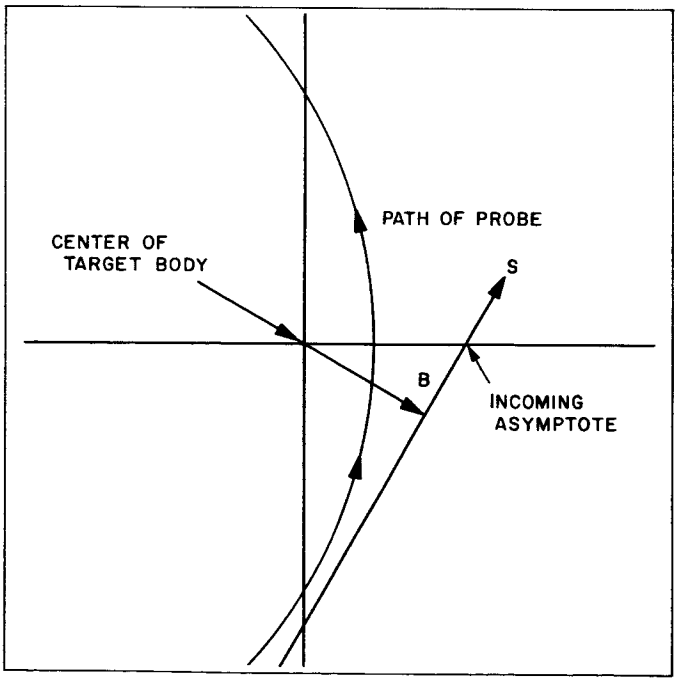

Fig. 5. Impact parameter B

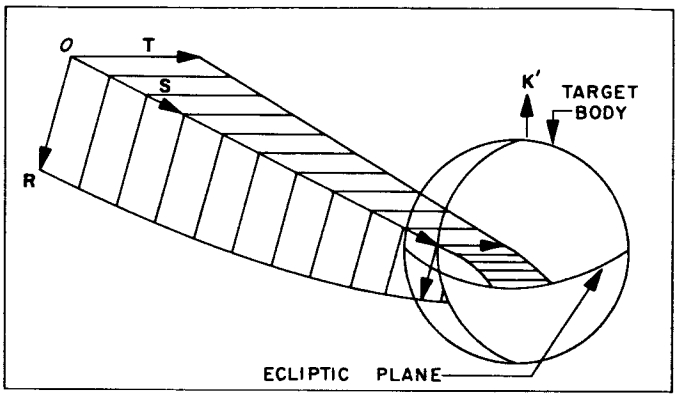

Fig. 6. The R, S, T target coordinate system

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

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

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

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

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

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

where

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

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

The semimajor axis a' is obtained from

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

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

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

The semilatus rectum p' and eccentricity e' are

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

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

The eccentric anomaly at launch E'_L is

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

The mean anomaly at launch M'_L is obtained from

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

The mean orbital rate n' is

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

The mean anomaly at the target M'_p is

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

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

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

if

$$\cos E_p \geqq 0$$

or

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

if

$$\cos E_p < 0$$

where

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

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

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

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

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

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

The heliocentric central angle Ψ' is

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

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

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

The heliocentric position vector at the target is

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

where

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

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

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

The heliocentric velocity at the target is

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

The hyperbolic-excess velocity at the target is

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

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

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

The impact parameter **B** is

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

The flight time error is

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

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

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

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

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

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

from whence

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

and

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

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

The effect of solar radiation pressure acting on the probe may also be evaluated as follows: In Eq. (19) let $\Delta\mathbf{V}_{hL} = 0$, but in Eq. (20), (22), (24), (26), (36), vary GM_S by adding an increment ΔGM_S. This procedure gives rise to a varied trajectory from which the impact parameter **B** and flight time error ΔT_F may be obtained. The partials $\partial B/\partial GM_S$ and $\partial T_F/\partial GM_S$ may then be calculated. Since the acceleration caused by solar radiation pressure acts opposite to the gravitational attraction of the Sun, radiation pressure has the effect of decreasing the Sun's gravitational attraction, or decreasing GM_S. A decrease, $\Delta GM_S = -2.4\times10^6\ \mathrm{km^3/sec^2}$ corresponds to the solar radiation pressure acting on a 300-kg spacecraft having a perfectly reflecting area of 3.6 square meters. Thus the miss, always being a positive number, is obtained by $\Delta B_{sp} = 2.4\times10^6\,\partial B/\partial GM_S$, and the corresponding flight time error is $\Delta T_{F_{sp}} = -2.4\times10^6\,\partial T_F/\partial GM_S$, which is sign sensitive.

D. Mid-Course Execution Accuracy

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

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

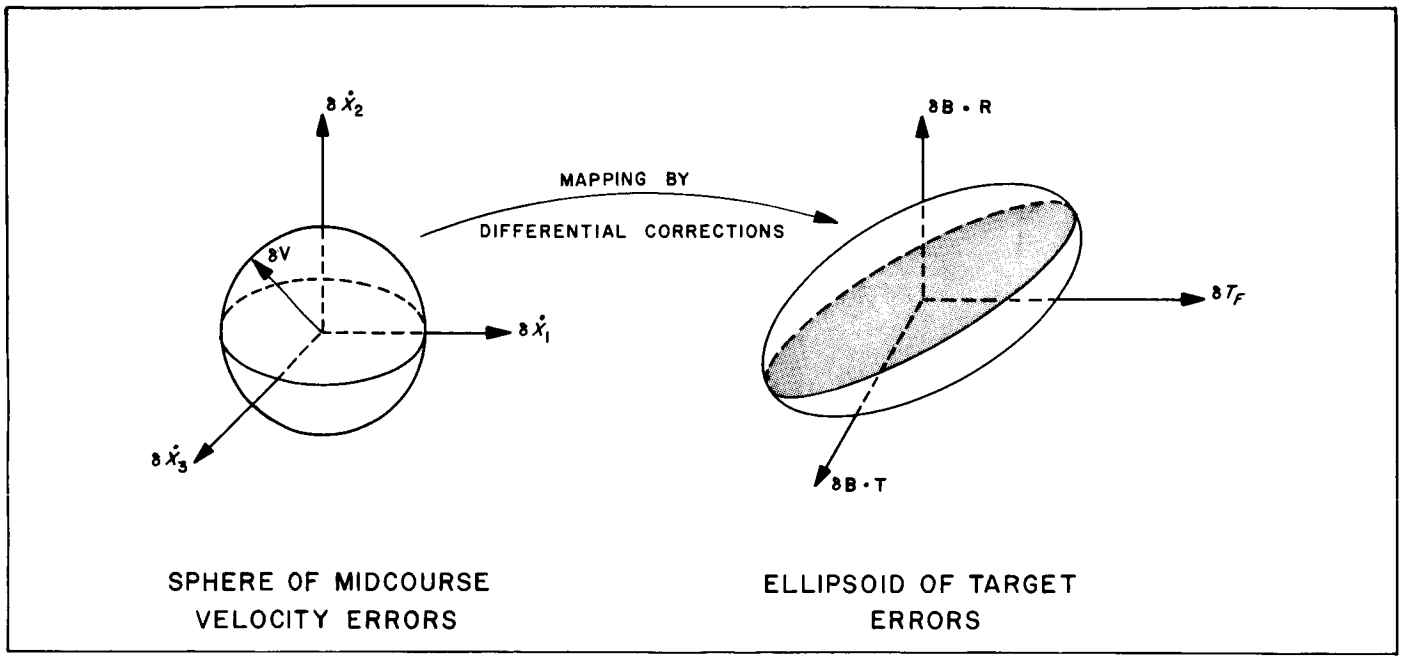

Fig. 7. The mapping of mid-course execution error

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

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

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

Then a new matrix F can be formed,

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

where

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

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

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

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

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

where

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

and

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

The elements of the Λ matrix are:

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

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

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

Then the Λ matrix becomes

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

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

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

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

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

where the matrix L is given by

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

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

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

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

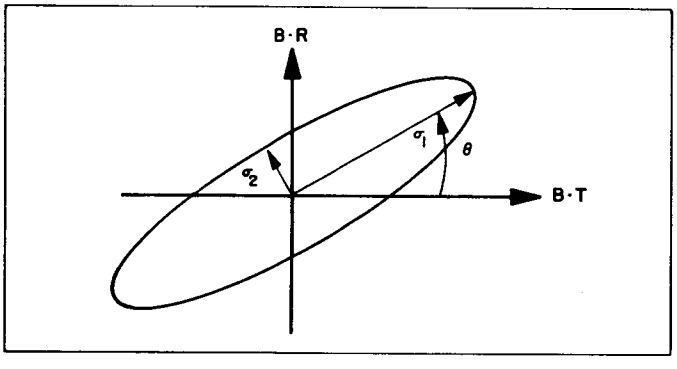

Fig. 8. Projection of three-dimensional error ellipsoid on the T-R plane

E. Orbit Determination Accuracy

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

1. Method of Describing Orbit Determination Accuracy

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

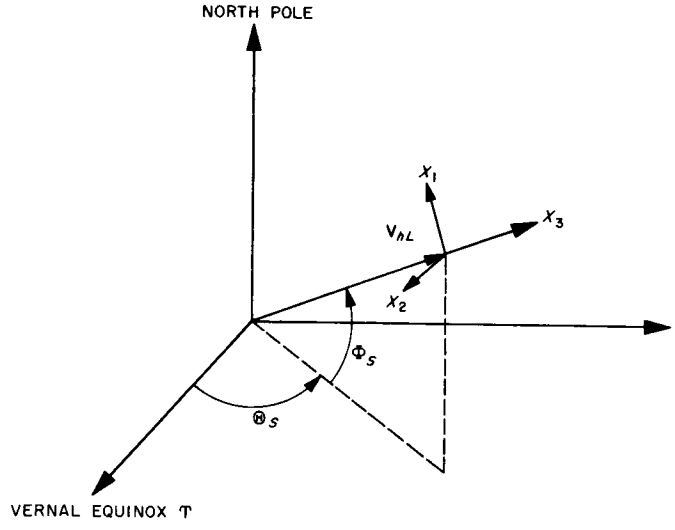

Fig. 9. Orientation of the X_i Cartesian coordinate system to describe uncertainties in the hyperbolic-excess velocity vector $\mathbf{V}_{hL}$

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

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

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

Note that

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

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

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

2. Accuracy of Near-Earth Tracking

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

Table 1. Trajectory parameters influencing tracking accuracy

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

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

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

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

Table 2. Tracking station parameters influencing tracking accuracy

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

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

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

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

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

3. Calculation of Target Errors

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

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

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

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

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

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

By postmultiplying K by

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

the F matrix is obtained.

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

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

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

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

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

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

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

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

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

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

III. EXPLANATION OF TRAJECTORY TABLES

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

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

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

A. Heliocentric Conic Group

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

HELIOCENTRIC CONIC DISTANCE

RL LAL LOL VL GAL AZL HCA SMA ECC INC V1

RP LAP LOP VP GAP AZP TAL TAP RCA APO V2

RC GL GP ZAL ZAP ETS ZAE ETE ZAC ETC CLP

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

Line 1

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Line 2

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

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

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

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

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

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

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

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

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

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

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

Line 3

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

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

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

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

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

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

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

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

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

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

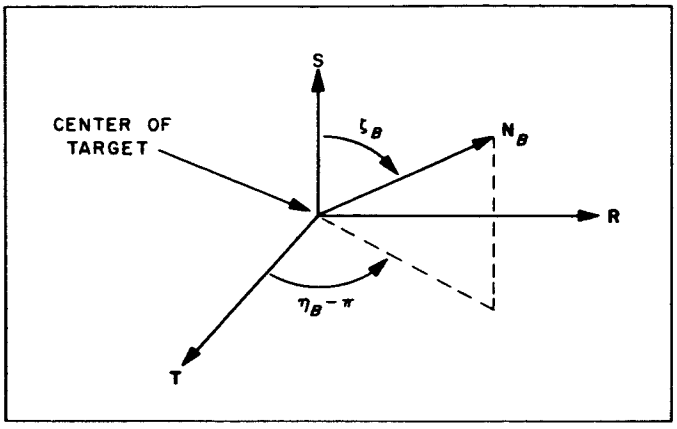

Fig. 10. Generalized geometry for aiming point angles

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

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

since

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

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

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

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

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

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

ETS, η_S — defined as above.

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

ETE, η_E — defined as above.

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

ETC, η_C — defined as above.

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

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

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

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

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

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

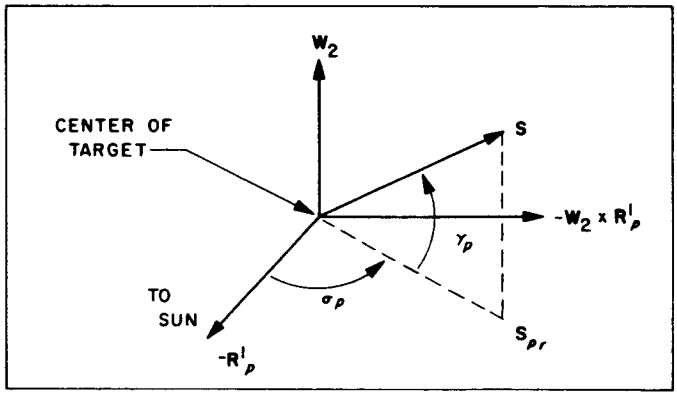

Fig. 11. Definition of σ_p and γ_p

B. Planetocentric Conic Group

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

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

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

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

t_1 the time from launch to parking-orbit injection.

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

t_2 the time of final burn.

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

v_1 the true anomaly in the hyperbolic orbit at injection.

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

ϕ_L the longitude of the launch site.

θ_L the latitude of the launch site.

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

$\Phi_1 =$ 17 deg

$t_1 =$ 500 sec

$\Phi_2 =$ 8 deg

$t_2 =$ 100 sec

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

$v_1 =$ 3.7 deg

$R_p =$ 6560 km

$\phi_L =$ 28.317 deg

$\theta_L =$ 279.457 deg

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

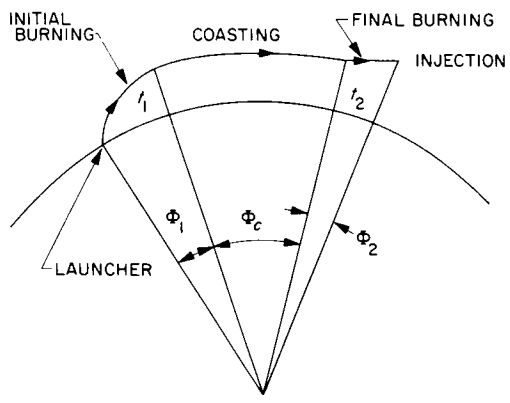

Fig. 12. Ascent trajectory profile

The print array for the PLANETOCENTRIC CONIC group is:

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

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

Line 1

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

Line 2

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

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

C. Differential Corrections Group

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

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

DIFFERENTIAL CORRECTIONS

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

The symbols are defined as follows:

Line 1

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

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

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

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

Line 2

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

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

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

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

Line 3

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

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

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

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

Line 4

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

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

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

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

D. Mid-Course Execution Accuracy Group

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

The print array for this group is:

MID-COURSE EXECUTION ACCURACY

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

The quantities are defined as follows:

Line 1

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

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

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

Line 2

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

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

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

Line 3

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

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

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

Line 4

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

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

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

E. Orbit Determination Accuracy Group

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

ORBIT DETERMINATION ACCURACY

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

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

Line 1

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

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

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

Line 2

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

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

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

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

Line 3

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

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

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

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

Line 4

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

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

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

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

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

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

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

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

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

IV. CONSTANTS

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

Gravitational Constants

1. Sun

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

2. Earth

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

Astronomical Unit-to-Kilometer Conversion Factor

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

Earth's Rotation Rate

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

REFERENCES

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2. Pfeiffer, C. G., *Simple Guidance for Deep-Space Booster Vehicles*, Technical Report No. 32-128, Jet Propulsion Laboratory, Pasadena, November 1961.

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4. Noton, A. R. M., Cutting, E., and Barnes, F. L., *Analysis of Radio-Command Mid-Course Guidance*, Technical Report No. 32-28, Jet Propulsion Laboratory, Pasadena, September 8, 1960.

5. Battin, R. H., "The Determination of Round-Trip Planetary Reconnaissance Trajectories," *Journal of the Aero/Space Sciences*, Volume 26, No. 9, September 1959.

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

7. Clarke, V. C., Jr., *A Summary of the Characteristics of Ballistic Interplanetary Trajectories, 1962–1977*, Technical Report No. 32-209, Jet Propulsion Laboratory, Pasadena, January 15, 1962.

8. Clarke, V. C., Jr., Bollman, W. E., Roth, R. Y., and Scholey, W. J., *Design Parameters for Ballistic Interplanetary Trajectories—Part I, One-way Transfers to Mars and Venus*, Technical Report No. 32-77, Jet Propulsion Laboratory, Pasadena, January 16, 1963.

9. Clarke, V. C., Jr., *Constants and Related Data Used in Trajectory Calculations at the Jet Propulsion Laboratory*, Technical Report No. 32-273, Jet Propulsion Laboratory, Pasadena, May 1, 1962.

Erratum

On page 1965 (launch date, October 3, 1970), flight time 126 has been omitted. This orbit has a central angle of 180 deg and an indeterminate inclination.

Earth–Venus Trajectories, 1970

Launch date interval: September 10 to October 19, 1970

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

LAUNCH DATE SEP 10 1970 FLIGHT TIME 70.00 ARRIVAL DATE NOV 19 1970

HELIOCENTRIC CONIC DISTANCE 173.717

RL	150.64	LAL	.00	LOL	346.88	VL	24.954	GAL	-4.95	AZL	90.91	HCA	74.53	SMA	116.49	ECC	.30458	INC	.9129	V1	29.578
RP	107.95	LAP	-.88	LOP	61.41	VP	36.325	GAP	-17.24	AZP	90.24	TAL	191.51	TAP	266.04	RCA	81.01	APO	151.97	V2	35.105
RC	41.530	GL	-4.52	GP	-11.42	ZAL	109.81	ZAP	11.70	ETS	99.51	ZAE	157.87	ETE	339.19	ZAC	89.99	ETC	260.61	CLP	2.59

PLANETOCENTRIC CONIC

C3	25.314	VHL	5.031	DLA	-23.88	RAL	233.58	RAD	6568.0	VEL	12.112	PTH	2.17	VHP	10.769	DPA	-31.28	RAP	238.92	ECC	1.4166

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 21 53	1410.77	4.63	354.91	100.20	117.97	7 45 24	810.8	8.34	348.19
90.00	11 59 1	5776.36	26.91	274.91	107.91	99.15	13 35 17	5176.4	27.90	266.39
100.00	8 23 45	1211.09	2.76	339.20	99.16	119.78	8 43 56	611.1	6.70	332.63
100.00	13 39 50	5451.28	29.04	251.35	108.26	97.44	15 10 42	4851.3	29.76	242.62
110.00	8 53 20	1118.28	-1.51	329.51	96.50	124.15	9 11 59	518.3	2.98	323.31
110.00	15 26 44	5116.84	34.04	226.50	108.81	93.32	16 52 1	4516.8	34.13	217.26

DIFFERENTIAL CORRECTIONS

TDE	.1601	TRA	-.5176	TC3	.3194	BAU	.1158
RDE	-.3706	RRA	-.0440	RC3	-.1226	FAU	.02516
FDE	-.0421	FRA	.1949	FC3	-.8604	BSP	1934
BDE	.4037	BRA	.5194	BC3	.3421	FSP	-179

MID-COURSE EXECUTION ACCURACY

SGT	743.0	SGR	443.1	SG3	77.8		
RRT	-.2468	RRF	.2851	RTF	-.6629		
SGB	865.1	R23	-.0443	R13	.6732		
SG1	754.8	SG2	422.7	THA	167.72		

ORBIT DETERMINATION ACCURACY

ST	265.9	SR	422.4	SS	84.7
CRT	-.6570	CRS	-.4982	CST	.9538
LSA	468.0	MSA	192.1	SSA	19.8
EL1	464.7	EL2	182.3	ALF	116.94

LAUNCH DATE SEP 10 1970 FLIGHT TIME 72.00 ARRIVAL DATE NOV 21 1970

HELIOCENTRIC CONIC DISTANCE 180.486

RL	150.64	LAL	.00	LOL	346.88	VL	25.229	GAL	-4.98	AZL	90.71	HCA	77.74	SMA	117.92	ECC	.28977	INC	.7105	V1	29.578
RP	107.91	LAP	-.69	LOP	64.62	VP	36.526	GAP	-16.15	AZP	90.15	TAL	192.44	TAP	270.19	RCA	83.75	APO	152.08	V2	35.117
RC	42.291	GL	-3.74	GP	-12.07	ZAL	111.33	ZAP	12.08	ETS	89.23	ZAE	155.56	ETE	338.46	ZAC	89.46	ETC	260.82	CLP	.55

PLANETOCENTRIC CONIC

C3	22.860	VHL	4.781	DLA	-22.77	RAL	232.20	RAD	6567.9	VEL	12.010	PTH	2.14	VHP	10.164	DPA	-32.21	RAP	240.03	ECC	1.3762

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 59 59	1443.53	3.58	356.75	96.68	118.11	7 24 3	843.5	7.32	350.06
90.00	12 9 52	5693.64	27.67	268.98	104.35	96.27	13 44 46	5093.6	28.25	260.36
100.00	8 4 19	1235.91	1.92	340.57	95.76	119.84	8 24 55	635.9	5.87	334.01
100.00	13 48 13	5376.49	29.57	245.85	104.55	94.60	15 17 50	4776.5	29.89	237.06
110.00	8 37 45	1131.10	-2.00	330.18	93.31	124.13	8 56 36	531.1	2.49	323.98
110.00	15 31 17	5054.07	34.18	221.60	104.79	90.43	16 55 31	4454.1	33.86	212.37

DIFFERENTIAL CORRECTIONS

TDE	.1619	TRA	-.4943	TC3	.3900	BAU	.1284
RDE	-.3514	RRA	-.0449	RC3	-.1562	FAU	.02692
FDE	-.0281	FRA	.1885	FC3	-1.0196	BSP	2090
BDE	.3869	BRA	.4963	BC3	.4201	FSP	-205

MID-COURSE EXECUTION ACCURACY

SGT	767.7	SGR	450.6	SG3	86.9		
RRT	-.2887	RRF	.3211	RTF	-.6832		
SGB	890.1	R23	-.0393	R13	.6942		
SG1	783.3	SG2	422.7	THA	166.33		

ORBIT DETERMINATION ACCURACY

ST	273.7	SR	421.5	SS	75.5
CRT	-.6794	CRS	-.3600	CST	.8938
LSA	470.7	MSA	190.2	SSA	21.1
EL1	469.0	EL2	180.5	ALF	118.38

LAUNCH DATE SEP 10 1970 FLIGHT TIME 74.00 ARRIVAL DATE NOV 23 1970

HELIOCENTRIC CONIC DISTANCE 187.265

RL	150.64	LAL	.00	LOL	346.88	VL	25.480	GAL	-5.01	AZL	90.51	HCA	80.96	SMA	119.26	ECC	.27629	INC	.5129	V1	29.578
RP	107.88	LAP	-.51	LOP	67.84	VP	36.711	GAP	-15.10	AZP	90.08	TAL	193.43	TAP	274.39	RCA	86.31	APO	152.21	V2	35.129
RC	43.202	GL	-2.86	GP	-12.80	ZAL	112.94	ZAP	12.89	ETS	79.65	ZAE	153.41	ETE	337.62	ZAC	88.84	ETC	261.02	CLP	-1.54

PLANETOCENTRIC CONIC

C3	20.801	VHL	4.561	DLA	-21.52	RAL	230.77	RAD	6567.8	VEL	11.924	PTH	2.12	VHP	9.591	DPA	-33.20	RAP	241.08	ECC	1.3423

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 37 49	1479.82	2.42	358.78	93.30	118.22	7 2 29	879.8	6.17	352.11
90.00	12 20 38	5611.74	28.14	263.03	100.76	93.32	13 54 10	5011.7	28.30	254.37
100.00	7 44 18	1265.28	.92	342.18	92.47	119.88	8 5 23	665.3	4.89	335.64
100.00	13 56 51	5301.51	29.85	240.30	100.85	91.68	15 25 12	4701.5	29.76	231.49
110.00	8 21 21	1149.11	-2.69	331.12	90.22	124.09	8 40 31	549.1	1.80	324.92
110.00	15 36 16	4990.45	34.10	216.64	100.81	87.49	16 59 27	4390.5	33.38	207.47

DIFFERENTIAL CORRECTIONS

TDE	.1509	TRA	-.4782	TC3	.4672	BAU	.1409
RDE	-.3327	RRA	-.0463	RC3	-.1961	FAU	.02890
FDE	-.0101	FRA	.1804	FC3	-1.2029	BSP	2194
BDE	.3653	BRA	.4804	BC3	.5067	FSP	-234

MID-COURSE EXECUTION ACCURACY

SGT	796.6	SGR	458.9	SG3	97.1		
RRT	-.3148	RRF	.3612	RTF	-.7007		
SGB	919.3	R23	-.0546	R13	.7141		
SG1	814.7	SG2	425.9	THA	165.75		

ORBIT DETERMINATION ACCURACY

ST	271.3	SR	418.5	SS	67.3
CRT	-.6664	CRS	-.1207	CST	.7712
LSA	464.7	MSA	191.9	SSA	22.8
EL1	464.2	EL2	182.4	ALF	118.08

LAUNCH DATE SEP 10 1970 FLIGHT TIME 76.00 ARRIVAL DATE NOV 25 1970

HELIOCENTRIC CONIC DISTANCE 194.051

RL	150.64	LAL	.00	LOL	346.88	VL	25.707	GAL	-5.06	AZL	90.32	HCA	84.18	SMA	120.52	ECC	.26409	INC	.3184	V1	29.578
RP	107.84	LAP	-.32	LOP	71.06	VP	36.881	GAP	-14.10	AZP	90.03	TAL	194.46	TAP	278.64	RCA	88.70	APO	152.35	V2	35.141
RC	44.254	GL	-1.87	GP	-13.61	ZAL	114.62	ZAP	14.09	ETS	71.22	ZAE	151.42	ETE	336.63	ZAC	88.14	ETC	261.22	CLP	-3.69

PLANETOCENTRIC CONIC

C3	19.078	VHL	4.368	DLA	-20.14	RAL	229.32	RAD	6567.8	VEL	11.852	PTH	2.10	VHP	9.049	DPA	-34.25	RAP	242.05	ECC	1.3140

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 15 33	1519.58	1.14	1.00	90.11	118.30	6 40 52	919.6	4.91	354.35
90.00	12 31 23	5530.86	28.31	257.13	97.21	90.37	14 3 34	4930.9	28.07	248.47
100.00	7 23 55	1298.94	-.22	344.02	89.35	119.89	7 45 34	698.9	3.76	337.50
100.00	14 5 42	5226.73	29.87	234.74	97.20	88.76	15 32 49	4626.7	29.38	225.97
110.00	8 4 24	1172.05	-3.56	332.32	87.26	124.02	8 23 56	572.1	.93	326.11
110.00	15 41 42	4926.38	33.80	211.66	96.93	84.56	17 3 48	4326.4	32.68	202.60

DIFFERENTIAL CORRECTIONS

TDE	.1433	TRA	-.4587	TC3	.5487	BAU	.1531
RDE	-.3144	RRA	-.0480	RC3	-.2431	FAU	.03112
FDE	.0131	FRA	.1709	FC3	-1.4120	BSP	2330
BDE	.3455	BRA	.4612	BC3	.6001	FSP	-267

MID-COURSE EXECUTION ACCURACY

SGT	822.1	SGR	468.7	SG3	108.6		
RRT	-.3538	RRF	.4055	RTF	-.7174		
SGB	946.3	R23	-.0616	R13	.7329		
SG1	844.7	SG2	426.7	THA	164.57		

ORBIT DETERMINATION ACCURACY

ST	269.2	SR	413.0	SS	64.4
CRT	-.6631	CRS	.2432	CST	.4993
LSA	458.3	MSA	191.1	SSA	24.7
EL1	458.3	EL2	181.6	ALF	118.19

LAUNCH DATE SEP 10 1970 FLIGHT TIME 78.00 ARRIVAL DATE NOV 27 1970

HELIOCENTRIC CONIC DISTANCE 200.840

RL 150.64 LAL .00 LOL 346.88 VL 25.914 GAL -5.12 AZL 90.13 HCA 87.40 SMA 121.70 ECC .25307 INC .1257 V1 29.578
RP 107.81 LAP -.13 LOP 74.28 VP 37.036 GAP -13.14 AZP 90.01 TAL 195.53 TAP 282.93 RCA 90.90 APO 152.50 V2 35.152
RC 45.436 GL -.78 GP -14.50 ZAL 116.33 ZAP 15.64 ETS 64.07 ZAE 149.61 ETE 335.51 ZAC 87.34 ETC 261.40 CLP -5.91

PLANETOCENTRIC CONIC

C3 17.664 VHL 4.200 DLA -18.64 RAL 227.89 RAD 6567.7 VEL 11.791 PTH 2.08 VHP 8.536 DPA -35.36 RAP 242.93 ECC 1.2904

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 53 21	1562.64	-.25	3.40	87.12	118.32	6 19 24	962.6	3.53	356.77
90.00	12 42 10	5451.20	28.21	251.30	93.76	87.45	14 13 1	4851.2	27.56	242.70
100.00	7 3 25	1336.55	-1.50	346.09	86.43	119.86	7 25 41	736.5	2.49	339.57
100.00	14 14 47	5152.52	29.63	229.24	93.66	85.87	15 40 40	4552.5	28.75	220.54
110.00	7 47 8	1199.59	-4.61	333.76	84.49	123.91	8 7 7	599.6	-.13	327.55
110.00	15 47 34	4862.25	33.28	206.73	93.20	81.68	17 8 36	4262.2	31.77	197.82

DIFFERENTIAL CORRECTIONS
TDE .1336 TRA -.4397 TC3 .6329 BAU .1650
RDE -.2961 RRA -.0500 RC3 -.2977 FAU .03359
FDE .0425 FRA .1596 FC3-1.6482 BSP 2460
BDE .3248 BRA .4425 BC3 .6994 FSP -305

MID-COURSE EXECUTION ACCURACY
SGT 846.5 SGR 480.4 SG3 121.4
RRT -.3960 RRF .4538 RTF -.7326
SGB 973.3 R23 -.0698 R13 .7507
SG1 874.7 SG2 426.9 THA 163.23

ORBIT DETERMINATION ACCURACY
ST 263.7 SR 404.5 SS 73.2
CRT -.6528 CRS .6129 CST .1217
LSA 449.2 MSA 189.8 SSA 26.8
EL1 447.9 EL2 180.4 ALF 117.98

LAUNCH DATE SEP 10 1970 FLIGHT TIME 80.00 ARRIVAL DATE NOV 29 1970

HELIOCENTRIC CONIC DISTANCE 207.627

RL 150.64 LAL .00 LOL 346.88 VL 26.101 GAL -5.18 AZL 89.94 HCA 90.63 SMA 122.80 ECC .24318 INC .0633 V1 29.578
RP 107.77 LAP .06 LOP 77.50 VP 37.177 GAP -12.22 AZP 90.00 TAL 196.61 TAP 287.24 RCA 92.94 APO 152.66 V2 35.163
RC 46.738 GL .41 GP -15.50 ZAL 118.04 ZAP 17.49 ETS 58.14 ZAE 147.98 ETE 334.22 ZAC 86.43 ETC 261.56 CLP -8.21

PLANETOCENTRIC CONIC

C3 16.456 VHL 4.057 DLA -17.03 RAL 226.51 RAD 6567.7 VEL 11.741 PTH 2.07 VHP 8.053 DPA -36.54 RAP 243.71 ECC 1.2708

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 31 24	1608.71	-1.74	5.97	84.39	118.27	5 58 13	1008.7	2.05	359.34
90.00	12 53 2	5372.96	27.84	245.61	90.46	84.62	14 22 35	4773.0	26.81	237.10
100.00	6 43 0	1377.77	-2.89	348.35	83.75	119.77	7 5 57	777.8	1.09	341.83
100.00	14 24 8	5079.18	29.15	223.84	90.30	83.07	15 48 47	4479.2	27.89	215.26
110.00	7 29 44	1231.33	-5.81	335.43	81.94	123.74	7 50 16	631.3	-1.34	329.20
110.00	15 53 53	4798.39	32.54	201.89	89.67	78.91	17 13 51	4198.4	30.67	193.17

DIFFERENTIAL CORRECTIONS
TDE .1216 TRA -.4216 TC3 .7169 BAU .1765
RDE -.2774 RRA -.0522 RC3 -.3605 FAU .03635
FDE .0795 FRA .1471 FC3-1.9124 BSP 2582
BDE .3029 BRA .4248 BC3 .8024 FSP -347

MID-COURSE EXECUTION ACCURACY
SGT 869.3 SGR 495.0 SG3 135.7
RRT -.4400 RRF .5056 RTF -.7460
SGB 1000.3 R23 -.0801 R13 .7675
SG1 904.5 SG2 427.1 THA 161.72

ORBIT DETERMINATION ACCURACY
ST 254.3 SR 392.6 SS 95.9
CRT -.6319 CRS .8327 CST -.1790
LSA 437.8 MSA 188.4 SSA 29.3
EL1 432.1 EL2 179.1 ALF 117.34

LAUNCH DATE SEP 10 1970 FLIGHT TIME 82.00 ARRIVAL DATE DEC 1 1970

HELIOCENTRIC CONIC DISTANCE 214.408

RL 150.64 LAL .00 LOL 346.88 VL 26.270 GAL -5.24 AZL 89.74 HCA 93.85 SMA 123.81 ECC .23432 INC .2561 V1 29.578
RP 107.74 LAP .26 LOP 80.73 VP 37.306 GAP -11.35 AZP 90.02 TAL 197.70 TAP 291.55 RCA 94.80 APO 152.82 V2 35.174
RC 48.150 GL 1.71 GP -16.60 ZAL 119.71 ZAP 19.62 ETS 53.26 ZAE 146.51 ETE 332.74 ZAC 85.39 ETC 261.70 CLP -10.60

PLANETOCENTRIC CONIC

C3 15.480 VHL 3.934 DLA -15.32 RAL 225.19 RAD 6567.6 VEL 11.699 PTH 2.06 VHP 7.598 DPA -37.81 RAP 244.36 ECC 1.2548

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 9 52	1657.68	-3.32	8.70	81.92	118.14	5 37 30	1057.7	.47	2.07
90.00	13 4 4	5296.27	27.23	240.08	87.37	81.91	14 32 20	4696.3	25.83	231.69
100.00	6 22 50	1422.22	-4.39	350.80	81.33	119.60	6 46 33	822.2	-.42	344.27
100.00	14 33 46	5006.96	28.44	218.59	87.16	80.40	15 57 13	4407.0	26.82	210.16
110.00	7 12 27	1266.85	-7.15	337.31	79.63	123.52	7 33 33	666.8	-2.70	331.06
110.00	16 0 39	4735.10	31.62	197.18	86.40	76.27	17 19 35	4135.1	29.41	188.67

DIFFERENTIAL CORRECTIONS
TDE .1077 TRA -.4042 TC3 .7977 BAU .1877
RDE -.2579 RRA -.0547 RC3 -.4321 FAU .03942
FDE .1250 FRA .1332 FC3-2.2047 BSP 2700
BDE .2795 BRA .4079 BC3 .9072 FSP -395

MID-COURSE EXECUTION ACCURACY
SGT 889.5 SGR 513.4 SG3 151.7
RRT -.4860 RRF .5601 RTF -.7576
SGB 1027.0 R23 -.0919 R13 .7834
SG1 933.9 SG2 427.3 THA 159.96

ORBIT DETERMINATION ACCURACY
ST 241.9 SR 376.6 SS 130.4
CRT -.5993 CRS .9266 CST -.3438
LSA 426.0 MSA 186.5 SSA 32.0
EL1 410.9 EL2 177.5 ALF 116.32

LAUNCH DATE SEP 10 1970 FLIGHT TIME 84.00 ARRIVAL DATE DEC 3 1970

HELIOCENTRIC CONIC DISTANCE 221.181

RL 150.64 LAL .00 LOL 346.88 VL 26.422 GAL -5.30 AZL 89.55 HCA 97.08 SMA 124.74 ECC .22644 INC .4495 V1 29.578
RP 107.71 LAP .45 LOP 83.96 VP 37.422 GAP -10.51 AZP 90.06 TAL 198.78 TAP 295.86 RCA 96.50 APO 152.99 V2 35.184
RC 49.661 GL 3.09 GP -17.83 ZAL 121.32 ZAP 21.99 ETS 49.24 ZAE 145.22 ETE 331.05 ZAC 84.23 ETC 261.82 CLP -13.09

PLANETOCENTRIC CONIC

C3 14.685 VHL 3.832 DLA -13.53 RAL 223.96 RAD 6567.6 VEL 11.665 PTH 2.05 VHP 7.171 DPA -39.17 RAP 244.87 ECC 1.2417

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 48 53	1709.07	-4.96	11.59	79.76	117.91	5 17 22	1109.1	-1.19	4.94
90.00	13 15 18	5221.25	26.40	234.75	84.55	79.37	14 42 19	4621.3	24.66	226.51
100.00	6 3 8	1469.52	-5.98	353.42	79.20	119.34	6 27 37	869.5	-2.02	346.86
100.00	14 43 44	4936.04	27.53	213.51	84.29	77.87	16 6 0	4336.0	25.58	205.25
110.00	6 55 26	1305.69	-8.61	339.38	77.59	123.21	7 17 12	705.7	-4.18	333.09
110.00	16 7 55	4672.63	30.52	192.65	83.43	73.79	17 25 48	4072.6	27.99	184.36

DIFFERENTIAL CORRECTIONS
TDE .0842 TRA -.3956 TC3 .8501 BAU .1946
RDE -.2361 RRA -.0563 RC3 -.5100 FAU .04255
FDE .1863 FRA .1237 FC3-2.5084 BSP 2630
BDE .2507 BRA .3996 BC3 .9914 FSP -437

MID-COURSE EXECUTION ACCURACY
SGT 900.3 SGR 533.8 SG3 168.6
RRT -.5128 RRF .6111 RTF -.7587
SGB 1046.7 R23 -.1203 R13 .7925
SG1 952.9 SG2 433.0 THA 158.42

ORBIT DETERMINATION ACCURACY
ST 222.6 SR 354.2 SS 179.7
CRT -.5065 CRS .9648 CST -.3643
LSA 413.2 MSA 188.2 SSA 34.5
EL1 377.6 EL2 180.0 ALF 113.23

LAUNCH DATE SEP 10 1970 FLIGHT TIME 86.00 ARRIVAL DATE DEC 5 1970

HELIOCENTRIC CONIC DISTANCE 227.942

RL	150.64	LAL	.00	LOL	346.88	VL	26.558	GAL	-5.36	AZL	89.35	HCA	100.31	SMA	125.59	ECC	.21943	INC	.6456	V1	29.578
RP	107.68	LAP	.64	LOP	87.19	VP	37.528	GAP	-9.70	AZP	90.12	TAL	199.84	TAP	300.15	RCA	98.03	APO	153.15	V2	35.193
RC	51.263	GL	4.56	GP	-19.19	ZAL	122.84	ZAP	24.61	ETS	45.88	ZAE	144.07	ETE	329.10	ZAC	82.92	ETC	261.91	CLP	-15.71

PLANETOCENTRIC CONIC

C3	14.047	VHL	3.748	DLA	-11.66	RAL	222.85	RAD	6567.6	VEL	11.638	PTH	2.04	VHP	6.773	DPA	-40.63	RAP	245.19	ECC	1.2312		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 28 29	1762.79	-6.66	14.61	77.90	117.59	4 57 52	1162.8	-2.92	7.94
90.00	13 26 48	5147.87	25.37	229.62	82.00	76.99	14 52 36	4547.9	23.33	221.54
100.00	5 43 55	1519.42	-7.63	356.20	77.37	118.99	6 9 14	919.4	-3.71	349.61
100.00	14 54 4	4866.48	26.44	208.63	81.71	75.53	16 15 10	4266.5	24.19	200.55
110.00	6 38 48	1347.55	-10.16	341.63	75.84	122.82	7 1 15	747.5	-5.76	335.29
110.00	16 15 40	4611.11	29.27	188.30	80.76	71.49	17 32 31	4011.1	26.46	180.24

DIFFERENTIAL CORRECTIONS

TDE	.0750	TRA	-.3725	TC3	.9364	BAU	.2092
RDE	-.2146	RRA	-.0602	RC3	-.6033	FAU	.04652
FDE	.2481	FRA	.1022	FC3	-2.8671	BSP	2929
BDE	.2273	BRA	.3773	BC3	1.1139	FSP	-508

MID-COURSE EXECUTION ACCURACY

SGT	918.6	SGR	566.5	SG3	189.1		
RRT	-.5773	RRF	.6716	RTF	-.7749		
SGB	1079.3	R23	-.1194	R13	.8134		
SG1	990.3	SG2	429.1	THA	155.52		

ORBIT DETERMINATION ACCURACY

ST	209.8	SR	329.5	SS	226.8		
CRT	-.4772	CRS	.9776	CST	-.4154		
LSA	412.5	MSA	180.3	SSA	37.5		
EL1	349.9	EL2	173.6	ALF	112.82		

LAUNCH DATE SEP 10 1970 FLIGHT TIME 88.00 ARRIVAL DATE DEC 7 1970

HELIOCENTRIC CONIC DISTANCE 234.689

RL	150.64	LAL	.00	LOL	346.88	VL	26.680	GAL	-5.42	AZL	89.15	HCA	103.54	SMA	126.37	ECC	.21325	INC	.8459	V1	29.578
RP	107.65	LAP	.82	LOP	90.42	VP	37.622	GAP	-8.92	AZP	90.20	TAL	200.86	TAP	304.40	RCA	99.42	APO	153.32	V2	35.202
RC	52.948	GL	6.12	GP	-20.70	ZAL	124.23	ZAP	27.46	ETS	43.04	ZAE	143.05	ETE	326.88	ZAC	81.45	ETC	261.96	CLP	-18.46

PLANETOCENTRIC CONIC

C3	13.543	VHL	3.680	DLA	-9.74	RAL	221.87	RAD	6567.5	VEL	11.616	PTH	2.04	VHP	6.403	DPA	-42.21	RAP	245.30	ECC	1.2229		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 8 48	1818.51	-8.41	17.78	76.36	117.14	4 39 7	1218.5	-4.70	11.06
90.00	13 38 41	5076.16	24.18	224.70	79.76	74.80	15 3 17	4476.2	21.86	216.80
100.00	5 25 21	1571.55	-9.34	359.12	75.87	118.52	5 51 33	971.6	-5.46	352.49
100.00	15 4 49	4798.35	25.20	203.95	79.44	73.36	16 24 48	4198.4	22.68	196.06
110.00	6 22 41	1391.99	-11.79	344.04	74.40	122.32	6 45 53	792.0	-7.44	337.64
110.00	16 23 58	4550.68	27.89	184.13	78.43	69.38	17 39 49	3950.7	24.83	176.30

DIFFERENTIAL CORRECTIONS

TDE	.0566	TRA	-.3593	TC3	.9860	BAU	.2193
RDE	-.1892	RRA	-.0628	RC3	-.7036	FAU	.05054
FDE	.3290	FRA	.0865	FC3	-3.2304	BSP	3025
BDE	.1975	BRA	.3647	BC3	1.2113	FSP	-573

MID-COURSE EXECUTION ACCURACY

SGT	925.5	SGR	604.0	SG3	210.5		
RRT	-.6180	RRF	.7250	RTF	-.7797		
SGB	1105.2	R23	-.1353	R13	.8278		
SG1	1017.2	SG2	432.1	THA	152.72		

ORBIT DETERMINATION ACCURACY

ST	193.0	SR	296.5	SS	287.0		
CRT	-.3712	CRS	.9817	CST	-.3658		
LSA	418.4	MSA	176.0	SSA	39.4		
EL1	309.3	EL2	171.8	ALF	109.98		

LAUNCH DATE SEP 10 1970 FLIGHT TIME 90.00 ARRIVAL DATE DEC 9 1970

HELIOCENTRIC CONIC DISTANCE 241.420

RL	150.64	LAL	.00	LOL	346.88	VL	26.788	GAL	-5.47	AZL	88.95	HCA	106.77	SMA	127.07	ECC	.20781	INC	1.0518	V1	29.578
RP	107.63	LAP	1.01	LOP	93.65	VP	37.707	GAP	-8.18	AZP	90.30	TAL	201.83	TAP	308.60	RCA	100.66	APO	153.48	V2	35.210
RC	54.707	GL	7.76	GP	-22.38	ZAL	125.46	ZAP	30.55	ETS	40.58	ZAE	142.13	ETE	324.34	ZAC	79.80	ETC	261.96	CLP	-21.36

PLANETOCENTRIC CONIC

C3	13.157	VHL	3.627	DLA	-7.76	RAL	221.04	RAD	6567.5	VEL	11.599	PTH	2.03	VHP	6.063	DPA	-43.91	RAP	245.17	ECC	1.2165		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 49 51	1876.11	-10.18	21.08	75.16	116.57	4 21 7	1276.1	-6.53	14.30
90.00	13 51 1	5006.00	22.85	219.99	77.84	72.81	15 14 27	4406.0	20.28	212.26
100.00	5 7 28	1625.75	-11.09	2.20	74.68	117.94	5 34 33	1025.7	-7.26	355.50
100.00	15 16 5	4731.59	23.82	199.47	77.50	71.39	16 34 57	4131.6	21.06	191.76
110.00	6 7 11	1438.77	-13.48	346.61	73.28	121.72	6 31 9	838.8	-9.19	340.14
110.00	16 32 52	4491.33	26.40	180.16	76.43	67.45	17 47 43	3891.3	23.11	172.54

DIFFERENTIAL CORRECTIONS

TDE	.0352	TRA	-.3504	TC3	1.0101	BAU	.2280
RDE	-.1598	RRA	-.0648	RC3	-.8123	FAU	.05470
FDE	.4279	FRA	.0743	FC3	-3.5992	BSP	3053
BDE	.1636	BRA	.3564	BC3	1.2962	FSP	-638

MID-COURSE EXECUTION ACCURACY

SGT	923.1	SGR	649.4	SG3	233.3		
RRT	-.6476	RRF	.7734	RTF	-.7792		
SGB	1128.6	R23	-.1541	R13	.8413		
SG1	1039.6	SG2	439.4	THA	149.50		

ORBIT DETERMINATION ACCURACY

ST	177.9	SR	255.0	SS	356.9		
CRT	-.2034	CRS	.9806	CST	-.2465		
LSA	439.1	MSA	172.4	SSA	39.8		
EL1	259.6	EL2	171.1	ALF	104.48		

LAUNCH DATE SEP 10 1970 FLIGHT TIME 92.00 ARRIVAL DATE DEC 11 1970

HELIOCENTRIC CONIC DISTANCE 248.131

RL	150.64	LAL	.00	LOL	346.88	VL	26.883	GAL	-5.52	AZL	88.74	HCA	110.00	SMA	127.70	ECC	.20305	INC	1.2649	V1	29.578
RP	107.60	LAP	1.19	LOP	96.89	VP	37.782	GAP	-7.47	AZP	90.43	TAL	202.74	TAP	312.75	RCA	101.77	APO	153.62	V2	35.218
RC	56.533	GL	9.48	GP	-24.23	ZAL	126.52	ZAP	33.88	ETS	38.39	ZAE	141.28	ETE	321.45	ZAC	77.96	ETC	261.92	CLP	-24.43

PLANETOCENTRIC CONIC

C3	12.875	VHL	3.588	DLA	-5.74	RAL	220.37	RAD	6567.5	VEL	11.587	PTH	2.03	VHP	5.752	DPA	-45.74	RAP	244.73	ECC	1.2119		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 31 37	1935.59	-11.97	24.54	74.29	115.86	4 3 52	1335.6	-8.39	17.68
90.00	14 3 52	4937.17	21.39	215.47	76.26	70.99	15 26 10	4337.2	18.60	207.91
100.00	4 50 14	1681.94	-12.86	5.43	73.83	117.22	5 18 16	1081.9	-9.11	358.65
100.00	15 27 56	4666.04	22.33	195.17	75.90	69.59	16 45 42	4066.0	19.35	187.64
110.00	5 52 16	1487.75	-15.21	349.34	72.48	120.99	6 17 3	887.8	-10.99	342.78
110.00	16 42 24	4433.00	24.82	176.36	74.78	65.71	17 56 17	3833.0	21.33	168.95

DIFFERENTIAL CORRECTIONS

TDE	.0219	TRA	-.3359	TC3	1.0383	BAU	.2407
RDE	-.1277	RRA	-.0681	RC3	-.9368	FAU	.05949
FDE	.5347	FRA	.0552	FC3	-4.0004	BSP	3261
BDE	.1295	BRA	.3427	BC3	1.3985	FSP	-726

MID-COURSE EXECUTION ACCURACY

SGT	920.3	SGR	711.0	SG3	258.9		
RRT	-.6865	RRF	.8198	RTF	-.7822		
SGB	1162.9	R23	-.1606	R13	.8586		
SG1	1075.5	SG2	442.3	THA	145.41		

ORBIT DETERMINATION ACCURACY

ST	166.9	SR	207.4	SS	426.7		
CRT	-.0657	CRS	.9724	CST	-.1647		
LSA	473.1	MSA	165.9	SSA	39.5		
EL1	208.2	EL2	165.9	ALF	98.35		

LAUNCH DATE SEP 10 1970 FLIGHT TIME 94.00 ARRIVAL DATE DEC 13 1970

DISTANCE 254.822

HELIOCENTRIC CONIC
RL 150.64 LAL .00 LOL 346.88 VL 26.967 GAL -5.56 AZL 88.51 HCA 113.24 SMA 128.25 ECC .19889 INC 1.4871 V1 29.578
RP 107.58 LAP 1.37 LOP 100.13 VP 37.848 GAP -6.78 AZP 90.59 TAL 203.58 TAP 316.82 RCA 102.75 APO 153.76 V2 35.225
RC 58.419 GL 11.28 GP -26.27 ZAL 127.37 ZAP 37.44 ETS 36.37 ZAE 140.45 ETE 318.16 ZAC 75.93 ETC 261.82 CLP -27.69

PLANETOCENTRIC CONIC
C3 12.685 VHL 3.562 DLA -3.68 RAL 219.86 RAD 6567.5 VEL 11.579 PTH 2.02 VHP 5.473 DPA -47.71 RAP 243.95 ECC 1.2088

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 14 3	1996.95	-13.76	28.15	73.76	114.99	3 47 20	1396.9	-10.28	21.20
90.00	14 17 24	4869.43	19.83	211.12	75.02	69.36	15 38 33	4269.4	16.85	203.72
100.00	4 33 41	1740.10	-14.64	8.83	73.32	116.35	5 2 41	1140.1	-10.98	1.95
100.00	15 40 27	4601.51	20.74	191.04	74.64	67.98	16 57 9	4001.5	17.57	183.68
110.00	5 37 58	1538.82	-16.98	352.25	72.01	120.12	6 3 37	938.8	-12.85	345.57
110.00	16 52 39	4375.56	23.16	172.72	73.48	64.13	18 5 35	3775.6	19.49	165.51

DIFFERENTIAL CORRECTIONS
TDE .0061 TRA -.3274 TC3 1.0311 BAU .2519
RDE -.0891 RRA -.0700 RC3-1.0690 FAU .06423
FDE .6624 FRA .0428 FC3-4.3838 BSP 3384
BDE .0893 BRA .3348 BC3 1.4852 FSP -810

MID-COURSE EXECUTION ACCURACY
SGT 904.5 SGR 783.0 SG3 285.1
RRT -.7076 RRF .8581 RTF -.7770
SGB 1196.3 R23 -.1686 R13 .8750
SG1 1107.8 SG2 451.8 THA 140.78

ORBIT DETERMINATION ACCURACY
ST 160.2 SR 149.0 SS 505.9
CRT .1440 CRS .9489 CST -.0303
LSA 525.4 MSA 162.2 SSA 37.4
EL1 166.7 EL2 141.7 ALF 31.69

LAUNCH DATE SEP 10 1970 FLIGHT TIME 96.00 ARRIVAL DATE DEC 15 1970

DISTANCE 261.490

HELIOCENTRIC CONIC
RL 150.64 LAL .00 LOL 346.88 VL 27.041 GAL -5.59 AZL 88.28 HCA 116.47 SMA 128.75 ECC .19527 INC 1.7204 V1 29.578
RP 107.56 LAP 1.54 LOP 103.36 VP 37.907 GAP -6.12 AZP 90.77 TAL 204.33 TAP 320.80 RCA 103.61 APO 153.89 V2 35.232
RC 60.358 GL 13.17 GP -28.50 ZAL 128.01 ZAP 41.24 ETS 34.43 ZAE 139.59 ETE 314.48 ZAC 73.69 ETC 261.65 CLP -31.17

PLANETOCENTRIC CONIC
C3 12.580 VHL 3.547 DLA -1.58 RAL 219.53 RAD 6567.5 VEL 11.574 PTH 2.02 VHP 5.225 DPA -49.81 RAP 242.75 ECC 1.2070

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 57 6	2060.39	-15.55	31.95	73.57	113.96	3 31 27	1460.4	-12.18	24.89
90.00	14 31 42	4802.44	18.17	206.91	74.11	67.90	15 51 44	4202.4	15.01	199.66
100.00	4 17 43	1800.38	-16.43	12.41	73.15	115.33	4 47 43	1200.4	-12.89	5.41
100.00	15 53 47	4537.69	19.06	187.05	73.72	66.53	17 9 24	3937.7	15.72	179.84
110.00	5 24 16	1592.03	-18.77	355.33	71.89	119.11	5 50 48	992.0	-14.75	348.53
110.00	17 3 43	4318.80	21.43	169.23	72.51	62.71	18 15 41	3718.8	17.61	162.19

DIFFERENTIAL CORRECTIONS
TDE -.0068 TRA -.3214 TC3 .9980 BAU .2639
RDE -.0437 RRA -.0709 RC3-1.2106 FAU .06896
FDE .8070 FRA .0348 FC3-4.7460 BSP 3513
BDE .0443 BRA .3291 BC3 1.5689 FSP -897

MID-COURSE EXECUTION ACCURACY
SGT 878.1 SGR 869.2 SG3 312.0
RRT -.7176 RRF .8898 RTF -.7655
SGB 1235.5 R23 -.1698 R13 .8922
SG1 1145.0 SG2 464.3 THA 135.40

ORBIT DETERMINATION ACCURACY
ST 157.6 SR 82.7 SS 590.4
CRT .4281 CRS .8332 CST .0924
LSA 594.6 MSA 159.6 SSA 34.4
EL1 162.6 EL2 72.4 ALF 15.89

LAUNCH DATE SEP 10 1970 FLIGHT TIME 98.00 ARRIVAL DATE DEC 17 1970

DISTANCE 268.136

HELIOCENTRIC CONIC
RL 150.64 LAL .00 LOL 346.88 VL 27.104 GAL -5.61 AZL 88.03 HCA 119.71 SMA 129.18 ECC .19214 INC 1.9673 V1 29.578
RP 107.54 LAP 1.71 LOP 106.60 VP 37.957 GAP -5.48 AZP 90.98 TAL 204.99 TAP 324.70 RCA 104.36 APO 154.00 V2 35.238
RC 62.346 GL 15.15 GP -30.93 ZAL 128.43 ZAP 45.27 ETS 32.48 ZAE 138.63 ETE 310.37 ZAC 71.24 ETC 261.39 CLP -34.87

PLANETOCENTRIC CONIC
C3 12.556 VHL 3.543 DLA .56 RAL 219.38 RAD 6567.5 VEL 11.573 PTH 2.02 VHP 5.012 DPA -52.02 RAP 241.06 ECC 1.2066

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 40 39	2126.26	-17.33	35.97	73.74	112.75	3 16 5	1526.3	-14.10	28.78
90.00	14 46 56	4735.76	16.41	202.80	73.55	66.60	16 5 52	4135.8	13.11	195.69
100.00	4 2 15	1863.04	-18.22	16.21	73.33	114.12	4 33 18	1263.0	-14.81	9.07
100.00	16 8 1	4474.21	17.29	183.16	73.14	65.23	17 22 36	3874.2	13.81	176.10
110.00	5 11 6	1647.57	-20.58	358.63	72.11	117.92	5 38 33	1047.6	-16.68	351.67
110.00	17 15 41	4262.45	19.64	165.84	71.89	61.44	18 26 43	3662.4	15.67	158.97

DIFFERENTIAL CORRECTIONS
TDE -.0155 TRA -.3178 TC3 .9370 BAU .2772
RDE .0099 RRA -.0703 RC3-1.3598 FAU .07350
FDE .9678 FRA .0328 FC3-5.0677 BSP 3667
BDE .0184 BRA .3254 BC3 1.6513 FSP -984

MID-COURSE EXECUTION ACCURACY
SGT 840.0 SGR 970.5 SG3 338.5
RRT -.7138 RRF .9152 RTF -.7448
SGB 1283.5 R23 -.1621 R13 .9102
SG1 1190.6 SG2 479.5 THA 129.26

ORBIT DETERMINATION ACCURACY
ST 157.4 SR 47.5 SS 679.3
CRT .5722 CRS -.3711 CST .1774
LSA 680.2 MSA 158.0 SSA 30.9
EL1 159.9 EL2 38.3 ALF 10.39

LAUNCH DATE SEP 10 1970 FLIGHT TIME 100.00 ARRIVAL DATE DEC 19 1970

DISTANCE 274.757

HELIOCENTRIC CONIC
RL 150.64 LAL .00 LOL 346.88 VL 27.158 GAL -5.63 AZL 87.77 HCA 122.95 SMA 129.55 ECC .18944 INC 2.2307 V1 29.578
RP 107.53 LAP 1.87 LOP 109.85 VP 38.001 GAP -4.87 AZP 91.21 TAL 205.56 TAP 328.51 RCA 105.00 APO 154.09 V2 35.243
RC 64.375 GL 17.23 GP -33.55 ZAL 128.59 ZAP 49.51 ETS 30.44 ZAE 137.53 ETE 305.87 ZAC 68.58 ETC 261.05 CLP -38.83

PLANETOCENTRIC CONIC
C3 12.612 VHL 3.551 DLA 2.74 RAL 219.41 RAD 6567.5 VEL 11.576 PTH 2.02 VHP 4.835 DPA -54.34 RAP 238.79 ECC 1.2076

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 24 33	2195.04	-19.09	40.25	74.27	111.32	3 1 8	1595.0	-16.02	32.91
90.00	15 3 18	4668.88	14.56	198.77	73.33	65.44	16 21 7	4068.9	11.13	191.77
100.00	3 47 11	1928.54	-19.99	20.26	73.89	112.70	4 19 19	1328.5	-16.74	12.98
100.00	16 23 22	4410.62	15.44	179.35	72.90	64.08	17 36 53	3810.6	11.83	172.42
110.00	4 58 21	1705.75	-22.39	2.17	72.71	116.53	5 26 47	1105.8	-18.65	355.04
110.00	17 28 41	4206.17	17.77	162.54	71.62	60.31	18 38 47	3606.2	13.69	155.81

DIFFERENTIAL CORRECTIONS
TDE -.0184 TRA -.3171 TC3 .8445 BAU .2921
RDE .0735 RRA -.0671 RC3-1.5123 FAU .07751
FDE 1.1427 FRA .0398 FC3-5.3207 BSP 3837
BDE .0758 BRA .3241 BC3 1.7321 FSP -1064

MID-COURSE EXECUTION ACCURACY
SGT 789.3 SGR 1086.1 SG3 363.3
RRT -.6909 RRF .9351 RTF -.7093
SGB 1342.6 R23 -.1445 R13 .9280
SG1 1247.3 SG2 496.9 THA 122.42

ORBIT DETERMINATION ACCURACY
ST 157.5 SR 127.1 SS 771.7
CRT .0449 CRS -.9439 CST .2053
LSA 781.6 MSA 157.4 SSA 27.4
EL1 157.8 EL2 126.8 ALF 5.87

LAUNCH DATE SEP 10 1970 FLIGHT TIME 102.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 281.352

RL	150.64	LAL	.00	LOL	346.88	VL	27.203	GAL	-5.64	AZL	87.49	HCA	126.18	SMA	129.86	ECC	.18713	INC	2.5143	V1	29.578
RP	107.51	LAP	2.03	LOP	113.09	VP	38.037	GAP	-4.28	AZP	91.49	TAL	206.03	TAP	332.22	RCA	105.56	APO	154.16	V2	35.247
RC	66.441	GL	19.43	GP	-36.34	ZAL	128.51	ZAP	53.93	ETS	28.23	ZAE	136.21	ETE	301.01	ZAC	65.73	ETC	260.59	CLP	-43.04

PLANETOCENTRIC CONIC

C3	12.751	VHL	3.571	DLA	4.99	RAL	219.64	RAD	6567.5	VEL	11.582	PTH	2.03	VHP	4.696	DPA	-56.72	RAP	235.84	ECC	1.2099

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 8 38	2267.41	-20.81	44.86	75.19	109.64	2 46 25	1667.4	-17.95	37.35
90.00	15 21 1	4601.21	12.61	194.76	73.48	64.43	16 37 42	4001.2	9.06	187.87
100.00	3 32 19	1997.47	-21.74	24.64	74.82	111.04	4 5 36	1397.5	-18.68	17.17
100.00	16 40 1	4346.38	13.49	175.57	73.03	63.07	17 52 27	3746.4	9.77	168.76
110.00	4 45 57	1767.04	-24.20	6.01	73.69	114.91	5 15 24	1167.0	-20.64	358.67
110.00	17 42 52	4149.58	15.83	159.30	71.70	59.30	18 52 2	3549.6	11.64	152.70

DIFFERENTIAL CORRECTIONS

TDE	-.0140	TRA	-.3201	TC3	.7168	BAU	.3084
RDE	.1494	RRA	-.0598	RC3	-1.6607	FAU	.08058
FDE	1.3303	FRA	.0604	FC3	-5.4706	BSP	4011
BDE	.1501	BRA	.3256	BC3	1.8088	FSP	-1128

MID-COURSE EXECUTION ACCURACY

SGT	726.9	SGR	1213.8	SG3	384.7		
RRT	-.6380	RRF	.9502	RTF	-.6482		
SGB	1414.8	R23	-.1169	R13	.9446		
SG1	1317.5	SG2	515.7	THA	115.00		

ORBIT DETERMINATION ACCURACY

ST	157.0	SR	244.1	SS	867.5		
CRT	-.0383	CRS	-.9870	CST	.1617		
LSA	900.7	MSA	157.9	SSA	23.8		
EL1	244.2	EL2	156.8	ALF	92.41		

LAUNCH DATE SEP 10 1970 FLIGHT TIME 104.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 287.923

RL	150.64	LAL	.00	LOL	346.88	VL	27.241	GAL	-5.64	AZL	87.18	HCA	129.42	SMA	130.12	ECC	.18515	INC	2.8224	V1	29.578
RP	107.50	LAP	2.18	LOP	116.34	VP	38.068	GAP	-3.71	AZP	91.79	TAL	206.40	TAP	335.83	RCA	106.03	APO	154.21	V2	35.251
RC	68.539	GL	21.75	GP	-39.29	ZAL	128.17	ZAP	58.49	ETS	25.79	ZAE	134.62	ETE	295.86	ZAC	62.70	ETC	260.02	CLP	-47.52

PLANETOCENTRIC CONIC

C3	12.982	VHL	3.603	DLA	7.30	RAL	220.06	RAD	6567.5	VEL	11.592	PTH	2.03	VHP	4.599	DPA	-59.11	RAP	232.10	ECC	1.2136

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 52 38	2344.31	-22.49	49.87	76.52	107.67	2 31 42	1744.3	-19.86	42.18
90.00	15 40 21	4532.01	10.54	190.72	74.01	63.57	16 55 53	3932.0	6.91	183.93
100.00	3 17 28	2070.67	-23.45	29.40	76.17	109.09	3 51 59	1470.7	-20.63	21.74
100.00	16 58 12	4280.88	11.44	171.79	73.54	62.19	18 9 33	3680.9	7.63	165.07
110.00	4 33 43	1832.08	-26.00	10.20	75.09	113.02	5 4 15	1232.1	-22.66	2.64
110.00	17 58 27	4092.23	13.81	156.09	72.15	58.42	19 6 40	3492.2	9.54	149.60

DIFFERENTIAL CORRECTIONS

TDE	-.0025	TRA	-.3295	TC3	.5447	BAU	.3244
RDE	.2420	RRA	-.0435	RC3	-1.7882	FAU	.08189
FDE	1.5332	FRA	.1067	FC3	-5.4614	BSP	4107
BDE	.2421	BRA	.3323	BC3	1.8693	FSP	-1149

MID-COURSE EXECUTION ACCURACY

SGT	658.1	SGR	1346.7	SG3	400.3		
RRT	-.5308	RRF	.9614	RTF	-.5394		
SGB	1498.9	R23	-.0788	R13	.9588		
SG1	1399.5	SG2	536.7	THA	107.14		

ORBIT DETERMINATION ACCURACY

ST	159.0	SR	387.4	SS	970.1		
CRT	.0218	CRS	-.9959	CST	.0493		
LSA	1044.1	MSA	160.9	SSA	20.2		
EL1	387.4	EL2	158.9	ALF	89.38		

LAUNCH DATE SEP 10 1970 FLIGHT TIME 106.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 294.465

RL	150.64	LAL	.00	LOL	346.88	VL	27.271	GAL	-5.63	AZL	86.84	HCA	132.66	SMA	130.33	ECC	.18347	INC	3.1606	V1	29.578
RP	107.49	LAP	2.32	LOP	119.58	VP	38.092	GAP	-3.16	AZP	92.14	TAL	206.68	TAP	339.34	RCA	106.42	APO	154.24	V2	35.254
RC	70.666	GL	24.21	GP	-42.36	ZAL	127.56	ZAP	63.13	ETS	23.02	ZAE	132.73	ETE	290.49	ZAC	59.52	ETC	259.30	CLP	-52.29

PLANETOCENTRIC CONIC

C3	13.320	VHL	3.650	DLA	9.69	RAL	220.67	RAD	6567.5	VEL	11.606	PTH	2.03	VHP	4.545	DPA	-61.44	RAP	227.45	ECC	1.2192

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 36 13	2427.03	-24.09	55.40	78.28	105.35	2 16 40	1827.0	-21.75	47.51
90.00	16 1 40	4460.41	8.34	186.61	74.94	62.84	17 16 0	3860.4	4.64	179.89
100.00	3 2 20	2149.30	-25.10	34.66	77.96	106.79	3 38 9	1549.3	-22.56	26.78
100.00	17 18 14	4213.37	9.27	167.95	74.44	61.45	18 28 28	3613.4	5.39	161.32
110.00	4 21 25	1901.80	-27.77	14.85	76.94	110.78	4 53 7	1301.8	-24.69	7.03
110.00	18 15 38	4033.63	11.70	152.86	72.99	57.65	19 22 52	3433.6	7.35	146.47

DIFFERENTIAL CORRECTIONS

TDE	.0407	TRA	-.3232	TC3	.3972	BAU	.3526
RDE	.3338	RRA	-.0359	RC3	-1.9401	FAU	.08393
FDE	1.6819	FRA	.1163	FC3	-5.4552	BSP	4710
BDE	.3363	BRA	.3252	BC3	1.9803	FSP	-1247

MID-COURSE EXECUTION ACCURACY

SGT	594.2	SGR	1511.1	SG3	413.1		
RRT	-.3872	RRF	.9705	RTF	-.3804		
SGB	1623.7	R23	-.0547	R13	.9690		
SG1	1531.0	SG2	540.7	THA	99.90		

ORBIT DETERMINATION ACCURACY

ST	167.4	SR	526.1	SS	1038.2		
CRT	.4066	CRS	-.9979	CST	-.3600		
LSA	1165.1	MSA	157.1	SSA	18.4		
EL1	530.9	EL2	151.5	ALF	81.97		

LAUNCH DATE SEP 10 1970 FLIGHT TIME 108.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 300.981

RL	150.64	LAL	.00	LOL	346.88	VL	27.295	GAL	-5.61	AZL	86.46	HCA	135.89	SMA	130.50	ECC	.18205	INC	3.5361	V1	29.578
RP	107.48	LAP	2.46	LOP	122.83	VP	38.111	GAP	-2.63	AZP	92.54	TAL	206.85	TAP	342.74	RCA	106.74	APO	154.25	V2	35.256
RC	72.818	GL	26.82	GP	-45.53	ZAL	126.67	ZAP	67.77	ETS	19.90	ZAE	130.52	ETE	285.00	ZAC	56.23	ETC	258.43	CLP	-57.32

PLANETOCENTRIC CONIC

C3	13.786	VHL	3.713	DLA	12.18	RAL	221.50	RAD	6567.5	VEL	11.626	PTH	2.04	VHP	4.540	DPA	-63.66	RAP	221.82	ECC	1.2269

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 19 1	2517.17	-25.58	61.59	80.53	102.59	2 0 58	1917.2	-23.59	53.48
90.00	16 25 28	4385.26	5.98	182.35	76.33	62.27	17 38 33	3785.3	2.22	175.69
100.00	2 46 35	2234.75	-26.65	40.53	80.25	104.07	3 23 50	1634.7	-24.45	32.42
100.00	17 40 35	4142.91	6.95	164.00	75.80	60.85	18 49 38	3542.9	3.01	157.43
110.00	4 8 53	1977.22	-29.48	20.05	79.32	108.14	4 41 50	1377.2	-26.72	11.95
110.00	18 34 46	3973.21	9.48	149.59	74.26	57.00	19 40 59	3373.2	5.07	143.28

DIFFERENTIAL CORRECTIONS

TDE	.0940	TRA	-.3264	TC3	.1967	BAU	.3778
RDE	.4472	RRA	-.0131	RC3	-2.0403	FAU	.08309
FDE	1.8406	FRA	.1639	FC3	-5.2176	BSP	5112
BDE	.4570	BRA	.3266	BC3	2.0497	FSP	-1265

MID-COURSE EXECUTION ACCURACY

SGT	554.8	SGR	1665.0	SG3	415.7		
RRT	-.1197	RRF	.9769	RTF	-.1076		
SGB	1755.0	R23	-.0238	R13	.9766		
SG1	1666.5	SG2	550.3	THA	92.56		

ORBIT DETERMINATION ACCURACY

ST	212.0	SR	691.6	SS	1115.3		
CRT	.6878	CRS	-.9990	CST	-.6626		
LSA	1319.9	MSA	157.8	SSA	16.0		
EL1	707.6	EL2	150.4	ALF	77.52		

LAUNCH DATE SEP 10 1970 FLIGHT TIME 110.00 ARRIVAL DATE DEC 29 1970

DISTANCE 307.469

HELIOCENTRIC CONIC
RL 150.64 LAL .00 LOL 346.88 VL 27.313 GAL -5.58 AZL 86.04 HCA 139.13 SMA 130.62 ECC .18087 INC 3.9581 V1 29.578
RP 107.48 LAP 2.59 LOP 126.08 VP 38.125 GAP -2.12 AZP 93.00 TAL 206.92 TAP 346.05 RCA 106.99 APO 154.25 V2 35.258
RC 74.992 GL 29.62 GP -48.74 ZAL 125.50 ZAP 72.33 ETS 16.36 ZAE 128.00 ETE 279.46 ZAC 52.87 ETC 257.40 CLP -62.59

PLANETOCENTRIC CONIC
C3 14.416 VHL 3.797 DLA 14.78 RAL 222.54 RAD 6567.6 VEL 11.653 PTH 2.05 VHP 4.586 DPA -65.68 RAP 215.12 ECC 1.2373

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 0 25	2617.08	-26.87	68.62	83.31	99.29	1 44 2	2017.1	-25.31	60.30
90.00	16 52 25	4305.03	3.42	177.84	78.24	61.87	18 4 10	3705.0	-.36	171.21
100.00	2 29 43	2329.06	-28.03	47.20	83.08	100.82	3 8 32	1729.1	-26.25	38.85
100.00	18 5 47	4068.29	4.46	159.87	77.67	60.41	19 13 36	3468.3	.49	153.33
110.00	3 55 46	2059.82	-31.09	25.95	82.27	104.99	4 30 6	1459.8	-28.72	17.55
110.00	18 56 14	3910.29	7.13	146.23	76.02	56.48	20 1 24	3310.3	2.67	139.98

DIFFERENTIAL CORRECTIONS
TDE .1718 TRA -.3279 TC3 -.0193 BAU .4045
RDE .5746 RRA .0190 RC3-2.0985 FAU .08037
FDE 1.9742 FRA .2219 FC3-4.8263 BSP 5555
BDE .5997 BRA .3284 BC3 2.0985 FSP -1252

MID-COURSE EXECUTION ACCURACY
SGT 573.8 SGR 1814.4 SG3 409.2
RRT .2237 RRF .9815 RTF .2387
SGB 1903.0 R23 .0039 R13 .9817
SG1 1819.4 SG2 557.7 THA 35.53

ORBIT DETERMINATION ACCURACY
ST 301.3 SR 868.4 SS 1182.0
CRT .8539 CRS -.9995 CST -.8416
LSA 1488.8 MSA 159.1 SSA 13.8
EL1 906.9 EL2 150.1 ALF 73.02

LAUNCH DATE SEP 10 1970 FLIGHT TIME 112.00 ARRIVAL DATE DEC 31 1970

DISTANCE 313.931

HELIOCENTRIC CONIC
RL 150.64 LAL .00 LOL 346.88 VL 27.324 GAL -5.54 AZL 85.56 HCA 142.36 SMA 130.70 ECC .17989 INC 4.4392 V1 29.578
RP 107.48 LAP 2.71 LOP 129.33 VP 38.134 GAP -1.63 AZP 93.52 TAL 206.89 TAP 349.26 RCA 107.19 APO 154.21 V2 35.259
RC 77.186 GL 32.60 GP -51.99 ZAL 124.04 ZAP 76.71 ETS 12.38 ZAE 125.17 ETE 273.96 ZAC 49.46 ETC 256.17 CLP -68.08

PLANETOCENTRIC CONIC
C3 15.262 VHL 3.907 DLA 17.52 RAL 223.82 RAD 6567.6 VEL 11.690 PTH 2.06 VHP 4.692 DPA -67.43 RAP 207.38 ECC 1.2512

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 39 30	2730.24	-27.85	76.75	86.67	95.33	1 25 0	2130.2	-26.82	68.23
90.00	17 23 34	4217.33	.60	172.95	80.79	61.69	18 33 51	3617.3	-3.19	166.32
100.00	2 11 2	2435.07	-29.15	54.88	86.51	96.93	2 51 37	1835.1	-27.88	46.30
100.00	18 34 43	3987.73	1.74	155.43	80.15	60.15	19 41 11	3387.7	-2.24	148.91
110.00	3 41 39	2151.54	-32.51	32.72	85.89	101.21	4 17 30	1551.5	-30.62	24.01
110.00	19 20 35	3844.02	4.63	142.74	78.36	56.09	20 24 39	3244.0	.14	136.52

DIFFERENTIAL CORRECTIONS
TDE .2771 TRA -.3290 TC3 -.2494 BAU .4271
RDE .7248 RRA .0717 RC3-2.0783 FAU .07480
FDE 2.0959 FRA .3089 FC3-4.2429 BSP 5813
BDE .7760 BRA .3367 BC3 2.0932 FSP -1163

MID-COURSE EXECUTION ACCURACY
SGT 677.7 SGR 1944.0 SG3 392.8
RRT .5258 RRF .9849 RTF .5373
SGB 2058.7 R23 .0336 R13 .9846
SG1 1979.3 SG2 566.1 THA 78.67

ORBIT DETERMINATION ACCURACY
ST 433.9 SR 1064.6 SS 1248.1
CRT .9250 CRS -.9998 CST -.9195
LSA 1688.9 MSA 163.7 SSA 11.5
EL1 1139.3 EL2 154.0 ALF 68.94

LAUNCH DATE SEP 10 1970 FLIGHT TIME 114.00 ARRIVAL DATE JAN 2 1971

DISTANCE 320.363

HELIOCENTRIC CONIC
RL 150.64 LAL .00 LOL 346.88 VL 27.331 GAL -5.49 AZL 85.00 HCA 145.59 SMA 130.75 ECC .17909 INC 4.9962 V1 29.578
RP 107.48 LAP 2.82 LOP 132.58 VP 38.139 GAP -1.16 AZP 94.13 TAL 206.78 TAP 352.37 RCA 107.33 APO 154.16 V2 35.259
RC 79.396 GL 35.80 GP -55.24 ZAL 122.28 ZAP 80.82 ETS 7.94 ZAE 122.08 ETE 268.52 ZAC 46.02 ETC 254.72 CLP -73.76

PLANETOCENTRIC CONIC
C3 16.408 VHL 4.051 DLA 20.39 RAL 225.35 RAD 6567.7 VEL 11.738 PTH 2.07 VHP 4.864 DPA -68.86 RAP 198.62 ECC 1.2700

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 14 38	2862.37	-28.31	86.38	90.63	90.53	1 2 21	2262.4	-27.94	77.74
90.00	18 0 36	4118.01	-2.61	167.41	84.12	61.79	19 9 14	3518.0	-6.36	160.74
100.00	1 49 16	2557.24	-29.82	63.89	90.58	92.23	2 31 53	1957.2	-29.19	55.15
100.00	19 8 40	3898.37	-1.29	150.53	83.39	60.13	20 13 38	3298.4	-5.26	143.99
110.00	3 25 51	2255.07	-33.60	40.60	90.24	96.67	4 3 26	1655.1	-32.32	31.60
110.00	19 48 34	3773.30	1.93	139.04	81.37	55.86	20 51 28	3173.3	-2.56	132.83

DIFFERENTIAL CORRECTIONS
TDE .4289 TRA -.3140 TC3 -.4421 BAU .4608
RDE .8638 RRA .1143 RC3-2.0535 FAU .06992
FDE 2.1276 FRA .3474 FC3-3.6891 BSP 6610
BDE .9644 BRA .3342 BC3 2.1005 FSP -1152

MID-COURSE EXECUTION ACCURACY
SGT 849.0 SGR 2071.3 SG3 369.2
RRT .7138 RRF .9873 RTF .7297
SGB 2238.5 R23 .0463 R13 .9869
SG1 2165.0 SG2 568.8 THA 72.44

ORBIT DETERMINATION ACCURACY
ST 623.2 SR 1223.9 SS 1267.1
CRT .9629 CRS -.9999 CST -.9603
LSA 1861.6 MSA 162.1 SSA 10.2
EL1 1365.1 EL2 150.8 ALF 63.53

LAUNCH DATE SEP 10 1970 FLIGHT TIME 116.00 ARRIVAL DATE JAN 4 1971

DISTANCE 326.768

HELIOCENTRIC CONIC
RL 150.64 LAL .00 LOL 346.88 VL 27.333 GAL -5.42 AZL 84.35 HCA 148.82 SMA 130.76 ECC .17845 INC 5.6534 V1 29.578
RP 107.48 LAP 2.92 LOP 135.83 VP 38.140 GAP -.70 AZP 94.84 TAL 206.57 TAP 355.39 RCA 107.43 APO 154.10 V2 35.258
RC 81.621 GL 39.21 GP -58.50 ZAL 120.23 ZAP 84.57 ETS 3.03 ZAE 118.76 ETE 263.16 ZAC 42.55 ETC 253.01 CLP -79.57

PLANETOCENTRIC CONIC
C3 17.977 VHL 4.240 DLA 23.41 RAL 227.16 RAD 6567.7 VEL 11.805 PTH 2.09 VHP 5.116 DPA -69.95 RAP 188.99 ECC 1.2959

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 38 36	3024.83	-27.84	98.23	95.11	84.61	24 29 1	2424.8	-28.30	89.60
90.00	18 47 6	3997.72	-6.45	160.65	88.52	62.37	19 53 44	3397.7	-10.10	153.87
100.00	1 22 14	2703.38	-29.71	74.75	95.27	86.53	2 7 17	2103.4	-29.87	65.95
100.00	19 50 6	3794.40	-4.80	144.81	87.62	60.46	20 53 20	3194.4	-8.70	138.19
110.00	3 7 25	2374.30	-34.16	49.86	95.38	91.22	3 46 59	1774.3	-33.62	40.66
110.00	20 21 24	3696.24	-1.02	135.02	85.26	55.83	21 23 0	3096.2	-5.49	128.79

DIFFERENTIAL CORRECTIONS
TDE .6248 TRA -.2923 TC3 -.6201 BAU .4875
RDE 1.0231 RRA .1820 RC3-1.9315 FAU .06251
FDE 2.1426 FRA .4095 FC3-3.0102 BSP 7168
BDE 1.1988 BRA .3444 BC3 2.0286 FSP -1062

MID-COURSE EXECUTION ACCURACY
SGT 1083.8 SGR 2160.1 SG3 337.5
RRT .8172 RRF .9889 RTF .8330
SGB 2416.7 R23 .0633 R13 .9879
SG1 2347.4 SG2 574.8 THA 66.19

ORBIT DETERMINATION ACCURACY
ST 854.3 SR 1385.8 SS 1282.8
CRT .9779 CRS -.9999 CST -.9771
LSA 2066.1 MSA 164.5 SSA 8.8
EL1 1620.8 EL2 152.6 ALF 58.61

LAUNCH DATE SEP 10 1970 FLIGHT TIME 118.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 333.142

RL 150.64 LAL .00 LOL 346.88 VL 27.330 GAL -5.35 AZL 83.55 HCA 152.05 SMA 130.74 ECC .17794 INC 6.4454 V1 29.578
RP 107.48 LAP 3.02 LOP 139.08 VP 38.136 GAP -.25 AZP 95.70 TAL 206.27 TAP 358.32 RCA 107.48 APO 154.01 V2 35.256
RC 83.861 GL 42.85 GP -61.81 ZAL 117.88 ZAP 87.88 ETS 357.63 ZAE 115.21 ETE 257.85 ZAC 39.04 ETC 250.96 CLP -85.51

PLANETOCENTRIC CONIC

C3 20.174 VHL 4.492 DLA 26.58 RAL 229.27 RAD 6567.8 VEL 11.898 PTH 2.11 VHP 5.466 DPA -70.68 RAP 178.61 ECC 1.3320

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 48 16	3253.40	-25.32	114.46	99.67	76.88	23 42 30	2653.4	-26.88	106.14
90.00	19 54 16	3823.53	-11.80	150.66	94.63	64.07	20 57 59	3223.5	-15.20	143.63
100.00	0 44 16	2892.11	-28.13	88.54	100.33	79.45	1 32 28	2292.1	-29.30	79.93
100.00	20 44 53	3660.06	-9.25	137.32	93.30	61.45	21 45 53	3060.1	-12.99	130.53
110.00	2 44 34	2515.73	-33.82	60.88	101.26	84.72	3 26 29	1915.7	-34.18	51.65
110.00	21 1 5	3609.20	-4.34	130.47	90.30	56.06	22 1 14	3009.2	-8.76	124.18

DIFFERENTIAL CORRECTIONS
TDE .8827 TRA -.2537 TC3 -.7525 BAU .5118
RDE 1.1871 RRA .2651 RC3-1.7420 FAU .05417
FDE 2.1148 FRA .4646 FC3-2.3244 BSP 7747
BDE 1.4793 BRA .3670 BC3 1.8975 FSP -956

MID-COURSE EXECUTION ACCURACY
SGT 1362.2 SGR 2210.1 SG3 300.3
RRT .8722 RRF .9899 RTF .8891
SGB 2596.2 R23 .0782 R13 .9882
SG1 2530.1 SG2 582.1 THA 59.99

ORBIT DETERMINATION ACCURACY
ST 1131.4 SR 1519.2 SS 1277.9
CRT .9854 CRS-1.0000 CST -.9856
LSA 2278.8 MSA 167.4 SSA 7.5
EL1 1887.8 EL2 155.2 ALF 53.44

LAUNCH DATE SEP 10 1970 FLIGHT TIME 120.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 339.486

RL 150.64 LAL .00 LOL 346.88 VL 27.323 GAL -5.27 AZL 82.57 HCA 155.27 SMA 130.70 ECC .17757 INC 7.4253 V1 29.578
RP 107.49 LAP 3.10 LOP 142.33 VP 38.130 GAP .17 AZP 96.75 TAL 205.88 TAP 1.15 RCA 107.49 APO 153.90 V2 35.254
RC 86.111 GL 46.70 GP -65.21 ZAL 115.24 ZAP 90.66 ETS 351.67 ZAE 111.45 ETE 252.50 ZAC 35.44 ETC 248.43 CLP -91.59

PLANETOCENTRIC CONIC

C3 23.344 VHL 4.832 DLA 29.87 RAL 231.71 RAD 6567.9 VEL 12.030 PTH 2.15 VHP 5.944 DPA -71.06 RAP 167.60 ECC 1.3842

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.07	20 10 16	3834.23	-19.69	155.16	103.19	67.07	21 14 11	3234.2	-22.63	147.60
99.93	22 51 48	3313.15	-19.68	116.84	103.19	67.06	23 47 1	2713.1	-22.62	109.28
100.00	23 1 42	3281.58	-20.48	114.85	103.54	67.73	23 56 23	2681.6	-23.32	107.20
100.00	22 43 4	3341.04	-18.90	118.56	102.83	66.40	23 38 45	2741.0	-21.93	111.07
110.00	2 13 13	2692.78	-31.90	74.32	107.58	77.00	2 58 6	2092.8	-33.35	65.39
110.00	21 51 58	3502.59	-8.36	124.83	96.97	56.73	22 50 21	2902.6	-12.68	118.40

DIFFERENTIAL CORRECTIONS
TDE 1.2233 TRA -.1900 TC3 -.8244 BAU .5309
RDE 1.3501 RRA .3672 RC3-1.4878 FAU .04521
FDE 2.0498 FRA .5110 FC3-1.6767 BSP 8313
BDE 1.8219 BRA .4135 BC3 1.7009 FSP -835

MID-COURSE EXECUTION ACCURACY
SGT 1675.3 SGR 2209.6 SG3 259.5
RRT .9016 RRF .9902 RTF .9212
SGB 2772.9 R23 .0922 R13 .9881
SG1 2709.1 SG2 591.2 THA 53.64

ORBIT DETERMINATION ACCURACY
ST 1453.0 SR 1608.6 SS 1253.3
CRT .9891 CRS -.9999 CST -.9903
LSA 2498.0 MSA 171.3 SSA 6.4
EL1 2161.8 EL2 159.3 ALF 47.94

LAUNCH DATE SEP 10 1970 FLIGHT TIME 122.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 345.798

RL 150.64 LAL .00 LOL 346.88 VL 27.313 GAL -5.18 AZL 81.32 HCA 158.48 SMA 130.62 ECC .17730 INC 8.6770 V1 29.578
RP 107.50 LAP 3.17 LOP 145.58 VP 38.119 GAP .58 AZP 98.08 TAL 205.41 TAP 3.89 RCA 107.46 APO 153.78 V2 35.251
RC 88.372 GL 50.72 GP -68.77 ZAL 112.33 ZAP 92.86 ETS 344.98 ZAE 107.45 ETE 246.85 ZAC 31.68 ETC 245.12 CLP -97.94

PLANETOCENTRIC CONIC

C3 28.108 VHL 5.302 DLA 33.25 RAL 234.55 RAD 6568.1 VEL 12.226 PTH 2.20 VHP 6.600 DPA -71.02 RAP 156.00 ECC 1.4626

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
71.80	19 23 54	4061.41	-20.39	172.68	110.03	63.15	20 31 36	3461.4	-23.82	165.29
108.20	0 4 43	3177.67	-20.37	106.95	110.03	63.14	0 57 41	2577.7	-23.81	99.57
71.80	19 23 54	4061.41	-20.39	172.68	110.03	63.15	20 31 36	3461.4	-23.82	165.29
108.20	0 4 43	3177.67	-20.37	106.95	110.03	63.14	0 57 41	2577.7	-23.81	99.57
110.00	1 16 16	2958.19	-26.30	92.91	113.00	67.33	2 5 34	2358.2	-29.13	84.87
110.00	23 11 32	3328.89	-14.68	115.36	106.71	58.78	24 7 1	2728.9	-18.71	108.55

DIFFERENTIAL CORRECTIONS
TDE 1.6806 TRA -.0877 TC3 -.8259 BAU .5424
RDE 1.4947 RRA .4908 RC3-1.1839 FAU .03614
FDE 1.9522 FRA .5461 FC3-1.1131 BSP 8879
BDE 2.2491 BRA .4986 BC3 1.4435 FSP -710

MID-COURSE EXECUTION ACCURACY
SGT 2019.5 SGR 2141.8 SG3 217.6
RRT .9158 RRF .9895 RTF .9409
SGB 2943.8 R23 .1056 R13 .9876
SG1 2881.4 SG2 602.9 THA 46.84

ORBIT DETERMINATION ACCURACY
ST 1816.8 SR 1626.9 SS 1209.2
CRT .9907 CRS -.9998 CST -.9930
LSA 2716.4 MSA 176.5 SSA 5.4
EL1 2433.2 EL2 165.0 ALF 41.81

LAUNCH DATE SEP 10 1970 FLIGHT TIME 124.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 352.072

RL 150.64 LAL .00 LOL 346.88 VL 27.299 GAL -5.07 AZL 79.66 HCA 161.67 SMA 130.53 ECC .17712 INC10.3423 V1 29.578
RP 107.51 LAP 3.24 LOP 148.83 VP 38.106 GAP .98 AZP 99.83 TAL 204.86 TAP 6.53 RCA 107.41 APO 153.64 V2 35.247
RC 90.641 GL 54.83 GP -72.61 ZAL 109.19 ZAP 94.43 ETS 337.06 ZAE 103.15 ETE 240.35 ZAC 27.65 ETC 240.41 CLP-104.96

PLANETOCENTRIC CONIC

C3 35.661 VHL 5.972 DLA 36.62 RAL 237.82 RAD 6568.4 VEL 12.531 PTH 2.27 VHP 7.518 DPA -70.47 RAP 143.88 ECC 1.5869

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.75	19 1 51	4227.34	-20.20	185.64	118.16	58.79	20 12 18	3627.3	-24.18	178.56
114.25	0 52 53	3131.41	-20.19	103.20	118.15	58.78	1 45 4	2531.4	-24.17	96.12
65.75	19 1 51	4227.34	-20.20	185.64	118.16	58.79	20 12 18	3627.3	-24.18	178.56
114.25	0 52 53	3131.41	-20.19	103.20	118.15	58.78	1 45 4	2531.4	-24.17	96.12
65.75	19 1 51	4227.34	-20.20	185.64	118.16	58.79	20 12 18	3627.3	-24.18	178.56
114.25	0 52 53	3131.41	-20.19	103.20	118.15	58.78	1 45 4	2531.4	-24.17	96.12

DIFFERENTIAL CORRECTIONS
TDE 2.3159 TRA .0807 TC3 -.7526 BAU .5402
RDE 1.5770 RRA .6389 RC3 -.8471 FAU .02723
FDE 1.8334 FRA .5708 FC3 -.6611 BSP 9398
BDE 2.8018 BRA .6440 BC3 1.1331 FSP -582

MID-COURSE EXECUTION ACCURACY
SGT 2398.9 SGR 1973.9 SG3 176.7
RRT .9176 RRF .9862 RTF .9547
SGB 3106.6 R23 .1188 R13 .9870
SG1 3044.4 SG2 618.1 THA 38.96

ORBIT DETERMINATION ACCURACY
ST 2222.4 SR 1530.6 SS 1150.5
CRT .9906 CRS -.9994 CST -.9947
LSA 2927.7 MSA 183.9 SSA 4.5
EL1 2692.9 EL2 173.1 ALF 34.47

LAUNCH DATE SEP 10 1970 FLIGHT TIME 126.00 ARRIVAL DATE JAN 14 1971

DISTANCE 358.301

HELIOCENTRIC CONIC
RL 150.64 LAL .00 LOL 346.88 VL 27.282 GAL -4.95 AZL 77.32 HCA 164.85 SMA 130.41 ECC .17701 INC12.6796 V1 29.578
RP 107.53 LAP 3.29 LOP 152.08 VP 38.090 GAP 1.36 AZP 102.25 TAL 204.21 TAP 9.06 RCA 107.32 APO 153.49 V2 35.243
RC 92.917 GL 58.88 GP -76.82 ZAL 105.85 ZAP 95.30 ETS 326.63 ZAE 98.41 ETE 231.61 ZAC 23.19 ETC 232.79 CLP-113.91

PLANETOCENTRIC CONIC
C3 48.565 VHL 6.969 DLA 38.80 RAL 241.58 RAD 6568.8 VEL 13.036 PTH 2.38 VHP 8.859 DPA -69.19 RAP 131.41 ECC 1.7993

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.77	18 52 10	4376.60	-18.71	196.89	127.61	54.21	20 5 7	3776.6	-23.25	190.25
119.23	1 32 33	3137.77	-18.70	102.67	127.60	54.20	2 24 50	2537.8	-23.24	96.04
60.77	18 52 10	4376.60	-18.71	196.89	127.61	54.21	20 5 7	3776.6	-23.25	190.25
119.23	1 32 33	3137.77	-18.70	102.67	127.60	54.20	2 24 50	2537.8	-23.24	96.04
60.77	18 52 10	4376.60	-18.71	196.89	127.61	54.21	20 5 7	3776.6	-23.25	190.25
119.23	1 32 33	3137.77	-18.70	102.67	127.60	54.20	2 24 50	2537.8	-23.24	96.04

DIFFERENTIAL CORRECTIONS
TDE 3.2358 TRA .3754 TC3 -.6105 BAU .5145
RDE 1.4504 RRA .7982 RC3 -.5053 FAU .01887
FDE 1.7066 FRA .5878 FC3 -.3364 BSP 9906
BDE 3.5460 BRA .8821 BC3 .7925 FSP -463

MID-COURSE EXECUTION ACCURACY
SGT 2821.9 SGR 1627.2 SG3 138.9
RRT .8961 RRF .9713 RTF .9665
SGB 3257.4 R23 .1310 R13 .9865
SG1 3194.3 SG2 637.9 THA 28.57

ORBIT DETERMINATION ACCURACY
ST 2663.2 SR 1219.9 SS 1083.8
CRT .9862 CRS -.9969 CST -.9961
LSA 3117.3 MSA 194.0 SSA 3.7
EL1 2923.5 EL2 184.3 ALF 24.41

LAUNCH DATE SEP 10 1970 FLIGHT TIME 128.00 ARRIVAL DATE JAN 16 1971

DISTANCE 364.468

HELIOCENTRIC CONIC
RL 150.64 LAL .00 LOL 346.88 VL 27.263 GAL -4.81 AZL 73.79 HCA 167.99 SMA 130.27 ECC .17695 INC16.2107 V1 29.578
RP 107.54 LAP 3.33 LOP 155.33 VP 38.071 GAP 1.72 AZP 105.87 TAL 203.47 TAP 11.46 RCA 107.22 APO 153.32 V2 35.238
RC 95.197 GL 62.53 GP -81.47 ZAL 102.41 ZAP 95.47 ETS 309.46 ZAE 92.97 ETE 216.29 ZAC 18.02 ETC 217.69 CLP-129.97

PLANETOCENTRIC CONIC
C3 73.060 VHL 8.548 DLA 42.48 RAL 245.84 RAD 6569.4 VEL 13.943 PTH 2.54 VHP 10.946 DPA -66.82 RAP 118.98 ECC 2.2024

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.91	18 52 14	4522.88	-15.50	206.88	138.22	49.94	20 7 36	3922.9	-20.55	200.76
123.09	2 6 27	3190.10	-15.49	104.56	138.21	49.94	2 59 38	2590.1	-20.53	98.45
56.91	18 52 14	4522.88	-15.50	206.88	138.22	49.94	20 7 36	3922.9	-20.55	200.76
123.09	2 6 27	3190.10	-15.49	104.56	138.21	49.94	2 59 38	2590.1	-20.53	98.45
56.91	18 52 14	4522.88	-15.50	206.88	138.22	49.94	20 7 36	3922.9	-20.55	200.76
123.09	2 6 27	3190.10	-15.49	104.56	138.21	49.94	2 59 38	2590.1	-20.53	98.45

DIFFERENTIAL CORRECTIONS
TDE 4.5753 TRA .9515 TC3 -.4071 BAU .4386
RDE .5863 RRA .8579 RC3 -.1895 FAU .01104
FDE 1.6009 FRA .6084 FC3 -.1309 BSP 10360
BDE 4.6127 BRA 1.2812 BC3 .4491 FSP -356

MID-COURSE EXECUTION ACCURACY
SGT 3261.6 SGR 931.3 SG3 106.1
RRT .6930 RRF .8093 RTF .9802
SGB 3392.0 R23 .1402 R13 .9867
SG1 3327.5 SG2 658.1 THA 11.66

ORBIT DETERMINATION ACCURACY
ST 3077.9 SR 457.5 SS 1027.0
CRT .8993 CRS -.9273 CST -.9976
LSA 3270.3 MSA 206.8 SSA 2.8
EL1 3105.4 EL2 198.3 ALF 7.64

LAUNCH DATE SEP 10 1970 FLIGHT TIME 130.00 ARRIVAL DATE JAN 18 1971

DISTANCE 370.534

HELIOCENTRIC CONIC
RL 150.64 LAL .00 LOL 346.88 VL 27.240 GAL -4.65 AZL 67.85 HCA 171.05 SMA 130.11 ECC .17686 INC22.1475 V1 29.578
RP 107.56 LAP 3.36 LOP 158.58 VP 38.050 GAP 2.04 AZP 111.90 TAL 202.61 TAP 13.66 RCA 107.10 APO 153.13 V2 35.232
RC 97.481 GL 65.04 GP -85.07 ZAL 98.95 ZAP 94.92 ETS 271.37 ZAE 86.26 ETE 180.07 ZAC 11.54 ETC 180.03 CLP 176.92

PLANETOCENTRIC CONIC
C3 127.456 VHL 11.290 DLA 43.94 RAL 250.48 RAD 6570.4 VEL 15.773 PTH 2.80 VHP 14.524 DPA -62.65 RAP 107.13 ECC 3.0976

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.88	19 2 34	4664.87	-10.45	214.94	149.47	47.07	20 20 19	4064.9	-15.83	209.28
125.12	2 33 10	3288.13	-10.43	108.70	149.45	47.07	3 27 58	2688.1	-15.81	103.04
54.88	19 2 34	4664.87	-10.45	214.94	149.47	47.07	20 20 19	4064.9	-15.83	209.28
125.12	2 33 10	3288.13	-10.43	108.70	149.45	47.07	3 27 58	2688.1	-15.81	103.04
54.88	19 2 34	4664.87	-10.45	214.94	149.47	47.07	20 20 19	4064.9	-15.83	209.28
125.12	2 33 10	3288.13	-10.43	108.70	149.45	47.07	3 27 58	2688.1	-15.81	103.04

DIFFERENTIAL CORRECTIONS
TDE 5.6077 TRA 2.0097 TC3 -.1401 BAU .2394
RDE-2.8236 RRA .0366 RC3 .0103 FAU .00313
FDE 1.5737 FRA .6637 FC3 -.0213 BSP 10685
BDE 6.2785 BRA 2.0101 BC3 .1405 FSP -267

MID-COURSE EXECUTION ACCURACY
SGT 3194.7 SGR 1433.4 SG3 80.1
RRT -.8842 RRF -.8532 RTF .9966
SGB 3501.5 R23 -.1335 R13 -.9894
SG1 3446.1 SG2 620.7 THA 157.59

ORBIT DETERMINATION ACCURACY
ST 2877.5 SR 1433.0 SS 1017.5
CRT -.9882 CRS .9840 CST -.9997
LSA 3365.6 MSA 204.0 SSA 1.9
EL1 3208.6 EL2 196.7 ALF 153.69

LAUNCH DATE SEP 10 1970 FLIGHT TIME 132.00 ARRIVAL DATE JAN 20 1971

DISTANCE 376.378

HELIOCENTRIC CONIC
RL 150.64 LAL .00 LOL 346.88 VL 27.216 GAL -4.43 AZL 56.13 HCA 173.92 SMA 129.94 ECC .17660 INC33.8741 V1 29.578
RP 107.58 LAP 3.38 LOP 161.83 VP 38.026 GAP 2.30 AZP 123.72 TAL 201.52 TAP 15.44 RCA 107.00 APO 152.89 V2 35.226
RC 99.767 GL 64.43 GP -79.39 ZAL 95.66 ZAP 93.73 ETS 216.23 ZAE 76.65 ETE 126.73 ZAC 2.27 ETC 108.55 CLP 110.67

PLANETOCENTRIC CONIC
C3 281.116 VHL 16.767 DLA 42.35 RAL 254.99 RAD 6571.6 VEL 20.061 PTH 3.14 VHP 21.615 DPA -54.96 RAP 96.45 ECC 5.6265

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.09	19 29 28	4767.10	-4.41	218.45	160.15	47.84	20 48 55	4167.1	-9.74	212.86
122.91	2 42 11	3438.44	-4.39	116.50	160.14	47.84	3 39 30	2838.4	-9.73	110.91
57.09	19 29 28	4767.10	-4.41	218.45	160.15	47.84	20 48 55	4167.1	-9.74	212.86
122.91	2 42 11	3438.44	-4.39	116.50	160.14	47.84	3 39 30	2838.4	-9.73	110.91
57.09	19 29 28	4767.10	-4.41	218.45	160.15	47.84	20 48 55	4167.1	-9.74	212.86
122.91	2 42 11	3438.44	-4.39	116.50	160.14	47.84	3 39 30	2838.4	-9.73	110.91

DIFFERENTIAL CORRECTIONS
TDE 2.4520 TRA 2.0573 TC3 .0019 BAU .3975
RDE-8.8104 RRA-2.8906 RC3 -.1057 FAU-.00832
FDE 1.7565 FRA .8464 FC3 .0256 BSP 10687
BDE 9.1452 BRA 3.5480 BC3 .1058 FSP -203

MID-COURSE EXECUTION ACCURACY
SGT 1267.7 SGR 3313.1 SG3 62.4
RRT -.9039 RRF -.9873 RTF .9573
SGB 3547.4 R23 -.1005 R13 -.9938
SG1 3510.3 SG2 511.7 THA 109.51

ORBIT DETERMINATION ACCURACY
ST 885.2 SR 3037.4 SS 1142.2
CRT -.9809 CRS .9982 CST -.9909
LSA 3359.1 MSA 172.8 SSA 1.8
EL1 3159.4 EL2 165.6 ALF 106.00

LAUNCH DATE SEP 10 1970 FLIGHT TIME 134.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 381.522

RL 150.64 LAL .00 LOL 346.88 VL 27.189 GAL -4.08 AZL 27.99 HCA 176.16 SMA 129.76 ECC .17555 INC62.0108 VI 29.578
RP 107.60 LAP 3.39 LOP 165.07 VP 38.000 GAP 2.37 AZP 151.96 TAL 199.81 TAP 15.97 RCA 106.98 APO 152.54 V2 35.218
RC 102.053 GL 54.77 GP -62.48 ZAL 92.90 ZAP 92.18 ETS 191.44 ZAE 59.17 ETE 103.70 ZAC 15.16 ETC 287.67 CLP 94.71

PLANETOCENTRIC CONIC

C3 859.548 VHL 29.318 DLA 32.10 RAL 257.75 RAD 6572.9 VEL 31.318 PTH 3.47 VHP 37.815 DPA -38.67 RAP 87.73 ECC15.1460

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
74.22	21 12 11	4590.66	-.06	200.97	167.69	57.90	22 28 42	3990.7	-4.30	194.60
105.78	1 21 33	3804.44	-.04	142.72	167.67	57.90	2 24 58	3204.4	-4.28	136.35
74.22	21 12 11	4590.66	-.06	200.97	167.69	57.90	22 28 42	3990.7	-4.30	194.60
105.78	1 21 33	3804.44	-.04	142.72	167.67	57.90	2 24 58	3204.4	-4.28	136.35
110.00	3 18 24	3442.97	-10.57	121.63	174.37	57.30	4 15 47	2843.0	-14.80	115.09
110.00	0 18 26	4000.12	10.47	151.04	160.99	57.27	1 25 6	3400.1	6.09	144.70

DIFFERENTIAL CORRECTIONS
TDE-2.9231 TRA 1.0768 TC3 -.0567 BAU 2.5404
RD-12.9953 RRA-6.9496 RC3 -.2137 FAU-.04121
FDE 2.3587 FRA 1.4741 FC3 .0415 BSP 9586
BDE13.3200 BRA 7.0325 BC3 .2211 FSP -164

MID-COURSE EXECUTION ACCURACY
SGT 706.1 SGR 3254.2 SG3 53.8
RRT .6394 RRF -.9977 RTF -.5912
SGB 3329.9 RZ3 -.0841 RI3 -.9961
SG1 3286.3 SG2 537.6 THA 81.88

ORBIT DETERMINATION ACCURACY
ST 576.2 SR 2585.1 SS 1542.7
CRT .9502 CRS .9995 CST .9402
LSA 3059.4 MSA 185.4 SSA 1.6
EL1 2642.7 EL2 175.6 ALF 77.99

LAUNCH DATE SEP 10 1970 FLIGHT TIME 136.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 392.257

RL 150.64 LAL .00 LOL 346.88 VL 27.160 GAL -4.81 AZL 157.04 HCA 183.69 SMA 129.56 ECC .18254 INC67.0356 VI 29.578
RP 107.63 LAP 3.39 LOP 168.32 VP 37.973 GAP 3.97 AZP 23.01 TAL 202.56 TAP 26.24 RCA 105.91 APO 153.21 V2 35.211
RC 104.339 GL -52.53 GP 59.42 ZAL 93.34 ZAP 93.51 ETS 180.71 ZAE 63.31 ETE 266.69 ZAC 136.60 ETC 278.88 CLP 96.92

PLANETOCENTRIC CONIC

C3 985.929 VHL 31.400 DLA -73.24 RAL 227.67 RAD 6572.9 VEL 33.275 PTH 3.50 VHP 40.536 DPA 81.74 RAP 50.21 ECC17.2259

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
19.13	3 55 4	2446.10	-.36	80.00	137.77	163.24	4 35 50	1846.1	7.30	78.10
160.87	14 38 40	674.40	-.35	286.09	137.79	163.24	14 49 54	74.4	7.31	284.19
19.13	3 55 4	2446.10	-.36	80.00	137.77	163.24	4 35 50	1846.1	7.30	78.10
160.87	14 38 40	674.40	-.35	286.09	137.79	163.24	14 49 54	74.4	7.31	284.19
19.13	3 55 4	2446.10	-.36	80.00	137.77	163.24	4 35 50	1846.1	7.30	78.10
160.87	14 38 40	674.40	-.35	286.09	137.79	163.24	14 49 54	74.4	7.31	284.19

DIFFERENTIAL CORRECTIONS
TDE 5.8427 TRA .9109 TC3 -.0986 BAU 3.0969
RD-14.9039 RRA -.0540 RC3 .2133 FAU-.04781
FDE-3.2425 FRA -.0027 FC3 .0420 BSP 9867
BDE16.0082 BRA .9125 BC3 .2349 FSP -170

MID-COURSE EXECUTION ACCURACY
SGT 1361.0 SGR 3031.6 SG3 56.0
RRT -.9085 RRF .9992 RTF -.9019
SGB 3323.1 RZ3 -.0813 RI3 .9960
SG1 3281.3 SG2 525.5 THA 112.81

ORBIT DETERMINATION ACCURACY
ST 1080.2 SR 2719.9 SS 2072.4
CRT -.9877 CRS-1.0000 CST .9872
LSA 3582.3 MSA 162.4 SSA 2.3
EL1 2922.3 EL2 157.2 ALF 111.48

LAUNCH DATE SEP 10 1970 FLIGHT TIME 138.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 397.217

RL 150.64 LAL .00 LOL 346.88 VL 27.130 GAL -4.41 AZL 125.89 HCA 185.77 SMA 129.36 ECC .18117 INC35.8870 VI 29.578
RP 107.65 LAP 3.38 LOP 171.56 VP 37.943 GAP 3.97 AZP 54.25 TAL 200.70 TAP 26.47 RCA 105.92 APO 152.79 V2 35.202
RC 106.624 GL -63.71 GP 76.80 ZAL 95.31 ZAP 96.21 ETS 166.48 ZAE 82.28 ETE 252.43 ZAC 154.24 ETC 275.11 CLP 118.30

PLANETOCENTRIC CONIC

C3 312.773 VHL 17.685 DLA -79.12 RAL 183.35 RAD 6571.8 VEL 20.835 PTH 3.18 VHP 22.881 DPA 78.10 RAP 264.08 ECC 6.1475

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
12.38	0 44 43	2369.39	5.56	82.54	92.27	169.07	1 24 13	1769.4	13.41	81.41
167.62	11 55 26	5861.89	5.56	259.84	92.29	169.07	13 33 8	5261.9	13.41	258.70
12.38	0 44 43	2369.39	5.56	82.54	92.27	169.07	1 24 13	1769.4	13.41	81.41
167.62	11 55 26	5861.89	5.56	259.84	92.29	169.07	13 33 8	5261.9	13.41	258.70
12.38	0 44 43	2369.39	5.56	82.54	92.27	169.07	1 24 13	1769.4	13.41	81.41
167.62	11 55 26	5861.89	5.56	259.84	92.29	169.07	13 33 8	5261.9	13.41	258.70

DIFFERENTIAL CORRECTIONS
TDE -.2260 TRA .3535 TC3 -.0303 BAU .6043
RDE-7.2434 RRA-1.6890 RC3 .1413 FAU-.00724
FDE-1.6247 FRA -.3296 FC3 .0200 BSP 11746
BDE 7.2469 BRA 1.7256 BC3 .1445 FSP -213

MID-COURSE EXECUTION ACCURACY
SGT 620.5 SGR 3763.3 SG3 67.1
RRT -.7027 RRF .9968 RTF -.6488
SGB 3814.1 RZ3 -.0862 RI3 .9957
SG1 3788.8 SG2 438.5 THA 96.70

ORBIT DETERMINATION ACCURACY
ST 196.2 SR 2502.7 SS 1093.4
CRT .0273 CRS -.9991 CST -.0703
LSA 2730.8 MSA 200.8 SSA 1.4
EL1 2502.7 EL2 196.2 ALF 89.88

LAUNCH DATE SEP 10 1970 FLIGHT TIME 140.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 402.938

RL 150.64 LAL .00 LOL 346.88 VL 27.098 GAL -4.15 AZL 113.05 HCA 188.60 SMA 129.14 ECC .18114 INC23.0531 VI 29.578
RP 107.68 LAP 3.36 LOP 174.81 VP 37.912 GAP 4.19 AZP 67.18 TAL 199.39 TAP 27.99 RCA 105.75 APO 152.53 V2 35.193
RC 108.906 GL -64.97 GP 79.96 ZAL 97.43 ZAP 99.88 ETS 101.31 ZAE 92.48 ETE 187.40 ZAC 161.49 ETC 228.89 CLP 169.79

PLANETOCENTRIC CONIC

C3 136.438 VHL 11.681 DLA -77.34 RAL 172.81 RAD 6570.5 VEL 16.055 PTH 2.83 VHP 15.198 DPA 67.56 RAP 253.09 ECC 3.2454

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
14.41	0 6 42	2240.28	13.89	79.96	79.62	166.95	0 44 2	1640.3	21.68	78.44
165.59	11 9 22	5738.80	13.90	259.25	79.64	166.95	12 45 0	5138.8	21.68	257.73
14.41	0 6 42	2240.28	13.89	79.96	79.62	166.95	0 44 2	1640.3	21.68	78.44
165.59	11 9 22	5738.80	13.90	259.25	79.64	166.95	12 45 0	5138.8	21.68	257.73
14.41	0 6 42	2240.28	13.89	79.96	79.62	166.95	0 44 2	1640.3	21.68	78.44
165.59	11 9 22	5738.80	13.90	259.25	79.64	166.95	12 45 0	5138.8	21.68	257.73

DIFFERENTIAL CORRECTIONS
TDE-3.5439 TRA-1.3447 TC3 -.0928 BAU .1772
RDE -.8769 RRA -.8541 RC3 -.0288 FAU .00775
FDE-1.0889 FRA -.3796 FC3 -.0492 BSP 12374
BDE 3.6508 BRA 1.5930 BC3 .0971 FSP -280

MID-COURSE EXECUTION ACCURACY
SGT 3482.9 SGR 1960.9 SG3 87.3
RRT .9543 RRF .9400 RTF .9980
SGB 3997.0 RZ3 -.1123 RI3 .9925
SG1 3963.7 SG2 514.7 THA 28.78

ORBIT DETERMINATION ACCURACY
ST 1959.0 SR 716.9 SS 777.2
CRT .9012 CRS -.8860 CST -.9994
LSA 2205.7 MSA 300.7 SSA 1.8
EL1 2065.1 EL2 294.7 ALF 18.65

LAUNCH DATE SEP 10 1970 FLIGHT TIME 142.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 408.864
RL 150.64 LAL .00 LOL 346.88 VL 27.065 GAL -3.92 AZL 106.70 HCA 191.64 SMA 128.91 ECC .18153 INC16.6998 V1 29.578
RP 107.71 LAP 3.32 LOP 178.05 VP 37.880 GAP 4.46 AZP 73.63 TAL 198.21 TAP 29.85 RCA 105.51 APO 152.31 V2 35.184
RC 111.186 GL -62.92 GP 75.22 ZAL 99.25 ZAP 104.02 ETS 62.88 ZAE 99.39 ETE 149.62 ZAC 163.07 ETC 213.93 CLP-161.66
PLANETOCENTRIC CONIC
C3 75.948 VHL 8.715 DLA -75.32 RAL 178.39 RAD 6569.5 VEL 14.046 PTH 2.56 VHP 11.457 DPA 59.72 RAP 248.01 ECC 2.2499

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.73	0 33 36	2112.24	21.91	76.47	82.33	164.15	1 8 48	1512.2	29.58	74.38
163.27	11 26 59	5618.82	21.91	258.05	82.35	164.15	13 0 38	5018.8	29.59	255.96
16.73	0 33 36	2112.24	21.91	76.47	82.33	164.15	1 8 48	1512.2	29.58	74.38
163.27	11 26 59	5618.82	21.91	258.05	82.35	164.15	13 0 38	5018.8	29.59	255.96
16.73	0 33 36	2112.24	21.91	76.47	82.33	164.15	1 8 48	1512.2	29.58	74.38
163.27	11 26 59	5618.82	21.91	258.05	82.35	164.15	13 0 38	5018.8	29.59	255.96

DIFFERENTIAL CORRECTIONS
TDE-2.8301 TRA-1.3358 TC3 -.4432 BAU .4593
RDE 1.2855 RRA .1377 RC3 .0906 FAU .01756
FDE-1.2058 FRA -.3880 FC3 -.2002 BSP 12824
BDE 3.1083 BRA 1.3429 BC3 .4524 FSP -372

MID-COURSE EXECUTION ACCURACY
SGT 4008.7 SGR 931.1 SG3 114.7
RRT -.7858 RRF -.8774 RTF .9831
SGB 4115.5 R23 .1440 R13 -.9871
SG1 4076.3 SG2 566.3 THA 169.45

ORBIT DETERMINATION ACCURACY
ST 2131.6 SR 851.9 SS 839.8
CRT -.9274 CRS .9718 CST -.9894
LSA 2424.8 MSA 307.9 SSA 2.6
EL1 2276.0 EL2 298.5 ALF 159.29

LAUNCH DATE SEP 10 1970 FLIGHT TIME 144.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 414.858
RL 150.64 LAL .00 LOL 346.88 VL 27.031 GAL -3.70 AZL 102.98 HCA 194.77 SMA 128.68 ECC .18213 INC12.9777 V1 29.578
RP 107.74 LAP 3.28 LOP 181.28 VP 37.846 GAP 4.75 AZP 77.44 TAL 197.06 TAP 31.82 RCA 105.24 APO 152.12 V2 35.174
RC 113.462 GL -59.73 GP 69.26 ZAL 100.64 ZAP 108.38 ETS 54.12 ZAE 104.73 ETE 142.10 ZAC 161.20 ETC 224.46 CLP-152.92
PLANETOCENTRIC CONIC
C3 49.196 VHL 7.014 DLA -73.22 RAL 187.36 RAD 6568.8 VEL 13.060 PTH 2.38 VHP 9.369 DPA 53.01 RAP 244.67 ECC 1.8096

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
19.15	1 14 19	2002.20	28.45	72.33	87.95	160.83	1 47 41	1402.2	35.97	69.52
160.85	11 57 51	5518.61	28.46	256.34	87.97	160.83	13 29 50	4918.6	35.98	253.52
19.15	1 14 19	2002.20	28.45	72.33	87.95	160.83	1 47 41	1402.2	35.97	69.52
160.85	11 57 51	5518.61	28.46	256.34	87.97	160.83	13 29 50	4918.6	35.98	253.52
19.15	1 14 19	2002.20	28.45	72.33	87.95	160.83	1 47 41	1402.2	35.97	69.52
160.85	11 57 51	5518.61	28.46	256.34	87.97	160.83	13 29 50	4918.6	35.98	253.52

DIFFERENTIAL CORRECTIONS
TDE-2.6169 TRA-1.0913 TC3 -.8535 BAU .5890
RDE 1.4313 RRA .2261 RC3 .2711 FAU .02570
FDE-1.4182 FRA -.3653 FC3 -.4523 BSP 12896
BDE 2.9827 BRA 1.1145 BC3 .8955 FSP -465

MID-COURSE EXECUTION ACCURACY
SGT 3941.5 SGR 1386.0 SG3 144.9
RRT -.9025 RRF -.9710 RTF .9723
SGB 4178.1 R23 .1737 R13 -.9810
SG1 4139.2 SG2 568.5 THA 162.04

ORBIT DETERMINATION ACCURACY
ST 2330.0 SR 1184.9 SS 970.9
CRT -.9698 CRS .9951 CST -.9892
LSA 2775.0 MSA 273.5 SSA 3.3
EL1 2601.2 EL2 258.7 ALF 153.46

LAUNCH DATE SEP 10 1970 FLIGHT TIME 146.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 420.872
RL 150.64 LAL .00 LOL 346.88 VL 26.995 GAL -3.48 AZL 100.54 HCA 197.92 SMA 128.44 ECC .18289 INC10.5389 V1 29.578
RP 107.77 LAP 3.23 LOP 184.52 VP 37.811 GAP 5.05 AZP 79.96 TAL 195.90 TAP 33.83 RCA 104.95 APO 151.93 V2 35.164
RC 115.736 GL -56.15 GP 63.47 ZAL 101.56 ZAP 112.80 ETS 51.27 ZAE 109.09 ETE 140.98 ZAC 157.72 ETC 234.07 CLP-150.20
PLANETOCENTRIC CONIC
C3 35.215 VHL 5.934 DLA -70.95 RAL 196.41 RAD 6568.4 VEL 12.513 PTH 2.27 VHP 8.098 DPA 46.94 RAP 242.34 ECC 1.5796

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.76	1 55 55	1911.77	33.36	67.60	93.26	156.99	2 27 46	1311.8	40.66	63.91
158.23	12 28 28	5440.62	33.37	254.30	93.28	156.99	13 59 8	4840.6	40.66	250.61
21.76	1 55 55	1911.77	33.36	67.60	93.26	156.99	2 27 46	1311.8	40.66	63.91
158.23	12 28 28	5440.62	33.37	254.30	93.28	156.99	13 59 8	4840.6	40.66	250.61
21.76	1 55 55	1911.77	33.36	67.60	93.26	156.99	2 27 46	1311.8	40.66	63.91
158.23	12 28 28	5440.62	33.37	254.30	93.28	156.99	13 59 8	4840.6	40.66	250.61

DIFFERENTIAL CORRECTIONS
TDE-2.5585 TRA -.9230 TC3-1.3547 BAU .6721
RDE 1.3350 RRA .1887 RC3 .4505 FAU .03346
FDE-1.6002 FRA -.3278 FC3 -.8226 BSP 13415
BDE 2.8858 BRA .9421 BC3 1.4277 FSP -583

MID-COURSE EXECUTION ACCURACY
SGT 4017.4 SGR 1502.9 SG3 178.7
RRT -.9221 RRF -.9824 RTF .9665
SGB 4289.3 R23 .1916 R13 -.9762
SG1 4254.0 SG2 549.3 THA 160.63

ORBIT DETERMINATION ACCURACY
ST 2602.9 SR 1299.9 SS 1100.2
CRT -.9818 CRS .9984 CST -.9910
LSA 3101.0 MSA 242.5 SSA 4.1
EL1 2901.0 EL2 221.4 ALF 153.72

LAUNCH DATE SEP 10 1970 FLIGHT TIME 148.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 426.891
RL 150.64 LAL .00 LOL 346.88 VL 26.958 GAL -3.25 AZL 98.81 HCA 201.10 SMA 128.20 ECC .18378 INC 8.8138 V1 29.578
RP 107.80 LAP 3.16 LOP 187.75 VP 37.775 GAP 5.35 AZP 81.77 TAL 194.73 TAP 35.83 RCA 104.64 APO 151.75 V2 35.153
RC 118.005 GL -52.47 GP 58.09 ZAL 101.99 ZAP 117.14 ETS 50.06 ZAE 112.67 ETE 141.92 ZAC 153.75 ETC 240.60 CLP-149.65
PLANETOCENTRIC CONIC
C3 27.041 VHL 5.200 DLA -68.55 RAL 204.71 RAD 6568.1 VEL 12.183 PTH 2.19 VHP 7.286 DPA 41.37 RAP 240.75 ECC 1.4450

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
24.55	2 34 58	1837.88	36.82	62.45	97.59	152.81	3 5 36	1237.9	43.84	57.81
155.45	12 55 35	5381.93	36.83	252.08	97.61	152.81	14 25 17	4781.9	43.84	247.44
24.55	2 34 58	1837.88	36.82	62.45	97.59	152.81	3 5 36	1237.9	43.84	57.81
155.45	12 55 35	5381.93	36.83	252.08	97.61	152.81	14 25 17	4781.9	43.84	247.44
24.55	2 34 58	1837.88	36.82	62.45	97.59	152.81	3 5 36	1237.9	43.84	57.81
155.45	12 55 35	5381.93	36.83	252.08	97.61	152.81	14 25 17	4781.9	43.84	247.44

DIFFERENTIAL CORRECTIONS
TDE-2.4800 TRA -.7730 TC3-1.9088 BAU .7229
RDE 1.1719 RRA .1249 RC3 .5957 FAU .03980
FDE-1.6942 FRA -.2578 FC3-1.2743 BSP 13628
BDE 2.7430 BRA .7830 BC3 1.9996 FSP -680

MID-COURSE EXECUTION ACCURACY
SGT 4102.6 SGR 1480.8 SG3 208.9
RRT -.9275 RRF -.9843 RTF .9620
SGB 4361.6 R23 .2066 R13 -.9713
SG1 4330.0 SG2 524.5 THA 161.20

ORBIT DETERMINATION ACCURACY
ST 2821.1 SR 1296.3 SS 1184.5
CRT -.9867 CRS .9993 CST -.9921
LSA 3315.6 MSA 220.1 SSA 5.0
EL1 3098.7 EL2 191.8 ALF 155.51

LAUNCH DATE SEP 10 1970 FLIGHT TIME 150.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 432.904

RL 150.64 LAL .00 LOL 346.88 VL 26.921 GAL -3.02 AZL 97.52 HCA 204.29 SMA 127.95 ECC .18478 INC 7.5242 V1 29.578
RP 107.84 LAP 3.09 LOP 190.99 VP 37.737 GAP 5.65 AZP 83.14 TAL 193.53 TAP 37.82 RCA 104.31 APO 151.59 V2 35.141
RC 120.271 GL -48.83 GP 53.16 ZAL 101.94 ZAP 121.29 ETS 49.41 ZAE 115.61 ETE 143.70 ZAC 149.78 ETC 245.01 CLP-150.03

PLANETOCENTRIC CONIC

C3 21.870 VHL 4.677 DLA -66.08 RAL 212.16 RAD 6567.9 VEL 11.969 PTH 2.13 VHP 6.753 DPA 36.24 RAP 239.74 ECC 1.3599

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.43	3 11 6	1776.71	39.10	57.07	101.01	148.49	3 40 42	1176.7	45.78	51.50
152.57	13 18 53	5338.97	39.11	249.84	101.03	148.49	14 47 52	4739.0	45.79	244.27
27.43	3 11 6	1776.71	39.10	57.07	101.01	148.49	3 40 42	1176.7	45.78	51.50
152.57	13 18 53	5338.97	39.11	249.84	101.03	148.49	14 47 52	4739.0	45.79	244.27
27.43	3 11 6	1776.71	39.10	57.07	101.01	148.49	3 40 42	1176.7	45.78	51.50
152.57	13 18 53	5338.97	39.11	249.84	101.03	148.49	14 47 52	4739.0	45.79	244.27

DIFFERENTIAL CORRECTIONS
TDE-2.3809 TRA -.6392 TC3-2.5096 BAU .7624
RDE 1.0063 RRA .0668 RC3 .7082 FAU .04497
FDE-1.7099 FRA -.1695 FC3-1.7802 BSP 13916
BDE 2.5848 BRA .6427 BC3 2.6076 FSP -767

MID-COURSE EXECUTION ACCURACY
SGT 4212.8 SGR 1414.0 SG3 235.4
RRT -.9301 RRF -.9835 RTF .9590
SG8 4443.8 R23 .2149 R13 -.9673
SG1 4416.1 SG2 495.3 THA 162.43

ORBIT DETERMINATION ACCURACY
ST 2974.8 SR 1234.5 SS 1226.0
CRT -.9892 CRS .9997 CST -.9925
LSA 3440.2 MSA 203.6 SSA 6.0
EL1 3216.5 EL2 167.4 ALF 157.62

LAUNCH DATE SEP 10 1970 FLIGHT TIME 152.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 438.908

RL 150.64 LAL .00 LOL 346.88 VL 26.883 GAL -2.77 AZL 96.52 HCA 207.49 SMA 127.69 ECC .18589 INC 6.5188 V1 29.578
RP 107.87 LAP 3.00 LOP 194.21 VP 37.699 GAP 5.94 AZP 84.21 TAL 192.31 TAP 39.80 RCA 103.96 APO 151.43 V2 35.130
RC 122.531 GL -45.27 GP 48.69 ZAL 101.44 ZAP 125.21 ETS 48.96 ZAE 117.98 ETE 145.83 ZAC 146.03 ETC 248.08 CLP-150.87

PLANETOCENTRIC CONIC

C3 18.410 VHL 4.291 DLA -63.58 RAL 218.88 RAD 6567.7 VEL 11.823 PTH 2.09 VHP 6.403 DPA 31.55 RAP 239.19 ECC 1.3030

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.36	3 44 41	1725.10	40.45	51.66	103.81	144.22	4 13 27	1125.1	46.75	45.25
149.64	13 38 56	5308.56	40.46	247.74	103.82	144.21	15 7 25	4708.6	46.76	241.33
30.36	3 44 41	1725.10	40.45	51.66	103.81	144.22	4 13 27	1125.1	46.75	45.25
149.64	13 38 56	5308.56	40.46	247.74	103.82	144.21	15 7 25	4708.6	46.76	241.33
30.36	3 44 41	1725.10	40.45	51.66	103.81	144.22	4 13 27	1125.1	46.75	45.25
149.64	13 38 56	5308.56	40.46	247.74	103.82	144.21	15 7 25	4708.6	46.76	241.33

DIFFERENTIAL CORRECTIONS
TDE-2.2651 TRA -.5107 TC3-3.1319 BAU .7946
RDE .8562 RRA .0176 RC3 .7846 FAU .04878
FDE-1.6588 FRA -.0671 FC3-2.2938 BSP 14189
BDE 2.4215 BRA .5110 BC3 3.2287 FSP -837

MID-COURSE EXECUTION ACCURACY
SGT 4326.7 SGR 1327.9 SG3 256.6
RRT -.9310 RRF -.9808 RTF .9570
SG8 4525.9 R23 .2174 R13 -.9640
SG1 4501.8 SG2 465.9 THA 163.88

ORBIT DETERMINATION ACCURACY
ST 3060.5 SR 1143.7 SS 1226.4
CRT -.9906 CRS .9999 CST -.9924
LSA 3484.5 MSA 191.0 SSA 7.2
EL1 3263.9 EL2 146.7 ALF 159.64

LAUNCH DATE SEP 10 1970 FLIGHT TIME 154.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 444.898

RL 150.64 LAL .00 LOL 346.88 VL 26.844 GAL -2.52 AZL 95.71 HCA 210.69 SMA 127.44 ECC .18712 INC 5.7089 V1 29.578
RP 107.91 LAP 2.91 LOP 197.44 VP 37.660 GAP 6.24 AZP 85.09 TAL 191.06 TAP 41.75 RCA 103.59 APO 151.28 V2 35.118
RC 124.786 GL -41.83 GP 44.68 ZAL 100.52 ZAP 128.86 ETS 48.59 ZAE 119.88 ETE 148.08 ZAC 142.60 ETC 250.33 CLP-151.92

PLANETOCENTRIC CONIC

C3 16.000 VHL 4.000 DLA -61.08 RAL 225.03 RAD 6567.6 VEL 11.721 PTH 2.07 VHP 6.177 DPA 27.27 RAP 239.02 ECC 1.2633

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.32	4 16 23	1680.50	41.06	46.35	106.25	140.11	4 44 23	1080.5	46.97	39.25
146.68	13 56 19	5288.41	41.07	245.90	106.27	140.10	15 24 28	4688.4	46.97	238.80
33.32	4 16 23	1680.50	41.06	46.35	106.25	140.11	4 44 23	1080.5	46.97	39.25
146.68	13 56 19	5288.41	41.07	245.90	106.27	140.10	15 24 28	4688.4	46.97	238.80
33.32	4 16 23	1680.50	41.06	46.35	106.25	140.11	4 44 23	1080.5	46.97	39.25
146.68	13 56 19	5288.41	41.07	245.90	106.27	140.10	15 24 28	4688.4	46.97	238.80

DIFFERENTIAL CORRECTIONS
TDE-2.1398 TRA -.3836 TC3-3.7562 BAU .8228
RDE .7280 RRA -.0225 RC3 .8279 FAU .05129
FDE-1.5593 FRA .0428 FC3-2.7753 BSP 14472
BDE 2.2603 BRA .3842 BC3 3.8463 FSP -890

MID-COURSE EXECUTION ACCURACY
SGT 4440.2 SGR 1237.2 SG3 272.3
RRT -.9304 RRF -.9766 RTF .9556
SG8 4609.3 R23 .2147 R13 -.9613
SG1 4588.4 SG2 438.9 THA 165.33

ORBIT DETERMINATION ACCURACY
ST 3085.3 SR 1043.2 SS 1192.8
CRT -.9915 CRS .9999 CST -.9919
LSA 3463.7 MSA 181.2 SSA 8.4
EL1 3254.4 EL2 128.5 ALF 161.44

LAUNCH DATE SEP 10 1970 FLIGHT TIME 156.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 450.874

RL 150.64 LAL .00 LOL 346.88 VL 26.805 GAL -2.25 AZL 95.04 HCA 213.89 SMA 127.18 ECC .18847 INC 5.0391 V1 29.578
RP 107.95 LAP 2.81 LOP 200.66 VP 37.621 GAP 6.53 AZP 85.81 TAL 189.79 TAP 43.68 RCA 103.21 APO 151.15 V2 35.105
RC 127.036 GL -38.51 GP 41.09 ZAL 99.21 ZAP 132.23 ETS 48.27 ZAE 121.36 ETE 150.31 ZAC 139.51 ETC 252.03 CLP-153.08

PLANETOCENTRIC CONIC

C3 14.278 VHL 3.779 DLA -58.60 RAL 230.73 RAD 6567.6 VEL 11.647 PTH 2.04 VHP 6.039 DPA 23.38 RAP 239.17 ECC 1.2350

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.29	4 46 37	1641.11	41.09	41.23	108.55	136.26	5 13 58	1041.1	46.61	33.60
143.71	14 11 34	5276.73	41.11	244.43	108.57	136.25	15 39 31	4676.7	46.62	236.79
36.29	4 46 37	1641.11	41.09	41.23	108.55	136.26	5 13 58	1041.1	46.61	33.60
143.71	14 11 34	5276.73	41.11	244.43	108.57	136.25	15 39 31	4676.7	46.62	236.79
36.29	4 46 37	1641.11	41.09	41.23	108.55	136.26	5 13 58	1041.1	46.61	33.60
143.71	14 11 34	5276.73	41.11	244.43	108.57	136.25	15 39 31	4676.7	46.62	236.79

DIFFERENTIAL CORRECTIONS
TDE-2.0105 TRA -.2558 TC3-4.3681 BAU .8492
RDE .6221 RRA -.0550 RC3 .8445 FAU .05272
FDE-1.4289 FRA .1552 FC3-3.1970 BSP 14776
BDE 2.1045 BRA .2616 BC3 4.4490 FSP -927

MID-COURSE EXECUTION ACCURACY
SGT 4554.6 SGR 1150.1 SG3 283.1
RRT -.9284 RRF -.9707 RTF .9545
SG8 4697.6 R23 .2075 R13 -.9591
SG1 4679.1 SG2 416.0 THA 166.70

ORBIT DETERMINATION ACCURACY
ST 3058.3 SR 944.7 SS 1133.3
CRT -.9923 CRS .9998 CST -.9908
LSA 3391.1 MSA 173.8 SSA 9.8
EL1 3198.9 EL2 112.2 ALF 162.94

LAUNCH DATE SEP 10 1970 FLIGHT TIME 158.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 456.834

RL 150.64 LAL .00 LOL 346.88 VL 26.765 GAL -1.98 AZL 94.47 HCA 217.09 SMA 126.92 ECC .18993 INC 4.4725 V1 29.578
RP 107.99 LAP 2.70 LOP 203.88 VP 37.581 GAP 6.83 AZP 86.43 TAL 188.50 TAP 45.58 RCA 102.81 APO 151.03 V2 35.093
RC 129.278 GL -35.30 GP 37.89 ZAL 97.56 ZAP 135.32 ETS 47.99 ZAE 122.52 ETE 152.44 ZAC 136.75 ETC 253.39 CLP-154.29

PLANETOCENTRIC CONIC

C3 13.029 VHL 3.610 DLA -56.14 RAL 236.08 RAD 6567.5 VEL 11.594 PTH 2.03 VHP 5.965 DPA 19.85 RAP 239.59 ECC 1.2144

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.27	5 15 53	1605.32	40.68	36.33	110.84	132.71	5 42 39	1005.3	45.82	28.31
140.73	14 24 56	5272.55	40.69	243.38	110.85	132.70	15 52 49	4672.5	45.83	235.36
39.27	5 15 53	1605.32	40.68	36.33	110.84	132.71	5 42 39	1005.3	45.82	28.31
140.73	14 24 56	5272.55	40.69	243.38	110.85	132.70	15 52 49	4672.5	45.83	235.36
39.27	5 15 53	1605.32	40.68	36.33	110.84	132.71	5 42 39	1005.3	45.82	28.31
140.73	14 24 56	5272.55	40.69	243.38	110.85	132.70	15 52 49	4672.5	45.83	235.36

DIFFERENTIAL CORRECTIONS
TDE-1.8772 TRA -.1242 TC3-4.9425 BAU .8732
RDE .5356 RRA -.0815 RC3 .8375 FAU .05313
FDE-1.2798 FRA .2665 FC3-3.5305 BSP 15056
BDE 1.9522 BRA .1486 BC3 5.0129 FSP -949

MID-COURSE EXECUTION ACCURACY
SGT 4662.1 SGR 1068.8 SG3 289.1
RRT -.9249 RRF -.9630 RTF .9536
SGB 4783.1 R23 .1960 R13 -.9573
SG1 4766.5 SG2 397.5 THA 167.94

ORBIT DETERMINATION ACCURACY
ST 2983.6 SR 853.3 SS 1054.3
CRT -.9930 CRS .9994 CST -.9892
LSA 3273.1 MSA 168.0 SSA 11.4
EL1 3101.7 EL2 96.8 ALF 164.13

LAUNCH DATE SEP 10 1970 FLIGHT TIME 160.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 462.777

RL 150.64 LAL .00 LOL 346.88 VL 26.725 GAL -1.69 AZL 93.98 HCA 220.29 SMA 126.66 ECC .19153 INC 3.9844 V1 29.578
RP 108.03 LAP 2.58 LOP 207.10 VP 37.540 GAP 7.12 AZP 86.96 TAL 187.18 TAP 47.47 RCA 102.40 APO 150.92 V2 35.080
RC 131.513 GL -32.21 GP 35.05 ZAL 95.60 ZAP 138.16 ETS 47.76 ZAE 123.41 ETE 154.43 ZAC 134.32 ETC 254.50 CLP-155.52

PLANETOCENTRIC CONIC

C3 12.124 VHL 3.482 DLA -53.70 RAL 241.13 RAD 6567.5 VEL 11.555 PTH 2.02 VHP 5.939 DPA 16.64 RAP 240.24 ECC 1.1995

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.26	5 44 32	1572.03	39.91	31.65	113.20	129.47	6 10 44	972.0	44.69	23.37
137.74	14 36 37	5275.12	39.92	242.80	113.21	129.46	16 4 33	4675.1	44.70	234.52
42.26	5 44 32	1572.03	39.91	31.65	113.20	129.47	6 10 44	972.0	44.69	23.37
137.74	14 36 37	5275.12	39.92	242.80	113.21	129.46	16 4 33	4675.1	44.70	234.52
42.26	5 44 32	1572.03	39.91	31.65	113.20	129.47	6 10 44	972.0	44.69	23.37
137.74	14 36 37	5275.12	39.92	242.80	113.21	129.46	16 4 33	4675.1	44.70	234.52

DIFFERENTIAL CORRECTIONS
TDE-1.7435 TRA .0097 TC3-5.4704 BAU .8965
RDE .4666 RRA -.1026 RC3 .8151 FAU .05284
FDE-1.1251 FRA .3718 FC3-3.7728 BSP 15372
BDE 1.8049 BRA .1031 BC3 5.5308 FSP -962

MID-COURSE EXECUTION ACCURACY
SGT 4769.1 SGR 996.5 SG3 291.7
RRT -.9201 RRF -.9534 RTF .9533
SGB 4872.1 R23 .1802 R13 -.9561
SG1 4857.0 SG2 383.3 THA 169.05

ORBIT DETERMINATION ACCURACY
ST 2871.2 SR 772.7 SS 964.0
CRT -.9940 CRS .9983 CST -.9868
LSA 3121.4 MSA 163.6 SSA 13.1
EL1 2972.2 EL2 81.6 ALF 165.01

LAUNCH DATE SEP 10 1970 FLIGHT TIME 162.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 468.703

RL 150.64 LAL .00 LOL 346.88 VL 26.684 GAL -1.39 AZL 93.56 HCA 223.49 SMA 126.40 ECC .19326 INC 3.5570 V1 29.578
RP 108.07 LAP 2.45 LOP 210.31 VP 37.499 GAP 7.42 AZP 87.42 TAL 185.84 TAP 49.33 RCA 101.97 APO 150.83 V2 35.067
RC 133.740 GL -29.24 GP 32.53 ZAL 93.38 ZAP 140.76 ETS 47.59 ZAE 124.08 ETE 156.26 ZAC 132.17 ETC 255.45 CLP-156.73

PLANETOCENTRIC CONIC

C3 11.481 VHL 3.388 DLA -51.27 RAL 245.94 RAD 6567.4 VEL 11.527 PTH 2.01 VHP 5.949 DPA 13.74 RAP 241.09 ECC 1.1890

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.29	6 12 48	1540.20	38.86	27.16	115.66	126.54	6 38 28	940.2	43.30	18.74
134.71	14 46 42	5284.11	38.87	242.70	115.68	126.52	16 14 46	4684.1	43.31	234.28
45.29	6 12 48	1540.20	38.86	27.16	115.66	126.54	6 38 28	940.2	43.30	18.74
134.71	14 46 42	5284.11	38.87	242.70	115.68	126.52	16 14 46	4684.1	43.31	234.28
45.29	6 12 48	1540.20	38.86	27.16	115.66	126.54	6 38 28	940.2	43.30	18.74
134.71	14 46 42	5284.11	38.87	242.70	115.68	126.52	16 14 46	4684.1	43.31	234.28

DIFFERENTIAL CORRECTIONS
TDE-1.6067 TRA .1505 TC3-5.9312 BAU .9183
RDE .4110 RRA -.1210 RC3 .7796 FAU .05190
FDE -.9684 FRA .4738 FC3-3.9131 BSP 15670
BDE 1.6585 BRA .1931 BC3 5.9822 FSP -964

MID-COURSE EXECUTION ACCURACY
SGT 4868.6 SGR 932.3 SG3 291.1
RRT -.9132 RRF -.9416 RTF .9527
SGB 4957.0 R23 .1631 R13 -.9550
SG1 4942.9 SG2 374.3 THA 170.02

ORBIT DETERMINATION ACCURACY
ST 2722.2 SR 702.1 SS 865.5
CRT -.9952 CRS .9956 CST -.9829
LSA 2937.1 MSA 161.4 SSA 15.1
EL1 2810.5 EL2 66.4 ALF 165.60

LAUNCH DATE SEP 10 1970 FLIGHT TIME 164.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 474.611

RL 150.64 LAL .00 LOL 346.88 VL 26.643 GAL -1.08 AZL 93.18 HCA 226.69 SMA 126.14 ECC .19513 INC 3.1776 V1 29.578
RP 108.11 LAP 2.31 LOP 213.53 VP 37.458 GAP 7.71 AZP 87.82 TAL 184.48 TAP 51.17 RCA 101.52 APO 150.75 V2 35.054
RC 135.957 GL -26.38 GP 30.29 ZAL 90.94 ZAP 143.15 ETS 47.49 ZAE 124.58 ETE 157.92 ZAC 130.27 ETC 256.28 CLP-157.93

PLANETOCENTRIC CONIC

C3 11.047 VHL 3.324 DLA -48.87 RAL 250.53 RAD 6567.4 VEL 11.508 PTH 2.00 VHP 5.988 DPA 11.10 RAP 242.11 ECC 1.1818

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.35	6 40 57	1508.94	37.59	22.83	118.26	123.89	7 6 6	908.9	41.72	14.34
131.65	14 55 9	5299.41	37.60	243.12	118.27	123.87	16 23 28	4699.4	41.73	234.63
48.35	6 40 57	1508.94	37.59	22.83	118.26	123.89	7 6 6	908.9	41.72	14.34
131.65	14 55 9	5299.41	37.60	243.12	118.27	123.87	16 23 28	4699.4	41.73	234.63
48.35	6 40 57	1508.94	37.59	22.83	118.26	123.89	7 6 6	908.9	41.72	14.34
131.65	14 55 9	5299.41	37.60	243.12	118.27	123.87	16 23 28	4699.4	41.73	234.63

DIFFERENTIAL CORRECTIONS
TDE-1.4648 TRA .3008 TC3-6.3007 BAU .9368
RDE .3660 RRA -.1379 RC3 .7316 FAU .05029
FDE -.8127 FRA .5734 FC3-3.9415 BSP 15860
BDE 1.5098 BRA .3309 BC3 6.3430 FSP -949

MID-COURSE EXECUTION ACCURACY
SGT 4953.7 SGR 874.6 SG3 287.7
RRT -.9035 RRF -.9275 RTF .9516
SGB 5030.3 R23 .1466 R13 -.9534
SG1 5016.7 SG2 370.1 THA 170.89

ORBIT DETERMINATION ACCURACY
ST 2539.2 SR 640.3 SS 762.5
CRT -.9967 CRS .9896 CST -.9764
LSA 2722.6 MSA 162.2 SSA 17.2
EL1 2618.2 EL2 50.4 ALF 165.89

LAUNCH DATE SEP 10 1970 FLIGHT TIME 166.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 480.499

RL	150.64	LAL	.00	LOL	346.88	VL	26.602	GAL	-.76	AZL	92.84	HCA	229.89	SMA	125.88	ECC	.19716	INC	2.8363
RP	108.15	LAP	2.17	LOP	216.73	VP	37.417	GAP	8.01	AZP	88.17	TAL	183.10	TAP	52.99	RCA	101.06	APO	150.69
RC	138.166	GL	-23.63	GP	28.29	ZAL	88.32	ZAP	145.35	ETS	47.47	ZAE	124.96	ETE	159.42	ZAC	128.60	ETC	257.03

V1	29.578	V2	35.041	CLP	-159.10														

PLANETOCENTRIC CONIC

C3	10.786	VHL	3.284	DLA	-46.48	RAL	254.91	RAD	6567.4	VEL	11.497	PTH	2.00	VHP	6.051	DPA	8.70	RAP	243.29
ECC	1.1775																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
51.46	7 9 13	1477.31	36.14	18.60	120.99	121.50	7 33 50	877.3	40.00	10.11
128.54	15 1 50	5321.26	36.15	244.07	121.00	121.48	16 30 32	4721.3	40.01	235.58
51.46	7 9 13	1477.31	36.14	18.60	120.99	121.50	7 33 50	877.3	40.00	10.11
128.54	15 1 50	5321.26	36.15	244.07	121.00	121.48	16 30 32	4721.3	40.01	235.58
51.46	7 9 13	1477.31	36.14	18.60	120.99	121.50	7 33 50	877.3	40.00	10.11
128.54	15 1 50	5321.26	36.15	244.07	121.00	121.48	16 30 32	4721.3	40.01	235.58

DIFFERENTIAL CORRECTIONS

TDE	-1.3247	TRA	.4535	TC3	-6.5978	BAU	.9565
RDE	.3313	RRA	-.1517	RC3	.6835	FAU	.04859
FDE	-.6684	FRA	.6620	FC3	-3.8997	BSP	16143
BDE	1.3655	BRA	.4782	BC3	6.6331	FSP	-938

MID-COURSE EXECUTION ACCURACY

SGT	5044.0	SGR	826.6	SG3	283.1		
RRT	-.8929	RRF	-.9115	RTF	.9514		
SGB	5111.3	R23	.1275	R13	-.9528		
SG1	5098.0	SG2	368.3	THA	171.63		

ORBIT DETERMINATION ACCURACY

ST	2340.2	SR	589.5	SS	665.1
CRT	-.9983	CRS	.9773	CST	-.9667
LSA	2497.7	MSA	165.1	SSA	19.3
EL1	2413.0	EL2	33.6	ALF	165.88

LAUNCH DATE SEP 10 1970 FLIGHT TIME 168.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 486.367

RL	150.64	LAL	.00	LOL	346.88	VL	26.561	GAL	-.42	AZL	92.53	HCA	233.09	SMA	125.62	ECC	.19934	INC	2.5260
RP	108.19	LAP	2.02	LOP	219.94	VP	37.375	GAP	8.31	AZP	88.48	TAL	181.70	TAP	54.79	RCA	100.58	APO	150.66
RC	140.364	GL	-20.99	GP	26.52	ZAL	85.56	ZAP	147.37	ETS	47.54	ZAE	125.23	ETE	160.77	ZAC	127.14	ETC	257.72

V1	29.578	V2	35.028	CLP	-160.25														

PLANETOCENTRIC CONIC

C3	10.677	VHL	3.268	DLA	-44.12	RAL	259.10	RAD	6567.4	VEL	11.492	PTH	2.00	VHP	6.133	DPA	6.51	RAP	244.60
ECC	1.1757																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.63	7 37 48	1444.47	34.55	14.42	123.83	119.35	8 1 52	844.5	38.16	5.96
125.37	15 6 40	5349.95	34.57	245.59	123.84	119.34	16 35 50	4750.0	38.17	237.13
54.63	7 37 48	1444.47	34.55	14.42	123.83	119.35	8 1 52	844.5	38.16	5.96
125.37	15 6 40	5349.95	34.57	245.59	123.84	119.34	16 35 50	4750.0	38.17	237.13
54.63	7 37 48	1444.47	34.55	14.42	123.83	119.35	8 1 52	844.5	38.16	5.96
125.37	15 6 40	5349.95	34.57	245.59	123.84	119.34	16 35 50	4750.0	38.17	237.13

DIFFERENTIAL CORRECTIONS

TDE	-1.1830	TRA	.6117	TC3	-6.8036	BAU	.9754
RDE	.3044	RRA	-.1639	RC3	.6336	FAU	.04667
FDE	-.5338	FRA	.7422	FC3	-3.7846	BSP	16402
BDE	1.2215	BRA	.6333	BC3	6.8331	FSP	-921

MID-COURSE EXECUTION ACCURACY

SGT	5128.8	SGR	785.1	SG3	277.0		
RRT	-.8806	RRF	-.8935	RTF	.9516		
SGB	5188.5	R23	.1080	R13	-.9526		
SG1	5175.4	SG2	368.7	THA	172.28		

ORBIT DETERMINATION ACCURACY

ST	2126.4	SR	547.2	SS	574.9
CRT	-.9992	CRS	.9529	CST	-.9514
LSA	2263.1	MSA	171.5	SSA	21.4
EL1	2195.5	EL2	21.7	ALF	165.58

LAUNCH DATE SEP 10 1970 FLIGHT TIME 170.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 492.213

RL	150.64	LAL	.00	LOL	346.88	VL	26.520	GAL	-.07	AZL	92.24	HCA	236.28	SMA	125.36	ECC	.20170	INC	2.2408
RP	108.23	LAP	1.86	LOP	223.14	VP	37.333	GAP	8.62	AZP	88.76	TAL	180.29	TAP	56.57	RCA	100.07	APO	150.64
RC	142.552	GL	-18.48	GP	24.93	ZAL	82.70	ZAP	149.24	ETS	47.72	ZAE	125.43	ETE	161.97	ZAC	125.84	ETC	258.38

V1	29.578	V2	35.014	CLP	-161.37														

PLANETOCENTRIC CONIC

C3	10.705	VHL	3.272	DLA	-41.79	RAL	263.09	RAD	6567.4	VEL	11.493	PTH	2.00	VHP	6.232	DPA	4.50	RAP	246.03
ECC	1.1762																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.88	8 6 59	1409.32	32.87	10.20	126.78	117.42	8 30 28	809.3	36.24	1.81
122.12	15 9 22	5386.17	32.88	247.71	126.79	117.40	16 39 8	4786.2	36.25	239.31
57.88	8 6 59	1409.32	32.87	10.20	126.78	117.42	8 30 28	809.3	36.24	1.81
122.12	15 9 22	5386.17	32.88	247.71	126.79	117.40	16 39 8	4786.2	36.25	239.31
57.88	8 6 59	1409.32	32.87	10.20	126.78	117.42	8 30 28	809.3	36.24	1.81
122.12	15 9 22	5386.17	32.88	247.71	126.79	117.40	16 39 8	4786.2	36.25	239.31

DIFFERENTIAL CORRECTIONS

TDE	-1.0627	TRA	.7564	TC3	-6.9872	BAU	1.0036
RDE	.2890	RRA	-.1715	RC3	.5994	FAU	.04550
FDE	-.4331	FRA	.7989	FC3	-3.6797	BSP	17345
BDE	1.1013	BRA	.7756	BC3	7.0128	FSP	-964

MID-COURSE EXECUTION ACCURACY

SGT	5246.3	SGR	756.5	SG3	271.8		
RRT	-.8695	RRF	-.8759	RTF	.9547		
SGB	5300.6	R23	.0843	R13	-.9555		
SG1	5287.6	SG2	370.7	THA	172.82		

ORBIT DETERMINATION ACCURACY

ST	1940.6	SR	520.4	SS	510.0
CRT	-.9979	CRS	.9183	CST	-.9364
LSA	2065.2	MSA	177.1	SSA	23.1
EL1	2008.9	EL2	32.9	ALF	165.01

LAUNCH DATE SEP 10 1970 FLIGHT TIME 172.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 498.039

RL	150.64	LAL	.00	LOL	346.88	VL	26.479	GAL	.29	AZL	91.98	HCA	239.48	SMA	125.10	ECC	.20424	INC	1.9764
RP	108.27	LAP	1.70	LOP	226.34	VP	37.291	GAP	8.92	AZP	89.00	TAL	178.86	TAP	58.34	RCA	99.55	APO	150.65
RC	144.730	GL	-16.09	GP	23.52	ZAL	79.78	ZAP	150.97	ETS	48.00	ZAE	125.57	ETE	163.04	ZAC	124.69	ETC	259.01

V1	29.578	V2	35.001	CLP	-162.47														

PLANETOCENTRIC CONIC

C3	10.862	VHL	3.296	DLA	-39.50	RAL	266.91	RAD	6567.4	VEL	11.500	PTH	2.00	VHP	6.345	DPA	2.68	RAP	247.57
ECC	1.1788																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.22	8 37 8	1370.58	31.11	5.86	129.84	115.68	8 59 58	770.6	34.29	357.54
118.78	15 9 40	5430.86	31.12	250.50	129.84	115.67	16 40 11	4830.9	34.29	242.18
61.22	8 37 8	1370.58	31.11	5.86	129.84	115.68	8 59 58	770.6	34.29	357.54
118.78	15 9 40	5430.86	31.12	250.50	129.84	115.67	16 40 11	4830.9	34.29	242.18
61.22	8 37 8	1370.58	31.11	5.86	129.84	115.68	8 59 58	770.6	34.29	357.54
118.78	15 9 40	5430.86	31.12	250.50	129.84	115.67	16 40 11	4830.9	34.29	242.18

DIFFERENTIAL CORRECTIONS

TDE	-.8955	TRA	.9532	TC3	-6.9332	BAU	1.0097
RDE	.2677	RRA	-.1882	RC3	.5297	FAU	.04225
FDE	-.2941	FRA	.8920	FC3	-3.3673	BSP	16946
BDE	.9346	BRA	.9716	BC3	6.9534	FSP	-880

MID-COURSE EXECUTION ACCURACY

SGT	5284.0	SGR	719.9	SG3	262.4		
RRT	-.8493	RRF	-.8529	RTF	.9505		
SGB	5332.8	R23	.0786	R13	-.9511		
SG1	5319.5	SG2	377.5	THA	173.37		

ORBIT DETERMINATION ACCURACY

ST	1690.3	SR	482.6	SS	434.9
CRT	-.9904	CRS	.8237	CST	-.8900
LSA	1799.0	MSA	206.0	SSA	24.3
EL1	1756.7	EL2	64.3	ALF	164.19

LAUNCH DATE SEP 10 1970 FLIGHT TIME 174.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 503.842

RL 150.64 LAL .00 LOL 346.88 VL 26.437 GAL .67 AZL 91.73 HCA 242.67 SMA 124.84 ECC .20698 INC 1.7290 V1 29.578
RP 108.31 LAP 1.54 LOP 229.54 VP 37.250 GAP 9.24 AZP 89.21 TAL 177.42 TAP 60.08 RCA 99.00 APO 150.68 V2 34.988
RC 146.899 GL -13.82 GP 22.25 ZAL 76.83 ZAP 152.57 ETS 48.40 ZAE 125.66 ETE 164.00 ZAC 123.67 ETC 259.62 CLP-163.53

PLANETOCENTRIC CONIC

C3 11.145 VHL 3.338 DLA -37.27 RAL 270.54 RAD 6567.4 VEL 11.512 PTH 2.01 VHP 6.471 DPA 1.00 RAP 249.21 ECC 1.1834

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.69	9 8 41	1326.61	29.32	1.26	132.96	114.11	9 30 47	726.6	32.31	353.03
115.31	15 7 6	5485.39	29.33	254.04	132.97	114.10	16 38 32	4885.4	32.31	245.81
64.69	9 8 41	1326.61	29.32	1.26	132.96	114.11	9 30 47	726.6	32.31	353.03
115.31	15 7 6	5485.39	29.33	254.04	132.97	114.10	16 38 32	4885.4	32.31	245.81
64.69	9 8 41	1326.61	29.32	1.26	132.96	114.11	9 30 47	726.6	32.31	353.03
115.31	15 7 6	5485.39	29.33	254.04	132.97	114.10	16 38 32	4885.4	32.31	245.81

DIFFERENTIAL CORRECTIONS
TDE -.7467 TRA 1.1394 TC3-6.8597 BAU 1.0246
RDE .2559 RRA -.2003 RC3 .4813 FAU .04000
FDE -.1881 FRA .9604 FC3-3.1071 BSP 17123
BDE .7893 BRA 1.1569 BC3 6.8766 FSP -854

MID-COURSE EXECUTION ACCURACY
SGT 5353.3 SGR 694.8 SG3 254.8
RRT -.8324 RRF -.8312 RTF .9504
SGB 5398.2 R23 .0650 R13 -.9509
SG1 5384.6 SG2 382.8 THA 173.80

ORBIT DETERMINATION ACCURACY
ST 1484.8 SR 457.9 SS 393.0
CRT -.9701 CRS .6924 CST -.8434
LSA 1585.0 MSA 236.8 SSA 24.7
EL1 1550.2 EL2 106.5 ALF 163.26

LAUNCH DATE SEP 10 1970 FLIGHT TIME 176.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 509.619

RL 150.64 LAL .00 LOL 346.88 VL 26.396 GAL 1.07 AZL 91.50 HCA 245.86 SMA 124.58 ECC .20994 INC 1.4956 V1 29.578
RP 108.35 LAP 1.36 LOP 232.73 VP 37.208 GAP 9.56 AZP 89.39 TAL 175.96 TAP 61.82 RCA 98.43 APO 150.74 V2 34.975
RC 149.057 GL -11.69 GP 21.11 ZAL 73.89 ZAP 154.07 ETS 48.93 ZAE 125.72 ETE 164.86 ZAC 122.76 ETC 260.22 CLP-164.57

PLANETOCENTRIC CONIC

C3 11.555 VHL 3.399 DLA -35.09 RAL 273.99 RAD 6567.4 VEL 11.530 PTH 2.01 VHP 6.610 DPA -.53 RAP 250.93 ECC 1.1902

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
68.36	9 42 22	1274.88	27.50	356.22	136.15	112.70	10 3 37	674.9	30.33	348.09
111.64	15 0 57	5552.09	27.51	258.49	136.16	112.69	16 33 30	4952.1	30.34	250.35
68.36	9 42 22	1274.88	27.50	356.22	136.15	112.70	10 3 37	674.9	30.33	348.09
111.64	15 0 57	5552.09	27.51	258.49	136.16	112.69	16 33 30	4952.1	30.34	250.35
68.36	9 42 22	1274.88	27.50	356.22	136.15	112.70	10 3 37	674.9	30.33	348.09
111.64	15 0 57	5552.09	27.51	258.49	136.16	112.69	16 33 30	4952.1	30.34	250.35

DIFFERENTIAL CORRECTIONS
TDE -.5988 TRA 1.3317 TC3-6.7134 BAU 1.0393
RDE .2480 RRA -.2122 RC3 .4355 FAU .03775
FDE -.0941 FRA 1.0228 FC3-2.8283 BSP 17317
BDE .6482 BRA 1.3485 BC3 6.7275 FSP -827

MID-COURSE EXECUTION ACCURACY
SGT 5419.9 SGR 673.4 SG3 246.8
RRT -.8144 RRF -.8091 RTF .9504
SGB 5461.6 R23 .0536 R13 -.9508
SG1 5447.7 SG2 388.8 THA 174.19

ORBIT DETERMINATION ACCURACY
ST 1309.5 SR 438.2 SS 373.6
CRT -.9255 CRS .5222 CST -.8033
LSA 1403.4 MSA 276.4 SSA 24.5
EL1 1371.8 EL2 158.5 ALF 162.55

LAUNCH DATE SEP 10 1970 FLIGHT TIME 178.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 515.371

RL 150.64 LAL .00 LOL 346.88 VL 26.355 GAL 1.49 AZL 91.27 HCA 249.05 SMA 124.33 ECC .21312 INC 1.2738 V1 29.578
RP 108.39 LAP 1.19 LOP 235.92 VP 37.167 GAP 9.88 AZP 89.54 TAL 174.49 TAP 63.54 RCA 97.83 APO 150.83 V2 34.962
RC 151.205 GL -9.70 GP 20.08 ZAL 70.98 ZAP 155.46 ETS 49.59 ZAE 125.76 ETE 165.62 ZAC 121.95 ETC 260.82 CLP-165.59

PLANETOCENTRIC CONIC

C3 12.095 VHL 3.478 DLA -32.98 RAL 277.27 RAD 6567.5 VEL 11.553 PTH 2.02 VHP 6.761 DPA -1.94 RAP 252.73 ECC 1.1990

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
72.34	10 19 32	1210.88	25.70	350.42	139.40	111.43	10 39 43	610.9	28.37	342.37
107.66	14 49 55	5635.24	25.71	264.15	139.40	111.41	16 23 51	5035.2	28.38	256.10
72.34	10 19 32	1210.88	25.70	350.42	139.40	111.43	10 39 43	610.9	28.37	342.37
107.66	14 49 55	5635.24	25.71	264.15	139.40	111.41	16 23 51	5035.2	28.38	256.10
110.00	13 55 54	5801.44	20.47	274.38	136.78	117.99	15 32 36	5201.4	24.05	267.07
110.00	16 12 44	5380.71	31.18	246.49	141.43	104.78	17 42 25	4780.7	32.89	237.69

DIFFERENTIAL CORRECTIONS
TDE -.4498 TRA 1.5318 TC3-6.4996 BAU 1.0529
RDE .2431 RRA -.2240 RC3 .3924 FAU .03551
FDE -.0090 FRA 1.0799 FC3-2.5415 BSP 17541
BDE .5113 BRA 1.5481 BC3 6.5114 FSP -804

MID-COURSE EXECUTION ACCURACY
SGT 5480.7 SGR 654.5 SG3 238.6
RRT -.7956 RRF -.7865 RTF .9505
SGB 5519.6 R23 .0435 R13 -.9508
SG1 5505.5 SG2 394.7 THA 174.54

ORBIT DETERMINATION ACCURACY
ST 1175.7 SR 421.8 SS 373.1
CRT -.8410 CRS .3354 CST -.7891
LSA 1262.9 MSA 322.2 SSA 23.8
EL1 1229.8 EL2 218.1 ALF 162.65

LAUNCH DATE SEP 10 1970 FLIGHT TIME 180.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 521.094

RL 150.64 LAL .00 LOL 346.88 VL 26.314 GAL 1.92 AZL 91.06 HCA 252.23 SMA 124.08 ECC .21655 INC 1.0613 V1 29.578
RP 108.43 LAP 1.01 LOP 239.11 VP 37.126 GAP 10.22 AZP 89.68 TAL 173.02 TAP 65.25 RCA 97.21 APO 150.95 V2 34.949
RC 153.343 GL -7.83 GP 19.15 ZAL 68.13 ZAP 156.76 ETS 50.40 ZAE 125.78 ETE 166.30 ZAC 121.22 ETC 261.41 CLP-166.59

PLANETOCENTRIC CONIC

C3 12.770 VHL 3.574 DLA -30.96 RAL 280.37 RAD 6567.5 VEL 11.583 PTH 2.03 VHP 6.924 DPA -3.22 RAP 254.60 ECC 1.2102

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
76.94	11 3 5	1125.05	23.91	343.14	142.68	110.26	11 21 50	525.0	26.45	335.18
103.06	14 31 9	5744.21	23.93	271.69	142.69	110.25	16 6 53	5144.2	26.46	263.72
76.94	11 3 5	1125.05	23.91	343.14	142.68	110.26	11 21 50	525.0	26.45	335.18
103.06	14 31 9	5744.21	23.93	271.69	142.69	110.25	16 6 53	5144.2	26.46	263.72
110.00	13 25 6	663.05	15.45	305.18	138.39	120.88	13 36 9	63.0	19.43	298.32
110.00	17 8 18	5254.20	32.99	237.08	145.42	99.49	18 35 52	4654.2	33.95	227.97

DIFFERENTIAL CORRECTIONS
TDE -.2992 TRA 1.7420 TC3-6.2291 BAU 1.0652
RDE .2406 RRA -.2363 RC3 .3520 FAU .03328
FDE .0678 FRA 1.1347 FC3-2.2558 BSP 17741
BDE .3840 BRA 1.7580 BC3 6.2391 FSP -780

MID-COURSE EXECUTION ACCURACY
SGT 5537.0 SGR 638.2 SG3 230.4
RRT -.7765 RRF -.7643 RTF .9505
SGB 5573.6 R23 .0355 R13 -.9508
SG1 5559.2 SG2 400.5 THA 174.86

ORBIT DETERMINATION ACCURACY
ST 1096.7 SR 408.0 SS 387.3
CRT -.7053 CRS .1618 CST -.8114
LSA 1176.6 MSA 366.3 SSA 22.8
EL1 1136.3 EL2 279.2 ALF 164.33

LAUNCH DATE SEP 10 1970 FLIGHT TIME 182.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 526.787

RL 150.64 LAL .00 LOL 346.88 VL 26.273 GAL 2.37 AZL 90.86 HCA 255.42 SMA 123.83 ECC .22025 INC .8565 V1 29.578
RP 108.47 LAP .83 LOP 242.29 VP 37.085 GAP 10.57 AZP 89.78 TAL 171.53 TAP 66.95 RCA 96.56 APO 151.10 V2 34.937
RC 155.470 GL -6.11 GP 18.31 ZAL 65.35 ZAP 157.98 ETS 51.36 ZAE 125.78 ETE 166.92 ZAC 120.55 ETC 262.00 CLP-167.56

PLANETOCENTRIC CONIC

C3 13.591 VHL 3.687 DLA -29.01 RAL 283.31 RAD 6567.5 VEL 11.618 PTH 2.04 VHP 7.098 DPA -4.40 RAP 256.53 ECC 1.2237

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.39	12 4 2	981.34	22.17	331.78	146.00	109.21	12 20 23	381.3	24.59	323.89
96.61	13 53 38	626.81	22.19	305.79	146.00	109.19	14 4 5	26.8	24.60	297.90
100.00	13 19 24	736.84	17.79	312.05	144.14	114.42	13 31 41	136.8	20.94	304.67
100.00	15 20 57	5634.59	26.71	264.46	147.48	103.95	16 54 51	5034.6	28.36	256.05
110.00	13 7 48	773.31	11.51	311.29	140.62	122.41	13 20 42	173.3	15.70	304.69
110.00	17 49 1	5170.88	33.75	230.69	148.90	95.79	19 15 12	4570.9	34.18	221.48

DIFFERENTIAL CORRECTIONS
TDE -.1471 TRA 1.9617 TC3-5.9157 BAU 1.0764
RDE .2403 RRA -.2488 RC3 .3147 FAU .03109
FDE .1374 FRA 1.1863 FC3-1.9804 BSP 17928
BDE .2818 BRA 1.9775 BC3 5.9241 FSP -755

MID-COURSE EXECUTION ACCURACY
SGT 5588.6 SGR 623.6 SG3 222.3
RRT -.7573 RRF -.7424 RTF .9505
SGB 5623.3 R23 .0287 R13 -.9507
SG1 5608.6 SG2 405.8 THA -175.14

ORBIT DETERMINATION ACCURACY
ST 1078.6 SR 396.4 SS 410.3
CRT -.5265 CRS .0168 CST -.8570
LSA 1153.5 MSA 397.1 SSA 21.8
EL1 1100.7 EL2 330.2 ALF 167.95

LAUNCH DATE SEP 10 1970 FLIGHT TIME 184.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 532.446

RL 150.64 LAL .00 LOL 346.88 VL 26.232 GAL 2.85 AZL 90.66 HCA 258.60 SMA 123.58 ECC .22425 INC .6576 V1 29.578
RP 108.51 LAP .64 LOP 245.48 VP 37.045 GAP 10.93 AZP 89.87 TAL 170.04 TAP 68.64 RCA 95.87 APO 151.30 V2 34.925
RC 157.587 GL -4.52 GP 17.55 ZAL 62.65 ZAP 159.12 ETS 52.48 ZAE 125.77 ETE 167.47 ZAC 119.95 ETC 262.60 CLP-168.52

PLANETOCENTRIC CONIC

C3 14.568 VHL 3.817 DLA -27.17 RAL 286.09 RAD 6567.6 VEL 11.660 PTH 2.05 VHP 7.284 DPA -5.48 RAP 258.52 ECC 1.2398

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 59 6	1050.53	15.52	334.05	147.32	113.99	12 16 36	450.5	18.63	326.76
90.00	14 20 42	5876.24	25.64	281.95	150.88	102.45	15 58 38	5276.2	27.10	273.58
100.00	12 44 24	904.16	12.82	321.97	145.99	117.24	-12 59 28	304.2	16.37	314.98
100.00	16 18 5	5497.84	28.58	254.73	151.51	99.16	17 49 43	4897.8	29.55	246.06
110.00	12 56 14	866.97	8.04	316.33	143.16	123.34	13 10 41	267.0	12.37	309.91
110.00	18 22 44	5107.79	34.07	225.80	152.19	92.91	19 47 51	4507.8	34.10	216.55

DIFFERENTIAL CORRECTIONS
TDE -.0022 TRA 2.1828 TC3-5.5956 BAU 1.0912
RDE .2429 RRA -.2606 RC3 .2838 FAU .02926
FDE .1941 FRA 1.2296 FC3-1.7387 BSP 18306
BDE .2429 BRA 2.1983 BC3 5.6028 FSP -742

MID-COURSE EXECUTION ACCURACY
SGT 5640.0 SGR 610.9 SG3 214.3
RRT -.7388 RRF -.7216 RTF .9515
SGB 5673.0 R23 .0221 R13 -.9516
SG1 5658.2 SG2 410.4 THA 175.40

ORBIT DETERMINATION ACCURACY
ST 1112.3 SR 387.9 SS 433.3
CRT -.3426 CRS -.0896 CST -.9035
LSA 1186.8 MSA 407.8 SSA 20.6
EL1 1121.1 EL2 361.5 ALF 172.39

LAUNCH DATE SEP 10 1970 FLIGHT TIME 186.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 538.071

RL 150.64 LAL .00 LOL 346.88 VL 26.192 GAL 3.35 AZL 90.46 HCA 261.78 SMA 123.34 ECC .22856 INC .4633 V1 29.578
RP 108.54 LAP .46 LOP 248.66 VP 37.005 GAP 11.30 AZP 89.93 TAL 168.55 TAP 70.33 RCA 95.15 APO 151.53 V2 34.913
RC 159.692 GL -3.06 GP 16.86 ZAL 60.06 ZAP 160.19 ETS 53.78 ZAE 125.76 ETE 167.96 ZAC 119.39 ETC 263.20 CLP-169.46

PLANETOCENTRIC CONIC

C3 15.717 VHL 3.964 DLA -25.41 RAL 288.71 RAD 6567.6 VEL 11.709 PTH 2.06 VHP 7.483 DPA -6.45 RAP 260.56 ECC 1.2587

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 28 3	1206.90	10.98	343.30	149.44	116.26	11 48 10	606.9	14.43	336.31
90.00	15 12 39	5753.89	27.15	273.31	154.75	98.38	16 48 33	5153.9	28.03	264.76
100.00	12 25 1	1022.99	9.02	328.76	148.41	118.62	12 42 4	423.0	12.78	321.98
100.00	16 58 23	5413.03	29.34	248.55	155.07	95.99	18 28 36	4813.0	29.86	239.78
110.00	12 47 59	950.91	4.88	320.77	145.88	123.88	13 3 50	350.9	9.29	314.46
110.00	18 51 54	5057.89	34.18	221.90	155.40	90.60	20 16 12	4457.9	33.88	212.67

DIFFERENTIAL CORRECTIONS
TDE .1604 TRA 2.4312 TC3-5.2094 BAU 1.0958
RDE .2451 RRA -.2746 RC3 .2495 FAU .02695
FDE .2556 FRA 1.2815 FC3-1.4847 BSP 18299
BDE .2930 BRA 2.4467 BC3 5.2154 FSP -708

MID-COURSE EXECUTION ACCURACY
SGT 5678.7 SGR 598.1 SG3 206.8
RRT -.7197 RRF -.7007 RTF .9511
SGB 5710.1 R23 .0182 R13 -.9512
SG1 5695.0 SG2 414.1 THA 175.64

ORBIT DETERMINATION ACCURACY
ST 1196.3 SR 378.1 SS 464.5
CRT -.1601 CRS -.1825 CST -.9401
LSA 1275.5 MSA 403.1 SSA 19.7
EL1 1198.0 EL2 372.7 ALF 176.79

LAUNCH DATE SEP 10 1970 FLIGHT TIME 188.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 543.656

RL 150.64 LAL .00 LOL 346.88 VL 26.151 GAL 3.87 AZL 90.27 HCA 264.96 SMA 123.10 ECC .23322 INC .2721 V1 29.578
RP 108.58 LAP .27 LOP 251.84 VP 36.965 GAP 11.69 AZP 89.98 TAL 167.05 TAP 72.00 RCA 94.39 APO 151.81 V2 34.901
RC 161.784 GL -1.72 GP 16.23 ZAL 57.58 ZAP 161.20 ETS 55.28 ZAE 125.73 ETE 168.41 ZAC 118.88 ETC 263.80 CLP-170.39

PLANETOCENTRIC CONIC

C3 17.054 VHL 4.130 DLA -23.75 RAL 291.18 RAD 6567.7 VEL 11.766 PTH 2.08 VHP 7.696 DPA -7.34 RAP 262.65 ECC 1.2807

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 9 39	1323.28	7.40	349.98	151.99	117.41	11 31 42	723.3	11.02	343.16
90.00	15 50 47	5674.82	27.80	267.62	158.29	95.60	17 25 22	5074.8	28.29	258.99
100.00	12 11 50	1122.56	5.73	334.32	151.08	119.39	12 30 32	522.6	9.61	327.67
100.00	17 31 18	5350.77	29.69	243.95	158.46	93.60	19 0 28	4750.8	29.88	235.15
110.00	12 41 54	1028.24	1.93	324.81	148.72	124.14	12 59 3	428.2	6.40	318.58
110.00	19 17 42	5017.85	34.16	218.77	158.57	88.75	20 41 20	4417.9	33.61	209.57

DIFFERENTIAL CORRECTIONS
TDE .3201 TRA 2.6853 TC3-4.8283 BAU 1.1020
RDE .2494 RRA -.2881 RC3 .2201 FAU .02489
FDE .3084 FRA 1.3280 FC3-1.2635 BSP 18411
BDE .4058 BRA 2.7008 BC3 4.8333 FSP -682

MID-COURSE EXECUTION ACCURACY
SGT 5715.7 SGR 586.1 SG3 199.4
RRT -.7012 RRF -.6808 RTF .9512
SGB 5745.7 R23 .0144 R13 -.9513
SG1 5730.5 SG2 416.8 THA 175.87

ORBIT DETERMINATION ACCURACY
ST 1304.9 SR 370.1 SS 492.5
CRT -.0144 CRS -.2508 CST -.9634
LSA 1389.3 MSA 389.8 SSA 18.8
EL1 1304.9 EL2 370.0 ALF 179.75

LAUNCH DATE SEP 10 1970 FLIGHT TIME 190.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 549.197

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RL  150.64 LAL    .00 LOL 346.88 VL  26.111 GAL   4.42 AZL  90.08 HCA 268.13 SMA 122.86 ECC .23826 INC  .0819 V1  29.578
RP  108.61 LAP    .08 LOP 255.01 VP  36.927 GAP  12.10 AZP  90.00 TAL 165.55 TAP  73.68 RCA  93.59 APO 152.13 V2  34.890
RC 163.865 GL    -.50 GP   15.66 ZAL  55.20 ZAP 162.14 ETS  56.97 ZAE 125.70 ETE 168.81 ZAC 118.40 ETC 264.41 CLP-171.30
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PLANETOCENTRIC CONIC

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C3  18.601 VHL  4.313 DLA -22.19 RAL 293.51 RAD 6567.8 VEL 11.831 PTH   2.10 VHP  7.923 DPA  -8.14 RAP 264.77 ECC 1.3061
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 56 48	1422.00	4.27	355.54	154.75	118.02	11 20 30	822.0	7.99	348.83
90.00	16 22 14	5616.51	28.12	263.38	161.70	93.50	17 55 51	5016.5	28.31	254.72
100.00	12 2 11	1210.99	2.76	339.20	153.91	119.78	12 22 22	611.0	6.70	332.63
100.00	17 59 33	5302.76	29.85	240.39	161.79	91.73	19 27 56	4702.8	29.77	231.59
110.00	12 37 21	1100.72	-.84	328.59	151.66	124.17	12 55 42	500.7	3.65	322.39
110.00	19 40 52	4985.79	34.09	216.27	161.74	87.28	21 3 57	4385.8	33.33	207.11

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .4806 TRA 2.9500 TC3-4.4477 BAU 1.1071   SGT 5748.1 SGR  574.4 SG3  192.2      ST  1425.9 SR   363.0 SS   518.0
 RDE  .2552 RRA -.3016 RC3  .1935 FAU .02293   RRT -.6830 RRF -.6617 RTF  .9516     CRT  .0986 CRS -.3030 CST -.9775
 FDE  .3554 FRA 1.3723 FC3-1.0670 BSP  18546   SGB 5776.8 R23  .0114 R13 -.9517     LSA 1514.3 MSA  374.2 SSA   17.9
 BDE  .5442 BRA 2.9654 BC3 4.4519 FSP   -659   SG1 5761.6 SG2  418.6 THA 176.07     EL1 1426.4 EL2  361.2 ALF   1.54
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LAUNCH DATE SEP 10 1970 FLIGHT TIME 192.00 ARRIVAL DATE MAR 21 1971

HELIOCENTRIC CONIC DISTANCE 554.690

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RL  150.64 LAL    .00 LOL 346.88 VL  26.071 GAL   5.00 AZL  89.89 HCA 271.31 SMA 122.62 ECC .24371 INC  .1044 V1  29.578
RP  108.65 LAP   -.11 LOP 258.19 VP  36.888 GAP  12.52 AZP  90.00 TAL 164.05 TAP  75.36 RCA  92.74 APO 152.51 V2  34.880
RC 165.932 GL     .60 GP   15.14 ZAL  52.94 ZAP 163.01 ETS  58.90 ZAE 125.66 ETE 169.18 ZAC 117.94 ETC 265.02 CLP-172.21
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PLANETOCENTRIC CONIC

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C3  20.383 VHL  4.515 DLA -20.73 RAL 295.71 RAD 6567.8 VEL 11.906 PTH   2.12 VHP  8.165 DPA  -8.86 RAP 266.93 ECC 1.3355
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 47 13	1510.12	1.44	.47	157.64	118.28	11 12 23	910.1	5.21	353.82
90.00	16 49 21	5571.73	28.26	260.11	165.04	91.87	18 22 13	4971.7	28.22	251.45
100.00	11 54 50	1291.92	.02	343.64	156.85	119.89	12 16 22	691.9	3.99	337.11
100.00	18 24 25	5265.17	29.89	237.60	165.07	90.26	19 52 10	4665.2	29.61	228.80
110.00	12 33 55	1169.40	-3.46	332.18	154.68	124.03	12 53 25	569.4	1.03	325.98
110.00	20 1 49	4960.45	33.99	214.30	164.92	86.11	21 24 30	4360.5	33.08	205.18

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .6439 TRA 3.2274 TC3-4.0717 BAU 1.1105   SGT 5776.0 SGR  562.8 SG3  185.2      ST  1551.1 SR   356.5 SS   541.1
 RDE  .2621 RRA -.3150 RC3  .1694 FAU .02104   RRT -.6652 RRF -.6433 RTF  .9522     CRT  .1860 CRS -.3445 CST -.9859
 FDE  .3984 FRA 1.4155 FC3 -.8937 BSP  18670   SGB 5803.4 R23  .0088 R13 -.9523     LSA 1642.2 MSA  358.7 SSA   17.1
 BDE  .6952 BRA 3.2427 BC3 4.0753 FSP   -637   SG1 5788.2 SG2  419.3 THA 176.27     EL1 1552.6 EL2  349.9 ALF   2.58
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LAUNCH DATE SEP 10 1970 FLIGHT TIME 194.00 ARRIVAL DATE MAR 23 1971

HELIOCENTRIC CONIC DISTANCE 560.128

```
RL  150.64 LAL    .00 LOL 346.88 VL  26.032 GAL   5.61 AZL  89.71 HCA 274.48 SMA 122.39 ECC .24963 INC  .2936 V1  29.578
RP  108.68 LAP   -.29 LOP 261.36 VP  36.851 GAP  12.97 AZP  89.98 TAL 162.56 TAP  77.04 RCA  91.84 APO 152.94 V2  34.869
RC 167.985 GL    1.61 GP   14.66 ZAL  50.80 ZAP 163.83 ETS  61.06 ZAE 125.61 ETE 169.51 ZAC 117.52 ETC 265.63 CLP-173.11
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PLANETOCENTRIC CONIC

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C3  22.431 VHL  4.736 DLA -19.35 RAL 297.78 RAD 6567.9 VEL 11.992 PTH   2.14 VHP  8.425 DPA  -9.50 RAP 269.12 ECC 1.3692
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 39 48	1590.97	-1.17	4.98	160.63	118.29	11 6 19	991.0	2.62	358.35
90.00	17 13 16	5536.99	28.31	257.57	168.34	90.59	18 45 33	4937.0	28.09	248.92
100.00	11 49 6	1367.35	-2.54	347.78	159.87	119.79	12 11 54	767.3	1.44	341.26
100.00	18 46 39	5235.84	29.88	235.42	168.34	89.12	20 13 55	4635.8	29.44	226.64
110.00	12 31 20	1235.01	-5.95	335.63	157.75	123.72	12 51 55	635.0	-1.48	329.40
110.00	20 20 54	4940.95	33.89	212.79	168.11	85.22	21 43 15	4340.9	32.86	203.70

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .8109 TRA 3.5188 TC3-3.7050 BAU 1.1120   SGT 5799.7 SGR  550.8 SG3  178.6      ST  1675.0 SR   350.2 SS   562.1
 RDE  .2700 RRA -.3283 RC3  .1474 FAU .01922   RRT -.6477 RRF -.6256 RTF  .9530     CRT  .2540 CRS -.3780 CST -.9909
 FDE  .4383 FRA 1.4584 FC3 -.7418 BSP  18782   SGB 5825.8 R23  .0067 R13 -.9530     LSA 1767.9 MSA  344.2 SSA   16.4
 BDE  .8546 BRA 3.5341 BC3 3.7080 FSP   -615   SG1 5810.7 SG2  418.9 THA 176.46     EL1 1677.4 EL2  338.2 ALF   3.17
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LAUNCH DATE SEP 10 1970 FLIGHT TIME 196.00 ARRIVAL DATE MAR 25 1971

HELIOCENTRIC CONIC DISTANCE 565.505

```
RL  150.64 LAL    .00 LOL 346.88 VL  25.993 GAL   6.25 AZL  89.52 HCA 277.65 SMA 122.16 ECC .25606 INC  .4838 V1  29.578
RP  108.71 LAP   -.48 LOP 264.53 VP  36.814 GAP  13.45 AZP  89.94 TAL 161.08 TAP  78.73 RCA  90.88 APO 153.44 V2  34.859
RC 170.025 GL    2.51 GP   14.23 ZAL  48.77 ZAP 164.58 ETS  63.48 ZAE 125.55 ETE 169.82 ZAC 117.10 ETC 266.24 CLP-174.00
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PLANETOCENTRIC CONIC

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C3  24.780 VHL  4.978 DLA -18.07 RAL 299.72 RAD 6568.0 VEL 12.090 PTH   2.16 VHP  8.703 DPA -10.06 RAP 271.33 ECC 1.4078
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 33 57	1666.40	-3.60	9.19	163.69	118.11	11 1 44	1066.4	.19	2.56
90.00	17 34 39	5510.24	28.31	255.62	171.64	89.61	19 6 29	4910.2	27.96	246.97
100.00	11 44 35	1438.49	-4.94	351.70	162.95	119.52	12 8 34	838.5	-.97	345.16
100.00	19 6 42	5213.38	29.85	233.75	171.60	88.24	20 33 35	4613.4	29.28	224.99
110.00	12 29 25	1298.04	-8.32	338.97	160.87	123.27	12 51 3	698.0	-3.89	332.69
110.00	20 38 22	4926.60	33.80	211.67	171.31	84.57	22 0 28	4326.6	32.68	202.62

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .9811 TRA 3.8242 TC3-3.3522 BAU 1.1113   SGT 5818.1 SGR  538.5 SG3  172.1      ST  1792.9 SR   344.2 SS   580.7
 RDE  .2789 RRA -.3413 RC3  .1275 FAU .01747   RRT -.6302 RRF -.6082 RTF  .9539     CRT  .3078 CRS -.4059 CST -.9941
 FDE  .4750 FRA 1.5008 FC3 -.6104 BSP  18903   SGB 5843.0 R23  .0050 R13 -.9540     LSA 1886.9 MSA  331.0 SSA   15.7
 BDE 1.0200 BRA 3.8394 BC3 3.3546 FSP   -594   SG1 5828.1 SG2  417.4 THA 176.64     EL1 1796.2 EL2  326.9 ALF   3.50
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LAUNCH DATE SEP 10 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAR 27 1971

HELIOCENTRIC CONIC DISTANCE 570.812

RL	150.64	LAL	.00	LOL	346.88	VL	25.954	GAL	6.94	AZL	89.32	HCA	280.82	SMA	121.94	ECC	.26305	INC	.6769	V1	29.578
RP	108.74	LAP	-.66	LOP	267.70	VP	36.778	GAP	13.96	AZP	89.87	TAL	159.61	TAP	80.42	RCA	89.86	APO	154.01	V2	34.850
RC	172.049	GL	3.33	GP	13.83	ZAL	46.86	ZAP	165.28	ETS	66.18	ZAE	125.49	ETE	170.10	ZAC	116.71	ETC	266.86	CLP	-174.90

PLANETOCENTRIC CONIC

C3	27.474	VHL	5.242	DLA	-16.88	RAL	301.56	RAD	6568.1	VEL	12.200	PTH	2.19	VHP	9.002	DPA	-10.55	RAP	273.56	ECC	1.4521

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 29 16	1737.58	-5.87	13.19	166.81	117.75	10 58 14	1137.6	-2.11	6.53
90.00	17 53 57	5490.13	28.30	254.15	174.92	88.87	19 25 27	4890.1	27.84	245.51
100.00	11 40 59	1506.16	-7.19	355.46	166.09	119.09	12 6 6	906.2	-3.26	348.88
100.00	19 24 54	5196.79	29.80	232.52	174.87	87.59	20 51 31	4596.8	29.15	223.77
110.00	12 28 0	1358.86	-10.58	342.24	164.04	122.70	12 50 39	758.9	-6.19	335.89
110.00	20 54 23	4916.85	33.74	210.92	174.53	84.13	22 16 20	4316.8	32.56	201.88

DIFFERENTIAL CORRECTIONS

TDE	1.1549	TRA	4.1445	TC3	-3.0164	BAU	1.1087
RDE	.2888	RRA	-.3538	RC3	.1094	FAU	.01580
FDE	.5090	FRA	1.5429	FC3	-.4978	BSP	19040
BDE	1.1905	BRA	4.1595	BC3	3.0184	FSP	-576

MID-COURSE EXECUTION ACCURACY

SGT	5831.4	SGR	525.5	SG3	165.9		
RRT	-.6126	RRF	-.5910	RTF	.9551		
SGB	5855.1	R23	.0037	R13	-.9551		
SG1	5840.4	SG2	414.7	THA	176.82		

ORBIT DETERMINATION ACCURACY

ST	1902.6	SR	338.2	SS	597.1		
CRT	.3513	CRS	-.4294	CST	-.9960		
LSA	1997.2	MSA	318.9	SSA	15.1		
EL1	1906.4	EL2	316.0	ALF	3.67		

LAUNCH DATE SEP 10 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAR 29 1971

HELIOCENTRIC CONIC DISTANCE 576.038

RL	150.64	LAL	.00	LOL	346.88	VL	25.916	GAL	7.66	AZL	89.13	HCA	283.98	SMA	121.71	ECC	.27067	INC	.8738	V1	29.578
RP	108.77	LAP	-.85	LOP	270.86	VP	36.742	GAP	14.50	AZP	89.79	TAL	158.15	TAP	82.13	RCA	88.77	APO	154.66	V2	34.841
RC	174.060	GL	4.06	GP	13.46	ZAL	45.06	ZAP	165.91	ETS	69.17	ZAE	125.41	ETE	170.37	ZAC	116.32	ETC	267.47	CLP	-175.79

PLANETOCENTRIC CONIC

C3	30.563	VHL	5.528	DLA	-15.76	RAL	303.28	RAD	6568.2	VEL	12.326	PTH	2.22	VHP	9.324	DPA	-10.97	RAP	275.80	ECC	1.5030

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 25 28	1805.28	-8.00	17.03	169.98	117.25	10 55 34	1205.3	-4.28	10.32
90.00	18 11 28	5475.72	28.27	253.09	178.20	88.35	19 42 44	4875.7	27.74	244.47
100.00	11 38 7	1570.91	-9.32	359.09	169.27	118.53	12 4 17	970.9	-5.44	352.45
100.00	19 41 31	5185.31	29.77	231.66	178.13	87.14	21 7 56	4585.3	29.05	222.93
110.00	12 27 0	1417.75	-12.72	345.45	167.25	122.00	12 50 38	817.7	-8.40	339.01
110.00	21 9 7	4911.24	33.70	210.49	177.77	83.87	22 30 58	4311.2	32.48	201.46

DIFFERENTIAL CORRECTIONS

TDE	1.3330	TRA	4.4812	TC3	-2.6991	BAU	1.1035
RDE	.2997	RRA	-.3656	RC3	.0932	FAU	.01420
FDE	.5408	FRA	1.5855	FC3	-.4022	BSP	19181
BDE	1.3663	BRA	4.4961	BC3	2.7007	FSP	-558

MID-COURSE EXECUTION ACCURACY

SGT	5839.8	SGR	511.9	SG3	160.0		
RRT	-.5949	RRF	-.5739	RTF	.9565		
SGB	5862.2	R23	.0026	R13	-.9566		
SG1	5847.8	SG2	410.9	THA	177.00		

ORBIT DETERMINATION ACCURACY

ST	2003.1	SR	332.3	SS	611.8		
CRT	.3873	CRS	-.4499	CST	-.9973		
LSA	2098.2	MSA	307.7	SSA	14.6		
EL1	2007.4	EL2	305.7	ALF	3.76		

LAUNCH DATE SEP 10 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAR 31 1971

HELIOCENTRIC CONIC DISTANCE 581.173

RL	150.64	LAL	.00	LOL	346.88	VL	25.878	GAL	8.44	AZL	88.92	HCA	287.15	SMA	121.49	ECC	.27898	INC	1.0762	V1	29.578
RP	108.79	LAP	-1.03	LOP	274.03	VP	36.708	GAP	15.07	AZP	89.68	TAL	156.71	TAP	83.86	RCA	87.60	APO	155.39	V2	34.833
RC	176.055	GL	4.72	GP	13.13	ZAL	43.37	ZAP	166.47	ETS	72.48	ZAE	125.32	ETE	170.61	ZAC	115.95	ETC	268.08	CLP	-176.69

PLANETOCENTRIC CONIC

C3	34.109	VHL	5.840	DLA	-14.73	RAL	304.89	RAD	6568.3	VEL	12.469	PTH	2.26	VHP	9.672	DPA	-11.32	RAP	278.05	ECC	1.5614

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 22 23	1870.03	-9.99	20.73	173.18	116.63	10 53 33	1270.0	-6.34	13.96
90.00	18 27 26	5466.25	28.25	252.40	181.47	88.00	19 58 32	4866.2	27.68	243.78
100.00	11 35 48	1633.16	-11.32	2.62	172.49	117.85	12 3 1	1033.2	-7.51	355.91
100.00	19 56 43	5178.35	29.74	231.15	181.39	86.87	21 23 1	4578.3	28.99	222.42
110.00	12 26 19	1474.89	-14.76	348.62	170.49	121.19	12 50 54	874.9	-10.52	342.08
110.00	21 22 40	4909.38	33.68	210.34	181.02	83.79	22 44 30	4309.4	32.46	201.32

DIFFERENTIAL CORRECTIONS

TDE	1.5158	TRA	4.8357	TC3	-2.4010	BAU	1.0955
RDE	.3114	RRA	-.3764	RC3	.0786	FAU	.01267
FDE	.5709	FRA	1.6288	FC3	-.3215	BSP	19348
BDE	1.5474	BRA	4.8503	BC3	2.4023	FSP	-542

MID-COURSE EXECUTION ACCURACY

SGT	5842.8	SGR	497.5	SG3	154.2		
RRT	-.5766	RRF	-.5566	RTF	.9582		
SGB	5863.9	R23	.0018	R13	-.9582		
SG1	5849.9	SG2	406.0	THA	177.18		

ORBIT DETERMINATION ACCURACY

ST	2093.8	SR	326.3	SS	625.0		
CRT	.4179	CRS	-.4683	CST	-.9981		
LSA	2189.2	MSA	297.1	SSA	14.0		
EL1	2098.3	EL2	295.8	ALF	3.80		

LAUNCH DATE SEP 10 1970 FLIGHT TIME 204.00 ARRIVAL DATE APR 2 1971

HELIOCENTRIC CONIC DISTANCE 586.200

RL	150.64	LAL	.00	LOL	346.88	VL	25.840	GAL	9.26	AZL	88.71	HCA	290.31	SMA	121.28	ECC	.28808	INC	1.2855	V1	29.578
RP	108.82	LAP	-1.21	LOP	277.19	VP	36.674	GAP	15.70	AZP	89.55	TAL	155.30	TAP	85.61	RCA	86.34	APO	156.22	V2	34.825
RC	178.036	GL	5.31	GP	12.82	ZAL	41.78	ZAP	166.96	ETS	76.11	ZAE	125.22	ETE	170.84	ZAC	115.58	ETC	268.69	CLP	-177.60

PLANETOCENTRIC CONIC

C3	38.189	VHL	6.180	DLA	-13.77	RAL	306.40	RAD	6568.5	VEL	12.632	PTH	2.29	VHP	10.049	DPA	-11.61	RAP	280.31	ECC	1.6285

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 19 52	1932.20	-11.87	24.34	176.42	115.90	10 52 4	1332.2	-8.29	17.49
90.00	18 42 2	5461.14	28.24	252.03	184.74	87.81	20 13 3	4861.1	27.64	243.41
100.00	11 33 57	1693.17	-13.21	6.08	175.73	117.06	12 2 10	1093.2	-9.47	359.28
100.00	20 10 38	5175.41	29.73	230.93	184.66	86.76	21 36 54	4575.4	28.97	222.21
110.00	12 25 54	1530.44	-16.69	351.77	173.76	120.27	12 51 25	930.4	-12.55	345.11
110.00	21 35 10	4910.91	33.69	210.46	184.27	83.86	22 57 1	4310.9	32.48	201.44

DIFFERENTIAL CORRECTIONS

TDE	1.7049	TRA	5.2102	TC3	-2.1220	BAU	1.0839
RDE	.3240	RRA	-.3861	RC3	.0655	FAU	.01118
FDE	.5998	FRA	1.6736	FC3	-.2535	BSP	19517
BDE	1.7354	BRA	5.2245	BC3	2.1230	FSP	-526

MID-COURSE EXECUTION ACCURACY

SGT	5840.8	SGR	482.3	SG3	148.6		
RRT	-.5575	RRF	-.5388	RTF	.9600		
SGB	5860.6	R23	.0013	R13	-.9600		
SG1	5847.0	SG2	400.0	THA	177.35		

ORBIT DETERMINATION ACCURACY

ST	2175.2	SR	320.1	SS	637.5		
CRT	.4448	CRS	-.4853	CST	-.9987		
LSA	2271.0	MSA	287.0	SSA	13.5		
EL1	2179.9	EL2	286.1	ALF	3.81		

LAUNCH DATE SEP 10 1970 FLIGHT TIME 206.00 ARRIVAL DATE APR 4 1971

HELIOCENTRIC CONIC DISTANCE 591.103

RL 150.64 LAL - .00 LOL 346.88 VL 25.804 GAL 10.15 AZL 88.50 HCA 293.47 SMA 121.07 ECC .29805 INC 1.5035 V1 29.578
RP 108.84 LAP -1.38 LOP 280.36 VP 36.642 GAP 16.37 AZP 89.40 TAL 153.92 TAP 87.39 RCA 84.99 APO 157.15 V2 34.818
RC 180.002 GL 5.84 GP 12.53 ZAL 40.30 ZAP 167.38 ETS 80.06 ZAE 125.10 ETE 171.06 ZAC 115.21 ETC 269.29 CLP-178.51

PLANETOCENTRIC CONIC

C3 42.892 VHL 6.549 DLA -12.89 RAL 307.82 RAD 6568.6 VEL 12.816 PTH 2.33 VHP 10.458 DPA -11.84 RAP 282.55 ECC 1.7059

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 17 47	1992.08	-13.62	27.86	179.67	115.07	10 50 59	1392.1	-10.13	20.92
90.00	18 55 24	5459.91	28.24	251.94	187.99	87.77	20 26 23	4859.9	27.63	243.32
100.00	11 32 28	1751.16	-14.98	9.48	179.00	116.18	12 1 39	1151.2	-11.34	2.58
100.00	20 23 24	5176.06	29.73	230.98	187.91	86.79	21 49 40	4576.1	28.97	222.26
110.00	12 25 41	1584.48	-18.52	354.89	177.06	119.26	12 52 5	984.5	-14.48	348.10
110.00	21 46 41	4915.51	33.73	210.82	187.53	84.07	23 8 36	4315.5	32.54	201.78

DIFFERENTIAL CORRECTIONS
TDE 1.9024 TRA 5.6076 TC3-1.8605 BAU 1.0673
RDE .3374 RRA -.3944 RC3 .0536 FAU .00971
FDE .6287 FRA 1.7207 FC3 -.1959 BSP 19659
BDE 1.9321 BRA 5.6214 BC3 1.8613 FSP -511

MID-COURSE EXECUTION ACCURACY
SGT 5833.9 SGR 466.3 SG3 143.4
RRT -.5372 RRF -.5200 RTF .9620
SGB 5852.5 R23 .0010 R13 -.9620
SG1 5839.3 SG2 392.9 THA 177.53

ORBIT DETERMINATION ACCURACY
ST 2248.3 SR 313.7 SS 649.8
CRT .4690 CRS -.5015 CST -.9991
LSA 2344.9 MSA 277.1 SSA 13.0
EL1 2253.1 EL2 276.5 ALF 3.80

LAUNCH DATE SEP 10 1970 FLIGHT TIME 208.00 ARRIVAL DATE APR 6 1971

HELIOCENTRIC CONIC DISTANCE 595.858

RL 150.64 LAL .00 LOL 346.88 VL 25.768 GAL 11.10 AZL 88.27 HCA 296.63 SMA 120.86 ECC .30901 INC 1.7320 V1 29.578
RP 108.86 LAP -1.55 LOP 283.52 VP 36.610 GAP 17.10 AZP 89.22 TAL 152.57 TAP 89.20 RCA 83.52 APO 158.21 V2 34.812
RC 181.954 GL 6.31 GP 12.27 ZAL 38.93 ZAP 167.71 ETS 84.35 ZAE 124.96 ETE 171.26 ZAC 114.85 ETC 269.89 CLP-179.45

PLANETOCENTRIC CONIC

C3 48.332 VHL 6.952 DLA -12.07 RAL 309.14 RAD 6568.8 VEL 13.027 PTH 2.38 VHP 10.905 DPA -12.01 RAP 284.79 ECC 1.7954

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 16 5	2049.82	-15.26	31.31	182.93	114.15	10 50 15	1449.8	-11.87	24.27
90.00	19 7 37	5462.14	28.24	252.10	191.22	87.85	20 38 39	4862.1	27.65	243.49
100.00	11 31 16	1807.24	-16.63	12.82	182.28	115.20	12 1 24	1207.2	-13.10	5.81
100.00	20 35 7	5179.95	29.75	231.27	191.15	86.94	22 1 27	4580.0	29.01	222.54
110.00	12 25 37	1637.06	-20.24	358.00	180.37	118.15	12 52 54	1037.1	-16.32	351.07
110.00	21 57 16	4922.89	33.78	211.39	190.79	84.40	23 19 18	4322.9	32.63	202.34

DIFFERENTIAL CORRECTIONS
TDE 2.1102 TRA 6.0319 TC3-1.6167 BAU 1.0450
RDE .3517 RRA -.4011 RC3 .0431 FAU .00824
FDE .6579 FRA 1.7711 FC3 -.1476 BSP 19777
BDE 2.1393 BRA 6.0452 BC3 1.6172 FSP -495

MID-COURSE EXECUTION ACCURACY
SGT 5824.1 SGR 449.3 SG3 138.4
RRT -.5155 RRF -.5000 RTF .9642
SGB 5841.4 R23 .0009 R13 -.9642
SG1 5828.7 SG2 384.7 THA 177.71

ORBIT DETERMINATION ACCURACY
ST 2314.1 SR 307.1 SS 662.6
CRT .4915 CRS -.5174 CST -.9994
LSA 2411.8 MSA 267.2 SSA 12.5
EL1 2319.0 EL2 266.9 ALF 3.78

LAUNCH DATE SEP 10 1970 FLIGHT TIME 210.00 ARRIVAL DATE APR 8 1971

HELIOCENTRIC CONIC DISTANCE 600.439

RL 150.64 LAL .00 LOL 346.88 VL 25.732 GAL 12.12 AZL 88.03 HCA 299.79 SMA 120.66 ECC .32108 INC 1.9736 V1 29.578
RP 108.87 LAP -1.71 LOP 286.68 VP 36.580 GAP 17.90 AZP 89.02 TAL 151.28 TAP 91.07 RCA 81.92 APO 159.41 V2 34.806
RC 183.891 GL 6.73 GP 12.03 ZAL 37.65 ZAP 167.96 ETS 88.93 ZAE 124.79 ETE 171.46 ZAC 114.49 ETC 270.48 CLP 179.60

PLANETOCENTRIC CONIC

C3 54.646 VHL 7.392 DLA -11.32 RAL 310.36 RAD 6569.0 VEL 13.267 PTH 2.42 VHP 11.394 DPA -12.13 RAP 287.02 ECC 1.8993

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 14 41	2105.52	-16.78	34.69	186.20	113.15	10 49 47	1505.5	-13.51	27.55
90.00	19 18 46	5467.47	28.26	252.49	194.43	88.05	20 49 54	4867.5	27.68	243.87
100.00	11 30 20	1861.48	-18.17	16.11	185.56	114.15	12 1 21	1261.5	-14.76	8.98
100.00	20 45 49	5186.74	29.77	231.77	194.36	87.20	22 12 16	4586.7	29.07	223.04
110.00	12 25 40	1688.19	-21.85	1.09	183.69	116.97	12 53 48	1088.2	-18.06	354.01
110.00	22 6 58	4932.79	33.84	212.15	194.03	84.85	23 29 11	4332.8	32.76	203.09

DIFFERENTIAL CORRECTIONS
TDE 2.3293 TRA 6.4856 TC3-1.3889 BAU 1.0150
RDE .3669 RRA -.4058 RC3 .0337 FAU .00676
FDE .6878 FRA 1.8254 FC3 -.1071 BSP 19825
BDE 2.3580 BRA 6.4983 BC3 1.3893 FSP -478

MID-COURSE EXECUTION ACCURACY
SGT 5810.1 SGR 431.5 SG3 133.6
RRT -.4918 RRF -.4781 RTF .9666
SGB 5826.1 R23 .0008 R13 -.9666
SG1 5814.0 SG2 375.5 THA 177.90

ORBIT DETERMINATION ACCURACY
ST 2372.4 SR 300.2 SS 676.1
CRT .5129 CRS -.5333 CST -.9995
LSA 2471.7 MSA 257.4 SSA 12.0
EL1 2377.5 EL2 257.2 ALF 3.76

LAUNCH DATE SEP 10 1970 FLIGHT TIME 212.00 ARRIVAL DATE APR 10 1971

HELIOCENTRIC CONIC DISTANCE 604.812

RL 150.64 LAL .00 LOL 346.88 VL 25.697 GAL 13.23 AZL 87.77 HCA 302.95 SMA 120.47 ECC .33443 INC 2.2307 V1 29.578
RP 108.89 LAP -1.87 LOP 289.85 VP 36.550 GAP 18.77 AZP 88.79 TAL 150.04 TAP 92.98 RCA 80.18 APO 160.76 V2 34.801
RC 185.813 GL 7.10 GP 11.81 ZAL 36.48 ZAP 168.11 ETS 93.80 ZAE 124.59 ETE 171.66 ZAC 114.13 ETC 271.05 CLP 178.62

PLANETOCENTRIC CONIC

C3 62.007 VHL 7.874 DLA -10.63 RAL 311.49 RAD 6569.2 VEL 13.541 PTH 2.48 VHP 11.932 DPA -12.19 RAP 289.21 ECC 2.0205

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 13 32	2159.23	-18.19	38.01	189.45	112.08	10 49 31	1559.2	-15.03	30.75
90.00	19 28 56	5475.57	28.27	253.08	197.61	88.34	21 0 11	4875.6	27.74	244.46
100.00	11 29 35	1913.90	-19.60	19.35	188.83	113.03	12 1 28	1313.9	-16.32	12.10
100.00	20 55 34	5196.13	29.80	232.47	197.54	87.57	22 22 11	4596.1	29.15	223.72
110.00	12 25 48	1737.84	-23.35	4.17	187.00	115.70	12 54 46	1137.8	-19.70	356.93
110.00	22 15 51	4944.96	33.91	213.10	197.25	85.40	23 38 15	4345.0	32.90	204.00

DIFFERENTIAL CORRECTIONS
TDE 2.5636 TRA 6.9750 TC3-1.1770 BAU .9759
RDE .3831 RRA -.4079 RC3 .0255 FAU .00523
FDE .7196 FRA 1.8847 FC3 -.0730 BSP 19796
BDE 2.5921 BRA 6.9869 BC3 1.1773 FSP -460

MID-COURSE EXECUTION ACCURACY
SGT 5794.8 SGR 412.9 SG3 129.1
RRT -.4655 RRF -.4537 RTF .9692
SGB 5809.5 R23 .0009 R13 -.9692
SG1 5798.0 SG2 365.3 THA 178.09

ORBIT DETERMINATION ACCURACY
ST 2425.4 SR 293.1 SS 691.1
CRT .5339 CRS -.5498 CST -.9997
LSA 2526.8 MSA 247.4 SSA 11.6
EL1 2430.5 EL2 247.3 ALF 3.73

LAUNCH DATE SEP 10 1970 FLIGHT TIME 214.00 ARRIVAL DATE APR 12 1971

HELIOCENTRIC CONIC DISTANCE 608.932

RL	150.64	LAL	.00	LOL	346.88	VL	25.664	GAL	14.44	AZL	87.49	HCA	306.10	SMA	120.28	ECC	.34923	INC	2.5069
RP	108.90	LAP	-2.03	LOP	293.01	VP	36.522	GAP	19.74	AZP	88.52	TAL	148.87	TAP	94.97	RCA	78.27	APO	162.28
RC	187.719	GL	7.43	GP	11.60	ZAL	35.41	ZAP	168.16	ETS	98.89	ZAE	124.36	ETE	171.85	ZAC	113.77	ETC	271.62

V1	29.578	V2	34.797	CLP	177.61														

PLANETOCENTRIC CONIC

C3	70.631	VHL	8.404	DLA	-10.01	RAL	312.52	RAD	6569.4	VEL	13.856	PTH	2.53	VHP	12.526	DPA	-12.20	RAP	291.38

ECC	2.1624																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 12 35	2210.92	-19.48	41.25	192.67	110.97	10 49 26	1610.9	-16.46	33.88
90.00	19 38 8	5486.17	28.29	253.86	200.73	88.73	21 9 34	4886.2	27.81	245.22
100.00	11 28 59	1964.45	-20.92	22.53	192.07	111.86	12 1 43	1364.4	-17.77	15.15
100.00	21 4 25	5207.87	29.83	233.34	200.68	88.02	22 31 13	4607.9	29.24	224.58
110.00	12 25 59	1785.93	-24.74	7.21	190.30	114.38	12 55 45	1185.9	-21.24	359.81
110.00	22 23 54	4959.15	33.98	214.20	200.43	86.05	23 46 33	4359.2	33.06	205.08

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.8145	TRA	7.5027	TC3	-.9803	BAU	.9258	SGT	5777.0	SGR	393.5	SG3	125.0	ST	2472.3	SR	285.8	SS	708.0
RDE	.4005	RRA	-.4070	RC3	.0184	FAU	.00362	RRT	-.4356	RRF	-.4259	RTF	.9719	CRT	.5549	CRS	-.5670	CST	-.9998
FDE	.7535	FRA	1.9501	FC3	-.0444	BSP	19675	SGB	5790.4	R23	.0010	R13	-.9719	LSA	2576.6	MSA	237.3	SSA	11.1
BDE	2.8429	BRA	7.5137	BC3	.9805	FSP	-441	SG1	5779.6	SG2	354.1	THA	178.29	EL1	2477.4	EL2	237.3	ALF	3.70

LAUNCH DATE SEP 10 1970 FLIGHT TIME 216.00 ARRIVAL DATE APR 14 1971

HELIOCENTRIC CONIC DISTANCE 612.746

RL	150.64	LAL	.00	LOL	346.88	VL	25.631	GAL	15.76	AZL	87.19	HCA	309.26	SMA	120.10	ECC	.36569	INC	2.8061
RP	108.92	LAP	-2.17	LOP	296.17	VP	36.496	GAP	20.80	AZP	88.22	TAL	147.78	TAP	97.04	RCA	76.18	APO	164.01
RC	189.610	GL	7.72	GP	11.41	ZAL	34.44	ZAP	168.08	ETS	104.15	ZAE	124.08	ETE	172.04	ZAC	113.41	ETC	272.17

V1	29.578	V2	34.793	CLP	176.55														

PLANETOCENTRIC CONIC

C3	80.791	VHL	8.988	DLA	-9.44	RAL	313.46	RAD	6569.6	VEL	14.218	PTH	2.59	VHP	13.186	DPA	-12.18	RAP	293.50

ECC	2.3296																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 11 47	2260.51	-20.66	44.41	195.83	109.81	10 49 27	1660.5	-17.77	36.93
90.00	19 46 23	5499.00	28.31	254.79	203.79	89.20	21 18 2	4899.0	27.90	246.15
100.00	11 28 29	2013.04	-22.11	25.64	195.26	110.64	12 2 2	1413.0	-19.11	18.13
100.00	21 12 21	5221.71	29.86	234.37	203.76	88.56	22 39 23	4621.7	29.34	225.60
110.00	12 26 12	1832.35	-26.01	10.22	193.55	113.01	12 56 44	1232.3	-22.66	2.66
110.00	22 31 8	4975.16	34.05	215.45	203.56	86.79	23 54 3	4375.2	33.23	206.30

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	3.0853	TRA	8.0745	TC3	-.7984	BAU	.8625	SGT	5757.9	SGR	373.5	SG3	121.1	ST	2514.0	SR	278.4	SS	727.2
RDE	.4193	RRA	-.4024	RC3	.0124	FAU	.00192	RRT	-.4012	RRF	-.3936	RTF	.9746	CRT	.5765	CRS	-.5854	CST	-.9998
FDE	.7902	FRA	2.0224	FC3	-.0206	BSP	19434	SGB	5770.0	R23	.0013	R13	-.9746	LSA	2622.0	MSA	227.1	SSA	10.6
BDE	3.1137	BRA	8.0846	BC3	.7985	FSP	-420	SG1	5759.8	SG2	342.1	THA	178.50	EL1	2519.1	EL2	227.0	ALF	3.68

LAUNCH DATE SEP 10 1970 FLIGHT TIME 218.00 ARRIVAL DATE APR 16 1971

HELIOCENTRIC CONIC DISTANCE 616.185

RL	150.64	LAL	.00	LOL	346.88	VL	25.599	GAL	17.22	AZL	86.87	HCA	312.41	SMA	119.92	ECC	.38405	INC	3.1335
RP	108.93	LAP	-2.31	LOP	299.33	VP	36.471	GAP	21.99	AZP	87.89	TAL	146.80	TAP	99.21	RCA	73.86	APO	165.98
RC	191.483	GL	7.97	GP	11.23	ZAL	33.58	ZAP	167.89	ETS	109.51	ZAE	123.75	ETE	172.23	ZAC	113.05	ETC	272.69

V1	29.578	V2	34.790	CLP	175.45														

PLANETOCENTRIC CONIC

C3	92.837	VHL	9.635	DLA	-8.94	RAL	314.29	RAD	6569.8	VEL	14.635	PTH	2.65	VHP	13.920	DPA	-12.11	RAP	295.58

ECC	2.5279																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 11 6	2307.88	-21.72	47.48	198.93	108.63	10 49 34	1707.9	-18.97	39.88
90.00	19 53 41	5513.84	28.32	255.88	206.77	89.74	21 25 35	4913.8	27.98	247.23
100.00	11 28 5	2059.52	-23.20	28.67	198.38	109.40	12 2 25	1459.5	-20.34	21.04
100.00	21 19 23	5237.43	29.88	235.53	206.75	89.18	22 46 40	4637.4	29.45	226.76
110.00	12 26 24	1876.93	-27.16	13.18	196.74	111.60	12 57 41	1276.9	-23.98	5.45
110.00	22 37 34	4992.78	34.11	216.82	206.61	87.60	24 0 46	4392.8	33.40	207.65

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	3.3783	TRA	8.6968	TC3	-.6308	BAU	.7830	SGT	5737.7	SGR	353.1	SG3	117.4	ST	2550.2	SR	271.1	SS	749.1
RDE	.4399	RRA	-.3931	RC3	.0075	FAU	.00007	RRT	-.3608	RRF	-.3554	RTF	.9775	CRT	.5989	CRS	-.6052	CST	-.9999
FDE	.8301	FRA	2.1031	FC3	-.0007	BSP	19062	SGB	5748.5	R23	.0016	R13	-.9775	LSA	2662.9	MSA	216.6	SSA	10.2
BDE	3.4068	BRA	8.7057	BC3	.6309	FSP	-398	SG1	5739.1	SG2	329.2	THA	178.72	EL1	2555.4	EL2	216.6	ALF	3.67

LAUNCH DATE SEP 10 1970 FLIGHT TIME 220.00 ARRIVAL DATE APR 18 1971

HELIOCENTRIC CONIC DISTANCE 619.158

RL	150.64	LAL	.00	LOL	346.88	VL	25.569	GAL	18.82	AZL	86.50	HCA	315.56	SMA	119.75	ECC	.40461	INC	3.4955
RP	108.93	LAP	-2.45	LOP	302.49	VP	36.447	GAP	23.33	AZP	87.50	TAL	145.94	TAP	101.50	RCA	71.30	APO	168.21
RC	193.340	GL	8.19	GP	11.07	ZAL	32.84	ZAP	167.56	ETS	114.90	ZAE	123.36	ETE	172.43	ZAC	112.69	ETC	273.20

V1	29.578	V2	34.788	CLP	174.29														

PLANETOCENTRIC CONIC

C3	107.220	VHL	10.355	DLA	-8.50	RAL	315.01	RAD	6570.1	VEL	15.118	PTH	2.72	VHP	14.744	DPA	-12.01	RAP	297.59

ECC	2.7646																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 10 31	2352.82	-22.67	50.43	201.93	107.44	10 49 44	1752.8	-20.07	42.72
90.00	20 0 1	5530.50	28.31	257.10	209.65	90.36	21 32 11	4930.5	28.06	248.44
100.00	11 27 44	2103.71	-24.17	31.59	201.40	108.15	12 2 48	1503.7	-21.46	23.84
100.00	21 25 29	5254.84	29.89	236.83	209.65	89.86	22 53 4	4654.8	29.55	228.04
110.00	12 26 34	1919.48	-28.19	16.05	199.84	110.18	12 58 34	1319.5	-25.18	8.17
110.00	22 43 8	5011.84	34.15	218.30	209.58	88.48	24 6 40	4411.8	33.56	209.11

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	3.6959	TRA	9.3758	TC3	-.4774	BAU	.6843	SGT	5716.3	SGR	332.3	SG3	114.0	ST	2580.6	SR	263.8	SS	774.3
RDE	.4628	RRA	-.3783	RC3	.0036	FAU	-.00195	RRT	-.3127	RRF	-.3093	RTF	.9803	CRT	.6224	CRS	-.6265	CST	-.9999
FDE	.8740	FRA	2.1934	FC3	.0158	BSP	18550	SGB	5725.9	R23	.0020	R13	-.9803	LSA	2699.3	MSA	206.1	SSA	9.7
BDE	3.7247	BRA	9.3834	BC3	.4774	FSP	-374	SG1	5717.2	SG2	315.6	THA	178.96	EL1	2585.9	EL2	206.1	ALF	3.66

LAUNCH DATE SEP 11 1970 FLIGHT TIME 70.00 ARRIVAL DATE NOV 20 1970

HELIOCENTRIC CONIC DISTANCE 174.651

RL	150.60	LAL	.00	LOL	347.85	VL	25.100	GAL	-5.30	AZL	90.81	HCA	75.16	SMA	117.19	ECC	.29852	INC	.8145
RP	107.93	LAP	-.79	LOP	63.01	VP	36.425	GAP	-16.78	AZP	90.21	TAL	192.73	TAP	267.90	RCA	82.21	APO	152.18
RC	41.891	GL	-4.10	GP	-11.71	ZAL	112.06	ZAP	11.83	ETS	94.85	ZAE	156.61	ETE	338.99	ZAC	89.77	ETC	260.73

V1	29.586	V2	35.111	CLP	1.68														

PLANETOCENTRIC CONIC

C3	24.701	VHL	4.970	DLA	-23.17	RAL	232.34	RAD	6568.0	VEL	12.086	PTH	2.16	VHP	10.522	DPA	-31.74	RAP	239.61

ECC	1.4065	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	7 2 24	1442.04	3.63	356.67	98.18	118.10	7 26 26	842.0	7.36	349.97							
		90.00	12 0 45	5733.01	27.35	271.82	106.05	97.66	13 36 18	5133.0	28.12	263.24							
		100.00	8 5 54	1237.08	1.88	340.63	97.21	119.84	8 26 31	637.1	5.83	334.08							
		100.00	13 39 57	5413.21	29.34	248.56	106.32	96.00	15 10 10	4813.2	29.86	239.79							
		110.00	8 38 1	1136.41	-2.20	330.46	94.66	124.12	8 56 57	536.4	2.29	324.25							
		110.00	15 24 20	5086.64	34.14	224.15	106.71	91.93	16 49 6	4486.6	34.03	214.90							

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1530	TRA	-.5047	TC3	.3378	BAU	.1200	SGT	737.8	SGR	443.4	SG3	80.0	ST	259.4	SR	418.8	SS	72.1
RDE	-.3629	RRA	-.0490	RC3	-.1340	FAU	.02579	RRT	-.2435	RRF	.2926	RTF	-.6557	CRT	-.6476	CRS	-.3898	CST	.9161
FDE	-.0292	FRA	.1769	FC3	-.9040	BSP	1811	SGB	860.8	R23	-.0559	R13	.6675	LSA	460.0	MSA	189.2	SSA	20.5
BDE	.3938	BRA	.5070	BC3	.3634	FSP	-183	SG1	749.5	SG2	423.3	THA	167.70	EL1	458.3	EL2	180.6	ALF	116.23

LAUNCH DATE SEP 11 1970 FLIGHT TIME 72.00 ARRIVAL DATE NOV 22 1970

HELIOCENTRIC CONIC DISTANCE 181.427

RL	150.60	LAL	.00	LOL	347.85	VL	25.366	GAL	-5.32	AZL	90.61	HCA	78.38	SMA	118.60	ECC	.28422	INC	.6132
RP	107.89	LAP	-.60	LOP	66.23	VP	36.621	GAP	-15.70	AZP	90.12	TAL	193.72	TAP	272.10	RCA	84.89	APO	152.31
RC	42.728	GL	-3.27	GP	-12.39	ZAL	113.65	ZAP	12.40	ETS	84.74	ZAE	154.39	ETE	338.20	ZAC	89.20	ETC	260.94

V1	29.586	V2	35.123	CLP	-.40														

PLANETOCENTRIC CONIC

C3	22.403	VHL	4.733	DLA	-21.99	RAL	230.92	RAD	6567.9	VEL	11.991	PTH	2.14	VHP	9.927	DPA	-32.69	RAP	240.68

ECC	1.3687	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	6 40 28	1476.13	2.54	358.57	94.73	118.21	7 5 4	876.1	6.29	351.90							
		90.00	12 11 19	5651.22	27.95	265.91	102.45	94.75	13 45 30	5051.2	28.31	257.26							
		100.00	7 46 12	1263.99	.96	342.11	93.86	119.88	8 7 16	664.0	4.93	335.57							
		100.00	13 48 16	5338.58	29.74	243.05	102.59	93.13	15 17 15	4738.6	29.86	234.25							
		110.00	8 21 58	1151.86	-2.79	331.26	91.51	124.08	8 41 10	551.9	1.70	325.06							
		110.00	15 29 0	5023.48	34.17	219.21	102.69	89.01	16 52 43	4423.5	33.66	210.01							

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1494	TRA	-.4841	TC3	.4101	BAU	.1329	SGT	763.4	SGR	451.2	SG3	89.5	ST	262.3	SR	417.1	SS	63.7
RDE	-.3441	RRA	-.0504	RC3	-.1694	FAU	.02766	RRT	-.2786	RRF	.3301	RTF	-.6762	CRT	-.6550	CRS	-.1731	CST	.8054
FDE	-.0129	FRA	.1685	FC3	-1.0689	BSP	1968	SGB	886.8	R23	-.0590	R13	.6896	LSA	459.1	MSA	188.6	SSA	22.0
BDE	.3752	BRA	.4868	BC3	.4437	FSP	-210	SG1	778.3	SG2	425.1	THA	166.58	EL1	458.5	EL2	180.3	ALF	116.86

LAUNCH DATE SEP 11 1970 FLIGHT TIME 74.00 ARRIVAL DATE NOV 24 1970

HELIOCENTRIC CONIC DISTANCE 188.213

RL	150.60	LAL	.00	LOL	347.85	VL	25.608	GAL	-5.35	AZL	90.42	HCA	81.60	SMA	119.92	ECC	.27126	INC	.4164
RP	107.86	LAP	-.41	LOP	69.45	VP	36.800	GAP	-14.67	AZP	90.06	TAL	194.76	TAP	276.36	RCA	87.39	APO	152.45
RC	43.711	GL	-2.35	GP	-13.15	ZAL	115.32	ZAP	13.39	ETS	75.57	ZAE	152.34	ETE	337.29	ZAC	88.55	ETC	261.14

V1	29.586	V2	35.135	CLP	-2.53														

PLANETOCENTRIC CONIC

C3	20.480	VHL	4.525	DLA	-20.67	RAL	229.46	RAD	6567.8	VEL	11.911	PTH	2.12	VHP	9.363	DPA	-33.69	RAP	241.67

ECC	1.3371	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	6 18 21	1513.72	1.33	.67	91.44	118.29	6 43 35	913.7	5.10	354.02							
		90.00	12 21 50	5570.40	28.26	260.02	98.86	91.82	13 54 40	4970.4	28.22	251.35							
		100.00	7 26 2	1295.27	-.10	343.82	90.65	119.89	7 47 38	695.3	3.88	337.30							
		100.00	13 56 50	5264.08	29.89	237.52	98.89	90.22	15 24 34	4664.1	29.60	228.72							
		110.00	8 5 16	1172.32	-3.57	332.33	88.48	124.02	8 24 49	572.3	.92	326.13							
		110.00	15 34 5	4959.79	33.98	214.25	98.73	86.08	16 56 45	4359.8	33.07	205.13							

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1436	TRA	-.4637	TC3	.4879	BAU	.1456	SGT	788.5	SGR	460.1	SG3	100.1	ST	262.0	SR	413.1	SS	59.4
RDE	-.3258	RRA	-.0523	RC3	-.2112	FAU	.02976	RRT	-.3170	RRF	.3721	RTF	-.6955	CRT	-.6567	CRS	-.1741	CST	.5576
FDE	.0079	FRA	.1583	FC3	-1.2582	BSP	2117	SGB	912.9	R23	-.0633	R13	.7108	LSA	455.1	MSA	187.4	SSA	23.8
BDE	.3561	BRA	.4666	BC3	.5316	FSP	-240	SG1	807.3	SG2	426.2	THA	165.35	EL1	455.1	EL2	179.4	ALF	117.17

LAUNCH DATE SEP 11 1970 FLIGHT TIME 76.00 ARRIVAL DATE NOV 26 1970

HELIOCENTRIC CONIC DISTANCE 195.004

RL	150.60	LAL	.00	LOL	347.85	VL	25.828	GAL	-5.39	AZL	90.22	HCA	84.82	SMA	121.16	ECC	.25954	INC	.2225
RP	107.82	LAP	-.22	LOP	72.67	VP	36.964	GAP	-13.68	AZP	90.02	TAL	195.84	TAP	280.66	RCA	89.71	APO	152.60
RC	44.829	GL	-1.32	GP	-13.99	ZAL	117.03	ZAP	14.75	ETS	67.66	ZAE	150.46	ETE	336.23	ZAC	87.81	ETC	261.32

V1	29.586	V2	35.146	CLP	-4.73														

PLANETOCENTRIC CONIC

C3	18.878	VHL	4.345	DLA	-19.23	RAL	228.01	RAD	6567.8	VEL	11.843	PTH	2.10	VHP	8.830	DPA	-34.76	RAP	242.59

ECC	1.3107	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	5 56 15	1554.66	.00	2.95	88.36	118.32	6 22 10	954.7	3.79	356.32							
		90.00	12 32 21	5490.79	28.30	254.19	95.34	88.90	14 3 52	4890.8	27.84	245.56							
		100.00	7 5 41	1330.60	-1.30	345.76	87.63	119.87	7 27 51	730.6	2.69	339.24							
		100.00	14 5 36	5190.09	29.78	232.02	95.28	87.33	15 32 6	4590.1	29.10	223.28							
		110.00	7 48 10	1197.46	-4.53	333.65	85.62	123.92	8 8 8	597.5	-.04	327.44							
		110.00	15 39 36	4895.99	33.58	209.31	94.91	83.19	17 1 12	4296.0	32.27	200.32							

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1357	TRA	-.4435	TC3	.5696	BAU	.1580	SGT	812.8	SGR	470.6	SG3	112.0	ST	258.4	SR	406.5	SS	65.1
RDE	-.3077	RRA	-.0545	RC3	-.2600	FAU	.03211	RRT	-.3588	RRF	.4182	RTF	-.7134	CRT	-.6520	CRS	.5619	CST	.1756
FDE	.0343	FRA	.1463	FC3	-1.4728	BSP	2267	SGB	939.2	R23	-.0686	R13	.7310	LSA	448.4	MSA	185.8	SSA	25.9
BDE	.3363	BRA	.4468	BC3	.6261	FSP	-276	SG1	836.7	SG2	426.8	THA	163.99	EL1	447.6	EL2	178.0	ALF	117.15

LAUNCH DATE SEP 11 1970 FLIGHT TIME 78.00 ARRIVAL DATE NOV 28 1970

HELIOCENTRIC CONIC DISTANCE 201.794

RL	150.60	LAL	.00	LOL	347.85	VL	26.027	GAL	-5.44	AZL	90.03	HCA	88.04	SMA	122.31	ECC	.24901	INC	.0280	V1	29.586
RP	107.79	LAP	-.03	LOP	75.89	VP	37.114	GAP	-12.73	AZP	90.00	TAL	196.94	TAP	284.98	RCA	91.85	APO	152.77	V2	35.158
RC	46.073	GL	-.19	GP	-14.92	ZAL	118.75	ZAP	16.45	ETS	61.03	ZAE	148.75	ETE	335.03	ZAC	86.97	ETC	261.49	CLP	-7.00

PLANETOCENTRIC CONIC

C3	17.549	VHL	4.189	DLA	-17.68	RAL	226.59	RAD	6567.7	VEL	11.787	PTH	2.08	VHP	8.327	DPA	-35.89	RAP	243.41	ECC	1.2888		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 34 20	1598.72	-1.42	5.41	85.51	118.28	6 0 59	998.7	2.37	358.78
90.00	12 42 56	5412.62	28.06	248.49	91.96	86.05	14 13 8	4812.6	27.22	239.92
100.00	6 45 20	1369.63	-2.62	347.90	84.84	119.79	7 8 10	769.6	1.37	341.38
100.00	14 14 37	5116.94	29.43	226.61	91.83	84.51	15 39 54	4516.9	28.36	217.97
110.00	7 30 54	1226.89	-5.65	335.20	82.96	123.77	7 51 21	626.9	-1.17	328.97
110.00	15 45 33	4832.44	32.96	204.46	91.28	80.38	17 6 5	4232.4	31.28	195.64

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1259	TRA	-.4238	TC3	.6527	BAU	.1702	SGT	836.0	SGR	483.5	SG3	125.4	ST	251.5	SR	396.8	SS	83.9
RDE	-.2895	RRA	-.0572	RC3	-.3164	FAU	.03475	RRT	-.4038	RRF	.4683	RTF	-.7293	CRT	-.6397	CRS	.8116	CST	-.1625
FDE	.0674	FRA	.1323	FC3	-1.7143	BSP	2416	SGB	965.7	R23	-.0755	R13	.7499	LSA	439.5	MSA	183.6	SSA	28.3
BDE	.3157	BRA	.4277	BC3	.7253	FSP	-316	SG1	866.3	SG2	426.8	THA	162.47	EL1	435.5	EL2	176.1	ALF	116.79

LAUNCH DATE SEP 11 1970 FLIGHT TIME 80.00 ARRIVAL DATE NOV 30 1970

HELIOCENTRIC CONIC DISTANCE 208.582

RL	150.60	LAL	.00	LOL	347.85	VL	26.207	GAL	-5.49	AZL	89.84	HCA	91.27	SMA	123.38	ECC	.23957	INC	.1598	V1	29.586
RP	107.76	LAP	.16	LOP	79.12	VP	37.251	GAP	-11.83	AZP	90.00	TAL	198.06	TAP	289.32	RCA	93.82	APO	152.94	V2	35.168
RC	47.431	GL	1.03	GP	-15.96	ZAL	120.45	ZAP	18.44	ETS	55.56	ZAE	147.22	ETE	333.65	ZAC	86.01	ETC	261.64	CLP	-9.36

PLANETOCENTRIC CONIC

C3	16.454	VHL	4.056	DLA	-16.04	RAL	225.23	RAD	6567.7	VEL	11.740	PTH	2.07	VHP	7.853	DPA	-37.09	RAP	244.12	ECC	1.2708		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 12 48	1645.62	-2.93	8.03	82.92	118.18	5 40 13	1045.6	.86	1.40
90.00	12 53 37	5336.04	27.58	242.94	88.77	83.31	14 22 33	4736.0	26.36	234.48
100.00	6 25 13	1411.95	-4.05	350.23	82.30	119.64	6 48 45	812.0	-.07	343.70
100.00	14 23 53	5044.94	28.84	221.34	88.58	81.79	15 47 58	4444.9	27.41	212.83
110.00	7 13 39	1260.20	-6.90	336.96	80.54	123.56	7 34 40	660.2	-2.44	330.71
110.00	15 51 56	4769.46	32.14	199.73	87.89	77.69	17 11 25	4169.5	30.11	191.10

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1137	TRA	-.4055	TC3	.7334	BAU	.1818	SGT	857.3	SGR	499.4	SG3	140.4	ST	241.0	SR	383.4	SS	114.4
RDE	-.2707	RRA	-.0600	RC3	-.3808	FAU	.03768	RRT	-.4500	RRF	.5215	RTF	-.7429	CRT	-.6153	CRS	.9199	CST	-.3572
FDE	.1084	FRA	.1170	FC3	-1.9823	BSP	2550	SGB	992.2	R23	-.0850	R13	.7672	LSA	429.4	MSA	181.3	SSA	31.0
BDE	.2936	BRA	.4099	BC3	.8264	FSP	-360	SG1	895.6	SG2	426.9	THA	160.78	EL1	418.0	EL2	174.3	ALF	115.99

LAUNCH DATE SEP 11 1970 FLIGHT TIME 82.00 ARRIVAL DATE DEC 2 1970

HELIOCENTRIC CONIC DISTANCE 215.363

RL	150.60	LAL	.00	LOL	347.85	VL	26.369	GAL	-5.55	AZL	89.65	HCA	94.49	SMA	124.36	ECC	.23116	INC	.3520	V1	29.586
RP	107.72	LAP	.35	LOP	82.34	VP	37.374	GAP	-10.96	AZP	90.03	TAL	199.17	TAP	293.67	RCA	95.62	APO	153.11	V2	35.179
RC	48.893	GL	2.34	GP	-17.11	ZAL	122.10	ZAP	20.69	ETS	51.06	ZAE	145.87	ETE	332.07	ZAC	84.92	ETC	261.77	CLP	-11.81

PLANETOCENTRIC CONIC

C3	15.559	VHL	3.945	DLA	-14.30	RAL	223.95	RAD	6567.6	VEL	11.702	PTH	2.06	VHP	7.408	DPA	-38.39	RAP	244.69	ECC	1.2561		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 51 45	1695.04	-4.51	10.80	80.62	117.98	5 20 0	1095.0	-.73	4.16
90.00	13 4 29	5261.20	26.87	237.58	85.81	80.71	14 32 10	4661.2	25.31	229.26
100.00	6 5 28	1457.20	-5.56	352.73	80.04	119.42	6 29 45	857.2	-1.60	346.19
100.00	14 33 27	4974.28	28.05	216.24	85.58	79.22	15 56 21	4374.3	26.28	207.89
110.00	6 56 38	1296.92	-8.28	338.91	78.38	123.28	7 18 15	696.9	-3.84	332.63
110.00	15 58 46	4707.32	31.15	195.15	84.77	75.15	17 17 13	4107.3	28.80	186.74

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0993	TRA	-.3884	TC3	.8078	BAU	.1927	SGT	875.2	SGR	519.4	SG3	157.0	ST	227.3	SR	365.6	SS	154.6
RDE	-.2509	RRA	-.0631	RC3	-.4536	FAU	.04090	RRT	-.4961	RRF	.5766	RTF	-.7539	CRT	-.5752	CRS	.9614	CST	-.4447
FDE	-.1591	FRA	.1004	FC3	-2.2760	BSP	2668	SGB	1017.7	R23	-.0969	R13	.7832	LSA	419.8	MSA	178.5	SSA	33.8
BDE	.2698	BRA	.3935	BC3	.9265	FSP	-410	SG1	923.6	SG2	427.3	THA	158.86	EL1	394.6	EL2	172.3	ALF	114.69

LAUNCH DATE SEP 11 1970 FLIGHT TIME 84.00 ARRIVAL DATE DEC 4 1970

HELIOCENTRIC CONIC DISTANCE 222.133

RL	150.60	LAL	.00	LOL	347.85	VL	26.515	GAL	-5.60	AZL	89.45	HCA	97.72	SMA	125.27	ECC	.22369	INC	.5458	V1	29.586
RP	107.69	LAP	.54	LOP	85.57	VP	37.486	GAP	-10.13	AZP	90.07	TAL	200.27	TAP	297.99	RCA	97.25	APO	153.29	V2	35.188
RC	50.451	GL	3.74	GP	-18.38	ZAL	123.66	ZAP	23.18	ETS	47.33	ZAE	144.67	ETE	330.25	ZAC	83.70	ETC	261.87	CLP	-14.38

PLANETOCENTRIC CONIC

C3	14.835	VHL	3.852	DLA	-12.50	RAL	222.78	RAD	6567.6	VEL	11.671	PTH	2.05	VHP	6.991	DPA	-39.78	RAP	245.09	ECC	1.2442		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 31 20	1746.71	-6.16	13.71	78.62	117.69	5 0 26	1146.7	-2.40	7.04
90.00	13 15 34	5188.15	25.96	232.42	83.13	78.28	14 42 2	4588.2	24.09	224.26
100.00	5 46 15	1505.00	-7.16	355.39	78.08	119.10	6 11 20	905.0	-3.22	348.81
100.00	14 43 20	4905.10	27.07	211.33	82.86	76.81	16 5 5	4305.1	24.99	203.15
110.00	6 40 0	1336.64	-9.76	341.04	76.50	122.92	7 2 17	736.6	-5.35	334.72
110.00	16 6 4	4646.21	30.00	190.77	81.96	72.79	17 23 30	4046.2	27.35	182.58

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0833	TRA	-.3726	TC3	.8747	BAU	.2034	SGT	889.8	SGR	544.9	SG3	175.4	ST	211.6	SR	342.9	SS	202.8
RDE	-.2295	RRA	-.0664	RC3	-.5354	FAU	.04447	RRT	-.5420	RRF	.6328	RTF	-.7629	CRT	-.5152	CRS	.9765	CST	-.4651
FDE	.2206	FRA	.0825	FC3	-2.5954	BSP	2784	SGB	1043.3	R23	-.1106	R13	.7986	LSA	414.0	MSA	175.2	SSA	36.7
BDE	.2441	BRA	.3785	BC3	1.0256	FSP	-466	SG1	951.4	SG2	428.2	THA	156.64	EL1	365.2	EL2	170.3	ALF	112.88

LAUNCH DATE SEP 11 1970 FLIGHT TIME 86.00 ARRIVAL DATE DEC 6 1970

HELIOCENTRIC CONIC DISTANCE 228.891

RL	150.60	LAL	.00	LOL	347.85	VL	26.645	GAL	-5.65	AZL	89.26	HCA	100.95	SMA	126.09	ECC	.21708	INC	.7426	V1	29.586
RP	107.67	LAP	.73	LOP	88.80	VP	37.587	GAP	-9.34	AZP	90.14	TAL	201.34	TAP	302.29	RCA	98.72	APO	153.46	V2	35.198
RC	52.096	GL	5.22	GP	-19.80	ZAL	125.11	ZAP	25.92	ETS	44.20	ZAE	143.62	ETE	328.18	ZAC	82.33	ETC	261.94	CLP	-17.08

PLANETOCENTRIC CONIC

C3	14.259	VHL	3.776	DLA	-10.63	RAL	221.74	RAD	6567.6	VEL	11.647	PTH	2.04	VHP	6.603	DPA	-41.27	RAP	245.30	ECC	1.2347

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 11 36	1800.36	-7.84	16.75	76.94	117.30	4 41 37	1200.4	-4.12	10.04
90.00	13 26 57	5116.90	24.88	227.48	80.75	76.03	14 52 14	4516.9	22.72	219.48
100.00	5 27 39	1555.03	-8.80	358.19	76.43	118.68	5 53 34	955.0	-4.91	351.57
100.00	14 53 36	4837.46	25.93	206.63	80.45	74.59	16 14 13	4237.5	23.57	198.63
110.00	6 23 52	1378.99	-11.31	343.33	74.92	122.47	6 46 51	779.0	-6.95	336.95
110.00	16 13 52	4586.27	28.72	186.57	79.47	70.61	17 30 18	3986.3	25.80	178.60

DIFFERENTIAL CORRECTIONS

TDE	.0662	TRA	-.3581	TC3	.9302	BAU	.2138
RDE	-.2059	RRA	-.0699	RC3	-.6265	FAU	.04838
FDE	.2942	FRA	.0636	FC3	-2.9372	BSP	2895
BDE	.2163	BRA	.3648	BC3	1.1216	FSP	-529

MID-COURSE EXECUTION ACCURACY

SGT	899.6	SGR	577.2	SG3	195.7		
RRT	-.5858	RRF	.6881	RTF	-.7695		
SGB	1068.8	R23	-.1252	R13	.8138		
SG1	978.5	SG2	430.1	THA	154.02		

ORBIT DETERMINATION ACCURACY

ST	195.0	SR	314.4	SS	258.1		
CRT	-.4290	CRS	.9808	CST	-.4369		
LSA	415.5	MSA	171.2	SSA	39.0		
EL1	329.7	EL2	168.0	ALF	110.43		

LAUNCH DATE SEP 11 1970 FLIGHT TIME 88.00 ARRIVAL DATE DEC 8 1970

HELIOCENTRIC CONIC DISTANCE 235.633

RL	150.60	LAL	.00	LOL	347.85	VL	26.761	GAL	-5.70	AZL	89.06	HCA	104.18	SMA	126.84	ECC	.21126	INC	.9438	V1	29.586
RP	107.64	LAP	.92	LOP	92.04	VP	37.678	GAP	-8.57	AZP	90.23	TAL	202.35	TAP	306.54	RCA	100.04	APO	153.63	V2	35.206
RC	53.818	GL	6.78	GP	-21.36	ZAL	126.42	ZAP	28.88	ETS	41.53	ZAE	142.69	ETE	325.81	ZAC	80.80	ETC	261.97	CLP	-19.92

PLANETOCENTRIC CONIC

C3	13.809	VHL	3.716	DLA	-8.72	RAL	220.83	RAD	6567.5	VEL	11.627	PTH	2.04	VHP	6.245	DPA	-42.88	RAP	245.28	ECC	1.2273

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 52 37	1855.80	-9.56	19.92	75.58	116.78	4 23 33	1255.8	-5.89	13.16
90.00	13 38 43	5047.36	23.66	222.76	78.69	73.97	15 2 50	4447.4	21.23	214.93
100.00	5 9 43	1607.04	-10.49	1.14	75.09	118.15	5 36 30	1007.0	-6.64	354.46
100.00	15 4 18	4771.33	24.66	202.13	78.36	72.54	16 23 49	4171.3	22.04	194.31
110.00	6 8 18	1423.63	-12.93	345.77	73.65	121.92	6 32 2	823.6	-8.62	339.33
110.00	16 22 13	4527.52	27.32	182.57	77.31	68.61	17 37 40	3927.5	24.17	174.82

DIFFERENTIAL CORRECTIONS

TDE	.0485	TRA	-.3453	TC3	.9708	BAU	.2240
RDE	-.1794	RRA	-.0734	RC3	-.7274	FAU	.05259
FDE	.3817	FRA	.0447	FC3	-3.2972	BSP	2996
BDE	.1859	BRA	.3530	BC3	1.2131	FSP	-597

MID-COURSE EXECUTION ACCURACY

SGT	903.5	SGR	618.0	SG3	217.8		
RRT	-.6253	RRF	.7407	RTF	-.7733		
SGB	1094.6	R23	-.1402	R13	.8288		
SG1	1005.1	SG2	433.5	THA	150.95		

ORBIT DETERMINATION ACCURACY

ST	179.4	SR	279.2	SS	320.2		
CRT	-.3094	CRS	.9796	CST	-.3668		
LSA	428.0	MSA	166.9	SSA	40.5		
EL1	287.6	EL2	165.6	ALF	107.04		

LAUNCH DATE SEP 11 1970 FLIGHT TIME 90.00 ARRIVAL DATE DEC 10 1970

HELIOCENTRIC CONIC DISTANCE 242.357

RL	150.60	LAL	.00	LOL	347.85	VL	26.863	GAL	-5.75	AZL	88.85	HCA	107.42	SMA	127.51	ECC	.20615	INC	1.1510	V1	29.586
RP	107.61	LAP	1.10	LOP	95.27	VP	37.758	GAP	-7.84	AZP	90.34	TAL	203.31	TAP	310.73	RCA	101.22	APO	153.79	V2	35.214
RC	55.612	GL	8.41	GP	-23.10	ZAL	127.55	ZAP	32.09	ETS	39.18	ZAE	141.84	ETE	323.09	ZAC	79.09	ETC	261.95	CLP	-22.92

PLANETOCENTRIC CONIC

C3	13.470	VHL	3.670	DLA	-6.77	RAL	220.08	RAD	6567.5	VEL	11.613	PTH	2.03	VHP	5.916	DPA	-44.62	RAP	245.00	ECC	1.2217

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 34 24	1912.91	-11.29	23.22	74.55	116.14	4 6 16	1312.9	-7.69	16.39
90.00	13 50 57	4979.40	22.30	218.23	76.95	72.09	15 13 56	4379.4	19.65	210.57
100.00	4 52 30	1660.91	-12.20	4.22	74.08	117.50	5 20 11	1060.9	-8.42	357.47
100.00	15 15 31	4706.63	23.27	197.82	76.59	70.69	16 33 58	4106.6	20.42	190.18
110.00	5 53 22	1470.35	-14.60	348.37	72.70	121.26	6 17 53	870.3	-10.35	341.84
110.00	16 31 9	4469.95	25.84	178.75	75.50	66.80	17 45 39	3870.0	22.47	171.22

DIFFERENTIAL CORRECTIONS

TDE	.0295	TRA	-.3359	TC3	.9894	BAU	.2334
RDE	-.1487	RRA	-.0764	RC3	-.8372	FAU	.05701
FDE	.4867	FRA	.0281	FC3	-3.6641	BSP	3064
BDE	.1516	BRA	.3445	BC3	1.2961	FSP	-667

MID-COURSE EXECUTION ACCURACY

SGT	899.1	SGR	667.8	SG3	241.5		
RRT	-.6556	RRF	.7882	RTF	-.7726		
SGB	1120.0	R23	-.1557	R13	.8437		
SG1	1029.8	SG2	440.3	THA	147.36		

ORBIT DETERMINATION ACCURACY

ST	166.4	SR	235.6	SS	390.5		
CRT	-.1373	CRS	.9739	CST	-.2447		
LSA	455.4	MSA	163.4	SSA	40.3		
EL1	237.7	EL2	163.4	ALF	100.58		

LAUNCH DATE SEP 11 1970 FLIGHT TIME 92.00 ARRIVAL DATE DEC 12 1970

HELIOCENTRIC CONIC DISTANCE 249.062

RL	150.60	LAL	.00	LOL	347.85	VL	26.954	GAL	-5.78	AZL	88.63	HCA	110.65	SMA	128.11	ECC	.20169	INC	1.3657	V1	29.586
RP	107.59	LAP	1.28	LOP	98.51	VP	37.829	GAP	-7.14	AZP	90.48	TAL	204.20	TAP	314.85	RCA	102.27	APO	153.94	V2	35.222
RC	57.469	GL	10.12	GP	-25.01	ZAL	128.49	ZAP	35.53	ETS	37.06	ZAE	141.04	ETE	320.01	ZAC	77.19	ETC	261.87	CLP	-26.10

PLANETOCENTRIC CONIC

C3	13.228	VHL	3.637	DLA	-4.78	RAL	219.50	RAD	6567.5	VEL	11.602	PTH	2.03	VHP	5.617	DPA	-46.48	RAP	244.39	ECC	1.2177

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 16 54	1971.66	-13.03	26.66	73.86	115.36	3 49 46	1371.7	-9.51	19.75
90.00	14 3 45	4912.77	20.85	213.90	75.54	70.39	15 25 38	4312.8	17.98	206.39
100.00	4 36 0	1716.51	-13.92	7.44	73.41	116.72	5 4 37	1116.5	-10.23	.60
100.00	15 27 20	4643.16	21.78	193.70	75.17	69.00	16 44 44	4043.2	18.73	186.23
110.00	5 39 6	1518.98	-16.30	351.11	72.07	120.47	6 4 25	919.0	-12.13	344.48
110.00	16 40 44	4413.45	24.27	175.11	74.02	65.15	17 54 18	3813.5	20.71	167.77

DIFFERENTIAL CORRECTIONS

TDE	.0067	TRA	-.3335	TC3	.9725	BAU	.2408
RDE	-.1116	RRA	-.0776	RC3	-.9528	FAU	.06134
FDE	.6145	FRA	.0201	FC3	-4.0143	BSP	3019
BDE	.1118	BRA	.3424	BC3	1.3615	FSP	-730

MID-COURSE EXECUTION ACCURACY

SGT	882.4	SGR	725.5	SG3	265.8		
RRT	-.6678	RRF	.8287	RTF	-.7634		
SGB	1142.3	R23	-.1720	R13	.8584		
SG1	1047.9	SG2	454.7	THA	143.22		

ORBIT DETERMINATION ACCURACY

ST	159.9	SR	180.9	SS	471.8		
CRT	.1218	CRS	.9600	CST	-.0440		
LSA	503.0	MSA	162.4	SSA	37.9		
EL1	184.8	EL2	155.3	ALF	67.67		

LAUNCH DATE SEP 11 1970 FLIGHT TIME 94.00 ARRIVAL DATE DEC 14 1970

HELIOCENTRIC CONIC DISTANCE 255.743

RL	150.60	LAL	.00	LOL	347.85	VL	27.033	GAL	-5.82	AZL	88.41	HCA	113.88	SMA	128.64	ECC	.19781	INC	1.5899	V1	29.586
RP	107.57	LAP	1.45	LOP	101.74	VP	37.892	GAP	-6.46	AZP	90.64	TAL	205.01	TAP	318.89	RCA	103.19	APO	154.08	V2	35.229
RC	59.382	GL	11.91	GP	-27.11	ZAL	129.24	ZAP	39.21	ETS	35.06	ZAE	140.25	ETE	316.52	ZAC	75.08	ETC	261.74	CLP	-29.49

PLANETOCENTRIC CONIC

C3	13.075	VHL	3.616	DLA	-2.76	RAL	219.07	RAD	6567.5	VEL	11.596	PTH	2.03	VHP	5.350	DPA	-48.48	RAP	243.40	ECC	1.2152

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 0 4	2032.26	-14.77	30.26	73.49	114.44	3 33 56	1432.3	-11.35	23.25
90.00	14 17 13	4847.16	19.29	209.71	74.45	68.86	15 38 0	4247.2	16.24	202.36
100.00	4 20 7	1774.00	-15.66	10.83	73.05	115.79	4 49 41	1174.0	-12.06	3.89
100.00	15 39 50	4580.64	20.20	189.72	74.07	67.49	16 56 11	3980.6	16.97	182.42
110.00	5 25 25	1569.59	-18.02	354.02	71.76	119.55	5 51 35	969.6	-13.95	347.27
110.00	16 51 2	4357.82	22.63	171.62	72.88	63.67	18 3 40	3757.8	18.91	164.46

DIFFERENTIAL CORRECTIONS

TDE	.0013	TRA	-.3183	TC3	.9786	BAU	.2561
RDE	-.0730	RRA	-.0825	RC3	-1.0907	FAU	.06667
FDE	.7389	FRA	-.0050	FC3	-4.4142	BSP	3342
BDE	.0730	BRA	.3288	BC3	1.4653	FSP	-838

MID-COURSE EXECUTION ACCURACY

SGT	869.4	SGR	807.9	SG3	293.8		
RRT	-.7010	RRF	.8678	RTF	-.7620		
SGB	1186.8	R23	-.1694	R13	.8779		
SG1	1095.1	SG2	457.4	THA	137.99		

ORBIT DETERMINATION ACCURACY

ST	153.0	SR	124.4	SS	543.0		
CRT	.2737	CRS	.9103	CST	-.0043		
LSA	554.8	MSA	156.9	SSA	36.5		
EL1	161.2	EL2	113.5	ALF	26.34		

LAUNCH DATE SEP 11 1970 FLIGHT TIME 96.00 ARRIVAL DATE DEC 16 1970

HELIOCENTRIC CONIC DISTANCE 262.403

RL	150.60	LAL	.00	LOL	347.85	VL	27.101	GAL	-5.84	AZL	88.17	HCA	117.12	SMA	129.10	ECC	.19445	INC	1.8257	V1	29.586
RP	107.55	LAP	1.62	LOP	104.98	VP	37.947	GAP	-5.81	AZP	90.83	TAL	205.73	TAP	322.85	RCA	104.00	APO	154.20	V2	35.235
RC	61.346	GL	13.78	GP	-29.40	ZAL	129.75	ZAP	43.12	ETS	33.11	ZAE	139.40	ETE	312.61	ZAC	72.78	ETC	261.53	CLP	-33.10

PLANETOCENTRIC CONIC

C3	13.003	VHL	3.606	DLA	-.70	RAL	218.83	RAD	6567.5	VEL	11.593	PTH	2.03	VHP	5.116	DPA	-50.59	RAP	241.96	ECC	1.2140

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 43 50	2094.82	-16.49	34.04	73.46	113.35	3 18 44	1494.8	-13.19	26.92
90.00	14 31 29	4782.20	17.64	205.65	73.70	67.49	15 51 12	4182.2	14.44	198.44
100.00	4 4 51	1833.48	-17.38	14.41	73.04	114.71	4 35 24	1233.5	-13.91	7.34
100.00	15 53 10	4518.77	18.54	185.88	73.30	66.12	17 8 28	3918.8	15.16	178.72
110.00	5 12 20	1622.20	-19.76	357.11	71.79	118.48	5 39 23	1022.2	-15.80	350.23
110.00	17 2 9	4302.83	20.93	168.26	72.07	62.34	18 13 52	3702.8	17.06	161.27

DIFFERENTIAL CORRECTIONS

TDE	-.0090	TRA	-.3141	TC3	.9332	BAU	.2684
RDE	-.0246	RRA	-.0841	RC3	-1.2303	FAU	.07143
FDE	.8910	FRA	-.0141	FC3	-4.7555	BSP	3477
BDE	.0262	BRA	.3252	BC3	1.5442	FSP	-925

MID-COURSE EXECUTION ACCURACY

SGT	838.1	SGR	898.1	SG3	320.6		
RRT	-.7040	RRF	.8974	RTF	-.7452		
SGB	1228.4	R23	-.1668	R13	.8961		
SG1	1134.4	SG2	471.2	THA	132.19		

ORBIT DETERMINATION ACCURACY

ST	151.8	SR	62.0	SS	627.4		
CRT	.6398	CRS	.5951	CST	.0986		
LSA	628.7	MSA	155.4	SSA	33.2		
EL1	157.4	EL2	46.0	ALF	16.06		

LAUNCH DATE SEP 11 1970 FLIGHT TIME 98.00 ARRIVAL DATE DEC 18 1970

HELIOCENTRIC CONIC DISTANCE 269.038

RL	150.60	LAL	.00	LOL	347.85	VL	27.160	GAL	-5.86	AZL	87.92	HCA	120.36	SMA	129.50	ECC	.19155	INC	2.0756	V1	29.586
RP	107.53	LAP	1.79	LOP	108.23	VP	37.994	GAP	-5.18	AZP	91.05	TAL	206.35	TAP	326.71	RCA	104.70	APO	154.31	V2	35.240
RC	63.355	GL	15.74	GP	-31.87	ZAL	130.04	ZAP	47.26	ETS	31.11	ZAE	138.43	ETE	308.28	ZAC	70.27	ETC	261.23	CLP	-36.95

PLANETOCENTRIC CONIC

C3	13.009	VHL	3.607	DLA	1.39	RAL	218.76	RAD	6567.5	VEL	11.593	PTH	2.03	VHP	4.916	DPA	-52.81	RAP	240.00	ECC	1.2141

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 28 3	2159.77	-18.20	38.04	73.78	112.07	3 4 3	1559.8	-15.05	30.78
90.00	14 46 44	4717.44	15.91	201.69	73.29	66.26	16 5 21	4117.4	12.57	194.61
100.00	3 50 2	1895.30	-19.10	18.19	73.38	113.44	4 21 38	1295.3	-15.77	10.99
100.00	16 7 26	4457.14	16.80	182.13	72.87	64.91	17 21 43	3857.1	13.28	175.11
110.00	4 59 46	1677.04	-21.51	.41	72.17	117.23	5 27 43	1077.0	-17.68	353.37
110.00	17 14 11	4248.16	19.17	165.00	71.60	61.14	18 24 59	3648.2	15.17	158.16

DIFFERENTIAL CORRECTIONS

TDE	-.0139	TRA	-.3124	TC3	.8605	BAU	.2823
RDE	.0322	RRA	-.0841	RC3	-1.3766	FAU	.07591
FDE	1.0573	FRA	-.0168	FC3	-5.0520	BSP	3639
BDE	.0351	BRA	.3235	BC3	1.6234	FSP	-1011

MID-COURSE EXECUTION ACCURACY

SGT	795.1	SGR	1003.3	SG3	346.7		
RRT	-.6909	RRF	.9211	RTF	-.7165		
SGB	1280.1	R23	-.1543	R13	.9148		
SG1	1183.8	SG2	487.1	THA	125.62		

ORBIT DETERMINATION ACCURACY

ST	151.7	SR	71.5	SS	715.0		
CRT	.3954	CRS	-.7438	CST	.1483		
LSA	717.3	MSA	154.6	SSA	29.8		
EL1	154.9	EL2	64.3	ALF	12.81		

LAUNCH DATE SEP 11 1970 FLIGHT TIME 100.00 ARRIVAL DATE DEC 20 1970

HELIOCENTRIC CONIC DISTANCE 275.649

RL	150.60	LAL	.00	LOL	347.85	VL	27.210	GAL	-5.87	AZL	87.66	HCA	123.59	SMA	129.85	ECC	.18905	INC	2.3426	V1	29.586
RP	107.52	LAP	1.95	LOP	111.47	VP	38.034	GAP	-4.57	AZP	91.30	TAL	206.88	TAP	330.47	RCA	105.30	APO	154.39	V2	35.245
RC	65.403	GL	17.80	GP	-34.53	ZAL	130.08	ZAP	51.59	ETS	28.98	ZAE	137.29	ETE	303.57	ZAC	67.56	ETC	260.83	CLP	-41.05

PLANETOCENTRIC CONIC

C3	13.093	VHL	3.618	DLA	3.53	RAL	218.88	RAD	6567.5	VEL	11.597	PTH	2.03	VHP	4.754	DPA	-55.11	RAP	237.43	ECC	1.2155

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 12 35	2227.66	-19.88	42.31	74.46	110.59	2 49 43	1627.7	-16.90	34.90
90.00	15 3 8	4652.33	14.09	197.78	73.22	65.18	16 20 40	4052.3	10.63	190.81
100.00	3 35 35	1959.96	-20.80	22.24	74.08	111.96	4 8 15	1360.0	-17.64	14.88
100.00	16 22 49	4395.26	14.98	178.44	72.78	63.83	17 36 4	3795.3	11.34	171.54
110.00	4 47 37	1734.50	-23.25	3.96	72.91	115.79	5 16 32	1134.5	-19.59	356.73
110.00	17 27 16	4193.48	17.34	161.81	71.47	60.07	18 37 10	3593.5	13.23	155.11

DIFFERENTIAL CORRECTIONS

TDE	-.0119	TRA	-.3137	TC3	.7569	BAU	.2979
RDE	.0994	RRA	-.0814	RC3	-1.5243	FAU	.07973
FDE	1.2360	FRA	-.0091	FC3	-5.2723	BSP	3825
BDE	.1001	BRA	.3241	BC3	1.7019	FSP	-1089

MID-COURSE EXECUTION ACCURACY

SGT	740.3	SGR	1121.7	SG3	370.5		
RRT	-.6538	RRF	.9394	RTF	-.6677		
SGB	1344.0	R23	-.1319	R13	.9328		
SG1	1245.8	SG2	504.4	THA	118.41		

ORBIT DETERMINATION ACCURACY

ST	151.4	SR	165.4	SS	805.3		
CRT	.0907	CRS	-.9620	CST	.1285		
LSA	821.1	MSA	154.4	SSA	26.3		
EL1	168.3	EL2	148.2	ALF	67.21		

LAUNCH DATE SEP 11 1970 FLIGHT TIME 102.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 282.233

RL	150.60	LAL	.00	LOL	347.85	VL	27.252	GAL	-5.87	AZL	87.37	HCA	126.83	SMA	130.13	ECC	.18691	INC	2.6307	V1	29.586
RP	107.51	LAP	2.11	LOP	114.71	VP	38.068	GAP	-3.99	AZP	91.58	TAL	207.30	TAP	334.13	RCA	105.81	APO	154.46	V2	35.249
RC	67.486	GL	19.98	GP	-37.35	ZAL	129.87	ZAP	56.08	ETS	26.66	ZAE	135.90	ETE	298.52	ZAC	64.67	ETC	260.33	CLP	-45.42

PLANETOCENTRIC CONIC

C3	13.259	VHL	3.641	DLA	5.73	RAL	219.18	RAD	6567.5	VEL	11.604	PTH	2.03	VHP	4.630	DPA	-57.44	RAP	234.14	ECC	1.2182

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 57 14	2299.23	-21.53	46.92	75.51	108.85	2 35 33	1699.2	-18.76	39.34
90.00	15 20 55	4586.23	12.17	193.88	73.50	64.23	16 37 21	3986.2	8.60	187.01
100.00	3 21 18	2028.12	-22.47	26.62	75.15	110.25	3 55 6	1428.1	-19.51	19.07
100.00	16 39 32	4332.58	13.06	174.77	73.04	62.87	17 51 45	3732.6	9.32	167.98
110.00	4 35 45	1795.10	-24.99	7.80	74.03	114.12	5 5 40	1195.1	-21.52	.37
110.00	17 41 35	4138.36	15.44	158.67	71.68	59.12	18 50 33	3538.4	11.23	152.09

DIFFERENTIAL CORRECTIONS

TDE	-.0007	TRA	-.3180	TC3	.6216	BAU	.3155
RDE	.1783	RRA	-.0747	RC3	-1.6676	FAU	.08258
FDE	1.4219	FRA	.0110	FC3	-5.3915	BSP	4037
BDE	.1783	BRA	.3267	BC3	1.7796	FSP	-1152

MID-COURSE EXECUTION ACCURACY

SGT	676.6	SGR	1252.0	SG3	390.5		
RRT	-.5792	RRF	.9534	RTF	-.5849		
SGB	1423.1	R23	-.1009	R13	.9488		
SG1	1324.1	SG2	521.5	THA	110.74		

ORBIT DETERMINATION ACCURACY

ST	151.5	SR	285.1	SS	896.3		
CRT	.1051	CRS	-.9891	CST	.0143		
LSA	939.7	MSA	155.0	SSA	23.1		
EL1	285.8	EL2	150.3	ALF	85.58		

LAUNCH DATE SEP 11 1970 FLIGHT TIME 104.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 288.792

RL	150.60	LAL	.00	LOL	347.85	VL	27.285	GAL	-5.86	AZL	87.06	HCA	130.07	SMA	130.37	ECC	.18509	INC	2.9443	V1	29.586
RP	107.50	LAP	2.25	LOP	117.96	VP	38.095	GAP	-3.43	AZP	91.90	TAL	207.62	TAP	337.69	RCA	106.24	APO	154.50	V2	35.253
RC	69.600	GL	22.28	GP	-40.30	ZAL	129.39	ZAP	60.69	ETS	24.07	ZAE	134.24	ETE	293.21	ZAC	61.62	ETC	259.70	CLP	-50.07

PLANETOCENTRIC CONIC

C3	13.518	VHL	3.677	DLA	8.00	RAL	219.68	RAD	6567.5	VEL	11.615	PTH	2.04	VHP	4.548	DPA	-59.76	RAP	230.05	ECC	1.2225

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 41 45	2375.46	-23.12	51.94	76.97	106.82	2 21 21	1775.5	-20.60	44.17
90.00	15 40 22	4518.40	10.13	189.94	74.15	63.41	16 55 41	3918.4	6.48	183.16
100.00	3 6 57	2100.66	-24.10	31.39	76.63	108.24	3 41 58	1500.7	-21.38	23.64
100.00	16 57 51	4268.44	11.04	171.08	73.67	62.05	18 9 0	3668.4	7.22	164.38
110.00	4 24 1	1859.52	-26.72	12.01	75.57	112.16	4 55 0	1259.5	-23.47	4.35
110.00	17 57 18	4082.33	13.46	155.54	72.25	58.28	19 5 20	3482.3	9.17	149.07

DIFFERENTIAL CORRECTIONS

TDE	.0201	TRA	-.3277	TC3	.4475	BAU	.3335
RDE	.2732	RRA	-.0596	RC3	-1.7904	FAU	.08367
FDE	1.6178	FRA	.0551	FC3	-5.3584	BSP	4200
BDE	.2740	BRA	.3330	BC3	1.8454	FSP	-1176

MID-COURSE EXECUTION ACCURACY

SGT	612.5	SGR	1386.8	SG3	404.2		
RRT	-.4374	RRF	.9637	RTF	-.4405		
SGB	1516.1	R23	-.0621	R13	.9619		
SG1	1417.0	SG2	539.0	THA	102.82		

ORBIT DETERMINATION ACCURACY

ST	158.1	SR	428.5	SS	991.9		
CRT	.2553	CRS	-.9961	CST	-.1850		
LSA	1080.4	MSA	157.6	SSA	19.8		
EL1	430.7	EL2	152.1	ALF	83.85		

LAUNCH DATE SEP 11 1970 FLIGHT TIME 106.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 295.322

RL	150.60	LAL	.00	LOL	347.85	VL	27.312	GAL	-5.84	AZL	86.71	HCA	133.31	SMA	130.56	ECC	.18355	INC	3.2892	V1	29.586
RP	107.49	LAP	2.39	LOP	121.20	VP	38.117	GAP	-2.89	AZP	92.26	TAL	207.85	TAP	341.15	RCA	106.59	APO	154.52	V2	35.255
RC	71.740	GL	24.73	GP	-43.35	ZAL	128.66	ZAP	65.34	ETS	21.14	ZAE	132.27	ETE	287.72	ZAC	58.45	ETC	258.93	CLP	-54.99

PLANETOCENTRIC CONIC

C3	13.887	VHL	3.727	DLA	10.35	RAL	220.37	RAD	6567.5	VEL	11.631	PTH	2.04	VHP	4.511	DPA	-61.98	RAP	225.04	ECC	1.2285

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 25 47	2457.72	-24.63	57.49	78.86	104.43	2 6 44	1857.7	-22.41	49.53
90.00	16 1 53	4447.91	7.95	185.90	75.21	62.73	17 16 0	3847.9	4.24	179.19
100.00	2 52 16	2178.80	-25.66	36.67	78.55	105.88	3 28 34	1578.8	-23.24	28.71
100.00	17 18 5	4202.07	8.90	167.32	74.70	61.35	18 28 7	3602.1	5.01	160.69
110.00	4 12 10	1928.73	-28.41	16.69	77.56	109.86	4 44 19	1328.7	-25.44	8.77
110.00	18 14 39	4024.90	11.38	152.38	73.21	57.55	19 21 44	3424.9	7.02	146.01

DIFFERENTIAL CORRECTIONS

TDE	.0696	TRA	-.3261	TC3	.2844	BAU	.3613
RDE	.3693	RRA	-.0497	RC3	-1.9252	FAU	.08491
FDE	1.7646	FRA	.0741	FC3	-5.2935	BSP	4755
BDE	.3758	BRA	.3299	BC3	1.9461	FSP	-1253

MID-COURSE EXECUTION ACCURACY

SGT	562.3	SGR	1545.1	SG3	413.8		
RRT	-.2347	RRF	.9719	RTF	-.2247		
SGB	1644.2	R23	-.0367	R13	.9712		
SG1	1551.5	SG2	544.4	THA	95.57		

ORBIT DETERMINATION ACCURACY

ST	186.7	SR	569.9	SS	1058.6		
CRT	.6016	CRS	-.9980	CST	-.5602		
LSA	1206.6	MSA	155.0	SSA	17.9		
EL1	581.6	EL2	146.1	ALF	78.09		

LAUNCH DATE SEP 11 1970 FLIGHT TIME 108.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 301.825

RL	150.60	LAL	.00	LOL	347.85	VL	27.333	GAL	-5.82	AZL	86.33	HCA	136.54	SMA	130.70	ECC	.18225	INC	3.6731	V1	29.586
RP	107.48	LAP	2.53	LOP	124.45	VP	38.133	GAP	-2.37	AZP	92.67	TAL	207.97	TAP	344.51	RCA	106.88	APO	154.52	V2	35.257
RC	73.903	GL	27.34	GP	-46.47	ZAL	127.65	ZAP	69.96	ETS	17.83	ZAE	129.97	ETE	282.15	ZAC	55.19	ETC	258.00	CLP	-60.16

PLANETOCENTRIC CONIC

C3	14.390	VHL	3.793	DLA	12.80	RAL	221.28	RAD	6567.6	VEL	11.652	PTH	2.05	VHP	4.523	DPA	-64.05	RAP	219.08	ECC	1.2368

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 8 55	2547.72	-26.01	63.72	81.24	101.60	1 51 22	1947.7	-24.15	55.55
90.00	16 25 57	4373.58	5.61	181.69	76.73	62.20	17 38 51	3773.6	1.85	175.03
100.00	2 36 52	2264.05	-27.12	42.59	80.97	103.09	3 14 36	1664.0	-25.04	34.40
100.00	17 40 41	4132.49	6.61	163.42	76.19	60.78	18 49 33	3532.5	2.66	156.86
110.00	4 0 1	2003.85	-30.03	21.93	80.07	107.15	4 33 25	1403.9	-27.39	13.73
110.00	18 34 1	3965.45	9.19	149.17	74.61	56.93	19 40 6	3365.5	4.77	142.87

DIFFERENTIAL CORRECTIONS

TDE	.1335	TRA	-.3310	TC3	.0811	BAU	.3872
RDE	.4844	RRA	-.0260	RC3	-2.0112	FAU	.08347
FDE	1.9117	FRA	.1255	FC3	-5.0216	BSP	5178
BDE	.5024	BRA	.3320	BC3	2.0128	FSP	-1262

MID-COURSE EXECUTION ACCURACY

SGT	554.4	SGR	1692.6	SG3	413.4		
RRT	.0792	RRF	.9777	RTF	.0937		
SGB	1781.1	R23	-.0070	R13	.9778		
SG1	1693.3	SG2	552.4	THA	88.34		

ORBIT DETERMINATION ACCURACY

ST	253.7	SR	733.1	SS	1129.4		
CRT	.8030	CRS	-.9991	CST	-.7818		
LSA	1361.2	MSA	155.9	SSA	15.5		
EL1	762.0	EL2	145.4	ALF	73.87		

LAUNCH DATE SEP 11 1970 FLIGHT TIME 110.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 308.301

RL	150.60	LAL	.00	LOL	347.85	VL	27.347	GAL	-5.78	AZL	85.89	HCA	139.78	SMA	130.80	ECC	.18117	INC	4.1057	V1	29.586
RP	107.48	LAP	2.65	LOP	127.70	VP	38.144	GAP	-1.87	AZP	93.14	TAL	207.99	TAP	347.77	RCA	107.10	APO	154.50	V2	35.258
RC	76.087	GL	30.12	GP	-49.63	ZAL	126.35	ZAP	74.46	ETS	14.11	ZAE	127.37	ETE	276.59	ZAC	51.87	ETC	256.91	CLP	-65.56

PLANETOCENTRIC CONIC

C3	15.065	VHL	3.881	DLA	15.37	RAL	222.40	RAD	6567.6	VEL	11.681	PTH	2.05	VHP	4.587	DPA	-65.90	RAP	212.13	ECC	1.2479

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 50 30	2647.98	-27.19	70.82	84.14	98.23	1 34 38	2048.0	-25.77	62.44
90.00	16 53 19	4293.75	3.06	177.21	78.78	61.84	18 4 53	3693.8	-.73	170.58
100.00	2 20 15	2358.54	-28.39	49.32	83.93	99.76	2 59 33	1758.5	-26.75	40.90
100.00	18 6 15	4058.42	4.13	159.32	78.19	60.37	19 13 54	3458.4	.15	152.79
110.00	3 47 13	2086.43	-31.54	27.89	83.17	103.92	4 21 59	1486.4	-29.31	19.40
110.00	18 55 47	3903.30	6.87	145.86	76.49	56.43	20 0 50	3303.3	2.41	139.62

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2237	TRA	-.3336	TC3	-.1330	BAU	.4146	SGT	616.9	SGR	1832.8	SG3	403.9	ST	364.1	SR	904.6	SS	1189.2
RDE	.6119	RRA	.0070	RC3	-2.0543	FAU	.08018	RRT	.4046	RRF	.9820	RTF	.4207	CRT	.9048	CRS	-.9995	CST	-.8944
FDE	2.0304	FRA	.1862	FC3	-4.6875	BSP	5641	SGB	1933.8	R23	.0188	R13	.9821	LSA	1529.7	MSA	157.2	SSA	13.4
BDE	.6515	BRA	.3337	BC3	2.0586	FSP	-1241	SG1	1851.4	SG2	558.5	THA	81.46	EL1	964.2	EL2	145.5	ALF	69.50

LAUNCH DATE SEP 11 1970 FLIGHT TIME 112.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 314.750

RL	150.60	LAL	.00	LOL	347.85	VL	27.356	GAL	-5.73	AZL	85.40	HCA	143.01	SMA	130.86	ECC	.18027	INC	4.6003	V1	29.586
RP	107.48	LAP	2.77	LOP	130.95	VP	38.151	GAP	-1.38	AZP	93.68	TAL	207.91	TAP	350.92	RCA	107.27	APO	154.45	V2	35.259
RC	78.289	GL	33.11	GP	-52.80	ZAL	124.77	ZAP	78.74	ETS	9.96	ZAE	124.48	ETE	271.09	ZAC	48.52	ETC	255.62	CLP	-71.15

PLANETOCENTRIC CONIC

C3	15.971	VHL	3.996	DLA	18.08	RAL	223.76	RAD	6567.6	VEL	11.720	PTH	2.06	VHP	4.711	DPA	-67.48	RAP	204.25	ECC	1.2628

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 29 34	2762.21	-28.03	79.07	87.62	94.18	1 15 36	2162.2	-27.16	70.51
90.00	17 25 5	4205.86	.23	172.31	81.47	61.68	18 35 11	3605.9	-3.56	165.67
100.00	2 1 37	2465.33	-29.38	57.10	87.49	95.78	2 42 43	1865.3	-28.27	48.47
100.00	18 35 43	3977.96	1.41	154.90	80.81	60.14	19 42 1	3378.0	-2.57	148.38
110.00	3 33 18	2178.50	-32.84	34.75	86.93	100.05	4 9 37	1578.5	-31.11	25.96
110.00	19 20 32	3837.56	4.38	142.40	78.96	56.06	20 24 29	3237.6	-.11	136.19

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.3447	TRA	-.3335	TC3	-.3516	BAU	.4391	SGT	759.1	SGR	1952.0	SG3	385.1	ST	516.8	SR	1087.5	SS	1243.8
RDE	.7575	RRA	.0582	RC3	-2.0263	FAU	.07439	RRT	.6396	RRF	.9850	RTF	.6531	CRT	.9487	CRS	-.9998	CST	-.9439
FDE	2.1284	FRA	.2691	FC3	-4.0327	BSP	5984	SGB	2094.4	R23	.0448	R13	.9845	LSA	1723.6	MSA	161.0	SSA	11.4
BDE	.8323	BRA	.3386	BC3	2.0566	FSP	-1159	SG1	2016.8	SG2	564.7	THA	74.81	EL1	1194.8	EL2	148.7	ALF	65.33

LAUNCH DATE SEP 11 1970 FLIGHT TIME 114.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 321.169

RL	150.60	LAL	.00	LOL	347.85	VL	27.359	GAL	-5.67	AZL	84.82	HCA	146.24	SMA	130.89	ECC	.17954	INC	5.1750	V1	29.586
RP	107.48	LAP	2.87	LOP	134.20	VP	38.153	GAP	-.91	AZP	94.31	TAL	207.74	TAP	353.98	RCA	107.39	APO	154.39	V2	35.258
RC	80.507	GL	36.31	GP	-55.97	ZAL	122.90	ZAP	82.71	ETS	5.35	ZAE	121.35	ETE	265.68	ZAC	45.14	ETC	254.13	CLP	-76.90

PLANETOCENTRIC CONIC

C3	17.197	VHL	4.147	DLA	20.93	RAL	225.36	RAD	6567.7	VEL	11.772	PTH	2.08	VHP	4.904	DPA	-68.74	RAP	195.51	ECC	1.2830

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 4 19	2896.70	-28.31	88.89	91.68	89.27	0 52 36	2296.7	-28.11	80.23
90.00	18 3 9	4105.27	-3.02	166.69	84.97	61.83	19 11 34	3505.3	-6.76	160.01
100.00	1 39 41	2589.23	-29.88	66.27	91.68	90.99	2 22 50	1989.2	-29.42	57.50
100.00	19 10 29	3887.97	-1.64	149.96	84.21	60.15	20 15 17	3288.0	-5.60	143.41
110.00	3 17 35	2282.93	-33.80	42.75	91.42	95.42	3 55 38	1682.9	-32.68	33.69
110.00	19 49 4	3767.03	1.69	138.71	82.13	55.85	20 51 51	3167.0	-2.80	132.51

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.5103	TRA	-.3202	TC3	-.5386	BAU	.4714	SGT	959.7	SGR	2060.8	SG3	359.2	ST	719.4	SR	1239.1	SS	1260.3
RDE	.8955	RRA	.1049	RC3	-1.9783	FAU	.06877	RRT	.7745	RRF	.9872	RTF	.7907	CRT	.9720	CRS	-.9999	CST	-.9698
FDE	2.1496	FRA	.3167	FC3	-3.4619	BSP	6722	SGB	2273.3	R23	.0580	R13	.9864	LSA	1901.4	MSA	160.3	SSA	10.0
BDE	1.0307	BRA	.3369	BC3	2.0503	FSP	-1127	SG1	2201.1	SG2	568.4	THA	68.68	EL1	1425.2	EL2	147.0	ALF	60.21

LAUNCH DATE SEP 11 1970 FLIGHT TIME 116.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 327.560

RL	150.60	LAL	.00	LOL	347.85	VL	27.358	GAL	-5.61	AZL	84.14	HCA	149.47	SMA	130.88	ECC	.17896	INC	5.8557	V1	29.586
RP	107.48	LAP	2.97	LOP	137.45	VP	38.151	GAP	-.46	AZP	95.05	TAL	207.48	TAP	356.95	RCA	107.46	APO	154.30	V2	35.257
RC	82.739	GL	39.74	GP	-59.16	ZAL	120.72	ZAP	86.30	ETS	.30	ZAE	117.99	ETE	260.38	ZAC	41.75	ETC	252.37	CLP	-82.76

PLANETOCENTRIC CONIC

C3	18.882	VHL	4.345	DLA	23.94	RAL	227.25	RAD	6567.8	VEL	11.843	PTH	2.10	VHP	5.178	DPA	-69.69	RAP	186.05	ECC	1.3108

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 27 1	3064.49	-27.56	101.10	96.22	83.20	24 18 6	2464.5	-28.21	92.49
90.00	18 51 34	3981.08	-6.97	159.71	89.61	62.49	19 57 55	3381.1	-10.60	152.91
100.00	1 11 55	2738.97	-29.53	77.38	96.45	85.15	1 57 34	2139.0	-29.89	68.59
100.00	19 53 18	3781.83	-5.22	144.12	88.66	60.53	20 56 20	3181.8	-9.11	137.48
110.00	2 59 1	2403.90	-34.18	52.17	96.69	89.86	3 39 5	1803.9	-33.82	42.94
110.00	20 22 41	3689.66	-1.27	134.68	86.20	55.84	21 24 11	3089.7	-5.74	128.45

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.7241	TRA	-.2971	TC3	-.7002	BAU	.4971	SGT	1210.6	SGR	2130.2	SG3	326.0	ST	963.5	SR	1386.7	SS	1270.9
RDE	1.0495	RRA	.1753	RC3	-1.8407	FAU	.06093	RRT	.8478	RRF	.9887	RTF	.8642	CRT	.9821	CRS	-1.0000	CST	-.9816
FDE	2.1501	FRA	.3828	FC3	-2.7938	BSP	7261	SGB	2450.2	R23	.0741	R13	.9871	LSA	2107.1	MSA	162.9	SSA	8.6
BDE	1.2750	BRA	.3450	BC3	1.9693	FSP	-1029	SG1	2381.9	SG2	574.2	THA	62.55	EL1	1682.0	EL2	149.4	ALF	55.38

LAUNCH DATE SEP 11 1970 FLIGHT TIME 118.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 333.921

RL	150.60	LAL	.00	LOL	347.85	VL	27.353	GAL	-5.53	AZL	83.32	HCA	152.69	SMA	130.84	ECC	.17851	INC	6.6801	V1	29.586
RP	107.49	LAP	3.06	LOP	140.70	VP	38.146	GAP	-.03	AZP	95.94	TAL	207.13	TAP	359.83	RCA	107.49	APO	154.20	V2	35.255
RC	84.985	GL	43.39	GP	-62.41	ZAL	118.25	ZAP	89.41	ETS	354.77	ZAE	114.42	ETE	255.14	ZAC	38.29	ETC	250.27	CLP	-88.73

PLANETOCENTRIC CONIC

C3	21.253	VHL	4.610	DLA	27.10	RAL	229.45	RAD	6567.9	VEL	11.943	PTH	2.13	VHP	5.554	DPA	-70.33	RAP	175.95	ECC	1.3498

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 30 59	3312.74	-24.34	118.53	100.65	75.06	23 26 12	2712.7	-26.15	110.34
90.00	20 5 8	3789.15	-12.82	148.65	96.18	64.53	21 8 17	3189.1	-16.15	141.55
100.00	0 31 32	2936.81	-27.53	91.73	101.50	77.87	1 20 29	2336.8	-28.93	83.20
100.00	20 51 12	3640.31	-9.89	136.20	94.67	61.65	21 51 53	3040.3	-13.60	129.38
110.00	2 35 37	2548.54	-33.59	63.41	102.67	83.24	3 18 6	1948.5	-34.16	54.21
110.00	21 3 37	3601.35	-4.63	130.06	91.47	56.09	22 3 38	3001.4	-9.06	123.76

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	1.0023	TRA	-.2558	TC3	-.8125	BAU	.5203	SGT	1496.9	SGR	2159.6	SG3	288.1	ST	1250.5	SR	1501.9	SS	1261.1
RDE	1.2047	RRA	.2606	RC3	-1.6412	FAU	.05238	RRT	.8875	RRF	.9894	RTF	.9056	CRT	.9874	CRS	-1.0000	CST	-.9879
FDE	2.1088	FRA	.4399	FC3	-2.1336	BSP	7834	SGB	2627.6	R23	.0883	R13	.9873	LSA	2320.0	MSA	166.0	SSA	7.4
BDE	1.5672	BRA	.3651	BC3	1.8313	FSP	-920	SG1	2562.5	SG2	581.3	THA	56.45	EL1	1948.4	EL2	152.6	ALF	50.28

LAUNCH DATE SEP 11 1970 FLIGHT TIME 120.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 340.251

RL	150.60	LAL	.00	LOL	347.85	VL	27.344	GAL	-5.44	AZL	82.29	HCA	155.91	SMA	130.78	ECC	.17817	INC	7.7060	V1	29.586
RP	107.50	LAP	3.14	LOP	143.95	VP	38.137	GAP	.39	AZP	97.04	TAL	206.70	TAP	2.61	RCA	107.48	APO	154.08	V2	35.253
RC	87.241	GL	47.26	GP	-65.77	ZAL	115.49	ZAP	91.98	ETS	348.68	ZAE	110.64	ETE	249.82	ZAC	34.72	ETC	247.65	CLP	-94.84

PLANETOCENTRIC CONIC

C3	24.698	VHL	4.970	DLA	30.38	RAL	231.99	RAD	6568.0	VEL	12.086	PTH	2.16	VHP	6.065	DPA	-70.64	RAP	165.24	ECC	1.4065

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
78.50	19 55 41	3885.54	-19.63	158.96	104.53	66.34	21 0 27	3285.5	-22.67	151.44
101.50	23 0 46	3289.47	-19.62	115.05	104.53	66.33	23 55 35	2689.5	-22.65	107.53
78.50	19 55 41	3885.54	-19.63	158.96	104.53	66.34	21 0 27	3285.5	-22.67	151.44
101.50	23 0 46	3289.47	-19.62	115.05	104.53	66.33	23 55 35	2689.5	-22.65	107.53
110.00	2 2 40	2732.35	-31.25	77.22	108.99	75.39	2 48 12	2132.3	-32.94	68.40
110.00	21 56 53	3490.65	-8.80	124.19	98.50	56.84	22 55 4	2890.7	-13.11	117.74

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	1.3675	TRA	-.1877	TC3	-.8622	BAU	.5385	SGT	1811.9	SGR	2136.6	SG3	247.4	ST	1578.6	SR	1568.0	SS	1231.9
RDE	1.3537	RRA	.3639	RC3	-1.3842	FAU	.04341	RRT	.9086	RRF	.9895	RTF	.9303	CRT	.9900	CRS	-.9999	CST	-.9915
FDE	2.0317	FRA	.4866	FC3	-1.5217	BSP	8413	SGB	2801.5	R23	.1015	R13	.9871	LSA	2537.6	MSA	170.0	SSA	6.3
BDE	1.9243	BRA	.4094	BC3	1.6308	FSP	-801	SG1	2738.6	SG2	590.3	THA	50.16	EL1	2219.5	EL2	157.0	ALF	44.81

LAUNCH DATE SEP 11 1970 FLIGHT TIME 122.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 346.547

RL	150.60	LAL	.00	LOL	347.85	VL	27.331	GAL	-5.34	AZL	80.97	HCA	159.12	SMA	130.69	ECC	.17793	INC	9.0262	V1	29.586
RP	107.51	LAP	3.21	LOP	147.20	VP	38.125	GAP	.80	AZP	98.44	TAL	206.18	TAP	5.30	RCA	107.44	APO	153.95	V2	35.249
RC	89.506	GL	51.31	GP	-69.33	ZAL	112.46	ZAP	93.95	ETS	341.80	ZAE	106.60	ETE	244.15	ZAC	30.97	ETC	244.18	CLP	-101.26

PLANETOCENTRIC CONIC

C3	29.921	VHL	5.470	DLA	33.75	RAL	234.94	RAD	6568.2	VEL	12.300	PTH	2.22	VHP	6.766	DPA	-70.56	RAP	153.91	ECC	1.4924

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
70.82	19 15 25	4095.81	-20.18	175.23	111.59	62.36	20 23 41	3495.8	-23.72	167.91
109.18	0 8 28	3174.54	-20.17	106.59	111.58	62.35	1 1 23	2574.5	-23.71	99.27
70.82	19 15 25	4095.81	-20.18	175.23	111.59	62.36	20 23 41	3495.8	-23.72	167.91
109.18	0 8 28	3174.54	-20.17	106.59	111.58	62.35	1 1 23	2574.5	-23.71	99.27
110.00	0 54 40	3033.32	-24.24	97.77	113.75	65.12	1 45 14	2433.3	-27.38	90.01
110.00	23 28 23	3285.03	-16.22	112.88	109.27	59.49	24 23 8	2685.0	-20.14	105.96

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	1.8580	TRA	-.0770	TC3	-.8399	BAU	.5476	SGT	2154.4	SGR	2043.0	SG3	206.1	ST	1946.6	SR	1559.0	SS	1186.0
RDE	1.4775	RRA	.4896	RC3	-1.0808	FAU	.03435	RRT	.9176	RRF	.9882	RTF	.9463	CRT	.9910	CRS	-.9997	CST	-.9937
FDE	1.9273	FRA	.5232	FC3	-.9940	BSP	8962	SGB	2969.0	R23	.1144	R13	.9866	LSA	2756.0	MSA	175.4	SSA	5.3
BDE	2.3738	BRA	.4956	BC3	1.3688	FSP	-676	SG1	2907.4	SG2	601.8	THA	43.34	EL1	2488.6	EL2	163.2	ALF	38.64

LAUNCH DATE SEP 11 1970 FLIGHT TIME 124.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 352.805

RL	150.60	LAL	.00	LOL	347.85	VL	27.315	GAL	-5.22	AZL	79.20	HCA	162.31	SMA	130.58	ECC	.17778	INC	10.7991	V1	29.586
RP	107.52	LAP	3.26	LOP	150.45	VP	38.109	GAP	1.19	AZP	100.30	TAL	205.58	TAP	7.89	RCA	107.36	APO	153.79	V2	35.245
RC	91.778	GL	55.43	GP	-73.19	ZAL	109.19	ZAP	95.27	ETS	333.57	ZAE	102.24	ETE	237.45	ZAC	26.90	ETC	239.15	CLP	-108.52

PLANETOCENTRIC CONIC

C3	38.309	VHL	6.189	DLA	37.09	RAL	238.35	RAD	6568.5	VEL	12.636	PTH	2.29	VHP	7.754	DPA	-69.97	RAP	141.97	ECC	1.6305

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.97	18 55 54	4257.54	-19.79	187.81	119.95	57.96	20 6 51	3657.5	-23.87	180.82
115.03	0 55 9	3137.40	-19.77	103.41	119.94	57.95	1 47 26	2537.4	-23.86	96.42
64.97	18 55 54	4257.54	-19.79	187.81	119.95	57.96	20 6 51	3657.5	-23.87	180.82
115.03	0 55 9	3137.40	-19.77	103.41	119.94	57.95	1 47 26	2537.4	-23.86	96.42
64.97	18 55 54	4257.54	-19.79	187.81	119.95	57.96	20 6 51	3657.5	-23.87	180.82
115.03	0 55 9	3137.40	-19.77	103.41	119.94	57.95	1 47 26	2537.4	-23.86	96.42

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	2.5404	TRA	.1071	TC3	-.7443	BAU	.5415	SGT	2528.8	SGR	1840.9	SG3	166.4	ST	2352.1	SR	1423.2	SS	1126.8
RDE	1.5182	RRA	.6388	RC3	-.7509	FAU	.02556	RRT	.9138	RRF	.9831	RTF	.9582	CRT	.9900	CRS	-.9991	CST	-.9952
FDE	1.8050	FRA	.5498	FC3	-.5776	BSP	9465	SGB	3127.9	R23	.1270	R13	.9859	LSA	2965.5	MSA	183.0	SSA	4.4
BDE	2.9595	BRA	.6477	BC3	1.0573	FSP	-550	SG1	3066.4	SG2	616.8	THA	35.27	EL1	2743.8	EL2	171.8	ALF	31.06

LAUNCH DATE SEP 11 1970 FLIGHT TIME 126.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 359.016

RL	150.60	LAL	.00	LOL	347.85	VL	27.296	GAL	-5.10	AZL	76.68	HCA	165.48	SMA	130.45	ECC	.17768	INC	13.3195	V1	29.586		
RP	107.53	LAP	3.31	LOP	153.70	VP	38.092	GAP	1.56	AZP	102.91	TAL	204.89	TAP	10.37	RCA	107.27	APO	153.62	V2	35.240		
RC	94.056	GL	59.46	GP	-77.47	ZAL	105.73	ZAP	95.90	ETS	322.36	ZAE	97.40	ETE	228.02	ZAC	22.34	ETC	230.74	CLP	-118.25		

PLANETOCENTRIC CONIC

C3	52,890	VHL	7.273	DLA	40.22	RAL	242.26	RAD	6568.9	VEL	13.200	PTH	2.41	VHP	9.209	DPA	-68.60	RAP	129.61	ECC	1.8704		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.15	18 48 5	4405.87	-18.02	198.84	129.64	53.41	20 1 31	3805.9	-22.66	192.30
119.85	1 34 10	3150.97	-18.01	103.26	129.63	53.41	2 26 41	2551.0	-22.65	96.73
60.15	18 48 5	4405.87	-18.02	198.84	129.64	53.41	20 1 31	3805.9	-22.66	192.30
119.85	1 34 10	3150.97	-18.01	103.26	129.63	53.41	2 26 41	2551.0	-22.65	96.73
60.15	18 48 5	4405.87	-18.02	198.84	129.64	53.41	20 1 31	3805.9	-22.66	192.30
119.85	1 34 10	3150.97	-18.01	103.26	129.63	53.41	2 26 41	2551.0	-22.65	96.73

DIFFERENTIAL CORRECTIONS

TDE	3.5298	TRA	.4353	TC3	-.5818	BAU	.5077
RDE	1.2905	RRA	.7914	RC3	-.4207	FAU	.01730
FDE	1.6811	FRA	.5702	FC3	-.2832	BSP	9926
BDE	3.7584	BRA	.9032	BC3	.7180	FSP	-433

MID-COURSE EXECUTION ACCURACY

SGT	2941.3	SGR	1440.5	SG3	130.2		
RRT	.8761	RRF	.9580	RTF	.9694		
SGB	3275.1	R23	.1385	R13	.9856		
SG1	3212.8	SG2	635.8	THA	24.23		

ORBIT DETERMINATION ACCURACY

ST	2784.3	SR	1046.0	SS	1063.2
CRT	.9823	CRS	-.9946	CST	-.9965
LSA	3152.7	MSA	193.4	SSA	3.5
EL1	2968.6	EL2	183.5	ALF	20.34

LAUNCH DATE SEP 11 1970 FLIGHT TIME 128.00 ARRIVAL DATE- JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 365.160

RL	150.60	LAL	.00	LOL	347.85	VL	27.275	GAL	-4.95	AZL	72.80	HCA	168.61	SMA	130.29	ECC	.17762	INC	17.1970	V1	29.586		
RP	107.55	LAP	3.35	LOP	156.95	VP	38.071	GAP	1.91	AZP	106.88	TAL	204.11	TAP	12.71	RCA	107.15	APO	153.44	V2	35.235		
RC	96.339	GL	63.01	GP	-82.11	ZAL	102.16	ZAP	95.81	ETS	302.93	ZAE	91.79	ETE	210.50	ZAC	16.97	ETC	213.38	CLP	-137.50		

PLANETOCENTRIC CONIC

C3	81.291	VHL	9.016	DLA	42.75	RAL	246.69	RAD	6569.6	VEL	14.235	PTH	2.59	VHP	11.510	DPA	-66.02	RAP	117.26	ECC	2.3378		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.53	18 50 7	4551.80	-14.49	208.54	140.46	49.33	20 5 59	3951.8	-19.61	202.53
123.47	2 7 29	3210.52	-14.48	105.48	140.45	49.32	3 1 0	2610.5	-19.60	99.46
56.53	18 50 7	4551.80	-14.49	208.54	140.46	49.33	20 5 59	3951.8	-19.61	202.53
123.47	2 7 29	3210.52	-14.48	105.48	140.45	49.32	3 1 0	2610.5	-19.60	99.46
56.53	18 50 7	4551.80	-14.49	208.54	140.46	49.33	20 5 59	3951.8	-19.61	202.53
123.47	2 7 29	3210.52	-14.48	105.48	140.45	49.32	3 1 0	2610.5	-19.60	99.46

DIFFERENTIAL CORRECTIONS

TDE	4.9162	TRA	1.0838	TC3	-.3612	BAU	.4163
RDE	.1144	RRA	.7861	RC3	-.1273	FAU	.00961
FDE	1.5858	FRA	.5965	FC3	-.1024	BSP	10390
BDE	4.9176	BRA	1.3389	BC3	.3830	FSP	-333

MID-COURSE EXECUTION ACCURACY

SGT	3326.3	SGR	721.7	SG3	99.1		
RRT	.4227	RRF	.5638	RTF	.9834		
SGB	3403.7	R23	.1451	R13	.9863		
SG1	3340.8	SG2	651.2	THA	5.45		

ORBIT DETERMINATION ACCURACY

ST	3136.9	SR	216.8	SS	1013.9
CRT	.4186	CRS	-.4746	CST	-.9980
LSA	3297.4	MSA	205.3	SSA	2.6
EL1	3138.2	EL2	196.8	ALF	1.66

LAUNCH DATE SEP 11 1970 FLIGHT TIME 130.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 371.188

RL	150.60	LAL	.00	LOL	347.85	VL	27.251	GAL	-4.77	AZL	66.10	HCA	171.64	SMA	130.13	ECC	.17750	INC	23.8950	V1	29.586		
RP	107.57	LAP	3.37	LOP	160.20	VP	38.048	GAP	2.22	AZP	113.67	TAL	203.18	TAP	14.83	RCA	107.03	APO	153.23	V2	35.229		
RC	98.624	GL	65.17	GP	-84.65	ZAL	98.61	ZAP	95.01	ETS	259.81	ZAE	84.68	ETE	169.28	ZAC	10.08	ETC	170.85	CLP	159.57		

PLANETOCENTRIC CONIC

C3	146.894	VHL	12.120	DLA	43.84	RAL	251.49	RAD	6570.6	VEL	16.378	PTH	2.86	VHP	15.554	DPA	-61.39	RAP	105.55	ECC	3.4175		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.02	19 3 13	4690.15	-9.19	216.03	151.82	46.94	20 21 23	4090.2	-14.59	210.42
124.98	2 32 44	3316.31	-9.17	110.06	151.80	46.94	3 28 0	2716.3	-14.57	104.44
55.02	19 3 13	4690.15	-9.19	216.03	151.82	46.94	20 21 23	4090.2	-14.59	210.42
124.98	2 32 44	3316.31	-9.17	110.06	151.80	46.94	3 28 0	2716.3	-14.57	104.44
55.02	19 3 13	4690.15	-9.19	216.03	151.82	46.94	20 21 23	4090.2	-14.59	210.42
124.98	2 32 44	3316.31	-9.17	110.06	151.80	46.94	3 28 0	2716.3	-14.57	104.44

DIFFERENTIAL CORRECTIONS

TDE	5.4591	TRA	2.1275	TC3	-.0894	BAU	.1771
RDE	-3.9947	RRA	-.3679	RC3	.0115	FAU	.00149
FDE	1.5880	FRA	.6673	FC3	-.0088	BSP	10692
BDE	6.7645	BRA	2.1591	BC3	.0902	FSP	-251

MID-COURSE EXECUTION ACCURACY

SGT	2941.3	SGR	1904.0	SG3	75.1		
RRT	-.9314	RRF	-.9208	RTF	.9983		
SGB	3503.8	R23	-.1309	R13	-.9900		
SG1	3453.7	SG2	590.4	THA	147.86		

ORBIT DETERMINATION ACCURACY

ST	2614.4	SR	1889.8	SS	1024.2
CRT	-.9925	CRS	.9909	CST	-.9999
LSA	3379.0	MSA	194.7	SSA	1.8
EL1	3220.5	EL2	187.4	ALF	144.20

LAUNCH DATE SEP 11 1970 FLIGHT TIME 132.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 376.946

RL	150.60	LAL	.00	LOL	347.85	VL	27.224	GAL	-4.54	AZL	52.34	HCA	174.45	SMA	129.94	ECC	.17713	INC	37.6645	V1	29.586		
RP	107.59	LAP	3.39	LOP	163.45	VP	38.023	GAP	2.46	AZP	127.53	TAL	202.00	TAP	16.45	RCA	106.93	APO	152.96	V2	35.222		
RC	100.910	GL	63.48	GP	-76.96	ZAL	95.27	ZAP	93.61	ETS	209.39	ZAE	74.07	ETE	120.66	ZAC	.56	ETC	355.61	CLP	106.20		

PLANETOCENTRIC CONIC

C3	343.492	VHL	18.534	DLA	41.19	RAL	256.02	RAD	6571.9	VEL	21.559	PTH	3.22	VHP	23.852	DPA	-52.58	RAP	95.16	ECC	6.6530		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.73	19 36 42	4771.22	-3.26	217.79	162.31	48.91	20 56 13	4171.2	-8.49	212.12
121.27	2 35 23	3481.12	-3.25	119.19	162.29	48.91	3 33 24	2881.1	-8.48	113.52
58.73	19 36 42	4771.22	-3.26	217.79	162.31	48.91	20 56 13	4171.2	-8.49	212.12
121.27	2 35 23	3481.12	-3.25	119.19	162.29	48.91	3 33 24	2881.1	-8.48	113.52
58.73	19 36 42	4771.22	-3.26	217.79	162.31	48.91	20 56 13	4171.2	-8.49	212.12
121.27	2 35 23	3481.12	-3.25	119.19	162.29	48.91	3 33 24	2881.1	-8.48	113.52

DIFFERENTIAL CORRECTIONS

TDE	1.5094	TRA	1.8978	TC3	-.0039	BAU	.6338
RDE	-9.8631	RRA	-3.4769	RC3	-.1380	FAU	-.01188
FDE	1.8432	FRA	.9014	FC3	.0299	BSP	10531
BDE	9.9780	BRA	3.9611	BC3	.1380	FSP	-191

MID-COURSE EXECUTION ACCURACY

SGT	908.7	SGR	3405.8	SG3	59.5		
RRT	-.8171	RRF	-.9906	RTF	.8837		
SGB	3524.9	R23	-.0963	R13	-.9943		
SG1	3487.6	SG2	511.5	THA	102.57		

ORBIT DETERMINATION ACCURACY

ST	522.0	SR	3079.2	SS	1196.4
CRT	-.9476	CRS	.9986	CST	-.9632
LSA	3340.0	MSA	171.9	SSA	1.8
EL1	3118.7	EL2	164.6	ALF	99.15

LAUNCH DATE SEP 11 1970 FLIGHT TIME 134.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 381.797
RL 150.60 LAL .00 LOL 347.85 VL 27.196 GAL -4.12 AZL 18.77 HCA 176.41 SMA 129.75 ECC .17568 INC71.2296 V1 29.586
RP 107.61 LAP 3.39 LOP 166.70 VP 37.996 GAP 2.44 AZP 161.20 TAL 200.03 TAP 16.45 RCA 106.95 APO 152.54 V2 35.215
RC 103.196 GL 50.85 GP -57.36 ZAL 92.60 ZAP 91.98 ETS 189.32 ZAE 54.03 ETE 102.52 ZAC 20.18 ETC 283.72 CLP 93.68

PLANETOCENTRIC CONIC
C31096.770 VHL 33.118 DLA 28.06 RAL 258.44 RAD 6573.0 VEL 34.901 PTH 3.52 VHP 42.671 DPA -33.57 RAP 87.13 ECC19.0501

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 47 16	4100.00	-3.19	166.40	170.92	61.85	24 55 36	3500.0	-6.93	159.72
90.00	22 40 9	4317.91	3.84	178.57	167.18	61.92	23 52 7	3717.9	.05	171.93
100.00	2 6 42	3663.15	-9.15	137.49	174.16	61.42	3 7 45	3063.1	-12.90	130.71
100.00	23 7 20	4229.99	9.81	168.89	163.95	61.62	24 17 50	3630.0	5.94	162.24
110.00	4 19 59	3245.97	-17.55	110.64	178.98	60.19	5 14 5	2646.0	-21.38	103.61
110.00	23 10 32	4219.94	18.23	163.34	159.16	60.57	24 20 52	3619.9	14.18	156.58

DIFFERENTIAL CORRECTIONS
TDE-3.8547 TRA .9114 TC3 -.0679 BAU 3.2701
RD-13.1676 RRA-7.7010 RC3 -.2124 FAU-.05376
FDE 2.4892 FRA 1.6688 FC3 .0424 BSP 9651
BDE13.7202 BRA 7.7547 BC3 .2230 FSP -169

MID-COURSE EXECUTION ACCURACY
SGT 823.8 SGR 3073.9 SG3 52.7
RRT .7431 RRF -.9984 RTF -.7071
SGB 3182.4 R23 -.0873 R13 -.9959
SG1 3136.2 SG2 540.3 THA 78.39

ORBIT DETERMINATION ACCURACY
ST 669.2 SR 2323.1 SS 1628.7
CRT .9620 CRS .9996 CST .9541
LSA 2909.0 MSA 187.6 SSA 1.5
EL1 2411.1 EL2 176.0 ALF 74.43

LAUNCH DATE SEP 11 1970 FLIGHT TIME 136.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 392.557
RL 150.60 LAL .00 LOL 347.85 VL 27.166 GAL -4.86 AZL 148.37 HCA 183.98 SMA 129.54 ECC .18282 INC58.3708 V1 29.586
RP 107.64 LAP 3.39 LOP 169.94 VP 37.967 GAP 4.04 AZP 31.69 TAL 202.76 TAP 26.74 RCA 105.86 APO 153.22 V2 35.207
RC 105.482 GL -56.08 GP 64.17 ZAL 93.82 ZAP 94.04 ETS 179.38 ZAE 68.27 ETE 264.97 ZAC 141.30 ETC 278.76 CLP 99.31

PLANETOCENTRIC CONIC
C3 771.386 VHL 27.774 DLA -76.22 RAL 220.27 RAD 6572.8 VEL 29.878 PTH 3.45 VHP 35.882 DPA 86.31 RAP 26.24 ECC13.6951

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
15.69	3 14 38	2440.24	.47	81.55	130.14	166.22	3 55 18	1840.2	8.24	80.05
164.31	14 12 12	655.01	.48	284.20	130.16	166.22	14 23 7	55.0	8.24	282.69
15.69	3 14 38	2440.24	.47	81.55	130.14	166.22	3 55 18	1840.2	8.24	80.05
164.31	14 12 12	655.01	.48	284.20	130.16	166.22	14 23 7	55.0	8.24	282.69
15.69	3 14 38	2440.24	.47	81.55	130.14	166.22	3 55 18	1840.2	8.24	80.05
164.31	14 12 12	655.01	.48	284.20	130.16	166.22	14 23 7	55.0	8.24	282.69

DIFFERENTIAL CORRECTIONS
TDE 4.7991 TRA .8433 TC3 -.0889 BAU 2.3608
RD-14.1550 RRA -.6290 RC3 .2109 FAU-.03516
FDE-2.9965 FRA -.1159 FC3 .0395 BSP 10367
BDE14.9465 BRA 1.0521 BC3 .2289 FSP -175

MID-COURSE EXECUTION ACCURACY
SGT 1325.8 SGR 3193.3 SG3 57.3
RRT -.9136 RRF .9990 RTF -.9021
SGB 3457.6 R23 -.0829 R13 .9959
SG1 3420.7 SG2 503.3 THA 111.25

ORBIT DETERMINATION ACCURACY
ST 1014.1 SR 2924.9 SS 1918.8
CRT -.9869 CRS-1.0000 CST .9857
LSA 3638.6 MSA 159.7 SSA 2.0
EL1 3091.8 EL2 154.7 ALF 108.94

LAUNCH DATE SEP 11 1970 FLIGHT TIME 138.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 397.756
RL 150.60 LAL .00 LOL 347.85 VL 27.134 GAL -4.50 AZL 122.36 HCA 186.31 SMA 129.32 ECC .18182 INC32.3649 V1 29.586
RP 107.66 LAP 3.37 LOP 173.18 VP 37.936 GAP 4.12 AZP 57.79 TAL 201.07 TAP 27.37 RCA 105.81 APO 152.84 V2 35.198
RC 107.765 GL -64.39 GP 78.37 ZAL 95.99 ZAP 97.08 ETS 157.66 ZAE 84.82 ETE 243.25 ZAC 156.26 ETC 269.27 CLP 127.66

PLANETOCENTRIC CONIC
C3 257.843 VHL 16.057 DLA -79.03 RAL 179.17 RAD 6571.5 VEL 19.472 PTH 3.11 VHP 20.818 DPA 75.50 RAP 259.24 ECC 5.2434

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
12.49	0 24 20	2345.26	7.16	82.27	87.76	168.94	1 3 25	1745.3	15.01	81.10
167.51	11 34 37	5838.05	7.16	259.67	87.79	168.94	13 11 55	5238.1	15.01	258.50
12.49	0 24 20	2345.26	7.16	82.27	87.76	168.94	1 3 25	1745.3	15.01	81.10
167.51	11 34 37	5838.05	7.16	259.67	87.79	168.94	13 11 55	5238.1	15.01	258.50
12.49	0 24 20	2345.26	7.16	82.27	87.76	168.94	1 3 25	1745.3	15.01	81.10
167.51	11 34 37	5838.05	7.16	259.67	87.79	168.94	13 11 55	5238.1	15.01	258.50

DIFFERENTIAL CORRECTIONS
TDE-1.2891 TRA .0576 TC3 -.0129 BAU .3595
RDE-5.7390 RRA-1.7167 RC3 .1035 FAU-.00299
FDE-1.3873 FRA -.3421 FC3 .0101 BSP 12009
BDE 5.8820 BRA 1.7177 BC3 .1043 FSP -225

MID-COURSE EXECUTION ACCURACY
SGT 474.3 SGR 3828.9 SG3 70.1
RRT .3195 RRF .9948 RTF .4083
SGB 3858.2 R23 -.0907 R13 .9952
SG1 3832.0 SG2 449.1 THA 87.70

ORBIT DETERMINATION ACCURACY
ST 461.1 SR 2264.0 SS 955.2
CRT .8723 CRS -.9976 CST -.9043
LSA 2489.8 MSA 226.8 SSA 1.4
EL1 2299.8 EL2 222.0 ALF 79.83

LAUNCH DATE SEP 11 1970 FLIGHT TIME 140.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 403.534
RL 150.60 LAL .00 LOL 347.85 VL 27.101 GAL -4.25 AZL 111.40 HCA 189.20 SMA 129.10 ECC .18188 INC21.3951 V1 29.586
RP 107.69 LAP 3.34 LOP 176.43 VP 37.904 GAP 4.35 AZP 68.86 TAL 199.78 TAP 28.98 RCA 105.62 APO 152.58 V2 35.189
RC 110.046 GL -64.59 GP 79.06 ZAL 98.19 ZAP 100.94 ETS 88.04 ZAE 94.11 ETE 173.90 ZAC 162.12 ETC 220.23 CLP 178.30

PLANETOCENTRIC CONIC
C3 119.144 VHL 10.915 DLA -76.96 RAL 173.96 RAD 6570.2 VEL 15.507 PTH 2.77 VHP 14.254 DPA 65.63 RAP 251.31 ECC 2.9608

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
14.85	0 8 14	2213.22	15.61	79.33	80.24	166.45	0 45 7	1613.2	23.38	77.71
165.15	11 9 8	5713.18	15.62	259.04	80.26	166.45	12 44 22	5113.2	23.38	257.43
14.85	0 8 14	2213.22	15.61	79.33	80.24	166.45	0 45 7	1613.2	23.38	77.71
165.15	11 9 8	5713.18	15.62	259.04	80.26	166.45	12 44 22	5113.2	23.38	257.43
14.85	0 8 14	2213.22	15.61	79.33	80.24	166.45	0 45 7	1613.2	23.38	77.71
165.15	11 9 8	5713.18	15.62	259.04	80.26	166.45	12 44 22	5113.2	23.38	257.43

DIFFERENTIAL CORRECTIONS
TDE-3.3984 TRA-1.4596 TC3 -.1641 BAU .2644
RDE .0460 RRA -.4906 RC3 -.0250 FAU .01016
FDE-1.0729 FRA -.3802 FC3 -.0738 BSP 12515
BDE 3.3987 BRA 1.5399 BC3 .1660 FSP -296

MID-COURSE EXECUTION ACCURACY
SGT 3852.1 SGR 1142.9 SG3 91.7
RRT .8749 RRF .8286 RTF .9948
SGB 4018.1 R23 -.1215 R13 .9911
SG1 3982.2 SG2 535.4 THA 14.82

ORBIT DETERMINATION ACCURACY
ST 2054.2 SR 343.2 SS 766.7
CRT .4336 CRS -.3616 CST -.9969
LSA 2196.9 MSA 315.1 SSA 2.0
EL1 2059.7 EL2 308.5 ALF 4.24

LAUNCH DATE SEP 11 1970 FLIGHT TIME 142.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 409.473

```
RL  150.60 LAL    .00 LOL 347.85 VL  27.066 GAL  -4.02 AZL 105.75 HCA 192.26 SMA 128.86 ECC .18230 INC15.7493 V1  29.586
RP  107.72 LAP   3.30 LOP 179.67 VP  37.870 GAP   4.62 AZP  74.59 TAL 198.60 TAP  30.86 RCA 105.37 APO 152.35 V2  35.179
RC 112.324 GL  -62.13 GP   73.75 ZAL 100.04 ZAP 105.20 ETS  60.71 ZAE 100.64 ETE 147.39 ZAC 162.79 ETC 216.20 CLP-159.54
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PLANETOCENTRIC CONIC

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C3  68.730 VHL  8.290 DLA -74.83 RAL 180.83 RAD 6569.3 VEL 13.787 PTH   2.52 VHP 10.959 DPA  58.02 RAP 246.97 ECC 2.1311
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.29	0 40 32	2087.72	23.38	75.60	84.08	163.44	1 15 20	1487.7	31.03	73.37
162.71	11 31 38	5596.46	23.39	257.74	84.11	163.43	13 4 55	4996.5	31.03	255.50
17.29	0 40 32	2087.72	23.38	75.60	84.08	163.44	1 15 20	1487.7	31.03	73.37
162.71	11 31 38	5596.46	23.39	257.74	84.11	163.43	13 4 55	4996.5	31.03	255.50
17.29	0 40 32	2087.72	23.38	75.60	84.08	163.44	1 15 20	1487.7	31.03	73.37
162.71	11 31 38	5596.46	23.39	257.74	84.11	163.43	13 4 55	4996.5	31.03	255.50

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.7344 TRA-1.2875 TC3 -.5308 BAU  .5010   SGT 3988.5 SGR 1032.5 SG3  119.4     ST  2147.7 SR   917.4 SS   853.2
RDE 1.3131 RRA  .1692 RC3  .1247 FAU .01945   RRT -.8297 RRF -.9155 RTF  .9803     CRT -.9399 CRS  .9806 CST -.9886
FDE-1.2274 FRA -.3834 FC3 -.2450 BSP  12831   SGB 4120.0 R23  .1533 R13 -.9854     LSA 2468.1 MSA  301.0 SSA    2.7
BDE 3.0334 BRA 1.2985 BC3  .5453 FSP   -388   SG1 4081.3 SG2  563.3 THA 167.64     EL1 2317.3 EL2  290.2 ALF 157.76
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LAUNCH DATE SEP 11 1970 FLIGHT TIME 144.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 415.466

```
RL  150.60 LAL    .00 LOL 347.85 VL  27.031 GAL  -3.80 AZL 102.35 HCA 195.39 SMA 128.62 ECC .18292 INC12.3544 V1  29.586
RP  107.75 LAP   3.26 LOP 182.90 VP  37.835 GAP   4.91 AZP  78.08 TAL 197.43 TAP  32.82 RCA 105.09 APO 152.15 V2  35.169
RC 114.599 GL  -58.75 GP   67.77 ZAL 101.42 ZAP 109.64 ETS  53.91 ZAE 105.76 ETE 141.97 ZAC 160.42 ETC 227.18 CLP-152.66
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PLANETOCENTRIC CONIC

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C3  45.561 VHL  6.750 DLA -72.60 RAL 189.94 RAD 6568.7 VEL 12.920 PTH   2.35 VHP  9.082 DPA  51.41 RAP 244.02 ECC 1.7498
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
19.86	1 22 9	1981.38	29.58	71.21	89.68	159.89	1 55 10	1381.4	37.05	68.19
160.14	12 2 45	5500.98	29.59	255.94	89.71	159.89	13 34 26	4901.0	37.05	252.92
19.86	1 22 9	1981.38	29.58	71.21	89.68	159.89	1 55 10	1381.4	37.05	68.19
160.14	12 2 45	5500.98	29.59	255.94	89.71	159.89	13 34 26	4901.0	37.05	252.92
19.86	1 22 9	1981.38	29.58	71.21	89.68	159.89	1 55 10	1381.4	37.05	68.19
160.14	12 2 45	5500.98	29.59	255.94	89.71	159.89	13 34 26	4901.0	37.05	252.92

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.5830 TRA-1.0659 TC3 -.9647 BAU  .6160   SGT 3957.0 SGR 1374.3 SG3  149.6     ST  2373.4 SR  1178.3 SS   982.6
RDE 1.3716 RRA  .2128 RC3  .3037 FAU .02740   RRT -.9037 RRF -.9728 RTF  .9703     CRT -.9718 CRS  .9958 CST -.9893
FDE-1.4307 FRA -.3577 FC3 -.5206 BSP  12972   SGB 4188.9 R23  .1818 R13 -.9791     LSA 2813.5 MSA  266.6 SSA    3.5
BDE 2.9246 BRA 1.0869 BC3 1.0114 FSP   -482   SG1 4151.2 SG2  560.8 THA 162.24     EL1 2638.0 EL2  250.1 ALF 153.99
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LAUNCH DATE SEP 11 1970 FLIGHT TIME 146.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 421.475

```
RL  150.60 LAL    .00 LOL 347.85 VL  26.994 GAL  -3.57 AZL 100.09 HCA 198.55 SMA 128.37 ECC .18368 INC10.0907 V1  29.586
RP  107.79 LAP   3.20 LOP 186.14 VP  37.799 GAP   5.21 AZP  80.42 TAL 196.25 TAP  34.80 RCA 104.79 APO 151.95 V2  35.158
RC 116.871 GL  -55.08 GP   62.05 ZAL 102.32 ZAP 114.08 ETS  51.49 ZAE 109.94 ETE 141.43 ZAC 156.76 ETC 236.01 CLP-150.53
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PLANETOCENTRIC CONIC

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C3  33.142 VHL  5.757 DLA -70.22 RAL 198.79 RAD 6568.3 VEL 12.430 PTH   2.25 VHP  7.927 DPA  45.42 RAP 241.97 ECC 1.5454
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
22.61	2 3 15	1894.28	34.14	66.25	94.66	155.86	2 34 50	1294.3	41.37	62.32
157.39	12 32 14	5427.49	34.15	253.83	94.68	155.86	14 2 42	4827.5	41.38	249.90
22.61	2 3 15	1894.28	34.14	66.25	94.66	155.86	2 34 50	1294.3	41.37	62.32
157.39	12 32 14	5427.49	34.15	253.83	94.68	155.86	14 2 42	4827.5	41.38	249.90
22.61	2 3 15	1894.28	34.14	66.25	94.66	155.86	2 34 50	1294.3	41.37	62.32
157.39	12 32 14	5427.49	34.15	253.83	94.68	155.86	14 2 42	4827.5	41.38	249.90

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.5202 TRA -.9066 TC3-1.4852 BAU  .6910   SGT 4040.3 SGR 1456.6 SG3  182.4     ST  2633.2 SR  1261.8 SS  1099.3
RDE 1.2587 RRA  .1707 RC3  .4761 FAU .03485   RRT -.9206 RRF -.9821 RTF  .9649     CRT -.9822 CRS  .9985 CST -.9910
FDE-1.5880 FRA -.3155 FC3 -.9102 BSP  13444   SGB 4294.9 R23  .1988 R13 -.9743     LSA 3111.0 MSA  237.5 SSA    4.3
BDE 2.8171 BRA  .9226 BC3 1.5596 FSP   -596   SG1 4260.9 SG2  539.3 THA 161.33     EL1 2912.1 EL2  214.5 ALF 154.65
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LAUNCH DATE SEP 11 1970 FLIGHT TIME 148.00 ARRIVAL DATE FEB 6 1971

HELIOCENTRIC CONIC DISTANCE 427.487

```
RL  150.60 LAL    .00 LOL 347.85 VL  26.956 GAL  -3.34 AZL  98.47 HCA 201.73 SMA 128.12 ECC .18457 INC 8.4694 V1  29.586
RP  107.82 LAP   3.13 LOP 189.37 VP  37.762 GAP   5.50 AZP  82.12 TAL 195.05 TAP  36.79 RCA 104.48 APO 151.77 V2  35.147
RC 119.138 GL  -51.35 GP   56.75 ZAL 102.72 ZAP 118.41 ETS  50.39 ZAE 113.38 ETE 142.57 ZAC 152.75 ETC 241.95 CLP-150.19
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PLANETOCENTRIC CONIC

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C3  25.752 VHL  5.075 DLA -67.73 RAL 206.82 RAD 6568.0 VEL 12.130 PTH   2.17 VHP  7.184 DPA  39.91 RAP 240.60 ECC 1.4238
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
25.49	2 41 33	1822.91	37.30	60.92	98.63	151.55	3 11 56	1222.9	44.23	56.03
154.51	12 57 58	5372.70	37.31	251.57	98.65	151.55	14 27 31	4772.7	44.23	246.68
25.49	2 41 33	1822.91	37.30	60.92	98.63	151.55	3 11 56	1222.9	44.23	56.03
154.51	12 57 58	5372.70	37.31	251.57	98.65	151.55	14 27 31	4772.7	44.23	246.68
25.49	2 41 33	1822.91	37.30	60.92	98.63	151.55	3 11 56	1222.9	44.23	56.03
154.51	12 57 58	5372.70	37.31	251.57	98.65	151.55	14 27 31	4772.7	44.23	246.68

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.4318 TRA -.7620 TC3-2.0546 BAU  .7381   SGT 4128.2 SGR 1424.4 SG3  211.0     ST  2829.6 SR  1243.1 SS  1169.6
RDE 1.0974 RRA  .1099 RC3  .6125 FAU .04084   RRT -.9255 RRF -.9835 RTF  .9605     CRT -.9866 CRS  .9993 CST -.9918
FDE-1.6574 FRA -.2425 FC3-1.3729 BSP  13652   SGB 4367.1 R23  .2127 R13 -.9693     LSA 3297.4 MSA  216.8 SSA    5.3
BDE 2.6679 BRA  .7699 BC3 2.1440 FSP   -688   SG1 4336.8 SG2  513.7 THA 162.03     EL1 3085.0 EL2  186.3 ALF 156.48
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LAUNCH DATE SEP 11 1970 FLIGHT TIME 150.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 433.492

```
RL  150.60 LAL    .00 LOL 347.85 VL  26.918 GAL  -3.10 AZL  97.25 HCA 204.92 SMA 127.87 ECC .18557 INC 7.2461 V1  29.586
RP  107.86 LAP   3.05 LOP 192.60 VP  37.723 GAP   5.80 AZP  83.42 TAL 193.84 TAP  38.76 RCA 104.14 APO 151.60 V2  35.136
RC 121.402 GL  -47.69 GP   51.92 ZAL 102.62 ZAP 122.52 ETS  49.74 ZAE 116.19 ETE 144.42 ZAC 148.81 ETC 245.97 CLP-150.66
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PLANETOCENTRIC CONIC

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C3  21.018 VHL  4.585 DLA -65.20 RAL 214.02 RAD 6567.9 VEL 11.933 PTH   2.12 VHP  6.697 DPA  34.86 RAP 239.77 ECC 1.3459
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.45	3 16 56	1763.59	39.33	55.42	101.76	147.16	3 46 19	1163.6	45.90	49.62
151.55	13 20 2	5332.95	39.34	249.34	101.78	147.16	14 48 55	4732.9	45.90	243.53
28.45	3 16 56	1763.59	39.33	55.42	101.76	147.16	3 46 19	1163.6	45.90	49.62
151.55	13 20 2	5332.95	39.34	249.34	101.78	147.16	14 48 55	4732.9	45.90	243.53
28.45	3 16 56	1763.59	39.33	55.42	101.76	147.16	3 46 19	1163.6	45.90	49.62
151.55	13 20 2	5332.95	39.34	249.34	101.78	147.16	14 48 55	4732.9	45.90	243.53

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.3248 TRA -.6303 TC3-2.6642 BAU  .7751   SGT 4235.2 SGR 1354.6 SG3  235.6    ST  2960.4 SR  1175.2 SS  1198.0
RDE  .9393 RRA  .0552 RC3  .7149 FAU .04558   RRT -.9275 RRF -.9822 RTF  .9575    CRT -.9888 CRS  .9997 CST -.9921
FDE-1.6526 FRA -.1519 FC3-1.8775 BSP  13907   SGB 4446.5 R23  .2201 R13 -.9652    LSA 3397.0 MSA  201.4 SSA    6.3
BDE 2.5074 BRA  .6328 BC3 2.7585 FSP   -767   SG1 4420.0 SG2  485.1 THA 163.27    EL1 3181.0 EL2  163.1 ALF 158.51
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LAUNCH DATE SEP 11 1970 FLIGHT TIME 152.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 439.486

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RL  150.60 LAL    .00 LOL 347.85 VL  26.879 GAL  -2.85 AZL  96.29 HCA 208.12 SMA 127.61 ECC .18669 INC 6.2856 V1  29.586
RP  107.89 LAP   2.96 LOP 195.83 VP  37.684 GAP   6.09 AZP  84.45 TAL 192.59 TAP  40.71 RCA 103.79 APO 151.43 V2  35.124
RC 123.660 GL  -44.13 GP   47.56 ZAL 102.07 ZAP 126.38 ETS  49.27 ZAE 118.45 ETE 146.56 ZAC 145.14 ETC 248.81 CLP-151.52
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PLANETOCENTRIC CONIC

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C3  17.821 VHL  4.221 DLA -62.66 RAL 220.54 RAD 6567.7 VEL 11.798 PTH   2.09 VHP  6.377 DPA  30.25 RAP 239.36 ECC 1.2933
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.44	3 49 56	1713.23	40.47	49.96	104.36	142.87	4 18 29	1113.2	46.65	43.35
148.56	13 39 3	5305.25	40.48	247.29	104.37	142.86	15 7 28	4705.2	46.65	240.67
31.44	3 49 56	1713.23	40.47	49.96	104.36	142.87	4 18 29	1113.2	46.65	43.35
148.56	13 39 3	5305.25	40.48	247.29	104.37	142.86	15 7 28	4705.2	46.65	240.67
31.44	3 49 56	1713.23	40.47	49.96	104.36	142.87	4 18 29	1113.2	46.65	43.35
148.56	13 39 3	5305.25	40.48	247.29	104.37	142.86	15 7 28	4705.2	46.65	240.67

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.2048 TRA -.5032 TC3-3.2924 BAU  .8063   SGT 4346.8 SGR 1270.8 SG3  255.0    ST  3026.7 SR  1084.9 SS  1188.5
RDE  .7992 RRA  .0094 RC3  .7834 FAU .04904   RRT -.9280 RRF -.9791 RTF  .9554    CRT -.9901 CRS  .9999 CST -.9919
FDE-1.5884 FRA -.0494 FC3-2.3822 BSP  14183   SGB 4528.7 R23  .2216 R13 -.9619    LSA 3422.7 MSA  189.6 SSA    7.4
BDE 2.3452 BRA  .5033 BC3 3.3843 FSP   -831   SG1 4505.6 SG2  456.7 THA 164.66    EL1 3212.1 EL2  143.2 ALF 160.42
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LAUNCH DATE SEP 11 1970 FLIGHT TIME 154.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 445.468

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RL  150.60 LAL    .00 LOL 347.85 VL  26.839 GAL  -2.59 AZL  95.51 HCA 211.32 SMA 127.35 ECC .18792 INC 5.5075 V1  29.586
RP  107.93 LAP   2.86 LOP 199.05 VP  37.645 GAP   6.38 AZP  85.29 TAL 191.32 TAP  42.64 RCA 103.42 APO 151.28 V2  35.112
RC 125.912 GL  -40.69 GP   43.65 ZAL 101.10 ZAP 129.96 ETS  48.88 ZAE 120.25 ETE 148.78 ZAC 141.79 ETC 250.90 CLP-152.57
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PLANETOCENTRIC CONIC

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C3  15.580 VHL  3.947 DLA -60.14 RAL 226.53 RAD 6567.6 VEL 11.703 PTH   2.06 VHP  6.172 DPA  26.06 RAP 239.32 ECC 1.2564
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.44	4 21 12	1669.42	40.91	44.63	106.68	138.79	4 49 1	1069.4	46.69	37.37
145.56	13 55 33	5287.42	40.92	245.54	106.69	138.79	15 23 41	4687.4	46.70	238.28
34.44	4 21 12	1669.42	40.91	44.63	106.68	138.79	4 49 1	1069.4	46.69	37.37
145.56	13 55 33	5287.42	40.92	245.54	106.69	138.79	15 23 41	4687.4	46.70	238.28
34.44	4 21 12	1669.42	40.91	44.63	106.68	138.79	4 49 1	1069.4	46.69	37.37
145.56	13 55 33	5287.42	40.92	245.54	106.69	138.79	15 23 41	4687.4	46.70	238.28

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.0791 TRA -.3778 TC3-3.9209 BAU  .8344   SGT 4461.2 SGR 1185.3 SG3  269.4    ST  3037.5 SR   989.3 SS  1148.9
RDE  .6812 RRA -.0277 RC3  .8214 FAU .05129   RRT -.9272 RRF -.9744 RTF  .9540    CRT -.9910 CRS  .9999 CST -.9912
FDE-1.4831 FRA  .0587 FC3-2.8498 BSP  14489   SGB 4615.9 R23  .2175 R13 -.9593    LSA 3390.1 MSA  180.4 SSA    8.7
BDE 2.1879 BRA  .3788 BC3 4.0060 FSP   -881   SG1 4595.8 SG2  431.0 THA 166.04    EL1 3192.1 EL2  125.7 ALF 162.08
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LAUNCH DATE SEP 11 1970 FLIGHT TIME 156.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 451.434

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RL  150.60 LAL    .00 LOL 347.85 VL  26.799 GAL  -2.32 AZL  94.86 HCA 214.52 SMA 127.08 ECC .18927 INC 4.8608 V1  29.586
RP  107.97 LAP   2.75 LOP 202.27 VP  37.605 GAP   6.67 AZP  85.99 TAL 190.03 TAP  44.55 RCA 103.03 APO 151.14 V2  35.099
RC 128.158 GL  -37.38 GP   40.16 ZAL  99.74 ZAP 133.26 ETS  48.54 ZAE 121.66 ETE 150.97 ZAC 138.78 ETC 252.51 CLP-153.72
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PLANETOCENTRIC CONIC

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C3  13.971 VHL  3.738 DLA -57.65 RAL 232.10 RAD 6567.5 VEL 11.634 PTH   2.04 VHP  6.049 DPA  22.25 RAP 239.58 ECC 1.2299
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.44	4 51 9	1630.44	40.81	39.52	108.92	135.00	5 18 20	1030.4	46.20	31.76
142.56	14 10 4	5277.82	40.82	244.18	108.93	134.99	15 38 2	4677.8	46.21	236.43
37.44	4 51 9	1630.44	40.81	39.52	108.92	135.00	5 18 20	1030.4	46.20	31.76
142.56	14 10 4	5277.82	40.82	244.18	108.93	134.99	15 38 2	4677.8	46.21	236.43
37.44	4 51 9	1630.44	40.81	39.52	108.92	135.00	5 18 20	1030.4	46.20	31.76
142.56	14 10 4	5277.82	40.82	244.18	108.93	134.99	15 38 2	4677.8	46.21	236.43

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.9489 TRA -.2503 TC3-4.5281 BAU  .8599   SGT 4571.3 SGR 1102.6 SG3  278.8    ST  2997.0 SR   896.4 SS  1085.0
RDE  .5838 RRA -.0580 RC3  .8326 FAU .05242   RRT -.9248 RRF -.9678 RTF  .9529    CRT -.9918 CRS  .9998 CST -.9900
FDE-1.3501 FRA  .1687 FC3-3.2482 BSP  14785   SGB 4702.4 R23  .2090 R13 -.9571    LSA 3306.4 MSA  173.2 SSA   10.2
BDE 2.0345 BRA  .2569 BC3 4.6040 FSP   -914   SG1 4684.6 SG2  409.4 THA 167.33    EL1 3126.2 EL2  109.8 ALF 163.46
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LAUNCH DATE SEP 11 1970 FLIGHT TIME 158.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 457.385

RL 150.60 LAL .00 LOL 347.85 VL 26.758 GAL -2.04 AZL 94.31 HCA 217.72 SMA 126.82 ECC .19075 INC 4.3117 V1 29.586
RP 108.01 LAP 2.64 LOP 205.49 VP 37.564 GAP 6.96 AZP 86.59 TAL 188.72 TAP 46.44 RCA 102.63 APO 151.01 V2 35.086
RC 130.397 GL -34.19 GP 37.06 ZAL 98.03 ZAP 136.28 ETS 48.25 ZAE 122.75 ETE 153.05 ZAC 136.11 ETC 253.80 CLP-154.91

PLANETOCENTRIC CONIC

C3 12.802 VHL 3.578 DLA -55.18 RAL 237.35 RAD 6567.5 VEL 11.584 PTH 2.03 VHP 5.986 DPA 18.80 RAP 240.10 ECC 1.2107

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.44	5 20 16	1594.78	40.30	34.64	111.19	131.53	5 46 51	994.8	45.30	26.54
139.56	14 22 48	5275.54	40.31	243.27	111.20	131.52	15 50 44	4675.5	45.31	235.17
40.44	5 20 16	1594.78	40.30	34.64	111.19	131.53	5 46 51	994.8	45.30	26.54
139.56	14 22 48	5275.54	40.31	243.27	111.20	131.52	15 50 44	4675.5	45.31	235.17
40.44	5 20 16	1594.78	40.30	34.64	111.19	131.53	5 46 51	994.8	45.30	26.54
139.56	14 22 48	5275.54	40.31	243.27	111.20	131.52	15 50 44	4675.5	45.31	235.17

DIFFERENTIAL CORRECTIONS
TDE-1.8176 TRA -.1197 TC3-5.0992 BAU .8841
RDE .5052 RRA -.0826 RC3 .8238 FAU .05268
FDE-1.2044 FRA .2764 FC3-3.5623 BSP 15089
BDE 1.8865 BRA .1454 BC3 5.1654 FSP -934

MID-COURSE EXECUTION ACCURACY
SGT 4679.7 SGR 1027.5 SG3 284.2
RRT -.9210 RRF -.9595 RTF .9521
SGB 4791.2 R23 .1961 R13 -.9555
SG1 4775.1 SG2 392.3 THA 168.49

ORBIT DETERMINATION ACCURACY
ST 2914.4 SR 812.2 SS 1005.5
CRT -.9927 CRS .9993 CST -.9881
LSA 3183.8 MSA 167.6 SSA 11.8
EL1 3024.0 EL2 94.6 ALF 164.52

LAUNCH DATE SEP 11 1970 FLIGHT TIME 160.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 463.319

RL 150.60 LAL .00 LOL 347.85 VL 26.717 GAL -1.75 AZL 93.84 HCA 220.92 SMA 126.55 ECC .19235 INC 3.8371 V1 29.586
RP 108.05 LAP 2.51 LOP 208.71 VP 37.523 GAP 7.26 AZP 87.10 TAL 187.38 TAP 48.30 RCA 102.21 APO 150.90 V2 35.074
RC 132.627 GL -31.12 GP 34.30 ZAL 96.01 ZAP 139.05 ETS 48.01 ZAE 123.58 ETE 154.98 ZAC 133.75 ETC 254.86 CLP-156.10

PLANETOCENTRIC CONIC

C3 11.956 VHL 3.458 DLA -52.74 RAL 242.32 RAD 6567.5 VEL 11.547 PTH 2.02 VHP 5.968 DPA 15.68 RAP 240.83 ECC 1.1968

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.46	5 48 52	1561.34	39.44	29.98	113.56	128.37	6 14 53	961.3	44.10	21.66
136.54	14 33 56	5279.92	39.46	242.83	113.57	128.35	16 1 56	4679.9	44.10	234.51
43.46	5 48 52	1561.34	39.44	29.98	113.56	128.37	6 14 53	961.3	44.10	21.66
136.54	14 33 56	5279.92	39.46	242.83	113.57	128.35	16 1 56	4679.9	44.10	234.51
43.46	5 48 52	1561.34	39.44	29.98	113.56	128.37	6 14 53	961.3	44.10	21.66
136.54	14 33 56	5279.92	39.46	242.83	113.57	128.35	16 1 56	4679.9	44.10	234.51

DIFFERENTIAL CORRECTIONS
TDE-1.6835 TRA .0157 TC3-5.6162 BAU .9067
RDE .4417 RRA -.1031 RC3 .7991 FAU .05220
FDE-1.0516 FRA .3805 FC3-3.7796 BSP 15386
BDE 1.7405 BRA .1043 BC3 5.6727 FSP -943

MID-COURSE EXECUTION ACCURACY
SGT 4782.0 SGR 959.5 SG3 285.9
RRT -.9154 RRF -.9490 RTF .9514
SGB 4877.4 R23 .1802 R13 -.9541
SG1 4862.5 SG2 379.9 THA 169.53

ORBIT DETERMINATION ACCURACY
ST 2792.0 SR 737.0 SS 913.7
CRT -.9937 CRS .9978 CST -.9851
LSA 3024.3 MSA 163.8 SSA 13.7
EL1 2886.5 EL2 79.8 ALF 165.29

LAUNCH DATE SEP 11 1970 FLIGHT TIME 162.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 469.235

RL 150.60 LAL .00 LOL 347.85 VL 26.676 GAL -1.45 AZL 93.42 HCA 224.12 SMA 126.29 ECC .19409 INC 3.4203 V1 29.586
RP 108.09 LAP 2.38 LOP 211.92 VP 37.481 GAP 7.55 AZP 87.54 TAL 186.02 TAP 50.14 RCA 101.78 APO 150.80 V2 35.061
RC 134.850 GL -28.17 GP 31.86 ZAL 93.74 ZAP 141.58 ETS 47.84 ZAE 124.22 ETE 156.75 ZAC 131.67 ETC 255.78 CLP-157.29

PLANETOCENTRIC CONIC

C3 11.358 VHL 3.370 DLA -50.32 RAL 247.07 RAD 6567.4 VEL 11.522 PTH 2.01 VHP 5.984 DPA 12.84 RAP 241.76 ECC 1.1869

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.50	6 17 12	1529.08	38.33	25.51	116.06	125.51	6 42 41	929.1	42.65	17.07
133.50	14 43 28	5290.74	38.34	242.89	116.07	125.50	16 11 39	4690.7	42.66	234.45
46.50	6 17 12	1529.08	38.33	25.51	116.06	125.51	6 42 41	929.1	42.65	17.07
133.50	14 43 28	5290.74	38.34	242.89	116.07	125.50	16 11 39	4690.7	42.66	234.45
46.50	6 17 12	1529.08	38.33	25.51	116.06	125.51	6 42 41	929.1	42.65	17.07
133.50	14 43 28	5290.74	38.34	242.89	116.07	125.50	16 11 39	4690.7	42.66	234.45

DIFFERENTIAL CORRECTIONS
TDE-1.5485 TRA .1557 TC3-6.0671 BAU .9285
RDE .3913 RRA -.1202 RC3 .7638 FAU .05118
FDE -.9010 FRA .4781 FC3-3.9013 BSP 15693
BDE 1.5971 BRA .1967 BC3 6.1150 FSP -944

MID-COURSE EXECUTION ACCURACY
SGT 4881.2 SGR 900.1 SG3 285.0
RRT -.9081 RRF -.9364 RTF .9511
SGB 4963.5 R23 .1617 R13 -.9532
SG1 4949.5 SG2 371.8 THA 170.44

ORBIT DETERMINATION ACCURACY
ST 2638.3 SR 672.4 SS 817.3
CRT -.9951 CRS .9946 CST -.9807
LSA 2838.0 MSA 161.4 SSA 15.7
EL1 2721.9 EL2 64.4 ALF 165.76

LAUNCH DATE SEP 11 1970 FLIGHT TIME 164.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 475.134

RL 150.60 LAL .00 LOL 347.85 VL 26.634 GAL -1.13 AZL 93.05 HCA 227.32 SMA 126.02 ECC .19597 INC 3.0491 V1 29.586
RP 108.13 LAP 2.24 LOP 215.13 VP 37.439 GAP 7.84 AZP 87.93 TAL 184.64 TAP 51.96 RCA 101.33 APO 150.72 V2 35.047
RC 137.063 GL -25.33 GP 29.69 ZAL 91.25 ZAP 143.91 ETS 47.74 ZAE 124.70 ETE 158.36 ZAC 129.84 ETC 256.59 CLP-158.47

PLANETOCENTRIC CONIC

C3 10.959 VHL 3.310 DLA -47.92 RAL 251.61 RAD 6567.4 VEL 11.504 PTH 2.00 VHP 6.029 DPA 10.27 RAP 242.85 ECC 1.1804

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.58	6 45 31	1497.11	37.01	21.19	118.70	122.93	7 10 28	897.1	41.03	12.70
130.42	14 51 22	5307.97	37.02	243.48	118.71	122.92	16 19 50	4708.0	41.04	234.98
49.58	6 45 31	1497.11	37.01	21.19	118.70	122.93	7 10 28	897.1	41.03	12.70
130.42	14 51 22	5307.97	37.02	243.48	118.71	122.92	16 19 50	4708.0	41.04	234.98
49.58	6 45 31	1497.11	37.01	21.19	118.70	122.93	7 10 28	897.1	41.03	12.70
130.42	14 51 22	5307.97	37.02	243.48	118.71	122.92	16 19 50	4708.0	41.04	234.98

DIFFERENTIAL CORRECTIONS
TDE-1.4064 TRA .3074 TC3-6.4181 BAU .9462
RDE .3499 RRA -.1366 RC3 .7153 FAU .04947
FDE -.7498 FRA .5755 FC3-3.9078 BSP 15857
BDE 1.4493 BRA .3364 BC3 6.4579 FSP -926

MID-COURSE EXECUTION ACCURACY
SGT 4961.1 SGR 846.0 SG3 281.1
RRT -.8975 RRF -.9212 RTF .9499
SGB 5032.7 R23 .1450 R13 -.9516
SG1 5019.2 SG2 368.7 THA 171.25

ORBIT DETERMINATION ACCURACY
ST 2449.0 SR 615.0 SS 715.8
CRT -.9967 CRS .9870 CST -.9730
LSA 2619.5 MSA 162.7 SSA 18.0
EL1 2524.6 EL2 48.2 ALF 165.94

LAUNCH DATE SEP 11 1970 FLIGHT TIME 166.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 481.013
RL 150.60 LAL .00 LOL 347.85 VL 26.593 GAL -.80 AZL 92.71 HCA 230.52 SMA 125.76 ECC .19800 INC 2.7147 V1 29.586
RP 108.17 LAP 2.09 LOP 218.34 VP 37.397 GAP 8.14 AZP 88.27 TAL 183.25 TAP 53.76 RCA 100.86 APO 150.66 V2 35.034
RC 139.266 GL -22.61 GP 27.76 ZAL 88.58 ZAP 146.05 ETS 47.74 ZAE 125.05 ETE 159.80 ZAC 128.23 ETC 257.33 CLP-159.62
PLANETOCENTRIC CONIC
C3 10.728 VHL 3.275 DLA -45.54 RAL 255.96 RAD 6567.4 VEL 11.494 PTH 2.00 VHP 6.095 DPA 7.93 RAP 244.09 ECC 1.1766

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.71	7 14 3	1464.52	35.52	16.94	121.47	120.62	7 38 27	864.5	39.28	8.46
127.29	14 57 32	5331.85	35.53	244.61	121.48	120.61	16 26 24	4731.8	39.29	236.12
52.71	7 14 3	1464.52	35.52	16.94	121.47	120.62	7 38 27	864.5	39.28	8.46
127.29	14 57 32	5331.85	35.53	244.61	121.48	120.61	16 26 24	4731.8	39.29	236.12
52.71	7 14 3	1464.52	35.52	16.94	121.47	120.62	7 38 27	864.5	39.28	8.46
127.29	14 57 32	5331.85	35.53	244.61	121.48	120.61	16 26 24	4731.8	39.29	236.12

DIFFERENTIAL CORRECTIONS
TDE-1.2677 TRA .4606 TC3-6.7007 BAU .9658
RDE .3186 RRA -.1502 RC3 .6685 FAU .04774
FDE -.6119 FRA .6615 FC3-3.8523 BSP 16134
BDE 1.3071 BRA .4844 BC3 6.7340 FSP -914

MID-COURSE EXECUTION ACCURACY
SGT 5050.6 SGR 801.9 SG3 276.5
RRT -.8863 RRF -.9044 RTF .9497
SGB 5113.8 R23 .1258 R13 -.9510
SG1 5100.6 SG2 367.8 THA 171.95

ORBIT DETERMINATION ACCURACY
ST 2248.1 SR 568.8 SS 622.4
CRT -.9984 CRS .9719 CST -.9614
LSA 2395.2 MSA 166.1 SSA 20.2
EL1 2318.7 EL2 31.5 ALF 165.82

LAUNCH DATE SEP 11 1970 FLIGHT TIME 168.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 486.871
RL 150.60 LAL .00 LOL 347.85 VL 26.551 GAL -.46 AZL 92.41 HCA 233.71 SMA 125.50 ECC .20020 INC 2.4099 V1 29.586
RP 108.21 LAP 1.94 LOP 221.54 VP 37.355 GAP 8.43 AZP 88.57 TAL 181.83 TAP 55.55 RCA 100.37 APO 150.62 V2 35.021
RC 141.459 GL -20.01 GP 26.04 ZAL 65.77 ZAP 148.02 ETS 47.83 ZAE 125.31 ETE 161.10 ZAC 126.81 ETC 258.02 CLP-160.74
PLANETOCENTRIC CONIC
C3 10.644 VHL 3.263 DLA -43.19 RAL 260.12 RAD 6567.4 VEL 11.491 PTH 2.00 VHP 6.180 DPA 5.79 RAP 245.45 ECC 1.1752

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.91	7 43 2	1430.32	33.91	12.72	124.37	118.54	8 6 52	830.3	37.42	4.28
124.09	15 1 45	5362.85	33.92	246.32	124.38	118.52	16 31 8	4762.9	37.43	237.88
55.91	7 43 2	1430.32	33.91	12.72	124.37	118.54	8 6 52	830.3	37.42	4.28
124.09	15 1 45	5362.85	33.92	246.32	124.38	118.52	16 31 8	4762.9	37.43	237.88
55.91	7 43 2	1430.32	33.91	12.72	124.37	118.54	8 6 52	830.3	37.42	4.28
124.09	15 1 45	5362.85	33.92	246.32	124.38	118.52	16 31 8	4762.9	37.43	237.88

DIFFERENTIAL CORRECTIONS
TDE-1.1273 TRA .6211 TC3-6.8906 BAU .9845
RDE .2945 RRA -.1627 RC3 .6206 FAU .04585
FDE -.4843 FRA .7418 FC3-3.7289 BSP 16405
BDE 1.1651 BRA .6421 BC3 6.9185 FSP -899

MID-COURSE EXECUTION ACCURACY
SGT 5135.5 SGR 764.9 SG3 271.0
RRT -.8734 RRF -.8860 RTF .9497
SGB 5192.1 R23 .1071 R13 -.9508
SG1 5179.0 SG2 369.4 THA 172.55

ORBIT DETERMINATION ACCURACY
ST 2034.5 SR 530.5 SS 538.2
CRT -.9991 CRS .9421 CST -.9432
LSA 2163.2 MSA 173.8 SSA 22.3
EL1 2102.4 EL2 22.3 ALF 165.40

LAUNCH DATE SEP 11 1970 FLIGHT TIME 170.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 492.708
RL 150.60 LAL .00 LOL 347.85 VL 26.509 GAL -.10 AZL 92.13 HCA 236.91 SMA 125.23 ECC .20258 INC 2.1292 V1 29.586
RP 108.25 LAP 1.78 LOP 224.74 VP 37.313 GAP 8.74 AZP 88.84 TAL 180.40 TAP 57.31 RCA 99.86 APO 150.60 V2 35.008
RC 143.643 GL -17.53 GP 24.51 ZAL 82.88 ZAP 149.84 ETS 48.02 ZAE 125.50 ETE 162.26 ZAC 125.55 ETC 258.67 CLP-161.84
PLANETOCENTRIC CONIC
C3 10.695 VHL 3.270 DLA -40.88 RAL 264.10 RAD 6567.4 VEL 11.493 PTH 2.00 VHP 6.281 DPA 3.84 RAP 246.93 ECC 1.1760

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.20	8 12 46	1393.35	32.21	8.42	127.37	116.66	8 35 59	793.3	35.50	.05
120.80	15 3 44	5401.77	32.22	248.66	127.38	116.65	16 33 46	4801.8	35.51	240.29
59.20	8 12 46	1393.35	32.21	8.42	127.37	116.66	8 35 59	793.3	35.50	.05
120.80	15 3 44	5401.77	32.22	248.66	127.38	116.65	16 33 46	4801.8	35.51	240.29
59.20	8 12 46	1393.35	32.21	8.42	127.37	116.66	8 35 59	793.3	35.50	.05
120.80	15 3 44	5401.77	32.22	248.66	127.38	116.65	16 33 46	4801.8	35.51	240.29

DIFFERENTIAL CORRECTIONS
TDE-1.0085 TRA .7667 TC3-7.0632 BAU 1.0134
RDE .2814 RRA -.1697 RC3 .5897 FAU .04478
FDE -.3905 FRA .7937 FC3-3.6251 BSP 17214
BDE 1.0470 BRA .7853 BC3 7.0877 FSP --930

MID-COURSE EXECUTION ACCURACY
SGT 5255.5 SGR 739.3 SG3 265.9
RRT -.8626 RRF -.8681 RTF .9540
SGB 5307.2 R23 .0811 R13 -.9547
SG1 5294.2 SG2 371.2 THA 173.05

ORBIT DETERMINATION ACCURACY
ST 1850.6 SR 507.1 SS 478.5
CRT -.9970 CRS .9018 CST -.9270
LSA 1969.4 MSA 179.1 SSA 24.0
EL1 1918.5 EL2 38.1 ALF 164.71

LAUNCH DATE SEP 11 1970 FLIGHT TIME 172.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 498.525
RL 150.60 LAL .00 LOL 347.85 VL 26.467 GAL .27 AZL 91.87 HCA 240.10 SMA 124.97 ECC .20513 INC 1.8685 V1 29.586
RP 108.29 LAP 1.62 LOP 227.94 VP 37.271 GAP 9.04 AZP 89.07 TAL 178.96 TAP 59.06 RCA 99.34 APO 150.61 V2 34.995
RC 145.816 GL -15.17 GP 23.13 ZAL 79.92 ZAP 151.52 ETS 48.33 ZAE 125.64 ETE 163.30 ZAC 124.44 ETC 259.30 CLP-162.92
PLANETOCENTRIC CONIC
C3 10.874 VHL 3.298 DLA -38.60 RAL 267.90 RAD 6567.4 VEL 11.501 PTH 2.00 VHP 6.396 DPA 2.06 RAP 248.52 ECC 1.1790

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.59	8 43 39	1352.18	30.44	3.95	130.48	114.98	9 6 11	752.2	33.53	355.67
117.41	15 3 10	5449.69	30.46	251.70	130.48	114.96	16 34 0	4849.7	33.54	243.41
62.59	8 43 39	1352.18	30.44	3.95	130.48	114.98	9 6 11	752.2	33.53	355.67
117.41	15 3 10	5449.69	30.46	251.70	130.48	114.96	16 34 0	4849.7	33.54	243.41
62.59	8 43 39	1352.18	30.44	3.95	130.48	114.98	9 6 11	752.2	33.53	355.67
117.41	15 3 10	5449.69	30.46	251.70	130.48	114.96	16 34 0	4849.7	33.54	243.41

DIFFERENTIAL CORRECTIONS
TDE -.8404 TRA .9641 TC3-6.9929 BAU 1.0194
RDE .2613 RRA -.1867 RC3 .5223 FAU .04159
FDE -.2541 FRA .8866 FC3-3.3111 BSP 16938
BDE .8801 BRA .9820 BC3 7.0124 FSP -859

MID-COURSE EXECUTION ACCURACY
SGT 5291.2 SGR 705.1 SG3 257.0
RRT -.8421 RRF -.8444 RTF .9492
SGB 5338.0 R23 .0760 R13 -.9499
SG1 5324.6 SG2 377.9 THA 173.57

ORBIT DETERMINATION ACCURACY
ST 1601.6 SR 470.9 SS 409.5
CRT -.9872 CRS .7877 CST -.8715
LSA 1705.6 MSA 211.6 SSA 25.0
EL1 1667.8 EL2 72.2 ALF 163.78

LAUNCH DATE SEP 11 1970 FLIGHT TIME 174.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 504.318

```
RL  150.60 LAL    .00 LOL 347.85 VL  26.425 GAL    .66 AZL  91.62 HCA 243.29 SMA 124.71 ECC .20789 INC 1.6242 V1  29.586
RP  108.33 LAP   1.45 LOP 231.13 VP  37.229 GAP   9.36 AZP  89.27 TAL 177.50 TAP  60.79 RCA  98.78 APO 150.64 V2  34.982
RC 147.979 GL  -12.94 GP   21.90 ZAL  76.94 ZAP 153.09 ETS  48.76 ZAE 125.73 ETE 164.22 ZAC 123.45 ETC 259.92 CLP-163.96
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PLANETOCENTRIC CONIC

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C3  11.178 VHL  3.343 DLA -36.38 RAL 271.52 RAD 6567.4 VEL 11.514 PTH   2.01 VHP  6.524 DPA    .43 RAP 250.19 ECC 1.1840
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
66.14	9 16 15	1304.80	28.64	359.16	133.65	113.46	9 38 0	704.8	31.56	350.96
113.86	14 59 28	5508.42	28.66	255.56	133.66	113.44	16 31 16	4908.4	31.56	247.36
66.14	9 16 15	1304.80	28.64	359.16	133.65	113.46	9 38 0	704.8	31.56	350.96
113.86	14 59 28	5508.42	28.66	255.56	133.66	113.44	16 31 16	4908.4	31.56	247.36
66.14	9 16 15	1304.80	28.64	359.16	133.65	113.46	9 38 0	704.8	31.56	350.96
113.86	14 59 28	5508.42	28.66	255.56	133.66	113.44	16 31 16	4908.4	31.56	247.36

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.6931 TRA 1.1498 TC3-6.8981 BAU 1.0333   SGT 5355.1 SGR  681.2 SG3  249.0     ST  1403.2 SR   448.7 SS   375.3
RDE  .2511 RRA -.1986 RC3  .4734 FAU .03926   RRT -.8239 RRF -.8219 RTF  .9492     CRT -.9617 CRS  .6412 CST -.8233
FDE -.1545 FRA  .9518 FC3-3.0404 BSP  17103   SGB 5398.2 R23  .0632 R13 -.9497     LSA 1500.3 MSA  244.3 SSA   25.3
BDE  .7372 BRA 1.1668 BC3 6.9143 FSP   -832   SG1 5384.5 SG2  383.9 THA 173.99     EL1 1468.5 EL2  117.5 ALF 162.79
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LAUNCH DATE SEP 11 1970 FLIGHT TIME 176.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 510.086

```
RL  150.60 LAL    .00 LOL 347.85 VL  26.384 GAL   1.06 AZL  91.39 HCA 246.48 SMA 124.45 ECC .21087 INC 1.3934 V1  29.586
RP  108.37 LAP   1.28 LOP 234.33 VP  37.187 GAP   9.67 AZP  89.44 TAL 176.03 TAP  62.51 RCA  98.21 APO 150.70 V2  34.969
RC 150.132 GL  -10.85 GP   20.80 ZAL  73.97 ZAP 154.55 ETS  49.32 ZAE 125.79 ETE 165.04 ZAC 122.57 ETC 260.52 CLP-164.99
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PLANETOCENTRIC CONIC

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C3  11.609 VHL  3.407 DLA -34.22 RAL 274.96 RAD 6567.4 VEL 11.532 PTH   2.01 VHP  6.665 DPA  -1.06 RAP 251.95 ECC 1.1911
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.93	9 51 29	1248.01	26.83	353.80	136.89	112.08	10 12 17	648.0	29.58	345.69
110.07	14 51 42	5580.90	26.85	260.45	136.90	112.07	16 24 43	4980.9	29.59	252.33
69.93	9 51 29	1248.01	26.83	353.80	136.89	112.08	10 12 17	648.0	29.58	345.69
110.07	14 51 42	5580.90	26.85	260.45	136.90	112.07	16 24 43	4980.9	29.59	252.33
69.93	9 51 29	1248.01	26.83	353.80	136.89	112.08	10 12 17	648.0	29.58	345.69
110.07	14 51 42	5580.90	26.85	260.45	136.90	112.07	16 24 43	4980.9	29.59	252.33

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.5454 TRA 1.3432 TC3-6.7361 BAU 1.0476   SGT 5419.8 SGR  661.3 SG3  241.2     ST  1237.6 SR   430.4 SS   362.8
RDE  .2442 RRA -.2106 RC3  .4284 FAU .03701   RRT -.8054 RRF -.7994 RTF  .9491     CRT -.9071 CRS  .4579 CST -.7864
FDE -.0641 FRA 1.0132 FC3-2.7601 BSP  17322   SGB 5460.0 R23  .0523 R13 -.9495     LSA 1328.8 MSA  286.9 SSA   25.0
BDE  .5976 BRA 1.3596 BC3 6.7497 FSP   -808   SG1 5446.0 SG2  390.1 THA 174.36     EL1 1298.9 EL2  172.7 ALF 162.17
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LAUNCH DATE SEP 11 1970 FLIGHT TIME 178.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 515.828

```
RL  150.60 LAL    .00 LOL 347.85 VL  26.342 GAL   1.48 AZL  91.17 HCA 249.67 SMA 124.20 ECC .21408 INC 1.1736 V1  29.586
RP  108.41 LAP   1.10 LOP 237.52 VP  37.146 GAP  10.00 AZP  89.59 TAL 174.55 TAP  64.22 RCA  97.61 APO 150.79 V2  34.956
RC 152.275 GL   -8.89 GP   19.80 ZAL  71.04 ZAP 155.91 ETS  50.02 ZAE 125.83 ETE 165.78 ZAC 121.78 ETC 261.12 CLP-165.99
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PLANETOCENTRIC CONIC

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C3  12.171 VHL  3.489 DLA -32.14 RAL 278.23 RAD 6567.5 VEL 11.557 PTH   2.02 VHP  6.817 DPA  -2.42 RAP 253.79 ECC 1.2003
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
74.13	10 31 11	1175.78	25.04	347.45	140.18	110.84	10 50 46	575.8	27.64	339.42
105.87	14 38 6	5672.99	25.04	266.76	140.19	110.83	16 12 39	5073.0	27.65	258.74
74.13	10 31 11	1175.78	25.04	347.45	140.18	110.84	10 50 46	575.8	27.64	339.42
105.87	14 38 6	5672.99	25.04	266.76	140.19	110.83	16 12 39	5073.0	27.65	258.74
110.00	13 35 5	5868.25	18.28	278.33	136.78	119.40	15 12 54	5268.3	22.06	271.23
110.00	16 33 21	5316.56	32.20	241.77	142.60	102.16	18 1 58	4716.6	33.53	232.79

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.3960 TRA 1.5451 TC3-6.5081 BAU 1.0608   SGT 5479.3 SGR  644.0 SG3  233.3     ST  1117.9 SR   415.1 SS   368.4
RDE  .2401 RRA -.2227 RC3  .3861 FAU .03478   RRT -.7863 RRF -.7767 RTF  .9491     CRT -.8060 CRS  .2684 CST -.7837
FDE  .0176 FRA 1.0701 FC3-2.4742 BSP  17533   SGB 5517.1 R23  .0429 R13 -.9494     LSA 1202.2 MSA  334.5 SSA   24.1
BDE  .4631 BRA 1.5610 BC3 6.5196 FSP   -785   SG1 5502.8 SG2  396.2 THA 174.69     EL1 1169.2 EL2  235.0 ALF 162.61
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LAUNCH DATE SEP 11 1970 FLIGHT TIME 180.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 521.541

```
RL  150.60 LAL    .00 LOL 347.85 VL  26.300 GAL   1.92 AZL  90.96 HCA 252.85 SMA 123.94 ECC .21754 INC  .9628 V1  29.586
RP  108.45 LAP    .92 LOP 240.70 VP  37.104 GAP  10.34 AZP  89.72 TAL 173.06 TAP  65.91 RCA  96.98 APO 150.91 V2  34.943
RC 154.408 GL   -7.07 GP   18.90 ZAL  68.17 ZAP 157.18 ETS  50.86 ZAE 125.85 ETE 166.44 ZAC 121.06 ETC 261.72 CLP-166.97
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PLANETOCENTRIC CONIC

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C3  12.870 VHL  3.587 DLA -30.13 RAL 281.33 RAD 6567.5 VEL 11.587 PTH   2.03 VHP  6.981 DPA  -3.67 RAP 255.69 ECC 1.2118
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
79.25	11 19 55	1072.98	23.26	338.99	143.51	109.71	11 37 48	473.0	25.74	331.04
100.75	14 14 5	5799.61	23.28	275.58	143.52	109.69	15 50 45	5199.6	25.75	267.63
79.25	11 19 55	1072.98	23.26	338.99	143.51	109.71	11 37 48	473.0	25.74	331.04
100.75	14 14 5	5799.61	23.28	275.58	143.52	109.69	15 50 45	5199.6	25.75	267.63
110.00	13 11 45	708.40	13.85	307.72	138.76	121.57	13 23 34	108.4	17.92	300.97
110.00	17 21 25	5212.19	33.42	233.87	146.32	97.64	18 48 17	4612.2	34.11	224.70

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.2449 TRA 1.7568 TC3-6.2254 BAU 1.0728   SGT 5534.3 SGR  628.8 SG3  225.4     ST  1057.5 SR   402.3 SS   386.9
RDE  .2382 RRA -.2352 RC3  .3469 FAU .03260   RRT -.7671 RRF -.7543 RTF  .9492     CRT -.6504 CRS  .0997 CST -.8183
FDE  .0918 FRA 1.1241 FC3-2.1929 BSP  17718   SGB 5570.0 R23  .0347 R13 -.9494     LSA 1134.5 MSA  377.0 SSA   23.1
BDE  .3417 BRA 1.7725 BC3 6.2351 FSP   -761   SG1 5555.4 SG2  401.8 THA 174.99     EL1 1092.0 EL2  295.9 ALF 164.97
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LAUNCH DATE SEP 11 1970 FLIGHT TIME 182.00 ARRIVAL DATE MAR 12 1971

DISTANCE 527.224

HELIOCENTRIC CONIC
RL 150.60 LAL .00 LOL 347.85 VL 26.259 GAL 2.38 AZL 90.76 HCA 256.04 SMA 123.69 ECC .22128 INC .7594 V1 29.586
RP 108.49 LAP .74 LOP 243.89 VP 37.063 GAP 10.68 AZP 89.82 TAL 171.56 TAP 67.60 RCA 96.32 APO 151.06 V2 34.931
RC 156.530 GL -5.39 GP 18.08 ZAL 65.37 ZAP 158.37 ETS 51.86 ZAE 125.86 ETE 167.03 ZAC 120.41 ETC 262.32 CLP-167.93

PLANETOCENTRIC CONIC
C3 13.716 VHL 3.704 DLA -28.21 RAL 284.27 RAD 6567.5 VEL 11.623 PTH 2.04 VHP 7.156 DPA -4.81 RAP 257.65 ECC 1.2257

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	12 37 3	876.31	20.02	323.25	146.30	110.46	12 51 39	276.3	22.62	315.55
90.00	13 20 21	735.85	23.09	314.10	147.41	106.87	13 32 37	135.8	25.18	306.06
100.00	12 55 59	815.02	15.53	316.75	144.28	115.87	13 9 34	215.0	18.88	309.56
100.00	15 44 6	5560.41	27.82	259.23	148.73	101.41	17 16 46	4960.4	29.11	250.66
110.00	12 57 22	810.67	10.14	313.31	141.17	122.82	13 10 53	210.7	14.39	306.79
110.00	17 59 12	5137.52	33.95	228.11	149.71	94.27	19 24 50	4537.5	34.17	218.87

DIFFERENTIAL CORRECTIONS
TOE -.0931 TRA 1.9779 TC3-5.9025 BAU 1.0838
RDE .2386 RRA -.2479 RC3 .3105 FAU .03046
FDE .1580 FRA 1.1750 FC3-1.9226 BSP 17909
BOE .2561 BRA 1.9934 BC3 5.9107 FSP -738

MID-COURSE EXECUTION ACCURACY
SGT 5585.1 SGR 615.2 SG3 217.6
RRT -.7479 RRF -.7325 RTF .9494
SGB 5618.8 R23 .0282 R13 -.9495
SG1 5604.1 SG2 407.0 THA 175.27

ORBIT DETERMINATION ACCURACY
ST 1059.8 SR 391.5 SS 412.3
CRT -.4580 CRS -.0349 CST -.8705
LSA 1133.2 MSA 402.1 SSA 21.9
EL1 1076.6 EL2 342.6 ALF 169.30

LAUNCH DATE SEP 11 1970 FLIGHT TIME 184.00 ARRIVAL DATE MAR 14 1971

DISTANCE 532.872

HELIOCENTRIC CONIC
RL 150.60 LAL .00 LOL 347.85 VL 26.218 GAL 2.86 AZL 90.56 HCA 259.22 SMA 123.44 ECC .22531 INC .5616 V1 29.586
RP 108.53 LAP .55 LOP 247.07 VP 37.023 GAP 11.04 AZP 89.89 TAL 170.06 TAP 69.28 RCA 95.63 APO 151.26 V2 34.919
RC 158.641 GL -3.84 GP 17.34 ZAL 62.67 ZAP 159.48 ETS 53.03 ZAE 125.86 ETE 167.57 ZAC 119.82 ETC 262.92 CLP-168.87

PLANETOCENTRIC CONIC
C3 14.721 VHL 3.837 DLA -26.38 RAL 287.04 RAD 6567.6 VEL 11.666 PTH 2.05 VHP 7.344 DPA -5.85 RAP 259.67 ECC 1.2423

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 38 2	1122.60	13.48	338.36	147.64	115.14	11 56 44	522.6	16.75	331.22
90.00	14 41 29	5808.82	26.54	277.22	152.06	100.25	16 18 18	5208.8	27.69	268.74
100.00	12 29 59	954.80	11.22	324.89	146.49	117.89	12 45 54	354.8	14.87	317.99
100.00	16 32 13	5451.85	29.03	251.39	152.50	97.46	18 3 5	4851.9	29.76	242.66
110.00	12 47 28	899.92	6.81	318.08	143.83	123.58	13 2 28	299.9	11.17	311.71
110.00	18 31 13	5079.49	34.15	223.59	152.98	91.60	19 55 53	4479.5	34.00	214.35

DIFFERENTIAL CORRECTIONS
TOE .0537 TRA 2.2017 TC3-5.5699 BAU 1.0976
RDE .2414 RRA -.2599 RC3 .2794 FAU .02860
FDE .2136 FRA 1.2188 FC3-1.6821 BSP 18264
BOE .2473 BRA 2.2170 BC3 5.5769 FSP -725

MID-COURSE EXECUTION ACCURACY
SGT 5634.2 SGR 603.1 SG3 209.8
RRT -.7292 RRF -.7116 RTF .9502
SGB 5666.3 R23 .0220 R13 -.9503
SG1 5651.4 SG2 411.4 THA 175.51

ORBIT DETERMINATION ACCURACY
ST 1111.4 SR 383.3 SS 437.2
CRT -.2700 CRS -.1346 CST -.9163
LSA 1186.2 MSA 406.9 SSA 20.7
EL1 1116.8 EL2 367.3 ALF 174.03

LAUNCH DATE SEP 11 1970 FLIGHT TIME 186.00 ARRIVAL DATE MAR 16 1971

DISTANCE 538.487

HELIOCENTRIC CONIC
RL 150.60 LAL .00 LOL 347.85 VL 26.177 GAL 3.37 AZL 90.37 HCA 262.40 SMA 123.20 ECC .22967 INC .3680 V1 29.586
RP 108.56 LAP .37 LOP 250.25 VP 36.983 GAP 11.42 AZP 89.95 TAL 168.55 TAP 70.95 RCA 94.90 APO 151.49 V2 34.907
RC 160.740 GL -2.41 GP 16.67 ZAL 60.06 ZAP 160.53 ETS 54.38 ZAE 125.84 ETE 168.04 ZAC 119.27 ETC 263.53 CLP-169.80

PLANETOCENTRIC CONIC
C3 15.901 VHL 3.988 DLA -24.65 RAL 289.66 RAD 6567.6 VEL 11.717 PTH 2.06 VHP 7.545 DPA -6.79 RAP 261.73 ECC 1.2617

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 14 6	1256.93	9.46	346.19	150.03	116.81	11 35 3	656.9	12.99	339.28
90.00	15 26 19	5709.14	27.55	270.10	155.76	96.82	17 1 28	5109.1	28.21	261.49
100.00	12 13 49	1064.19	7.67	331.07	149.07	118.98	12 31 33	464.2	11.48	324.35
100.00	17 9 18	5377.11	29.57	245.90	155.99	94.62	18 38 55	4777.1	29.89	237.11
110.00	12 40 20	981.00	3.73	322.34	146.65	124.00	12 56 41	381.0	8.17	316.07
110.00	18 59 16	5033.07	34.18	219.96	156.19	89.46	20 23 9	4433.1	33.73	210.75

DIFFERENTIAL CORRECTIONS
TOE .2164 TRA 2.4506 TC3-5.1804 BAU 1.1025
RDE .2441 RRA -.2740 RC3 .2461 FAU .02638
FDE .2728 FRA 1.2698 FC3-1.4361 BSP 18280
BOE .3262 BRA 2.4658 BC3 5.1862 FSP -693

MID-COURSE EXECUTION ACCURACY
SGT 5672.2 SGR 590.9 SG3 202.5
RRT -.7101 RRF -.6908 RTF .9499
SGB 5702.9 R23 .0179 R13 -.9500
SG1 5687.8 SG2 414.9 THA 175.75

ORBIT DETERMINATION ACCURACY
ST 1209.5 SR 374.1 SS 468.9
CRT -.0943 CRS -.2193 CST -.9494
LSA 1290.0 MSA 397.7 SSA 19.7
EL1 1210.1 EL2 372.2 ALF 178.15

LAUNCH DATE SEP 11 1970 FLIGHT TIME 188.00 ARRIVAL DATE MAR 18 1971

DISTANCE 544.060

HELIOCENTRIC CONIC
RL 150.60 LAL .00 LOL 347.85 VL 26.136 GAL 3.90 AZL 90.18 HCA 265.57 SMA 122.96 ECC .23438 INC .1774 V1 29.586
RP 108.60 LAP .18 LOP 253.42 VP 36.943 GAP 11.81 AZP 89.99 TAL 167.04 TAP 72.62 RCA 94.14 APO 151.77 V2 34.896
RC 162.826 GL -1.12 GP 16.06 ZAL 57.57 ZAP 161.51 ETS 55.93 ZAE 125.82 ETE 168.48 ZAC 118.76 ETC 264.13 CLP-170.72

PLANETOCENTRIC CONIC
C3 17.273 VHL 4.156 DLA -23.01 RAL 292.13 RAD 6567.7 VEL 11.775 PTH 2.08 VHP 7.759 DPA -7.64 RAP 263.84 ECC 1.2843

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 58 35	1364.70	6.10	352.32	152.72	117.71	11 21 19	764.7	9.76	345.56
90.00	16 1 34	5639.28	28.01	265.04	159.25	94.32	17 35 33	5039.3	28.32	256.39
100.00	12 2 25	1158.66	4.52	336.31	151.85	119.58	12 21 44	558.7	8.43	329.70
100.00	17 40 25	5320.56	29.80	241.71	159.37	92.43	19 9 5	4720.6	29.82	232.91
110.00	12 35 3	1056.31	.86	326.28	149.57	124.17	12 52 40	456.3	5.34	320.06
110.00	19 24 15	4995.67	34.12	217.04	159.38	87.73	20 47 31	4395.7	33.43	207.87

DIFFERENTIAL CORRECTIONS
TOE .3762 TRA 2.7059 TC3-4.7953 BAU 1.1085
RDE .2488 RRA -.2875 RC3 .2172 FAU .02436
FDE .3233 FRA 1.3156 FC3-1.2210 BSP 18390
BOE .4511 BRA 2.7211 BC3 4.8002 FSP -669

MID-COURSE EXECUTION ACCURACY
SGT 5708.1 SGR 579.4 SG3 195.3
RRT -.6915 RRF -.6709 RTF .9502
SGB 5737.4 R23 .0143 R13 -.9503
SG1 5722.2 SG2 417.5 THA 175.96

ORBIT DETERMINATION ACCURACY
ST 1327.3 SR 366.6 SS 496.7
CRT .0416 CRS -.2811 CST -.9696
LSA 1412.8 MSA 382.6 SSA 18.8
EL1 1327.4 EL2 366.3 ALF .71

LAUNCH DATE SEP 11 1970 FLIGHT TIME 190.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 549.588

RL	150.60	LAL	.00	LOL	347.85	VL	26.096	GAL	4.45	AZL	89.99	HCA	268.75	SMA	122.72	ECC	.23948	INC	.0000
RP	108.63	LAP	-.01	LOP	256.60	VP	36.904	GAP	12.21	AZP	90.00	TAL	165.54	TAP	74.28	RCA	93.33	APO	152.10
RC	164.900	GL	.07	GP	15.51	ZAL	55.19	ZAP	162.42	ETS	57.68	ZAE	125.79	ETE	168.87	ZAC	118.28	ETC	264.74

V1 29.586 V2 34.885 CLP-171.62

PLANETOCENTRIC CONIC

C3	18.859	VHL	4.343	DLA	-21.47	RAL	294.46	RAD	6567.8	VEL	11.842	PTH	2.10	VHP	7.988	DPA	-8.41	RAP	265.99

ECC 1.3104

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 47 24	1458.57	3.10	357.59	155.58	118.16	11 11 42	858.6	6.84	350.91
90.00	16 31 20	5586.42	28.22	261.19	162.64	92.40	18 4 26	4986.4	28.26	252.52
100.00	11 53 56	1243.80	1.65	341.00	154.77	119.85	12 14 40	643.8	5.61	334.45
100.00	18 7 28	5276.42	29.88	238.43	162.69	90.70	19 35 25	4676.4	29.66	229.63
110.00	12 31 7	1127.25	-1.85	329.98	152.58	124.14	12 49 54	527.3	2.64	323.77
110.00	19 46 47	4965.73	34.01	214.71	162.57	86.35	21 9 32	4365.7	33.13	205.58

DIFFERENTIAL CORRECTIONS

TDE	.5246	TRA	2.9592	TC3	-4.4393	BAU	1.1203
RDE	.2562	RRA	-.2997	RC3	.1939	FAU	.02278
FDE	.3619	FRA	1.3530	FC3	-1.0458	BSP	18835
BDE	.5839	BRA	2.9743	BC3	4.4436	FSP	-661

MID-COURSE EXECUTION ACCURACY

SGT	5740.0	SGR	568.5	SG3	188.0		
RRT	-.6736	RRF	-.6523	RTF	.9514		
SGB	5768.0	R23	.0107	R13	-.9515		
SG1	5752.8	SG2	419.2	THA	176.16		

ORBIT DETERMINATION ACCURACY

ST	1441.1	SR	361.3	SS	516.4
CRT	.1401	CRS	-.3251	CST	-.9812
LSA	1529.1	MSA	368.1	SSA	17.8
EL1	1442.0	EL2	357.5	ALF	2.14

LAUNCH DATE SEP 11 1970 FLIGHT TIME 192.00 ARRIVAL DATE MAR 22 1971

HELIOCENTRIC CONIC DISTANCE 555.069

RL	150.60	LAL	.00	LOL	347.85	VL	26.056	GAL	5.04	AZL	89.80	HCA	271.92	SMA	122.48	ECC	.24500	INC	.1986
RP	108.66	LAP	-.20	LOP	259.77	VP	36.866	GAP	12.64	AZP	89.99	TAL	164.03	TAP	75.95	RCA	92.47	APO	152.49
RC	166.961	GL	1.14	GP	15.00	ZAL	52.93	ZAP	163.28	ETS	59.66	ZAE	125.75	ETE	169.23	ZAC	117.83	ETC	265.36

V1 29.586 V2 34.874 CLP-172.52

PLANETOCENTRIC CONIC

C3	20.686	VHL	4.548	DLA	-20.03	RAL	296.66	RAD	6567.8	VEL	11.919	PTH	2.12	VHP	8.232	DPA	-9.10	RAP	268.16

ECC 1.3404

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 38 56	1543.52	.36	2.33	158.55	118.31	11 4 39	943.5	4.15	355.69
90.00	16 57 19	5545.39	28.30	258.19	165.98	90.90	18 29 45	4945.4	28.13	249.53
100.00	11 47 26	1322.43	-1.02	345.31	157.78	119.88	12 9 29	722.4	2.96	338.79
100.00	18 31 30	5241.71	29.89	235.85	165.99	89.35	19 58 51	4641.7	29.48	227.07
110.00	12 28 11	1194.75	-4.43	333.51	155.66	123.93	12 48 6	594.7	..06	327.30
110.00	20 7 14	4942.16	33.89	212.88	165.77	85.28	21 29 37	4342.2	32.87	203.79

DIFFERENTIAL CORRECTIONS

TDE	.7027	TRA	3.2522	TC3	-4.0325	BAU	1.1162
RDE	.2620	RRA	-.3144	RC3	.1670	FAU	.02058
FDE	.4111	FRA	1.4034	FC3	-.8612	BSP	18637
BDE	.7499	BRA	3.2673	BC3	4.0359	FSP	-624

MID-COURSE EXECUTION ACCURACY

SGT	5766.6	SGR	556.6	SG3	181.7		
RRT	-.6554	RRF	-.6334	RTF	.9514		
SGB	5793.4	R23	.0087	R13	-.9514		
SG1	5778.2	SG2	419.5	THA	176.36		

ORBIT DETERMINATION ACCURACY

ST	1583.4	SR	353.5	SS	545.1
CRT	.2255	CRS	-.3670	CST	-.9884
LSA	1675.0	MSA	351.1	SSA	17.1
EL1	1585.5	EL2	343.9	ALF	3.02

LAUNCH DATE SEP 11 1970 FLIGHT TIME 194.00 ARRIVAL DATE MAR 24 1971

HELIOCENTRIC CONIC DISTANCE 560.493

RL	150.60	LAL	.00	LOL	347.85	VL	26.016	GAL	5.66	AZL	89.61	HCA	275.09	SMA	122.25	ECC	.25100	INC	.3878
RP	108.69	LAP	-.39	LOP	262.94	VP	36.829	GAP	13.10	AZP	89.97	TAL	162.53	TAP	77.62	RCA	91.56	APO	152.93
RC	169.007	GL	2.10	GP	14.53	ZAL	50.78	ZAP	164.07	ETS	61.88	ZAE	125.71	ETE	169.56	ZAC	117.40	ETC	265.97

V1 29.586 V2 34.864 CLP-173.41

PLANETOCENTRIC CONIC

C3	22.785	VHL	4.773	DLA	-18.68	RAL	298.72	RAD	6567.9	VEL	12.007	PTH	2.14	VHP	8.494	DPA	-9.70	RAP	270.37

ECC 1.3750

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 32 21	1622.09	-2.17	6.72	161.61	118.24	10 59 23	1022.1	1.62	.09
90.00	17 20 24	5513.47	28.32	255.85	169.30	89.73	18 52 18	4913.5	27.98	247.20
100.00	11 42 22	1396.12	-3.51	349.36	160.87	119.70	12 5 38	796.1	.47	342.84
100.00	18 53 4	5214.68	29.85	233.84	169.27	88.29	20 19 59	4614.7	29.29	225.08
110.00	12 26 0	1259.39	-6.87	336.92	158.79	123.57	12 47 0	659.4	-2.41	330.67
110.00	20 25 55	4924.18	33.79	211.49	168.98	84.46	21 47 59	4324.2	32.65	202.44

DIFFERENTIAL CORRECTIONS

TDE	.8705	TRA	3.5451	TC3	-3.6647	BAU	1.1172
RDE	.2702	RRA	-.3277	RC3	.1451	FAU	.01878
FDE	.4499	FRA	1.4462	FC3	-.7136	BSP	18757
BDE	.9115	BRA	3.5602	BC3	3.6675	FSP	-604

MID-COURSE EXECUTION ACCURACY

SGT	5788.5	SGR	544.8	SG3	175.2		
RRT	-.6377	RRF	-.6155	RTF	.9522		
SGB	5814.1	R23	.0067	R13	-.9522		
SG1	5799.0	SG2	418.9	THA	176.55		

ORBIT DETERMINATION ACCURACY

ST	1708.4	SR	347.5	SS	565.7
CRT	.2874	CRS	-.3980	CST	-.9926
LSA	1801.5	MSA	337.0	SSA	16.4
EL1	1711.4	EL2	332.2	ALF	3.48

LAUNCH DATE SEP 11 1970 FLIGHT TIME 196.00 ARRIVAL DATE MAR 26 1971

HELIOCENTRIC CONIC DISTANCE 565.855

RL	150.60	LAL	.00	LOL	347.85	VL	25.977	GAL	6.31	AZL	89.42	HCA	278.26	SMA	122.02	ECC	.25751	INC	.5783
RP	108.72	LAP	-.57	LOP	266.11	VP	36.792	GAP	13.58	AZP	89.92	TAL	161.03	TAP	79.29	RCA	90.60	APO	153.44
RC	171.039	GL	2.98	GP	14.11	ZAL	48.75	ZAP	164.80	ETS	64.37	ZAE	125.66	ETE	169.86	ZAC	116.99	ETC	266.59

V1 29.586 V2 34.855 CLP-174.30

PLANETOCENTRIC CONIC

C3	25.193	VHL	5.019	DLA	-17.41	RAL	300.67	RAD	6568.0	VEL	12.107	PTH	2.17	VHP	8.775	DPA	-10.23	RAP	272.60

ECC 1.4146

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 27 7	1695.80	-4.54	10.84	164.74	117.98	10 55 23	1095.8	-.76	4.20
90.00	17 41 9	5488.98	28.29	254.06	172.61	88.83	19 12 38	4889.0	27.83	245.43
100.00	11 38 22	1465.90	-5.86	353.22	164.01	119.37	12 2 48	865.9	-1.90	346.66
100.00	19 12 36	5194.11	29.80	232.32	172.56	87.49	20 39 10	4594.1	29.13	223.58
110.00	12 24 25	1321.61	-9.20	340.23	161.97	123.07	12 46 27	721.6	-4.78	333.93
110.00	20 43 2	4911.16	33.69	210.48	172.21	83.87	22 4 53	4311.2	32.48	201.46

DIFFERENTIAL CORRECTIONS

TDE	1.0423	TRA	3.8527	TC3	-3.3112	BAU	1.1160
RDE	.2794	RRA	-.3406	RC3	.1253	FAU	.01706
FDE	.4860	FRA	1.4888	FC3	-.5862	BSP	18868
BDE	1.0791	BRA	3.8677	BC3	3.3135	FSP	-583

MID-COURSE EXECUTION ACCURACY

SGT	5805.9	SGR	532.5	SG3	169.0		
RRT	-.6200	RRF	-.5980	RTF	.9532		
SGB	5830.2	R23	.0050	R13	-.9532		
SG1	5815.3	SG2	417.1	THA	176.73		

ORBIT DETERMINATION ACCURACY

ST	1826.9	SR	341.5	SS	584.1
CRT	.3366	CRS	-.4238	CST	-.9951
LSA	1921.0	MSA	324.3	SSA	15.7
EL1	1830.6	EL2	321.0	ALF	3.72

LAUNCH DATE SEP 11 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAR 28 1971

HELIOCENTRIC CONIC DISTANCE 571.145

```
RL  150.60 LAL    .00 LOL 347.85 VL  25.938 GAL   7.01 AZL  89.23 HCA 281.43 SMA 121.79 ECC .26459 INC  .7721 V1  29.586
RP  108.75 LAP   -.76 LOP 269.28 VP  36.756 GAP  14.09 AZP  89.85 TAL 159.55 TAP  80.98 RCA  89.56 APO 154.01 V2  34.846
RC 173.056 GL    3.76 GP   13.72 ZAL  46.84 ZAP 165.47 ETS  67.14 ZAE 125.60 ETE 170.13 ZAC 116.59 ETC 267.20 CLP-175.19
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PLANETOCENTRIC CONIC

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C3  27.954 VHL  5.287 DLA -16.24 RAL 302.50 RAD 6568.1 VEL 12.220 PTH   2.20 VHP  9.077 DPA -10.69 RAP 274.84 ECC 1.4601
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 22 56	1765.61	-6.75	14.77	167.91	117.57	10 52 22	1165.6	-3.01	8.10
90.00	17 59 57	5470.75	28.26	252.73	175.91	88.17	19 31 8	4870.7	27.71	244.11
100.00	11 35 11	1532.46	-8.06	356.93	167.20	118.88	12 0 44	932.5	-4.15	350.33
100.00	19 30 23	5179.12	29.75	231.21	175.84	86.90	20 56 42	4579.1	29.00	222.48
110.00	12 23 18	1381.75	-11.41	343.48	165.19	122.44	12 46 20	781.7	-7.05	337.10
110.00	20 58 45	4902.60	33.63	209.82	175.46	83.48	22 20 28	4302.6	32.36	200.82

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TOE 1.2171 TRA 4.1750 TC3-2.9766 BAU 1.1131   SGT 5818.3 SGR  519.7 SG3  163.0     ST  1935.7 SR   335.8 SS   600.1
 RDE  .2896 RRA -.3529 RC3  .1075 FAU .01543   RRT -.6022 RRF -.5807 RTF  .9545     CRT  .3764 CRS -.4457 CST -.9967
 FDE  .5191 FRA 1.5312 FC3 -.4778 BSP  19011   SGB 5841.4 R23  .0037 R13 -.9545     LSA 2030.3 MSA  312.7 SSA   15.1
 BOE 1.2511 BRA 4.1899 BC3 2.9785 FSP   -565   SG1 5826.7 SG2  414.2 THA 176.91     EL1 1940.0 EL2  310.4 ALF   3.83
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LAUNCH DATE SEP 11 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAR 30 1971

HELIOCENTRIC CONIC DISTANCE 576.353

```
RL  150.60 LAL    .00 LOL 347.85 VL  25.899 GAL   7.74 AZL  89.03 HCA 284.59 SMA 121.57 ECC .27232 INC  .9697 V1  29.586
RP  108.78 LAP   -.94 LOP 272.45 VP  36.720 GAP  14.63 AZP  89.76 TAL 158.09 TAP  82.68 RCA  88.46 APO 154.67 V2  34.837
RC 175.059 GL    4.47 GP   13.36 ZAL  45.04 ZAP 166.08 ETS  70.20 ZAE 125.52 ETE 170.39 ZAC 116.21 ETC 267.82 CLP-176.07
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PLANETOCENTRIC CONIC

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C3  31.122 VHL  5.579 DLA -15.14 RAL 304.22 RAD 6568.2 VEL 12.349 PTH   2.23 VHP  9.403 DPA -11.08 RAP 277.09 ECC 1.5122
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 19 33	1832.18	-8.83	18.56	171.13	117.01	10 50 5	1232.2	-5.14	11.83
90.00	18 17 3	5457.92	28.23	251.79	179.21	87.70	19 48 1	4857.9	27.61	243.18
100.00	11 32 40	1596.29	-10.14	.52	170.43	118.27	11 59 16	996.3	-6.28	353.86
100.00	19 46 37	5169.04	29.71	230.46	179.12	86.51	21 12 47	4569.0	28.91	221.75
110.00	12 22 33	1440.04	-13.52	346.68	168.44	121.70	12 46 33	840.0	-9.23	340.21
110.00	21 13 14	4898.06	33.60	209.47	178.72	83.28	22 34 52	4298.1	32.30	200.48

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TOE 1.3972 TRA 4.5142 TC3-2.6599 BAU 1.1074   SGT 5825.5 SGR  506.0 SG3  157.2     ST  2035.5 SR   330.0 SS   614.6
 RDE  .3007 RRA -.3644 RC3  .0914 FAU .01386   RRT -.5840 RRF -.5633 RTF  .9560     CRT  .4098 CRS -.4652 CST -.9978
 FDE  .5506 FRA 1.5741 FC3 -.3854 BSP  19152   SGB 5847.4 R23  .0027 R13 -.9560     LSA 2130.4 MSA  301.9 SSA   14.5
 BOE 1.4292 BRA 4.5289 BC3 2.6615 FSP   -548   SG1 5833.0 SG2  410.2 THA 177.08     EL1 2040.1 EL2  300.3 ALF   3.89
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LAUNCH DATE SEP 11 1970 FLIGHT TIME 202.00 ARRIVAL DATE APR 1 1971

HELIOCENTRIC CONIC DISTANCE 581.467

```
RL  150.60 LAL    .00 LOL 347.85 VL  25.861 GAL   8.53 AZL  88.83 HCA 287.76 SMA 121.35 ECC .28075 INC 1.1733 V1  29.586
RP  108.80 LAP  -1.12 LOP 275.61 VP  36.686 GAP  15.21 AZP  89.64 TAL 156.65 TAP  84.40 RCA  87.28 APO 155.42 V2  34.829
RC 177.047 GL    5.10 GP   13.04 ZAL  43.34 ZAP 166.62 ETS  73.58 ZAE 125.44 ETE 170.63 ZAC 115.83 ETC 268.43 CLP-176.97
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PLANETOCENTRIC CONIC

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C3  34.761 VHL  5.896 DLA -14.13 RAL 305.83 RAD 6568.4 VEL 12.495 PTH   2.26 VHP  9.755 DPA -11.41 RAP 279.35 ECC 1.5721
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 16 49	1895.99	-10.78	22.23	174.38	116.34	10 48 25	1296.0	-7.16	15.43
90.00	18 32 40	5449.84	28.21	251.20	182.50	87.40	20 3 30	4849.8	27.55	242.60
100.00	11 30 39	1657.75	-12.10	4.04	173.70	117.54	11 58 17	1057.7	-8.32	357.29
100.00	20 1 31	5163.31	29.68	230.03	182.41	86.29	21 27 34	4563.3	28.85	221.33
110.00	12 22 5	1496.65	-15.52	349.85	171.73	120.84	12 47 2	896.7	-11.32	343.26
110.00	21 26 34	4897.17	33.59	209.40	181.99	83.24	22 48 11	4297.2	32.29	200.41

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TOE 1.5819 TRA 4.8714 TC3-2.3630 BAU 1.0987   SGT 5827.4 SGR  491.7 SG3  151.6     ST  2124.9 SR   324.1 SS   627.7
 RDE  .3127 RRA -.3749 RC3  .0769 FAU .01235   RRT -.5653 RRF -.5456 RTF  .9577     CRT  .4383 CRS -.4827 CST -.9985
 FDE  .5803 FRA 1.6179 FC3 -.3075 BSP  19315   SGB 5848.1 R23  .0019 R13 -.9578     LSA 2220.1 MSA  291.7 SSA   14.0
 BOE 1.6125 BRA 4.8858 BC3 2.3643 FSP   -533   SG1 5834.0 SG2  405.1 THA 177.26     EL1 2129.7 EL2  290.7 ALF   3.90
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LAUNCH DATE SEP 11 1970 FLIGHT TIME 204.00 ARRIVAL DATE APR 3 1971

HELIOCENTRIC CONIC DISTANCE 586.470

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RL  150.60 LAL    .00 LOL 347.85 VL  25.824 GAL   9.37 AZL  88.62 HCA 290.92 SMA 121.13 ECC .28999 INC 1.3840 V1  29.586
RP  108.83 LAP  -1.29 LOP 278.78 VP  36.653 GAP  15.84 AZP  89.51 TAL 155.23 TAP  86.15 RCA  86.01 APO 156.26 V2  34.822
RC 179.021 GL    5.66 GP   12.74 ZAL  41.76 ZAP 167.09 ETS  77.27 ZAE 125.34 ETE 170.86 ZAC 115.45 ETC 269.04 CLP-177.87
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PLANETOCENTRIC CONIC

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C3  38.948 VHL  6.241 DLA -13.19 RAL 307.35 RAD 6568.5 VEL 12.662 PTH   2.30 VHP 10.136 DPA -11.67 RAP 281.61 ECC 1.6410
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 14 35	1957.35	-12.61	25.81	177.66	115.56	10 47 12	1357.3	-9.07	18.93
90.00	18 46 57	5445.96	28.20	250.92	185.78	87.26	20 17 43	4846.0	27.52	242.32
100.00	11 29 3	1717.07	-13.94	7.48	176.99	116.71	11 57 40	1117.1	-10.25	.64
100.00	20 15 10	5161.47	29.67	229.90	185.69	86.22	21 41 11	4561.5	28.83	221.19
110.00	12 21 51	1551.71	-17.42	352.99	175.04	119.89	12 47 43	951.7	-13.31	346.28
110.00	21 38 52	4899.59	33.61	209.59	185.26	83.35	23 0 31	4299.6	32.32	200.59

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TOE 1.7737 TRA 5.2491 TC3-2.0850 BAU 1.0862   SGT 5824.3 SGR  476.4 SG3  146.2     ST  2205.1 SR   318.1 SS   640.2
 RDE  .3256 RRA -.3843 RC3  .0639 FAU .01088   RRT -.5457 RRF -.5273 RTF  .9597     CRT  .4636 CRS -.4991 CST -.9989
 FDE  .6093 FRA 1.6634 FC3 -.2417 BSP  19477   SGB 5843.8 R23  .0014 R13 -.9597     LSA 2300.9 MSA  281.9 SSA   13.4
 BOE 1.8033 BRA 5.2631 BC3 2.0860 FSP   -518   SG1 5830.1 SG2  398.9 THA 177.43     EL1 2210.1 EL2  281.2 ALF   3.89
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LAUNCH DATE SEP 11 1970 FLIGHT TIME 206.00 ARRIVAL DATE APR 5 1971

HELIOCENTRIC CONIC DISTANCE 591.346

RL 150.60 LAL .00 LOL 347.85 VL 25.787 GAL 10.26 AZL 88.40 HCA 294.08 SMA 120.92 ECC .30012 INC 1.6038 V1 29.586
RP 108.85 LAP -1.46 LOP 281.94 VP 36.620 GAP 16.53 AZP 89.35 TAL 153.84 TAP 87.92 RCA 84.63 APO 157.21 V2 34.815
RC 180.980 GL 6.16 GP 12.46 ZAL 40.28 ZAP 167.48 ETS 81.30 ZAE 125.22 ETE 171.07 ZAC 115.08 ETC 269.65 CLP-178.78

PLANETOCENTRIC CONIC

C3 43.779 VHL 6.617 DLA -12.32 RAL 308.76 RAD 6568.7 VEL 12.851 PTH 2.34 VHP 10.551 DPA -11.87 RAP 283.87 ECC 1.7205

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 12 46	2016.49	-14.32	29.31	180.95	114.69	10 46 23	1416.5	-10.87	22.33
90.00	19 0 2	5445.81	28.19	250.91	189.05	87.25	20 30 48	4845.8	27.52	242.31
100.00	11 27 48	1774.42	-15.67	10.86	180.29	115.79	11 57 22	1174.4	-12.07	3.91
100.00	20 27 42	5163.12	29.68	230.02	188.96	86.28	21 53 45	4563.1	28.85	221.31
110.00	12 21 48	1605.30	-19.21	356.11	178.38	118.83	12 48 33	1005.3	-15.21	349.27
110.00	21 50 11	4905.00	33.65	210.01	188.54	83.59	23 11 56	4305.0	32.40	201.00

DIFFERENTIAL CORRECTIONS
TDE 1.9738 TRA 5.6504 TC3-1.8256 BAU 1.0690
RDE .3394 RRA -.3921 RC3 .0521 FAU .00943
FDE .6381 FRA 1.7113 FC3 -.1865 BSP 19626
BDE 2.0028 BRA 5.6640 BC3 1.8264 FSP -503

MID-COURSE EXECUTION ACCURACY
SGT 5817.3 SGR 460.3 SG3 141.1
RRT -.5247 RRF -.5079 RTF .9618
SGB 5835.4 R23 .0011 R13 -.9618
SG1 5822.3 SG2 391.5 THA 177.61

ORBIT DETERMINATION ACCURACY
ST 2276.8 SR 311.8 SS 652.6
CRT .4866 CRS -.5148 CST -.9993
LSA 2373.4 MSA 272.2 SSA 12.9
EL1 2282.0 EL2 271.8 ALF 3.87

LAUNCH DATE SEP 11 1970 FLIGHT TIME 208.00 ARRIVAL DATE APR 7 1971

HELIOCENTRIC CONIC DISTANCE 596.070

RL 150.60 LAL .00 LOL 347.85 VL 25.750 GAL 11.23 AZL 88.17 HCA 297.24 SMA 120.72 ECC .31126 INC 1.8346 V1 29.586
RP 108.87 LAP -1.63 LOP 285.10 VP 36.589 GAP 17.27 AZP 89.16 TAL 152.50 TAP 89.74 RCA 83.14 APO 158.29 V2 34.809
RC 182.925 GL 6.61 GP 12.20 ZAL 38.91 ZAP 167.79 ETS 85.63 ZAE 125.07 ETE 171.27 ZAC 114.71 ETC 270.24 CLP-179.72

PLANETOCENTRIC CONIC

C3 49.371 VHL 7.026 DLA -11.52 RAL 310.07 RAD 6568.8 VEL 13.066 PTH 2.38 VHP 11.005 DPA -12.01 RAP 286.11 ECC 1.8125

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 11 18	2073.57	-15.92	32.75	184.25	113.73	10 45 51	1473.6	-12.57	25.66
90.00	19 12 1	5449.02	28.20	251.14	192.30	87.37	20 42 50	4849.0	27.54	242.54
100.00	11 26 49	1829.92	-17.28	14.19	183.61	114.78	11 57 19	1229.9	-13.80	7.13
100.00	20 39 11	5167.90	29.70	230.37	192.21	86.47	22 5 19	4567.9	28.90	221.66
110.00	12 21 53	1657.46	-20.89	359.22	181.73	117.69	12 49 30	1057.5	-17.02	352.24
110.00	22 0 36	4913.13	33.71	210.63	191.82	83.96	23 22 29	4313.1	32.51	201.61

DIFFERENTIAL CORRECTIONS
TDE 2.1835 TRA 6.0785 TC3-1.5844 BAU 1.0462
RDE .3540 RRA -.3982 RC3 .0417 FAU .00798
FDE .6674 FRA 1.7625 FC3 -.1399 BSP 19668
BDE 2.2120 BRA 6.0915 BC3 1.5850 FSP -487

MID-COURSE EXECUTION ACCURACY
SGT 5806.5 SGR 443.4 SG3 136.2
RRT -.5022 RRF -.4871 RTF .9640
SGB 5823.4 R23 .0010 R13 -.9640
SG1 5810.8 SG2 383.1 THA 177.79

ORBIT DETERMINATION ACCURACY
ST 2340.4 SR 305.3 SS 665.5
CRT .5079 CRS -.5304 CST -.9995
LSA 2438.1 MSA 262.7 SSA 12.5
EL1 2345.6 EL2 262.4 ALF 3.84

LAUNCH DATE SEP 11 1970 FLIGHT TIME 210.00 ARRIVAL DATE APR 9 1971

HELIOCENTRIC CONIC DISTANCE 600.613

RL 150.60 LAL .00 LOL 347.85 VL 25.715 GAL 12.27 AZL 87.92 HCA 300.40 SMA 120.52 ECC .32355 INC 2.0788 V1 29.586
RP 108.88 LAP -1.79 LOP 288.27 VP 36.559 GAP 18.08 AZP 88.95 TAL 151.20 TAP 91.60 RCA 81.52 APO 159.51 V2 34.804
RC 184.854 GL 7.00 GP 11.97 ZAL 37.63 ZAP 168.01 ETS 90.26 ZAE 124.91 ETE 171.47 ZAC 114.34 ETC 270.83 CLP 179.33

PLANETOCENTRIC CONIC

C3 55.867 VHL 7.474 DLA -10.78 RAL 311.29 RAD 6569.0 VEL 13.313 PTH 2.43 VHP 11.502 DPA -12.10 RAP 288.33 ECC 1.9194

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 10 6	2128.65	-17.39	36.11	187.55	112.70	10 45 34	1528.6	-14.17	28.92
90.00	19 22 57	5455.23	28.22	251.60	195.52	87.60	20 53 52	4855.2	27.59	242.99
100.00	11 26 3	1883.61	-18.78	17.47	186.92	113.69	11 57 26	1283.6	-15.42	10.29
100.00	20 49 41	5175.51	29.73	230.94	195.44	86.76	22 15 57	4575.5	28.97	222.22
110.00	12 22 4	1708.16	-22.46	2.32	185.08	116.67	12 50 32	1108.2	-18.73	355.18
110.00	22 10 9	4923.71	33.78	211.45	195.07	84.44	23 32 13	4323.7	32.64	202.40

DIFFERENTIAL CORRECTIONS
TDE 2.4071 TRA 6.5377 TC3-1.3569 BAU 1.0138
RDE .3696 RRA -.4022 RC3 .0324 FAU .00650
FDE .6978 FRA 1.8179 FC3 -.1007 BSP 19767
BDE 2.4353 BRA 6.5500 BC3 1.3573 FSP -471

MID-COURSE EXECUTION ACCURACY
SGT 5791.9 SGR 425.6 SG3 131.6
RRT -.4774 RRF -.4642 RTF .9666
SGB 5807.5 R23 .0009 R13 -.9666
SG1 5795.4 SG2 373.7 THA 177.98

ORBIT DETERMINATION ACCURACY
ST 2398.1 SR 298.5 SS 679.3
CRT .5288 CRS -.5462 CST -.9996
LSA 2497.4 MSA 253.0 SSA 12.0
EL1 2403.3 EL2 252.8 ALF 3.81

LAUNCH DATE SEP 11 1970 FLIGHT TIME 212.00 ARRIVAL DATE APR 11 1971

HELIOCENTRIC CONIC DISTANCE 604.942

RL 150.60 LAL .00 LOL 347.85 VL 25.680 GAL 13.40 AZL 87.66 HCA 303.55 SMA 120.32 ECC .33714 INC 2.3392 V1 29.586
RP 108.90 LAP -1.95 LOP 291.43 VP 36.530 GAP 18.96 AZP 88.71 TAL 149.97 TAP 93.52 RCA 79.76 APO 160.89 V2 34.799
RC 186.768 GL 7.35 GP 11.75 ZAL 36.46 ZAP 168.13 ETS 95.16 ZAE 124.71 ETE 171.66 ZAC 113.98 ETC 271.40 CLP 178.35

PLANETOCENTRIC CONIC

C3 63.447 VHL 7.965 DLA -10.11 RAL 312.42 RAD 6569.2 VEL 13.594 PTH 2.48 VHP 12.049 DPA -12.13 RAP 290.53 ECC 2.0442

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 9 7	2181.75	-18.76	39.41	190.83	111.61	10 45 29	1581.8	-15.66	32.11
90.00	19 32 54	5464.14	28.25	252.25	198.71	87.92	21 3 58	4864.1	27.66	243.63
100.00	11 25 27	1935.48	-20.17	20.70	190.22	112.54	11 57 43	1335.5	-16.94	13.39
100.00	20 59 15	5185.65	29.77	231.69	198.63	87.16	22 25 41	4585.7	29.06	222.96
110.00	12 22 20	1757.39	-23.92	5.40	188.43	115.18	12 51 37	1157.4	-20.33	358.09
110.00	22 18 52	4936.51	33.86	212.44	198.30	85.02	23 41 9	4336.5	32.80	203.37

DIFFERENTIAL CORRECTIONS
TDE 2.6452 TRA 7.0316 TC3-1.1470 BAU .9732
RDE .3862 RRA -.4035 RC3 .0243 FAU .00498
FDE .7300 FRA 1.8784 FC3 -.0679 BSP 19729
BDE 2.6732 BRA 7.0431 BC3 1.1473 FSP -453

MID-COURSE EXECUTION ACCURACY
SGT 5775.4 SGR 407.0 SG3 127.3
RRT -.4498 RRF -.4385 RTF .9692
SGB 5789.8 R23 .0010 R13 -.9692
SG1 5778.3 SG2 363.3 THA 178.18

ORBIT DETERMINATION ACCURACY
ST 2449.3 SR 291.6 SS 694.7
CRT .5492 CRS -.5626 CST -.9997
LSA 2550.9 MSA 243.2 SSA 11.5
EL1 2454.6 EL2 243.1 ALF 3.78

LAUNCH DATE SEP 11 1970 FLIGHT TIME 214.00 ARRIVAL DATE APR 13 1971

DISTANCE 609.009

HELIOCENTRIC CONIC
RL 150.60 LAL .00 LOL 347.85 VL 25.646 GAL 14.64 AZL 87.38 HCA 306.71 SMA 120.13 ECC .35222 INC 2.6194 V1 29.586
RP 108.91 LAP -2.10 LOP 294.59 VP 36.502 GAP 19.94 AZP 88.43 TAL 148.80 TAP 95.51 RCA 77.82 APO 162.44 V2 34.795
RC 188.667 GL 7.66 GP 11.55 ZAL 35.40 ZAP 168.15 ETS 100.27 ZAE 124.47 ETE 171.85 ZAC 113.61 ETC 271.96 CLP 177.34

PLANETOCENTRIC CONIC
C3 72.337 VHL 8.505 DLA -9.51 RAL 313.45 RAD 6569.4 VEL 13.917 PTH 2.54 VHP 12.653 DPA -12.12 RAP 292.69 ECC 2.1905

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 8 19	2232.85	-20.01	42.64	194.07	110.47	10 45 32	1632.8	-17.04	35.22
90.00	19 41 54	5475.48	28.27	253.07	201.84	88.34	21 13 9	4875.5	27.74	244.45
100.00	11 25 0	1985.48	-21.44	23.87	193.48	111.34	11 58 5	1385.5	-18.35	16.44
100.00	21 7 55	5198.07	29.81	232.61	201.77	87.64	22 34 33	4598.1	29.16	223.87
110.00	12 22 37	1805.04	-25.27	8.48	191.75	113.83	12 52 42	1205.0	-21.83	.98
110.00	22 26 46	4951.28	33.94	213.59	201.49	85.69	23 49 18	4351.3	32.97	204.48

DIFFERENTIAL CORRECTIONS
TDE 2.9010 TRA 7.5655 TC3 -.9521 BAU .9209
RDE .4041 RRA -.4017 RC3 .0174 FAU .00337
FDE .7646 FRA 1.9451 FC3 -.0403 BSP 19593
BDE 2.9290 BRA 7.5761 BC3 .9523 FSP -434

MID-COURSE EXECUTION ACCURACY
SGT 5757.2 SGR 387.6 SG3 123.3
RRT -.4183 RRF -.4092 RTF .9720
SGB 5770.3 R23 .0012 R13 -.9720
SG1 5759.5 SG2 351.9 THA 178.38

ORBIT DETERMINATION ACCURACY
ST 2495.0 SR 284.4 SS 712.0
CRT .5699 CRS -.5799 CST -.9998
LSA 2599.7 MSA 233.3 SSA 11.0
EL1 2500.3 EL2 233.2 ALF 3.75

LAUNCH DATE SEP 11 1970 FLIGHT TIME 216.00 ARRIVAL DATE APR 15 1971

DISTANCE 612.760

HELIOCENTRIC CONIC
RL 150.60 LAL .00 LOL 347.85 VL 25.613 GAL 15.98 AZL 87.08 HCA 309.86 SMA 119.95 ECC .36901 INC 2.9234 V1 29.586
RP 108.92 LAP -2.24 LOP 297.75 VP 36.476 GAP 21.03 AZP 88.13 TAL 147.72 TAP 97.58 RCA 75.69 APO 164.21 V2 34.791
RC 190.549 GL 7.93 GP 11.37 ZAL 34.44 ZAP 168.05 ETS 105.53 ZAE 124.19 ETE 172.05 ZAC 113.25 ETC 272.50 CLP 176.28

PLANETOCENTRIC CONIC
C3 82.824 VHL 9.101 DLA -8.96 RAL 314.38 RAD 6569.6 VEL 14.289 PTH 2.60 VHP 13.325 DPA -12.07 RAP 294.81 ECC 2.3631

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 7 40	2281.83	-21.14	45.79	197.25	109.29	10 45 42	1681.8	-18.32	38.25
90.00	19 49 57	5488.99	28.29	254.06	204.90	88.83	21 21 26	4889.0	27.83	245.43
100.00	11 24 39	2033.51	-22.60	26.97	196.69	110.10	11 58 32	1433.5	-19.66	19.41
100.00	21 15 40	5212.54	29.84	233.68	204.85	88.21	22 42 33	4612.5	29.28	224.93
110.00	12 22 56	1850.99	-26.50	11.45	195.02	112.43	12 53 47	1251.0	-23.22	3.82
110.00	22 33 52	4967.83	34.02	214.87	204.62	86.45	23 56 40	4367.8	33.15	205.74

DIFFERENTIAL CORRECTIONS
TDE 3.1773 TRA 8.1447 TC3 -.7719 BAU .8548
RDE .4236 RRA -.3959 RC3 .0116 FAU .00165
FDE .8021 FRA 2.0191 FC3 -.0172 BSP 19326
BDE 3.2054 BRA 8.1544 BC3 .7720 FSP -413

MID-COURSE EXECUTION ACCURACY
SGT 5737.8 SGR 367.7 SG3 119.5
RRT -.3819 RRF -.3750 RTF .9748
SGB 5749.6 R23 .0015 R13 -.9749
SG1 5739.5 SG2 339.7 THA 178.59

ORBIT DETERMINATION ACCURACY
ST 2535.4 SR 277.2 SS 731.8
CRT .5912 CRS -.5984 CST -.9998
LSA 2644.0 MSA 223.1 SSA 10.6
EL1 2540.7 EL2 223.1 ALF 3.73

LAUNCH DATE SEP 11 1970 FLIGHT TIME 218.00 ARRIVAL DATE APR 17 1971

DISTANCE 616.119

HELIOCENTRIC CONIC
RL 150.60 LAL .00 LOL 347.85 VL 25.582 GAL 17.47 AZL 86.74 HCA 313.02 SMA 119.77 ECC .38775 INC 3.2568 V1 29.586
RP 108.93 LAP -2.38 LOP 300.91 VP 36.451 GAP 22.25 AZP 87.78 TAL 146.75 TAP 99.76 RCA 73.33 APO 166.22 V2 34.789
RC 192.414 GL 8.17 GP 11.19 ZAL 33.59 ZAP 167.82 ETS 110.87 ZAE 123.85 ETE 172.24 ZAC 112.88 ETC 273.03 CLP 175.17

PLANETOCENTRIC CONIC
C3 95.274 VHL 9.761 DLA -8.48 RAL 315.20 RAD 6569.9 VEL 14.718 PTH 2.66 VHP 14.074 DPA -11.98 RAP 296.88 ECC 2.5680

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 7 8	2328.56	-22.16	48.83	200.36	108.09	10 45 56	1728.6	-19.48	41.18
90.00	19 57 4	5504.46	28.31	255.19	207.88	89.40	21 28 48	4904.5	27.93	246.55
100.00	11 24 22	2079.41	-23.64	29.98	199.82	108.85	11 59 1	1479.4	-20.85	22.29
100.00	21 22 31	5228.85	29.87	234.90	207.85	88.84	22 49 40	4628.8	29.39	226.12
110.00	12 23 14	1895.07	-27.61	14.40	198.23	111.01	12 54 49	1295.1	-24.50	6.60
110.00	22 40 8	4985.95	34.09	216.29	207.68	87.28	24 3 14	4385.9	33.34	207.12

DIFFERENTIAL CORRECTIONS
TDE 3.4758 TRA 8.7751 TC3 -.6064 BAU .7724
RDE .4449 RRA -.3853 RC3 .0068 FAU -.00021
FDE .8431 FRA 2.1016 FC3 .0019 BSP 18939
BDE 3.5041 BRA 8.7835 BC3 .6064 FSP -391

MID-COURSE EXECUTION ACCURACY
SGT 5717.1 SGR 347.4 SG3 115.9
RRT -.3392 RRF -.3344 RTF .9777
SGB 5727.7 R23 .0018 R13 -.9777
SG1 5718.3 SG2 326.7 THA 178.82

ORBIT DETERMINATION ACCURACY
ST 2570.0 SR 270.0 SS 754.5
CRT .6134 CRS -.6183 CST -.9999
LSA 2683.6 MSA 212.8 SSA 10.1
EL1 2575.4 EL2 212.8 ALF 3.71

LAUNCH DATE SEP 11 1970 FLIGHT TIME 220.00 ARRIVAL DATE APR 19 1971

DISTANCE 618.994

HELIOCENTRIC CONIC
RL 150.60 LAL .00 LOL 347.85 VL 25.552 GAL 19.11 AZL 86.37 HCA 316.17 SMA 119.61 ECC .40875 INC 3.6262 V1 29.586
RP 108.94 LAP -2.51 LOP 304.08 VP 36.428 GAP 23.61 AZP 87.38 TAL 145.90 TAP 102.07 RCA 70.72 APO 168.50 V2 34.787
RC 194.261 GL 8.37 GP 11.03 ZAL 32.86 ZAP 167.46 ETS 116.22 ZAE 123.44 ETE 172.44 ZAC 112.52 ETC 273.53 CLP 174.00

PLANETOCENTRIC CONIC
C3 110.159 VHL 10.496 DLA -8.06 RAL 315.91 RAD 6570.1 VEL 15.215 PTH 2.73 VHP 14.916 DPA -11.87 RAP 298.88 ECC 2.8129

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 6 40	2372.83	-23.07	51.76	203.36	106.89	10 46 13	1772.8	-20.54	44.00
90.00	20 3 12	5521.71	28.32	256.46	210.75	90.03	21 35 13	4921.7	28.02	247.80
100.00	11 24 7	2122.96	-24.57	32.88	202.85	107.58	11 59 30	1523.0	-21.93	25.08
100.00	21 28 26	5246.81	29.89	236.23	210.74	89.55	22 55 52	4646.8	29.51	227.45
110.00	12 23 29	1937.07	-28.60	17.26	201.33	109.57	12 55 46	1337.1	-25.66	9.31
110.00	22 45 33	5005.46	34.14	217.81	210.64	88.18	24 8 58	4405.5	33.51	208.62

DIFFERENTIAL CORRECTIONS
TDE 3.8001 TRA 9.4631 TC3 -.4549 BAU .6699
RDE .4687 RRA -.3687 RC3 .0032 FAU -.00226
FDE .8881 FRA 2.1940 FC3 .0178 BSP 18404
BDE 3.8289 BRA 9.4703 BC3 .4549 FSP -368

MID-COURSE EXECUTION ACCURACY
SGT 5695.3 SGR 326.9 SG3 112.6
RRT -.2880 RRF -.2853 RTF .9806
SGB 5704.7 R23 .0021 R13 -.9806
SG1 5696.1 SG2 313.0 THA 179.05

ORBIT DETERMINATION ACCURACY
ST 2598.9 SR 263.1 SS 780.4
CRT .6368 CRS -.6398 CST -.9999
LSA 2718.7 MSA 202.4 SSA 9.6
EL1 2604.3 EL2 202.4 ALF 3.71

LAUNCH DATE SEP 12 1970 FLIGHT TIME 70.00 ARRIVAL DATE NOV 21 1970

HELIOCENTRIC CONIC DISTANCE 175.591

RL	150.56	LAL	.00	LOL	348.82	VL	25.246	GAL	-5.65	AZL	90.72	HCA	75.80	SMA	117.91	ECC	.29266	INC	.7162
RP	107.91	LAP	-.69	LOP	64.62	VP	36.525	GAP	-16.33	AZP	90.18	TAL	194.01	TAP	269.81	RCA	83.40	APO	152.41
RC	42.291	GL	-3.66	GP	-12.01	ZAL	114.37	ZAP	12.04	ETS	90.15	ZAE	155.40	ETE	338.75	ZAC	89.54	ETC	260.86

V1	29.594	V2	35.117	CLP	.74														

PLANETOCENTRIC CONIC

C3	24.192	VHL	4.919	DLA	-22.42	RAL	231.07	RAD	6568.0	VEL	12.065	PTH	2.16	VHP	10.276	DPA	-32.20	RAP	240.26

ECC	1.3981																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 42 55	1474.19	2.60	358.46	96.21	118.21	7 7 29	874.2	6.35	351.79
90.00	12 2 14	5690.64	27.69	268.76	104.18	96.16	13 37 4	5090.6	28.26	260.14
100.00	7 47 53	1264.49	.95	342.13	95.29	119.88	8 8 57	664.5	4.92	335.60
100.00	13 39 56	5375.58	29.57	245.79	104.38	94.56	15 9 32	4775.6	29.89	237.00
110.00	8 22 23	1156.35	-2.96	331.90	92.85	124.07	8 41 39	556.3	1.53	325.29
110.00	15 21 56	5056.48	34.18	221.79	104.62	90.54	16 46 12	4456.5	33.88	212.56

DIFFERENTIAL CORRECTIONS

TDE	.1488	TRA	-.4813	TC3	.3693	BAU	.1285
RDE	-.3563	RRA	-.0550	RC3	-.1467	FAU	.02663
FDE	-.0182	FRA	.1543	FC3	-.9530	BSP	1896
BDE	.3861	BRA	.4845	BC3	.3973	FSP	-194

MID-COURSE EXECUTION ACCURACY

SGT	727.9	SGR	444.8	SG3	82.7		
RRT	-.2542	RRF	.3066	RTF	-.6630		
SG8	853.1	R23	-.0537	R13	.6760		
SG1	741.1	SG2	422.6	THA	166.82		

ORBIT DETERMINATION ACCURACY

ST	251.6	SR	415.5	SS	60.5
CRT	-.6525	CRS	-.2726	CST	.8517
LSA	454.0	MSA	181.8	SSA	21.3
EL1	453.2	EL2	174.8	ALF	115.64

LAUNCH DATE SEP 12 1970 FLIGHT TIME 72.00 ARRIVAL DATE NOV 23 1970

HELIOCENTRIC CONIC DISTANCE 182.375

RL	150.56	LAL	.00	LOL	348.82	VL	25.503	GAL	-5.66	AZL	90.52	HCA	79.02	SMA	119.29	ECC	.27889	INC	.5159
RP	107.88	LAP	-.51	LOP	67.84	VP	36.715	GAP	-15.26	AZP	90.10	TAL	195.05	TAP	274.07	RCA	86.02	APO	152.56
RC	43.202	GL	-2.79	GP	-12.72	ZAL	116.02	ZAP	12.80	ETS	80.34	ZAE	153.28	ETE	337.90	ZAC	88.93	ETC	261.05

V1	29.594	V2	35.129	CLP	-1.38														

PLANETOCENTRIC CONIC

C3	22.042	VHL	4.695	DLA	-21.17	RAL	229.61	RAD	6567.9	VEL	11.976	PTH	2.13	VHP	9.691	DPA	-33.17	RAP	241.28

ECC	1.3628																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 21 0	1509.58	1.46	.44	92.84	118.28	6 46 9	909.6	5.23	353.79
90.00	12 12 31	5609.90	28.14	262.90	100.56	93.26	13 46 1	5009.9	28.30	254.24
100.00	7 28 0	1293.36	-.03	343.72	92.01	119.89	7 49 33	693.4	3.94	337.19
100.00	13 48 12	5301.36	29.85	240.29	100.64	91.68	15 16 34	4701.4	29.76	231.48
110.00	8 5 59	1174.30	-3.65	332.44	89.76	124.01	8 25 33	574.3	.84	326.23
110.00	15 28 43	4993.19	34.11	216.85	100.61	87.62	16 49 56	4393.2	33.40	207.68

DIFFERENTIAL CORRECTIONS

TDE	.1507	TRA	-.4616	TC3	.4445	BAU	.1417
RDE	-.3378	RRA	-.0569	RC3	-.1837	FAU	.02859
FDE	.0009	FRA	.1443	FC3	-1.1231	BSP	2062
BDE	.3699	BRA	.4651	BC3	.4809	FSP	-221

MID-COURSE EXECUTION ACCURACY

SGT	757.0	SGR	453.0	SG3	92.6		
RRT	-.2998	RRF	.3449	RTF	-.6831		
SG8	882.2	R23	-.0492	R13	.6970		
SG1	774.5	SG2	422.4	THA	165.39		

ORBIT DETERMINATION ACCURACY

ST	258.5	SR	412.9	SS	54.3
CRT	-.6730	CRS	.0576	CST	.6239
LSA	455.3	MSA	180.2	SSA	23.0
EL1	455.2	EL2	173.4	ALF	117.10

LAUNCH DATE SEP 12 1970 FLIGHT TIME 74.00 ARRIVAL DATE NOV 25 1970

HELIOCENTRIC CONIC DISTANCE 189.167

RL	150.56	LAL	.00	LOL	348.82	VL	25.737	GAL	-5.68	AZL	90.32	HCA	82.24	SMA	120.59	ECC	.26645	INC	.3197
RP	107.84	LAP	-.32	LOP	71.06	VP	36.888	GAP	-14.24	AZP	90.04	TAL	196.14	TAP	278.38	RCA	88.46	APO	152.72
RC	44.254	GL	-1.82	GP	-13.51	ZAL	117.72	ZAP	13.96	ETS	71.66	ZAE	151.33	ETE	336.91	ZAC	88.25	ETC	261.24

V1	29.594	V2	35.141	CLP	-3.56														

PLANETOCENTRIC CONIC

C3	20.250	VHL	4.500	DLA	-19.79	RAL	228.15	RAD	6567.8	VEL	11.901	PTH	2.11	VHP	9.137	DPA	-34.19	RAP	242.23

ECC	1.3333																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 59 3	1548.35	.21	2.60	89.67	118.32	6 24 51	948.3	3.99	355.96
90.00	12 22 48	5530.37	28.32	257.09	96.99	90.35	13 54 59	4930.4	28.06	248.43
100.00	7 7 51	1326.34	-1.15	345.53	88.91	119.87	7 29 57	726.3	2.83	339.01
100.00	13 56 42	5227.61	29.87	234.80	96.98	88.79	15 23 49	4627.6	29.38	226.03
110.00	7 49 7	1196.98	-4.51	333.63	86.82	123.92	8 9 4	597.0	-.03	327.41
110.00	15 31 54	4929.73	33.82	211.92	96.71	84.71	16 54 4	4329.7	32.72	202.85

DIFFERENTIAL CORRECTIONS

TDE	.1329	TRA	-.4525	TC3	.5009	BAU	.1487
RDE	-.3190	RRA	-.0585	RC3	-.2257	FAU	.03062
FDE	.0290	FRA	.1361	FC3	-1.3093	BSP	1971
BDE	.3456	BRA	.4562	BC3	.5494	FSP	-245

MID-COURSE EXECUTION ACCURACY

SGT	778.9	SGR	461.0	SG3	103.1		
RRT	-.3115	RRF	.3813	RTF	-.6862		
SG8	905.1	R23	-.0784	R13	.7041		
SG1	797.7	SG2	427.8	THA	165.21		

ORBIT DETERMINATION ACCURACY

ST	250.1	SR	406.9	SS	59.5
CRT	-.6333	CRS	.5259	CST	.2321
LSA	444.0	MSA	184.3	SSA	25.0
EL1	443.4	EL2	177.6	ALF	115.69

LAUNCH DATE SEP 12 1970 FLIGHT TIME 76.00 ARRIVAL DATE NOV 27 1970

HELIOCENTRIC CONIC DISTANCE 195.961

RL	150.56	LAL	.00	LOL	348.82	VL	25.948	GAL	-5.72	AZL	90.13	HCA	85.46	SMA	121.80	ECC	.25523	INC	.1259
RP	107.81	LAP	-.13	LOP	74.28	VP	37.047	GAP	-13.26	AZP	90.01	TAL	197.26	TAP	282.72	RCA	90.71	APO	152.88
RC	45.436	GL	-.76	GP	-14.39	ZAL	119.45	ZAP	15.49	ETS	64.28	ZAE	149.56	ETE	335.79	ZAC	87.46	ETC	261.42

V1	29.594	V2	35.152	CLP	-5.81														

PLANETOCENTRIC CONIC

C3	18.762	VHL	4.331	DLA	-18.30	RAL	226.71	RAD	6567.8	VEL	11.838	PTH	2.10	VHP	8.614	DPA	-35.27	RAP	243.09

ECC	1.3088																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 37 12	1590.34	-1.15	4.94	86.71	118.30	6 3 42	990.3	2.64	358.32
90.00	12 33 7	5452.21	28.21	251.38	93.53	87.49	14 3 59	4852.2	27.57	242.77
100.00	6 47 36	1363.16	-2.40	347.55	86.01	119.80	7 10 20	763.2	1.59	341.03
100.00	14 5 24	5154.63	29.64	229.39	93.44	85.95	15 31 18	4554.6	28.77	220.70
110.00	7 31 59	1224.11	-5.54	335.05	84.06	123.79	7 52 23	624.1	-1.06	328.83
110.00	15 37 30	4866.45	33.32	207.05	92.98	81.87	16 58 37	4266.4	31.84	198.13

DIFFERENTIAL CORRECTIONS

TDE	.1259	TRA	-.4308	TC3	.5828	BAU	.1618
RDE	-.3011	RRA	-.0613	RC3	-.2762	FAU	.03313
FDE	.0586	FRA	.1213	FC3	-1.5288	BSP	2159
BDE	.3264	BRA	.4351	BC3	.6449	FSP	-283

MID-COURSE EXECUTION ACCURACY

SGT	801.8	SGR	472.4	SG3	115.6		
RRT	-.3585	RRF	.4298	RTF	-.7062		
SG8	930.6	R23	-.0803	R13	.7266		
SG1	826.4	SG2	427.9	THA	163.54		

ORBIT DETERMINATION ACCURACY

ST	245.7	SR	399.2	SS	75.0
CRT	-.6301	CRS	.7926	CST	-.1281
LSA	437.9	MSA	181.3	SSA	27.2
EL1	434.8	EL2	175.2	ALF	115.66

LAUNCH DATE SEP 12 1970 FLIGHT TIME 78.00 ARRIVAL DATE NOV 29 1970

HELIOCENTRIC CONIC DISTANCE 202.754

RL	150.56	LAL	.00	LOL	348.82	VL	26.140	GAL	-5.76	AZL	89.94	HCA	88.68	SMA	122.92	ECC	.24518	INC	.0629	V1	29.594
RP	107.77	LAP	.06	LOP	77.51	VP	37.192	GAP	-12.33	AZP	90.00	TAL	198.40	TAP	287.09	RCA	92.79	APO	153.06	V2	35.163
RC	46.738	GL	.40	GP	-15.35	ZAL	121.17	ZAP	17.33	ETS	58.16	ZAE	147.96	ETE	334.49	ZAC	86.57	ETC	261.58	CLP	-8.13

PLANETOCENTRIC CONIC

C3	17.533	VHL	4.187	DLA	-16.71	RAL	225.31	RAD	6567.7	VEL	11.786	PTH	2.08	VHP	8.120	DPA	-36.42	RAP	243.84	ECC	1.2886

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 15 40	1635.24	-2.60	7.45	84.00	118.21	5 42 55	1035.2	1.20	.82
90.00	12 43 30	5375.68	27.86	245.81	90.25	84.72	14 13 6	4775.7	26.84	237.29
100.00	6 27 31	1403.37	-3.76	349.76	83.36	119.68	6 50 55	803.4	.22	343.23
100.00	14 14 19	5082.78	29.18	224.10	90.09	83.21	15 39 2	4482.8	27.93	215.52
110.00	7 14 49	1255.20	-6.71	336.69	81.53	123.60	7 35 44	655.2	-2.25	330.45
110.00	15 43 31	4803.72	32.61	202.29	89.47	79.14	17 3 35	4203.7	30.77	193.55

DIFFERENTIAL CORRECTIONS

TDE	.1167	TRA	-.4101	TC3	.6649	BAU	.1744
RDE	-.2829	RRA	-.0646	RC3	-.3342	FAU	.03595
FDE	.0952	FRA	.1044	FC3	-1.7749	BSP	2337
BDE	.3060	BRA	.4152	BC3	.7442	FSP	-326

MID-COURSE EXECUTION ACCURACY

SGT	823.9	SGR	486.6	SG3	129.6		
RRT	-.4080	RRF	.4822	RTF	-.7238		
SGB	956.9	R23	-.0843	R13	.7474		
SG1	856.0	SG2	427.6	THA	161.75		

ORBIT DETERMINATION ACCURACY

ST	238.0	SR	388.2	SS	101.6		
CRT	-.6176	CRS	.9127	CST	-.3537		
LSA	430.3	MSA	177.9	SSA	29.8		
EL1	421.5	EL2	172.4	ALF	115.26		

LAUNCH DATE SEP 12 1970 FLIGHT TIME 80.00 ARRIVAL DATE DEC 1 1970

HELIOCENTRIC CONIC DISTANCE 209.541

RL	150.56	LAL	.00	LOL	348.82	VL	26.313	GAL	-5.81	AZL	89.74	HCA	91.91	SMA	123.96	ECC	.23620	INC	.2555	V1	29.594
RP	107.74	LAP	.26	LOP	80.73	VP	37.324	GAP	-11.44	AZP	90.01	TAL	199.55	TAP	291.46	RCA	94.68	APO	153.24	V2	35.174
RC	48.150	GL	1.65	GP	-16.43	ZAL	122.85	ZAP	19.45	ETS	53.12	ZAE	146.54	ETE	333.02	ZAC	85.57	ETC	261.72	CLP	-10.55

PLANETOCENTRIC CONIC

C3	16.526	VHL	4.065	DLA	-15.04	RAL	223.98	RAD	6567.7	VEL	11.743	PTH	2.07	VHP	7.656	DPA	-37.65	RAP	244.47	ECC	1.2720

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 54 36	1682.71	-4.12	10.11	81.57	118.04	5 22 38	1082.7	-.34	3.47
90.00	12 54 1	5300.93	27.27	240.42	87.18	82.08	14 22 22	4700.9	25.90	232.02
100.00	6 7 47	1446.57	-5.21	352.15	80.97	119.48	6 31 53	846.6	-1.24	345.60
100.00	14 23 31	5012.30	28.50	218.97	86.97	80.59	15 47 3	4412.3	26.91	210.53
110.00	6 57 50	1289.80	-8.01	338.53	79.25	123.34	7 19 19	689.8	-3.57	332.26
110.00	15 49 57	4741.84	31.72	197.68	86.22	76.55	17 8 59	4141.8	29.55	189.15

DIFFERENTIAL CORRECTIONS

TDE	.1047	TRA	-.3911	TC3	.7426	BAU	.1863
RDE	-.2639	RRA	-.0682	RC3	-.4000	FAU	.03906
FDE	.1408	FRA	.0859	FC3	-2.0462	BSP	2493
BDE	.2840	BRA	.3970	BC3	.8435	FSP	-373

MID-COURSE EXECUTION ACCURACY

SGT	843.8	SGR	504.0	SG3	145.2		
RRT	-.4572	RRF	.5370	RTF	-.7383		
SGB	982.9	R23	-.0919	R13	.7661		
SG1	885.1	SG2	427.3	THA	159.83		

ORBIT DETERMINATION ACCURACY

ST	226.8	SR	373.3	SS	137.6		
CRT	-.5903	CRS	.9586	CST	-.4652		
LSA	422.2	MSA	174.5	SSA	32.7		
EL1	402.5	EL2	169.8	ALF	114.33		

LAUNCH DATE SEP 12 1970 FLIGHT TIME 82.00 ARRIVAL DATE DEC 3 1970

HELIOCENTRIC CONIC DISTANCE 216.321

RL	150.56	LAL	.00	LOL	348.82	VL	26.468	GAL	-5.85	AZL	89.55	HCA	95.13	SMA	124.92	ECC	.22822	INC	.4478	V1	29.594
RP	107.71	LAP	.45	LOP	83.96	VP	37.443	GAP	-10.58	AZP	90.04	TAL	200.68	TAP	295.82	RCA	96.41	APO	153.43	V2	35.184
RC	49.661	GL	2.98	GP	-17.62	ZAL	124.46	ZAP	21.82	ETS	48.96	ZAE	145.29	ETE	331.33	ZAC	84.43	ETC	261.83	CLP	-13.08

PLANETOCENTRIC CONIC

C3	15.707	VHL	3.963	DLA	-13.29	RAL	222.76	RAD	6567.6	VEL	11.709	PTH	2.06	VHP	7.221	DPA	-38.97	RAP	244.94	ECC	1.2585

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	-4 34 7	1732.43	-5.70	12.90	79.44	117.78	5 2 59	1132.4	-1.94	6.24
90.00	13 4 43	5228.08	26.48	235.23	84.37	79.59	14 31 51	4628.1	24.78	226.98
100.00	5 48 31	1492.36	-6.74	354.69	78.88	119.19	6 13 24	892.4	-2.79	348.12
100.00	14 32 59	4943.38	27.64	214.03	84.12	78.13	15 55 23	4343.4	25.72	205.76
110.00	6 41 10	1327.46	-9.42	340.55	77.25	123.01	7 3 18	727.5	-5.00	334.24
110.00	15 56 50	4681.04	30.68	193.25	83.26	74.12	17 14 51	4081.0	28.19	184.94

DIFFERENTIAL CORRECTIONS

TDE	.0907	TRA	-.3737	TC3	.8124	BAU	.1975
RDE	-.2437	RRA	-.0720	RC3	-.4739	FAU	.04249
FDE	.1963	FRA	.0658	FC3	-2.3418	BSP	2634
BDE	.2601	BRA	.3805	BC3	.9405	FSP	-426

MID-COURSE EXECUTION ACCURACY

SGT	860.2	SGR	526.0	SG3	162.5		
RRT	-.5054	RRF	.5933	RTF	-.7495		
SGB	1008.3	R23	-.1026	R13	.7830		
SG1	913.1	SG2	427.6	THA	157.68		

ORBIT DETERMINATION ACCURACY

ST	212.8	SR	354.0	SS	181.3		
CRT	-.5450	CRS	.9748	CST	-.5050		
LSA	416.0	MSA	170.8	SSA	35.6		
EL1	377.7	EL2	167.2	ALF	112.87		

LAUNCH DATE SEP 12 1970 FLIGHT TIME 84.00 ARRIVAL DATE DEC 5 1970

HELIOCENTRIC CONIC DISTANCE 223.088

RL	150.56	LAL	.00	LOL	348.82	VL	26.607	GAL	-5.90	AZL	89.36	HCA	98.36	SMA	125.79	ECC	.22116	INC	.6421	V1	29.594
RP	107.68	LAP	.64	LOP	87.19	VP	37.550	GAP	-9.77	AZP	90.09	TAL	201.79	TAP	300.15	RCA	97.97	APO	153.62	V2	35.193
RC	51.263	GL	4.39	GP	-18.95	ZAL	125.96	ZAP	24.44	ETS	45.50	ZAE	144.20	ETE	329.39	ZAC	83.16	ETC	261.91	CLP	-15.73

PLANETOCENTRIC CONIC

C3	15.049	VHL	3.879	DLA	-11.48	RAL	221.65	RAD	6567.6	VEL	11.680	PTH	2.05	VHP	6.815	DPA	-40.39	RAP	245.24	ECC	1.2477

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 14 20	1784.10	-7.33	15.82	77.62	117.43	4 44 4	1184.1	-3.60	9.13
90.00	13 15 39	5157.15	25.52	230.26	81.85	77.28	14 41 37	4557.2	23.51	222.17
100.00	5 29 53	1540.39	-8.32	357.37	77.09	118.81	5 55 33	940.4	-4.41	350.76
100.00	14 42 48	4876.11	26.60	209.30	81.56	75.84	16 4 4	4276.1	24.40	201.20
110.00	6 25 0	1367.78	-10.90	342.72	75.53	122.60	6 47 47	767.8	-6.53	336.36
110.00	16 4 10	4621.48	29.49	189.02	80.62	71.87	17 21 12	4021.5	26.73	180.92

DIFFERENTIAL CORRECTIONS

TDE	.0747	TRA	-.3583	TC3	.8715	BAU	.2080
RDE	-.2216	RRA	-.0760	RC3	-.5564	FAU	.04625
FDE	.2636	FRA	.0448	FC3	-2.6606	BSP	2751
BDE	.2339	BRA	.3663	BC3	1.0340	FSP	-485

MID-COURSE EXECUTION ACCURACY

SGT	872.4	SGR	553.8	SG3	181.6		
RRT	-.5510	RRF	.6496	RTF	-.7578		
SGB	1033.3	R23	-.1161	R13	.7988		
SG1	940.1	SG2	428.8	THA	155.24		

ORBIT DETERMINATION ACCURACY

ST	197.1	SR	329.4	SS	232.4		
CRT	-.4748	CRS	.9793	CST	-.4939		
LSA	414.7	MSA	167.0	SSA	38.3		
EL1	346.7	EL2	164.8	ALF	110.75		

LAUNCH DATE SEP 12 1970 FLIGHT TIME 86.00 ARRIVAL DATE DEC 7 1970

HELIOCENTRIC CONIC DISTANCE 229.842

RL	150.56	LAL	.00	LOL	348.82	VL	26.731	GAL	-5.94	AZL	89.16	HCA	101.59	SMA	126.59	ECC	.21493	INC	.8394	V1	29.594
RP	107.65	LAP	.82	LOP	90.42	VP	37.646	GAP	-8.98	AZP	90.17	TAL	202.85	TAP	304.45	RCA	99.38	APO	153.80	V2	35.202
RC	52.948	GL	5.87	GP	-20.42	ZAL	127.33	ZAP	27.29	ETS	42.58	ZAE	143.24	ETE	327.17	ZAC	81.73	ETC	261.96	CLP	-18.51

PLANETOCENTRIC CONIC

C3	14.530	VHL	3.812	DLA	-9.63	RAL	220.68	RAD	6567.6	VEL	11.658	PTH	2.05	VHP	6.438	DPA	-41.92	RAP	245.33	ECC	1.2391		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 55 18	1837.50	-9.00	18.87	76.12	116.96	4 25 56	1237.5	-5.31	12.13
90.00	13 26 55	5088.10	24.39	225.52	79.64	75.16	14 51 44	4488.1	22.12	217.58
100.00	5 11 55	1590.35	-9.95	.19	75.61	118.33	5 38 25	990.4	-6.09	353.53
100.00	14 53 0	4810.48	25.43	204.78	79.32	73.74	16 13 11	4210.5	22.96	196.85
110.00	6 9 23	1410.38	-12.46	345.04	74.12	122.09	6 32 54	810.4	-8.13	338.62
110.00	16 12 1	4563.22	28.19	184.99	78.31	69.81	17 28 4	3963.2	25.18	177.11

DIFFERENTIAL CORRECTIONS

TDE	.0562	TRA	-.3464	TC3	.9132	BAU	.2174
RDE	-.1967	RRA	-.0799	RC3	-.6471	FAU	.05027
FDE	.3455	FRA	.0246	FC3	-2.9951	BSP	2820
BDE	.2046	BRA	.3555	BC3	1.1192	FSP	-547

MID-COURSE EXECUTION ACCURACY

SGT	877.9	SGR	587.9	SG3	202.3		
RRT	-.5893	RRF	.7033	RTF	-.7615		
SG8	1056.5	R23	-.1334	R13	.8132		
SG1	963.9	SG2	432.6	THA	152.47		

ORBIT DETERMINATION ACCURACY

ST	180.7	SR	298.3	SS	291.4
CRT	-.3615	CRS	.9786	CST	-.4292
LSA	422.0	MSA	163.8	SSA	40.1
EL1	308.3	EL2	163.0	ALF	107.34

LAUNCH DATE SEP 12 1970 FLIGHT TIME 88.00 ARRIVAL DATE DEC 9 1970

HELIOCENTRIC CONIC DISTANCE 236.578

RL	150.56	LAL	.00	LOL	348.82	VL	26.841	GAL	-5.98	AZL	88.96	HCA	104.83	SMA	127.30	ECC	.20947	INC	1.0417	V1	29.594		
RP	107.63	LAP	1.01	LOP	93.65	VP	37.732	GAP	-8.23	AZP	90.27	TAL	203.86	TAP	308.69	RCA	100.64	APO	153.97	V2	35.210		
RC	54.707	GL	7.42	GP	-22.04	ZAL	128.54	ZAP	30.38	ETS	40.04	ZAE	142.38	ETE	324.63	ZAC	80.13	ETC	261.96	CLP	-21.45		

PLANETOCENTRIC CONIC

C3	14.131	VHL	3.759	DLA	-7.74	RAL	219.85	RAD	6567.6	VEL	11.641	PTH	2.04	VHP	6.090	DPA	-43.56	RAP	245.17	ECC	1.2326		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 37 3	1892.47	-10.68	22.03	74.93	116.38	4 8 36	1292.5	-7.05	15.23
90.00	13 38 35	5020.81	23.15	220.98	77.75	73.22	15 2 16	4420.8	20.63	213.21
100.00	4 54 40	1642.06	-11.60	3.13	74.45	117.74	5 22 2	1042.1	-7.80	356.41
100.00	15 3 39	4746.44	24.14	200.46	77.41	71.81	16 22 45	4146.4	21.43	192.71
110.00	5 54 25	1455.00	-14.06	347.51	73.02	121.48	6 18 40	855.0	-9.79	341.01
110.00	16 20 24	4506.27	26.79	181.15	76.33	67.93	17 35 30	3906.3	23.55	173.48

DIFFERENTIAL CORRECTIONS

TDE	.0405	TRA	-.3332	TC3	.9476	BAU	.2281
RDE	-.1691	RRA	-.0843	RC3	-.7487	FAU	.05473
FDE	.4389	FRA	.0015	FC3	-3.3532	BSP	2957
BDE	.1738	BRA	.3437	BC3	1.2076	FSP	-620

MID-COURSE EXECUTION ACCURACY

SGT	879.7	SGR	632.5	SG3	225.4		
RRT	-.6297	RRF	.7555	RTF	-.7652		
SG8	1083.5	R23	-.1457	R13	.8297		
SG1	992.0	SG2	435.7	THA	149.04		

ORBIT DETERMINATION ACCURACY

ST	167.1	SR	261.1	SS	354.3
CRT	-.2359	CRS	.9734	CST	-.3521
LSA	441.0	MSA	159.5	SSA	40.9
EL1	265.8	EL2	159.5	ALF	103.53

LAUNCH DATE SEP 12 1970 FLIGHT TIME 90.00 ARRIVAL DATE DEC 11 1970

HELIOCENTRIC CONIC DISTANCE 243.295

RL	150.56	LAL	.00	LOL	348.82	VL	26.938	GAL	-6.02	AZL	88.75	HCA	108.06	SMA	127.95	ECC	.20469	INC	1.2502	V1	29.594		
RP	107.60	LAP	1.19	LOP	96.89	VP	37.809	GAP	-7.50	AZP	90.39	TAL	204.80	TAP	312.86	RCA	101.76	APO	154.14	V2	35.218		
RC	56.533	GL	9.04	GP	-23.83	ZAL	129.56	ZAP	33.70	ETS	37.79	ZAE	141.60	ETE	321.73	ZAC	78.35	ETC	261.91	CLP	-24.56		

PLANETOCENTRIC CONIC

C3	13.835	VHL	3.720	DLA	-5.81	RAL	219.18	RAD	6567.5	VEL	11.628	PTH	2.04	VHP	5.773	DPA	-45.33	RAP	244.72	ECC	1.2277		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 19 34	1948.91	-12.36	25.32	74.08	115.68	3 52 3	1348.9	-8.81	18.44
90.00	13 50 44	4955.07	21.79	216.64	76.18	71.45	15 13 19	4355.1	19.05	209.03
100.00	4 38 10	1695.38	-13.27	6.21	73.61	117.03	5 6 25	1095.4	-9.54	359.41
100.00	15 14 49	4683.83	22.75	196.33	75.82	70.07	16 32 53	4083.8	19.82	188.75
110.00	5 40 6	1501.44	-15.69	350.12	72.23	120.77	6 5 8	901.4	-11.49	343.52
110.00	16 29 22	4450.53	25.31	177.49	74.69	66.22	17 43 33	3850.5	21.88	170.02

DIFFERENTIAL CORRECTIONS

TDE	.0238	TRA	-.3240	TC3	.9586	BAU	.2381
RDE	-.1368	RRA	-.0884	RC3	-.8590	FAU	.05938
FDE	.5499	FRA	-.0191	FC3	-3.7157	BSP	3051
BDE	.1389	BRA	.3358	BC3	1.2872	FSP	-696

MID-COURSE EXECUTION ACCURACY

SGT	872.6	SGR	686.7	SG3	249.8		
RRT	-.6588	RRF	.8018	RTF	-.7631		
SG8	1110.4	R23	-.1589	R13	.8457		
SG1	1018.4	SG2	442.7	THA	145.08		

ORBIT DETERMINATION ACCURACY

ST	156.4	SR	215.6	SS	424.5
CRT	-.0579	CRS	.9623	CST	-.2299
LSA	474.3	MSA	156.7	SSA	40.1
EL1	216.0	EL2	155.8	ALF	95.03

LAUNCH DATE SEP 12 1970 FLIGHT TIME 92.00 ARRIVAL DATE DEC 13 1970

HELIOCENTRIC CONIC DISTANCE 249.992

RL	150.56	LAL	.00	LOL	348.82	VL	27.024	GAL	-6.05	AZL	88.53	HCA	111.30	SMA	128.52	ECC	.20053	INC	1.4665	V1	29.594		
RP	107.58	LAP	1.37	LOP	100.13	VP	37.876	GAP	-6.81	AZP	90.53	TAL	205.67	TAP	316.96	RCA	102.74	APO	154.29	V2	35.225		
RC	58.419	GL	10.74	GP	-25.80	ZAL	130.39	ZAP	37.26	ETS	35.72	ZAE	140.85	ETE	318.44	ZAC	76.38	ETC	261.81	CLP	-27.86		

PLANETOCENTRIC CONIC

C3	13.631	VHL	3.692	DLA	-3.86	RAL	218.68	RAD	6567.5	VEL	11.620	PTH	2.04	VHP	5.486	DPA	-47.22	RAP	243.92	ECC	1.2243		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 2 50	2006.85	-14.05	28.74	73.54	114.84	3 36 17	1406.9	-10.58	21.78
90.00	14 3 27	4890.64	20.33	212.47	74.93	69.86	15 24 58	4290.6	17.41	205.02
100.00	4 22 22	1750.28	-14.95	9.43	73.10	116.19	4 51 32	1150.3	-11.31	2.53
100.00	15 26 36	4622.44	21.27	192.37	74.55	68.48	16 43 39	4022.4	18.16	184.96
110.00	5 26 28	1549.62	-17.35	352.87	71.77	119.93	5 52 17	949.6	-13.24	346.17
110.00	16 39 0	4395.87	23.76	174.00	73.38	64.67	17 52 16	3795.9	20.15	166.72

DIFFERENTIAL CORRECTIONS

TDE	.0054	TRA	-.3204	TC3	.9385	BAU	.2467
RDE	-.0983	RRA	-.0911	RC3	-.9759	FAU	.06398
FDE	.6822	FRA	-.0328	FC3	-4.0635	BSP	3067
BDE	.0985	BRA	.3331	BC3	1.3540	FSP	-767

MID-COURSE EXECUTION ACCURACY

SGT	853.7	SGR	750.1	SG3	274.9		
RRT	-.6716	RRF	.8412	RTF	-.7529		
SG8	1136.4	R23	-.1701	R13	.8620		
SG1	1041.0	SG2	455.7	THA	140.46		

ORBIT DETERMINATION ACCURACY

ST	151.2	SR	159.8	SS	503.7
CRT	.1918	CRS	.9356	CST	-.0575
LSA	525.7	MSA	156.0	SSA	37.5
EL1	170.4	EL2	139.2	ALF	53.10

LAUNCH DATE SEP 12 1970 FLIGHT TIME 94.00 ARRIVAL DATE DEC 15 1970

HELIOCENTRIC CONIC DISTANCE 256.665

```
RL  150.56 LAL    .00 LOL 348.82 VL  27.098 GAL  -6.08 AZL  88.31 HCA 114.53 SMA 129.02 ECC .19692 INC 1.6927 VI  29.594
RP  107.56 LAP   1.54 LOP 103.36 VP  37.935 GAP  -6.14 AZP  90.70 TAL 206.44 TAP 320.97 RCA 103.61 APO 154.42 V2  35.232
RC  60.358 GL   12.51 GP  -27.96 ZAL 131.01 ZAP  41.05 ETS  33.73 ZAE 140.08 ETE 314.73 ZAC  74.22 ETC 261.63 CLP -31.38
```

PLANETOCENTRIC CONIC

```
C3  13.511 VHL  3.676 DLA  -1.88 RAL 218.34 RAD 6567.5 VEL 11.615 PTH   2.04 VHP  5.232 DPA -49.23 RAP 242.71 ECC 1.2224
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 46 44	2066.50	-15.72	32.32	73.33	113.86	3 21 10	1466.5	-12.37	25.25
90.00	14 16 52	4827.14	18.79	208.45	74.01	68.42	15 37 19	4227.1	15.70	201.14
100.00	4 7 12	1806.93	-16.62	12.80	72.91	115.21	4 37 19	1206.9	-13.09	5.79
100.00	15 39 5	4561.94	19.71	188.55	73.61	67.06	16 55 7	3961.9	16.43	181.29
110.00	5 13 26	1599.59	-19.02	355.78	71.62	118.95	5 40 5	999.6	-15.01	348.95
110.00	16 49 20	4342.04	22.15	170.65	72.40	63.28	18 1 42	3742.0	18.39	163.54

DIFFERENTIAL CORRECTIONS

```
TDE -.0015 TRA -.3108 TC3  .9209 BAU  .2605
RDE -.0561 RRA -.0959 RC3-1.1096 FAU .06919
FDE  .8187 FRA -.0550 FC3-4.4335 BSP  3302
BDE  .0561 BRA  .3253 BC3 1.4420 FSP  -867
```

MID-COURSE EXECUTION ACCURACY

```
SGT  832.7 SGR  833.9 SG3  302.5
RRT -.6906 RRF  .8768 RTF -.7436
SGB 1178.4 R23 -.1686 R13  .8814
SG1 1083.5 SG2  463.5 THA 134.94
```

ORBIT DETERMINATION ACCURACY

```
ST   146.9 SR   101.2 SS   578.7
CRT  .4195 CRS  .8331 CST  .0069
LSA  584.9 MSA  152.9 SSA   35.3
EL1  156.0 EL2   86.5 ALF  23.88
```

LAUNCH DATE SEP 12 1970 FLIGHT TIME 96.00 ARRIVAL DATE DEC 17 1970

HELIOCENTRIC CONIC DISTANCE 263.315

```
RL  150.56 LAL    .00 LOL 348.82 VL  27.162 GAL  -6.09 AZL  88.07 HCA 117.77 SMA 129.45 ECC .19380 INC 1.9309 VI  29.594
RP  107.54 LAP   1.71 LOP 106.60 VP  37.986 GAP  -5.50 AZP  90.90 TAL 207.12 TAP 324.89 RCA 104.37 APO 154.54 V2  35.238
RC  62.346 GL   14.36 GP  -30.30 ZAL 131.41 ZAP  45.07 ETS  31.74 ZAE 139.24 ETE 310.60 ZAC  71.85 ETC 261.38 CLP -35.12
```

PLANETOCENTRIC CONIC

```
C3  13.469 VHL  3.670 DLA    .13 RAL 218.18 RAD 6567.5 VEL 11.613 PTH   2.03 VHP  5.012 DPA -51.36 RAP 241.02 ECC 1.2217
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 31 12	2128.08	-17.38	36.08	73.46	112.71	3 6 40	1528.1	-14.15	28.89
90.00	14 31 7	4764.18	17.17	204.54	73.41	67.13	15 50 31	4164.2	13.93	197.37
100.00	3 52 36	1865.51	-18.29	16.36	73.05	114.07	4 23 41	1265.5	-14.88	9.22
100.00	15 52 24	4501.99	18.08	184.85	73.00	65.78	17 7 26	3902.0	14.65	177.73
110.00	5 0 59	1651.46	-20.70	358.86	71.80	117.83	5 28 30	1051.5	-16.81	351.89
110.00	17 0 31	4288.80	20.49	167.41	71.75	62.02	18 12 0	3688.8	16.58	160.46

DIFFERENTIAL CORRECTIONS

```
TDE -.0087 TRA -.3086 TC3  .8635 BAU  .2731
RDE -.0047 RRA -.0981 RC3-1.2467 FAU .07394
FDE  .9775 FRA -.0650 FC3-4.7524 BSP  3445
BDE  .0099 BRA  .3238 BC3 1.5166 FSP  -954
```

MID-COURSE EXECUTION ACCURACY

```
SGT  796.3 SGR  927.8 SG3  329.1
RRT -.6851 RRF  .9045 RTF -.7197
SGB 1222.7 R23 -.1614 R13  .9005
SG1 1125.2 SG2  478.3 THA 128.69
```

ORBIT DETERMINATION ACCURACY

```
ST   146.4 SR    54.0 SS   662.5
CRT  .7861 CRS  .0844 CST  .0815
LSA  662.6 MSA  152.2 SSA   32.0
EL1  152.7 EL2   32.0 ALF  16.94
```

LAUNCH DATE SEP 12 1970 FLIGHT TIME 98.00 ARRIVAL DATE DEC 19 1970

HELIOCENTRIC CONIC DISTANCE 269.940

```
RL  150.56 LAL    .00 LOL 348.82 VL  27.216 GAL  -6.10 AZL  87.82 HCA 121.00 SMA 129.83 ECC .19111 INC 2.1839 VI  29.594
RP  107.53 LAP   1.87 LOP 109.85 VP  38.030 GAP  -4.88 AZP  91.13 TAL 207.71 TAP 328.71 RCA 105.02 APO 154.64 V2  35.243
RC  64.375 GL   16.30 GP  -32.82 ZAL 131.56 ZAP  49.31 ETS  29.68 ZAE 138.25 ETE 306.05 ZAC  69.29 ETC 261.04 CLP -39.12
```

PLANETOCENTRIC CONIC

```
C3  13.502 VHL  3.674 DLA   2.17 RAL 218.20 RAD 6567.5 VEL 11.614 PTH   2.04 VHP  4.826 DPA -53.57 RAP 238.78 ECC 1.2222
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 16 5	2192.05	-19.02	40.06	73.92	111.39	2 52 37	1592.1	-15.94	32.73
90.00	14 46 22	4701.27	15.47	200.71	73.14	65.98	16 4 43	4101.3	12.09	193.66
100.00	3 38 26	1926.41	-19.93	20.13	73.52	112.75	4 10 33	1326.4	-16.68	12.85
100.00	16 6 42	4442.14	16.37	181.23	72.71	64.63	17 20 44	3842.1	12.82	174.24
110.00	4 49 1	1705.54	-22.38	2.16	72.32	116.54	5 17 26	1105.5	-18.64	355.03
110.00	17 12 37	4235.78	18.76	164.27	71.41	60.89	18 23 13	3635.8	14.74	157.47

DIFFERENTIAL CORRECTIONS

```
TDE -.0095 TRA -.3090 TC3  .7794 BAU  .2875
RDE  .0554 RRA -.0987 RC3-1.3893 FAU .07831
FDE 1.1488 FRA -.0677 FC3-5.0211 BSP  3616
BDE  .0562 BRA  .3244 BC3 1.5930 FSP  -1038
```

MID-COURSE EXECUTION ACCURACY

```
SGT  748.9 SGR 1036.1 SG3  354.5
RRT -.6596 RRF  .9264 RTF -.6799
SGB 1278.4 R23 -.1438 R13  .9197
SG1 1178.8 SG2  494.7 THA 121.70
```

ORBIT DETERMINATION ACCURACY

```
ST   146.4 SR   102.7 SS   748.5
CRT  .3240 CRS -.8665 CST  .0910
LSA  753.9 MSA  151.8 SSA   28.7
EL1  152.7 EL2   93.2 ALF  20.90
```

LAUNCH DATE SEP 12 1970 FLIGHT TIME 100.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 276.540

```
RL  150.56 LAL    .00 LOL 348.82 VL  27.262 GAL  -6.11 AZL  87.55 HCA 124.24 SMA 130.14 ECC .18880 INC 2.4548 VI  29.594
RP  107.51 LAP   2.03 LOP 113.09 VP  38.067 GAP  -4.28 AZP  91.38 TAL 208.19 TAP 332.43 RCA 105.57 APO 154.72 V2  35.247
RC  66.441 GL   18.34 GP  -35.50 ZAL 131.48 ZAP  53.72 ETS  27.45 ZAE 137.05 ETE 301.13 ZAC  66.54 ETC 260.60 CLP -43.38
```

PLANETOCENTRIC CONIC

```
C3  13.611 VHL  3.689 DLA   4.27 RAL 218.40 RAD 6567.5 VEL 11.619 PTH   2.04 VHP  4.679 DPA -55.83 RAP 235.89 ECC 1.2240
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 1 15	2259.00	-20.62	44.31	74.73	109.85	2 38 54	1659.0	-17.73	36.83
90.00	15 2 47	4637.85	13.67	196.92	73.20	64.96	16 20 5	4037.8	10.19	189.98
100.00	3 24 35	1990.18	-21.56	24.17	74.36	111.22	3 57 45	1390.2	-18.48	16.72
100.00	16 22 8	4381.90	14.58	177.65	72.75	63.61	17 35 10	3781.9	10.91	170.77
110.00	4 37 25	1762.22	-24.06	5.70	73.20	115.05	5 6 48	1162.2	-20.48	358.38
110.00	17 25 47	4182.63	16.97	161.19	71.41	59.87	18 35 30	3582.6	12.84	154.51

DIFFERENTIAL CORRECTIONS

```
TDE -.0019 TRA -.3124 TC3  .6663 BAU  .3041
RDE  .1257 RRA -.0965 RC3-1.5327 FAU .08196
FDE 1.3285 FRA -.0599 FC3-5.2128 BSP  3826
BDE  .1257 BRA  .3269 BC3 1.6712 FSP  -1115
```

MID-COURSE EXECUTION ACCURACY

```
SGT  691.6 SGR 1157.4 SG3  377.2
RRT -.6040 RRF  .9433 RTF -.6132
SGB 1348.3 R23 -.1169 R13  .9376
SG1 1247.6 SG2  511.4 THA 114.15
```

ORBIT DETERMINATION ACCURACY

```
ST   146.7 SR   203.2 SS   835.4
CRT  .1848 CRS -.9714 CST  .0119
LSA  858.4 MSA  151.9 SSA   25.4
EL1  206.6 EL2  141.7 ALF  75.42
```

LAUNCH DATE SEP 12 1970 FLIGHT TIME 102.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 283.113

RL	150.56	LAL	.00	LOL	348.82	VL	27.299	GAL	-6.10	AZL	87.25	HCA	127.48	SMA	130.41	ECC	.18683	INC	2.7473
RP	107.50	LAP	2.18	LOP	116.34	VP	38.097	GAP	-3.71	AZP	91.67	TAL	208.56	TAP	336.04	RCA	106.07	APO	154.77
RC	68.539	GL	20.50	GP	-38.33	ZAL	131.14	ZAP	58.28	ETS	25.00	ZAE	135.60	ETE	295.90	ZAC	63.62	ETC	260.04

V1	29.594	V2	35.251	CLP	-47.91														

PLANETOCENTRIC CONIC

C3	13.803	VHL	3.715	DLA	6.42	RAL	218.78	RAD	6567.5	VEL	11.627	PTH	2.04	VHP	4.570	DPA	-58.10	RAP	232.27

ECC	1.2272	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
90.00	1 46 27	2329.73	-22.19	48.91	75.92	108.06	2 25 17	1729.7	-19.51	41.26									
90.00	15 20 39	4573.25	11.78	193.12	73.60	64.06	16 36 52	3973.2	8.20	186.27									
100.00	3 10 51	2057.52	-23.15	28.54	75.56	109.45	3 45 9	1457.5	-20.29	20.91									
100.00	16 38 56	4320.69	12.69	174.08	73.14	62.71	17 50 57	3720.7	8.94	167.31									
110.00	4 26 5	1822.08	-25.73	9.55	74.45	113.32	4 56 27	1222.1	-22.35	2.03									
110.00	17 40 11	4128.89	15.11	158.13	71.75	58.97	18 49 0	3528.9	10.89	151.58									

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0160	TRA	-.3189	TC3	.5223	BAU	.3226	SGT	629.4	SGR	1288.1	SG3	398.3	ST	151.0	SR	325.6	SS	923.0
RDE	.2080	RRA	-.0896	RC3	-1.6684	FAU	.08442	RRT	-.4988	RRF	.9561	RTF	-.5003	CRT	.2788	CRS	-.9906	CST	-.1671
FDE	1.5137	FRA	-.0372	FC3	-5.2949	BSP	4060	SGB	1433.6	R23	-.0831	R13	.9529	LSA	978.2	MSA	152.7	SSA	22.3
BDE	.2086	BRA	.3312	BC3	1.7482	FSP	-1172	SG1	1333.2	SG2	527.0	THA	106.32	EL1	328.9	EL2	143.5	ALF	80.89

LAUNCH DATE SEP 12 1970 FLIGHT TIME 104.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 289.659

RL	150.56	LAL	.00	LOL	348.82	VL	27.329	GAL	-6.08	AZL	86.93	HCA	130.72	SMA	130.62	ECC	.18515	INC	3.0665
RP	107.49	LAP	2.32	LOP	119.58	VP	38.122	GAP	-3.16	AZP	92.00	TAL	208.83	TAP	339.55	RCA	106.43	APO	154.80
RC	70.666	GL	22.79	GP	-41.27	ZAL	130.54	ZAP	62.92	ETS	22.25	ZAE	133.86	ETE	290.45	ZAC	60.57	ETC	259.35

V1	29.594	V2	35.254	CLP	-52.71														

PLANETOCENTRIC CONIC

C3	14.089	VHL	3.754	DLA	8.64	RAL	219.36	RAD	6567.6	VEL	11.639	PTH	2.04	VHP	4.504	DPA	-60.32	RAP	227.82

ECC	1.2319	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
90.00	1 31 28	2405.29	-23.69	53.94	77.50	105.98	2 11 33	1805.3	-21.27	46.10									
90.00	15 40 14	4506.69	9.77	189.26	74.38	63.29	16 55 20	3906.7	6.11	182.50									
100.00	2 57 0	2129.39	-24.70	33.31	77.17	107.39	3 32 30	1529.4	-22.09	25.49									
100.00	16 57 22	4257.83	10.70	170.47	73.89	61.92	18 8 20	3657.8	6.87	163.79									
110.00	4 14 50	1885.87	-27.38	13.77	76.12	111.31	4 46 15	1285.9	-24.24	6.02									
110.00	17 56 3	4074.11	13.17	155.08	72.44	58.17	19 3 57	3474.1	8.86	148.63									

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0463	TRA	-.3294	TC3	.3454	BAU	.3423	SGT	575.2	SGR	1422.7	SG3	406.9	ST	168.3	SR	468.2	SS	1011.4
RDE	.3047	RRA	-.0751	RC3	-1.7843	FAU	.08518	RRT	-.3122	RRF	.9656	RTF	-.3103	CRT	.4805	CRS	-.9963	CST	-.4162
FDE	1.7007	FRA	.0066	FC3	-5.2343	BSP	4276	SGB	1534.6	R23	-.0443	R13	.9646	LSA	1116.3	MSA	154.9	SSA	19.3
BDE	.3082	BRA	.3378	BC3	1.8175	FSP	-1195	SG1	1435.9	SG2	541.4	THA	98.40	EL1	475.9	EL2	145.2	ALF	79.18

LAUNCH DATE SEP 12 1970 FLIGHT TIME 106.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 296.177

RL	150.56	LAL	.00	LOL	348.82	VL	27.353	GAL	-6.06	AZL	86.58	HCA	133.95	SMA	130.78	ECC	.18374	INC	3.4184
RP	107.48	LAP	2.46	LOP	122.83	VP	38.140	GAP	-2.62	AZP	92.37	TAL	209.00	TAP	342.96	RCA	106.75	APO	154.81
RC	72.818	GL	25.22	GP	-44.30	ZAL	129.69	ZAP	67.57	ETS	19.16	ZAE	131.79	ETE	284.86	ZAC	57.42	ETC	258.52

V1	29.594	V2	35.256	CLP	-57.78														

PLANETOCENTRIC CONIC

C3	14.488	VHL	3.806	DLA	10.96	RAL	220.13	RAD	6567.6	VEL	11.656	PTH	2.05	VHP	4.484	DPA	-62.42	RAP	222.49

ECC	1.2384	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
90.00	1 15 54	2487.10	-25,11	59.51	79.51	103.53	1 57 21	1887.1	-23.00	51.47									
90.00	16 1 55	4437.23	7.62	185.29	75.56	62.65	17 15 53	3837.2	3.89	178.59									
100.00	2 42 44	2207.06	-26.18	38.61	79.22	104.98	3 19 31	1607.1	-23.86	30.58									
100.00	17 17 47	4192.50	8.59	166.78	75.04	61.26	18 27 39	3592.5	4.69	160.16									
110.00	4 3 25	1954.58	-28.99	18.47	78.25	108.96	4 36 0	1354.6	-26.13	10.46									
110.00	18 13 35	4017.75	11.12	152.00	73.51	57.47	19 20 33	3417.7	6.75	145.63									

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1034	TRA	-.3318	TC3	.1714	BAU	.3700	SGT	547.8	SGR	1574.1	SG3	413.3	ST	218.0	SR	610.7	SS	1075.8
RDE	.4042	RRA	-.0633	RC3	-1.9027	FAU	.08566	RRT	-.0522	RRF	.9731	RTF	-.0394	CRT	.7433	CRS	-.9982	CST	-.7084
FDE	1.8432	FRA	.0338	FC3	-5.1183	BSP	4805	SGB	1666.7	R23	-.0184	R13	.9730	LSA	1246.6	MSA	153.1	SSA	17.3
BDE	.4172	BRA	.3378	BC3	1.9104	FSP	-1255	SG1	1574.4	SG2	547.0	THA	91.18	EL1	633.0	EL2	140.7	ALF	74.35

LAUNCH DATE SEP 12 1970 FLIGHT TIME 108.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 302.668

RL	150.56	LAL	.00	LOL	348.82	VL	27.370	GAL	-6.02	AZL	86.19	HCA	137.19	SMA	130.90	ECC	.18255	INC	3.8109
RP	107.48	LAP	2.59	LOP	126.08	VP	38.154	GAP	-2.11	AZP	92.80	TAL	209.07	TAP	346.26	RCA	107.01	APO	154.80
RC	74.992	GL	27.82	GP	-47.36	ZAL	128.56	ZAP	72.15	ETS	15.68	ZAE	129.41	ETE	279.24	ZAC	54.19	ETC	257.54

V1	29.594	V2	35.258	CLP	-63.09														

PLANETOCENTRIC CONIC

C3	15.027	VHL	3.876	DLA	13.37	RAL	221.10	RAD	6567.6	VEL	11.680	PTH	2.05	VHP	4.512	DPA	-64.34	RAP	216.25

ECC	1.2473	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
90.00	0 59 21	2577.00	-26.40	65.78	82.01	100.64	1 42 18	1977.0	-24.66	57.54									
90.00	16 26 17	4363.60	5.30	181.13	77.19	62.14	17 39 0	3763.6	1.53	174.48									
100.00	2 27 41	2292.12	-27.53	44.57	81.75	102.12	3 5 53	1692.1	-25.59	36.31									
100.00	17 40 38	4123.71	6.31	162.94	76.63	60.72	18 49 22	3523.7	2.37	156.38									
110.00	3 51 38	2029.41	-30.53	23.75	80.89	106.18	4 25 28	1429.4	-28.01	15.46									
110.00	18 33 10	3959.19	8.96	148.84	75.02	56.87	19 39 9	3359.2	4.54	142.54									

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1783	TRA	-.3383	TC3	-.0327	BAU	.3968	SGT	578.2	SGR	1714.3	SG3	410.0	ST	305.4	SR	770.2	SS	1140.3
RDE	.5200	RRA	-.0387	RC3	-1.9750	FAU	.08364	RRT	.2741	RRF	.9784	RTF	.2901	CRT	.8731	CRS	-.9991	CST	-.8555
FDE	1.9772	FRA	.0884	FC3	-4.8184	BSP	5249	SGB	1809.2	R23	.0096	R13	.9786	LSA	1401.0	MSA	154.1	SSA	15.1
BDE	.5498	BRA	.3406	BC3	1.9753	FSP	-1256	SG1	1722.5	SG2	553.4	THA	84.11	EL1	816.5	EL2	140.4	ALF	70.30

LAUNCH DATE SEP 12 1970 FLIGHT TIME 110.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 309.131

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RL  150.56 LAL    .00 LOL 348.82 VL  27.381 GAL  -5.98 AZL  85.75 HCA 140.42 SMA 130.98 ECC .18155 INC 4.2545 V1  29.594
RP  107.48 LAP   2.71 LOP 129.33 VP  38.163 GAP  -1.61 AZP  93.28 TAL 209.04 TAP 349.46 RCA 107.20 APO 154.76 V2  35.259
RC  77.186 GL   30.60 GP  -50.45 ZAL 127.15 ZAP  76.57 ETS  11.78 ZAE 126.74 ETE 273.67 ZAC  50.93 ETC 256.40 CLP -68.61
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PLANETOCENTRIC CONIC

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C3  15.748 VHL  3.968 DLA  15.92 RAL 222.30 RAD 6567.6 VEL 11.710 PTH   2.06 VHP  4.595 DPA -66.02 RAP 209.13 ECC 1.2592
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 41 6	2677.63	-27.46	72.95	85.03	97.20	1 25 44	2077.6	-26.18	64.52
90.00	16 54 4	4284.07	2.75	176.67	79.37	61.81	18 5 28	3684.1	-1.04	170.04
100.00	2 11 16	2386.84	-28.70	51.36	84.83	98.73	2 51 3	1786.8	-27.20	42.88
100.00	18 6 35	4050.09	3.85	158.86	78.76	60.33	19 14 5	3450.1	-.13	152.34
110.00	3 39 7	2111.99	-31.94	29.77	84.11	102.87	4 14 19	1512.0	-29.84	21.19
110.00	18 55 13	3897.71	6.66	145.57	77.02	56.39	20 0 11	3297.7	2.19	139.32

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .2812 TRA -.3420 TC3 -.2432 BAU  .4248   SGT  682.5 SGR 1843.4 SG3  397.7     ST   434.3 SR   934.6 SS  1192.9
 RDE  .6465 RRA -.0042 RC3-2.0028 FAU .07978   RRT  .5477 RRF  .9823 RTF  .5644    CRT  .9351 CRS -.9996 CST -.9264
 FDE 2.0796 FRA  .1531 FC3-4.3856 BSP   5729   SGB 1965.7 R23  .0334 R13  .9822    LSA 1568.7 MSA  155.4 SSA   13.1
 BDE  .7050 BRA  .3420 BC3 2.0176 FSP  -1226   SG1 1884.7 SG2  558.5 THA  77.41    EL1 1020.9 EL2  140.9 ALF  66.03
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LAUNCH DATE SEP 12 1970 FLIGHT TIME 112.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 315.566

```
RL  150.56 LAL    .00 LOL 348.82 VL  27.386 GAL  -5.93 AZL  85.24 HCA 143.66 SMA 131.02 ECC .18074 INC 4.7632 V1  29.594
RP  107.48 LAP   2.82 LOP 132.58 VP  38.167 GAP  -1.14 AZP  93.84 TAL 208.91 TAP 352.57 RCA 107.34 APO 154.70 V2  35.259
RC  79.396 GL   33.59 GP  -53.54 ZAL 125.45 ZAP  80.74 ETS   7.46 ZAE 123.80 ETE 268.20 ZAC  47.64 ETC 255.08 CLP -74.28
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PLANETOCENTRIC CONIC

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C3  16.715 VHL  4.088 DLA  18.60 RAL 223.73 RAD 6567.7 VEL 11.752 PTH   2.07 VHP  4.737 DPA -67.43 RAP 201.20 ECC 1.2751
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 20 7	2793.01	-28.16	81.31	88.61	93.07	1 6 40	2193.0	-27.44	72.72
90.00	17 26 28	4195.85	-.10	171.75	82.20	61.68	18 36 24	3595.8	-3.88	165.11
100.00	1 52 42	2494.48	-29.56	59.25	88.51	94.67	2 34 16	1894.5	-28.60	50.57
100.00	18 36 35	3969.62	1.13	154.44	81.52	60.13	19 42 44	3369.6	-2.86	147.92
110.00	3 25 23	2204.46	-33.14	36.72	88.01	98.92	4 2 8	1604.5	-31.55	27.86
110.00	19 20 23	3832.40	4.18	142.13	79.61	56.04	20 24 15	3232.4	-.30	135.92

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .4171 TRA -.3412 TC3 -.4506 BAU  .4506   SGT  855.6 SGR 1950.3 SG3  376.5     ST   604.0 SR  1104.0 SS  1237.4
 RDE  .7869 RRA  .0461 RC3-1.9655 FAU .07372   RRT  .7205 RRF  .9851 RTF  .7353    CRT  .9630 CRS -.9998 CST -.9589
 FDE 2.1551 FRA  .2336 FC3-3.8185 BSP   6133   SGB 2129.7 R23  .0562 R13  .9842    LSA 1757.7 MSA  158.6 SSA   11.2
 BDE  .8906 BRA  .3443 BC3 2.0165 FSP  -1147   SG1 2053.9 SG2  563.4 THA  70.97    EL1 1250.2 EL2  143.8 ALF  61.81
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LAUNCH DATE SEP 12 1970 FLIGHT TIME 114.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 321.972

```
RL  150.56 LAL    .00 LOL 348.82 VL  27.387 GAL  -5.86 AZL  84.64 HCA 146.89 SMA 131.03 ECC .18008 INC 5.3563 V1  29.594
RP  107.48 LAP   2.92 LOP 135.83 VP  38.167 GAP  -.67 AZP  94.49 TAL 208.69 TAP 355.58 RCA 107.43 APO 154.62 V2  35.258
RC  81.621 GL   36.80 GP  -56.63 ZAL 123.46 ZAP  84.57 ETS   2.72 ZAE 120.62 ETE 262.85 ZAC  44.34 ETC 253.54 CLP -80.09
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PLANETOCENTRIC CONIC

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C3  18.026 VHL  4.246 DLA  21.43 RAL 225.42 RAD 6567.7 VEL 11.807 PTH   2.09 VHP  4.949 DPA -68.54 RAP 192.57 ECC 1.2967
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 50 30	2930.04	-28.26	91.33	92.76	88.05	24 39 20	2330.0	-28.23	82.67
90.00	18 5 35	4093.79	-3.38	166.05	85.88	61.87	19 13 49	3493.8	-7.12	159.36
100.00	1 30 31	2620.22	-29.89	68.57	92.80	89.77	2 14 11	2020.2	-29.60	59.78
100.00	19 12 11	3878.83	-1.95	149.46	85.09	60.17	20 16 50	3278.8	-5.91	142.91
110.00	3 9 43	2309.87	-33.96	44.84	92.63	94.19	3 48 13	1709.9	-33.00	35.73
110.00	19 49 28	3761.95	1.50	138.45	82.93	55.85	20 52 10	3162.0	-2.99	132.24

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .5973 TRA -.3285 TC3 -.6278 BAU  .4811   SGT 1077.3 SGR 2039.9 SG3  348.5     ST   818.7 SR  1247.1 SS  1251.8
 RDE  .9229 RRA  .0976 RC3-1.8952 FAU .06737   RRT  .8165 RRF  .9871 RTF  .8330    CRT  .9780 CRS -.9999 CST -.9762
 FDE 2.1664 FRA  .2907 FC3-3.2356 BSP   6807   SGB 2306.9 R23  .0697 R13  .9857    LSA 1941.0 MSA  158.8 SSA    9.8
 BDE 1.0993 BRA  .3427 BC3 1.9965 FSP  -1095   SG1 2236.0 SG2  567.4 THA  64.95    EL1 1484.9 EL2  143.5 ALF  56.95
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LAUNCH DATE SEP 12 1970 FLIGHT TIME 116.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 328.349

```
RL  150.56 LAL    .00 LOL 348.82 VL  27.384 GAL  -5.79 AZL  83.94 HCA 150.11 SMA 131.00 ECC .17955 INC 6.0618 V1  29.594
RP  107.48 LAP   3.02 LOP 139.08 VP  38.163 GAP  -.23 AZP  95.26 TAL 208.38 TAP 358.50 RCA 107.48 APO 154.52 V2  35.256
RC  83.861 GL   40.24 GP  -59.75 ZAL 121.17 ZAP  87.97 ETS 357.54 ZAE 117.24 ETE 257.62 ZAC  41.00 ETC 251.75 CLP -85.98
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PLANETOCENTRIC CONIC

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C3  19.835 VHL  4.454 DLA  24.43 RAL 227.38 RAD 6567.8 VEL 11.883 PTH   2.11 VHP  5.246 DPA -69.38 RAP 183.33 ECC 1.3264
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 15 41	3103.73	-27.21	103.92	97.35	81.83	24 7 25	2503.7	-28.06	95.36
90.00	18 56 6	3965.13	-7.47	158.81	90.76	62.61	20 2 11	3365.1	-11.08	151.99
100.00	1 1 56	2773.86	-29.30	79.95	97.65	83.82	1 48 10	2173.9	-29.85	71.19
100.00	19 56 28	3770.24	-5.61	143.47	89.75	60.59	20 59 18	3170.2	-9.49	136.83
110.00	2 50 59	2432.70	-34.16	54.42	98.03	88.53	3 31 32	1832.7	-33.98	45.18
110.00	20 23 55	3684.16	-1.48	134.39	87.18	55.84	21 25 19	3084.2	-5.95	128.16

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .8281 TRA -.3040 TC3 -.7723 BAU  .5067   SGT 1338.9 SGR 2091.1 SG3  314.3     ST  1073.3 SR  1378.1 SS  1256.3
 RDE 1.0692 RRA  .1691 RC3-1.7479 FAU .05932   RRT  .8692 RRF  .9883 RTF  .8865    CRT  .9851 CRS-1.0000 CST -.9847
 FDE 2.1507 FRA  .3574 FC3-2.5893 BSP   7361   SGB 2483.0 R23  .0846 R13  .9862    LSA 2145.5 MSA  161.4 SSA    8.4
 BDE 1.3523 BRA  .3478 BC3 1.9109 FSP   -996   SG1 2416.0 SG2  572.9 THA  58.96    EL1 1740.6 EL2  146.3 ALF  52.19
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LAUNCH DATE SEP 12 1970 FLIGHT TIME 118.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 334.695

RL 150.56 LAL .00 LOL 348.82 VL 27.376 GAL -5.70 AZL 83.08 HCA 153.34 SMA 130.94 ECC .17914 INC 6.9206 V1 29.594
RP 107.49 LAP 3.10 LOP 142.33 VP 38.155 GAP .20 AZP 96.19 TAL 207.98 TAP 1.32 RCA 107.49 APO 154.40 V2 35.254
RC 86.111 GL 43.92 GP -62.95 ZAL 118.58 ZAP 90.89 ETS 351.90 ZAE 113.65 ETE 252.45 ZAC 37.59 ETC 249.59 CLP -91.95

PLANETOCENTRIC CONIC

C3 22.394 VHL 4.732 DLA 27.58 RAL 229.67 RAD 6567.9 VEL 11.991 PTH 2.14 VHP 5.648 DPA -69.95 RAP 173.52 ECC 1.3685

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 11 36	3379.29	-23.10	123.01	101.53	73.15	23 7 55	2779.3	-25.19	114.97
90.00	20 18 25	3747.86	-14.01	146.20	97.89	65.14	21 20 53	3147.9	-17.25	139.02
100.00	0 18 41	2982.29	-26.84	94.93	102.66	76.32	1 8 23	2382.3	-28.46	86.50
100.00	20 57 57	3620.09	-10.54	135.05	96.11	61.87	21 58 17	3020.1	-14.22	128.20
110.00	2 26 58	2580.79	-33.30	65.89	104.10	81.80	3 9 59	1980.8	-34.08	56.73
110.00	21 6 9	3594.36	-4.90	129.69	92.69	56.13	22 6 3	2994.4	-9.32	123.38

DIFFERENTIAL CORRECTIONS
TDE 1.1266 TRA -.2596 TC3 -.8635 BAU .5287
RDE 1.2145 RRA .2563 RC3-1.5406 FAU .05060
FDE 2.0971 FRA .4162 FC3-1.9560 BSP 7921
BDE 1.6565 BRA .3648 BC3 1.7661 FSP -884

MID-COURSE EXECUTION ACCURACY
SGT 1629.2 SGR 2100.2 SG3 275.9
RRT .8982 RRF .9889 RTF .9178
SGB 2658.0 R23 .0980 R13 .9863
SG1 2594.0 SG2 579.9 THA 52.97

ORBIT DETERMINATION ACCURACY
ST 1368.4 SR 1474.8 SS 1242.2
CRT .9888 CRS-1.0000 CST -.9895
LSA 2358.7 MSA 164.6 SSA 7.2
EL1 2006.3 EL2 149.9 ALF 47.17

LAUNCH DATE SEP 12 1970 FLIGHT TIME 120.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 341.011

RL 150.56 LAL .00 LOL 348.82 VL 27.364 GAL -5.61 AZL 82.00 HCA 156.55 SMA 130.86 ECC .17884 INC 7.9957 V1 29.594
RP 107.50 LAP 3.17 LOP 145.58 VP 38.144 GAP .61 AZP 97.34 TAL 207.50 TAP 4.05 RCA 107.46 APO 154.27 V2 35.251
RC 88.372 GL 47.81 GP -66.28 ZAL 115.69 ZAP 93.24 ETS 345.69 ZAE 109.84 ETE 247.18 ZAC 34.05 ETC 246.89 CLP -98.08

PLANETOCENTRIC CONIC

C3 26.139 VHL 5.113 DLA 30.87 RAL 232.31 RAD 6568.1 VEL 12.146 PTH 2.18 VHP 6.194 DPA -70.21 RAP 163.10 ECC 1.4302

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
77.17	19 43 19	3930.27	-19.54	162.26	105.91	65.62	20 48 50	3330.3	-22.66	154.79
102.83	23 7 48	3272.73	-19.52	113.75	105.91	65.61	24 2 20	2672.7	-22.65	106.27
77.17	19 43 19	3930.27	-19.54	162.26	105.91	65.62	20 48 50	3330.3	-22.66	154.79
102.83	23 7 48	3272.73	-19.52	113.75	105.91	65.61	24 2 20	2672.7	-22.65	106.27
110.00	1 52 10	2772.15	-30.53	80.10	110.39	73.83	2 38 23	2172.1	-32.44	71.40
110.00	22 2 3	3478.84	-9.24	123.56	100.10	56.94	23 0 2	2878.8	-13.53	117.09

DIFFERENTIAL CORRECTIONS
TDE 1.5168 TRA -.1863 TC3 -.8905 BAU .5451
RDE 1.3494 RRA .3622 RC3-1.2808 FAU .04158
FDE 2.0112 FRA .4649 FC3-1.3770 BSP 8486
BDE 2.0302 BRA .4072 BC3 1.5600 FSP -765

MID-COURSE EXECUTION ACCURACY
SGT 1943.6 SGR 2055.7 SG3 235.5
RRT .9131 RRF .9885 RTF .9372
SGB 2829.0 R23 .1108 R13 .9860
SG1 2767.1 SG2 588.8 THA 46.76

ORBIT DETERMINATION ACCURACY
ST 1701.6 SR 1519.4 SS 1210.3
CRT .9907 CRS -.9999 CST -.9924
LSA 2576.9 MSA 168.7 SSA 6.1
EL1 2276.0 EL2 154.8 ALF 41.73

LAUNCH DATE SEP 12 1970 FLIGHT TIME 122.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 347.292

RL 150.56 LAL .00 LOL 348.82 VL 27.349 GAL -5.50 AZL 80.61 HCA 159.76 SMA 130.76 ECC .17862 INC 9.3899 V1 29.594
RP 107.51 LAP 3.24 LOP 148.83 VP 38.130 GAP 1.01 AZP 98.82 TAL 206.94 TAP 6.70 RCA 107.40 APO 154.11 V2 35.247
RC 90.641 GL 51.88 GP -69.85 ZAL 112.54 ZAP 94.97 ETS 338.63 ZAE 105.76 ETE 241.47 ZAC 30.28 ETC 243.25 CLP-104.58

PLANETOCENTRIC CONIC

C3 31.874 VHL 5.646 DLA 34.23 RAL 235.37 RAD 6568.3 VEL 12.379 PTH 2.23 VHP 6.944 DPA -70.11 RAP 151.99 ECC 1.5246

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.92	19 7 47	4128.27	-19.93	177.62	113.18	61.58	20 16 35	3528.3	-23.57	170.36
110.08	0 11 41	3173.84	-19.92	106.40	113.17	61.57	1 4 35	2573.8	-23.55	99.14
69.92	19 7 47	4128.27	-19.93	177.62	113.18	61.58	20 16 35	3528.3	-23.57	170.36
110.08	0 11 41	3173.84	-19.92	106.40	113.17	61.57	1 4 35	2573.8	-23.55	99.14
69.92	19 7 47	4128.27	-19.93	177.62	113.18	61.58	20 16 35	3528.3	-23.57	170.36
110.08	0 11 41	3173.84	-19.92	106.40	113.17	61.57	1 4 35	2573.8	-23.55	99.14

DIFFERENTIAL CORRECTIONS
TDE 2.0406 TRA -.0668 TC3 -.8456 BAU .5518
RDE 1.4491 RRA .4897 RC3 -.9806 FAU .03258
FDE 1.9003 FRA .5023 FC3 -.8850 BSP 9030
BDE 2.5028 BRA .4942 BC3 1.2948 FSP -642

MID-COURSE EXECUTION ACCURACY
SGT 2281.9 SGR 1936.5 SG3 195.1
RRT .9173 RRF .9865 RTF .9505
SGB 2992.8 R23 .1232 R13 .9854
SG1 2932.1 SG2 600.1 THA 39.91

ORBIT DETERMINATION ACCURACY
ST 2071.3 SR 1482.0 SS 1162.4
CRT .9910 CRS -.9996 CST -.9942
LSA 2794.1 MSA 174.3 SSA 5.2
EL1 2541.7 EL2 161.5 ALF 35.50

LAUNCH DATE SEP 12 1970 FLIGHT TIME 124.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 353.534

RL 150.56 LAL .00 LOL 348.82 VL 27.331 GAL -5.38 AZL 78.72 HCA 162.95 SMA 130.63 ECC .17848 INC11.2812 V1 29.594
RP 107.53 LAP 3.29 LOP 152.08 VP 38.113 GAP 1.40 AZP 100.80 TAL 206.29 TAP 9.24 RCA 107.31 APO 153.94 V2 35.243
RC 92.917 GL 56.02 GP -73.75 ZAL 109.14 ZAP 96.05 ETS 330.03 ZAE 101.34 ETE 254.54 ZAC 26.16 ETC 237.85 CLP-112.12

PLANETOCENTRIC CONIC

C3 41.208 VHL 6.419 DLA 37.55 RAL 238.91 RAD 6568.6 VEL 12.750 PTH 2.32 VHP 8.006 DPA -69.47 RAP 140.18 ECC 1.6782

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.24	18 50 29	4286.91	-19.32	189.89	121.78	57.16	20 1 56	3686.9	-23.51	182.98
115.76	0 57 12	3144.88	-19.31	103.71	121.77	57.15	1 49 37	2544.9	-23.50	96.80
64.24	18 50 29	4286.91	-19.32	189.89	121.78	57.16	20 1 56	3686.9	-23.51	182.98
115.76	0 57 12	3144.88	-19.31	103.71	121.77	57.15	1 49 37	2544.9	-23.50	96.80
64.24	18 50 29	4286.91	-19.32	189.89	121.78	57.16	20 1 56	3686.9	-23.51	182.98
115.76	0 57 12	3144.88	-19.31	103.71	121.77	57.15	1 49 37	2544.9	-23.50	96.80

DIFFERENTIAL CORRECTIONS
TDE 2.7716 TRA .1345 TC3 -.7290 BAU .5413
RDE 1.4421 RRA .6396 RC3 -.6589 FAU .02391
FDE 1.7761 FRA .5307 FC3 -.5023 BSP 9521
BDE 3.1243 BRA .6536 BC3 .9826 FSP -520

MID-COURSE EXECUTION ACCURACY
SGT 2649.2 SGR 1700.2 SG3 156.6
RRT .9069 RRF .9786 RTF .9611
SGB 3147.9 R23 .1352 R13 .9849
SG1 3087.3 SG2 614.7 THA 31.60

ORBIT DETERMINATION ACCURACY
ST 2474.3 SR 1305.4 SS 1103.6
CRT .9891 CRS -.9985 CST -.9956
LSA 3001.9 MSA 182.2 SSA 4.3
EL1 2792.4 EL2 170.7 ALF 27.67

LAUNCH DATE SEP 12 1970 FLIGHT TIME 126.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 359.726
RL 150.56 LAL .00 LOL 348.82 VL 27.310 GAL -5.24 AZL 75.99 HCA 166.11 SMA 130.48 ECC .17839 INC14.0066 V1 29.594
RP 107.54 LAP 3.33 LOP 155.33 VP 38.093 GAP 1.76 AZP 103.61 TAL 205.56 TAP 11.67 RCA 107.21 APO 153.76 V2 35.238
RC 95.197 GL 60.02 GP -78.09 ZAL 105.56 ZAP 96.42 ETS 317.92 ZAE 96.39 ETE 224.29 ZAC 21.49 ETC 228.54 CLP-122.81
PLANETOCENTRIC CONIC
C3 57.744 VHL 7.599 DLA 40.61 RAL 242.98 RAD 6569.1 VEL 13.383 PTH 2.45 VHP 9.589 DPA -67.99 RAP 127.87 ECC 1.9503

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.58	18 44 30	4434.65	-17.28	200.71	131.72	52.66	19 58 25	3834.6	-22.01	194.27
120.42	1 35 40	3165.46	-17.27	103.91	131.71	52.66	2 28 26	2565.5	-22.00	97.48
59.58	18 44 30	4434.65	-17.28	200.71	131.72	52.66	19 58 25	3834.6	-22.01	194.27
120.42	1 35 40	3165.46	-17.27	103.91	131.71	52.66	2 28 26	2565.5	-22.00	97.48
59.58	18 44 30	4434.65	-17.28	200.71	131.72	52.66	19 58 25	3834.6	-22.01	194.27
120.42	1 35 40	3165.46	-17.27	103.91	131.71	52.66	2 28 26	2565.5	-22.00	97.48

DIFFERENTIAL CORRECTIONS
TDE 3.8286 TRA .4990 TC3 -.5489 BAU .4998
RDE 1.0913 RRA .7808 RC3 -.3433 FAU .01583
FDE 1.6555 FRA .5536 FC3 -.2373 BSP 9992
BDE 3.9811 BRA .9266 BC3 .6474 FSP -408

MID-COURSE EXECUTION ACCURACY
SGT 3045.5 SGR 1245.3 SG3 121.9
RRT .8424 RRF .9344 RTF .9721
SGB 3290.3 R23 .1454 R13 .9848
SG1 3228.8 SG2 632.8 THA 19.80

ORBIT DETERMINATION ACCURACY
ST 2890.7 SR 855.2 SS 1043.1
CRT .9750 CRS -.9896 CST -.9968
LSA 3184.1 MSA 192.7 SSA 3.4
EL1 3009.0 EL2 182.7 ALF 16.15

LAUNCH DATE SEP 12 1970 FLIGHT TIME 128.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 365.845
RL 150.56 LAL .00 LOL 348.82 VL 27.287 GAL -5.09 AZL 71.72 HCA 169.22 SMA 130.32 ECC .17832 INC18.2822 V1 29.594
RP 107.56 LAP 3.36 LOP 158.58 VP 38.070 GAP 2.10 AZP 107.98 TAL 204.72 TAP 13.95 RCA 107.08 APO 153.56 V2 35.232
RC 97.481 GL 63.44 GP -82.68 ZAL 101.88 ZAP 96.08 ETS 295.80 ZAE 90.56 ETE 204.12 ZAC 15.89 ETC 208.56 CLP-146.23
PLANETOCENTRIC CONIC
C3 90.860 VHL 9.532 DLA 42.97 RAL 247.59 RAD 6569.8 VEL 14.567 PTH 2.64 VHP 12.135 DPA -65.17 RAP 115.57 ECC 2.4953

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.22	18 48 33	4580.13	-13.44	210.11	142.75	48.79	20 4 53	3980.1	-18.62	204.19
123.78	2 8 25	3232.12	-13.42	106.45	142.73	48.79	3 2 17	2632.1	-18.61	100.53
56.22	18 48 33	4580.13	-13.44	210.11	142.75	48.79	20 4 53	3980.1	-18.62	204.19
123.78	2 8 25	3232.12	-13.42	106.45	142.73	48.79	3 2 17	2632.1	-18.61	100.53
56.22	18 48 33	4580.13	-13.44	210.11	142.75	48.79	20 4 53	3980.1	-18.62	204.19
123.78	2 8 25	3232.12	-13.42	106.45	142.73	48.79	3 2 17	2632.1	-18.61	100.53

DIFFERENTIAL CORRECTIONS
TDE 5.2311 TRA 1.2302 TC3 -.3095 BAU .3868
RDE -.4609 RRA .6877 RC3 -.0747 FAU .00813
FDE 1.5758 FRA .5883 FC3 -.0775 BSP 10322
BDE 5.2514 BRA 1.4094 BC3 .3184 FSP -309

MID-COURSE EXECUTION ACCURACY
SGT 3355.1 SGR 645.1 SG3 92.8
RRT -.0999 RRF .0457 RTF .9867
SGB 3416.5 R23 -.1487 R13 -.9861
SG1 3355.7 SG2 641.7 THA 178.86

ORBIT DETERMINATION ACCURACY
ST 3159.0 SR 324.8 SS 1004.7
CRT -.7989 CRS .7641 CST -.9984
LSA 3324.6 MSA 203.2 SSA 2.4
EL1 3169.7 EL2 194.7 ALF 175.29

LAUNCH DATE SEP 12 1970 FLIGHT TIME 130.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 371.830
RL 150.56 LAL .00 LOL 348.82 VL 27.261 GAL -4.90 AZL 64.11 HCA 172.23 SMA 130.14 ECC .17816 INC25.8893 V1 29.594
RP 107.58 LAP 3.38 LOP 161.83 VP 38.046 GAP 2.40 AZP 115.68 TAL 203.74 TAP 15.97 RCA 106.95 APO 153.32 V2 35.226
RC 99.767 GL 65.18 GP -83.81 ZAL 98.24 ZAP 95.04 ETS 248.40 ZAE 82.99 ETE 158.64 ZAC 8.51 ETC 162.25 CLP 144.55
PLANETOCENTRIC CONIC
C3 170.728 VHL 13.066 DLA 43.61 RAL 252.56 RAD 6570.8 VEL 17.090 PTH 2.93 VHP 16.734 DPA -60.00 RAP 104.01 ECC 3.8098

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.33	19 4 47	4713.24	-7.92	216.92	154.18	46.97	20 23 20	4113.2	-13.33	211.34
124.67	2 31 49	3346.01	-7.91	111.54	154.16	46.97	3 27 35	2746.0	-13.32	105.95
55.33	19 4 47	4713.24	-7.92	216.92	154.18	46.97	20 23 20	4113.2	-13.33	211.34
124.67	2 31 49	3346.01	-7.91	111.54	154.16	46.97	3 27 35	2746.0	-13.32	105.95
55.33	19 4 47	4713.24	-7.92	216.92	154.18	46.97	20 23 20	4113.2	-13.33	211.34
124.67	2 31 49	3346.01	-7.91	111.54	154.16	46.97	3 27 35	2746.0	-13.32	105.95

DIFFERENTIAL CORRECTIONS
TDE 5.1091 TRA 2.1881 TC3 -.0481 BAU .1101
RDE-5.2205 RRA -.8240 RC3 -.0040 FAU-.00032
FDE 1.6128 FRA .6772 FC3 .0016 BSP 10658
BDE 7.3045 BRA 2.3381 BC3 .0482 FSP -235

MID-COURSE EXECUTION ACCURACY
SGT 2605.9 SGR 2343.0 SG3 70.6
RRT -.9481 RRF -.9521 RTF .9985
SGB 3504.3 R23 -.1266 R13 -.9906
SG1 3459.1 SG2 561.4 THA 138.21

ORBIT DETERMINATION ACCURACY
ST 2275.3 SR 2294.1 SS 1037.8
CRT -.9939 CRS .9943 CST-1.0000
LSA 3388.6 MSA 185.5 SSA 1.7
EL1 3226.2 EL2 178.1 ALF 134.76

LAUNCH DATE SEP 12 1970 FLIGHT TIME 132.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 377.482
RL 150.56 LAL .00 LOL 348.82 VL 27.233 GAL -4.64 AZL 47.81 HCA 174.94 SMA 129.94 ECC .17764 INC42.1947 V1 29.594
RP 107.60 LAP 3.39 LOP 165.07 VP 38.019 GAP 2.60 AZP 132.08 TAL 202.45 TAP 17.40 RCA 106.86 APO 153.03 V2 35.218
RC 102.053 GL 62.13 GP -74.14 ZAL 94.86 ZAP 93.44 ETS 203.78 ZAE 71.14 ETE 115.83 ZAC 3.16 ETC 299.03 CLP 102.70
PLANETOCENTRIC CONIC
C3 425.307 VHL 20.623 DLA 39.65 RAL 257.08 RAD 6572.2 VEL 23.380 PTH 3.29 VHP 26.503 DPA -49.83 RAP 93.97 ECC 7.9995

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.99	19 47 8	4764.21	-2.23	216.31	164.40	50.40	21 6 32	4164.2	-7.30	210.52
119.01	2 25 29	3531.13	-2.21	122.58	164.39	50.40	3 24 20	2931.1	-7.29	116.79
60.99	19 47 8	4764.21	-2.23	216.31	164.40	50.40	21 6 32	4164.2	-7.30	210.52
119.01	2 25 29	3531.13	-2.21	122.58	164.39	50.40	3 24 20	2931.1	-7.29	116.79
60.99	19 47 8	4764.21	-2.23	216.31	164.40	50.40	21 6 32	4164.2	-7.30	210.52
119.01	2 25 29	3531.13	-2.21	122.58	164.39	50.40	3 24 20	2931.1	-7.29	116.79

DIFFERENTIAL CORRECTIONS
TDE .5206 TRA 1.7411 TC3 -.0143 BAU .9379
RD-10.8580 RRA-4.0973 RC3 -.1643 FAU-.01634
FDE 1.9499 FRA .9746 FC3 .0333 BSP 10497
BDE10.8705 BRA 4.4519 BC3 .1650 FSP -184

MID-COURSE EXECUTION ACCURACY
SGT 647.4 SGR 3427.2 SG3 57.0
RRT -.5974 RRF -.9930 RTF .6814
SGB 3487.8 R23 -.0928 R13 -.9948
SG1 3449.4 SG2 515.8 THA 96.59

ORBIT DETERMINATION ACCURACY
ST 237.6 SR 3049.1 SS 1263.8
CRT -.7177 CRS .9989 CST -.7491
LSA 3304.7 MSA 172.8 SSA 1.8
EL1 3053.9 EL2 165.2 ALF 93.21

LAUNCH DATE SEP 12 1970 FLIGHT TIME 134.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 381.960

```
RL  150.56 LAL    .00 LOL 348.82 VL  27.203 GAL  -4.15 AZL   8.45 HCA 176.57 SMA 129.74 ECC .17567 INC81.5453 V1  29.594
RP  107.63 LAP   3.39 LOP 168.32 VP  37.991 GAP   2.48 AZP 171.53 TAL 200.16 TAP  16.73 RCA 106.94 APO 152.53 V2  35.211
RC 104.339 GL   46.30 GP  -51.75 ZAL  92.33 ZAP  91.80 ETS 187.70 ZAE  48.43 ETE 101.98 ZAC  25.69 ETC 280.96 CLP  92.90
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PLANETOCENTRIC CONIC

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C31377.930 VHL 37.120 DLA  23.41 RAL 259.10 RAD 6573.1 VEL 38.720 PTH   3.55 VHP 47.789 DPA -27.95 RAP  86.80 ECC23.6772
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 42 8	3730.98	-14.50	145.20	176.97	65.41	2 44 19	3131.0	-17.69	137.98
90.00	20 46 36	4704.22	15.55	200.89	163.63	66.03	22 5 0	4104.2	12.18	193.83
100.00	3 21 49	3409.55	-16.98	122.74	178.16	65.02	4 18 39	2809.5	-20.20	115.43
100.00	21 49 36	4500.88	18.04	184.78	162.47	65.76	23 4 37	3900.9	14.62	177.66
110.00	5 7 0	3080.51	-22.85	100.73	181.15	63.86	5 58 20	2480.5	-26.17	93.15
110.00	22 20 55	4402.68	23.96	174.43	159.56	64.86	23 34 17	3802.7	20.37	167.12

DIFFERENTIAL CORRECTIONS

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TDE-4.6432 TRA  .7316 TC3 -.0779 BAU 4.0591
RD-12.8251 RRA-8.3281 RC3 -.2061 FAU-.06907
FDE 2.5796 FRA 1.8918 FC3  .0434 BSP  8410
BDE13.6397 BRA 8.3602 BC3  .2203 FSP  -154
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MID-COURSE EXECUTION ACCURACY

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SGT  929.2 SGR 2867.4 SG3   52.1
RRT  .8000 RRF -.9988 RTF -.7721
SGB 3014.2 R23 -.0936 R13 -.9954
SG1 2965.6 SG2  539.1 THA  74.96
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ORBIT DETERMINATION ACCURACY

```
ST   717.8 SR  2024.2 SS  1691.1
CRT  .9662 CRS  .9997 CST  .9592
LSA 2727.0 MSA  189.1 SSA    1.5
EL1 2140.6 EL2  174.9 ALF  70.95
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LAUNCH DATE SEP 12 1970 FLIGHT TIME 136.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 392.933

```
RL  150.56 LAL    .00 LOL 348.82 VL  27.171 GAL  -4.93 AZL 141.03 HCA 184.35 SMA 129.52 ECC .18324 INC51.0298 V1  29.594
RP  107.65 LAP   3.38 LOP 171.56 VP  37.960 GAP   4.14 AZP  39.05 TAL 203.02 TAP  27.37 RCA 105.79 APO 153.25 V2  35.202
RC 106.624 GL  -58.88 GP   68.23 ZAL  94.38 ZAP  94.67 ETS 177.26 ZAE  72.61 ETE 262.48 ZAC 145.35 ETC 278.20 CLP 102.68
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PLANETOCENTRIC CONIC

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C3 604.379 VHL 24.584 DLA -78.25 RAL 211.33 RAD 6572.6 VEL 26.938 PTH   3.39 VHP 31.796 DPA  87.06 RAP 300.81 ECC10.9465
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
13.37	2 30 25	2428.51	1.51	82.56	121.00	168.25	3 10 53	1828.5	9.34	81.33
166.63	13 37 12	635.78	1.51	282.92	121.02	168.25	13 47 48	35.8	9.34	281.69
13.37	2 30 25	2428.51	1.51	82.56	121.00	168.25	3 10 53	1828.5	9.34	81.33
166.63	13 37 12	635.78	1.51	282.92	121.02	168.25	13 47 48	35.8	9.34	281.69
13.37	2 30 25	2428.51	1.51	82.56	121.00	168.25	3 10 53	1828.5	9.34	81.33
166.63	13 37 12	635.78	1.51	282.92	121.02	168.25	13 47 48	35.8	9.34	281.69

DIFFERENTIAL CORRECTIONS

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TDE 3.4255 TRA  .7422 TC3 -.0761 BAU 1.7445
RD-12.7097 RRA-1.0270 RC3  .2020 FAU-.02515
FDE-2.6578 FRA -.1908 FC3  .0360 BSP  10568
BDE13.1632 BRA 1.2671 BC3  .2159 FSP  -178
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MID-COURSE EXECUTION ACCURACY

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SGT 1224.3 SGR 3338.0 SG3   58.8
RRT -.9139 RRF  .9986 RTF -.8961
SGB 3555.5 R23 -.0861 R13  .9957
SG1 3524.2 SG2  470.7 THA 108.88
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ORBIT DETERMINATION ACCURACY

```
ST   838.1 SR  2983.2 SS  1711.3
CRT -.9819 CRS -.9999 CST  .9793
LSA 3536.3 MSA  158.1 SSA    1.8
EL1 3094.9 EL2  153.0 ALF 105.46
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LAUNCH DATE SEP 12 1970 FLIGHT TIME 138.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 398.312

```
RL  150.56 LAL    .00 LOL 348.82 VL  27.138 GAL  -4.60 AZL 119.39 HCA 186.86 SMA 129.29 ECC .18252 INC29.3850 V1  29.594
RP  107.68 LAP   3.36 LOP 174.81 VP  37.928 GAP   4.26 AZP  60.79 TAL 201.44 TAP  28.30 RCA 105.69 APO 152.89 V2  35.193
RC 108.906 GL  -64.75 GP   79.30 ZAL  96.72 ZAP  98.00 ETS 145.18 ZAE  87.10 ETE 230.44 ZAC 157.95 ETC 260.19 CLP 138.62
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PLANETOCENTRIC CONIC

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C3 215.370 VHL 14.676 DLA -78.77 RAL 176.64 RAD 6571.2 VEL 18.349 PTH   3.03 VHP 19.073 DPA  73.05 RAP 255.96 ECC 4.5445
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
12.78	0 10 53	2319.63	8.84	81.86	84.86	168.64	0 49 33	1719.6	16.67	80.63
167.22	11 20 1	5813.23	8.84	259.54	84.88	168.64	12 56 55	5213.2	16.68	258.32
12.78	0 10 53	2319.63	8.84	81.86	84.86	168.64	0 49 33	1719.6	16.67	80.63
167.22	11 20 1	5813.23	8.84	259.54	84.88	168.64	12 56 55	5213.2	16.68	258.32
12.78	0 10 53	2319.63	8.84	81.86	84.86	168.64	0 49 33	1719.6	16.67	80.63
167.22	11 20 1	5813.23	8.84	259.54	84.88	168.64	12 56 55	5213.2	16.68	258.32

DIFFERENTIAL CORRECTIONS

```
TDE-2.2360 TRA -.3283 TC3 -.0049 BAU  .1756
RDE-4.3386 RRA-1.6458 RC3  .0608 FAU .00048
FDE-1.2179 FRA -.3477 FC3 -.0019 BSP  11919
BDE 4.8809 BRA 1.6782 BC3  .0610 FSP  -232
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1093.4 SGR 3713.7 SG3   72.9
RRT  .8085 RRF  .9908 RTF  .9473
SGB 3871.4 R23 -.0978 R13  .9945
SG1 3843.5 SG2  463.8 THA  74.96
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ORBIT DETERMINATION ACCURACY

```
ST   895.0 SR  1962.0 SS   856.0
CRT  .9534 CRS -.9934 CST -.9816
LSA 2306.4 MSA  252.4 SSA    1.5
EL1 2142.3 EL2  247.3 ALF  66.16
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LAUNCH DATE SEP 12 1970 FLIGHT TIME 140.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 404.131

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RL  150.56 LAL    .00 LOL 348.82 VL  27.103 GAL  -4.35 AZL 109.93 HCA 189.80 SMA 129.05 ECC .18265 INC19.9270 V1  29.594
RP  107.71 LAP   3.32 LOP 178.05 VP  37.895 GAP   4.50 AZP  70.34 TAL 200.18 TAP  29.97 RCA 105.48 APO 152.62 V2  35.184
RC 111.186 GL  -64.07 GP   77.91 ZAL  98.98 ZAP 102.05 ETS  78.80 ZAE  95.65 ETE 164.49 ZAC 162.53 ETC 215.80 CLP-175.15
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PLANETOCENTRIC CONIC

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C3 104.896 VHL 10.242 DLA -76.53 RAL 175.60 RAD 6570.0 VEL 15.041 PTH   2.71 VHP 13.430 DPA  63.74 RAP 249.83 ECC 2.7263
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
15.34	0 11 48	2186.27	17.31	78.63	81.31	165.88	0 48 15	1586.3	25.06	76.89
164.66	11 10 45	5687.88	17.31	258.83	81.32	165.88	12 45 33	5087.9	25.06	257.10
15.34	0 11 48	2186.27	17.31	78.63	81.31	165.88	0 48 15	1586.3	25.06	76.89
164.66	11 10 45	5687.88	17.31	258.83	81.32	165.88	12 45 33	5087.9	25.06	257.10
15.34	0 11 48	2186.27	17.31	78.63	81.31	165.88	0 48 15	1586.3	25.06	76.89
164.66	11 10 45	5687.88	17.31	258.83	81.32	165.88	12 45 33	5087.9	25.06	257.10

DIFFERENTIAL CORRECTIONS

```
TDE-3.1639 TRA-1.4647 TC3 -.2395 BAU  .3359
RDE  .5750 RRA -.2403 RC3 -.0057 FAU .01234
FDE-1.0714 FRA -.3784 FC3 -.1019 BSP  12501
BDE 3.2157 BRA 1.4843 BC3  .2395 FSP  -310
```

MID-COURSE EXECUTION ACCURACY

```
SGT 3968.1 SGR  660.7 SG3   95.8
RRT  .5591 RRF  .4560 RTF  .9912
SGB 4022.8 R23 -.1313 R13  .9896
SG1 3985.6 SG2  545.4 THA   5.42
```

ORBIT DETERMINATION ACCURACY

```
ST  2060.7 SR   365.3 SS   764.1
CRT -.5137 CRS  .6054 CST -.9939
LSA 2204.9 MSA  319.7 SSA    2.1
EL1 2069.4 EL2  312.1 ALF 174.68
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LAUNCH DATE SEP 12 1970 FLIGHT TIME 142.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 410.079
RL 150.56 LAL .00 LOL 348.82 VL 27.067 GAL -4.12 AZL 104.88 HCA 192.88 SMA 128.81 ECC .18309 INC14.8801 V1 29.594
RP 107.74 LAP 3.28 LOP 181.28 VP 37.860 GAP 4.78 AZP 75.48 TAL 198.98 TAP 31.86 RCA 105.23 APO 152.39 V2 35.174
RC 113.462 GL -61.26 GP 72.24 ZAL 100.84 ZAP 106.42 ETS 59.21 ZAE 101.84 ETE 145.88 ZAC 162.37 ETC 218.89 CLP-158.00
PLANETOCENTRIC CONIC
C3 62.518 VHL 7.907 DLA -74.29 RAL 183.38 RAD 6569.2 VEL 13.560 PTH 2.48 VHP 10.515 DPA 56.33 RAP 246.06 ECC 2.0289

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.92	0 48 2	2063.77	24.80	74.65	85.90	162.64	1 22 26	1463.8	32.40	72.25
162.08	11 36 37	5575.00	24.80	257.41	85.92	162.64	13 9 32	4975.0	32.41	255.01
17.92	0 48 2	2063.77	24.80	74.65	85.90	162.64	1 22 26	1463.8	32.40	72.25
162.08	11 36 37	5575.00	24.80	257.41	85.92	162.64	13 9 32	4975.0	32.41	255.01
17.92	0 48 2	2063.77	24.80	74.65	85.90	162.64	1 22 26	1463.8	32.40	72.25
162.08	11 36 37	5575.00	24.80	257.41	85.92	162.64	13 9 32	4975.0	32.41	255.01

DIFFERENTIAL CORRECTIONS
TDE-2.6644 TRA-1.2449 TC3 -.6240 BAU .5382
RDE 1.3099 RRA .1841 RC3 .1590 FAU .02130
FDE-1.2491 FRA -.3783 FC3 -.2949 BSP 12839
BDE 2.9690 BRA 1.2584 BC3 .6439 FSP -403

MID-COURSE EXECUTION ACCURACY
SGT 3974.6 SGR 1098.6 SG3 124.0
RRT -.8524 RRF -.9352 RTF .9777
SGB 4123.6 R23 .1625 R13 -.9836
SG1 4085.6 SG2 558.9 THA 166.48

ORBIT DETERMINATION ACCURACY
ST 2174.2 SR 960.7 SS 867.4
CRT -.9482 CRS .9857 CST -.9882
LSA 2513.3 MSA 293.3 SSA 2.9
EL1 2360.4 EL2 281.0 ALF 156.92

LAUNCH DATE SEP 12 1970 FLIGHT TIME 144.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 416.071
RL 150.56 LAL .00 LOL 348.82 VL 27.030 GAL -3.89 AZL 101.77 HCA 196.02 SMA 128.56 ECC .18372 INC11.7716 V1 29.594
RP 107.77 LAP 3.23 LOP 184.52 VP 37.824 GAP 5.07 AZP 78.67 TAL 197.79 TAP 33.81 RCA 104.94 APO 152.18 V2 35.164
RC 115.736 GL -57.72 GP 66.27 ZAL 102.23 ZAP 110.92 ETS 53.80 ZAE 106.75 ETE 142.00 ZAC 159.58 ETC 229.74 CLP-152.55
PLANETOCENTRIC CONIC
C3 42.344 VHL 6.507 DLA -71.93 RAL 192.51 RAD 6568.6 VEL 12.795 PTH 2.33 VHP 8.824 DPA 49.81 RAP 243.47 ECC 1.6969

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
20.63	1 30 3	1961.15	30.63	70.00	91.36	158.87	2 2 44	1361.1	38.04	66.77
159.37	12 7 25	5484.36	30.64	255.53	91.38	158.87	13 38 50	4884.4	38.05	252.29
20.63	1 30 3	1961.15	30.63	70.00	91.36	158.87	2 2 44	1361.1	38.04	66.77
159.37	12 7 25	5484.36	30.64	255.53	91.38	158.87	13 38 50	4884.4	38.05	252.29
20.63	1 30 3	1961.15	30.63	70.00	91.36	158.87	2 2 44	1361.1	38.04	66.77
159.37	12 7 25	5484.36	30.64	255.53	91.38	158.87	13 38 50	4884.4	38.05	252.29

DIFFERENTIAL CORRECTIONS
TDE-2.5471 TRA-1.0423 TC3-1.0801 BAU .6402
RDE 1.3086 RRA .1985 RC3 .3350 FAU .02902
FDE-1.4375 FRA -.3492 FC3 -.5933 BSP 12998
BDE 2.8636 BRA 1.0610 BC3 1.1308 FSP -498

MID-COURSE EXECUTION ACCURACY
SGT 3970.0 SGR 1354.7 SG3 154.1
RRT -.9044 RRF -.9741 RTF .9685
SGB 4194.8 R23 .1896 R13 -.9772
SG1 4158.3 SG2 551.7 THA 162.53

ORBIT DETERMINATION ACCURACY
ST 2412.3 SR 1164.6 SS 991.3
CRT -.9734 CRS .9964 CST -.9893
LSA 2844.5 MSA 259.7 SSA 3.6
EL1 2667.9 EL2 241.4 ALF 154.61

LAUNCH DATE SEP 12 1970 FLIGHT TIME 146.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 422.074
RL 150.56 LAL .00 LOL 348.82 VL 26.992 GAL -3.66 AZL 99.66 HCA 199.18 SMA 128.31 ECC .18449 INC 9.6649 V1 29.594
RP 107.80 LAP 3.16 LOP 187.75 VP 37.786 GAP 5.36 AZP 80.86 TAL 196.59 TAP 35.77 RCA 104.64 APO 151.98 V2 35.153
RC 118.005 GL -53.97 GP 60.63 ZAL 103.10 ZAP 115.38 ETS 51.72 ZAE 110.78 ETE 141.92 ZAC 155.77 ETC 237.80 CLP-150.89
PLANETOCENTRIC CONIC
C3 31.273 VHL 5.592 DLA -69.44 RAL 201.12 RAD 6568.2 VEL 12.355 PTH 2.23 VHP 7.772 DPA 43.89 RAP 241.68 ECC 1.5147

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
23.51	2 10 32	1877.22	34.85	64.82	95.97	154.67	2 41 49	1277.2	42.00	60.64
156.49	12 35 40	5415.32	34.86	253.35	95.99	154.66	14 5 55	4815.3	42.01	249.17
23.51	2 10 32	1877.22	34.85	64.82	95.97	154.67	2 41 49	1277.2	42.00	60.64
156.49	12 35 40	5415.32	34.86	253.35	95.99	154.66	14 5 55	4815.3	42.01	249.17
23.51	2 10 32	1877.22	34.85	64.82	95.97	154.67	2 41 49	1277.2	42.00	60.64
156.49	12 35 40	5415.32	34.86	253.35	95.99	154.66	14 5 55	4815.3	42.01	249.17

DIFFERENTIAL CORRECTIONS
TDE-2.4783 TRA -.8927 TC3-1.6209 BAU .7092
RDE 1.1849 RRA .1544 RC3 .5003 FAU .03618
FDE-1.5703 FRA -.3034 FC3-1.0015 BSP 13481
BDE 2.7469 BRA .9059 BC3 1.6963 FSP -609

MID-COURSE EXECUTION ACCURACY
SGT 4064.2 SGR 1410.5 SG3 185.9
RRT -.9193 RRF -.9817 RTF .9633
SGB 4302.0 R23 .2054 R13 -.9724
SG1 4269.4 SG2 528.6 THA 162.02

ORBIT DETERMINATION ACCURACY
ST 2657.2 SR 1221.6 SS 1095.3
CRT -.9824 CRS .9986 CST -.9909
LSA 3114.2 MSA 232.7 SSA 4.5
EL1 2917.2 EL2 207.7 ALF 155.56

LAUNCH DATE SEP 12 1970 FLIGHT TIME 148.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 428.079
RL 150.56 LAL .00 LOL 348.82 VL 26.954 GAL -3.42 AZL 98.14 HCA 202.36 SMA 128.05 ECC .18538 INC 8.1385 V1 29.594
RP 107.84 LAP 3.09 LOP 190.99 VP 37.748 GAP 5.65 AZP 82.47 TAL 195.37 TAP 37.74 RCA 104.31 APO 151.79 V2 35.141
RC 120.271 GL -50.20 GP 55.42 ZAL 103.46 ZAP 119.68 ETS 50.69 ZAE 114.07 ETE 143.23 ZAC 151.74 ETC 243.20 CLP-150.74
PLANETOCENTRIC CONIC
C3 24.576 VHL 4.957 DLA -66.88 RAL 208.88 RAD 6568.0 VEL 12.081 PTH 2.16 VHP 7.093 DPA 38.46 RAP 240.51 ECC 1.4045

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.49	2 48 1	1808.27	37.71	59.32	99.58	150.24	3 18 9	1208.3	44.54	54.18
153.51	13 0 3	5364.30	37.72	251.06	99.60	150.24	14 29 27	4764.3	44.54	245.91
26.49	2 48 1	1808.27	37.71	59.32	99.58	150.24	3 18 9	1208.3	44.54	54.18
153.51	13 0 3	5364.30	37.72	251.06	99.60	150.24	14 29 27	4764.3	44.54	245.91
26.49	2 48 1	1808.27	37.71	59.32	99.58	150.24	3 18 9	1208.3	44.54	54.18
153.51	13 0 3	5364.30	37.72	251.06	99.60	150.24	14 29 27	4764.3	44.54	245.91

DIFFERENTIAL CORRECTIONS
TDE-2.3809 TRA -.7525 TC3-2.2051 BAU .7533
RDE 1.0268 RRA .0961 RC3 .6277 FAU .04181
FDE-1.6164 FRA -.2271 FC3-1.4728 BSP 13691
BDE 2.5929 BRA .7587 BC3 2.2928 FSP -695

MID-COURSE EXECUTION ACCURACY
SGT 4154.3 SGR 1369.6 SG3 212.9
RRT -.9233 RRF -.9825 RTF .9589
SGB 4374.3 R23 .2185 R13 -.9673
SG1 4345.3 SG2 503.0 THA 162.83

ORBIT DETERMINATION ACCURACY
ST 2831.6 SR 1190.0 SS 1151.8
CRT -.9863 CRS .9993 CST -.9916
LSA 3273.3 MSA 213.8 SSA 5.5
EL1 3066.1 EL2 181.2 ALF 157.40

LAUNCH DATE SEP 12 1970 FLIGHT TIME 150.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 434.075

RL 150.56 LAL .00 LOL 348.82 VL 26.914 GAL -3.18 AZL 96.98 HCA 205.56 SMA 127.79 ECC .18639 INC 6.9765 V1 29.594
RP 107.87 LAP 3.00 LOP 194.21 VP 37.709 GAP 5.94 AZP 83.70 TAL 194.13 TAP 39.69 RCA 103.97 APO 151.60 V2 35.130
RC 122.531 GL -46.52 GP 50.69 ZAL 103.32 ZAP 123.75 ETS 50.05 ZAE 116.75 ETE 145.14 ZAC 147.85 ETC 246.88 CLP-151.28

PLANETOCENTRIC CONIC

C3 20.235 VHL 4.498 DLA -64.29 RAL 215.84 RAD 6567.8 VEL 11.900 PTH 2.11 VHP 6.647 DPA 33.49 RAP 239.84 ECC 1.3330

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
29.52	3 22 42	1750.64	39.50	53.73	102.45	145.80	3 51 53	1150.6	45.94	47.69
150.48	13 20 53	5327.72	39.50	248.85	102.46	145.79	14 49 41	4727.7	45.95	242.80
29.52	3 22 42	1750.64	39.50	53.73	102.45	145.80	3 51 53	1150.6	45.94	47.69
150.48	13 20 53	5327.72	39.50	248.85	102.46	145.79	14 49 41	4727.7	45.95	242.80
29.52	3 22 42	1750.64	39.50	53.73	102.45	145.80	3 51 53	1150.6	45.94	47.69
150.48	13 20 53	5327.72	39.50	248.85	102.46	145.79	14 49 41	4727.7	45.95	242.80

DIFFERENTIAL CORRECTIONS
TDE-2.2672 TRA -.6231 TC3-2.8234 BAU .7883
RDE .8772 RRA .0451 RC3 .7215 FAU .04618
FDE-1.5939 FRA -.1353 FC3-1.9760 BSP 13931
BDE 2.4310 BRA .6247 BC3 2.9141 FSP -768

MID-COURSE EXECUTION ACCURACY
SGT 4259.0 SGR 1298.9 SG3 235.7
RRT -.9251 RRF -.9808 RTF .9560
SGB 4452.7 R23 .2246 R13 -.9633
SG1 4427.3 SG2 474.6 THA 164.06

ORBIT DETERMINATION ACCURACY
ST 2940.5 SR 1118.2 SS 1168.3
CRT -.9884 CRS .9997 CST -.9917
LSA 3350.0 MSA 199.3 SSA 6.5
EL1 3141.9 EL2 159.0 ALF 159.35

LAUNCH DATE SEP 12 1970 FLIGHT TIME 152.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 440.061

RL 150.56 LAL .00 LOL 348.82 VL 26.874 GAL -2.92 AZL 96.06 HCA 208.75 SMA 127.52 ECC .18750 INC 6.0580 V1 29.594
RP 107.91 LAP 2.91 LOP 197.44 VP 37.669 GAP 6.23 AZP 84.68 TAL 192.87 TAP 41.62 RCA 103.61 APO 151.43 V2 35.118
RC 124.786 GL -42.96 GP 46.44 ZAL 102.71 ZAP 127.54 ETS 49.56 ZAE 118.90 ETE 147.28 ZAC 144.25 ETC 249.50 CLP-152.16

PLANETOCENTRIC CONIC

C3 17.277 VHL 4.157 DLA -61.72 RAL 222.16 RAD 6567.7 VEL 11.775 PTH 2.08 VHP 6.355 DPA 28.97 RAP 239.58 ECC 1.2843

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.56	3 55 10	1701.40	40.43	48.22	104.87	141.51	4 23 32	1101.4	46.48	41.41
147.44	13 38 52	5302.71	40.44	246.86	104.88	141.50	15 7 15	4702.7	46.49	240.05
32.56	3 55 10	1701.40	40.43	48.22	104.87	141.51	4 23 32	1101.4	46.48	41.41
147.44	13 38 52	5302.71	40.44	246.86	104.88	141.50	15 7 15	4702.7	46.49	240.05
32.56	3 55 10	1701.40	40.43	48.22	104.87	141.51	4 23 32	1101.4	46.48	41.41
147.44	13 38 52	5302.71	40.44	246.86	104.88	141.50	15 7 15	4702.7	46.49	240.05

DIFFERENTIAL CORRECTIONS
TDE-2.1444 TRA -.4970 TC3-3.4555 BAU .8183
RDE .7468 RRA .0022 RC3 .7818 FAU .04927
FDE-1.5187 FRA -.0325 FC3-2.4688 BSP 14203
BDE 2.2707 BRA .4970 BC3 3.5428 FSP -827

MID-COURSE EXECUTION ACCURACY
SGT 4368.1 SGR 1217.4 SG3 253.4
RRT -.9250 RRF -.9772 RTF .9538
SGB 4534.6 R23 .2251 R13 -.9599
SG1 4512.4 SG2 447.7 THA 165.40

ORBIT DETERMINATION ACCURACY
ST 2988.8 SR 1029.6 SS 1150.1
CRT -.9896 CRS .9999 CST -.9913
LSA 3358.6 MSA 188.3 SSA 7.7
EL1 3158.1 EL2 140.0 ALF 161.14

LAUNCH DATE SEP 12 1970 FLIGHT TIME 154.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 446.033

RL 150.56 LAL .00 LOL 348.82 VL 26.834 GAL -2.66 AZL 95.31 HCA 211.95 SMA 127.25 ECC .18874 INC 5.3099 V1 29.594
RP 107.95 LAP 2.81 LOP 200.66 VP 37.629 GAP 6.52 AZP 85.49 TAL 191.58 TAP 43.53 RCA 103.24 APO 151.27 V2 35.105
RC 127.036 GL -39.53 GP 42.63 ZAL 101.68 ZAP 131.05 ETS 49.15 ZAE 120.61 ETE 149.48 ZAC 140.99 ETC 251.45 CLP-153.20

PLANETOCENTRIC CONIC

C3 15.191 VHL 3.898 DLA -59.18 RAL 227.99 RAD 6567.6 VEL 11.687 PTH 2.06 VHP 6.170 DPA 24.86 RAP 239.66 ECC 1.2500

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.59	4 26 1	1658.34	40.71	42.89	107.09	137.47	4 53 39	1058.3	46.36	35.47
144.41	13 54 34	5287.13	40.72	245.22	107.10	137.46	15 22 41	4687.1	46.37	237.80
35.59	4 26 1	1658.34	40.71	42.89	107.09	137.47	4 53 39	1058.3	46.36	35.47
144.41	13 54 34	5287.13	40.72	245.22	107.10	137.46	15 22 41	4687.1	46.37	237.80
35.59	4 26 1	1658.34	40.71	42.89	107.09	137.47	4 53 39	1058.3	46.36	35.47
144.41	13 54 34	5287.13	40.72	245.22	107.10	137.46	15 22 41	4687.1	46.37	237.80

DIFFERENTIAL CORRECTIONS
TDE-2.0177 TRA -.3728 TC3-4.0853 BAU .8460
RDE .6379 RRA -.0322 RC3 .8141 FAU .05123
FDE-1.4078 FRA .0738 FC3-2.9196 BSP 14506
BDE 2.1162 BRA .3741 BC3 4.1656 FSP -871

MID-COURSE EXECUTION ACCURACY
SGT 4481.4 SGR 1136.1 SG3 266.4
RRT -.9239 RRF -.9719 RTF .9524
SGB 4623.2 R23 .2198 R13 -.9574
SG1 4603.8 SG2 423.2 THA 166.70

ORBIT DETERMINATION ACCURACY
ST 2984.9 SR 938.4 SS 1104.4
CRT -.9905 CRS .9999 CST -.9904
LSA 3313.3 MSA 179.6 SSA 9.1
EL1 3126.5 EL2 123.0 ALF 162.68

LAUNCH DATE SEP 12 1970 FLIGHT TIME 156.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 451.990

RL 150.56 LAL .00 LOL 348.82 VL 26.793 GAL -2.39 AZL 94.69 HCA 215.15 SMA 126.99 ECC .19009 INC 4.6852 V1 29.594
RP 107.99 LAP 2.70 LOP 203.88 VP 37.588 GAP 6.81 AZP 86.17 TAL 190.26 TAP 45.41 RCA 102.85 APO 151.13 V2 35.093
RC 129.278 GL -36.23 GP 39.24 ZAL 100.26 ZAP 134.27 ETS 48.79 ZAE 121.94 ETE 151.62 ZAC 138.07 ETC 252.97 CLP-154.34

PLANETOCENTRIC CONIC

C3 13.688 VHL 3.700 DLA -56.67 RAL 233.45 RAD 6567.5 VEL 11.622 PTH 2.04 VHP 6.062 DPA 21.14 RAP 240.03 ECC 1.2253

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.61	4 55 45	1619.65	40.49	37.79	109.28	133.75	5 22 44	1019.6	45.74	29.93
141.39	14 8 20	5279.65	40.50	243.99	109.30	133.74	15 36 20	4679.6	45.75	236.12
38.61	4 55 45	1619.65	40.49	37.79	109.28	133.75	5 22 44	1019.6	45.74	29.93
141.39	14 8 20	5279.65	40.50	243.99	109.30	133.74	15 36 20	4679.6	45.75	236.12
38.61	4 55 45	1619.65	40.49	37.79	109.28	133.75	5 22 44	1019.6	45.74	29.93
141.39	14 8 20	5279.65	40.50	243.99	109.30	133.74	15 36 20	4679.6	45.75	236.12

DIFFERENTIAL CORRECTIONS
TDE-1.8876 TRA -.2450 TC3-4.6875 BAU .8708
RDE .5487 RRA -.0607 RC3 .8206 FAU .05210
FDE-1.2742 FRA .1821 FC3-3.2951 BSP 14800
BDE 1.9657 BRA .2524 BC3 4.7588 FSP -900

MID-COURSE EXECUTION ACCURACY
SGT 4588.3 SGR 1058.3 SG3 274.6
RRT -.9209 RRF -.9647 RTF .9511
SGB 4708.8 R23 .2103 R13 -.9552
SG1 4691.5 SG2 403.4 THA 167.92

ORBIT DETERMINATION ACCURACY
ST 2932.5 SR 851.5 SS 1037.3
CRT -.9913 CRS .9997 CST -.9890
LSA 3220.3 MSA 172.8 SSA 10.6
EL1 3051.7 EL2 107.5 ALF 163.92

LAUNCH DATE SEP 12 1970 FLIGHT TIME 158.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 457.932
RL 150.56 LAL .00 LOL 348.82 VL 26.751 GAL -2.10 AZL 94.15 HCA 218.35 SMA 126.72 ECC .19157 INC 4.1528 V1 29.594
RP 108.03 LAP 2.58 LOP 207.10 VP 37.547 GAP 7.10 AZP 86.74 TAL 188.93 TAP 47.28 RCA 102.44 APO 150.99 V2 35.080
RC 131.513 GL -33.06 GP 36.24 ZAL 98.49 ZAP 137.22 ETS 48.49 ZAE 122.97 ETE 153.64 ZAC 135.48 ETC 254.20 CLP-155.50
PLANETOCENTRIC CONIC
C3 12.594 VHL 3.549 DLA -54.20 RAL 238.60 RAD 6567.5 VEL 11.575 PTH 2.02 VHP 6.009 DPA 17.77 RAP 240.64 ECC 1.2073

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.64	5 24 44	1584.03	39.87	32.94	111.55	130.35	5 51 8	984.0	44.75	24.77
138.36	14 20 28	5279.26	39.88	243.21	111.56	130.34	15 48 27	4679.3	44.76	235.04
41.64	5 24 44	1584.03	39.87	32.94	111.55	130.35	5 51 8	984.0	44.75	24.77
138.36	14 20 28	5279.26	39.88	243.21	111.56	130.34	15 48 27	4679.3	44.76	235.04
41.64	5 24 44	1584.03	39.87	32.94	111.55	130.35	5 51 8	984.0	44.75	24.77
138.36	14 20 28	5279.26	39.88	243.21	111.56	130.34	15 48 27	4679.3	44.76	235.04

DIFFERENTIAL CORRECTIONS
TDE-1.7571 TRA -.1151 TC3-5.2529 BAU .8949
RDE .4770 RRA -.0836 RC3 .8095 FAU .05218
FDE-1.1305 FRA .2863 FC3-3.5872 BSP 15111
BDE 1.8207 BRA .1423 BC3 5.3149 FSP -918

MID-COURSE EXECUTION ACCURACY
SGT 4695.6 SGR 988.1 SG3 279.1
RRT -.9167 RRF -.9556 RTF .9504
SGB 4798.5 R23 .1961 R13 -.9536
SG1 4782.8 SG2 387.6 THA 169.01

ORBIT DETERMINATION ACCURACY
ST 2840.7 SR 773.4 SS 956.4
CRT -.9923 CRS .9990 CST -.9868
LSA 3091.0 MSA 167.3 SSA 12.4
EL1 2942.6 EL2 92.6 ALF 164.87

LAUNCH DATE SEP 12 1970 FLIGHT TIME 160.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 463.856
RL 150.56 LAL .00 LOL 348.82 VL 26.709 GAL -1.80 AZL 93.69 HCA 221.55 SMA 126.45 ECC .19318 INC 3.6910 V1 29.594
RP 108.07 LAP 2.45 LOP 210.31 VP 37.505 GAP 7.39 AZP 87.24 TAL 187.57 TAP 49.12 RCA 102.02 APO 150.87 V2 35.067
RC 133.740 GL -30.02 GP 33.57 ZAL 96.42 ZAP 139.92 ETS 48.25 ZAE 123.76 ETE 155.51 ZAC 133.20 ETC 255.23 CLP-156.68
PLANETOCENTRIC CONIC
C3 11.803 VHL 3.436 DLA -51.76 RAL 243.50 RAD 6567.5 VEL 11.541 PTH 2.01 VHP 5.999 DPA 14.72 RAP 241.45 ECC 1.1943

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.67	5 53 19	1550.33	38.94	28.30	113.93	127.27	6 19 9	950.3	43.47	19.94
135.33	14 31 1	5285.52	38.95	242.93	113.95	127.26	15 59 6	4685.5	43.48	234.56
44.67	5 53 19	1550.33	38.94	28.30	113.93	127.27	6 19 9	950.3	43.47	19.94
135.33	14 31 1	5285.52	38.95	242.93	113.95	127.26	15 59 6	4685.5	43.48	234.56
44.67	5 53 19	1550.33	38.94	28.30	113.93	127.27	6 19 9	950.3	43.47	19.94
135.33	14 31 1	5285.52	38.95	242.93	113.95	127.26	15 59 6	4685.5	43.48	234.56

DIFFERENTIAL CORRECTIONS
TDE-1.6245 TRA .0203 TC3-5.7596 BAU .9172
RDE .4193 RRA -.1029 RC3 .7838 FAU .05158
FDE -.9828 FRA .3871 FC3-3.7832 BSP 15416
BDE 1.6777 BRA .1049 BC3 5.8126 FSP -926

MID-COURSE EXECUTION ACCURACY
SGT 4796.3 SGR 925.2 SG3 280.4
RRT -.9106 RRF -.9443 RTF .9499
SGB 4884.7 R23 .1791 R13 -.9524
SG1 4870.2 SG2 376.5 THA 169.98

ORBIT DETERMINATION ACCURACY
ST 2711.8 SR 704.4 SS 865.7
CRT -.9935 CRS .9973 CST -.9834
LSA 2927.9 MSA 163.5 SSA 14.3
EL1 2800.7 EL2 77.8 ALF 165.52

LAUNCH DATE SEP 12 1970 FLIGHT TIME 162.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 469.763
RL 150.56 LAL .00 LOL 348.82 VL 26.667 GAL -1.49 AZL 93.28 HCA 224.75 SMA 126.18 ECC .19492 INC 3.2844 V1 29.594
RP 108.11 LAP 2.31 LOP 213.53 VP 37.463 GAP 7.68 AZP 87.67 TAL 186.20 TAP 50.95 RCA 101.58 APO 150.77 V2 35.054
RC 135.957 GL -27.09 GP 31.20 ZAL 94.09 ZAP 142.39 ETS 48.08 ZAE 124.36 ETE 157.23 ZAC 131.19 ETC 256.12 CLP-157.84
PLANETOCENTRIC CONIC
C3 11.248 VHL 3.354 DLA -49.35 RAL 248.19 RAD 6567.4 VEL 11.517 PTH 2.01 VHP 6.021 DPA 11.96 RAP 242.45 ECC 1.1851

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.73	6 21 45	1517.55	37.77	23.85	116.47	124.50	6 47 2	917.5	41.98	15.39
132.27	14 40 0	5298.22	37.78	243.15	116.48	124.49	16 8 18	4698.2	41.99	234.69
47.73	6 21 45	1517.55	37.77	23.85	116.47	124.50	6 47 2	917.5	41.98	15.39
132.27	14 40 0	5298.22	37.78	243.15	116.48	124.49	16 8 18	4698.2	41.99	234.69
47.73	6 21 45	1517.55	37.77	23.85	116.47	124.50	6 47 2	917.5	41.98	15.39
132.27	14 40 0	5298.22	37.78	243.15	116.48	124.49	16 8 18	4698.2	41.99	234.69

DIFFERENTIAL CORRECTIONS
TDE-1.4903 TRA .1613 TC3-6.1947 BAU .9382
RDE .3734 RRA -.1196 RC3 .7471 FAU .05042
FDE -.8370 FRA .4828 FC3-3.8806 BSP 15711
BDE 1.5364 BRA .2008 BC3 6.2396 FSP -925

MID-COURSE EXECUTION ACCURACY
SGT 4891.4 SGR 869.7 SG3 278.9
RRT -.9024 RRF -.9308 RTF .9493
SGB 4968.1 R23 .1606 R13 -.9513
SG1 4954.3 SG2 370.0 THA 170.83

ORBIT DETERMINATION ACCURACY
ST 2552.3 SR 645.0 SS 770.8
CRT -.9950 CRS .9932 CST -.9781
LSA 2738.2 MSA 161.6 SSA 16.5
EL1 2631.8 EL2 62.4 ALF 165.88

LAUNCH DATE SEP 12 1970 FLIGHT TIME 164.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 475.653
RL 150.56 LAL .00 LOL 348.82 VL 26.625 GAL -1.17 AZL 92.92 HCA 227.95 SMA 125.91 ECC .19681 INC 2.9214 V1 29.594
RP 108.15 LAP 2.17 LOP 216.73 VP 37.420 GAP 7.97 AZP 88.04 TAL 184.80 TAP 52.75 RCA 101.13 APO 150.69 V2 35.041
RC 138.166 GL -24.28 GP 29.10 ZAL 91.55 ZAP 144.65 ETS 47.99 ZAE 124.81 ETE 158.78 ZAC 129.42 ETC 256.91 CLP-158.99
PLANETOCENTRIC CONIC
C3 10.883 VHL 3.299 DLA -46.96 RAL 252.69 RAD 6567.4 VEL 11.501 PTH 2.00 VHP 6.070 DPA 9.45 RAP 243.60 ECC 1.1791

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.83	6 50 16	1484.77	36.40	19.52	119.15	122.00	7 15 1	884.8	40.32	11.03
129.17	14 47 22	5317.43	36.41	243.91	119.16	121.99	16 15 59	4717.4	40.33	235.42
50.83	6 50 16	1484.77	36.40	19.52	119.15	122.00	7 15 1	884.8	40.32	11.03
129.17	14 47 22	5317.43	36.41	243.91	119.16	121.99	16 15 59	4717.4	40.33	235.42
50.83	6 50 16	1484.77	36.40	19.52	119.15	122.00	7 15 1	884.8	40.32	11.03
129.17	14 47 22	5317.43	36.41	243.91	119.16	121.99	16 15 59	4717.4	40.33	235.42

DIFFERENTIAL CORRECTIONS
TDE-1.3493 TRA .3136 TC3-6.5325 BAU .9559
RDE .3358 RRA -.1356 RC3 .7000 FAU .04868
FDE -.6918 FRA .5776 FC3-3.8725 BSP 15867
BDE 1.3905 BRA .3416 BC3 6.5699 FSP -905

MID-COURSE EXECUTION ACCURACY
SGT 4970.4 SGR 820.0 SG3 275.0
RRT -.8913 RRF -.9148 RTF .9481
SGB 5037.6 R23 .1435 R13 -.9498
SG1 5024.1 SG2 367.9 THA 171.59

ORBIT DETERMINATION ACCURACY
ST 2359.3 SR 592.4 SS 672.4
CRT -.9968 CRS .9839 CST -.9690
LSA 2518.4 MSA 163.2 SSA 18.8
EL1 2432.1 EL2 46.0 ALF 165.94

LAUNCH DATE SEP 12 1970 FLIGHT TIME 166.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 481.522

```
RL  150.56 LAL    .00 LOL 348.82 VL  26.583 GAL   -.84 AZL  92.59 HCA 231.14 SMA 125.64 ECC .19886 INC 2.5935 V1  29.594
RP  108.19 LAP   2.02 LOP 219.94 VP  37.378 GAP   8.26 AZP  88.37 TAL 183.39 TAP  54.53 RCA 100.66 APO 150.63 V2  35.028
RC 140.364 GL  -21.59 GP   27.24 ZAL  88.83 ZAP 146.74 ETS  48.00 ZAE 125.15 ETE 160.17 ZAC 127.86 ETC 257.64 CLP-160.12
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PLANETOCENTRIC CONIC

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C3  10.680 VHL  3.268 DLA -44.59 RAL 257.00 RAD 6567.4 VEL 11.492 PTH   2.00 VHP  6.139 DPA   7.17 RAP 244.90 ECC 1.1758
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.99	7 19 6	1451.06	34.89	15.25	121.98	119.76	7 43 17	851.1	38.54	6.78
126.01	14 52 57	5343.46	34.90	245.23	121.98	119.74	16 22 0	4743.5	38.55	236.76
53.99	7 19 6	1451.06	34.89	15.25	121.98	119.76	7 43 17	851.1	38.54	6.78
126.01	14 52 57	5343.46	34.90	245.23	121.98	119.74	16 22 0	4743.5	38.55	236.76
53.99	7 19 6	1451.06	34.89	15.25	121.98	119.76	7 43 17	851.1	38.54	6.78
126.01	14 52 57	5343.46	34.90	245.23	121.98	119.74	16 22 0	4743.5	38.55	236.76

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.2112 TRA  .4671 TC3-6.7989 BAU  .9752   SGT 5057.6 SGR  779.0 SG3  270.3     ST  2155.5 SR   549.9 SS   582.2
RDE  .3072 RRA -.1487 RC3  .6540 FAU .04691   RRT -.8793 RRF -.8971 RTF  .9480     CRT -.9985 CRS  .9653 CST -.9553
FDE -.5591 FRA  .6607 FC3-3.8027 BSP  16163   SGB 5117.2 R23  .1240 R13 -.9492     LSA 2293.3 MSA  167.0 SSA   21.1
BDE 1.2496 BRA  .4902 BC3 6.8303 FSP   -895   SG1 5104.0 SG2  367.6 THA 172.25     EL1 2224.3 EL2   29.6 ALF 165.71
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LAUNCH DATE SEP 12 1970 FLIGHT TIME 168.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 487.372

```
RL  150.56 LAL    .00 LOL 348.82 VL  26.540 GAL   -.49 AZL  92.29 HCA 234.34 SMA 125.37 ECC .20107 INC 2.2940 V1  29.594
RP  108.23 LAP   1.86 LOP 223.14 VP  37.335 GAP   8.56 AZP  88.66 TAL 181.96 TAP  56.30 RCA 100.17 APO 150.58 V2  35.014
RC 142.552 GL  -19.03 GP   25.57 ZAL  65.98 ZAP 148.66 ETS  48.11 ZAE 125.40 ETE 161.42 ZAC 126.49 ETC 258.32 CLP-161.23
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PLANETOCENTRIC CONIC

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C3  10.620 VHL  3.259 DLA -42.26 RAL 261.14 RAD 6567.4 VEL 11.490 PTH   2.00 VHP  6.227 DPA   5.09 RAP 246.32 ECC 1.1748
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.22	7 48 33	1415.31	33.25	10.97	124.92	117.74	8 12 8	815.3	36.67	2.55
122.78	14 56 30	5376.95	33.26	247.14	124.93	117.72	16 26 7	4777.0	36.68	238.72
57.22	7 48 33	1415.31	33.25	10.97	124.92	117.74	8 12 8	815.3	36.67	2.55
122.78	14 56 30	5376.95	33.26	247.14	124.93	117.72	16 26 7	4777.0	36.68	238.72
57.22	7 48 33	1415.31	33.25	10.97	124.92	117.74	8 12 8	815.3	36.67	2.55
122.78	14 56 30	5376.95	33.26	247.14	124.93	117.72	16 26 7	4777.0	36.68	238.72

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.0718 TRA  .6283 TC3-6.9701 BAU  .9934   SGT 5139.7 SGR  744.4 SG3  264.4     ST  1941.5 SR   514.9 SS   502.5
RDE  .2855 RRA -.1609 RC3  .6065 FAU .04496   RRT -.8656 RRF -.8776 RTF  .9482     CRT -.9988 CRS  .9292 CST -.9339
FDE -.4372 FRA  .7377 FC3-3.6651 BSP  16417   SGB 5193.3 R23  .1051 R13 -.9492     LSA 2063.0 MSA  175.3 SSA   23.3
BDE 1.1091 BRA  .6486 BC3 6.9964 FSP   -879   SG1 5180.2 SG2  369.8 THA 172.82     EL1 2008.5 EL2   23.9 ALF 165.16
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LAUNCH DATE SEP 12 1970 FLIGHT TIME 170.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 493.199

```
RL  150.56 LAL    .00 LOL 348.82 VL  26.498 GAL   -.13 AZL  92.02 HCA 237.53 SMA 125.11 ECC .20346 INC 2.0179 V1  29.594
RP  108.27 LAP   1.70 LOP 226.34 VP  37.293 GAP   8.86 AZP  88.92 TAL 180.51 TAP  58.05 RCA  99.65 APO 150.56 V2  35.001
RC 144.730 GL  -16.58 GP   24.08 ZAL  83.05 ZAP 150.43 ETS  48.33 ZAE 125.58 ETE 162.54 ZAC 125.27 ETC 258.97 CLP-162.30
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PLANETOCENTRIC CONIC

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C3  10.694 VHL  3.270 DLA -39.95 RAL 265.10 RAD 6567.4 VEL 11.493 PTH   2.00 VHP  6.331 DPA   3.19 RAP 247.85 ECC 1.1760
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.55	8 18 54	1376.27	31.54	6.58	127.98	115.92	8 41 50	776.3	34.74	358.23
119.45	14 57 42	5418.79	31.55	249.72	127.99	115.91	16 28 1	4818.8	34.75	241.37
60.55	8 18 54	1376.27	31.54	6.58	127.98	115.92	8 41 50	776.3	34.74	358.23
119.45	14 57 42	5418.79	31.55	249.72	127.99	115.91	16 28 1	4818.8	34.75	241.37
60.55	8 18 54	1376.27	31.54	6.58	127.98	115.92	8 41 50	776.3	34.74	358.23
119.45	14 57 42	5418.79	31.55	249.72	127.99	115.91	16 28 1	4818.8	34.75	241.37

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.9477 TRA  .7761 TC3-7.1166 BAU 1.0207   SGT 5250.5 SGR  719.7 SG3  259.1     ST  1749.3 SR   492.0 SS   443.9
RDE  .2729 RRA -.1684 RC3  .5747 FAU .04378   RRT -.8537 RRF -.8586 RTF  .9519     CRT -.9957 CRS  .8774 CST -.9121
FDE -.3426 FRA  .7900 FC3-3.5440 BSP  17083   SGB 5299.6 R23  .0803 R13 -.9526     LSA 1861.4 MSA  183.4 SSA   25.0
BDE  .9862 BRA  .7942 BC3 7.1398 FSP   -896   SG1 5286.5 SG2  372.2 THA 173.29     EL1 1816.6 EL2   43.9 ALF 164.35
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LAUNCH DATE SEP 12 1970 FLIGHT TIME 172.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 499.007

```
RL  150.56 LAL    .00 LOL 348.82 VL  26.456 GAL    .25 AZL  91.76 HCA 240.73 SMA 124.84 ECC .20603 INC 1.7608 V1  29.594
RP  108.31 LAP   1.54 LOP 229.54 VP  37.250 GAP   9.16 AZP  89.14 TAL 179.05 TAP  59.78 RCA  99.12 APO 150.57 V2  34.988
RC 146.899 GL  -14.26 GP   22.75 ZAL  80.06 ZAP 152.07 ETS  48.66 ZAE 125.71 ETE 163.54 ZAC 124.19 ETC 259.60 CLP-163.36
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PLANETOCENTRIC CONIC

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C3  10.894 VHL  3.301 DLA -37.70 RAL 268.88 RAD 6567.4 VEL 11.501 PTH   2.00 VHP  6.448 DPA   1.46 RAP 249.48 ECC 1.1793
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.00	8 50 40	1332.25	29.77	1.95	131.13	114.28	9 12 52	732.2	32.77	353.69
116.00	14 56 9	5470.38	29.78	253.05	131.14	114.27	16 27 19	4870.4	32.78	244.78
64.00	8 50 40	1332.25	29.77	1.95	131.13	114.28	9 12 52	732.2	32.77	353.69
116.00	14 56 9	5470.38	29.78	253.05	131.14	114.27	16 27 19	4870.4	32.78	244.78
64.00	8 50 40	1332.25	29.77	1.95	131.13	114.28	9 12 52	732.2	32.77	353.69
116.00	14 56 9	5470.38	29.78	253.05	131.14	114.27	16 27 19	4870.4	32.78	244.78

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.7849 TRA  .9747 TC3-7.0335 BAU 1.0270   SGT 5290.1 SGR  689.4 SG3  250.8     ST  1512.4 SR   459.7 SS   386.1
RDE  .2553 RRA -.1854 RC3  .5103 FAU .04066   RRT -.8329 RRF -.8347 RTF  .9472     CRT -.9830 CRS  .7442 CST -.8495
FDE -.2154 FRA  .8813 FC3-3.2316 BSP  16898   SGB 5334.8 R23  .0754 R13 -.9479     LSA 1612.3 MSA  218.0 SSA   25.9
BDE  .8254 BRA  .9921 BC3 7.0519 FSP   -835   SG1 5321.3 SG2  379.3 THA 173.77     EL1 1578.7 EL2   81.0 ALF 163.32
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LAUNCH DATE SEP 12 1970 FLIGHT TIME 174.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 504.790

RL	150.56	LAL	.00	LOL	348.82	VL	26.413	GAL	.64	AZL	91.52	HCA	243.92	SMA	124.58	ECC	.20881	INC	1.5196
RP	108.35	LAP	1.36	LOP	232.73	VP	37.208	GAP	9.47	AZP	89.33	TAL	177.58	TAP	61.49	RCA	98.57	APO	150.60
RC	149.057	GL	-12.07	GP	21.56	ZAL	77.05	ZAP	153.60	ETS	49.12	ZAE	125.80	ETE	164.43	ZAC	123.23	ETC	260.22

V1	29.594	V2	34.975	CLP	-164.39														

PLANETOCENTRIC CONIC

C3	11.219	VHL	3.349	DLA	-35.50	RAL	272.49	RAD	6567.4	VEL	11.516	PTH	2.01	VHP	6.577	DPA	-.12	RAP	251.19
ECC	1.1846																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.64	9 24 28	1280.90	27.97	356.92	134.36	112.81	9 45 49	680.9	30.80	348.75
112.36	14 51 8	5533.82	27.98	257.26	134.36	112.79	16 23 22	4933.8	30.81	249.09
67.64	9 24 28	1280.90	27.97	356.92	134.36	112.81	9 45 49	680.9	30.80	348.75
112.36	14 51 8	5533.82	27.98	257.26	134.36	112.79	16 23 22	4933.8	30.81	249.09
67.64	9 24 28	1280.90	27.97	356.92	134.36	112.81	9 45 49	680.9	30.80	348.75
112.36	14 51 8	5533.82	27.98	257.26	134.36	112.79	16 23 22	4933.8	30.81	249.09

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.6393	TRA	1.1612	TC3	-6.9264	BAU	1.0412	SGT	5355.1	SGR	668.2	SG3	243.3	ST	1323.3	SR	440.1
RDE	.2467	RRA	-.1973	RC3	.4639	FAU	.03842	RRT	-.8146	RRF	-.8122	RTF	.9474	CRT	-.9511	CRS	.5834
FDE	-.1221	FRA	.9450	FC3	-2.9650	BSP	17102	SGB	5396.7	R23	.0628	R13	-.9479	LSA	1417.7	MSA	253.1
BDE	.6853	BRA	1.1779	BC3	6.9419	FSP	-813	SG1	5382.9	SG2	385.6	THA	174.17	EL1	1388.5	EL2	129.6

SS	360.3	CST	-.8017	ALF	162.29
SSA	26.0				

LAUNCH DATE SEP 12 1970 FLIGHT TIME 176.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 510.549

RL	150.56	LAL	.00	LOL	348.82	VL	26.371	GAL	1.05	AZL	91.29	HCA	247.10	SMA	124.32	ECC	.21181	INC	1.2912
RP	108.39	LAP	1.19	LOP	235.92	VP	37.166	GAP	9.79	AZP	89.50	TAL	176.10	TAP	63.20	RCA	97.99	APO	150.65
RC	151.205	GL	-10.02	GP	20.49	ZAL	74.05	ZAP	155.02	ETS	49.72	ZAE	125.87	ETE	165.23	ZAC	122.37	ETC	260.83

V1	29.594	V2	34.962	CLP	-165.39														

PLANETOCENTRIC CONIC

C3	11.671	VHL	3.416	DLA	-33.36	RAL	275.93	RAD	6567.4	VEL	11.535	PTH	2.01	VHP	6.719	DPA	-1.57	RAP	252.99
ECC	1.1921																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
71.59	10 1 34	1218.04	26.16	351.17	137.65	111.47	10 21 52	618.0	28.84	343.09
108.41	14 41 27	5613.10	26.17	262.65	137.65	111.46	16 15 0	5013.1	28.85	254.56
71.59	10 1 34	1218.04	26.16	351.17	137.65	111.47	10 21 52	618.0	28.84	343.09
108.41	14 41 27	5613.10	26.17	262.65	137.65	111.46	16 15 0	5013.1	28.85	254.56
110.00	13 54 15	5757.86	21.84	271.74	135.52	116.98	15 30 13	5157.9	25.27	264.28
110.00	15 47 56	5409.32	30.66	248.56	139.38	105.91	17 18 5	4809.3	32.54	239.84

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4912	TRA	1.3555	TC3	-6.7503	BAU	1.0553	SGT	5418.4	SGR	649.8	SG3	235.7	ST	1168.1	SR	423.0
RDE	.2407	RRA	-.2093	RC3	.4206	FAU	.03623	RRT	-.7959	RRF	-.7893	RTF	.9475	CRT	-.8838	CRS	.3895
FDE	-.0352	FRA	1.0046	FC3	-2.6875	BSP	17324	SGB	5457.2	R23	.0516	R13	-.9479	LSA	1256.7	MSA	298.6
BDE	.5470	BRA	1.3716	BC3	6.7634	FSP	-791	SG1	5443.1	SG2	391.6	THA	174.52	EL1	1228.0	EL2	188.3

SS	354.4	CST	-.7717	ALF	161.81
SSA	25.5				

LAUNCH DATE SEP 12 1970 FLIGHT TIME 178.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 516.281

RL	150.56	LAL	.00	LOL	348.82	VL	26.329	GAL	1.47	AZL	91.07	HCA	250.29	SMA	124.06	ECC	.21505	INC	1.0736
RP	108.43	LAP	1.01	LOP	239.11	VP	37.124	GAP	10.12	AZP	89.64	TAL	174.60	TAP	64.89	RCA	97.38	APO	150.74
RC	153.343	GL	-8.10	GP	19.52	ZAL	71.10	ZAP	156.35	ETS	50.45	ZAE	125.91	ETE	165.94	ZAC	121.60	ETC	261.43

V1	29.594	V2	34.949	CLP	-166.38														

PLANETOCENTRIC CONIC

C3	12.255	VHL	3.501	DLA	-31.29	RAL	279.19	RAD	6567.5	VEL	11.560	PTH	2.02	VHP	6.873	DPA	-2.90	RAP	254.86
ECC	1.2017																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
76.10	10 44 32	1135.04	24.37	344.08	140.98	110.26	11 3 27	535.0	26.90	336.08
103.90	14 24 31	5716.65	24.38	269.80	140.99	110.24	15 59 47	5116.6	26.91	261.80
76.10	10 44 32	1135.04	24.37	344.08	140.98	110.26	11 3 27	535.0	26.90	336.08
103.90	14 24 31	5716.65	24.38	269.80	140.99	110.24	15 59 47	5116.6	26.91	261.80
110.00	13 18 21	635.20	16.42	303.60	136.97	120.41	13 28 57	35.2	20.33	296.66
110.00	16 49 52	5264.48	32.88	237.86	143.60	99.94	18 17 36	4664.5	33.90	228.77

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3420	TRA	1.5581	TC3	-6.5116	BAU	1.0686	SGT	5477.5	SGR	633.8	SG3	228.1	ST	1064.7	SR	408.8
RDE	.2373	RRA	-.2215	RC3	.3801	FAU	.03408	RRT	-.7768	RRF	-.7665	RTF	.9477	CRT	-.7638	CRS	.2004
FDE	.0433	FRA	1.0601	FC3	-2.4077	BSP	17528	SGB	5514.1	R23	.0419	R13	-.9480	LSA	1145.9	MSA	347.0
BDE	.4163	BRA	1.5737	BC3	6.5227	FSP	-768	SG1	5499.7	SG2	397.5	THA	174.84	EL1	1112.2	EL2	252.6

SS	365.4	CST	-.7824	ALF	162.74
SSA	24.5				

LAUNCH DATE SEP 12 1970 FLIGHT TIME 180.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 521.984

RL	150.56	LAL	.00	LOL	348.82	VL	26.287	GAL	1.92	AZL	90.86	HCA	253.47	SMA	123.81	ECC	.21854	INC	.8645
RP	108.47	LAP	.83	LOP	242.29	VP	37.083	GAP	10.45	AZP	89.75	TAL	173.10	TAP	66.57	RCA	96.75	APO	150.87
RC	155.470	GL	-6.32	GP	18.65	ZAL	68.21	ZAP	157.59	ETS	51.33	ZAE	125.93	ETE	166.58	ZAC	120.90	ETC	262.04

V1	29.594	V2	34.937	CLP	-167.34														

PLANETOCENTRIC CONIC

C3	12.977	VHL	3.602	DLA	-29.30	RAL	282.28	RAD	6567.5	VEL	11.592	PTH	2.03	VHP	7.038	DPA	-4.11	RAP	256.79
ECC	1.2136																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.13	11 41 58	1003.80	22.61	333.61	144.36	109.15	11 58 42	403.8	25.02	325.68
97.87	13 51 46	5872.37	22.62	280.73	144.36	109.14	15 29 38	5272.4	25.03	272.80
100.00	13 18 25	691.29	19.05	309.25	142.87	113.48	13 29 56	91.3	22.07	301.75
100.00	14 58 1	5660.11	26.28	266.23	145.59	104.79	16 32 21	5060.1	28.05	257.88
110.00	12 59 45	750.06	12.35	310.01	139.20	122.13	13 12 15	150.1	16.51	303.37
110.00	17 33 10	5174.11	33.73	230.94	147.16	95.93	18 59 24	4574.1	34.18	221.73

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.1911	TRA	1.7709	TC3	-6.2181	BAU	1.0804	SGT	5531.3	SGR	619.7	SG3	220.5	ST	1024.4	SR	396.9
RDE	.2362	RRA	-.2341	RC3	.3417	FAU	.03193	RRT	-.7575	RRF	-.7441	RTF	.9479	CRT	-.5885	CRS	.0403
FDE	.1141	FRA	1.1134	FC3	-2.1300	BSP	17718	SGB	5565.9	R23	.0342	R13	-.9481	LSA	1098.8	MSA	386.4
BDE	.3038	BRA	1.7863	BC3	6.2275	FSP	-745	SG1	5551.3	SG2	403.1	THA	175.12	EL1	1053.3	EL2	312.1

SS	387.6	CST	-.8291	ALF	165.89
SSA	23.3				

LAUNCH DATE SEP 12 1970 FLIGHT TIME 182.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 527.654

RL	150.56	LAL	.00	LOL	348.82	VL	26.245	GAL	2.39	AZL	90.66	HCA	256.65	SMA	123.55	ECC	.22232	INC	.6624
RP	108.51	LAP	.64	LOP	245.48	VP	37.041	GAP	10.80	AZP	89.85	TAL	171.59	TAP	68.24	RCA	96.09	APO	151.02
RC	157.587	GL	-4.67	GP	17.85	ZAL	65.40	ZAP	158.75	ETS	52.38	ZAE	125.94	ETE	167.15	ZAC	120.26	ETC	262.64

V1	29.594	V2	34.925	CLP	-168.29														

PLANETOCENTRIC CONIC

C3	13.849	VHL	3.721	DLA	-27.41	RAL	285.21	RAD	6567.5	VEL	11.629	PTH	2.04	VHP	7.215	DPA	-5.21	RAP	258.78
ECC	1.2279																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 55 32	1013.62	16.52	331.81	146.01	113.33	12 12 26	413.6	19.54	324.44
90.00	14 1 33	602.77	25.42	305.05	149.12	102.92	14 11 36	2.8	26.95	296.72
100.00	12 37 49	876.96	13.66	320.39	144.62	116.85	12 52 26	277.0	17.15	313.35
100.00	16 1 57	5502.70	28.52	255.08	149.81	99.34	17 33 40	4902.7	29.52	246.42
110.00	12 47 38	846.16	8.82	315.22	141.77	123.16	13 1 44	246.2	13.12	308.76
110.00	18 8 38	5106.27	34.08	225.68	150.50	92.84	19 33 44	4506.3	34.10	216.43

DIFFERENTIAL CORRECTIONS

TDE	-.0637	TRA	1.9682	TC3	-5.9584	BAU	1.1047
RDE	.2402	RRA	-.2438	RC3	.3158	FAU	.03064
FDE	.1613	FRA	1.1476	FC3	-1.9154	BSP	18505
BDE	.2485	BRA	1.9833	BC3	5.9668	FSP	-757

MID-COURSE EXECUTION ACCURACY

SGT	5597.1	SGR	608.9	SG3	212.6		
RRT	-.7400	RRF	-.7240	RTF	.9505		
SGB	5630.2	R23	.0251	R13	-.9507		
SG1	5615.3	SG2	408.2	THA	175.37		

ORBIT DETERMINATION ACCURACY

ST	1037.3	SR	391.0	SS	404.0		
CRT	-.4121	CRS	-.0623	CST	-.8817		
LSA	1108.6	MSA	403.2	SSA	21.9		
EL1	1051.3	EL2	351.5	ALF	170.05		

LAUNCH DATE SEP 12 1970 FLIGHT TIME 184.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 533.295

RL	150.56	LAL	.00	LOL	348.82	VL	26.204	GAL	2.88	AZL	90.47	HCA	259.83	SMA	123.31	ECC	.22639	INC	.4658
RP	108.54	LAP	.46	LOP	248.66	VP	37.001	GAP	11.16	AZP	89.92	TAL	170.07	TAP	69.91	RCA	95.39	APO	151.22
RC	159.692	GL	-3.16	GP	17.14	ZAL	62.68	ZAP	159.84	ETS	53.59	ZAE	125.94	ETE	167.66	ZAC	119.68	ETC	263.25

V1	29.594	V2	34.913	CLP	-169.22														

PLANETOCENTRIC CONIC

C3	14.883	VHL	3.858	DLA	-25.60	RAL	287.99	RAD	6567.6	VEL	11.673	PTH	2.05	VHP	7.404	DPA	-6.21	RAP	260.83
ECC	1.2449																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 20 59	1182.11	11.73	341.86	148.10	115.96	11 40 41	582.1	15.12	334.83
90.00	14 58 14	5754.17	27.14	273.33	153.13	98.39	16 34 8	5154.2	28.03	264.78
100.00	12 17 8	1000.80	9.74	327.50	147.06	118.40	12 33 49	400.8	13.46	320.69
100.00	16 44 46	5410.72	29.36	248.37	153.45	95.91	18 14 57	4810.7	29.86	239.61
110.00	12 39 9	931.74	5.60	319.76	144.54	123.78	12 54 41	331.7	10.00	313.43
110.00	18 39 15	5052.54	34.18	221.48	153.76	90.36	20 3 27	4452.5	33.85	212.25

DIFFERENTIAL CORRECTIONS

TDE	.1097	TRA	2.2198	TC3	-5.5422	BAU	1.1041
RDE	.2401	RRA	-.2593	RC3	.2752	FAU	.02798
FDE	.2323	FRA	1.2081	FC3	-1.6274	BSP	18224
BDE	.2640	BRA	2.2349	BC3	5.5491	FSP	-708

MID-COURSE EXECUTION ACCURACY

SGT	5628.2	SGR	595.5	SG3	205.4		
RRT	-.7194	RRF	-.7014	RTF	.9489		
SGB	5659.6	R23	.0218	R13	-.9490		
SG1	5644.6	SG2	412.4	THA	175.62		

ORBIT DETERMINATION ACCURACY

ST	1116.2	SR	379.0	SS	441.7		
CRT	-.1968	CRS	-.1771	CST	-.9286		
LSA	1192.0	MSA	404.0	SSA	20.8		
EL1	1118.9	EL2	370.6	ALF	175.71		

LAUNCH DATE SEP 12 1970 FLIGHT TIME 186.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 538.898

RL	150.56	LAL	.00	LOL	348.82	VL	26.162	GAL	3.39	AZL	90.27	HCA	263.01	SMA	123.06	ECC	.23079	INC	.2729
RP	108.58	LAP	.27	LOP	251.84	VP	36.961	GAP	11.53	AZP	89.97	TAL	168.55	TAP	71.57	RCA	94.66	APO	151.46
RC	161.784	GL	-1.78	GP	16.48	ZAL	60.06	ZAP	160.86	ETS	54.99	ZAE	125.93	ETE	168.13	ZAC	119.14	ETC	263.85

V1	29.594	V2	34.901	CLP	-170.14														

PLANETOCENTRIC CONIC

C3	16.094	VHL	4.012	DLA	-23.89	RAL	290.60	RAD	6567.6	VEL	11.725	PTH	2.07	VHP	7.606	DPA	-7.12	RAP	262.91
ECC	1.2649																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 1 34	1302.72	8.05	348.81	150.68	117.24	11 23 17	702.7	11.63	341.97
90.00	15 38 32	5668.84	27.84	267.19	156.73	95.39	17 13 1	5068.8	28.30	258.55
100.00	12 3 25	1103.07	6.38	333.24	149.78	119.26	12 21 48	503.1	10.24	326.57
100.00	17 19 23	5343.71	29.72	243.43	156.90	93.33	18 48 26	4743.7	29.87	234.63
110.00	12 32 59	1010.33	2.62	323.88	147.45	124.10	12 49 50	410.3	7.07	317.63
110.00	19 6 18	5009.22	34.15	218.10	156.97	88.36	20 29 47	4409.2	33.54	208.91

DIFFERENTIAL CORRECTIONS

TDE	.2721	TRA	2.4695	TC3	-5.1490	BAU	1.1091
RDE	.2433	RRA	-.2733	RC3	.2428	FAU	.02582
FDE	.2887	FRA	1.2579	FC3	-1.3888	BSP	18248
BDE	.3650	BRA	2.4845	BC3	5.1547	FSP	-678

MID-COURSE EXECUTION ACCURACY

SGT	5665.5	SGR	583.9	SG3	198.4		
RRT	-.7002	RRF	-.6806	RTF	.9488		
SGB	5695.5	R23	.0177	R13	-.9489		
SG1	5680.3	SG2	415.8	THA	175.85		

ORBIT DETERMINATION ACCURACY

ST	1227.0	SR	370.4	SS	473.2		
CRT	-.0305	CRS	-.2535	CST	-.9580		
LSA	1309.0	MSA	391.1	SSA	19.7		
EL1	1227.1	EL2	370.2	ALF	179.42		

LAUNCH DATE SEP 12 1970 FLIGHT TIME 188.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 544.460

RL	150.56	LAL	.00	LOL	348.82	VL	26.121	GAL	3.92	AZL	90.08	HCA	266.19	SMA	122.81	ECC	.23555	INC	.0822
RP	108.61	LAP	.08	LOP	255.01	VP	36.921	GAP	11.92	AZP	89.99	TAL	167.03	TAP	73.22	RCA	93.88	APO	151.74
RC	163.865	GL	-.52	GP	15.89	ZAL	57.56	ZAP	161.81	ETS	56.58	ZAE	125.91	ETE	168.55	ZAC	118.63	ETC	264.47

V1	29.594	V2	34.890	CLP	-171.04														

PLANETOCENTRIC CONIC

C3	17.501	VHL	4.183	DLA	-22.27	RAL	293.07	RAD	6567.7	VEL	11.785	PTH	2.08	VHP	7.822	DPA	-7.94	RAP	265.04
ECC	1.2880																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 48 16	1403.89	4.85	354.53	153.49	117.93	11 11 40	803.9	8.55	347.80
90.00	16 11 33	5606.18	28.16	262.63	160.19	93.12	17 44 59	5006.2	28.29	253.97
100.00	11 53 30	1193.34	3.36	338.23	152.66	119.72	12 13 24	593.3	7.29	331.65
100.00	17 49 0	5291.96	29.87	239.59	160.26	91.31	19 17 12	4692.0	29.73	230.79
110.00	12 28 26	1083.82	-.19	327.71	150.45	124.18	12 46 30	483.8	4.29	321.50
110.00	19 30 33	4974.25	34.05	215.37	160.18	86.74	20 53 27	4374.2	33.22	206.23

DIFFERENTIAL CORRECTIONS

TDE	.4327	TRA	2.7261	TC3	-4.7598	BAU	1.1148
RDE	.2483	RRA	-.2868	RC3	.2142	FAU	.02384
FDE	.3378	FRA	1.3036	FC3	-1.1792	BSP	18370
BDE	.4989	BRA	2.7412	BC3	4.7647	FSP	-655

MID-COURSE EXECUTION ACCURACY

SGT	5700.0	SGR	572.8	SG3	191.4		
RRT	-.6816	RRF	-.6608	RTF	.9491		
SGB	5728.7	R23	.0141	R13	-.9492		
SG1	5713.5	SG2	418.1	THA	176.06		

ORBIT DETERMINATION ACCURACY

ST	1353.0	SR	363.2	SS	501.2		
CRT	.0952	CRS	-.3099	CST	-.9751		
LSA	1439.8	MSA	374.8	SSA	18.8		
EL1	1353.5	EL2	361.4	ALF	1.58		

LAUNCH DATE SEP 12 1970 FLIGHT TIME 190.00 ARRIVAL DATE MAR 21 1971

HELIOCENTRIC CONIC DISTANCE 549.977

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RL  150.56 LAL    .00 LOL 348.82 VL  26.081 GAL   4.49 AZL  89.89 HCA 269.36 SMA 122.57 ECC .24071 INC  .1042 V1  29.594
RP  108.65 LAP   -.11 LOP 258.19 VP  36.882 GAP  12.33 AZP  90.00 TAL 165.51 TAP  74.88 RCA  93.07 APO 152.08 V2  34.880
RC 165.932 GL     .63 GP   15.35 ZAL  55.17 ZAP 162.71 ETS  58.39 ZAE 125.89 ETE 168.93 ZAC 118.16 ETC 265.08 CLP-171.94
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PLANETOCENTRIC CONIC

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C3  19.128 VHL  4.374 DLA -20.76 RAL 295.40 RAD 6567.8 VEL 11.854 PTH   2.10 VHP  8.052 DPA  -8.67 RAP 267.21 ECC 1.3148
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 38 29	1493.74	1.97	359.56	156.44	118.25	11 3 23	893.7	5.73	352.90
90.00	16 39 55	5557.91	28.29	259.10	163.57	91.36	18 12 33	4957.9	28.18	250.44
100.00	11 46 3	1275.67	.57	342.75	155.66	119.89	12 7 19	675.7	4.54	336.21
100.00	18 15 2	5251.22	29.89	236.56	163.59	89.72	19 42 33	4651.2	29.53	227.77
110.00	12 25 4	1153.38	-2.85	331.34	153.53	124.08	12 44 18	553.4	1.64	325.14
110.00	19 52 30	4946.28	33.92	213.20	163.39	85.46	21 14 56	4346.3	32.92	204.10

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .5947 TRA 2.9942 TC3-4.3737 BAU 1.1195   SGT 5730.6 SGR  561.8 SG3  184.7     ST  1484.6 SR   356.8 SS   526.1
 RDE  .2547 RRA -.3003 RC3  .1884 FAU .02196   RRT -.6634 RRF -.6418 RTF  .9498     CRT  .1899 CRS -.3533 CST -.9849
 FDE  .3819 FRA 1.3476 FC3 -.9941 BSP  18506   SGB 5758.1 R23  .0111 R13 -.9498     LSA 1574.5 MSA  358.6 SSA   17.9
 BDE  .6470 BRA 3.0092 BC3 4.3778 FSP   -634   SGI 5742.8 SG2  419.5 THA 176.26     ELI 1486.2 EL2  349.9 ALF   2.77
```

LAUNCH DATE SEP 12 1970 FLIGHT TIME 192.00 ARRIVAL DATE MAR 23 1971

HELIOCENTRIC CONIC DISTANCE 555.444

```
RL  150.56 LAL    .00 LOL 348.82 VL  26.040 GAL   5.08 AZL  89.71 HCA 272.53 SMA 122.34 ECC .24630 INC  .2928 V1  29.594
RP  108.68 LAP   -.29 LOP 261.36 VP  36.844 GAP  12.76 AZP  89.99 TAL 164.00 TAP  76.53 RCA  92.20 APO 152.47 V2  34.869
RC 167.985 GL    1.66 GP   14.86 ZAL  52.91 ZAP 163.54 ETS  60.43 ZAE 125.85 ETE 169.28 ZAC 117.71 ETC 265.70 CLP-172.83
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PLANETOCENTRIC CONIC

```
C3  21.000 VHL  4.583 DLA -19.33 RAL 297.60 RAD 6567.9 VEL 11.932 PTH   2.12 VHP  8.299 DPA  -9.32 RAP 269.41 ECC 1.3456
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 31 0	1575.94	-.68	4.14	159.49	118.31	10 57 16	975.9	3.11	357.51
90.00	17 4 55	5520.20	28.32	256.35	166.93	89.98	18 36 55	4920.2	28.01	247.69
100.00	11 40 19	1352.24	-2.03	346.95	158.74	119.83	12 2 51	752.2	1.96	340.43
100.00	18 38 17	5219.13	29.86	234.17	166.90	88.46	20 5 16	4619.1	29.32	225.41
110.00	12 22 36	1219.76	-5.37	334.82	156.66	123.81	12 42 55	619.8	-.90	328.60
110.00	20 12 30	4924.38	33.79	211.50	166.62	84.47	21 34 34	4324.4	32.65	202.45

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .7611 TRA 3.2760 TC3-3.9920 BAU 1.1217   SGT 5756.2 SGR  550.5 SG3  178.2     ST  1616.6 SR   350.7 SS   549.0
 RDE  .2621 RRA -.3138 RC3  .1645 FAU .02012   RRT -.6453 RRF -.6233 RTF  .9504     CRT  .2626 CRS -.3884 CST -.9906
 FDE  .4231 FRA 1.3913 FC3 -.8293 BSP  18609   SGB 5782.5 R23  .0087 R13 -.9505     LSA 1708.6 MSA  343.5 SSA   17.1
 BDE  .8050 BRA 3.2910 BC3 3.9954 FSP   -612   SGI 5767.2 SG2  419.7 THA 176.45     ELI 1619.3 EL2  337.8 ALF   3.41
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LAUNCH DATE SEP 12 1970 FLIGHT TIME 194.00 ARRIVAL DATE MAR 25 1971

HELIOCENTRIC CONIC DISTANCE 560.854

```
RL  150.56 LAL    .00 LOL 348.82 VL  26.000 GAL   5.71 AZL  89.52 HCA 275.70 SMA 122.10 ECC .25237 INC  .4818 V1  29.594
RP  108.71 LAP   -.48 LOP 264.53 VP  36.806 GAP  13.22 AZP  89.95 TAL 162.49 TAP  78.19 RCA  91.29 APO 152.92 V2  34.859
RC 170.025 GL    2.59 GP   14.40 ZAL  50.76 ZAP 164.31 ETS  62.72 ZAE 125.81 ETE 169.60 ZAC 117.28 ETC 266.32 CLP-173.71
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PLANETOCENTRIC CONIC

```
C3  23.152 VHL  4.812 DLA -18.00 RAL 299.67 RAD 6567.9 VEL 12.022 PTH   2.15 VHP  8.563 DPA  -9.90 RAP 271.63 ECC 1.3810
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 25 8	1652.49	-3.15	8.41	162.62	118.16	10 52 41	1052.5	.64	1.78
90.00	17 27 16	5490.85	28.30	254.20	170.26	88.90	18 58 47	4890.8	27.85	245.56
100.00	11 35 50	1424.35	-4.46	350.92	161.89	119.59	11 59 35	824.4	-.49	344.38
100.00	18 59 16	5194.21	29.80	232.32	170.21	87.49	20 25 50	4594.2	29.13	223.58
110.00	12 20 48	1283.48	-7.78	338.20	159.85	123.39	12 42 11	683.5	-3.33	331.93
110.00	20 30 47	4907.85	33.67	210.23	169.86	83.72	21 52 35	4307.8	32.44	201.21

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .9305 TRA 3.5713 TC3-3.6234 BAU 1.1224   SGT 5777.5 SGR  538.8 SG3  172.0     ST  1743.0 SR   344.8 SS   569.4
 RDE  .2705 RRA -.3270 RC3  .1429 FAU .01836   RRT -.6275 RRF -.6053 RTF  .9513     CRT  .3190 CRS -.4170 CST -.9940
 FDE  .4612 FRA 1.4343 FC3 -.6864 BSP  18724   SGB 5802.6 R23  .0067 R13 -.9514     LSA 1836.3 MSA  330.0 SSA   16.3
 BDE  .9691 BRA 3.5862 BC3 3.6262 FSP   -592   SGI 5787.5 SG2  418.8 THA 176.63     ELI 1746.6 EL2  326.1 ALF   3.74
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LAUNCH DATE SEP 12 1970 FLIGHT TIME 196.00 ARRIVAL DATE MAR 27 1971

HELIOCENTRIC CONIC DISTANCE 566.200

```
RL  150.56 LAL    .00 LOL 348.82 VL  25.961 GAL   6.37 AZL  89.33 HCA 278.87 SMA 121.87 ECC .25897 INC  .6728 V1  29.594
RP  108.74 LAP   -.66 LOP 267.70 VP  36.770 GAP  13.70 AZP  89.90 TAL 160.99 TAP  79.86 RCA  90.31 APO 153.43 V2  34.850
RC 172.049 GL    3.43 GP   13.99 ZAL  48.73 ZAP 165.02 ETS  65.27 ZAE 125.77 ETE 169.89 ZAC 116.87 ETC 266.94 CLP-174.59
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PLANETOCENTRIC CONIC

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C3  25.619 VHL  5.062 DLA -16.76 RAL 301.61 RAD 6568.0 VEL 12.124 PTH   2.17 VHP  8.847 DPA -10.40 RAP 273.87 ECC 1.4216
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 20 29	1724.63	-5.46	12.46	165.80	117.83	10 49 14	1124.6	-1.69	5.81
90.00	17 47 27	5468.43	28.26	252.56	173.59	88.08	19 18 35	4868.4	27.69	243.94
100.00	11 32 19	1492.88	-6.75	354.72	165.09	119.19	11 57 12	892.9	-2.81	348.15
100.00	19 18 19	5175.41	29.73	230.93	173.51	86.76	20 44 34	4575.4	28.97	222.21
110.00	12 19 32	1344.95	-10.06	341.49	163.08	122.84	12 41 57	744.9	-5.67	335.16
110.00	20 47 35	4896.11	33.58	209.32	173.11	83.19	22 9 11	4296.1	32.27	200.33

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.1032 TRA 3.8808 TC3-3.2704 BAU 1.1209   SGT 5793.8 SGR  526.7 SG3  166.0     ST  1861.1 SR   339.1 SS   587.3
 RDE  .2800 RRA -.3398 RC3  .1233 FAU .01667   RRT -.6096 RRF -.5877 RTF  .9525     CRT  .3638 CRS -.4409 CST -.9960
 FDE  .4963 FRA 1.4771 FC3 -.5634 BSP  18841   SGB 5817.7 R23  .0050 R13 -.9525     LSA 1955.1 MSA  317.8 SSA   15.7
 BDE 1.1382 BRA 3.8957 BC3 3.2727 FSP   -573   SGI 5802.7 SG2  416.8 THA 176.81     ELI 1865.3 EL2  315.2 ALF   3.90
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LAUNCH DATE SEP 12 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAR 29 1971

HELIOCENTRIC CONIC DISTANCE 571.473

RL	150.56	LAL	.00	LOL	348.82	VL	25.922	GAL	7.08	AZL	89.13	HCA	282.04	SMA	121.64	ECC	.26615	INC	.8669
RP	108.77	LAP	-.85	LOP	270.86	VP	36.734	GAP	14.22	AZP	89.82	TAL	159.50	TAP	81.54	RCA	89.27	APO	154.02
RC	174.060	GL	4.19	GP	13.61	ZAL	46.81	ZAP	165.67	ETS	68.11	ZAE	125.71	ETE	170.16	ZAC	116.47	ETC	267.56

V1	29.594	V2	34.841	CLP	-175.47														

PLANETOCENTRIC CONIC

C3	28.450	VHL	5.334	DLA	-15.60	RAL	303.44	RAD	6568.1	VEL	12.240	PTH	2.20	VHP	9.152	DPA	-10.83	RAP	276.12
ECC	1.4682																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 16 46	1793.18	-7.62	16.34	169.03	117.36	10 46 39	1193.2	-3.89	9.64
90.00	18 5 46	5451.95	28.21	251.36	176.91	87.48	19 36 38	4852.0	27.57	242.75
100.00	11 29 32	1558.41	-8.91	358.38	168.33	118.65	11 55 30	958.4	-5.02	351.76
100.00	19 35 42	5161.95	29.68	229.93	176.81	86.24	21 1 44	4561.9	28.84	221.23
110.00	12 18 41	1404.43	-12.24	344.72	166.35	122.17	12 42 5	804.4	-7.91	338.30
110.00	21 3 2	4888.69	33.52	208.75	176.38	82.86	22 24 30	4288.7	32.17	199.78

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.2801	TRA	4.2058	TC3	-2.9354	BAU	1.1172	SGT	5805.1	SGR	513.8	SG3	160.1	ST	1969.8	SR	333.5	SS	603.2
RDE	.2904	RRA	-.3519	RC3	.1055	FAU	.01506	RRT	-.5915	RRF	-.5701	RTF	.9539	CRT	.4004	CRS	-.4615	CST	-.9974
FDE	.5291	FRA	1.5199	FC3	-.4583	BSP	18968	SGB	5827.8	R23	.0037	R13	-.9539	LSA	2064.2	MSA	306.6	SSA	15.0
BDE	1.3127	BRA	4.2205	BC3	2.9373	FSP	-555	SG1	5813.0	SG2	413.7	THA	176.99	EL1	1974.4	EL2	304.9	ALF	3.97

LAUNCH DATE SEP 12 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAR 31 1971

HELIOCENTRIC CONIC DISTANCE 576.662

RL	150.56	LAL	.00	LOL	348.82	VL	25.883	GAL	7.83	AZL	88.93	HCA	285.20	SMA	121.42	ECC	.27399	INC	1.0656
RP	108.79	LAP	-1.03	LOP	274.03	VP	36.698	GAP	14.77	AZP	89.72	TAL	158.03	TAP	83.23	RCA	88.15	APO	154.69
RC	176.055	GL	4.86	GP	13.26	ZAL	45.01	ZAP	166.25	ETS	71.24	ZAE	125.64	ETE	170.42	ZAC	116.08	ETC	268.17

V1	29.594	V2	34.833	CLP	-176.35														

PLANETOCENTRIC CONIC

C3	31.699	VHL	5.630	DLA	-14.53	RAL	305.16	RAD	6568.3	VEL	12.372	PTH	2.23	VHP	9.482	DPA	-11.19	RAP	278.39
EEC	1.5217																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 13 46	1858.71	-9.65	20.08	172.30	116.75	10 44 45	1258.7	-5.98	13.32
90.00	18 22 29	5440.63	28.18	250.53	180.22	87.07	19 53 9	4840.6	27.47	241.94
100.00	11 27 20	1621.38	-10.95	1.95	171.61	117.99	11 54 21	1021.4	-7.12	355.26
100.00	19 51 36	5153.20	29.64	229.29	180.12	85.90	21 17 29	4553.2	28.75	220.59
110.00	12 18 10	1462.15	-14.31	347.91	169.65	121.38	12 42 32	862.1	-10.05	341.40
110.00	21 17 16	4885.19	33.49	208.48	179.67	82.70	22 38 41	4285.2	32.12	199.52

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.4613	TRA	4.5470	TC3	-2.6202	BAU	1.1111	SGT	5810.8	SGR	500.2	SG3	154.5	ST	2067.8	SR	327.8	SS	617.3
RDE	.3018	RRA	-.3631	RC3	.0895	FAU	.01352	RRT	-.5730	RRF	-.5524	RTF	.9555	CRT	.4312	CRS	-.4798	CST	-.9982
FDE	.5599	FRA	1.5630	FC3	-.3691	BSP	19123	SGB	5832.3	R23	.0027	R13	-.9555	LSA	2162.5	MSA	296.3	SSA	14.5
BDE	1.4921	BRA	4.5615	BC3	2.6217	FSP	-539	SG1	5817.9	SG2	409.5	THA	177.16	EL1	2072.7	EL2	295.1	ALF	3.99

LAUNCH DATE SEP 12 1970 FLIGHT TIME 202.00 ARRIVAL DATE APR 2 1971

HELIOCENTRIC CONIC DISTANCE 581.755

RL	150.56	LAL	.00	LOL	348.82	VL	25.845	GAL	8.62	AZL	88.73	HCA	288.37	SMA	121.20	ECC	.28255	INC	1.2703
RP	108.82	LAP	-1.21	LOP	277.19	VP	36.664	GAP	15.36	AZP	89.60	TAL	156.58	TAP	84.95	RCA	86.95	APO	155.45
RC	178.036	GL	5.46	GP	12.95	ZAL	43.32	ZAP	166.77	ETS	74.69	ZAE	125.55	ETE	170.65	ZAC	115.69	ETC	268.79

V1	29.594	V2	34.825	CLP	-177.24														

PLANETOCENTRIC CONIC

C3	35.432	VHL	5.953	DLA	-13.53	RAL	306.77	RAD	6568.4	VEL	12.522	PTH	2.27	VHP	9.838	DPA	-11.48	RAP	280.66
ECC	1.5831																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 11 21	1921.63	-11.55	23.72	175.60	116.03	10 43 23	1321.6	-7.96	16.89
90.00	18 37 46	5433.86	28.15	250.04	183.53	86.82	20 8 20	4833.9	27.41	241.45
100.00	11 25 36	1682.08	-12.86	5.44	174.92	117.22	11 53 38	1082.1	-9.11	358.66
100.00	20 6 12	5148.65	29.61	228.95	183.42	85.72	21 32 1	4548.6	28.71	220.26
110.00	12 17 55	1518.25	-16.27	351.07	172.98	120.48	12 43 13	918.3	-12.11	344.44
110.00	21 30 23	4885.24	33.49	208.49	182.96	82.71	22 51 48	4285.2	32.12	199.52

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.6481	TRA	4.9069	TC3	-2.3246	BAU	1.1018	SGT	5811.7	SGR	485.9	SG3	149.1	ST	2155.8	SR	322.1	SS	630.4
RDE	.3141	RRA	-.3734	RC3	.0751	FAU	.01203	RRT	-.5537	RRF	-.5344	RTF	.9573	CRT	.4578	CRS	-.4966	CST	-.9988
FDE	.5895	FRA	1.6074	FC3	-.2939	BSP	19288	SGB	5832.0	R23	.0020	R13	-.9573	LSA	2250.9	MSA	286.5	SSA	13.9
BDE	1.6778	BRA	4.9211	BC3	2.3259	FSP	-524	SG1	5817.9	SG2	404.1	THA	177.34	EL1	2160.9	EL2	285.7	ALF	3.98

LAUNCH DATE SEP 12 1970 FLIGHT TIME 204.00 ARRIVAL DATE APR 4 1971

HELIOCENTRIC CONIC DISTANCE 586.734

RL	150.56	LAL	.00	LOL	348.82	VL	25.807	GAL	9.47	AZL	88.52	HCA	291.53	SMA	120.99	ECC	.29193	INC	1.4825
RP	108.84	LAP	-1.38	LOP	280.36	VP	36.631	GAP	15.99	AZP	89.46	TAL	155.16	TAP	86.69	RCA	85.67	APO	156.30
RC	180.002	GL	6.00	GP	12.65	ZAL	41.74	ZAP	167.21	ETS	78.45	ZAE	125.45	ETE	170.87	ZAC	115.32	ETC	269.39

V1	29.594	V2	34.818	CLP	-178.14														

PLANETOCENTRIC CONIC

C3	39.731	VHL	6.303	DLA	-12.61	RAL	308.28	RAD	6568.5	VEL	12.692	PTH	2.31	VHP	10.224	DPA	-11.71	RAP	282.92
ECC	1.6539																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 9 24	1982.21	-13.34	27.28	178.91	115.21	10 42 27	1382.2	-9.83	20.35
90.00	18 51 46	5431.14	28.14	249.84	186.83	86.72	20 22 17	4831.1	27.39	241.25
100.00	11 24 15	1740.73	-14.66	8.86	178.26	116.34	11 53 16	1140.7	-11.00	1.98
100.00	20 19 36	5147.86	29.61	228.89	186.72	85.69	21 45 24	4547.9	28.70	220.21
110.00	12 17 52	1572.84	-18.13	354.21	176.34	119.49	12 44 4	972.8	-14.07	347.46
110.00	21 42 29	4888.51	33.52	208.74	186.26	82.85	23 3 58	4288.5	32.17	199.77

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.8417	TRA	5.2877	TC3	-2.0485	BAU	1.0886	SGT	5807.7	SGR	470.6	SG3	143.8	ST	2234.3	SR	316.2	SS	642.7
RDE	.3274	RRA	-.3823	RC3	.0622	FAU	.01058	RRT	-.5335	RRF	-.5155	RTF	.9594	CRT	.4815	CRS	-.5124	CST	-.9991
FDE	.6183	FRA	1.6533	FC3	-.2306	BSP	19450	SGB	5826.7	R23	.0015	R13	-.9594	LSA	2329.8	MSA	277.0	SSA	13.4
BDE	1.8706	BRA	5.3015	BC3	2.0494	FSP	-510	SG1	5813.2	SG2	397.7	THA	177.51	EL1	2239.5	EL2	276.5	ALF	3.96

LAUNCH DATE SEP 12 1970 FLIGHT TIME 206.00 ARRIVAL DATE APR 6 1971

HELIOCENTRIC CONIC DISTANCE 591.582

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RL  150.56 LAL    .00 LOL 348.82 VL  25.770 GAL  10.39 AZL  88.30 HCA 294.69 SMA 120.77 ECC .30223 INC 1.7040 V1  29.594
RP  108.86 LAP  -1.55 LOP 283.52 VP  36.599 GAP  16.68 AZP  89.29 TAL 153.77 TAP  88.46 RCA  84.27 APO 157.28 V2  34.812
RC 181.954 GL    6.47 GP   12.38 ZAL  40.26 ZAP 167.58 ETS  82.54 ZAE 125.33 ETE 171.08 ZAC 114.94 ETC 270.00 CLP-179.05
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PLANETOCENTRIC CONIC

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C3  44.694 VHL  6.685 DLA -11.76 RAL 309.70 RAD 6568.7 VEL 12.886 PTH   2.35 VHP 10.645 DPA -11.88 RAP 285.18 ECC 1.7355
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 7 50	2040.66	-15.00	30.76	182.25	114.30	10 41 51	1440.7	-11.60	23.74
90.00	19 4 35	5432.05	28.15	249.90	190.12	86.75	20 35 7	4832.0	27.40	241.32
100.00	11 23 13	1797.47	-16.35	12.24	181.60	115.38	11 53 10	1197.5	-12.80	5.24
100.00	20 31 54	5150.47	29.62	229.08	190.01	85.79	21 57 44	4550.5	28.72	220.39
110.00	12 17 58	1625.99	-19.88	357.34	179.72	118.40	12 45 4	1026.0	-15.94	350.44
110.00	21 53 38	4894.71	33.57	209.21	189.56	83.13	23 15 13	4294.7	32.25	200.23

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 2.0447 TRA 5.6928 TC3-1.7901 BAU 1.0700   SGT 5799.6 SGR  454.5 SG3  138.9     ST  2304.6 SR   310.0 SS   655.3
 RDE  .3414 RRA -.3897 RC3  .0506 FAU .00915   RRT -.5118 RRF -.4954 RTF  .9616     CRT  .5034 CRS -.5278 CST -.9994
 FDE  .6473 FRA 1.7021 FC3 -.1772 BSP  19579   SGB 5817.4 R23  .0012 R13 -.9616     LSA 2401.0 MSA  267.6 SSA   12.9
 BDE 2.0730 BRA 5.7062 BC3 1.7908 FSP   -495   SG1 5804.3 SG2  390.1 THA 177.69     EL1 2310.0 EL2  267.2 ALF   3.93
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LAUNCH DATE SEP 12 1970 FLIGHT TIME 208.00 ARRIVAL DATE APR 8 1971

HELIOCENTRIC CONIC DISTANCE 596.273

```
RL  150.56 LAL    .00 LOL 348.82 VL  25.733 GAL  11.37 AZL  88.06 HCA 297.85 SMA 120.57 ECC .31356 INC 1.9370 V1  29.594
RP  108.87 LAP  -1.71 LOP 286.68 VP  36.568 GAP  17.43 AZP  89.09 TAL 152.42 TAP  90.27 RCA  82.76 APO 158.37 V2  34.806
RC 183.891 GL    6.90 GP   12.13 ZAL  38.89 ZAP 167.86 ETS  86.93 ZAE 125.19 ETE 171.29 ZAC 114.56 ETC 270.59 CLP-179.98
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PLANETOCENTRIC CONIC

```
C3  50.442 VHL  7.102 DLA -10.97 RAL 311.01 RAD 6568.9 VEL 13.107 PTH   2.39 VHP 11.105 DPA -12.00 RAP 287.43 ECC 1.8301
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 6 34	2097.09	-16.56	34.18	185.58	113.31	10 41 32	1497.1	-13.26	27.05
90.00	19 16 20	5436.20	28.16	250.21	193.38	86.90	20 46 56	4836.2	27.43	241.62
100.00	11 22 25	1852.41	-17.92	15.56	184.95	114.33	11 53 17	1252.4	-14.48	8.45
100.00	20 43 10	5156.12	29.65	229.50	193.28	86.01	22 9 7	4556.1	28.78	220.81
110.00	12 18 12	1677.72	-21.53	.45	183.10	117.22	12 46 10	1077.7	-17.71	353.41
110.00	22 3 53	4903.57	33.64	209.90	192.85	83.53	23 25 37	4303.6	32.38	200.89

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 2.2540 TRA 6.1257 TC3-1.5495 BAU 1.0453   SGT 5787.0 SGR  437.5 SG3  134.2     ST  2364.6 SR   303.6 SS   668.3
 RDE  .3564 RRA -.3952 RC3  .0403 FAU .00771   RRT -.4889 RRF -.4738 RTF  .9640     CRT  .5232 CRS -.5431 CST -.9995
 FDE  .6768 FRA 1.7542 FC3 -.1324 BSP  19685   SGB 5803.5 R23  .0005 R13 -.9640     LSA 2462.4 MSA  258.3 SSA   12.4
 BDE 2.2820 BRA 6.1384 BC3 1.5500 FSP   -480   SG1 5791.0 SG2  381.4 THA 177.87     EL1 2370.0 EL2  258.1 ALF   3.89
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LAUNCH DATE SEP 12 1970 FLIGHT TIME 210.00 ARRIVAL DATE APR 10 1971

HELIOCENTRIC CONIC DISTANCE 600.779

```
RL  150.56 LAL    .00 LOL 348.82 VL  25.698 GAL  12.43 AZL  87.82 HCA 301.00 SMA 120.37 ECC .32607 INC 2.1839 V1  29.594
RP  108.89 LAP  -1.87 LOP 289.85 VP  36.538 GAP  18.25 AZP  88.87 TAL 151.13 TAP  92.13 RCA  81.12 APO 159.62 V2  34.801
RC 185.813 GL    7.27 GP   11.91 ZAL  37.62 ZAP 168.06 ETS  91.60 ZAE 125.02 ETE 171.48 ZAC 114.19 ETC 271.17 CLP 179.07
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PLANETOCENTRIC CONIC

```
C3  57.126 VHL  7.558 DLA -10.26 RAL 312.23 RAD 6569.0 VEL 13.360 PTH   2.44 VHP 11.610 DPA -12.06 RAP 289.65 ECC 1.9401
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 5 34	2151.57	-17.99	37.53	188.91	112.24	10 41 25	1551.6	-14.82	30.29
90.00	19 27 3	5443.26	28.19	250.72	196.61	87.16	20 57 47	4843.3	27.49	242.12
100.00	11 21 49	1905.55	-19.38	18.83	188.30	113.22	11 53 35	1305.5	-16.07	11.60
100.00	20 53 29	5164.51	29.69	230.12	196.52	86.34	22 19 34	4564.5	28.86	221.42
110.00	12 18 31	1728.01	-23.06	3.55	186.49	115.96	12 47 19	1128.0	-19.38	356.35
110.00	22 13 17	4914.82	33.72	210.76	196.12	84.03	23 35 12	4314.8	32.53	201.73

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 2.4851 TRA 6.5892 TC3-1.3252 BAU 1.0124   SGT 5773.2 SGR  419.7 SG3  129.7     ST  2423.1 SR   297.0 SS   682.5
 RDE  .3724 RRA -.3984 RC3  .0311 FAU .00624   RRT -.4624 RRF -.4498 RTF  .9666     CRT  .5441 CRS -.5589 CST -.9997
 FDE  .7077 FRA 1.8107 FC3 -.0945 BSP  19710   SGB 5788.4 R23  .0010 R13 -.9666     LSA 2522.6 MSA  248.7 SSA   11.9
 BDE 2.5128 BRA 6.6013 BC3 1.3256 FSP   -464   SG1 5776.4 SG2  371.9 THA 178.07     EL1 2428.6 EL2  248.6 ALF   3.86
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LAUNCH DATE SEP 12 1970 FLIGHT TIME 212.00 ARRIVAL DATE APR 12 1971

HELIOCENTRIC CONIC DISTANCE 605.062

```
RL  150.56 LAL    .00 LOL 348.82 VL  25.663 GAL  13.58 AZL  87.55 HCA 304.16 SMA 120.17 ECC .33991 INC 2.4477 V1  29.594
RP  108.90 LAP  -2.03 LOP 293.01 VP  36.509 GAP  19.16 AZP  88.62 TAL 149.89 TAP  94.05 RCA  79.33 APO 161.02 V2  34.797
RC 187.719 GL    7.60 GP   11.69 ZAL  36.45 ZAP 168.15 ETS  96.53 ZAE 124.82 ETE 171.67 ZAC 113.82 ETC 271.75 CLP 178.09
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PLANETOCENTRIC CONIC

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C3  64.933 VHL  8.058 DLA  -9.60 RAL 313.35 RAD 6569.2 VEL 13.649 PTH   2.49 VHP 12.166 DPA -12.07 RAP 291.85 ECC 2.0686
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 4 46	2204.08	-19.31	40.82	192.22	111.12	10 41 30	1604.1	-16.27	33.46
90.00	19 36 48	5452.95	28.22	251.43	199.80	87.51	21 7 41	4853.0	27.57	242.82
100.00	11 21 23	1956.89	-20.72	22.05	191.62	112.04	11 54 0	1356.9	-17.55	14.69
100.00	21 2 52	5175.38	29.73	230.93	199.72	86.76	22 29 7	4575.4	28.97	222.21
110.00	12 18 53	1776.81	-24.48	6.63	189.87	114.64	12 48 30	1176.8	-20.95	359.26
110.00	22 21 51	4928.22	33.81	211.80	199.36	84.64	23 43 59	4328.2	32.70	202.74

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 2.7272 TRA 7.0886 TC3-1.1171 BAU  .9699   SGT 5756.1 SGR  401.1 SG3  125.5     ST  2472.8 SR   290.1 SS   698.3
 RDE  .3896 RRA -.3989 RC3  .0232 FAU .00472   RRT -.4334 RRF -.4228 RTF  .9693     CRT  .5641 CRS -.5753 CST -.9998
 FDE  .7404 FRA 1.8724 FC3 -.0629 BSP  19659   SGB 5770.0 R23  .0011 R13 -.9693     LSA 2574.7 MSA  239.1 SSA   11.4
 BDE 2.7548 BRA 7.0998 BC3 1.1173 FSP   -446   SG1 5758.7 SG2  361.3 THA 178.26     EL1 2478.3 EL2  239.0 ALF   3.82
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LAUNCH DATE SEP 12 1970 FLIGHT TIME 214.00 ARRIVAL DATE APR 14 1971

HELIOCENTRIC CONIC DISTANCE 609.075

RL	150.56	LAL	.00	LOL	348.82	VL	25.629	GAL	14.83	AZL	87.27	HCA	307.32	SMA	119.98	ECC	.35527	INC	2.7319
RP	108.92	LAP	-2.17	LOP	296.17	VP	36.482	GAP	20.15	AZP	88.34	TAL	148.73	TAP	96.05	RCA	77.36	APO	162.61
RC	189.610	GL	7.88	GP	11.50	ZAL	35.39	ZAP	168.14	ETS	101.65	ZAE	124.58	ETE	171.86	ZAC	113.45	ETC	272.30

V1	29.594	V2	34.793	CLP	177.07														

PLANETOCENTRIC CONIC

C3	74.099	VHL	8.608	DLA	-9.01	RAL	314.37	RAD	6569.4	VEL	13.980	PTH	2.55	VHP	12.782	DPA	-12.03	RAP	294.01
ECC	2.2195																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 4 7	2254.58	-20.52	44.03	195.48	109.95	10 41 42	1654.6	-17.62	36.56
90.00	19 45 36	5465.00	28.25	252.31	202.94	87.96	21 16 41	4865.0	27.67	243.69
100.00	11 21 4	2006.35	-21.95	25.21	194.91	110.81	11 54 30	1406.3	-18.93	17.72
100.00	21 11 21	5188.47	29.78	231.90	202.87	87.27	22 37 49	4588.5	29.08	223.16
110.00	12 19 18	1824.02	-25.78	9.68	193.21	113.26	12 49 42	1224.0	-22.41	2.14
110.00	22 29 36	4943.57	33.90	212.99	202.55	85.34	23 52 0	4343.6	32.89	203.90

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.9876	TRA	7.6289	TC3	-.9241	BAU	.9156	SGT	5737.4	SGR	381.8	SG3	121.6	ST	2517.1	SR	283.2	SS	716.1
RDE	.4081	RRA	-.3960	RC3	.0164	FAU	.00311	RRT	-.4003	RRF	-.3918	RTF	.9721	CRT	.5845	CRS	-.5926	CST	-.9998
FDE	.7756	FRA	1.9406	FC3	-.0363	BSP	19505	SGB	5750.1	R23	.0013	R13	-.9721	LSA	2622.2	MSA	229.3	SSA	11.0
BDE	3.0153	BRA	7.6391	BC3	.9242	FSP	-427	SG1	5739.5	SG2	349.8	THA	178.47	EL1	2522.5	EL2	229.3	ALF	3.79

LAUNCH DATE SEP 12 1970 FLIGHT TIME 216.00 ARRIVAL DATE APR 16 1971

HELIOCENTRIC CONIC DISTANCE 612.758

RL	150.56	LAL	.00	LOL	348.82	VL	25.596	GAL	16.21	AZL	86.96	HCA	310.47	SMA	119.80	ECC	.37239	INC	3.0409
RP	108.93	LAP	-2.31	LOP	299.33	VP	36.456	GAP	21.26	AZP	88.03	TAL	147.66	TAP	98.13	RCA	75.19	APO	164.42
RC	191.483	GL	8.13	GP	11.32	ZAL	34.44	ZAP	168.01	ETS	106.90	ZAE	124.29	ETE	172.06	ZAC	113.08	ETC	272.84

V1	29.594	V2	34.790	CLP	176.01														

PLANETOCENTRIC CONIC

C3	84.925	VHL	9.215	DLA	-8.48	RAL	315.29	RAD	6569.7	VEL	14.362	PTH	2.61	VHP	13.466	DPA	-11.96	RAP	296.12
ECC	2.3976																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 3 37	2302.96	-21.61	47.16	198.68	108.76	10 42 0	1703.0	-18.85	39.57
90.00	19 53 28	5479.18	28.28	253.35	206.01	88.47	21 24 47	4879.2	27.77	244.72
100.00	11 20 50	2053.82	-23.07	28.29	198.14	109.56	11 55 4	1453.8	-20.19	20.68
100.00	21 18 55	5203.55	29.82	233.02	205.95	87.85	22 45 39	4603.6	29.21	224.27
110.00	12 19 42	1869.50	-26.97	12.68	196.51	111.84	12 50 52	1269.5	-23.77	4.98
110.00	22 36 33	4960.63	33.99	214.31	205.69	86.12	23 59 14	4360.6	33.08	205.19

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	3.2689	TRA	8.2153	TC3	-.7459	BAU	.8469	SGT	5717.5	SGR	362.0	SG3	117.9	ST	2555.9	SR	276.1	SS	736.5
RDE	.4282	RRA	-.3890	RC3	.0108	FAU	.00138	RRT	-.3619	RRF	-.3556	RTF	.9751	CRT	.6055	CRS	-.6112	CST	-.9999
FDE	.8140	FRA	2.0161	FC3	-.0141	BSP	19223	SGB	5728.9	R23	.0016	R13	-.9751	LSA	2665.1	MSA	219.3	SSA	10.5
BDE	3.2968	BRA	8.2245	BC3	.7459	FSP	-407	SG1	5719.0	SG2	337.4	THA	178.68	EL1	2561.4	EL2	219.3	ALF	3.77

LAUNCH DATE SEP 12 1970 FLIGHT TIME 218.00 ARRIVAL DATE APR 18 1971

HELIOCENTRIC CONIC DISTANCE 616.036

RL	150.56	LAL	.00	LOL	348.82	VL	25.565	GAL	17.72	AZL	86.62	HCA	313.62	SMA	119.63	ECC	.39152	INC	3.3804
RP	108.93	LAP	-2.45	LOP	302.49	VP	36.431	GAP	22.50	AZP	87.67	TAL	146.70	TAP	100.32	RCA	72.79	APO	166.47
RC	193.340	GL	8.35	GP	11.15	ZAL	33.60	ZAP	167.75	ETS	112.21	ZAE	123.94	ETE	172.25	ZAC	112.71	ETC	273.36

V1	29.594	V2	34.788	CLP	174.90														

PLANETOCENTRIC CONIC

C3	97.794	VHL	9.889	DLA	-8.01	RAL	316.11	RAD	6569.9	VEL	14.803	PTH	2.68	VHP	14.231	DPA	-11.85	RAP	298.18
ECC	2.6094																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 3 12	2349.06	-22.59	50.18	201.80	107.55	10 42 21	1749.1	-19.98	42.49
90.00	20 0 23	5495.26	28.30	254.52	208.98	89.06	21 31 58	4895.3	27.87	245.88
100.00	11 20 41	2099.12	-24.07	31.29	201.28	108.28	11 55 40	1499.1	-21.35	23.55
100.00	21 25 36	5220.43	29.86	234.27	208.95	88.51	22 52 36	4620.4	29.33	225.51
110.00	12 20 6	1913.08	-28.04	15.62	199.73	110.40	12 51 59	1313.1	-25.01	7.76
110.00	22 42 40	4979.24	34.07	215.76	208.75	86.97	24 5 39	4379.2	33.27	206.61

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	3.5738	TRA	8.8540	TC3	-.5822	BAU	.7613	SGT	5696.6	SGR	341.9	SG3	114.5	ST	2589.2	SR	269.2	SS	759.8
RDE	.4503	RRA	-.3770	RC3	.0062	FAU	-.00049	RRT	-.3166	RRF	-.3125	RTF	.9780	CRT	.6276	CRS	-.6312	CST	-.9999
FDE	.8559	FRA	2.1005	FC3	.0043	BSP	18813	SGB	5706.8	R23	.0019	R13	-.9780	LSA	2703.7	MSA	209.1	SSA	10.0
BDE	3.6020	BRA	8.8621	BC3	.5823	FSP	-385	SG1	5697.6	SG2	324.2	THA	178.91	EL1	2594.7	EL2	209.1	ALF	3.76

LAUNCH DATE SEP 12 1970 FLIGHT TIME 220.00 ARRIVAL DATE APR 20 1971

HELIOCENTRIC CONIC DISTANCE 618.810

RL	150.56	LAL	.00	LOL	348.82	VL	25.535	GAL	19.39	AZL	86.24	HCA	316.77	SMA	119.46	ECC	.41297	INC	3.7575
RP	108.94	LAP	-2.57	LOP	305.66	VP	36.409	GAP	23.89	AZP	87.26	TAL	145.87	TAP	102.65	RCA	70.13	APO	168.80
RC	195.178	GL	8.53	GP	10.99	ZAL	32.88	ZAP	167.36	ETS	117.52	ZAE	123.53	ETE	172.45	ZAC	112.34	ETC	273.85

V1	29.594	V2	34.786	CLP	173.71														

PLANETOCENTRIC CONIC

C3	113.205	VHL	10.640	DLA	-7.61	RAL	316.81	RAD	6570.1	VEL	15.315	PTH	2.74	VHP	15.090	DPA	-11.71	RAP	300.17
ECC	2.8631																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 2 52	2392.64	-23.45	53.09	204.80	106.34	10 42 44	1792.6	-20.99	45.28
90.00	20 6 19	5513.09	28.32	255.83	211.85	89.72	21 38 12	4913.1	27.98	247.18
100.00	11 20 33	2142.04	-24.96	34.17	204.30	107.01	11 56 15	1542.0	-22.39	26.31
100.00	21 31 19	5238.93	29.88	235.65	211.83	89.24	22 58 38	4638.9	29.46	226.87
110.00	12 20 26	1954.52	-28.99	18.47	202.83	108.96	12 53 0	1354.5	-26.13	10.45
110.00	22 47 55	4999.21	34.13	217.32	211.71	87.89	24 11 14	4399.2	33.46	208.14

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	3.9044	TRA	9.5510	TC3	-.4329	BAU	.6551	SGT	5674.0	SGR	321.6	SG3	111.3	ST	2616.2	SR	262.4	SS	786.5
RDE	.4751	RRA	-.3587	RC3	.0028	FAU	-.00257	RRT	-.2624	RRF	-.2603	RTF	.9810	CRT	.6509	CRS	-.6528	CST	-.9999
FDE	.9020	FRA	2.1949	FC3	.0196	BSP	18263	SGB	5683.1	R23	.0022	R13	-.9810	LSA	2737.2	MSA	198.8	SSA	9.5
BDE	3.9332	BRA	9.5577	BC3	.4329	FSP	-361	SG1	5674.7	SG2	310.3	THA	179.15	EL1	2621.8	EL2	198.8	ALF	3.76

LAUNCH DATE SEP 13 1970 FLIGHT TIME 70.00 ARRIVAL DATE NOV 22 1970

HELIOCENTRIC CONIC DISTANCE 176.538

RL	150.52	LAL	.00	LOL	349.80	VL	25.391	GAL	-6.00	AZL	90.62	HCA	76.43	SMA	118.63	ECC	.28703	INC	.6178	V1	29.602
RP	107.89	LAP	-.60	LOP	66.23	VP	36.624	GAP	-15.87	AZP	90.14	TAL	195.34	TAP	271.78	RCA	84.58	APO	152.68	V2	35.123
RC	42.728	GL	-3.20	GP	-12.33	ZAL	116.71	ZAP	12.33	ETS	85.49	ZAE	154.26	ETE	338.47	ZAC	89.29	ETC	260.97	CLP	-.24

PLANETOCENTRIC CONIC

C3	23.787	VHL	4.877	DLA	-21.63	RAL	229.78	RAD	6568.0	VEL	12.048	PTH	2.15	VHP	10.034	DPA	-32.67	RAP	240.88	ECC	1.3915

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 23 30	1507.13	1.54	.30	94.31	118.28	6 48 37	907.1	5.31	353.65
90.00	12 3 27	5649.44	27.96	265.78	102.31	94.69	13 37 36	5049.4	28.31	257.13
100.00	7 29 48	1293.15	-.03	343.71	93.44	119.89	7 51 21	693.2	3.95	337.18
100.00	13 39 50	5338.64	29.74	243.05	102.45	93.13	15 8 49	4738.6	29.86	234.25
110.00	8 6 33	1177.94	-3.79	332.63	91.09	124.00	8 26 11	577.9	.70	326.42
110.00	15 19 34	5026.62	34.17	219.46	102.55	89.16	16 43 21	4426.6	33.68	210.25

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1536	TRA	-.4641	TC3	.3970	BAU	.1360	SGT	725.6	SGR	445.7	SG3	85.4	ST	252.3	SR	411.4	SS	50.6
RDE	-.3496	RRA	-.0610	RC3	-.1588	FAU	.02742	RRT	-.2749	RRF	.3173	RTF	-.6645	CRT	-.6753	CRS	-.0328	CST	.6789
FDE	-.0038	FRA	.1329	FC3	-.9981	BSP	1965	SGB	851.5	R23	-.0441	R13	.6776	LSA	452.0	MSA	175.1	SSA	22.2
BDE	.3819	BRA	.4681	BC3	.4276	FSP	-201	SG1	740.9	SG2	419.6	THA	165.76	EL1	451.9	EL2	169.4	ALF	116.51

LAUNCH DATE SEP 13 1970 FLIGHT TIME 72.00 ARRIVAL DATE NOV 24 1970

HELIOCENTRIC CONIC DISTANCE 183.329

RL	150.52	LAL	.00	LOL	349.80	VL	25.639	GAL	-6.00	AZL	90.42	HCA	79.65	SMA	119.99	ECC	.27380	INC	.4186	V1	29.602
RP	107.86	LAP	-.41	LOP	69.45	VP	36.808	GAP	-14.82	AZP	90.08	TAL	196.44	TAP	276.09	RCA	87.14	APO	152.84	V2	35.135
RC	43.711	GL	-2.29	GP	-13.07	ZAL	118.40	ZAP	13.28	ETS	76.07	ZAE	152.24	ETE	337.55	ZAC	88.65	ETC	261.16	CLP	-2.40

PLANETOCENTRIC CONIC

C3	21.779	VHL	4.667	DLA	-20.31	RAL	228.30	RAD	6567.9	VEL	11.965	PTH	2.13	VHP	9.458	DPA	-33.64	RAP	241.85	ECC	1.3584

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 1 41	1543.78	.36	2.35	91.04	118.31	6 27 25	943.8	4.14	355.71
90.00	12 13 30	5569.89	28.26	259.98	98.70	91.80	13 46 20	4969.9	28.22	251.31
100.00	7 9 51	1323.84	-1.07	345.39	90.25	119.88	7 31 54	723.8	2.92	338.87
100.00	13 48 2	5265.06	29.89	237.59	98.73	90.26	15 15 47	4665.1	29.61	228.80
110.00	7 49 55	1198.22	-4.56	333.69	88.07	123.91	8 9 54	598.2	-.07	327.48
110.00	15 24 26	4963.44	34.00	214.53	98.59	86.25	16 47 10	4363.4	33.11	205.41

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1460	TRA	-.4451	TC3	.4672	BAU	.1477	SGT	749.6	SGR	454.4	SG3	95.6	ST	250.7	SR	407.8	SS	50.5
RDE	-.3315	RRA	-.0634	RC3	-.1974	FAU	.02951	RRT	-.3080	RRF	.3570	RTF	-.6818	CRT	-.6715	CRS	.4004	CST	.3037
FDE	.0182	FRA	.1207	FC3	-1.1729	BSP	2062	SGB	876.6	R23	-.0517	R13	.6972	LSA	448.0	MSA	174.4	SSA	24.1
BDE	.3623	BRA	.4496	BC3	.5072	FSP	-230	SG1	768.5	SG2	421.7	THA	164.72	EL1	447.9	EL2	169.2	ALF	116.50

LAUNCH DATE SEP 13 1970 FLIGHT TIME 74.00 ARRIVAL DATE NOV 26 1970

HELIOCENTRIC CONIC DISTANCE 190.126

RL	150.52	LAL	.00	LOL	349.80	VL	25.864	GAL	-6.02	AZL	90.22	HCA	82.87	SMA	121.26	ECC	.26186	INC	.2232	V1	29.602
RP	107.82	LAP	-.22	LOP	72.67	VP	36.977	GAP	-13.81	AZP	90.03	TAL	197.58	TAP	280.45	RCA	89.51	APO	153.01	V2	35.146
RC	44.829	GL	-1.28	GP	-13.89	ZAL	120.14	ZAP	14.62	ETS	67.92	ZAE	150.40	ETE	336.49	ZAC	87.92	ETC	261.34	CLP	-4.63

PLANETOCENTRIC CONIC

C3	20.110	VHL	4.484	DLA	-18.88	RAL	226.84	RAD	6567.8	VEL	11.895	PTH	2.11	VHP	8.914	DPA	-34.68	RAP	242.74	ECC	1.3310

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 39 56	1583.68	-.93	4.57	87.98	118.30	6 6 20	983.7	2.86	357.94
90.00	12 23 34	5491.74	28.30	254.26	95.18	88.93	13 55 5	4891.7	27.85	245.63
100.00	6 49 45	1358.41	-2.24	347.29	87.25	119.82	7 12 23	758.4	1.75	340.77
100.00	13 56 26	5192.24	29.79	232.18	95.12	87.41	15 22 58	4592.2	29.11	223.44
110.00	7 32 58	1223.00	-5.50	335.00	85.23	123.79	7 53 21	623.0	-1.02	328.77
110.00	15 29 43	4900.41	33.61	209.65	94.76	83.39	16 51 23	4300.4	32.33	200.65

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1369	TRA	-.4268	TC3	.5402	BAU	.1592	SGT	773.0	SGR	464.6	SG3	107.1	ST	246.4	SR	401.7	SS	62.8
RDE	-.3137	RRA	-.0662	RC3	-.2423	FAU	.03184	RRT	-.3448	RRF	.4010	RTF	-.6976	CRT	-.6623	CRS	.7447	CST	-.1126
FDE	.0459	FRA	.1064	FC3	-1.3709	BSP	2175	SGB	901.8	R23	-.0604	R13	.7157	LSA	441.9	MSA	173.2	SSA	26.3
BDE	.3422	BRA	.4319	BC3	.5920	FSP	-263	SG1	796.3	SG2	423.3	THA	163.51	EL1	440.1	EL2	168.5	ALF	116.24

LAUNCH DATE SEP 13 1970 FLIGHT TIME 76.00 ARRIVAL DATE NOV 28 1970

HELIOCENTRIC CONIC DISTANCE 196.923

RL	150.52	LAL	.00	LOL	349.80	VL	26.068	GAL	-6.04	AZL	90.03	HCA	86.10	SMA	122.44	ECC	.25115	INC	.0280	V1	29.602
RP	107.79	LAP	-.03	LOP	75.89	VP	37.130	GAP	-12.85	AZP	90.00	TAL	198.74	TAP	284.84	RCA	91.69	APO	153.20	V2	35.158
RC	46.073	GL	-.19	GP	-14.79	ZAL	121.87	ZAP	16.30	ETS	61.08	ZAE	148.73	ETE	335.29	ZAC	87.10	ETC	261.51	CLP	-6.93

PLANETOCENTRIC CONIC

C3	18.730	VHL	4.328	DLA	-17.35	RAL	225.41	RAD	6567.8	VEL	11.837	PTH	2.10	VHP	8.400	DPA	-35.78	RAP	243.54	ECC	1.3083

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 18 27	1626.56	-2.32	6.96	85.16	118.23	5 45 33	1026.6	1.48	.34
90.00	12 33 40	5415.21	28.07	248.68	91.81	86.14	14 3 55	4815.2	27.24	240.11
100.00	6 29 45	1396.49	-3.52	349.38	84.49	119.70	6 53 1	796.5	.46	342.86
100.00	14 5 3	5120.51	29.45	226.87	91.68	84.64	15 30 24	4520.5	28.40	218.23
110.00	7 15 54	1251.86	-6.59	336.52	82.59	123.62	7 36 46	651.9	-2.12	330.28
110.00	15 35 23	4837.90	33.02	204.87	91.14	80.61	16 56 1	4237.9	31.37	196.03

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1256	TRA	-.4087	TC3	.6138	BAU	.1704	SGT	794.6	SGR	476.6	SG3	119.9	ST	238.4	SR	392.5	SS	87.1
RDE	-.2956	RRA	-.0695	RC3	-.2938	FAU	.03445	RRT	-.3844	RRF	.4488	RTF	-.7121	CRT	-.6444	CRS	.8992	CST	-.3723
FDE	.0803	FRA	.0900	FC3	-1.5924	BSP	2284	SGB	926.6	R23	-.0702	R13	.7336	LSA	433.9	MSA	171.5	SSA	28.8
BDE	.3212	BRA	.4146	BC3	.6805	FSP	-300	SG1	823.6	SG2	424.5	THA	162.12	EL1	427.7	EL2	167.3	ALF	115.56

LAUNCH DATE SEP 13 1970 FLIGHT TIME 78.00 ARRIVAL DATE NOV 30 1970

HELIOCENTRIC CONIC DISTANCE 203.718

RL	150.52	LAL	.00	LOL	349.80	VL	26.252	GAL	-6.08	AZL	89.84	HCA	89.32	SMA	123.54	ECC	.24158	INC	.1598	V1	29.602
RP	107.76	LAP	.16	LOP	79.12	VP	37.270	GAP	-11.93	AZP	90.00	TAL	199.91	TAP	289.23	RCA	93.70	APO	153.39	V2	35.168
RC	47.431	GL	1.00	GP	-15.80	ZAL	123.57	ZAP	18.28	ETS	55.44	ZAE	147.25	ETE	333.91	ZAC	86.17	ETC	261.65	CLP	-9.31

PLANETOCENTRIC CONIC

C3	17.595	VHL	4.195	DLA	-15.74	RAL	224.05	RAD	6567.7	VEL	11.789	PTH	2.08	VHP	7.917	DPA	-36.95	RAP	244.22	ECC	1.2896		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 57 23	1672.03	-3.78	9.51	82.62	118.08	5 25 15	1072.0	.01	2.87
90.00	12 43 52	5340.53	27.61	243.26	88.64	83.47	14 12 53	4740.5	26.42	234.80
100.00	6 10 2	1437.60	-4.91	351.65	81.99	119.52	6 34 0	837.6	-.94	345.11
100.00	14 13 54	5050.19	28.89	221.72	88.45	81.99	15 38 4	4450.2	27.48	213.20
110.00	6 58 59	1284.30	-7.81	338.24	80.21	123.39	7 20 23	684.3	-3.36	331.97
110.00	15 41 27	4776.26	32.24	200.23	87.77	77.97	17 1 4	4176.3	30.25	191.58

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1051	TRA	-.3990	TC3	.6684	BAU	.1776	SGT	809.8	SGR	489.4	SG3	133.7	ST	223.1	SR	378.8	SS	124.7
RDE	-.2763	RRA	-.0723	RC3	-.3507	FAU	.03717	RRT	-.4065	RRF	.4949	RTF	-.7154	CRT	-.5813	CRS	.9563	CST	-.4579
FDE	.1270	FRA	.0761	FC3	-1.8286	BSP	2215	SGB	946.2	R23	-.0973	R13	.7431	LSA	421.7	MSA	173.0	SSA	31.3
BDE	.2956	BRA	.4055	BC3	.7548	FSP	-334	SG1	843.1	SG2	429.5	THA	161.13	EL1	405.6	EL2	169.5	ALF	113.18

LAUNCH DATE SEP 13 1970 FLIGHT TIME 80.00 ARRIVAL DATE DEC 2 1970

HELIOCENTRIC CONIC DISTANCE 210.505

RL	150.52	LAL	.00	LOL	349.80	VL	26.418	GAL	-6.12	AZL	89.65	HCA	92.55	SMA	124.55	ECC	.23307	INC	.3513	V1	29.602
RP	107.72	LAP	.35	LOP	82.34	VP	37.396	GAP	-11.05	AZP	90.02	TAL	201.08	TAP	293.63	RCA	95.52	APO	153.58	V2	35.179
RC	48.893	GL	2.26	GP	-16.92	ZAL	125.22	ZAP	20.53	ETS	50.80	ZAE	145.94	ETE	332.33	ZAC	85.11	ETC	261.78	CLP	-11.80

PLANETOCENTRIC CONIC

C3	16.670	VHL	4.083	DLA	-14.04	RAL	222.77	RAD	6567.7	VEL	11.750	PTH	2.07	VHP	7.463	DPA	-38.21	RAP	244.75	ECC	1.2743		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 36 52	1719.86	-5.30	12.19	80.35	117.86	5 5 32	1119.9	-1.54	5.54
90.00	12 54 13	5267.77	26.94	238.05	85.71	80.93	14 22 1	4667.8	25.41	229.71
100.00	5 50 46	1481.43	-6.37	354.08	79.77	119.27	6 15 27	881.4	-2.42	347.52
100.00	14 23 0	4981.43	28.14	216.75	85.48	79.47	15 46 2	4381.4	26.40	208.38
110.00	6 42 19	1319.94	-9.14	340.14	78.08	123.08	7 4 19	719.9	-4.72	333.84
110.00	15 47 56	4715.69	31.29	195.76	84.67	75.49	17 6 32	4115.7	28.98	187.32

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0945	TRA	-.3786	TC3	.7438	BAU	.1901	SGT	828.5	SGR	508.8	SG3	150.1	ST	212.0	SR	362.5	SS	163.9
RDE	-.2572	RRA	-.0766	RC3	-.4177	FAU	.04050	RRT	-.4610	RRF	.5519	RTF	-.7316	CRT	-.5544	CRS	.9731	CST	-.5216
FDE	.1766	FRA	.0538	FC3	-2.1031	BSP	2412	SGB	972.3	R23	-.1012	R13	.7639	LSA	416.8	MSA	168.3	SSA	34.3
BDE	.2740	BRA	.3863	BC3	.8530	FSP	-385	SG1	872.7	SG2	428.6	THA	158.86	EL1	385.9	EL2	165.8	ALF	112.28

LAUNCH DATE SEP 13 1970 FLIGHT TIME 82.00 ARRIVAL DATE DEC 4 1970

HELIOCENTRIC CONIC DISTANCE 217.282

RL	150.52	LAL	.00	LOL	349.80	VL	26.566	GAL	-6.15	AZL	89.46	HCA	95.78	SMA	125.48	ECC	.22552	INC	.5436	V1	29.602
RP	107.69	LAP	.54	LOP	85.57	VP	37.510	GAP	-10.21	AZP	90.05	TAL	202.23	TAP	298.01	RCA	97.18	APO	153.78	V2	35.188
RC	50.451	GL	3.60	GP	-18.16	ZAL	126.77	ZAP	23.03	ETS	46.96	ZAE	144.79	ETE	330.52	ZAC	83.92	ETC	261.87	CLP	-14.40

PLANETOCENTRIC CONIC

C3	15.922	VHL	3.990	DLA	-12.29	RAL	221.61	RAD	6567.6	VEL	11.718	PTH	2.06	VHP	7.038	DPA	-39.56	RAP	245.13	ECC	1.2620		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 17 1	1769.65	-6.88	15.00	78.40	117.54	4 46 31	1169.6	-3.14	8.32
90.00	13 4 46	5197.04	26.08	233.05	83.06	78.57	14 31 23	4597.0	24.24	224.86
100.00	5 32 4	1527.52	-7.90	356.65	77.85	118.92	5 57 31	927.5	-3.98	350.05
100.00	14 32 24	4914.40	27.21	211.98	82.79	77.13	15 54 19	4314.4	25.17	203.78
110.00	6 26 6	1358.28	-10.55	342.21	76.24	122.70	6 48 44	758.3	-6.17	335.86
110.00	15 54 51	4656.41	30.20	191.49	81.88	73.17	17 12 28	4056.4	27.60	183.26

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0814	TRA	-.3608	TC3	.8090	BAU	.2016	SGT	843.6	SGR	533.0	SG3	168.1	ST	198.3	SR	341.6	SS	210.1
RDE	-.2365	RRA	-.0812	RC3	-.4925	FAU	.04414	RRT	-.5119	RRF	.6094	RTF	-.7434	CRT	-.5048	CRS	.9776	CST	-.5334
FDE	.2371	FRA	.0301	FC3	-2.4000	BSP	2576	SGB	997.8	R23	-.1099	R13	.7820	LSA	414.7	MSA	163.8	SSA	37.1
BDE	.2501	BRA	.3698	BC3	.9472	FSP	-442	SG1	901.1	SG2	428.6	THA	156.44	EL1	360.1	EL2	162.4	ALF	110.74

LAUNCH DATE SEP 13 1970 FLIGHT TIME 84.00 ARRIVAL DATE DEC 6 1970

HELIOCENTRIC CONIC DISTANCE 224.046

RL	150.52	LAL	.00	LOL	349.80	VL	26.699	GAL	-6.19	AZL	89.26	HCA	99.01	SMA	126.32	ECC	.21886	INC	.7381	V1	29.602
RP	107.67	LAP	.73	LOP	88.80	VP	37.613	GAP	-9.40	AZP	90.12	TAL	203.34	TAP	302.35	RCA	98.68	APO	153.97	V2	35.198
RC	52.096	GL	5.01	GP	-19.53	ZAL	128.19	ZAP	25.76	ETS	43.74	ZAE	143.79	ETE	328.44	ZAC	82.59	ETC	261.93	CLP	-17.14

PLANETOCENTRIC CONIC

C3	15.327	VHL	3.915	DLA	-10.49	RAL	220.57	RAD	6567.6	VEL	11.692	PTH	2.06	VHP	6.642	DPA	-41.00	RAP	245.31	ECC	1.2522		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 57 55	1821.12	-8.49	17.93	76.75	117.12	4 28 16	1221.1	-4.79	11.21
90.00	13 15 35	5128.33	25.07	228.27	80.71	76.38	14 41 3	4528.3	22.95	220.24
100.00	5 14 3	1575.54	-9.47	359.35	76.23	118.49	5 40 18	975.5	-5.59	352.71
100.00	14 42 9	4849.15	26.14	207.43	80.40	74.96	16 2 58	4249.1	23.82	199.40
110.00	6 10 27	1398.93	-12.04	344.42	74.70	122.24	6 33 45	798.9	-7.70	338.01
110.00	16 2 14	4598.52	28.99	187.42	79.42	71.04	17 18 53	3998.5	26.13	179.41

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0660	TRA	-.3456	TC3	.8611	BAU	.2122	SGT	853.6	SGR	563.2	SG3	188.0	ST	183.2	SR	315.2	SS	263.3
RDE	-.2135	RRA	-.0860	RC3	-.5756	FAU	.04812	RRT	-.5579	RRF	.6659	RTF	-.7512	CRT	-.4250	CRS	.9766	CST	-.5022
FDE	.3104	FRA	.0056	FC3	-2.7178	BSP	2704	SGB	1022.6	R23	-.1225	R13	.7986	LSA	418.4	MSA	159.9	SSA	39.5
BDE	.2235	BRA	.3562	BC3	1.0358	FSP	-504	SG1	927.8	SG2	430.0	THA	153.74	EL1	327.8	EL2	159.4	ALF	108.36

LAUNCH DATE SEP 13 1970 FLIGHT TIME 86.00 ARRIVAL DATE DEC 8 1970

HELIOCENTRIC CONIC DISTANCE 230.795

RL	150.52	LAL	.00	LOL	349.80	VL	26.817	GAL	-6.23	AZL	89.06	HCA	102.24	SMA	127.09	ECC	.21301	INC	.9363	V1	29.602
RP	107.64	LAP	.92	LOP	92.04	VP	37.705	GAP	-8.62	AZP	90.20	TAL	204.40	TAP	306.64	RCA	100.02	APO	154.16	V2	35.206
RC	53.818	GL	6.49	GP	-21.06	ZAL	129.47	ZAP	28.73	ETS	40.99	ZAE	142.92	ETE	326.07	ZAC	81.10	ETC	261.96	CLP	-20.01

PLANETOCENTRIC CONIC

C3	14.861	VHL	3.855	DLA	-8.66	RAL	219.67	RAD	6567.6	VEL	11.672	PTH	2.05	VHP	6.276	DPA	-42.56	RAP	245.27	ECC	1.2446

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 39 38	1874.08	-10.12	20.97	75.43	116.59	4 10 52	1274.1	-6.47	14.19
90.00	13 26 44	5061.54	23.92	223.71	78.67	74.38	14 51 5	4461.5	21.55	215.85
100.00	4 56 46	1625.23	-11.07	2.17	74.93	117.95	5 23 51	1025.2	-7.25	355.47
100.00	14 52 17	4785.62	24.95	203.09	78.34	72.97	16 12 2	4185.6	22.38	195.23
110.00	5 55 25	1441.57	-13.58	346.76	73.46	121.68	6 19 27	841.6	-9.29	340.29
110.00	16 10 7	4542.05	27.68	183.55	77.29	69.09	17 25 49	3942.1	24.58	175.75

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0497	TRA	-.3329	TC3	.8980	BAU	.2223	SGT	857.4	SGR	601.1	SG3	209.7	ST	168.6	SR	282.5	SS	322.5
RDE	-.1878	RRA	-.0910	RC3	-.6673	FAU	.05240	RRT	-.5983	RRF	.7199	RTF	-.7552	CRT	-.3103	CRS	.9722	CST	-.4335
FDE	.3973	FRA	-.0193	FC3	-3.0528	BSP	2813	SGB	1047.1	R23	-.1369	R13	.8145	LSA	431.4	MSA	156.5	SSA	40.8
BDE	.1942	BRA	.3451	BC3	1.1187	FSP	-572	SG1	953.3	SG2	433.2	THA	150.61	EL1	289.4	EL2	156.5	ALF	104.95

LAUNCH DATE SEP 13 1970 FLIGHT TIME 88.00 ARRIVAL DATE DEC 10 1970

HELIOCENTRIC CONIC DISTANCE 237.525

RL	150.52	LAL	.00	LOL	349.80	VL	26.921	GAL	-6.26	AZL	88.86	HCA	105.47	SMA	127.77	ECC	.20789	INC	1.1395	V1	29.602
RP	107.61	LAP	1.10	LOP	95.27	VP	37.787	GAP	-7.88	AZP	90.30	TAL	205.39	TAP	310.86	RCA	101.21	APO	154.34	V2	35.214
RC	55.612	GL	8.03	GP	-22.74	ZAL	130.58	ZAP	31.94	ETS	38.58	ZAE	142.14	ETE	323.35	ZAC	79.44	ETC	261.93	CLP	-23.05

PLANETOCENTRIC CONIC

C3	14.507	VHL	3.809	DLA	-6.79	RAL	218.93	RAD	6567.6	VEL	11.657	PTH	2.05	VHP	5.940	DPA	-44.24	RAP	244.95	ECC	1.2387

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 22 8	1928.38	-11.75	24.12	74.42	115.95	3 54 16	1328.4	-8.17	17.27
90.00	13 38 17	4996.53	22.66	219.37	76.94	72.55	15 1 34	4396.5	20.06	211.66
100.00	4 40 14	1676.42	-12.69	5.11	73.94	117.30	5 8 10	1076.4	-8.93	358.34
100.00	15 2 52	4723.71	23.65	198.95	76.59	71.16	16 21 36	4123.7	20.86	191.26
110.00	5 41 4	1485.95	-15.15	349.24	72.52	121.02	6 5 50	886.0	-10.93	342.68
110.00	16 18 31	4486.95	26.29	179.87	75.49	67.32	17 33 18	3886.9	22.98	172.27

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0334	TRA	-.3225	TC3	.9177	BAU	.2321	SGT	854.3	SGR	648.0	SG3	233.1	ST	156.3	SR	242.7	SS	388.0
RDE	-.1583	RRA	-.0960	RC3	-.7679	FAU	.05698	RRT	-.6319	RRF	.7698	RTF	-.7551	CRT	-.1566	CRS	.9633	CST	-.3307
FDE	.4998	FRA	-.0440	FC3	-3.4003	BSP	2914	SGB	1072.3	R23	-.1511	R13	.8306	LSA	456.7	MSA	153.8	SSA	40.8
BDE	.1617	BRA	.3364	BC3	1.1966	FSP	-645	SG1	978.5	SG2	438.5	THA	146.95	EL1	244.7	EL2	153.1	ALF	99.52

LAUNCH DATE SEP 13 1970 FLIGHT TIME 90.00 ARRIVAL DATE DEC 12 1970

HELIOCENTRIC CONIC DISTANCE 244.235

RL	150.52	LAL	.00	LOL	349.80	VL	27.013	GAL	-6.29	AZL	88.65	HCA	108.70	SMA	128.38	ECC	.20343	INC	1.3492	V1	29.602
RP	107.59	LAP	1.28	LOP	98.51	VP	37.859	GAP	-7.17	AZP	90.43	TAL	206.31	TAP	315.02	RCA	102.27	APO	154.50	V2	35.222
RC	57.469	GL	9.64	GP	-24.59	ZAL	131.50	ZAP	35.38	ETS	36.40	ZAE	141.42	ETE	320.26	ZAC	77.60	ETC	261.86	CLP	-26.28

PLANETOCENTRIC CONIC

C3	14.251	VHL	3.775	DLA	-4.90	RAL	218.34	RAD	6567.6	VEL	11.646	PTH	2.04	VHP	5.635	DPA	-46.03	RAP	244.32	ECC	1.2345

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 5 24	1983.99	-13.39	27.38	73.72	115.19	3 38 28	1384.0	-9.89	20.46
90.00	13 50 20	4933.03	21.30	215.21	75.54	70.89	15 12 33	4333.0	18.50	207.65
100.00	4 24 27	1729.03	-14.31	8.18	73.26	116.53	4 53 16	1129.0	-10.63	1.32
100.00	15 13 59	4663.22	22.26	194.99	75.17	69.52	16 31 43	4063.2	19.27	187.47
110.00	5 27 24	1531.94	-16.74	351.85	71.90	120.25	5 52 56	931.9	-12.60	345.19
110.00	16 27 32	4433.08	24.82	176.37	74.02	65.71	17 41 25	3833.1	21.33	168.96

D..FERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0184	TRA	-.3144	TC3	.9187	BAU	.2421	SGT	843.4	SGR	705.9	SG3	258.1	ST	147.8	SR	195.0	SS	458.8
RDE	-.1242	RRA	-.1009	RC3	-.8778	FAU	.06180	RRT	-.6573	RRF	.8144	RTF	-.7504	CRT	.0330	CRS	.9449	CST	-.2069
FDE	.6180	FRA	-.0674	FC3	-3.7541	BSP	3014	SGB	1099.8	R23	-.1623	R13	.8476	LSA	495.7	MSA	152.0	SSA	39.4
BDE	.1255	BRA	.3302	BC3	1.2706	FSP	-723	SG1	1005.2	SG2	446.4	THA	142.61	EL1	195.2	EL2	147.7	ALF	86.64

LAUNCH DATE SEP 13 1970 FLIGHT TIME 92.00 ARRIVAL DATE DEC 14 1970

HELIOCENTRIC CONIC DISTANCE 250.923

RL	150.52	LAL	.00	LOL	349.80	VL	27.093	GAL	-6.32	AZL	88.43	HCA	111.94	SMA	128.92	ECC	.19956	INC	1.5672	V1	29.602
RP	107.57	LAP	1.45	LOP	101.74	VP	37.923	GAP	-6.48	AZP	90.59	TAL	207.14	TAP	319.08	RCA	103.20	APO	154.65	V2	35.229
RC	59.382	GL	11.32	GP	-26.61	ZAL	132.21	ZAP	39.05	ETS	34.36	ZAE	140.71	ETE	316.75	ZAC	75.56	ETC	261.72	CLP	-29.71

PLANETOCENTRIC CONIC

C3	14.082	VHL	3.753	DLA	-2.99	RAL	217.93	RAD	6567.6	VEL	11.639	PTH	2.04	VHP	5.361	DPA	-47.95	RAP	243.31	ECC	1.2318

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 49 25	2040.99	-15.01	30.78	73.35	114.29	3 23 26	1441.0	-11.61	23.76
90.00	14 3 0	4870.77	19.86	211.21	74.45	69.39	15 24 11	4270.8	16.88	203.80
100.00	4 9 21	1783.10	-15.93	11.38	72.91	115.64	4 39 5	1183.1	-12.35	4.41
100.00	15 25 44	4603.89	20.80	191.19	74.06	68.03	16 42 28	4003.9	17.64	183.82
110.00	5 14 24	1579.50	-18.35	354.60	71.59	119.36	5 40 43	979.5	-14.30	347.83
110.00	16 37 11	4380.26	23.30	173.02	72.87	64.25	17 50 11	3780.3	19.65	165.79

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0040	TRA	-.3106	TC3	.8938	BAU	.2519	SGT	821.9	SGR	774.8	SG3	284.0	ST	144.0	SR	138.7	SS	536.2
RDE	-.0839	RRA	-.1050	RC3	-.9954	FAU	.06664	RRT	-.6685	RRF	.8524	RTF	-.7379	CRT	.2820	CRS	.8956	CST	-.0646
FDE	.7553	FRA	-.0859	FC3	-4.0971	BSP	3083	SGB	1129.5	R23	-.1691	R13	.8655	LSA	550.6	MSA	151.5	SSA	36.7
BDE	.0840	BRA	.3279	BC3	1.3378	FSP	-801	SG1	1032.1	SG2	458.8	THA	137.53	EL1	160.2	EL2	119.6	ALF	41.18

LAUNCH DATE SEP 13 1970 FLIGHT TIME 94.00 ARRIVAL DATE DEC 16 1970

HELIOCENTRIC CONIC DISTANCE 257.588

RL	150.52	LAL	.00	LOL	349.80	VL	27.162	GAL	-6.33	AZL	88.20	HCA	115.18	SMA	129.40	ECC	.19620	INC	1.7955	V1	29.602
RP	107.55	LAP	1.62	LOP	104.98	VP	37.978	GAP	-5.82	AZP	90.76	TAL	207.88	TAP	323.05	RCA	104.01	APO	154.78	V2	35.235
RC	61.346	GL	13.07	GP	-28.82	ZAL	132.70	ZAP	42.96	ETS	32.36	ZAE	139.96	ETE	312.82	ZAC	73.34	ETC	261.51	CLP	-33.36

PLANETOCENTRIC CONIC

C3	13.991	VHL	3.740	DLA	-1.06	RAL	217.68	RAD	6567.6	VEL	11.635	PTH	2.04	VHP	5.120	DPA	-49.97	RAP	241.88	ECC	1.2303

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 34 4	2099.56	-16.62	34.33	73.29	113.26	3 9 4	1499.6	-13.33	27.19
90.00	14 16 23	4809.35	18.34	207.34	73.69	68.04	15 36 32	4209.3	15.20	200.07
100.00	3 54 55	1838.76	-17.53	14.73	72.87	114.60	4 25 34	1238.8	-14.07	7.65
100.00	15 38 13	4545.38	19.27	187.52	73.28	66.69	16 53 58	3945.4	15.95	180.30
110.00	5 2 2	1628.68	-19.97	357.50	71.59	118.34	5 29 10	1028.7	-16.03	350.59
110.00	16 47 35	4328.22	21.73	169.80	72.04	62.94	17 59 44	3728.2	17.93	162.73

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0138	TRA	-.3167	TC3	.8250	BAU	.2591	SGT	785.3	SGR	849.5	SG3	308.7	ST	148.2	SR	75.1
RDE	-.0338	RRA	-.1052	RC3	-1.1127	FAU	.07085	RRT	-.6513	RRF	.8824	RTF	-.7091	CRT	.6891	CRS	.6459
FDE	.9218	FRA	-.0864	FC3	-4.3841	BSP	2998	SGB	1156.9	R23	-.1674	R13	.8843	LSA	628.6	MSA	154.3
BDE	.0365	BRA	.3337	BC3	1.3852	FSP	-854	SG1	1052.0	SG2	481.2	THA	131.56	EL1	158.1	EL2	51.0

SS	626.4
CST	.1234
SSA	32.4
ALF	21.60

LAUNCH DATE SEP 13 1970 FLIGHT TIME 96.00 ARRIVAL DATE DEC 18 1970

HELIOCENTRIC CONIC DISTANCE 264.227

RL	150.52	LAL	.00	LOL	349.80	VL	27.221	GAL	-6.34	AZL	87.96	HCA	118.41	SMA	129.80	ECC	.19331	INC	2.0362	V1	29.602
RP	107.53	LAP	1.79	LOP	108.23	VP	38.025	GAP	-5.19	AZP	90.97	TAL	208.52	TAP	326.93	RCA	104.71	APO	154.90	V2	35.240
RC	63.355	GL	14.90	GP	-31.20	ZAL	132.97	ZAP	47.09	ETS	30.33	ZAE	139.10	ETE	308.45	ZAC	70.91	ETC	261.21	CLP	-37.25

PLANETOCENTRIC CONIC

C3	13.977	VHL	3.739	DLA	.90	RAL	217.60	RAD	6567.6	VEL	11.635	PTH	2.04	VHP	4.913	DPA	-52.09	RAP	239.92	ECC	1.2300

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 19 12	2160.13	-18.21	38.06	73.56	112.07	2 55 13	1560.1	-15.06	30.80
90.00	14 30 35	4748.32	16.75	203.57	73.22	66.83	15 49 44	4148.3	13.47	196.43
100.00	3 40 58	1896.40	-19.13	18.26	73.15	113.42	4 12 35	1296.4	-15.80	11.05
100.00	15 51 31	4487.28	17.66	183.95	72.80	65.48	17 6 18	3887.3	14.21	176.86
110.00	4 50 10	1679.78	-21.59	.58	71.91	117.17	5 18 10	1079.8	-17.78	353.53
110.00	16 58 48	4276.67	20.10	166.69	71.53	61.75	18 10 5	3676.7	16.17	159.77

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0061	TRA	-.3053	TC3	.7891	BAU	.2777	SGT	753.1	SGR	957.8	SG3	337.3	ST	141.8	SR	63.9
RDE	.0160	RRA	-.1126	RC3	-1.2596	FAU	.07646	RRT	-.6586	RRF	.9109	RTF	-.6872	CRT	.7217	CRS	-.4389
FDE	1.0665	FRA	-.1170	FC3	-4.7361	BSP	3411	SGB	1218.4	R23	-.1532	R13	.9053	LSA	696.3	MSA	149.8
BDE	.0172	BRA	.3254	BC3	1.4863	FSP	-981	SG1	1117.4	SG2	485.8	THA	124.88	EL1	149.8	EL2	41.9

SS	695.7
CST	.0413
SSA	30.8
ALF	19.61

LAUNCH DATE SEP 13 1970 FLIGHT TIME 98.00 ARRIVAL DATE DEC 20 1970

HELIOCENTRIC CONIC DISTANCE 270.842

RL	150.52	LAL	.00	LOL	349.80	VL	27.271	GAL	-6.35	AZL	87.71	HCA	121.65	SMA	130.15	ECC	.19082	INC	2.2923	V1	29.602
RP	107.52	LAP	1.95	LOP	111.47	VP	38.066	GAP	-4.58	AZP	91.20	TAL	209.06	TAP	330.71	RCA	105.32	APO	154.99	V2	35.245
RC	65.403	GL	16.82	GP	-33.76	ZAL	133.00	ZAP	51.42	ETS	28.18	ZAE	138.08	ETE	303.67	ZAC	68.30	ETC	260.82	CLP	-41.40

PLANETOCENTRIC CONIC

C3	14.034	VHL	3.746	DLA	2.90	RAL	217.70	RAD	6567.6	VEL	11.637	PTH	2.04	VHP	4.742	DPA	-54.28	RAP	237.38	ECC	1.2310

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 4 45	2223.06	-19.97	42.02	74.15	110.69	2 41 48	1623.1	-16.78	34.62
90.00	14 45 50	4687.19	15.07	199.86	73.08	65.74	16 3 57	4087.2	11.67	192.84
100.00	3 27 27	1956.33	-20.71	22.01	73.76	112.05	4 0 3	1356.3	-17.54	14.66
100.00	16 5 49	4429.16	15.99	180.45	72.64	64.40	17 19 39	3829.2	12.41	173.48
110.00	4 38 48	1733.01	-23.21	3.86	72.57	115.83	5 7 41	1133.0	-19.54	356.64
110.00	17 10 58	4225.24	18.41	163.65	71.32	60.68	18 21 23	3625.2	14.36	156.88

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0023	TRA	-.3083	TC3	.6939	BAU	.2928	SGT	702.3	SGR	1068.5	SG3	361.8	ST	142.5	SR	135.9
RDE	.0794	RRA	-.1135	RC3	-1.3977	FAU	.08065	RRT	-.6169	RRF	.9311	RTF	-.6322	CRT	.3342	CRS	-.9167
FDE	1.2418	FRA	-.1184	FC3	-4.9753	BSP	3595	SGB	1278.6	R23	-.1304	R13	.9248	LSA	789.8	MSA	149.8
BDE	.0795	BRA	.3285	BC3	1.5605	FSP	-1063	SG1	1175.8	SG2	502.3	THA	117.50	EL1	161.0	EL2	113.4

SS	779.8
CST	.0022
SSA	27.6
ALF	40.94

LAUNCH DATE SEP 13 1970 FLIGHT TIME 100.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 277.430

RL	150.52	LAL	.00	LOL	349.80	VL	27.313	GAL	-6.34	AZL	87.43	HCA	124.89	SMA	130.44	ECC	.18869	INC	2.5669	V1	29.602
RP	107.51	LAP	2.11	LOP	114.71	VP	38.099	GAP	-3.99	AZP	91.47	TAL	209.49	TAP	334.38	RCA	105.83	APO	155.05	V2	35.249
RC	67.486	GL	18.84	GP	-36.46	ZAL	132.79	ZAP	55.91	ETS	25.84	ZAE	136.82	ETE	298.55	ZAC	65.52	ETC	260.33	CLP	-45.82

PLANETOCENTRIC CONIC

C3	14.167	VHL	3.764	DLA	4.95	RAL	217.98	RAD	6567.6	VEL	11.643	PTH	2.04	VHP	4.609	DPA	-56.50	RAP	234.18	ECC	1.2332

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 50 31	2289.04	-21.30	46.25	75.09	109.11	2 28 40	1689.0	-18.50	38.70
90.00	15 2 18	4625.37	13.31	196.18	73.27	64.78	16 19 23	4025.4	9.81	189.26
100.00	3 14 11	2019.17	-22.26	26.03	74.72	110.48	3 47 50	1419.2	-19.27	18.51
100.00	16 21 18	4370.48	14.23	176.98	72.81	63.43	17 34 9	3770.5	10.55	170.12
110.00	4 27 46	1788.88	-24.82	7.40	73.57	114.30	4 57 35	1188.9	-21.33	359.99
110.00	17 24 13	4173.54	16.66	160.67	71.44	59.71	18 33 46	3573.5	12.51	154.01

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0114	TRA	-.3139	TC3	.5717	BAU	.3103	SGT	644.6	SGR	1191.2	SG3	383.1	ST	145.5	SR	240.7
RDE	.1528	RRA	-.1115	RC3	-1.5353	FAU	.08403	RRT	-.5362	RRF	.9467	RTF	-.5411	CRT	.3119	CRS	-.9775
FDE	1.4221	FRA	-.1090	FC3	-5.1351	BSP	3826	SGB	1354.4	R23	-.0994	R13	.9423	LSA	895.5	MSA	149.9
BDE	.1533	BRA	.3331	BC3	1.6383	FSP	-1136	SG1	1251.5	SG2	517.9	THA	109.69	EL1	246.9	EL2	134.8

SS	863.6
CST	-.1366
SSA	24.5
ALF	74.64

LAUNCH DATE SEP 13 1970 FLIGHT TIME 102.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 283.991

RL	150.52	LAL	.00	LOL	349.80	VL	27.346	GAL	-6.33	AZL	87.14	HCA	128.13	SMA	130.68	ECC	.18688	INC	2.8641	V1	29.602
RP	107.50	LAP	2.25	LOP	117.96	VP	38.126	GAP	-3.42	AZP	91.77	TAL	209.81	TAP	337.94	RCA	106.26	APO	155.10	V2	35.253
RC	69.600	GL	20.98	GP	-39.29	ZAL	132.33	ZAP	60.52	ETS	23.25	ZAE	135.30	ETE	293.15	ZAC	62.59	ETC	259.72	CLP	-50.51

PLANETOCENTRIC CONIC

C3	14.383	VHL	3.793	DLA	7.05	RAL	218.44	RAD	6567.6	VEL	11.652	PTH	2.05	VHP	4.517	DPA	-58.69	RAP	230.22	ECC	1.2367

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 36 16	2358.92	-22.79	50.84	76.40	107.28	2 15 35	1758.9	-20.21	43.11
90.00	15 20 13	4562.18	11.45	192.47	73.79	63.92	16 36 15	3962.2	7.85	185.64
100.00	3 0 59	2085.69	-23.78	30.39	76.05	108.67	3 35 45	1485.7	-21.01	22.69
100.00	16 38 11	4310.65	12.38	173.50	73.31	62.57	17 50 2	3710.6	8.61	166.74
110.00	4 16 56	1847.98	-26.42	11.25	74.95	112.52	4 47 44	1248.0	-23.13	3.63
110.00	17 38 43	4121.12	14.84	157.70	71.89	58.85	18 47 24	3521.1	10.60	151.16

DIFFERENTIAL CORRECTIONS

TDE	.0371	TRA	-.3223	TC3	.4216	BAU	.3302
RDE	.2374	RRA	-.1051	RC3	-1.6647	FAU	.08619
FDE	1.6019	FRA	-.0857	FC3	-5.1878	BSP	4095
BDE	.2403	BRA	.3390	BC3	1.7172	FSP	-1191

MID-COURSE EXECUTION ACCURACY

SGT	588.3	SGR	1322.3	SG3	399.3		
RRT	-.3923	RRF	.9585	RTF	-.3894		
SGB	1447.3	R23	-.0640	R13	.9565		
SG1	1346.1	SG2	531.6	THA	101.76		

ORBIT DETERMINATION ACCURACY

ST	157.8	SR	363.8	SS	945.7		
CRT	.4668	CRS	-.9917	CST	-.3667		
LSA	1014.1	MSA	150.6	SSA	21.7		
EL1	372.4	EL2	136.3	ALF	76.75		

LAUNCH DATE SEP 13 1970 FLIGHT TIME 104.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 290.524

RL	150.52	LAL	.00	LOL	349.80	VL	27.373	GAL	-6.30	AZL	86.81	HCA	131.36	SMA	130.86	ECC	.18533	INC	3.1890	V1	29.602
RP	107.49	LAP	2.39	LOP	121.20	VP	38.148	GAP	-2.88	AZP	92.11	TAL	210.03	TAP	341.39	RCA	106.61	APO	155.12	V2	35.255
RC	71.740	GL	23.26	GP	-42.21	ZAL	131.62	ZAP	65.17	ETS	20.35	ZAE	133.46	ETE	287.58	ZAC	59.55	ETC	258.98	CLP	-55.47

PLANETOCENTRIC CONIC

C3	14.695	VHL	3.833	DLA	9.24	RAL	219.09	RAD	6567.6	VEL	11.665	PTH	2.05	VHP	4.467	DPA	-60.80	RAP	225.45	ECC	1.2418

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 21 45	2433.81	-24.21	55.86	78.10	105.15	2 2 19	1833.8	-21.90	47.96
90.00	15 39 55	4496.80	9.47	188.69	74.68	63.19	16 54 52	3896.8	5.79	181.94
100.00	2 47 37	2156.88	-25.25	35.17	77.77	106.56	3 23 34	1556.9	-22.74	27.27
100.00	16 56 45	4248.95	10.42	169.97	74.17	61.82	18 7 34	3649.0	6.57	163.29
110.00	4 6 9	1911.12	-28.00	15.48	76.74	110.47	4 38 0	1311.1	-24.95	7.63
110.00	17 54 42	4067.48	12.93	154.72	72.69	58.08	19 2 30	3467.5	8.62	148.27

DIFFERENTIAL CORRECTIONS

TDE	.0769	TRA	-.3342	TC3	.2420	BAU	.3514
RDE	.3357	RRA	-.0906	RC3	-1.7724	FAU	.08654
FDE	1.7797	FRA	-.0404	FC3	-5.0985	BSP	4358
BDE	.3444	BRA	.3463	BC3	1.7888	FSP	-1211

MID-COURSE EXECUTION ACCURACY

SGT	551.1	SGR	1455.0	SG3	408.5		
RRT	-.1559	RRF	.9672	RTF	-.1491		
SGB	1555.9	R23	-.0264	R13	.9669		
SG1	1458.0	SG2	543.3	THA	93.92		

ORBIT DETERMINATION ACCURACY

ST	190.5	SR	505.1	SS	1027.6		
CRT	.6618	CRS	-.9965	CST	-.6068		
LSA	1150.6	MSA	152.5	SSA	18.8		
EL1	521.8	EL2	138.2	ALF	74.90		

LAUNCH DATE SEP 13 1970 FLIGHT TIME 106.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 297.030

RL	150.52	LAL	.00	LOL	349.80	VL	27.393	GAL	-6.27	AZL	86.45	HCA	134.60	SMA	131.00	ECC	.18403	INC	3.5481	V1	29.602
RP	107.48	LAP	2.53	LOP	124.45	VP	38.164	GAP	-2.36	AZP	92.49	TAL	210.15	TAP	344.75	RCA	106.89	APO	155.11	V2	35.257
RC	73.903	GL	25.68	GP	-45.18	ZAL	130.65	ZAP	69.81	ETS	17.09	ZAE	131.31	ETE	281.92	ZAC	56.42	ETC	258.10	CLP	-60.68

PLANETOCENTRIC CONIC

C3	15.123	VHL	3.889	DLA	11.51	RAL	219.93	RAD	6567.6	VEL	11.684	PTH	2.05	VHP	4.463	DPA	-62.76	RAP	219.84	ECC	1.2489

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 6 35	2515.18	-25.55	61.45	80.22	102.65	1 48 30	1915.2	-23.55	53.35
90.00	16 1 48	4428.26	7.34	184.78	75.97	62.57	17 15 37	3828.3	3.61	178.09
100.00	2 33 45	2234.08	-26.64	40.49	79.93	104.09	3 10 59	1634.1	-24.44	32.38
100.00	17 17 20	4184.60	8.33	166.33	75.43	61.19	18 27 4	3584.6	4.42	159.73
110.00	3 55 9	1979.34	-29.53	20.20	78.99	108.06	4 28 9	1379.3	-26.78	12.09
110.00	18 12 25	4012.11	10.91	151.69	73.87	57.40	19 19 17	3412.1	6.54	145.33

DIFFERENTIAL CORRECTIONS

TDE	.1424	TRA	-.3402	TC3	.0601	BAU	.3793
RDE	.4373	RRA	-.0770	RC3	-1.8752	FAU	.08627
FDE	1.9145	FRA	-.0059	FC3	-4.9389	BSP	4873
BDE	.4599	BRA	.3488	BC3	1.8761	FSP	-1255

MID-COURSE EXECUTION ACCURACY

SGT	554.8	SGR	1598.6	SG3	411.8		
RRT	.1422	RRF	.9740	RTF	.1575		
SGB	1692.1	R23	-.0005	R13	.9742		
SG1	1600.8	SG2	548.4	THA	86.80		

ORBIT DETERMINATION ACCURACY

ST	259.9	SR	646.7	SS	1088.5		
CRT	.8354	CRS	-.9982	CST	-.8067		
LSA	1283.5	MSA	151.4	SSA	16.9		
EL1	683.7	EL2	135.1	ALF	70.66		

LAUNCH DATE SEP 13 1970 FLIGHT TIME 108.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 303.508

RL	150.52	LAL	.00	LOL	349.80	VL	27.406	GAL	-6.23	AZL	86.05	HCA	137.84	SMA	131.10	ECC	.18294	INC	3.9496	V1	29.602
RP	107.48	LAP	2.65	LOP	127.70	VP	38.174	GAP	-1.85	AZP	92.93	TAL	210.16	TAP	348.00	RCA	107.12	APO	155.08	V2	35.258
RC	76.087	GL	28.27	GP	-48.19	ZAL	129.40	ZAP	74.34	ETS	13.44	ZAE	128.85	ETE	276.27	ZAC	53.25	ETC	257.07	CLP	-66.11

PLANETOCENTRIC CONIC

C3	15.698	VHL	3.962	DLA	13.90	RAL	220.98	RAD	6567.6	VEL	11.708	PTH	2.06	VHP	4.508	DPA	-64.51	RAP	213.39	ECC	1.2583

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 50 19	2605.00	-26.73	67.76	82.83	99.70	1 33 44	2005.0	-25.12	59.46
90.00	16 26 27	4355.25	5.03	180.66	77.72	62.10	17 39 2	3755.2	1.26	174.01
100.00	2 19 0	2318.98	-27.90	46.48	82.58	101.18	2 57 39	1719.0	-26.08	38.15
100.00	17 40 27	4116.49	6.07	162.53	77.14	60.68	18 49 3	3516.5	2.12	155.98
110.00	3 43 43	2053.90	-30.98	25.52	81.75	105.22	4 17 57	1453.9	-28.58	17.14
110.00	18 32 13	3954.34	8.78	148.58	75.49	56.83	19 38 7	3354.3	4.35	142.29

DIFFERENTIAL CORRECTIONS

TDE	.2286	TRA	-.3483	TC3	-.1434	BAU	.4068
RDE	.5527	RRA	-.0511	RC3	-1.9329	FAU	.08364
FDE	2.0339	FRA	.0530	FC3	-4.6130	BSP	5336
BDE	.5981	BRA	.3521	BC3	1.9382	FSP	-1248

MID-COURSE EXECUTION ACCURACY

SGT	625.7	SGR	1729.3	SG3	405.4		
RRT	.4416	RRF	.9789	RTF	.4587		
SGB	1839.0	R23	.0255	R13	.9790		
SG1	1753.7	SG2	553.6	THA	79.91		

ORBIT DETERMINATION ACCURACY

ST	365.4	SR	800.9	SS	1146.5		
CRT	.9155	CRS	-.9991	CST	-.9009		
LSA	1437.4	MSA	152.3	SSA	14.7		
EL1	869.9	EL2	135.4	ALF	66.73		

LAUNCH DATE SEP 13 1970 FLIGHT TIME 110.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 309.957

RL	150.52	LAL	.00	LOL	349.80	VL	27.414	GAL	-6.18	AZL	85.60	HCA	141.07	SMA	131.15	ECC	.18203	INC	4.4044	V1	29.602
RP	107.48	LAP	2.77	LOP	130.95	VP	38.180	GAP	-1.36	AZP	93.43	TAL	210.07	TAP	351.15	RCA	107.28	APO	155.03	V2	35.259
RC	78.289	GL	31.05	GP	-51.20	ZAL	127.88	ZAP	78.66	ETS	9.38	ZAE	126.11	ETE	270.71	ZAC	50.04	ETC	255.89	CLP	-71.72

PLANETOCENTRIC CONIC

C3	16.465	VHL	4.058	DLA	16.41	RAL	222.24	RAD	6567.7	VEL	11.741	PTH	2.07	VHP	4.608	DPA	-66.03	RAP	206.17	ECC	1.2710

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 32 12	2706.07	-27.69	75.00	85.95	96.20	1 17 19	2106.1	-26.54	66.52
90.00	16 54 39	4275.90	2.49	176.22	80.01	61.78	18 5 55	3675.9	-1.30	169.59
100.00	2 2 47	2413.98	-28.97	53.34	85.77	97.72	2 43 1	1814.0	-27.60	44.80
100.00	18 6 46	4043.23	3.62	158.48	79.38	60.31	19 14 9	3443.2	-.36	151.96
110.00	3 31 28	2136.52	-32.30	31.60	85.11	101.85	4 7 4	1536.5	-30.33	22.94
110.00	18 54 35	3893.45	6.50	145.34	77.60	56.37	19 59 28	3293.4	2.03	139.10

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.3441	TRA	-.3529	TC3	-.3486	BAU	.4353	SGT	765.5	SGR	1846.5	SG3	390.5	ST	510.3	SR	957.1	SS	1192.5
RDE	.6770	RRA	-.0155	RC3	-1.9464	FAU	.07925	RRT	.6531	RRF	.9825	RTF	.6702	CRT	.9539	CRS	-.9996	CST	-.9465
FDE	2.1197	FRA	.1207	FC3	-4.1670	BSP	5830	SG8	1998.8	R23	.0472	R13	.9821	LSA	1604.6	MSA	153.6	SSA	12.8
BDE	.7594	BRA	.3532	BC3	1.9774	FSP	-1210	SG1	1919.5	SG2	557.6	THA	73.41	EL1	1076.1	EL2	136.2	ALF	62.57

LAUNCH DATE SEP 13 1970 FLIGHT TIME 112.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 316.379

RL	150.52	LAL	.00	LOL	349.80	VL	27.417	GAL	-6.12	AZL	85.07	HCA	144.30	SMA	131.17	ECC	.18129	INC	4.9278	V1	29.602
RP	107.48	LAP	2.87	LOP	134.20	VP	38.182	GAP	-.89	AZP	94.01	TAL	209.89	TAP	354.20	RCA	107.39	APO	154.95	V2	35.258
RC	80.507	GL	34.05	GP	-54.20	ZAL	126.07	ZAP	82.70	ETS	4.92	ZAE	123.12	ETE	265.29	ZAC	46.83	ETC	254.53	CLP	-77.46

PLANETOCENTRIC CONIC

C3	17.495	VHL	4.183	DLA	19.08	RAL	223.75	RAD	6567.7	VEL	11.785	PTH	2.08	VHP	4.769	DPA	-67.28	RAP	198.29	ECC	1.2879

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 11 8	2822.68	-28.25	83.48	89.64	91.98	0 58 11	2222.7	-27.68	74.86
90.00	17 27 43	4187.23	-.37	171.27	82.98	61.69	18 37 30	3587.2	-4.16	164.63
100.00	1 44 13	2522.52	-29.70	61.32	89.56	93.58	2 26 16	1922.5	-28.88	52.61
100.00	18 37 19	3962.63	.89	154.06	82.28	60.12	19 43 22	3362.6	-3.09	147.53
110.00	3 17 54	2229.46	-33.38	38.63	89.13	97.82	3 55 3	1629.5	-31.94	29.70
110.00	19 20 8	3828.46	4.03	141.92	80.32	56.03	20 23 57	3228.5	-.45	135.71

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.4942	TRA	-.3519	TC3	-.5446	BAU	.4617	SGT	962.3	SGR	1939.1	SG3	367.2	ST	694.2	SR	1113.9	SS	1229.2
RDE	.8123	RRA	.0355	RC3	-1.8974	FAU	.07283	RRT	.7772	RRF	.9850	RTF	.7928	CRT	.9720	CRS	-.9998	CST	-.9684
FDE	2.1760	FRA	.2018	FC3	-3.6040	BSP	6270	SG8	2164.8	R23	.0676	R13	.9837	LSA	1791.3	MSA	156.5	SSA	11.0
BDE	.9509	BRA	.3537	BC3	1.9740	FSP	-1130	SG1	2090.6	SG2	561.7	THA	67.17	EL1	1305.1	EL2	139.2	ALF	58.39

LAUNCH DATE SEP 13 1970 FLIGHT TIME 114.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 322.771

RL	150.52	LAL	.00	LOL	349.80	VL	27.415	GAL	-6.05	AZL	84.46	HCA	147.53	SMA	131.16	ECC	.18068	INC	5.5404	V1	29.602
RP	107.48	LAP	2.97	LOP	137.45	VP	38.180	GAP	-.44	AZP	94.68	TAL	209.62	TAP	357.16	RCA	107.46	APO	154.86	V2	35.257
RC	82.739	GL	37.26	GP	-57.22	ZAL	123.97	ZAP	86.37	ETS	.05	ZAE	119.91	ETE	260.03	ZAC	43.59	ETC	252.97	CLP	-83.29

PLANETOCENTRIC CONIC

C3	18.896	VHL	4.347	DLA	21.90	RAL	225.51	RAD	6567.8	VEL	11.844	PTH	2.10	VHP	5.001	DPA	-68.27	RAP	189.83	ECC	1.3110

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 41 2	2962.42	-28.16	93.69	93.87	86.87	24 30 24	2362.4	-28.29	85.03
90.00	18 7 55	4083.50	-3.71	165.48	86.83	61.91	19 15 59	3483.5	-7.44	158.78
100.00	1 21 47	2650.25	-29.86	70.81	93.95	88.60	2 5 57	2050.3	-29.74	62.00
100.00	19 13 48	3870.90	-2.22	149.02	86.01	60.18	20 18 18	3270.9	-6.17	142.47
110.00	3 2 15	2335.92	-34.07	46.86	93.88	92.99	3 41 11	1735.9	-33.28	37.71
110.00	19 49 49	3758.00	1.35	138.24	83.78	55.84	20 52 27	3158.0	-3.15	132.03

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.6885	TRA	-.3394	TC3	-.7098	BAU	.4913	SGT	1198.6	SGR	2010.4	SG3	337.5	ST	919.1	SR	1245.2	SS	1239.6
RDE	.9436	RRA	.0899	RC3	-1.8108	FAU	.06597	RRT	.8460	RRF	.9868	RTF	.8631	CRT	.9821	CRS	-.9999	CST	-.9806
FDE	2.1742	FRA	.2644	FC3	-3.0226	BSP	6920	SG8	2340.6	R23	.0808	R13	.9849	LSA	1976.6	MSA	157.2	SSA	9.6
BDE	1.1680	BRA	.3511	BC3	1.9450	FSP	-1067	SG1	2271.2	SG2	565.7	THA	61.29	EL1	1541.3	EL2	139.9	ALF	53.72

LAUNCH DATE SEP 13 1970 FLIGHT TIME 116.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 329.136

RL	150.52	LAL	.00	LOL	349.80	VL	27.408	GAL	-5.97	AZL	83.73	HCA	150.76	SMA	131.11	ECC	.18020	INC	6.2720	V1	29.602
RP	107.49	LAP	3.06	LOP	140.70	VP	38.173	GAP	.00	AZP	95.48	TAL	209.26	TAP	.02	RCA	107.49	APO	154.74	V2	35.255
RC	84.985	GL	40.72	GP	-60.27	ZAL	121.56	ZAP	89.60	ETS	354.77	ZAE	116.50	ETE	254.89	ZAC	40.32	ETC	251.14	CLP	-89.19

PLANETOCENTRIC CONIC

C3	20.837	VHL	4.565	DLA	24.89	RAL	227.55	RAD	6567.8	VEL	11.925	PTH	2.12	VHP	5.320	DPA	-69.02	RAP	180.85	ECC	1.3429

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 4 35	3142.65	-26.80	106.69	98.49	80.50	23 56 57	2542.6	-27.84	98.18
90.00	19 0 42	3949.74	-7.95	157.93	91.96	62.73	20 6 32	3349.7	-11.54	151.09
100.00	0 52 17	2808.10	-29.03	82.46	98.86	82.53	1 39 5	2208.1	-29.76	73.73
100.00	19 59 37	3759.52	-5.97	142.88	90.88	60.66	21 2 17	3159.5	-9.83	136.22
110.00	2 43 18	2460.74	-34.08	56.61	99.40	87.23	3 24 19	1860.7	-34.09	47.36
110.00	20 25 5	3679.64	-1.65	134.15	88.21	55.85	21 26 25	3079.6	-6.12	127.92

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.9356	TRA	-.3134	TC3	-.8359	BAU	.5161	SGT	1466.1	SGR	2040.5	SG3	301.9	ST	1181.8	SR	1357.2	SS	1237.0
RDE	1.0794	RRA	.1607	RC3	-1.6535	FAU	.05767	RRT	.8847	RRF	.9878	RTF	.9032	CRT	.9872	CRS	-1.0000	CST	-.9871
FDE	2.1409	FRA	.3288	FC3	-2.3959	BSP	7463	SG8	2512.6	R23	.0944	R13	.9853	LSA	2177.9	MSA	159.2	SSA	8.3
BDE	1.4284	BRA	.3522	BC3	1.8527	FSP	-963	SG1	2447.1	SG2	569.9	THA	55.42	EL1	1794.0	EL2	142.5	ALF	49.00

LAUNCH DATE SEP 13 1970 FLIGHT TIME 118.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 335.467

RL 150.52 LAL .00 LOL 349.80 VL 27.398 GAL -5.87 AZL 82.83 HCA 153.98 SMA 131.04 ECC .17983 INC 7.1673 V1 29.602
RP 107.50 LAP 3.14 LOP 143.95 VP 38.163 GAP .43 AZP 96.45 TAL 208.82 TAP 2.80 RCA 107.48 APO 154.61 V2 35.253
RC 87.241 GL 44.42 GP -63.43 ZAL 118.86 ZAP 92.30 ETS 349.03 ZAE 112.88 ETE 249.81 ZAC 36.95 ETC 248.94 CLP -95.15

PLANETOCENTRIC CONIC

C3 23.599 VHL 4.858 DLA 28.04 RAL 229.92 RAD 6568.0 VEL 12.041 PTH 2.15 VHP 5.750 DPA -69.54 RAP 171.33 ECC 1.3884

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	21 46 53	3463.40	-21.33	128.55	102.20	70.92	22 44 36	2863.4	-23.74	120.70
90.00	20 37 19	3689.29	-15.66	142.69	99.85	66.10	21 38 48	3089.3	-18.76	135.38
100.00	0 5 33	3029.03	-26.05	98.17	103.79	74.79	0 56 2	2429.0	-27.88	89.85
100.00	21 5 16	3598.89	-11.22	133.84	97.64	62.11	22 5 15	2998.9	-14.86	126.95
110.00	2 18 37	2612.55	-32.97	68.30	105.54	80.40	3 2 9	2012.5	-33.94	59.20
110.00	21 8 41	3588.14	-5.14	129.36	93.97	56.16	22 8 30	2988.1	-9.55	123.05

DIFFERENTIAL CORRECTIONS
TDE 1.2542 TRA -.2656 TC3 -.9063 BAU .5371
RDE 1.2166 RRA .2530 RC3-1.4410 FAU .04882
FDE 2.0807 FRA .3942 FC3-1.7911 BSP 8023
BDE 1.7474 BRA .3668 BC3 1.7023 FSP -850

MID-COURSE EXECUTION ACCURACY
SGT 1757.7 SGR 2033.1 SG3 263.9
RRT .9054 RRF .9881 RTF .9268
SGB 2687.6 R23 .1077 R13 .9852
SG1 2624.7 SG2 578.1 THA 49.58

ORBIT DETERMINATION ACCURACY
ST 1483.3 SR 1439.1 SS 1221.9
CRT .9898 CRS -.9999 CST -.9907
LSA 2395.4 MSA 163.2 SSA 7.1
EL1 2061.5 EL2 147.4 ALF 44.12

LAUNCH DATE SEP 13 1970 FLIGHT TIME 120.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 341.768

RL 150.52 LAL .00 LOL 349.80 VL 27.384 GAL -5.77 AZL 81.70 HCA 157.19 SMA 130.94 ECC .17956 INC 8.2952 V1 29.602
RP 107.51 LAP 3.21 LOP 147.20 VP 38.150 GAP .83 AZP 97.65 TAL 208.29 TAP 5.48 RCA 107.43 APO 154.45 V2 35.249
RC 89.506 GL 48.35 GP -66.75 ZAL 115.85 ZAP 94.43 ETS 342.71 ZAE 109.05 ETE 244.60 ZAC 33.42 ETC 246.15 CLP-101.29

PLANETOCENTRIC CONIC

C3 27.675 VHL 5.261 DLA 31.32 RAL 232.67 RAD 6568.1 VEL 12.209 PTH 2.19 VHP 6.331 DPA -69.79 RAP 161.17 ECC 1.4555

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
76.01	19 32 36	3970.32	-19.40	165.22	107.33	64.91	20 38 47	3370.3	-22.62	157.79
103.99	23 13 30	3261.02	-19.39	112.80	107.32	64.90	24 7 51	2661.0	-22.61	105.37
76.01	19 32 36	3970.32	-19.40	165.22	107.33	64.91	20 38 47	3370.3	-22.62	157.79
103.99	23 13 30	3261.02	-19.39	112.80	107.32	64.90	24 7 51	2661.0	-22.61	105.37
110.00	1 41 41	2812.39	-29.73	82.96	111.77	72.30	2 28 33	2212.4	-31.86	74.40
110.00	22 7 32	3466.95	-9.68	122.92	101.77	57.06	23 5 18	2867.0	-13.95	116.43

DIFFERENTIAL CORRECTIONS
TDE 1.6695 TRA -.1866 TC3 -.9106 BAU .5514
RDE 1.3361 RRA .3610 RC3-1.1798 FAU .03977
FDE 1.9870 FRA .4442 FC3-1.2440 BSP 8567
BDE 2.1383 BRA .4064 BC3 1.4904 FSP -730

MID-COURSE EXECUTION ACCURACY
SGT 2069.0 SGR 1967.3 SG3 223.9
RRT .9153 RRF .9874 RTF .9425
SGB 2855.0 R23 .1199 R13 .9848
SG1 2794.1 SG2 586.7 THA 43.42

ORBIT DETERMINATION ACCURACY
ST 1819.9 SR 1462.2 SS 1187.6
CRT .9910 CRS -.9998 CST -.9931
LSA 2613.9 MSA 167.5 SSA 6.0
EL1 2329.5 EL2 152.8 ALF 38.73

LAUNCH DATE SEP 13 1970 FLIGHT TIME 122.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 348.033

RL 150.52 LAL .00 LOL 349.80 VL 27.367 GAL -5.66 AZL 80.23 HCA 160.39 SMA 130.82 ECC .17936 INC 9.7697 V1 29.602
RP 107.52 LAP 3.26 LOP 150.45 VP 38.134 GAP 1.23 AZP 99.21 TAL 207.68 TAP 8.07 RCA 107.36 APO 154.28 V2 35.245
RC 91.778 GL 52.44 GP -70.34 ZAL 112.57 ZAP 95.93 ETS 335.46 ZAE 104.93 ETE 238.84 ZAC 29.63 ETC 242.33 CLP-107.89

PLANETOCENTRIC CONIC

C3 33.981 VHL 5.829 DLA 34.68 RAL 235.85 RAD 6568.3 VEL 12.464 PTH 2.25 VHP 7.133 DPA -69.67 RAP 150.22 ECC 1.5592

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.09	19 0 48	4159.39	-19.64	179.88	114.82	60.83	20 10 7	3559.4	-23.37	172.70
110.91	0 14 34	3174.98	-19.63	106.32	114.81	60.82	1 7 29	2575.0	-23.36	99.13
69.09	19 0 48	4159.39	-19.64	179.88	114.82	60.83	20 10 7	3559.4	-23.37	172.70
110.91	0 14 34	3174.98	-19.63	106.32	114.81	60.82	1 7 29	2575.0	-23.36	99.13
69.09	19 0 48	4159.39	-19.64	179.88	114.82	60.83	20 10 7	3559.4	-23.37	172.70
110.91	0 14 34	3174.98	-19.63	106.32	114.81	60.82	1 7 29	2575.0	-23.36	99.13

DIFFERENTIAL CORRECTIONS
TDE 2.2276 TRA -.0572 TC3 -.8440 BAU .5553
RDE 1.4095 RRA .4909 RC3 -.8842 FAU .03085
FDE 1.8716 FRA .4831 FC3 -.7860 BSP 9099
BDE 2.6361 BRA .4943 BC3 1.2224 FSP -609

MID-COURSE EXECUTION ACCURACY
SGT 2401.4 SGR 1823.8 SG3 184.4
RRT .9150 RRF .9842 RTF .9539
SGB 3015.5 R23 .1318 R13 .9843
SG1 2955.6 SG2 597.8 THA 36.53

ORBIT DETERMINATION ACCURACY
ST 2189.8 SR 1396.9 SS 1138.8
CRT .9908 CRS -.9994 CST -.9947
LSA 2830.8 MSA 173.3 SSA 5.0
EL1 2592.5 EL2 160.0 ALF 32.43

LAUNCH DATE SEP 13 1970 FLIGHT TIME 124.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 354.258

RL 150.52 LAL .00 LOL 349.80 VL 27.347 GAL -5.53 AZL 78.21 HCA 163.58 SMA 130.68 ECC .17923 INC11.7913 V1 29.602
RP 107.53 LAP 3.31 LOP 153.70 VP 38.115 GAP 1.60 AZP 101.32 TAL 206.99 TAP 10.57 RCA 107.26 APO 154.10 V2 35.240
RC 94.056 GL 56.60 GP -74.29 ZAL 109.05 ZAP 96.76 ETS 326.46 ZAE 100.43 ETE 231.60 ZAC 25.44 ETC 236.53 CLP-115.76

PLANETOCENTRIC CONIC

C3 44.393 VHL 6.663 DLA 37.98 RAL 239.52 RAD 6568.7 VEL 12.875 PTH 2.35 VHP 8.276 DPA -68.98 RAP 138.48 ECC 1.7306

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.56	18 45 34	4315.66	-18.82	191.89	123.66	56.38	19 57 29	3715.7	-23.10	185.07
116.44	0 59 9	3153.65	-18.80	104.07	123.65	56.38	1 51 42	2553.6	-23.09	97.25
63.56	18 45 34	4315.66	-18.82	191.89	123.66	56.38	19 57 29	3715.7	-23.10	185.07
116.44	0 59 9	3153.65	-18.80	104.07	123.65	56.38	1 51 42	2553.6	-23.09	97.25
63.56	18 45 34	4315.66	-18.82	191.89	123.66	56.38	19 57 29	3715.7	-23.10	185.07
116.44	0 59 9	3153.65	-18.80	104.07	123.65	56.38	1 51 42	2553.6	-23.09	97.25

DIFFERENTIAL CORRECTIONS
TDE 3.0073 TRA .1616 TC3 -.7090 BAU .5411
RDE 1.3462 RRA .6396 RC3 -.5731 FAU .02237
FDE 1.7459 FRA .5119 FC3 -.4362 BSP 9623
BDE 3.2949 BRA .6597 BC3 .9117 FSP -493

MID-COURSE EXECUTION ACCURACY
SGT 2758.9 SGR 1552.5 SG3 147.2
RRT .8961 RRF .9720 RTF .9636
SGB 3165.8 R23 .1430 R13 .9838
SG1 3106.0 SG2 612.0 THA 27.94

ORBIT DETERMINATION ACCURACY
ST 2586.8 SR 1176.7 SS 1080.3
CRT .9874 CRS -.9977 CST -.9959
LSA 3034.8 MSA 181.3 SSA 4.1
EL1 2836.8 EL2 169.5 ALF 24.28

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LAUNCH DATE  SEP 13 1970                          FLIGHT TIME 126.00                          ARRIVAL DATE  JAN 17 1971

 HELIOCENTRIC CONIC                                DISTANCE 360.430
  RL  150.52 LAL     .00 LOL 349.80 VL  27.324 GAL  -5.39 AZL  75.25 HCA 166.74 SMA 130.52 ECC .17914 INC14.7474 V1  29.602
  RP  107.55 LAP    3.35 LOP 156.95 VP  38.094 GAP   1.96 AZP 104.37 TAL 206.21 TAP  12.94 RCA 107.13 APO 153.90 V2  35.235
  RC  96.339 GL    60.57 GP  -78.70 ZAL 105.35 ZAP  96.88 ETS 313.28 ZAE  95.35 ETE 220.37 ZAC  20.62 ETC 226.16 CLP-127.66
 PLANETOCENTRIC CONIC
  C3  63.217 VHL  7.951 DLA  40.96 RAL 243.76 RAD 6569.2 VEL 13.586 PTH   2.48 VHP 10.002 DPA -67.38 RAP 126.18 ECC 2.0404
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     59.07    18 41 21   4463.12     -16.49     202.51     133.84      51.95   19 55 44    3863.1     -21.31     196.17
    120.93     1 37  9   3181.02     -16.48     104.61     133.83      51.95    2 30 10    2581.0     -21.29      98.27
     59.07    18 41 21   4463.12     -16.49     202.51     133.84      51.95   19 55 44    3863.1     -21.31     196.17
    120.93     1 37  9   3181.02     -16.48     104.61     133.83      51.95    2 30 10    2581.0     -21.29      98.27
     59.07    18 41 21   4463.12     -16.49     202.51     133.84      51.95   19 55 44    3863.1     -21.31     196.17
    120.93     1 37  9   3181.02     -16.48     104.61     133.83      51.95    2 30 10    2581.0     -21.29      98.27
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE 4.1320 TRA  .5685 TC3 -.5113 BAU  .4895      SGT 3133.9 SGR 1046.9 SG3  114.1           ST  2982.1 SR   649.8 SS  1024.8
  RDE  .8486 RRA  .7664 RC3 -.2720 FAU .01440      RRT  .7831 RRF  .8898 RTF  .9746           CRT  .9582 CRS -.9771 CST -.9971
  FDE 1.6316 FRA  .5386 FC3 -.1972 BSP  10060      SGB 3304.2 R23  .1519 R13  .9840           LSA 3213.8 MSA  192.0 SSA    3.2
  BDE 4.2182 BRA  .9542 BC3  .5792 FSP   -384      SG1 3243.7 SG2  629.0 THA  15.25           EL1 3046.7 EL2  181.9 ALF  11.84

LAUNCH DATE  SEP 13 1970                          FLIGHT TIME 128.00                          ARRIVAL DATE  JAN 19 1971

 HELIOCENTRIC CONIC                                DISTANCE 366.522
  RL  150.52 LAL     .00 LOL 349.80 VL  27.298 GAL  -5.22 AZL  70.52 HCA 169.84 SMA 130.34 ECC .17905 INC19.4839 V1  29.602
  RP  107.57 LAP    3.37 LOP 160.20 VP  38.070 GAP   2.29 AZP 109.20 TAL 205.32 TAP  15.16 RCA 107.00 APO 153.67 V2  35.229
  RC  98.624 GL    63.83 GP  -83.15 ZAL 101.56 ZAP  96.28 ETS 288.00 ZAE  89.27 ETE 197.08 ZAC  14.75 ETC 203.19 CLP-156.38
 PLANETOCENTRIC CONIC
  C3 102.079 VHL 10.103 DLA  43.13 RAL 248.56 RAD 6570.0 VEL 14.947 PTH   2.69 VHP 12.832 DPA -64.27 RAP 113.92 ECC 2.6800
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     56.00    18 47 33   4607.78     -12.34     211.58     145.06      48.34   20  4 21    4007.8     -17.58     205.74
    124.00     2  9 14   3254.87     -12.33     107.48     145.05      48.34    3  3 29    2654.9     -17.57     101.64
     56.00    18 47 33   4607.78     -12.34     211.58     145.06      48.34   20  4 21    4007.8     -17.58     205.74
    124.00     2  9 14   3254.87     -12.33     107.48     145.05      48.34    3  3 29    2654.9     -17.57     101.64
     56.00    18 47 33   4607.78     -12.34     211.58     145.06      48.34   20  4 21    4007.8     -17.58     205.74
    124.00     2  9 14   3254.87     -12.33     107.48     145.05      48.34    3  3 29    2654.9     -17.57     101.64
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE 5.4886 TRA 1.3789 TC3 -.2573 BAU  .3540      SGT 3332.6 SGR  784.5 SG3   86.8           ST  3129.1 SR   664.7 SS   997.8
  RDE-1.1498 RRA  .5546 RC3 -.0335 FAU .00674      RRT -.5863 RRF -.4794 RTF  .9898           CRT -.9557 CRS  .9404 CST -.9988
  FDE 1.5689 FRA  .5811 FC3 -.0571 BSP  10391      SGB 3423.7 R23 -.1509 R13 -.9861           LSA 3345.0 MSA  200.1 SSA    2.2
  BDE 5.6077 BRA 1.4863 BC3  .2594 FSP   -291      SG1 3365.4 SG2  629.3 THA 171.86           EL1 3193.2 EL2  191.7 ALF 168.48

LAUNCH DATE  SEP 13 1970                          FLIGHT TIME 130.00                          ARRIVAL DATE  JAN 21 1971

 HELIOCENTRIC CONIC                                DISTANCE 372.459
  RL  150.52 LAL     .00 LOL 349.80 VL  27.270 GAL  -5.02 AZL  61.81 HCA 172.81 SMA 130.14 ECC .17884 INC28.1855 V1  29.602
  RP  107.59 LAP    3.39 LOP 163.45 VP  38.043 GAP   2.57 AZP 118.00 TAL 204.28 TAP  17.09 RCA 106.87 APO 153.42 V2  35.222
  RC 100.910 GL    65.04 GP  -82.59 ZAL  97.82 ZAP  95.00 ETS 237.67 ZAE  81.15 ETE 148.68 ZAC   6.80 ETC 155.26 CLP 132.55
 PLANETOCENTRIC CONIC
  C3 200.318 VHL 14.153 DLA  43.23 RAL 253.68 RAD 6571.1 VEL 17.934 PTH   3.00 VHP 18.095 DPA -58.45 RAP 102.53 ECC 4.2967
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     55.86    19  7 25   4733.46      -6.67     217.56     156.54      47.19   20 26 18    4133.5     -12.06     211.98
    124.14     2 30 14   3377.47      -6.66     113.18     156.53      47.19    3 26 32    2777.5     -12.05     107.61
     55.86    19  7 25   4733.46      -6.67     217.56     156.54      47.19   20 26 18    4133.5     -12.06     211.98
    124.14     2 30 14   3377.47      -6.66     113.18     156.53      47.19    3 26 32    2777.5     -12.05     107.61
     55.86    19  7 25   4733.46      -6.67     217.56     156.54      47.19   20 26 18    4133.5     -12.06     211.98
    124.14     2 30 14   3377.47      -6.66     113.18     156.53      47.19    3 26 32    2777.5     -12.05     107.61
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE 4.5647 TRA 2.1891 TC3 -.0193 BAU  .0969      SGT 2212.9 SGR 2712.0 SG3   66.7           ST  1883.5 SR  2620.1 SS  1059.3
  RDE-6.4498 RRA-1.3101 RC3 -.0306 FAU-.00233      RRT -.9507 RRF -.9684 RTF  .9964           CRT -.9938 CRS  .9961 CST -.9997
  FDE 1.6491 FRA  .6942 FC3  .0101 BSP  10643      SGB 3500.2 R23 -.1215 R13 -.9913           LSA 3391.7 MSA  177.8 SSA    1.7
  BDE 7.9017 BRA 2.5512 BC3  .0362 FSP   -221      SG1 3458.6 SG2  538.1 THA 128.92           EL1 3222.4 EL2  170.5 ALF 125.66

LAUNCH DATE  SEP 13 1970                          FLIGHT TIME 132.00                          ARRIVAL DATE  JAN 23 1971

 HELIOCENTRIC CONIC                                DISTANCE 377.976
  RL  150.52 LAL     .00 LOL 349.80 VL  27.241 GAL  -4.73 AZL  42.36 HCA 175.40 SMA 129.94 ECC .17812 INC47.6406 V1  29.602
  RP  107.61 LAP    3.39 LOP 166.70 VP  38.015 GAP   2.73 AZP 137.55 TAL 202.86 TAP  18.26 RCA 106.79 APO 153.08 V2  35.215
  RC 103.196 GL    60.29 GP  -70.86 ZAL  94.44 ZAP  93.24 ETS 199.19 ZAE  67.78 ETE 112.05 ZAC   6.43 ETC 290.64 CLP  99.92
 PLANETOCENTRIC CONIC
  C3 533.462 VHL 23.097 DLA  37.63 RAL 258.13 RAD 6572.4 VEL 25.588 PTH   3.36 VHP 29.650 DPA -46.60 RAP  92.91 ECC 9.7794
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     64.10    20  2 31   4740.02      -1.33     213.59     166.42      52.39   21 21 31    4140.0      -6.20     207.64
    115.90     2 10 39   3593.87      -1.32     127.07     166.41      52.39    3 10 33    2993.9      -6.18     121.12
     64.10    20  2 31   4740.02      -1.33     213.59     166.42      52.39   21 21 31    4140.0      -6.20     207.64
    115.90     2 10 39   3593.87      -1.32     127.07     166.41      52.39    3 10 33    2993.9      -6.18     121.12
     64.10    20  2 31   4740.02      -1.33     213.59     166.42      52.39   21 21 31    4140.0      -6.20     207.64
    115.90     2 10 39   3593.87      -1.32     127.07     166.41      52.39    3 10 33    2993.9      -6.18     121.12
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE -.5070 TRA 1.5885 TC3 -.0269 BAU 1.3335      SGT  528.1 SGR 3395.1 SG3   55.1           ST   195.2 SR  2959.1 SS  1345.5
  RD-11.7899 RRA-4.7804 RC3 -.1850 FAU-.02212      RRT -.1512 RRF -.9949 RTF  .2429           CRT  .5208 CRS  .9992 CST  .4856
  FDE 2.0778 FRA 1.0725 FC3  .0359 BSP  10364      SGB 3435.9 R23 -.0899 R13 -.9952           LSA 3251.8 MSA  174.5 SSA    1.8
  BDE11.8008 BRA 5.0375 BC3  .1870 FSP   -177      SG1 3396.1 SG2  521.9 THA  91.38           EL1 2960.9 EL2  166.6 ALF  88.03
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LAUNCH DATE SEP 13 1970 FLIGHT TIME 134.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 389.147

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RL  150.52 LAL     .00 LOL 349.80 VL  27.209 GAL  -5.56 AZL 177.57 HCA 183.39 SMA 129.72 ECC .18669 INC87.5614 V1  29.602
RP  107.64 LAP    3.39 LOP 169.94 VP  37.985 GAP   4.46 AZP   2.44 TAL 205.70 TAP  29.09 RCA 105.50 APO 153.94 V2  35.207
RC 105.482 GL   -43.48 GP   48.19 ZAL  93.17 ZAP  93.17 ETS 181.53 ZAE  52.11 ETE 265.78 ZAC 125.39 ETC 277.08 CLP  94.76
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PLANETOCENTRIC CONIC

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C3154.5.983 VHL 39.319 DLA -65.60 RAL 243.76 RAD 6573.2 VEL 40.832 PTH   3.57 VHP 50.769 DPA  71.40 RAP  70.82 ECC26.4430
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.98	5 6 38	2438.29	-1.40	75.76	154.38	155.59	5 47 16	1838.3	5.88	72.86
152.02	15 11 54	716.31	-1.39	291.24	154.40	155.59	15 23 50	116.3	5.89	288.35
27.98	5 6 38	2438.29	-1.40	75.76	154.38	155.59	5 47 16	1838.3	5.88	72.86
152.02	15 11 54	716.31	-1.39	291.24	154.40	155.59	15 23 50	116.3	5.89	288.35
27.98	5 6 38	2438.29	-1.40	75.76	154.38	155.59	5 47 16	1838.3	5.88	72.86
152.02	15 11 54	716.31	-1.39	291.24	154.40	155.59	15 23 50	116.3	5.89	288.35

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE 6.6809 TRA  .8072 TC3 -.1065 BAU 4.5454   SGT 1315.2 SGR 2571.7 SG3   52.7          ST   977.6 SR  1996.2 SS  2130.1
 RD-13.6372 RRA 1.7354 RC3  .1924 FAU-.07759   RRT -.8950 RRF  .9994 RTF -.8921          CRT -.9839 CRS-1.0000 CST  .9843
 FDE-3.3182 FRA  .4125 FC3  .0435 BSP  8707    SGB 2888.5 R23 -.0943 R13  .9950          LSA 3074.2 MSA  164.9 SSA    2.5
 BDE15.1857 BRA 1.9139 BC3  .2199 FSP  -166    SG1 2839.2 SG2  531.4 THA 115.55          EL1 2217.2 EL2  157.3 ALF 115.87
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LAUNCH DATE SEP 13 1970 FLIGHT TIME 136.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 393.366

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RL  150.52 LAL     .00 LOL 349.80 VL  27.176 GAL  -5.00 AZL 134.91 HCA 184.78 SMA 129.49 ECC .18376 INC44.9081 V1  29.602
RP  107.66 LAP    3.37 LOP 173.18 VP  37.953 GAP   4.26 AZP  45.19 TAL 203.31 TAP  28.09 RCA 105.70 APO 153.29 V2  35.198
RC 107.765 GL   -60.99 GP   71.60 ZAL  95.01 ZAP  95.39 ETS 174.01 ZAE  76.39 ETE 258.85 ZAC 148.80 ETC 276.86 CLP 107.31
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PLANETOCENTRIC CONIC

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C3 477.602 VHL 21.854 DLA -79.41 RAL 201.92 RAD 6572.3 VEL 24.472 PTH   3.32 VHP 28.307 DPA  83.84 RAP 268.61 ECC 8.8601
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
12.05	1 46 22	2412.16	2.73	83.09	111.40	169.40	2 26 34	1812.2	10.59	82.01
167.95	12 58 22	615.73	2.73	282.15	111.42	169.40	13 8 38	15.7	10.60	281.08
12.05	1 46 22	2412.16	2.73	83.09	111.40	169.40	2 26 34	1812.2	10.59	82.01
167.95	12 58 22	615.73	2.73	282.15	111.42	169.40	13 8 38	15.7	10.60	281.08
12.05	1 46 22	2412.16	2.73	83.09	111.40	169.40	2 26 34	1812.2	10.59	82.01
167.95	12 58 22	615.73	2.73	282.15	111.42	169.40	13 8 38	15.7	10.60	281.08

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE 1.8952 TRA  .6107 TC3 -.0598 BAU 1.2433   SGT 1036.7 SGR 3482.7 SG3   60.5          ST   561.5 SR  2888.1 SS  1473.5
 RD-10.8090 RRA-1.3003 RC3  .1853 FAU-.01719   RRT -.8965 RRF  .9979 RTF -.8700          CRT -.9581 CRS -.9998 CST  .9518
 FDE-2.2638 FRA -.2418 FC3  .0312 BSP  10977   SGB 3633.7 R23 -.0889 R13  .9955          LSA 3286.5 MSA  163.4 SSA    1.6
 BDE10.9739 BRA 1.4365 BC3  .1947 FSP   -187   SG1 3606.5 SG2  443.5 THA 105.18          EL1 2937.9 EL2  158.1 ALF 100.58
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LAUNCH DATE SEP 13 1970 FLIGHT TIME 138.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 398.880

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RL  150.52 LAL     .00 LOL 349.80 VL  27.141 GAL  -4.69 AZL 116.84 HCA 187.42 SMA 129.25 ECC .18326 INC26.8391 V1  29.602
RP  107.69 LAP    3.34 LOP 176.43 VP  37.920 GAP   4.41 AZP  63.35 TAL 201.82 TAP  29.24 RCA 105.57 APO 152.94 V2  35.189
RC 110.046 GL   -64.83 GP   79.63 ZAL  97.50 ZAP  98.99 ETS 129.28 ZAE  89.18 ETE 214.25 ZAC 159.33 ETC 248.11 CLP 150.24
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PLANETOCENTRIC CONIC

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C3 182.091 VHL 13.494 DLA -78.42 RAL 175.50 RAD 6571.0 VEL 17.419 PTH   2.96 VHP 17.590 DPA  70.73 RAP 253.54 ECC 3.9967
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
13.18	0 3 10	2292.94	10.57	81.35	83.29	168.22	0 41 23	1692.9	18.39	80.05
166.82	11 10 43	5787.70	10.57	259.42	83.32	168.22	12 47 11	5187.7	18.40	258.13
13.18	0 3 10	2292.94	10.57	81.35	83.29	168.22	0 41 23	1692.9	18.39	80.05
166.82	11 10 43	5787.70	10.57	259.42	83.32	168.22	12 47 11	5187.7	18.40	258.13
13.18	0 3 10	2292.94	10.57	81.35	83.29	168.22	0 41 23	1692.9	18.39	80.05
166.82	11 10 43	5787.70	10.57	259.42	83.32	168.22	12 47 11	5187.7	18.40	258.13

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE-2.9863 TRA -.7692 TC3 -.0180 BAU  .0578   SGT 2063.2 SGR 3303.2 SG3   76.3          ST  1358.7 SR  1548.0 SS   792.3
 RDE-2.9363 RRA-1.4461 RC3  .0155 FAU .00358   RRT  .9618 RRF  .9825 RTF  .9947          CRT  .9645 CRS -.9818 CST -.9971
 FDE-1.1090 FRA -.3526 FC3 -.0170 BSP  12029   SGB 3894.6 R23 -.1062 R13  .9935          LSA 2189.3 MSA  277.4 SSA    1.6
 BDE 4.1881 BRA 1.6380 BC3  .0237 FSP   -244   SG1 3864.6 SG2  482.9 THA  58.46          EL1 2041.7 EL2  271.9 ALF  48.86
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LAUNCH DATE SEP 13 1970 FLIGHT TIME 140.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 404.730

```
RL  150.52 LAL     .00 LOL 349.80 VL  27.105 GAL  -4.45 AZL 108.62 HCA 190.40 SMA 129.01 ECC .18344 INC18.6175 V1  29.602
RP  107.72 LAP    3.30 LOP 179.67 VP  37.885 GAP   4.66 AZP  71.67 TAL 200.56 TAP  30.96 RCA 105.34 APO 152.67 V2  35.179
RC 112.324 GL   -63.43 GP   76.60 ZAL  99.80 ZAP 103.20 ETS  72.54 ZAE  97.11 ETE 158.09 ZAC 162.74 ETC 214.44 CLP-170.21
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PLANETOCENTRIC CONIC

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C3  93.039 VHL  9.646 DLA -76.05 RAL 177.60 RAD 6569.8 VEL 14.642 PTH   2.65 VHP 12.707 DPA  61.88 RAP 248.57 ECC 2.5312
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
15.89	0 16 59	2159.57	18.97	77.85	82.70	165.23	0 52 58	1559.6	26.69	75.99
164.11	11 13 44	5663.10	18.97	258.59	82.71	165.23	12 48 7	5063.1	26.69	256.73
15.89	0 16 59	2159.57	18.97	77.85	82.70	165.23	0 52 58	1559.6	26.69	75.99
164.11	11 13 44	5663.10	18.97	258.59	82.71	165.23	12 48 7	5063.1	26.69	256.73
15.89	0 16 59	2159.57	18.97	77.85	82.70	165.23	0 52 58	1559.6	26.69	75.99
164.11	11 13 44	5663.10	18.97	258.59	82.71	165.23	12 48 7	5063.1	26.69	256.73

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE-2.9642 TRA-1.4335 TC3 -.3197 BAU  .3985   SGT 3995.3 SGR  551.1 SG3  100.1          ST  2055.2 SR   514.2 SS   768.9
 RDE  .8595 RRA -.0826 RC3  .0211 FAU .01445   RRT -.0929 RRF -.2339 RTF  .9877          CRT -.7894 CRS  .8636 CST -.9912
 FDE-1.0815 FRA -.3769 FC3 -.1345 BSP  12548   SGB 4033.2 R23  .1410 R13 -.9880          LSA 2231.2 MSA  318.2 SSA    2.3
 BDE 3.0863 BRA 1.4359 BC3  .3204 FSP   -325   SG1 3995.7 SG2  548.7 THA 179.25          EL1 2095.8 EL2  309.5 ALF 168.58
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LAUNCH DATE SEP 13 1970 FLIGHT TIME 142.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 410.684

RL	150.52	LAL	.00	LOL	349.80	VL	27.068	GAL	-4.22	AZL	104.08	HCA	193.50	SMA	128.76	ECC	.18390	INC	14.0812	V1	29.602		
RP	107.75	LAP	3.26	LOP	182.90	VP	37.849	GAP	4.94	AZP	76.29	TAL	199.35	TAP	32.84	RCA	105.08	APO	152.44	V2	35.169		
RC	114.599	GL	-60.33	GP	70.72	ZAL	101.68	ZAP	107.67	ETS	58.16	ZAE	103.01	ETE	144.85	ZAC	161.82	ETC	221.74	CLP	-156.88		

PLANETOCENTRIC CONIC

C3	57.139	VHL	7.559	DLA	-73.69	RAL	186.00	RAD	6569.0	VEL	13.360	PTH	2.44	VHP	10.117	DPA	54.64	RAP	245.29	ECC	1.9404		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.60	0 55 57	2040.44	26.13	73.61	87.73	161.77	1 29 57	1440.4	33.70	71.03
161.40	11 41 44	5554.50	26.14	257.06	87.76	161.77	13 14 18	4954.5	33.71	254.48
18.60	0 55 57	2040.44	26.13	73.61	87.73	161.77	1 29 57	1440.4	33.70	71.03
161.40	11 41 44	5554.50	26.14	257.06	87.76	161.77	13 14 18	4954.5	33.71	254.48
18.60	0 55 57	2040.44	26.13	73.61	87.73	161.77	1 29 57	1440.4	33.70	71.03
161.40	11 41 44	5554.50	26.14	257.06	87.76	161.77	13 14 18	4954.5	33.71	254.48

DIFFERENTIAL CORRECTIONS

TDE	-2.6102	TRA	-1.2087	TC3	-.7233	BAU	.5718												
RDE	1.2864	RRA	.1880	RC3	.1925	FAU	.02308												
FDE	-1.2685	FRA	-.3725	FC3	-.3496	BSP	12861												
BDE	2.9099	BRA	1.2232	BC3	.7485	FSP	-419												

MID-COURSE EXECUTION ACCURACY

SGT	3969.2	SGR	1137.1	SG3	128.6						
RRT	-.8648	RRF	-.9464	RTF	.9752						
SGB	4128.8	R23	.1718	R13	-.9817						
SG1	4091.5	SG2	553.9	THA	165.82						

ORBIT DETERMINATION ACCURACY

ST	2207.6	SR	986.9	SS	880.9				
CRT	-.9540	CRS	.9889	CST	-.9879				
LSA	2557.7	MSA	285.8	SSA	3.0				
EL1	2402.8	EL2	271.9	ALF	156.58				

LAUNCH DATE SEP 13 1970 FLIGHT TIME 144.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 416.673

RL	150.52	LAL	.00	LOL	349.80	VL	27.030	GAL	-3.99	AZL	101.22	HCA	196.64	SMA	128.50	ECC	.18454	INC	11.2248	V1	29.602		
RP	107.79	LAP	3.20	LOP	186.14	VP	37.812	GAP	5.22	AZP	79.23	TAL	198.14	TAP	34.78	RCA	104.79	APO	152.21	V2	35.158		
RC	116.871	GL	-56.65	GP	64.78	ZAL	103.05	ZAP	112.22	ETS	53.77	ZAE	107.72	ETE	142.15	ZAC	158.68	ETC	232.11	CLP	-152.55		

PLANETOCENTRIC CONIC

C3	39.486	VHL	6.284	DLA	-71.21	RAL	195.04	RAD	6568.5	VEL	12.683	PTH	2.30	VHP	8.590	DPA	48.21	RAP	243.00	ECC	1.6498		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.46	1 37 59	1941.47	31.60	68.70	92.95	157.78	2 10 21	1341.5	38.95	65.24
158.54	12 11 51	5468.76	31.61	255.09	92.97	157.78	13 42 59	4868.8	38.96	251.62
21.46	1 37 59	1941.47	31.60	68.70	92.95	157.78	2 10 21	1341.5	38.95	65.24
158.54	12 11 51	5468.76	31.61	255.09	92.97	157.78	13 42 59	4868.8	38.96	251.62
21.46	1 37 59	1941.47	31.60	68.70	92.95	157.78	2 10 21	1341.5	38.95	65.24
158.54	12 11 51	5468.76	31.61	255.09	92.97	157.78	13 42 59	4868.8	38.96	251.62

DIFFERENTIAL CORRECTIONS

TDE	-2.5093	TRA	-1.0213	TC3	-1.2008	BAU	.6623												
RDE	1.2431	RRA	.1826	RC3	.3638	FAU	.03053												
FDE	-1.4379	FRA	-.3391	FC3	-.6695	BSP	13017												
BDE	2.8003	BRA	1.0375	BC3	1.2547	FSP	-511												

MID-COURSE EXECUTION ACCURACY

SGT	3983.9	SGR	1327.0	SG3	158.1						
RRT	-.9038	RRF	-.9748	RTF	.9664						
SGB	4199.1	R23	.1980	R13	-.9751						
SG1	4163.8	SG2	543.4	THA	162.95						

ORBIT DETERMINATION ACCURACY

ST	2447.3	SR	1144.1	SS	996.4				
CRT	-.9745	CRS	.9968	CST	-.9893				
LSA	2868.2	MSA	253.7	SSA	3.8				
EL1	2691.4	EL2	233.5	ALF	155.31				

LAUNCH DATE SEP 13 1970 FLIGHT TIME 146.00 ARRIVAL DATE FEB 6 1971

HELIOCENTRIC CONIC DISTANCE 422.671

RL	150.52	LAL	.00	LOL	349.80	VL	26.991	GAL	-3.75	AZL	99.26	HCA	199.81	SMA	128.24	ECC	.18531	INC	9.2596	V1	29.602		
RP	107.82	LAP	3.13	LOP	189.37	VP	37.774	GAP	5.51	AZP	81.28	TAL	196.92	TAP	36.73	RCA	104.47	APO	152.00	V2	35.147		
RC	119.138	GL	-52.82	GP	59.21	ZAL	103.89	ZAP	116.68	ETS	51.95	ZAE	111.58	ETE	142.44	ZAC	154.76	ETC	239.45	CLP	-151.29		

PLANETOCENTRIC CONIC

C3	29.585	VHL	5.439	DLA	-68.62	RAL	203.40	RAD	6568.2	VEL	12.287	PTH	2.21	VHP	7.632	DPA	42.36	RAP	241.45	ECC	1.4869		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
24.46	2 17 45	1860.58	35.48	63.31	97.18	153.41	2 48 45	1260.6	42.54	58.87
155.54	12 38 45	5404.12	35.49	252.85	97.20	153.41	14 8 49	4804.1	42.55	248.41
24.46	2 17 45	1860.58	35.48	63.31	97.18	153.41	2 48 45	1260.6	42.54	58.87
155.54	12 38 45	5404.12	35.49	252.85	97.20	153.41	14 8 49	4804.1	42.55	248.41
24.46	2 17 45	1860.58	35.48	63.31	97.18	153.41	2 48 45	1260.6	42.54	58.87
155.54	12 38 45	5404.12	35.49	252.85	97.20	153.41	14 8 49	4804.1	42.55	248.41

DIFFERENTIAL CORRECTIONS

TDE	-2.4290	TRA	-.8760	TC3	-1.7560	BAU	.7243												
RDE	1.1107	RRA	.1360	RC3	.5189	FAU	.03726												
FDE	-1.5436	FRA	-.2868	FC3	-1.0903	BSP	13416												
BDE	2.6709	BRA	.8865	BC3	1.8311	FSP	-614												

MID-COURSE EXECUTION ACCURACY

SGT	4075.0	SGR	1357.2	SG3	188.1						
RRT	-.9162	RRF	-.9809	RTF	.9611						
SGB	4295.1	R23	.2139	R13	-.9699						
SG1	4263.5	SG2	519.9	THA	162.77						

ORBIT DETERMINATION ACCURACY

ST	2669.6	SR	1176.0	SS	1084.9				
CRT	-.9823	CRS	.9987	CST	-.9907				
LSA	3104.0	MSA	229.0	SSA	4.7				
EL1	2910.2	EL2	201.9	ALF	156.48				

LAUNCH DATE SEP 13 1970 FLIGHT TIME 148.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 428.667

RL	150.52	LAL	.00	LOL	349.80	VL	26.951	GAL	-3.51	AZL	97.82	HCA	202.99	SMA	127.97	ECC	.18621	INC	7.8199	V1	29.602		
RP	107.86	LAP	3.05	LOP	192.60	VP	37.735	GAP	5.80	AZP	82.79	TAL	195.68	TAP	38.67	RCA	104.14	APO	151.80	V2	35.136		
RC	121.402	GL	-49.02	GP	54.11	ZAL	104.21	ZAP	120.95	ETS	50.98	ZAE	114.74	ETE	143.90	ZAC	150.74	ETC	244.35	CLP	-151.29		

PLANETOCENTRIC CONIC

C3	23.503	VHL	4.848	DLA	-65.99	RAL	210.88	RAD	6568.0	VEL	12.037	PTH	2.15	VHP	7.011	DPA	37.01	RAP	240.48	ECC	1.3868		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.53	2 54 26	1793.86	38.05	57.66	100.46	148.88	3 24 20	1193.9	44.77	52.27
152.47	13 1 45	5356.82	38.06	250.55	100.47	148.88	14 31 2	4756.8	44.78	245.15
27.53	2 54 26	1793.86	38.05	57.66	100.46	148.88	3 24 20	1193.9	44.77	52.27
152.47	13 1 45	5356.82	38.06	250.55	100.47	148.88	14 31 2	4756.8	44.78	245.15
27.53	2 54 26	1793.86	38.05	57.66	100.46	148.88	3 24 20	1193.9	44.77	52.27
152.47	13 1 45	5356.82	38.06	250.55	100.47	148.88	14 31 2	4756.8	44.78	245.15

DIFFERENTIAL CORRECTIONS

TDE	-2.3258	TRA	-.7427	TC3	-2.3558	BAU	.7670												
RDE	.9595	RRA	.0829	RC3	.6395	FAU	.04263												
FDE	-1.5705	FRA	-.2105	FC3	-1.5702	BSP	13682												
BDE	2.5159	BRA	.7474	BC3	2.4410	FSP	-698												

MID-COURSE EXECUTION ACCURACY

SGT	4174.5	SGR	1314.7	SG3	214.0						
RRT	-.9206	RRF	-.9813	RTF	.9572						
SGB	4376.6	R23	.2245	R13	-.9652						
SG1	4348.8	SG2	492.7	THA	163.61						

ORBIT DETERMINATION ACCURACY

ST	2824.7	SR	1136.5	SS	1130.2				
CRT	-.9860	CRS	.9994	CST	-.9912				
LSA	3240.9	MSA	211.0	SSA	5.7				
EL1	3039.6	EL2	176.4	ALF	158.29				

LAUNCH DATE SEP 13 1970 FLIGHT TIME 150.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 434.655

```
RL  150.52 LAL    .00 LOL 349.80 VL  26.911 GAL  -3.26 AZL  96.71 HCA 206.19 SMA 127.70 ECC .18721 INC 6.7149 V1  29.602
RP  107.89 LAP   2.96 LOP 195.83 VP  37.695 GAP   6.09 AZP  83.97 TAL 194.42 TAP  40.60 RCA 103.80 APO 151.61 V2  35.124
RC 123.660 GL  -45.33 GP   49.48 ZAL 104.02 ZAP 124.96 ETS  50.33 ZAE 117.29 ETE 145.85 ZAC 146.90 ETC 247.73 CLP-151.89
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PLANETOCENTRIC CONIC

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C3  19.515 VHL  4.418 DLA -63.35 RAL 217.61 RAD 6567.8 VEL 11.870 PTH   2.11 VHP  6.603 DPA  32.12 RAP 239.97 ECC 1.3212
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.63	3 28 26	1737.83	39.59	51.99	103.07	144.41	3 57 23	1137.8	45.92	45.72
149.37	13 21 26	5323.32	39.60	248.37	103.09	144.40	14 50 10	4723.3	45.93	242.10
30.63	3 28 26	1737.83	39.59	51.99	103.07	144.41	3 57 23	1137.8	45.92	45.72
149.37	13 21 26	5323.32	39.60	248.37	103.09	144.40	14 50 10	4723.3	45.93	242.10
30.63	3 28 26	1737.83	39.59	51.99	103.07	144.41	3 57 23	1137.8	45.92	45.72
149.37	13 21 26	5323.32	39.60	248.37	103.09	144.40	14 50 10	4723.3	45.93	242.10

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-2.2077 TRA -.6162 TC3-2.9833 BAU  .8010   SGT 4280.5 SGR 1244.4 SG3  235.2     ST  2913.9 SR  1062.5 SS  1136.0
 RDE  .8187 RRA  .0353 RC3  .7251 FAU .04666   RRT -.9221 RRF -.9792 RTF  .9542    CRT -.9879 CRS  .9997 CST -.9912
 FDE-1.5326 FRA -.1180 FC3-2.0699 BSP  13945   SGB 4457.7 R23  .2294 R13 -.9611    LSA 3297.1 MSA  197.6 SSA    6.8
 BDE 2.3546 BRA  .6172 BC3 3.0702 FSP   -767   SG1 4433.3 SG2  465.0 THA 164.82    EL1 3097.7 EL2  155.2 ALF 160.14
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LAUNCH DATE SEP 13 1970 FLIGHT TIME 152.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 440.631

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RL  150.52 LAL    .00 LOL 349.80 VL  26.870 GAL  -3.00 AZL  95.84 HCA 209.38 SMA 127.43 ECC .18833 INC 5.8358 V1  29.602
RP  107.93 LAP   2.86 LOP 199.05 VP  37.654 GAP   6.38 AZP  84.91 TAL 193.13 TAP  42.51 RCA 103.43 APO 151.43 V2  35.112
RC 125.912 GL  -41.77 GP   45.34 ZAL 103.36 ZAP 128.69 ETS  49.82 ZAE 119.34 ETE 147.99 ZAC 143.38 ETC 250.16 CLP-152.78
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PLANETOCENTRIC CONIC

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C3  16.776 VHL  4.096 DLA -60.75 RAL 223.74 RAD 6567.7 VEL 11.754 PTH   2.07 VHP  6.338 DPA  27.69 RAP 239.85 ECC 1.2761
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.71	4 0 24	1689.62	40.34	46.45	105.34	140.14	4 28 33	1089.6	46.25	39.45
146.29	13 38 26	5300.93	40.35	246.47	105.36	140.13	15 6 47	4700.9	46.26	239.47
33.71	4 0 24	1689.62	40.34	46.45	105.34	140.14	4 28 33	1089.6	46.25	39.45
146.29	13 38 26	5300.93	40.35	246.47	105.36	140.13	15 6 47	4700.9	46.26	239.47
33.71	4 0 24	1689.62	40.34	46.45	105.34	140.14	4 28 33	1089.6	46.25	39.45
146.29	13 38 26	5300.93	40.35	246.47	105.36	140.13	15 6 47	4700.9	46.26	239.47

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-2.0840 TRA -.4932 TC3-3.6216 BAU  .8309   SGT 4392.4 SGR 1167.1 SG3  251.7     ST  2947.1 SR   977.1 SS  1110.8
 RDE  .6983 RRA -.0038 RC3  .7795 FAU .04947   RRT -.9221 RRF -.9751 RTF  .9523    CRT -.9891 CRS  .9999 CST -.9906
 FDE-1.4493 FRA -.0174 FC3-2.5528 BSP  14257   SGB 4544.8 R23  .2279 R13 -.9580    LSA 3292.2 MSA  187.0 SSA    8.1
 BDE 2.1979 BRA  .4932 BC3 3.7045 FSP   -824   SG1 4523.6 SG2  438.6 THA 166.10    EL1 3101.8 EL2  136.8 ALF 161.81
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LAUNCH DATE SEP 13 1970 FLIGHT TIME 154.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 446.594

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RL  150.52 LAL    .00 LOL 349.80 VL  26.828 GAL  -2.73 AZL  95.12 HCA 212.58 SMA 127.16 ECC .18957 INC 5.1158 V1  29.602
RP  107.97 LAP   2.75 LOP 202.27 VP  37.613 GAP   6.66 AZP  85.69 TAL 191.82 TAP  44.40 RCA 103.06 APO 151.27 V2  35.099
RC 128.158 GL  -38.35 GP   41.64 ZAL 102.26 ZAP 132.12 ETS  49.39 ZAE 120.95 ETE 150.15 ZAC 140.20 ETC 251.99 CLP-153.82
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PLANETOCENTRIC CONIC

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C3  14.833 VHL  3.851 DLA -58.20 RAL 229.43 RAD 6567.6 VEL 11.671 PTH   2.05 VHP  6.172 DPA  23.67 RAP 240.04 ECC 1.2441
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.77	4 30 53	1647.14	40.46	41.12	107.48	136.16	4 58 20	1047.1	45.97	33.56
143.23	13 53 19	5287.66	40.48	244.93	107.50	136.15	15 21 26	4687.7	45.98	237.38
36.77	4 30 53	1647.14	40.46	41.12	107.48	136.16	4 58 20	1047.1	45.97	33.56
143.23	13 53 19	5287.66	40.48	244.93	107.50	136.15	15 21 26	4687.7	45.98	237.38
36.77	4 30 53	1647.14	40.46	41.12	107.48	136.16	4 58 20	1047.1	45.97	33.56
143.23	13 53 19	5287.66	40.48	244.93	107.50	136.15	15 21 26	4687.7	45.98	237.38

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.9553 TRA -.3678 TC3-4.2452 BAU  .8568   SGT 4498.1 SGR 1088.7 SG3  263.0     ST  2927.2 SR   890.1 SS  1059.2
 RDE  .5978 RRA -.0364 RC3  .8043 FAU .05106   RRT -.9202 RRF -.9692 RTF  .9506    CRT -.9900 CRS  .9999 CST -.9896
 FDE-1.3335 FRA  .0887 FC3-2.9799 BSP  14522   SGB 4628.0 R23  .2219 R13 -.9553    LSA 3232.7 MSA  178.8 SSA    9.5
 BDE 2.0447 BRA  .3696 BC3 4.3207 FSP   -861   SG1 4609.2 SG2  416.0 THA 167.34    EL1 3057.1 EL2  120.5 ALF 163.22
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LAUNCH DATE SEP 13 1970 FLIGHT TIME 156.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 452.542

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RL  150.52 LAL    .00 LOL 349.80 VL  26.786 GAL  -2.45 AZL  94.51 HCA 215.78 SMA 126.89 ECC .19092 INC 4.5121 V1  29.602
RP  108.01 LAP   2.64 LOP 205.49 VP  37.571 GAP   6.95 AZP  86.34 TAL 190.49 TAP  46.27 RCA 102.66 APO 151.11 V2  35.086
RC 130.397 GL  -35.07 GP   38.35 ZAL 100.78 ZAP 135.27 ETS  49.02 ZAE 122.21 ETE 152.25 ZAC 137.37 ETC 253.42 CLP-154.94
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PLANETOCENTRIC CONIC

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C3  13.427 VHL  3.664 DLA -55.68 RAL 234.77 RAD 6567.5 VEL 11.611 PTH   2.03 VHP  6.076 DPA  20.04 RAP 240.51 ECC 1.2210
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.82	5 0 25	1608.66	40.12	36.04	109.64	132.50	5 27 13	1008.7	45.24	28.08
140.18	14 6 23	5282.25	40.13	243.84	109.66	132.49	15 34 25	4682.2	45.25	235.88
39.82	5 0 25	1608.66	40.12	36.04	109.64	132.50	5 27 13	1008.7	45.24	28.08
140.18	14 6 23	5282.25	40.13	243.84	109.66	132.49	15 34 25	4682.2	45.25	235.88
39.82	5 0 25	1608.66	40.12	36.04	109.64	132.50	5 27 13	1008.7	45.24	28.08
140.18	14 6 23	5282.25	40.13	243.84	109.66	132.49	15 34 25	4682.2	45.25	235.88

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.8261 TRA -.2407 TC3-4.8449 BAU  .8817   SGT 4604.9 SGR 1016.2 SG3  270.3     ST  2864.3 SR   809.1 SS   989.5
 RDE  .5163 RRA -.0631 RC3  .8077 FAU .05173   RRT -.9168 RRF -.9613 RTF  .9493    CRT -.9908 CRS  .9996 CST -.9879
 FDE-1.2000 FRA  .1947 FC3-3.3355 BSP  14822   SGB 4715.7 R23  .2114 R13 -.9531    LSA 3131.7 MSA  172.4 SSA   11.1
 BDE 1.8976 BRA  .2488 BC3 4.9118 FSP   -887   SG1 4698.9 SG2  397.8 THA 168.48    EL1 2974.5 EL2  105.4 ALF 164.34
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LAUNCH DATE SEP 13 1970 FLIGHT TIME 158.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 458.474

RL 150.52 LAL .00 LOL 349.80 VL 26.744 GAL -2.16 AZL 94.00 HCA 218.98 SMA 126.61 ECC .19240 INC 3.9956 V1 29.602
RP 108.05 LAP 2.51 LOP 208.71 VP 37.529 GAP 7.23 AZP 86.89 TAL 189.13 TAP 48.11 RCA 102.25 APO 150.97 V2 35.074
RC 132.627 GL -31.92 GP 35.43 ZAL 98.95 ZAP 138.14 ETS 48.71 ZAE 123.18 ETE 154.22 ZAC 134.86 ETC 254.59 CLP-156.08

PLANETOCENTRIC CONIC

C3 12.404 VHL 3.522 DLA -53.21 RAL 239.83 RAD 6567.5 VEL 11.567 PTH 2.02 VHP 6.033 DPA 16.75 RAP 241.20 ECC 1.2041

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.86	5 29 19	1572.98	39.41	31.21	111.91	129.19	5 55 32	973.0	44.16	22.98
137.14	14 17 52	5283.82	39.42	243.22	111.92	129.18	15 45 56	4683.8	44.16	234.98
42.86	5 29 19	1572.98	39.41	31.21	111.91	129.19	5 55 32	973.0	44.16	22.98
137.14	14 17 52	5283.82	39.42	243.22	111.92	129.18	15 45 56	4683.8	44.16	234.98
42.86	5 29 19	1572.98	39.41	31.21	111.91	129.19	5 55 32	973.0	44.16	22.98
137.14	14 17 52	5283.82	39.42	243.22	111.92	129.18	15 45 56	4683.8	44.16	234.98

DIFFERENTIAL CORRECTIONS
TDE-1.6967 TRA -.1112 TC3-5.4022 BAU .9055
RDE .4510 RRA -.0844 RC3 .7946 FAU .05166
FDE-1.0593 FRA .2957 FC3-3.6054 BSP 15149
BDE 1.7556 BRA .1396 BC3 5.4604 FSP -903

MID-COURSE EXECUTION ACCURACY
SGT 4710.6 SGR 950.9 SG3 274.1
RRT -.9121 RRF -.9514 RTF .9487
SGB 4805.6 R23 .1959 R13 -.9517
SG1 4790.3 SG2 383.3 THA 169.50

ORBIT DETERMINATION ACCURACY
ST 2764.1 SR 737.1 SS 907.9
CRT -.9919 CRS .9987 CST -.9853
LSA 2996.6 MSA 167.0 SSA 12.9
EL1 2859.3 EL2 90.7 ALF 165.17

LAUNCH DATE SEP 13 1970 FLIGHT TIME 160.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 464.390

RL 150.52 LAL .00 LOL 349.80 VL 26.701 GAL -1.86 AZL 93.55 HCA 222.18 SMA 126.34 ECC .19402 INC 3.5463 V1 29.602
RP 108.09 LAP 2.38 LOP 211.92 VP 37.487 GAP 7.52 AZP 87.37 TAL 187.76 TAP 49.94 RCA 101.83 APO 150.85 V2 35.061
RC 134.850 GL -28.90 GP 32.85 ZAL 96.82 ZAP 140.77 ETS 48.47 ZAE 123.93 ETE 156.03 ZAC 132.65 ETC 255.59 CLP-157.24

PLANETOCENTRIC CONIC

C3 11.665 VHL 3.415 DLA -50.77 RAL 244.67 RAD 6567.4 VEL 11.535 PTH 2.01 VHP 6.030 DPA 13.78 RAP 242.10 ECC 1.1920

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.92	5 57 55	1538.93	38.41	26.60	114.32	126.19	6 23 34	938.9	42.81	18.21
134.08	14 27 51	5291.98	38.42	243.09	114.33	126.18	15 56 3	4692.0	42.82	234.70
45.92	5 57 55	1538.93	38.41	26.60	114.32	126.19	6 23 34	938.9	42.81	18.21
134.08	14 27 51	5291.98	38.42	243.09	114.33	126.18	15 56 3	4692.0	42.82	234.70
45.92	5 57 55	1538.93	38.41	26.60	114.32	126.19	6 23 34	938.9	42.81	18.21
134.08	14 27 51	5291.98	38.42	243.09	114.33	126.18	15 56 3	4692.0	42.82	234.70

DIFFERENTIAL CORRECTIONS
TDE-1.5646 TRA .0251 TC3-5.8965 BAU .9273
RDE .3984 RRA -.1030 RC3 .7674 FAU .05090
FDE -.9155 FRA .3942 FC3-3.7780 BSP 15433
BDE 1.6145 BRA .1060 BC3 5.9462 FSP -907

MID-COURSE EXECUTION ACCURACY
SGT 4808.0 SGR 892.2 SG3 274.7
RRT -.9053 RRF -.9392 RTF .9481
SGB 4890.0 R23 .1782 R13 -.9505
SG1 4875.7 SG2 373.6 THA 170.41

ORBIT DETERMINATION ACCURACY
ST 2627.6 SR 673.5 SS 817.7
CRT -.9932 CRS .9965 CST -.9813
LSA 2828.4 MSA 163.4 SSA 15.0
EL1 2711.5 EL2 75.9 ALF 165.70

LAUNCH DATE SEP 13 1970 FLIGHT TIME 162.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 470.287

RL 150.52 LAL .00 LOL 349.80 VL 26.659 GAL -1.54 AZL 93.15 HCA 225.38 SMA 126.07 ECC .19577 INC 3.1494 V1 29.602
RP 108.13 LAP 2.24 LOP 215.13 VP 37.444 GAP 7.81 AZP 87.79 TAL 186.37 TAP 51.74 RCA 101.39 APO 150.75 V2 35.047
RC 137.063 GL -26.01 GP 30.56 ZAL 94.44 ZAP 143.18 ETS 48.31 ZAE 124.50 ETE 157.69 ZAC 130.71 ETC 256.45 CLP-158.38

PLANETOCENTRIC CONIC

C3 11.149 VHL 3.339 DLA -48.37 RAL 249.31 RAD 6567.4 VEL 11.512 PTH 2.01 VHP 6.058 DPA 11.08 RAP 243.16 ECC 1.1835

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.99	6 26 27	1505.55	37.18	22.15	116.90	123.50	6 51 33	905.6	41.28	13.69
131.01	14 36 18	5306.61	37.19	243.49	116.90	123.49	16 4 45	4706.6	41.28	235.02
48.99	6 26 27	1505.55	37.18	22.15	116.90	123.50	6 51 33	905.6	41.28	13.69
131.01	14 36 18	5306.61	37.19	243.49	116.90	123.49	16 4 45	4706.6	41.28	235.02
48.99	6 26 27	1505.55	37.18	22.15	116.90	123.50	6 51 33	905.6	41.28	13.69
131.01	14 36 18	5306.61	37.19	243.49	116.90	123.49	16 4 45	4706.6	41.28	235.02

DIFFERENTIAL CORRECTIONS
TDE-1.4318 TRA .1665 TC3-6.3194 BAU .9482
RDE .3567 RRA -.1190 RC3 .7312 FAU .04968
FDE -.7752 FRA .4872 FC3-3.8577 BSP 15733
BDE 1.4755 BRA .2047 BC3 6.3616 FSP -906

MID-COURSE EXECUTION ACCURACY
SGT 4902.1 SGR 841.2 SG3 273.1
RRT -.8965 RRF -.9249 RTF .9475
SGB 4973.8 R23 .1593 R13 -.9494
SG1 4960.1 SG2 368.3 THA 171.21

ORBIT DETERMINATION ACCURACY
ST 2463.4 SR 619.2 SS 724.9
CRT -.9949 CRS .9914 CST -.9751
LSA 2636.4 MSA 161.8 SSA 17.3
EL1 2539.3 EL2 60.5 ALF 165.95

LAUNCH DATE SEP 13 1970 FLIGHT TIME 164.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 476.167

RL 150.52 LAL .00 LOL 349.80 VL 26.616 GAL -1.22 AZL 92.79 HCA 228.57 SMA 125.79 ECC .19767 INC 2.7943 V1 29.602
RP 108.17 LAP 2.09 LOP 218.34 VP 37.401 GAP 8.10 AZP 88.15 TAL 184.95 TAP 53.53 RCA 100.93 APO 150.66 V2 35.034
RC 139.266 GL -23.23 GP 28.53 ZAL 91.84 ZAP 145.39 ETS 48.24 ZAE 124.92 ETE 159.19 ZAC 129.00 ETC 257.23 CLP-159.51

PLANETOCENTRIC CONIC

C3 10.817 VHL 3.289 DLA -45.99 RAL 253.76 RAD 6567.4 VEL 11.498 PTH 2.00 VHP 6.111 DPA 8.64 RAP 244.38 ECC 1.1780

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.12	6 55 13	1471.86	35.78	17.82	119.63	121.08	7 19 44	871.9	39.59	9.34
127.88	14 43 6	5327.87	35.79	244.42	119.63	121.07	16 11 54	4727.9	39.60	235.94
52.12	6 55 13	1471.86	35.78	17.82	119.63	121.08	7 19 44	871.9	39.59	9.34
127.88	14 43 6	5327.87	35.79	244.42	119.63	121.07	16 11 54	4727.9	39.60	235.94
52.12	6 55 13	1471.86	35.78	17.82	119.63	121.08	7 19 44	871.9	39.59	9.34
127.88	14 43 6	5327.87	35.79	244.42	119.63	121.07	16 11 54	4727.9	39.60	235.94

DIFFERENTIAL CORRECTIONS
TDE-1.2923 TRA .3188 TC3-6.6437 BAU .9659
RDE .3226 RRA -.1342 RC3 .6857 FAU .04793
FDE -.6360 FRA .5784 FC3-3.8364 BSP 15902
BDE 1.3320 BRA .3459 BC3 6.6790 FSP -887

MID-COURSE EXECUTION ACCURACY
SGT 4980.5 SGR 795.3 SG3 269.1
RRT -.8849 RRF -.9080 RTF .9465
SGB 5043.6 R23 .1412 R13 -.9481
SG1 5030.2 SG2 366.7 THA 171.91

ORBIT DETERMINATION ACCURACY
ST 2267.8 SR 571.2 SS 629.7
CRT -.9969 CRS .9800 CST -.9644
LSA 2416.4 MSA 163.5 SSA 19.7
EL1 2338.2 EL2 43.9 ALF 165.90

LAUNCH DATE SEP 13 1970 FLIGHT TIME 166.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 482.028
RL 150.52 LAL .00 LOL 349.80 VL 26.573 GAL -.88 AZL 92.47 HCA 231.77 SMA 125.52 ECC .19972 INC 2.4728 V1 29.602
RP 108.21 LAP 1.94 LOP 221.54 VP 37.358 GAP 8.39 AZP 88.47 TAL 183.52 TAP 55.29 RCA 100.45 APO 150.59 V2 35.021
RC 141.459 GL -20.57 GP 26.72 ZAL 89.08 ZAP 147.41 ETS 48.26 ZAE 125.24 ETE 160.53 ZAC 127.50 ETC 257.95 CLP-160.61
PLANETOCENTRIC CONIC
C3 10.641 VHL 3.262 DLA -43.64 RAL 258.04 RAD 6567.4 VEL 11.490 PTH 2.00 VHP 6.185 DPA 6.42 RAP 245.73 ECC 1.1751

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.30	7 24 25	1436.85	34.23	13.52	122.50	118.91	7 48 21	836.8	37.78	5.07
124.70	14 48 3	5356.21	34.24	245.93	122.51	118.90	16 17 19	4756.2	37.79	237.48
55.30	7 24 25	1436.85	34.23	13.52	122.50	118.91	7 48 21	836.8	37.78	5.07
124.70	14 48 3	5356.21	34.24	245.93	122.51	118.90	16 17 19	4756.2	37.79	237.48
55.30	7 24 25	1436.85	34.23	13.52	122.50	118.91	7 48 21	836.8	37.78	5.07
124.70	14 48 3	5356.21	34.24	245.93	122.51	118.90	16 17 19	4756.2	37.79	237.48

DIFFERENTIAL CORRECTIONS
TDE-1.1555 TRA .4737 TC3-6.8942 BAU .9850
RDE .2970 RRA -.1473 RC3 .6416 FAU .04617
FDE -.5100 FRA .6599 FC3-3.7565 BSP 16175
BDE 1.1931 BRA .4961 BC3 6.9240 FSP -875

MID-COURSE EXECUTION ACCURACY
SGT 5066.7 SGR 758.3 SG3 264.5
RRT -.8725 RRF -.8896 RTF .9465
SGB 5123.2 R23 .1216 R13 -.9477
SG1 5110.0 SG2 367.4 THA 172.52

ORBIT DETERMINATION ACCURACY
ST 2063.0 SR 532.8 SS 544.5
CRT -.9985 CRS .9573 CST -.9482
LSA 2192.7 MSA 167.9 SSA 22.2
EL1 2130.5 EL2 27.9 ALF 165.54

LAUNCH DATE SEP 13 1970 FLIGHT TIME 168.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 487.868
RL 150.52 LAL .00 LOL 349.80 VL 26.530 GAL -.53 AZL 92.18 HCA 234.96 SMA 125.25 ECC .20194 INC 2.1786 V1 29.602
RP 108.25 LAP 1.78 LOP 224.74 VP 37.315 GAP 8.68 AZP 88.75 TAL 182.08 TAP 57.04 RCA 99.96 APO 150.55 V2 35.008
RC 143.643 GL -18.04 GP 25.11 ZAL 86.19 ZAP 149.28 ETS 48.39 ZAE 125.48 ETE 161.74 ZAC 126.17 ETC 258.63 CLP-161.70
PLANETOCENTRIC CONIC
C3 10.606 VHL 3.257 DLA -41.31 RAL 262.15 RAD 6567.4 VEL 11.489 PTH 2.00 VHP 6.275 DPA 4.40 RAP 247.20 ECC 1.1745

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.56	7 54 22	1399.35	32.58	9.16	125.50	116.95	8 17 41	799.4	35.90	.77
121.44	14 50 53	5392.35	32.59	248.07	125.50	116.94	16 20 46	4792.4	35.91	239.68
58.56	7 54 22	1399.35	32.58	9.16	125.50	116.95	8 17 41	799.4	35.90	.77
121.44	14 50 53	5392.35	32.59	248.07	125.50	116.94	16 20 46	4792.4	35.91	239.68
58.56	7 54 22	1399.35	32.58	9.16	125.50	116.95	8 17 41	799.4	35.90	.77
121.44	14 50 53	5392.35	32.59	248.07	125.50	116.94	16 20 46	4792.4	35.91	239.68

DIFFERENTIAL CORRECTIONS
TDE-1.0164 TRA .6356 TC3-7.0471 BAU 1.0028
RDE .2773 RRA -.1594 RC3 .5946 FAU .04418
FDE -.3927 FRA .7351 FC3-3.6061 BSP 16399
BDE 1.0535 BRA .6553 BC3 7.0721 FSP -855

MID-COURSE EXECUTION ACCURACY
SGT 5146.1 SGR 726.2 SG3 258.6
RRT -.8578 RRF -.8693 RTF .9466
SGB 5197.1 R23 .1033 R13 -.9475
SG1 5183.8 SG2 370.5 THA 173.06

ORBIT DETERMINATION ACCURACY
ST 1848.3 SR 500.6 SS 469.2
CRT -.9985 CRS .9132 CST -.9226
LSA 1963.4 MSA 177.5 SSA 24.4
EL1 1914.7 EL2 26.5 ALF 164.86

LAUNCH DATE SEP 13 1970 FLIGHT TIME 170.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 493.686
RL 150.52 LAL .00 LOL 349.80 VL 26.487 GAL -.16 AZL 91.91 HCA 238.16 SMA 124.98 ECC .20435 INC 1.9068 V1 29.602
RP 108.29 LAP 1.62 LOP 227.94 VP 37.272 GAP 8.98 AZP 88.99 TAL 180.62 TAP 58.77 RCA 99.44 APO 150.52 V2 34.995
RC 145.816 GL -15.63 GP 23.67 ZAL 83.21 ZAP 151.01 ETS 48.63 ZAE 125.66 ETE 162.82 ZAC 124.99 ETC 259.28 CLP-162.75
PLANETOCENTRIC CONIC
C3 10.701 VHL 3.271 DLA -39.03 RAL 266.09 RAD 6567.4 VEL 11.493 PTH 2.00 VHP 6.380 DPA 2.55 RAP 248.78 ECC 1.1761

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.93	8 25 26	1357.92	30.85	4.65	128.60	115.19	8 48 4	757.9	33.97	356.34
118.07	14 51 14	5437.42	30.86	250.90	128.61	115.18	16 21 51	4837.4	33.98	242.58
61.93	8 25 26	1357.92	30.85	4.65	128.60	115.19	8 48 4	757.9	33.97	356.34
118.07	14 51 14	5437.42	30.86	250.90	128.61	115.18	16 21 51	4837.4	33.98	242.58
61.93	8 25 26	1357.92	30.85	4.65	128.60	115.19	8 48 4	757.9	33.97	356.34
118.07	14 51 14	5437.42	30.86	250.90	128.61	115.18	16 21 51	4837.4	33.98	242.58

DIFFERENTIAL CORRECTIONS
TDE -.8901 TRA .7899 TC3-7.1558 BAU 1.0268
RDE .2653 RRA -.1681 RC3 .5588 FAU .04271
FDE -.2986 FRA .7912 FC3-3.4554 BSP 17046
BDE .9288 BRA .8076 BC3 7.1776 FSP -871

MID-COURSE EXECUTION ACCURACY
SGT 5246.0 SGR 702.4 SG3 252.9
RRT -.8444 RRF -.8492 RTF .9493
SGB 5292.8 R23 .0813 R13 -.9500
SG1 5279.6 SG2 373.9 THA 173.52

ORBIT DETERMINATION ACCURACY
ST 1654.0 SR 478.6 SS 414.2
CRT -.9940 CRS .8473 CST -.8939
LSA 1760.7 MSA 189.0 SSA 26.0
EL1 1721.1 EL2 50.2 ALF 163.94

LAUNCH DATE SEP 13 1970 FLIGHT TIME 172.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 499.485
RL 150.52 LAL .00 LOL 349.80 VL 26.444 GAL .22 AZL 91.65 HCA 241.35 SMA 124.72 ECC .20694 INC 1.6533 V1 29.602
RP 108.33 LAP 1.45 LOP 231.13 VP 37.229 GAP 9.28 AZP 89.21 TAL 179.14 TAP 60.49 RCA 98.91 APO 150.52 V2 34.982
RC 147.979 GL -13.35 GP 22.38 ZAL 80.19 ZAP 152.61 ETS 49.00 ZAE 125.79 ETE 163.78 ZAC 123.95 ETC 259.91 CLP-163.79
PLANETOCENTRIC CONIC
C3 10.922 VHL 3.305 DLA -36.79 RAL 269.86 RAD 6567.4 VEL 11.503 PTH 2.00 VHP 6.499 DPA .87 RAP 250.45 ECC 1.1797

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.46	8 58 10	1310.69	29.08	359.85	131.81	113.61	9 20 1	710.7	32.00	351.62
114.54	14 48 35	5492.98	29.09	254.53	131.81	113.59	16 20 8	4893.0	32.01	246.30
65.46	8 58 10	1310.69	29.08	359.85	131.81	113.61	9 20 1	710.7	32.00	351.62
114.54	14 48 35	5492.98	29.09	254.53	131.81	113.59	16 20 8	4893.0	32.01	246.30
65.46	8 58 10	1310.69	29.08	359.85	131.81	113.61	9 20 1	710.7	32.00	351.62
114.54	14 48 35	5492.98	29.09	254.53	131.81	113.59	16 20 8	4893.0	32.01	246.30

DIFFERENTIAL CORRECTIONS
TDE -.7289 TRA .9833 TC3-7.0796 BAU 1.0363
RDE .2496 RRA -.1835 RC3 .5022 FAU .03997
FDE -.1780 FRA .8734 FC3-3.1682 BSP 16911
BDE .7705 BRA 1.0002 BC3 7.0974 FSP -817

MID-COURSE EXECUTION ACCURACY
SGT 5293.8 SGR 674.8 SG3 245.2
RRT -.8247 RRF -.8249 RTF .9460
SGB 5336.6 R23 .0720 R13 -.9466
SG1 5323.1 SG2 379.5 THA 173.97

ORBIT DETERMINATION ACCURACY
ST 1422.9 SR 449.0 SS 364.3
CRT -.9774 CRS .6927 CST -.8243
LSA 1519.1 MSA 224.8 SSA 26.7
EL1 1489.3 EL2 90.7 ALF 162.79

LAUNCH DATE SEP 13 1970 FLIGHT TIME 174.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 505.259

RL 150.52 LAL .00 LOL 349.80 VL 26.401 GAL .62 AZL 91.42 HCA 244.54 SMA 124.45 ECC .20974 INC 1.4150 V1 29.602
RP 108.37 LAP 1.28 LOP 234.33 VP 37.187 GAP 9.59 AZP 89.39 TAL 177.65 TAP 62.19 RCA 98.35 APO 150.55 V2 34.969
RC 150.132 GL -11.20 GP 21.22 ZAL 77.15 ZAP 154.10 ETS 49.49 ZAE 125.88 ETE 164.64 ZAC 123.01 ETC 260.53 CLP-164.80

PLANETOCENTRIC CONIC

C3 11.268 VHL 3.357 DLA -34.61 RAL 273.46 RAD 6567.4 VEL 11.518 PTH 2.01 VHP 6.631 DPA -.67 RAP 252.21 ECC 1.1854

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.22	9 33 27	1254.50	27.28	354.51	135.08	112.17	9 54 21	654.5	30.04	346.37
110.78	14 42 1	5562.00	27.29	259.17	135.09	112.16	16 14 43	4962.0	30.05	251.02
69.22	9 33 27	1254.50	27.28	354.51	135.08	112.17	9 54 21	654.5	30.04	346.37
110.78	14 42 1	5562.00	27.29	259.17	135.09	112.16	16 14 43	4962.0	30.05	251.02
69.22	9 33 27	1254.50	27.28	354.51	135.08	112.17	9 54 21	654.5	30.04	346.37
110.78	14 42 1	5562.00	27.29	259.17	135.09	112.16	16 14 43	4962.0	30.05	251.02

DIFFERENTIAL CORRECTIONS
TDE -.5853 TRA 1.1717 TC3-6.9530 BAU 1.0496
RDE .2426 RRA -.1959 RC3 .4560 FAU .03768
FDE -.0909 FRA .9377 FC3-2.8952 BSP 17109
BDE .6336 BRA 1.1880 BC3 6.9679 FSP -795

MID-COURSE EXECUTION ACCURACY
SGT 5356.4 SGR 656.0 SG3 237.9
RRT -.8054 RRF -.8024 RTF .9459
SGB 5396.4 R23 .0616 R13 -.9464
SG1 5382.6 SG2 386.9 THA 174.34

ORBIT DETERMINATION ACCURACY
ST 1244.6 SR 431.8 SS 347.4
CRT -.9376 CRS .5190 CST -.7796
LSA 1336.6 MSA 262.8 SSA 26.7
EL1 1309.6 EL2 142.7 ALF 161.76

LAUNCH DATE SEP 13 1970 FLIGHT TIME 176.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 511.008

RL 150.52 LAL .00 LOL 349.80 VL 26.358 GAL 1.04 AZL 91.19 HCA 247.72 SMA 124.19 ECC .21277 INC 1.1892 V1 29.602
RP 108.41 LAP 1.10 LOP 237.52 VP 37.144 GAP 9.91 AZP 89.55 TAL 176.15 TAP 63.88 RCA 97.77 APO 150.61 V2 34.956
RC 152.275 GL -9.19 GP 20.18 ZAL 74.13 ZAP 155.49 ETS 50.11 ZAE 125.94 ETE 165.41 ZAC 122.18 ETC 261.14 CLP-165.79

PLANETOCENTRIC CONIC

C3 11.741 VHL 3.426 DLA -32.49 RAL 276.89 RAD 6567.4 VEL 11.538 PTH 2.01 VHP 6.774 DPA -2.08 RAP 254.04 ECC 1.1932

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.37	10 12 52	1184.01	25.48	348.26	138.42	110.87	10 32 36	584.0	28.09	340.20
106.63	14 29 56	5649.61	25.49	265.16	138.42	110.86	16 4 6	5049.6	28.09	257.10
73.37	10 12 52	1184.01	25.48	348.26	138.42	110.87	10 32 36	584.0	28.09	340.20
106.63	14 29 56	5649.61	25.49	265.16	138.42	110.86	16 4 6	5049.6	28.09	257.10
110.00	13 29 49	5835.36	19.37	276.40	135.36	118.73	15 7 5	5235.4	23.05	269.20
110.00	16 12 10	5334.30	31.93	243.08	140.65	102.90	17 41 4	4734.3	33.38	234.15

DIFFERENTIAL CORRECTIONS
TDE -.4372 TRA 1.3672 TC3-6.7620 BAU 1.0634
RDE .2375 RRA -.2082 RC3 .4138 FAU .03551
FDE -.0075 FRA .9965 FC3-2.6186 BSP 17314
BDE .4976 BRA 1.3829 BC3 6.7747 FSP -773

MID-COURSE EXECUTION ACCURACY
SGT 5417.9 SGR 639.0 SG3 230.6
RRT -.7864 RRF -.7793 RTF .9460
SGB 5455.5 R23 .0508 R13 -.9464
SG1 5441.3 SG2 393.0 THA 174.67

ORBIT DETERMINATION ACCURACY
ST 1102.3 SR 416.0 SS 348.3
CRT -.8552 CRS .3182 CST -.7598
LSA 1188.2 MSA 311.1 SSA 25.9
EL1 1160.2 EL2 204.9 ALF 161.51

LAUNCH DATE SEP 13 1970 FLIGHT TIME 178.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 516.730

RL 150.52 LAL .00 LOL 349.80 VL 26.316 GAL 1.47 AZL 90.97 HCA 250.91 SMA 123.93 ECC .21603 INC .9736 V1 29.602
RP 108.45 LAP .92 LOP 240.70 VP 37.102 GAP 10.23 AZP 89.68 TAL 174.65 TAP 65.56 RCA 97.16 APO 150.70 V2 34.943
RC 154.408 GL -7.31 GP 19.24 ZAL 71.15 ZAP 156.78 ETS 50.88 ZAE 125.99 ETE 166.09 ZAC 121.42 ETC 261.75 CLP-166.76

PLANETOCENTRIC CONIC

C3 12.347 VHL 3.514 DLA -30.44 RAL 280.14 RAD 6567.5 VEL 11.564 PTH 2.02 VHP 6.929 DPA -3.36 RAP 255.94 ECC 1.2032

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
78.33	11 0 26	1085.97	23.70	340.13	141.80	109.69	11 18 32	486.0	26.17	332.15
101.67	14 8 22	5768.88	23.71	273.46	141.80	109.67	15 44 30	5168.9	26.18	265.48
78.33	11 0 26	1085.97	23.70	340.13	141.80	109.69	11 18 32	486.0	26.17	332.15
101.67	14 8 22	5768.88	23.71	273.46	141.80	109.67	15 44 30	5168.9	26.18	265.48
110.00	13 4 0	683.46	14.73	306.32	137.29	121.20	13 15 23	83.5	18.76	299.52
110.00	17 3 58	5219.39	33.35	234.42	144.50	97.96	18 30 58	4619.4	34.09	225.26

DIFFERENTIAL CORRECTIONS
TDE -.2885 TRA 1.5708 TC3-6.5101 BAU 1.0763
RDE .2349 RRA -.2204 RC3 .3742 FAU .03339
FDE .0672 FRA 1.0506 FC3-2.3411 BSP 17517
BDE .3720 BRA 1.5862 BC3 6.5208 FSP -751

MID-COURSE EXECUTION ACCURACY
SGT 5475.2 SGR 624.2 SG3 223.1
RRT -.7671 RRF -.7563 RTF .9463
SGB 5510.7 R23 .0413 R13 -.9466
SG1 5496.2 SG2 398.9 THA 174.98

ORBIT DETERMINATION ACCURACY
ST 1017.1 SR 403.0 SS 364.0
CRT -.7141 CRS .1345 CST -.7867
LSA 1095.3 MSA 359.3 SSA 24.8
EL1 1060.0 EL2 270.7 ALF 163.06

LAUNCH DATE SEP 13 1970 FLIGHT TIME 180.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 522.424

RL 150.52 LAL .00 LOL 349.80 VL 26.273 GAL 1.92 AZL 90.77 HCA 254.09 SMA 123.67 ECC .21955 INC .7663 V1 29.602
RP 108.49 LAP .74 LOP 243.89 VP 37.061 GAP 10.57 AZP 89.79 TAL 173.13 TAP 67.22 RCA 96.52 APO 150.82 V2 34.931
RC 156.530 GL -5.57 GP 18.40 ZAL 68.24 ZAP 158.00 ETS 51.81 ZAE 126.01 ETE 166.71 ZAC 120.74 ETC 262.35 CLP-167.71

PLANETOCENTRIC CONIC

C3 13.093 VHL 3.618 DLA -28.48 RAL 283.23 RAD 6567.5 VEL 11.597 PTH 2.03 VHP 7.095 DPA -4.53 RAP 257.90 ECC 1.2155

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
86.83	12 20 5	882.30	21.96	324.43	145.21	108.61	12 34 47	282.3	24.30	316.53
93.17	13 13 22	709.65	21.97	311.80	145.22	108.59	13 25 12	109.7	24.31	303.89
100.00	12 51 0	781.91	16.50	314.77	142.89	115.28	13 4 2	181.9	19.77	307.50
100.00	15 25 8	5573.32	27.64	260.15	146.92	101.86	16 58 1	4973.3	28.99	251.60
110.00	12 48 45	788.98	10.93	312.14	139.72	122.59	13 1 54	189.0	15.15	305.58
110.00	17 43 52	5139.02	33.94	228.22	147.96	94.34	19 9 31	4539.0	34.17	218.99

DIFFERENTIAL CORRECTIONS
TDE -.1372 TRA 1.7848 TC3-6.2061 BAU 1.0879
RDE .2343 RRA -.2331 RC3 .3366 FAU .03127
FDE .1356 FRA 1.1031 FC3-2.0674 BSP 17712
BDE .2715 BRA 1.8000 BC3 6.2153 FSP -729

MID-COURSE EXECUTION ACCURACY
SGT 5527.8 SGR 611.0 SG3 215.7
RRT -.7475 RRF -.7337 RTF .9465
SGB 5561.5 R23 .0337 R13 -.9467
SG1 5546.8 SG2 404.4 THA 175.25

ORBIT DETERMINATION ACCURACY
ST 997.9 SR 391.8 SS 389.4
CRT -.5193 CRS -.0169 CST -.8432
LSA 1070.1 MSA 394.1 SSA 23.5
EL1 1020.9 EL2 327.3 ALF 167.13

LAUNCH DATE SEP 13 1970 FLIGHT TIME 182.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 528.083

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RL  150.52 LAL    .00 LOL 349.80 VL  26.231 GAL   2.40 AZL  90.57 HCA 257.27 SMA 123.42 ECC .22336 INC  .5656 V1  29.602
RP  108.53 LAP    .55 LOP 247.07 VP  37.020 GAP  10.92 AZP  89.88 TAL 171.61 TAP  68.88 RCA  95.85 APO 150.98 V2  34.919
RC 158.641 GL   -3.97 GP   17.63 ZAL  65.42 ZAP 159.13 ETS  52.89 ZAE 126.02 ETE 167.27 ZAC 120.11 ETC 262.96 CLP-168.64
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PLANETOCENTRIC CONIC

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C3  13.990 VHL  3.740 DLA -26.60 RAL 286.16 RAD 6567.6 VEL 11.635 PTH   2.04 VHP  7.273 DPA  -5.60 RAP 259.92 ECC 1.2302
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 32 3	1093.27	14.32	336.62	146.25	114.69	11 50 16	493.3	17.53	329.42
90.00	14 24 44	5815.61	26.46	277.70	150.34	100.48	16 1 39	5215.6	27.64	269.23
100.00	12 22 28	930.43	11.99	323.49	145.07	117.59	12 37 59	330.4	15.59	316.55
100.00	16 17 0	5453.69	29.01	251.52	150.80	97.53	17 47 53	4853.7	29.75	242.80
110.00	12 38 30	880.13	7.55	317.03	142.42	123.44	12 53 10	280.1	11.90	310.63
110.00	18 17 28	5076.75	34.16	223.37	151.27	91.48	19 42 5	4476.7	33.98	214.13

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.0061 TRA 1.9866 TC3-5.9280 BAU 1.1103   SGT 5590.1 SGR  600.7 SG3  208.1     ST  1029.7 SR   385.9 SS   408.6
 RDE  .2383 RRA -.2434 RC3  .3100 FAU .02990   RRT -.7299 RRF -.7135 RTF  .9489    CRT -.3324 CRS -.1146 CST -.8969
 FDE  .1829 FRA 1.1389 FC3-1.8505 BSP  18422   SGB 5622.3 R23  .0251 R13 -.9491   LSA 1100.7 MSA  405.2 SSA   22.0
 BDE  .2383 BRA 2.0014 BC3 5.9361 FSP   -737   SG1 5607.3 SG2  409.4 THA 175.49   EL1 1038.7 EL2  360.8 ALF 171.92
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LAUNCH DATE SEP 13 1970 FLIGHT TIME 184.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 533.714

```
RL  150.52 LAL    .00 LOL 349.80 VL  26.189 GAL   2.89 AZL  90.37 HCA 260.45 SMA 123.17 ECC .22748 INC  .3700 V1  29.602
RP  108.56 LAP    .37 LOP 250.25 VP  36.979 GAP  11.27 AZP  89.94 TAL 170.08 TAP  70.53 RCA  95.15 APO 151.18 V2  34.907
RC 160.740 GL   -2.50 GP   16.93 ZAL  62.68 ZAP 160.19 ETS  54.15 ZAE 126.03 ETE 167.76 ZAC 119.54 ETC 263.57 CLP-169.56
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PLANETOCENTRIC CONIC

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C3  15.053 VHL  3.880 DLA -24.82 RAL 288.93 RAD 6567.6 VEL 11.681 PTH   2.05 VHP  7.464 DPA  -6.56 RAP 261.99 ECC 1.2477
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 6 17	1234.40	10.15	344.89	148.65	116.58	11 26 52	634.4	13.64	337.95
90.00	15 12 36	5706.97	27.57	269.94	154.13	96.74	16 47 43	5107.0	28.21	261.34
100.00	12 5 27	1043.43	8.35	329.91	147.69	118.81	12 22 50	443.4	12.14	323.16
100.00	16 56 8	5373.16	29.59	245.61	154.36	94.47	18 25 41	4773.2	29.89	236.82
110.00	12 31 13	962.58	4.44	321.38	145.29	123.93	12 47 16	362.6	8.86	315.08
110.00	18 46 51	5026.78	34.17	219.47	154.53	89.17	20 10 38	4426.8	33.68	210.26

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .1655 TRA 2.2379 TC3-5.5113 BAU 1.1104   SGT 5621.9 SGR  588.1 SG3  201.2     ST  1126.7 SR   374.9 SS   446.4
 RDE  .2390 RRA -.2587 RC3  .2711 FAU .02736   RRT -.7094 RRF -.6910 RTF  .9476    CRT -.1242 CRS -.2168 CST -.9403
 FDE  .2500 FRA 1.1974 FC3-1.5738 BSP  18184   SGB 5652.6 R23  .0215 R13 -.9477   LSA 1203.9 MSA  399.2 SSA   20.9
 BDE  .2907 BRA 2.2528 BC3 5.5179 FSP   -692   SG1 5637.5 SG2  413.4 THA 175.73   EL1 1127.8 EL2  371.6 ALF 177.35
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LAUNCH DATE SEP 13 1970 FLIGHT TIME 186.00 ARRIVAL DATE MAR 18 1971

HELIOCENTRIC CONIC DISTANCE 539.306

```
RL  150.52 LAL    .00 LOL 349.80 VL  26.148 GAL   3.41 AZL  90.18 HCA 263.63 SMA 122.92 ECC .23193 INC  .1779 V1  29.602
RP  108.60 LAP    .18 LOP 253.42 VP  36.939 GAP  11.65 AZP  89.98 TAL 168.55 TAP  72.18 RCA  94.41 APO 151.42 V2  34.896
RC 162.826 GL   -1.15 GP   16.30 ZAL  60.06 ZAP 161.19 ETS  55.60 ZAE 126.02 ETE 168.21 ZAC 119.00 ETC 264.19 CLP-170.47
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PLANETOCENTRIC CONIC

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C3  16.296 VHL  4.037 DLA -23.13 RAL 291.55 RAD 6567.7 VEL 11.734 PTH   2.07 VHP  7.667 DPA  -7.44 RAP 264.10 ECC 1.2682
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 50 5	1345.34	6.71	351.23	151.38	117.57	11 12 30	745.3	10.35	344.44
90.00	15 49 41	5631.89	28.05	264.50	157.67	94.06	17 23 33	5031.9	28.32	255.85
100.00	11 53 40	1140.09	5.15	335.29	150.53	119.49	12 12 40	540.1	9.04	328.66
100.00	17 28 47	5312.38	29.82	241.10	157.78	92.11	18 57 19	4712.4	29.80	232.30
110.00	12 25 55	1038.96	1.52	325.37	148.28	124.15	12 43 14	439.0	5.99	319.14
110.00	19 13 1	4986.27	34.09	216.31	157.76	87.30	20 36 7	4386.3	33.34	207.15

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .3278 TRA 2.4881 TC3-5.1150 BAU 1.1156   SGT 5658.4 SGR  577.1 SG3  194.4     ST  1248.6 SR   366.8 SS   477.9
 RDE  .2426 RRA -.2726 RC3  .2394 FAU .02526   RRT -.6902 RRF -.6703 RTF  .9476    CRT  .0307 CRS -.2857 CST -.9655
 FDE  .3041 FRA 1.2465 FC3-1.3420 BSP  18227   SGB 5687.8 R23  .0175 R13 -.9477   LSA 1332.1 MSA  383.7 SSA   19.8
 BDE  .4078 BRA 2.5030 BC3 5.1206 FSP   -664   SG1 5672.5 SG2  416.5 THA 175.95   EL1 1248.7 EL2  366.6 ALF    .57
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LAUNCH DATE SEP 13 1970 FLIGHT TIME 188.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 544.856

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RL  150.52 LAL    .00 LOL 349.80 VL  26.106 GAL   3.95 AZL  89.99 HCA 266.80 SMA 122.67 ECC .23674 INC  .0000 V1  29.602
RP  108.63 LAP   -.01 LOP 256.60 VP  36.899 GAP  12.04 AZP  90.00 TAL 167.02 TAP  73.82 RCA  93.63 APO 151.71 V2  34.885
RC 164.900 GL     .07 GP   15.72 ZAL  57.55 ZAP 162.12 ETS  57.25 ZAE 126.01 ETE 168.62 ZAC 118.50 ETC 264.80 CLP-171.36
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PLANETOCENTRIC CONIC

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C3  17.739 VHL  4.212 DLA -21.54 RAL 294.02 RAD 6567.7 VEL 11.795 PTH   2.09 VHP  7.885 DPA  -8.22 RAP 266.26 ECC 1.2919
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 38 35	1441.25	3.66	356.62	154.30	118.10	11 2 37	841.3	7.39	349.93
90.00	16 20 53	5575.09	28.25	260.36	161.11	91.99	17 53 48	4975.1	28.23	251.69
100.00	11 45 2	1226.81	2.22	340.07	153.51	119.82	12 5 29	626.8	6.18	333.51
100.00	17 57 7	5264.76	29.89	237.57	161.15	90.25	19 24 52	4664.8	29.61	228.77
110.00	12 22 2	1110.82	-1.23	329.12	151.35	124.16	12 40 33	510.8	3.27	322.92
110.00	19 36 36	4953.52	33.95	213.76	160.99	85.79	20 59 10	4353.5	33.00	204.65

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .4890 TRA 2.7466 TC3-4.7221 BAU 1.1210   SGT 5692.1 SGR  566.4 SG3  187.7     ST  1381.6 SR   360.1 SS   505.6
 RDE  .2480 RRA -.2863 RC3  .2112 FAU .02332   RRT -.6715 RRF -.6505 RTF  .9480    CRT  .1457 CRS -.3367 CST -.9797
 FDE  .3515 FRA 1.2920 FC3-1.1381 BSP  18343   SGB 5720.2 R23  .0141 R13 -.9481   LSA 1469.5 MSA  366.7 SSA   18.7
 BDE  .5483 BRA 2.7615 BC3 4.7268 FSP   -642   SG1 5704.9 SG2  418.7 THA 176.16   EL1 1382.7 EL2  355.9 ALF    2.33
```

LAUNCH DATE SEP 13 1970 FLIGHT TIME 190.00 ARRIVAL DATE MAR 22 1971

HELIOCENTRIC CONIC DISTANCE 550.360

```
RL  150.52 LAL    .00 LOL 349.80 VL  26.065 GAL   4.53 AZL  89.80 HCA 269.97 SMA 122.43 ECC .24196 INC  .1984 V1  29.602
RP  108.66 LAP   -.20 LOP 259.77 VP  36.860 GAP  12.45 AZP  90.00 TAL 165.49 TAP  75.47 RCA  92.81 APO 152.05 V2  34.874
RC 166.961 GL    1.17 GP   15.19 ZAL  55.16 ZAP 162.98 ETS  59.12 ZAE 125.99 ETE 169.00 ZAC 118.03 ETC 265.42 CLP-172.25
```

PLANETOCENTRIC CONIC

```
C3  19.406 VHL  4.405 DLA -20.04 RAL 296.35 RAD 6567.8 VEL 11.865 PTH   2.10 VHP  8.117 DPA  -8.92 RAP 268.44 ECC 1.3194
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 30 0	1527.70	.87	1.45	157.34	118.30	10 55 27	927.7	4.65	354.81
90.00	16 48 3	5530.79	28.31	257.12	164.50	90.37	18 20 14	4930.8	28.07	248.46
100.00	11 38 29	1306.67	-.48	344.45	156.58	119.89	12 0 16	706.7	3.50	337.92
100.00	18 22 15	5227.06	29.87	234.76	164.49	88.77	19 49 22	4627.1	29.38	225.99
110.00	12 19 12	1179.09	-3.83	332.69	154.49	123.99	12 38 51	579.1	.66	326.48
110.00	19 58 1	4927.40	33.81	211.74	164.22	84.60	21 20 9	4327.4	32.69	202.68

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .6486 TRA 3.0125 TC3-4.3409 BAU 1.1273   SGT 5721.3 SGR  555.7 SG3  181.0     ST  1513.4 SR   354.2 SS   528.8
RDE  .2550 RRA -.2994 RC3  .1864 FAU .02157   RRT -.6533 RRF -.6316 RTF  .9489     CRT  .2306 CRS -.3758 CST -.9877
FDE  .3927 FRA 1.3340 FC3 -.9621 BSP  18562   SGB 5748.3 R23  .0109 R13 -.9490     LSA 1603.7 MSA  351.1 SSA   17.8
BDE  .6969 BRA 3.0274 BC3 4.3449 FSP   -625   SG1 5732.9 SG2  419.9 THA 176.35     EL1 1515.7 EL2  344.2 ALF   3.26
```

LAUNCH DATE SEP 13 1970 FLIGHT TIME 192.00 ARRIVAL DATE MAR 24 1971

HELIOCENTRIC CONIC DISTANCE 555.814

```
RL  150.52 LAL    .00 LOL 349.80 VL  26.025 GAL   5.13 AZL  89.61 HCA 273.15 SMA 122.19 ECC .24762 INC  .3869 V1  29.602
RP  108.69 LAP   -.39 LOP 262.94 VP  36.822 GAP  12.88 AZP  89.98 TAL 163.97 TAP  77.11 RCA  91.93 APO 152.45 V2  34.864
RC 169.007 GL    2.17 GP   14.71 ZAL  52.89 ZAP 163.79 ETS  61.22 ZAE 125.96 ETE 169.33 ZAC 117.58 ETC 266.04 CLP-173.13
```

PLANETOCENTRIC CONIC

```
C3  21.326 VHL  4.618 DLA -18.64 RAL 298.54 RAD 6567.9 VEL 11.946 PTH   2.13 VHP  8.366 DPA  -9.54 RAP 270.65 ECC 1.3510
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 23 22	1607.48	-1.70	5.90	160.46	118.27	10 50 10	1007.5	2.09	359.27
90.00	17 12 11	5496.04	28.30	254.58	167.87	89.09	18 43 48	4896.0	27.88	245.94
100.00	11 33 26	1381.40	-3.02	348.55	159.73	119.75	11 56 27	781.4	.97	342.03
100.00	18 44 49	5197.36	29.81	232.56	167.82	87.61	20 11 26	4597.4	29.16	223.81
110.00	12 17 9	1244.44	-6.31	336.13	157.69	123.67	12 37 53	644.4	-1.84	329.89
110.00	20 17 36	4907.08	33.66	210.17	167.47	83.69	21 39 23	4307.1	32.43	201.15

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .8196 TRA 3.2998 TC3-3.9504 BAU 1.1272   SGT 5745.9 SGR  544.5 SG3  174.9     ST  1651.1 SR   347.9 SS   552.9
RDE  .2623 RRA -.3132 RC3  .1620 FAU .01967   RRT -.6351 RRF -.6129 RTF  .9495     CRT  .2976 CRS -.4087 CST -.9924
FDE  .4348 FRA 1.3795 FC3 -.7983 BSP  18584   SGB 5771.6 R23  .0087 R13 -.9495     LSA 1743.5 MSA  336.1 SSA   17.0
BDE  .8606 BRA 3.3147 BC3 3.9537 FSP   -601   SG1 5756.3 SG2  419.8 THA 176.54     EL1 1654.5 EL2  331.5 ALF   3.74
```

LAUNCH DATE SEP 13 1970 FLIGHT TIME 194.00 ARRIVAL DATE MAR 26 1971

HELIOCENTRIC CONIC DISTANCE 561.210

```
RL  150.52 LAL    .00 LOL 349.80 VL  25.985 GAL   5.77 AZL  89.42 HCA 276.32 SMA 121.96 ECC .25377 INC  .5758 V1  29.602
RP  108.72 LAP   -.57 LOP 266.11 VP  36.784 GAP  13.34 AZP  89.94 TAL 162.45 TAP  78.76 RCA  91.01 APO 152.90 V2  34.855
RC 171.039 GL    3.07 GP   14.27 ZAL  50.74 ZAP 164.54 ETS  63.57 ZAE 125.92 ETE 169.65 ZAC 117.16 ETC 266.66 CLP-174.00
```

PLANETOCENTRIC CONIC

```
C3  23.530 VHL  4.851 DLA -17.33 RAL 300.61 RAD 6568.0 VEL 12.038 PTH   2.15 VHP  8.633 DPA -10.08 RAP 272.89 ECC 1.3872
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 18 10	1682.22	-4.10	10.08	163.65	118.04	10 46 13	1082.2	-.32	3.44
90.00	17 33 53	5469.03	28.26	252.60	171.22	88.10	19 5 2	4869.0	27.70	243.98
100.00	11 29 30	1452.08	-5.39	352.45	162.94	119.45	11 53 42	852.1	-1.43	345.91
100.00	19 5 15	5174.40	29.73	230.86	171.14	86.72	20 31 29	4574.4	28.96	222.14
110.00	12 15 42	1307.32	-8.67	339.47	160.93	123.20	12 37 29	707.3	-4.24	333.18
110.00	20 35 32	4891.93	33.55	209.00	170.74	83.01	21 57 4	4291.9	32.21	200.02

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .9901 TRA 3.5970 TC3-3.5812 BAU 1.1274   SGT 5766.0 SGR  533.0 SG3  168.8     ST  1778.0 SR   342.3 SS   572.8
RDE  .2710 RRA -.3263 RC3  .1405 FAU .01794   RRT -.6170 RRF -.5948 RTF  .9505     CRT  .3487 CRS -.4350 CST -.9951
FDE  .4717 FRA 1.4226 FC3 -.6600 BSP  18691   SGB 5790.6 R23  .0067 R13 -.9506     LSA 1871.3 MSA  323.1 SSA   16.3
BDE 1.0265 BRA 3.6117 BC3 3.5839 FSP   -581   SG1 5775.4 SG2  418.7 THA 176.72     EL1 1782.1 EL2  320.1 ALF   3.97
```

LAUNCH DATE SEP 13 1970 FLIGHT TIME 196.00 ARRIVAL DATE MAR 28 1971

HELIOCENTRIC CONIC DISTANCE 566.541

```
RL  150.52 LAL    .00 LOL 349.80 VL  25.945 GAL   6.44 AZL  89.23 HCA 279.48 SMA 121.72 ECC .26045 INC  .7671 V1  29.602
RP  108.75 LAP   -.76 LOP 269.28 VP  36.748 GAP  13.83 AZP  89.87 TAL 160.94 TAP  80.42 RCA  90.02 APO 153.43 V2  34.846
RC 173.056 GL    3.88 GP   13.87 ZAL  48.70 ZAP 165.23 ETS  66.19 ZAE 125.87 ETE 169.93 ZAC 116.74 ETC 267.29 CLP-174.88
```

PLANETOCENTRIC CONIC

```
C3  26.060 VHL  5.105 DLA -16.11 RAL 302.55 RAD 6568.1 VEL 12.142 PTH   2.18 VHP  8.919 DPA -10.55 RAP 275.15 ECC 1.4289
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 14 3	1752.93	-6.35	14.06	166.89	117.65	10 43 16	1152.9	-2.60	7.39
90.00	17 53 32	5448.55	28.20	251.11	174.56	87.35	19 24 20	4848.6	27.54	242.51
100.00	11 26 25	1519.45	-7.63	356.20	166.19	118.99	11 51 44	919.5	-3.71	349.61
100.00	19 23 51	5157.26	29.66	229.59	174.47	86.06	20 49 48	4557.3	28.79	220.89
110.00	12 14 44	1368.06	-10.91	342.74	164.21	122.60	12 37 32	768.1	-6.54	336.38
110.00	20 52 1	4881.42	33.46	208.19	174.02	82.54	22 13 22	4281.4	32.06	199.24

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.1642 TRA 3.9087 TC3-3.2283 BAU 1.1255   SGT 5781.2 SGR  520.9 SG3  163.0     ST  1895.7 SR   336.8 SS   590.4
RDE  .2808 RRA -.3389 RC3  .1211 FAU .01628   RRT -.5989 RRF -.5770 RTF  .9518     CRT  .3895 CRS -.4573 CST -.9968
FDE  .5062 FRA 1.4655 FC3 -.5409 BSP  18811   SGB 5804.6 R23  .0051 R13 -.9518     LSA 1989.6 MSA  311.5 SSA   15.6
BDE 1.1976 BRA 3.9233 BC3 3.2306 FSP   -562   SG1 5789.6 SG2  416.5 THA 176.90     EL1 1900.4 EL2  309.4 ALF   4.07
```

LAUNCH DATE SEP 13 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAR 30 1971

HELIOCENTRIC CONIC DISTANCE 571.796

```
RL  150.52 LAL    .00 LOL 349.80 VL  25.905 GAL   7.15 AZL  88.04 HCA 282.65 SMA 121.50 ECC .26774 INC  .9618 V1  29.602
RP  108.78 LAP   -.94 LOP 272.45 VP  36.712 GAP  14.35 AZP  89.79 TAL 159.44 TAP  82.09 RCA  88.97 APO 154.02 V2  34.837
RC 175.059 GL    4.60 GP   13.50 ZAL  46.79 ZAP 165.86 ETS  69.10 ZAE 125.82 ETE 170.20 ZAC 116.34 ETC 267.91 CLP-175.75
```

PLANETOCENTRIC CONIC

```
C3  28.962 VHL  5.382 DLA -14.97 RAL 304.38 RAD 6568.2 VEL 12.261 PTH   2.21 VHP  9.228 DPA -10.95 RAP 277.41 ECC 1.4766
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 10 45	1820.32	-8.46	17.88	170.17	117.12	10 41 6	1220.3	-4.76	11.16
90.00	18 11 25	5433.71	28.15	250.03	177.90	86.81	19 41 59	4833.7	27.41	241.44
100.00	11 24 0	1584.02	-9.74	359.83	169.49	118.40	11 50 24	984.0	-5.88	353.18
100.00	19 40 52	5145.24	29.60	228.70	177.79	85.59	21 6 37	4545.2	28.67	220.02
110.00	12 14 9	1426.92	-13.05	345.95	167.53	121.88	12 37 56	826.9	-8.75	339.50
110.00	21 7 12	4875.11	33.40	207.71	177.32	82.25	22 28 27	4275.1	31.97	198.77

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE 1.3424 TRA 4.2358 TC3-2.8945 BAU 1.1214   SGT 5791.3 SGR  508.1 SG3  157.3          ST  2003.1 SR   331.3 SS   605.9
 RDE  .2915 RRA -.3508 RC3  .1035 FAU .01470   RRT -.5805 RRF -.5593 RTF  .9533          CRT  .4231 CRS -.4766 CST -.9979
 FDE  .5384 FRA 1.5085 FC3 -.4395 BSP  18948   SGB 5813.5 R23  .0038 R13 -.9533          LSA 2097.3 MSA  300.8 SSA   15.0
 BDE 1.3737 BRA 4.2503 BC3 2.8963 FSP   -546   SG1 5798.8 SG2  413.2 THA 177.07          EL1 2008.1 EL2  299.4 ALF   4.09
```

LAUNCH DATE SEP 13 1970 FLIGHT TIME 200.00 ARRIVAL DATE APR 1 1971

HELIOCENTRIC CONIC DISTANCE 576.966

```
RL  150.52 LAL    .00 LOL 349.80 VL  25.866 GAL   7.91 AZL  88.84 HCA 285.81 SMA 121.27 ECC .27568 INC 1.1614 V1  29.602
RP  108.80 LAP  -1.12 LOP 275.61 VP  36.677 GAP  14.90 AZP  89.68 TAL 157.96 TAP  83.78 RCA  87.84 APO 154.71 V2  34.829
RC 177.047 GL    5.24 GP   13.16 ZAL  44.99 ZAP 166.42 ETS  72.30 ZAE 125.75 ETE 170.44 ZAC 115.94 ETC 268.52 CLP-176.63
```

PLANETOCENTRIC CONIC

```
C3  32.294 VHL  5.683 DLA -13.91 RAL 306.10 RAD 6568.3 VEL 12.396 PTH   2.24 VHP  9.561 DPA -11.28 RAP 279.69 ECC 1.5315
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 8 7	1884.88	-10.45	21.59	173.48	116.47	10 39 32	1284.9	-6.81	14.80
90.00	18 27 46	5423.81	28.11	249.30	181.24	86.45	19 58 10	4823.8	27.32	240.73
100.00	11 22 6	1646.17	-11.73	3.37	172.81	117.69	11 49 33	1046.2	-7.94	356.64
100.00	19 56 28	5137.76	29.56	228.15	181.12	85.30	21 22 5	4537.8	28.59	219.47
110.00	12 13 51	1484.09	-15.08	349.14	170.88	121.04	12 38 35	884.1	-10.86	342.58
110.00	21 21 12	4872.60	33.38	207.52	180.62	82.14	22 42 25	4272.6	31.93	198.59

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE 1.5253 TRA 4.5796 TC3-2.5805 BAU 1.1147   SGT 5796.1 SGR  494.5 SG3  151.9          ST  2099.8 SR   325.8 SS   619.9
 RDE  .3032 RRA -.3617 RC3  .0876 FAU .01319   RRT -.5615 RRF -.5413 RTF  .9550          CRT  .4516 CRS -.4940 CST -.9985
 FDE  .5689 FRA 1.5521 FC3 -.3535 BSP  19101   SGB 5817.2 R23  .0028 R13 -.9550          LSA 2194.3 MSA  290.9 SSA   14.4
 BDE 1.5552 BRA 4.5938 BC3 2.5820 FSP   -530   SG1 5802.8 SG2  408.7 THA 177.24          EL1 2105.1 EL2  290.0 ALF   4.09
```

LAUNCH DATE SEP 13 1970 FLIGHT TIME 202.00 ARRIVAL DATE APR 3 1971

HELIOCENTRIC CONIC DISTANCE 582.037

```
RL  150.52 LAL    .00 LOL 349.80 VL  25.828 GAL   8.72 AZL  88.63 HCA 288.97 SMA 121.05 ECC .28438 INC 1.3671 V1  29.602
RP  108.83 LAP  -1.29 LOP 278.78 VP  36.643 GAP  15.50 AZP  89.56 TAL 156.51 TAP  85.48 RCA  86.63 APO 155.48 V2  34.822
RC 179.021 GL    5.82 GP   12.85 ZAL  43.29 ZAP 166.91 ETS  75.81 ZAE 125.67 ETE 170.67 ZAC 115.55 ETC 269.14 CLP-177.51
```

PLANETOCENTRIC CONIC

```
C3  36.124 VHL  6.010 DLA -12.94 RAL 307.71 RAD 6568.4 VEL 12.550 PTH   2.27 VHP  9.922 DPA -11.54 RAP 281.96 ECC 1.5945
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 6 1	1946.96	-12.31	25.20	176.83	115.71	10 38 28	1347.0	-8.75	18.33
90.00	18 42 44	5418.30	28.09	248.90	184.56	86.25	20 13 2	4818.3	27.27	240.33
100.00	11 20 39	1706.15	-13.61	6.84	176.17	116.87	11 49 5	1106.2	-9.89	.02
100.00	20 10 47	5134.34	29.54	227.89	184.44	85.17	21 36 21	4534.3	28.55	219.23
110.00	12 13 48	1539.69	-17.01	352.30	174.25	120.11	12 39 28	939.7	-12.88	345.62
110.00	21 34 7	4873.56	33.38	207.59	183.94	82.19	22 55 21	4273.6	31.94	198.66

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE 1.7142 TRA 4.9425 TC3-2.2862 BAU 1.1047   SGT 5796.0 SGR  480.1 SG3  146.6          ST  2186.4 SR   320.2 SS   632.8
 RDE  .3158 RRA -.3716 RC3  .0733 FAU .01172   RRT -.5418 RRF -.5227 RTF  .9569          CRT  .4764 CRS -.5101 CST -.9990
 FDE  .5983 FRA 1.5969 FC3 -.2809 BSP  19257   SGB 5815.9 R23  .0021 R13 -.9570          LSA 2281.2 MSA  281.4 SSA   13.8
 BDE 1.7430 BRA 4.9565 BC3 2.2874 FSP   -516   SG1 5801.9 SG2  403.1 THA 177.42          EL1 2191.8 EL2  280.8 ALF   4.06
```

LAUNCH DATE SEP 13 1970 FLIGHT TIME 204.00 ARRIVAL DATE APR 5 1971

HELIOCENTRIC CONIC DISTANCE 586.992

```
RL  150.52 LAL    .00 LOL 349.80 VL  25.790 GAL   9.58 AZL  88.42 HCA 292.14 SMA 120.84 ECC .29390 INC 1.5807 V1  29.602
RP  108.85 LAP  -1.46 LOP 281.94 VP  36.610 GAP  16.14 AZP  89.40 TAL 155.08 TAP  87.22 RCA  85.32 APO 156.35 V2  34.815
RC 180.980 GL    6.33 GP   12.57 ZAL  41.71 ZAP 167.33 ETS  79.65 ZAE 125.57 ETE 170.89 ZAC 115.17 ETC 269.75 CLP-178.41
```

PLANETOCENTRIC CONIC

```
C3  40.537 VHL  6.367 DLA -12.03 RAL 309.22 RAD 6568.6 VEL 12.724 PTH   2.31 VHP 10.313 DPA -11.74 RAP 284.24 ECC 1.6671
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 4 20	2006.81	-14.05	28.74	180.19	114.84	10 37 46	1406.8	-10.58	21.77
90.00	18 56 28	5416.69	28.08	248.79	187.88	86.20	20 26 44	4816.7	27.26	240.22
100.00	11 19 32	1764.16	-15.36	10.25	179.54	115.96	11 48 56	1164.2	-11.75	3.32
100.00	20 23 56	5134.57	29.54	227.91	187.76	85.18	21 49 31	4534.6	28.56	219.24
110.00	12 13 55	1593.83	-18.83	355.44	177.65	119.07	12 40 29	993.8	-14.81	348.63
110.00	21 46 2	4877.67	33.42	207.91	187.26	82.37	23 7 20	4277.7	32.01	198.96

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE 1.9102 TRA 5.3266 TC3-2.0117 BAU 1.0907   SGT 5791.1 SGR  464.8 SG3  141.5          ST  2263.4 SR   314.4 SS   645.2
 RDE  .3293 RRA -.3801 RC3  .0605 FAU .01030   RRT -.5209 RRF -.5033 RTF  .9591          CRT  .4989 CRS -.5254 CST -.9993
 FDE  .6271 FRA 1.6435 FC3 -.2199 BSP  19420   SGB 5809.8 R23  .0016 R13 -.9591          LSA 2358.7 MSA  272.2 SSA   13.3
 BDE 1.9384 BRA 5.3401 BC3 2.0126 FSP   -502   SG1 5796.2 SG2  396.5 THA 177.59          EL1 2268.9 EL2  271.8 ALF   4.02
```

LAUNCH DATE SEP 13 1970 FLIGHT TIME 206.00 ARRIVAL DATE APR 7 1971

HELIOCENTRIC CONIC DISTANCE 591.811

RL	150.52	LAL	.00	LOL	349.80	VL	25.753	GAL	10.51	AZL	88.20	HCA	295.30	SMA	120.63	ECC	.30437	INC	1.8041
RP	108.87	LAP	-1.63	LOP	285.10	VP	36.578	GAP	16.84	AZP	89.23	TAL	153.69	TAP	88.99	RCA	83.91	APO	157.34
RC	182.925	GL	6.78	GP	12.30	ZAL	40.24	ZAP	167.68	ETS	83.79	ZAE	125.45	ETE	171.10	ZAC	114.79	ETC	270.35

V1	29.602	V2	34.809	CLP	-179.32														

PLANETOCENTRIC CONIC

C3	45.636	VHL	6.755	DLA	-11.20	RAL	310.63	RAD	6568.7	VEL	12.923	PTH	2.36	VHP	10.740	DPA	-11.88	RAP	286.50
ECC	1.7510																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 2 59	2064.59	-15.67	32.20	183.56	113.89	10 37 24	1464.6	-12.31	25.14
90.00	19 9 3	5418.60	28.09	248.92	191.18	86.26	20 39 21	4818.6	27.28	240.35
100.00	11 18 42	1820.33	-17.01	13.61	182.93	114.96	11 49 2	1220.3	-13.50	6.57
100.00	20 36 1	5138.10	29.56	228.17	191.06	85.32	22 1 39	4538.1	28.59	219.50
110.00	12 14 11	1646.55	-20.54	358.57	181.07	117.94	12 41 38	1046.6	-16.65	351.61
110.00	21 57 1	4884.64	33.48	208.44	190.58	82.68	23 18 26	4284.6	32.11	199.48

DIFFERENTIAL CORRECTIONS

TDE	2.1154	TRA	5.7354	TC3	-1.7555	BAU	1.0715
RDE	.3437	RRA	-.3870	RC3	.0490	FAU	.00888
FDE	.6562	FRA	1.6931	FC3	-.1684	BSP	19547
BDE	2.1431	BRA	5.7485	BC3	1.7562	FSP	-487

MID-COURSE EXECUTION ACCURACY

SGT	5782.3	SGR	448.7	SG3	136.7		
RRT	-.4985	RRF	-.4825	RTF	.9614		
SGB	5799.7	R23	.0013	R13	-.9614		
SG1	5786.7	SG2	388.7	THA	177.77		

ORBIT DETERMINATION ACCURACY

ST	2331.8	SR	308.3	SS	657.9
CRT	.5196	CRS	-.5405	CST	-.9995
LSA	2428.1	MSA	263.0	SSA	12.8
EL1	2337.3	EL2	262.8	ALF	3.98

LAUNCH DATE SEP 13 1970 FLIGHT TIME 208.00 ARRIVAL DATE APR 9 1971

HELIOCENTRIC CONIC DISTANCE 596.469

RL	150.52	LAL	.00	LOL	349.80	VL	25.716	GAL	11.51	AZL	87.96	HCA	298.45	SMA	120.42	ECC	.31589	INC	2.0393
RP	108.88	LAP	-1.79	LOP	288.27	VP	36.547	GAP	17.60	AZP	89.03	TAL	152.34	TAP	90.80	RCA	82.38	APO	158.46
RC	184.854	GL	7.18	GP	12.06	ZAL	38.87	ZAP	167.93	ETS	88.23	ZAE	125.31	ETE	171.30	ZAC	114.41	ETC	270.94

V1	29.602	V2	34.804	CLP	179.76		

PLANETOCENTRIC CONIC

C3	51.546	VHL	7.180	DLA	-10.43	RAL	311.94	RAD	6568.9	VEL	13.149	PTH	2.40	VHP	11.207	DPA	-11.97	RAP	288.75
ECC	1.8483																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 1 56	2120.40	-17.18	35.61	186.93	112.86	10 37 16	1520.4	-13.93	28.43
90.00	19 20 34	5423.66	28.11	249.29	194.46	86.45	20 50 58	4823.7	27.32	240.72
100.00	11 18 5	1874.71	-18.54	16.92	186.31	113.88	11 49 20	1274.7	-15.16	9.76
100.00	20 47 6	5144.59	29.59	228.65	194.34	85.57	22 12 50	4544.6	28.66	219.97
110.00	12 14 34	1697.86	-22.15	1.69	184.49	116.73	12 42 51	1097.9	-18.38	354.58
110.00	22 7 7	4894.20	33.56	209.17	193.88	83.11	23 28 41	4294.2	32.25	200.19

DIFFERENTIAL CORRECTIONS

TDE	2.3325	TRA	6.1705	TC3	-1.5163	BAU	1.0452
RDE	.3591	RRA	-.3919	RC3	.0389	FAU	.00745
FDE	.6859	FRA	1.7461	FC3	-.1252	BSP	19641
BDE	2.3600	BRA	6.1829	BC3	1.5168	FSP	-473

MID-COURSE EXECUTION ACCURACY

SGT	5768.6	SGR	431.7	SG3	132.2		
RRT	-.4759	RRF	-.4599	RTF	.9639		
SGB	5784.7	R23	.0013	R13	-.9639		
SG1	5772.2	SG2	379.9	THA	177.96		

ORBIT DETERMINATION ACCURACY

ST	2392.9	SR	302.1	SS	671.1
CRT	.5397	CRS	-.5557	CST	-.9996
LSA	2490.5	MSA	253.8	SSA	12.3
EL1	2398.5	EL2	253.7	ALF	3.94

LAUNCH DATE SEP 13 1970 FLIGHT TIME 210.00 ARRIVAL DATE APR 11 1971

HELIOCENTRIC CONIC DISTANCE 600.935

RL	150.52	LAL	.00	LOL	349.80	VL	25.680	GAL	12.59	AZL	87.71	HCA	301.61	SMA	120.22	ECC	.32862	INC	2.2890
RP	108.90	LAP	-1.95	LOP	291.43	VP	36.517	GAP	18.44	AZP	88.80	TAL	151.05	TAP	92.66	RCA	80.71	APO	159.73
RC	186.768	GL	7.53	GP	11.84	ZAL	37.60	ZAP	168.10	ETS	92.95	ZAE	125.14	ETE	171.49	ZAC	114.03	ETC	271.52

V1	29.602	V2	34.799	CLP	178.80		

PLANETOCENTRIC CONIC

C3	58.424	VHL	7.644	DLA	-9.73	RAL	313.16	RAD	6569.1	VEL	13.408	PTH	2.45	VHP	11.720	DPA	-12.00	RAP	290.97
ECC	1.9615																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 1 6	2174.28	-18.57	38.95	190.29	111.77	10 37 21	1574.3	-15.45	31.66
90.00	19 31 5	5431.55	28.14	249.87	197.70	86.74	21 1 36	4831.6	27.39	241.28
100.00	11 17 39	1927.32	-19.96	20.19	189.69	112.73	11 49 47	1327.3	-16.71	12.90
100.00	20 57 13	5153.75	29.64	229.33	197.60	85.92	22 23 7	4553.7	28.76	220.63
110.00	12 15 0	1747.73	-23.64	4.79	187.91	115.44	12 44 8	1147.7	-20.02	357.52
110.00	22 16 21	4906.10	33.66	210.09	197.16	83.64	23 38 7	4306.1	32.41	201.08

DIFFERENTIAL CORRECTIONS

TDE	2.5627	TRA	6.6403	TC3	-1.2938	BAU	1.0108
RDE	.3756	RRA	-.3944	RC3	.0299	FAU	.00599
FDE	.7172	FRA	1.8037	FC3	-.0887	BSP	19661
BDE	2.5900	BRA	6.6520	BC3	1.2941	FSP	-457

MID-COURSE EXECUTION ACCURACY

SGT	5753.8	SGR	413.9	SG3	127.8		
RRT	-.4469	RRF	-.4348	RTF	.9666		
SGB	5768.7	R23	.0012	R13	-.9666		
SG1	5756.8	SG2	370.1	THA	178.15		

ORBIT DETERMINATION ACCURACY

ST	2447.3	SR	295.6	SS	685.6
CRT	.5591	CRS	-.5713	CST	-.9997
LSA	2546.9	MSA	244.5	SSA	11.8
EL1	2452.9	EL2	244.5	ALF	3.90

LAUNCH DATE SEP 13 1970 FLIGHT TIME 212.00 ARRIVAL DATE APR 13 1971

HELIOCENTRIC CONIC DISTANCE 605.171

RL	150.52	LAL	.00	LOL	349.80	VL	25.646	GAL	13.76	AZL	87.44	HCA	304.77	SMA	120.03	ECC	.34272	INC	2.5561
RP	108.91	LAP	-2.10	LOP	294.59	VP	36.489	GAP	19.35	AZP	88.54	TAL	149.82	TAP	94.58	RCA	78.89	APO	161.16
RC	188.667	GL	7.83	GP	11.63	ZAL	36.44	ZAP	168.17	ETS	97.90	ZAE	124.93	ETE	171.69	ZAC	113.65	ETC	272.09

V1	29.602	V2	34.795	CLP	177.82		

PLANETOCENTRIC CONIC

C3	66.465	VHL	8.153	DLA	-9.09	RAL	314.28	RAD	6569.3	VEL	13.705	PTH	2.50	VHP	12.286	DPA	-11.99	RAP	293.17
ECC	2.0939																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 0 28	2226.21	-19.85	42.22	193.62	110.62	10 37 34	1626.2	-16.87	34.81
90.00	19 40 38	5442.00	28.18	250.63	200.90	87.12	21 11 20	4842.0	27.48	242.03
100.00	11 17 22	1978.13	-21.26	23.40	193.04	111.52	11 50 20	1378.1	-18.15	15.98
100.00	21 6 25	5165.32	29.69	230.18	200.81	86.37	22 32 30	4565.3	28.87	221.47
110.00	12 15 30	1796.11	-25.02	7.87	191.32	114.09	12 45 26	1196.1	-21.55	.43
110.00	22 24 47	4920.10	33.76	211.17	200.42	84.27	23 46 47	4320.1	32.60	202.13

DIFFERENTIAL CORRECTIONS

TDE	2.8091	TRA	7.1458	TC3	-1.0874	BAU	.9665
RDE	.3932	RRA	-.3940	RC3	.0221	FAU	.00447
FDE	.7505	FRA	1.8667	FC3	-.0582	BSP	19595
BDE	2.8365	BRA	7.1566	BC3	1.0877	FSP	-439

MID-COURSE EXECUTION ACCURACY

SGT	5736.5	SGR	395.3	SG3	123.8		
RRT	-.4164	RRF	-.4064	RTF	.9694		
SGB	5750.1	R23	.0013	R13	-.9694		
SG1	5738.9	SG2	359.3	THA	178.35		

ORBIT DETERMINATION ACCURACY

ST	2495.7	SR	288.9	SS	701.8
CRT	.5787	CRS	-.5877	CST	-.9998
LSA	2597.9	MSA	235.1	SSA	11.3
EL1	2501.3	EL2	235.1	ALF	3.87

LAUNCH DATE SEP 13 1970 FLIGHT TIME 214.00 ARRIVAL DATE APR 15 1971

HELIOCENTRIC CONIC DISTANCE 609.128

```
RL  150.52 LAL    .00 LOL 349.80 VL  25.612 GAL  15.03 AZL  87.16 HCA 307.92 SMA 119.84 ECC .35838 INC 2.8444 V1  29.602
RP  108.92 LAP  -2.24 LOP 297.75 VP  36.462 GAP  20.37 AZP  88.25 TAL 148.66 TAP  96.58 RCA  76.89 APO 162.78 V2  34.791
RC 190.549 GL    8.10 GP   11.44 ZAL  35.39 ZAP 168.13 ETS 103.02 ZAE 124.69 ETE 171.88 ZAC 113.28 ETC 272.64 CLP 176.80
```

PLANETOCENTRIC CONIC

```
C3  75.918 VHL  8.713 DLA  -8.52 RAL 315.29 RAD 6569.5 VEL 14.045 PTH   2.56 VHP 12.912 DPA -11.93 RAP 295.32 ECC 2.2494
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 59 59	2276.13	-21.01	45.42	196.90	109.43	10 37 55	1676.1	-18.17	37.90
90.00	19 49 15	5454.74	28.22	251.56	204.05	87.58	21 20 9	4854.7	27.59	242.95
100.00	11 17 11	2027.05	-22.45	26.55	196.35	110.27	11 50 58	1427.1	-19.49	19.00
100.00	21 14 43	5179.06	29.75	231.20	203.96	86.90	22 41 2	4579.1	29.00	222.48
110.00	12 16 0	1842.87	-26.29	10.91	194.69	112.68	12 46 43	1242.9	-22.98	3.31
110.00	22 32 23	4936.00	33.86	212.40	203.62	85.00	23 54 39	4336.0	32.80	203.33

DIFFERENTIAL CORRECTIONS

```
TDE 3.0744 TRA 7.6925 TC3 -.8963 BAU  .9099
RDE  .4123 RRA -.3900 RC3  .0155 FAU .00285
FDE  .7865 FRA 1.9362 FC3 -.0326 BSP  19421
BDE 3.1019 BRA 7.7024 BC3  .8964 FSP   -421
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5717.4 SGR  376.1 SG3  120.0
RRT -.3815 RRF -.3737 RTF  .9723
SGB 5729.8 R23  .0015 R13 -.9723
SG1 5719.2 SG2  347.6 THA 178.56
```

ORBIT DETERMINATION ACCURACY

```
ST  2538.5 SR   282.0 SS   720.1
CRT  .5987 CRS -.6051 CST -.9998
LSA 2644.1 MSA  225.4 SSA   10.9
EL1 2544.1 EL2  225.4 ALF   3.84
```

LAUNCH DATE SEP 13 1970 FLIGHT TIME 216.00 ARRIVAL DATE APR 17 1971

HELIOCENTRIC CONIC DISTANCE 612.743

```
RL  150.52 LAL    .00 LOL 349.80 VL  25.579 GAL  16.43 AZL  86.84 HCA 311.07 SMA 119.66 ECC .37584 INC 3.1585 V1  29.602
RP  108.93 LAP  -2.38 LOP 300.91 VP  36.436 GAP  21.50 AZP  87.92 TAL 147.60 TAP  98.68 RCA  74.68 APO 164.63 V2  34.789
RC 192.414 GL    8.33 GP   11.26 ZAL  34.44 ZAP 167.97 ETS 108.26 ZAE 124.39 ETE 172.07 ZAC 112.90 ETC 273.18 CLP 175.74
```

PLANETOCENTRIC CONIC

```
C3  87.096 VHL  9.333 DLA  -8.01 RAL 316.21 RAD 6569.7 VEL 14.438 PTH   2.62 VHP 13.610 DPA -11.84 RAP 297.43 ECC 2.4334
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 59 36	2323.91	-22.06	48.53	200.12	108.21	10 38 20	1723.9	-19.37	40.89
90.00	19 56 55	5469.56	28.26	252.64	207.11	88.12	21 28 5	4869.6	27.70	244.02
100.00	11 17 5	2073.96	-23.52	29.62	199.59	109.00	11 51 39	1474.0	-20.71	21.95
100.00	21 22 8	5194.74	29.80	232.36	207.05	87.51	22 48 42	4594.7	29.13	223.62
110.00	12 16 31	1887.89	-27.43	13.91	198.00	111.24	12 47 58	1287.9	-24.30	6.15
110.00	22 39 11	4953.57	33.96	213.77	206.76	85.80	24 1 45	4353.6	33.00	204.66

DIFFERENTIAL CORRECTIONS

```
TDE 3.3612 TRA 8.2866 TC3 -.7200 BAU  .8384
RDE  .4330 RRA -.3818 RC3  .0100 FAU .00112
FDE  .8257 FRA 2.0135 FC3 -.0111 BSP  19118
BDE 3.3890 BRA 8.2954 BC3  .7201 FSP   -400
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5697.2 SGR  356.5 SG3  116.4
RRT -.3410 RRF -.3354 RTF  .9753
SGB 5708.4 R23  .0017 R13 -.9753
SG1 5698.5 SG2  335.0 THA 178.77
```

ORBIT DETERMINATION ACCURACY

```
ST  2575.9 SR   275.2 SS   741.1
CRT  .6195 CRS -.6238 CST -.9999
LSA 2685.9 MSA  215.5 SSA   10.4
EL1 2581.6 EL2  215.5 ALF   3.81
```

LAUNCH DATE SEP 13 1970 FLIGHT TIME 218.00 ARRIVAL DATE APR 19 1971

HELIOCENTRIC CONIC DISTANCE 615.936

```
RL  150.52 LAL    .00 LOL 349.80 VL  25.547 GAL  17.98 AZL  86.50 HCA 314.22 SMA 119.48 ECC .39537 INC 3.5043 V1  29.602
RP  108.94 LAP  -2.51 LOP 304.08 VP  36.412 GAP  22.76 AZP  87.55 TAL 146.66 TAP 100.88 RCA  72.24 APO 166.72 V2  34.787
RC 194.261 GL    8.52 GP   11.10 ZAL  33.61 ZAP 167.68 ETS 113.55 ZAE 124.04 ETE 172.26 ZAC 112.52 ETC 273.69 CLP 174.62
```

PLANETOCENTRIC CONIC

```
C3 100.403 VHL 10.020 DLA  -7.56 RAL 317.02 RAD 6569.9 VEL 14.891 PTH   2.69 VHP 14.390 DPA -11.70 RAP 299.48 ECC 2.6524
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 59 19	2369.37	-23.00	51.53	203.24	106.99	10 38 49	1769.4	-20.46	43.78
90.00	20 3 38	5486.24	28.29	253.86	210.09	88.73	21 35 5	4886.2	27.82	245.23
100.00	11 17 2	2118.67	-24.48	32.59	202.74	107.71	11 52 21	1518.7	-21.83	24.80
100.00	21 28 37	5212.17	29.84	233.66	210.04	88.19	22 55 29	4612.2	29.27	224.90
110.00	12 16 59	1930.95	-28.46	16.84	201.23	109.79	12 49 10	1331.0	-25.50	8.91
110.00	22 45 9	4972.65	34.04	215.25	209.82	86.67	24 8 2	4372.7	33.20	206.11

DIFFERENTIAL CORRECTIONS

```
TDE 3.6717 TRA 8.9332 TC3 -.5585 BAU  .7497
RDE  .4560 RRA -.3682 RC3  .0057 FAU-.00077
FDE  .8687 FRA 2.0996 FC3  .0067 BSP  18691
BDE 3.6999 BRA 8.9408 BC3  .5585 FSP   -378
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5675.6 SGR  336.5 SG3  113.1
RRT -.2931 RRF -.2896 RTF  .9783
SGB 5685.5 R23  .0020 R13 -.9783
SG1 5676.4 SG2  321.7 THA 179.00
```

ORBIT DETERMINATION ACCURACY

```
ST  2607.4 SR   268.4 SS   765.1
CRT  .6414 CRS -.6439 CST -.9999
LSA 2722.8 MSA  205.5 SSA    9.9
EL1 2613.1 EL2  205.5 ALF   3.80
```

LAUNCH DATE SEP 13 1970 FLIGHT TIME 220.00 ARRIVAL DATE APR 21 1971

HELIOCENTRIC CONIC DISTANCE 618.603

```
RL  150.52 LAL    .00 LOL 349.80 VL  25.518 GAL  19.69 AZL  86.11 HCA 317.37 SMA 119.32 ECC .41729 INC 3.8892 V1  29.602
RP  108.94 LAP  -2.63 LOP 307.24 VP  36.390 GAP  24.18 AZP  87.14 TAL 145.85 TAP 103.22 RCA  69.53 APO 169.11 V2  34.786
RC 196.090 GL    8.69 GP   10.94 ZAL  32.90 ZAP 167.26 ETS 118.81 ZAE 123.61 ETE 172.47 ZAC 112.15 ETC 274.18 CLP 173.43
```

PLANETOCENTRIC CONIC

```
C3 116.361 VHL 10.787 DLA  -7.17 RAL 317.71 RAD 6570.2 VEL 15.417 PTH   2.76 VHP 15.268 DPA -11.55 RAP 301.45 ECC 2.9150
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 59 6	2412.27	-23.82	54.41	206.24	105.78	10 39 18	1812.3	-21.43	46.55
90.00	20 9 22	5504.63	28.31	255.21	212.95	89.41	21 41 7	4904.6	27.93	246.56
100.00	11 17 0	2160.93	-25.33	35.45	205.76	106.43	11 53 1	1560.9	-22.83	27.54
100.00	21 34 9	5231.20	29.88	235.07	212.92	88.93	23 1 20	4631.2	29.41	226.30
110.00	12 17 24	1971.83	-29.37	19.67	204.34	108.33	12 50 16	1371.8	-26.58	11.60
110.00	22 50 15	4993.07	34.11	216.84	212.77	87.61	24 13 28	4393.1	33.40	207.67

DIFFERENTIAL CORRECTIONS

```
TDE 4.0094 TRA 9.6400 TC3 -.4110 BAU  .6394
RDE  .4817 RRA -.3482 RC3  .0025 FAU-.00288
FDE  .9160 FRA 2.1963 FC3  .0214 BSP  18116
BDE 4.0382 BRA 9.6463 BC3  .4110 FSP   -355
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5652.8 SGR  316.6 SG3  110.0
RRT -.2357 RRF -.2343 RTF  .9813
SGB 5661.7 R23  .0024 R13 -.9813
SG1 5653.3 SG2  307.7 THA 179.24
```

ORBIT DETERMINATION ACCURACY

```
ST  2633.0 SR   261.9 SS   792.8
CRT  .6646 CRS -.6656 CST -.9999
LSA 2755.3 MSA  195.3 SSA    9.4
EL1 2638.8 EL2  195.3 ALF   3.80
```

LAUNCH DATE SEP 14 1970 FLIGHT TIME 70.00 ARRIVAL DATE NOV 23 1970

HELIOCENTRIC CONIC DISTANCE 177.492

RL	150.48	LAL	.00	LOL	350.77	VL	25.535	GAL	-6.34	AZL	90.52	HCA	77.07	SMA	119.36	ECC	.28164	INC	.5196	V1	29.610
RP	107.88	LAP	-.51	LOP	67.84	VP	36.724	GAP	-15.42	AZP	90.12	TAL	196.74	TAP	273.81	RCA	85.74	APO	152.98	V2	35.129
RC	43.202	GL	-2.72	GP	-12.65	ZAL	119.08	ZAP	12.71	ETS	80.90	ZAE	153.19	ETE	338.15	ZAC	89.02	ETC	261.08	CLP	-1.25

PLANETOCENTRIC CONIC

C3	23.485	VHL	4.846	DLA	-20.81	RAL	228.47	RAD	6568.0	VEL	12.036	PTH	2.15	VHP	9.794	DPA	-33.13	RAP	241.46	ECC	1.3865

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 4 14	1540.83	.45	2.18	92.48	118.31	6 29 55	940.8	4.23	355.54
90.00	12 4 26	5609.49	28.15	262.87	100.47	93.24	13 37 56	5009.5	28.30	254.21
100.00	7 11 44	1322.98	-1.04	345.34	91.66	119.88	7 33 47	723.0	2.95	338.82
100.00	13 39 37	5302.57	29.85	240.38	100.55	91.73	15 8 0	4702.6	29.77	231.57
110.00	7 50 37	1201.09	-4.67	333.84	89.40	123.90	8 10 39	601.1	-.18	327.63
110.00	15 17 13	4997.23	34.12	217.17	100.53	87.80	16 40 30	4397.2	33.44	207.99

DIFFERENTIAL CORRECTIONS

TDE	.1492	TRA	-.4482	TC3	.4182	BAU	.1419
RDE	-.3434	RRA	-.0674	RC3	-.1710	FAU	.02827
FDE	.0123	FRA	.1103	FC3	-1.0422	BSP	1935
BDE	.3744	BRA	.4532	BC3	.4518	FSP	-208

MID-COURSE EXECUTION ACCURACY

SGT	718.8	SGR	446.7	SG3	88.1		
RRT	-.2818	RRF	.3284	RTF	-.6629		
SG8	846.4	R23	-.0469	R13	.6775		
SG1	735.4	SG2	419.0	THA	165.15		

ORBIT DETERMINATION ACCURACY

ST	245.3	SR	406.8	SS	45.4
CRT	-.6745	CRS	.3134	CST	.3729
LSA	445.4	MSA	169.8	SSA	23.2
EL1	445.3	EL2	165.4	ALF	115.98

LAUNCH DATE SEP 14 1970 FLIGHT TIME 72.00 ARRIVAL DATE NOV 25 1970

HELIOCENTRIC CONIC DISTANCE 184.290

RL	150.48	LAL	.00	LOL	350.77	VL	25.774	GAL	-6.34	AZL	90.32	HCA	80.29	SMA	120.70	ECC	.26894	INC	.3214	V1	29.610
RP	107.84	LAP	-.32	LOP	71.06	VP	36.902	GAP	-14.38	AZP	90.05	TAL	197.89	TAP	278.18	RCA	88.24	APO	153.16	V2	35.141
RC	44.254	GL	-1.77	GP	-13.42	ZAL	120.81	ZAP	13.85	ETS	71.96	ZAE	151.27	ETE	337.16	ZAC	88.35	ETC	261.26	CLP	-3.46

PLANETOCENTRIC CONIC

C3	21.611	VHL	4.649	DLA	-19.44	RAL	226.99	RAD	6567.9	VEL	11.958	PTH	2.13	VHP	9.227	DPA	-34.12	RAP	242.37	ECC	1.3557

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 42 36	1578.63	-.77	4.29	89.33	118.31	6 8 55	978.6	3.02	357.66
90.00	12 14 16	5531.31	28.31	257.16	96.89	90.38	13 46 27	4931.3	28.07	248.50
100.00	6 51 48	1355.30	-2.13	347.12	88.57	119.82	7 14 24	755.3	1.85	340.60
100.00	13 47 45	5229.87	29.87	234.97	96.88	88.88	15 14 54	4629.9	29.40	226.20
110.00	7 33 52	1223.51	-5.52	335.02	86.47	123.79	7 54 15	623.5	-1.04	328.80
110.00	15 22 10	4934.42	33.85	212.28	96.63	84.92	16 44 25	4334.4	32.78	203.21

DIFFERENTIAL CORRECTIONS

TDE	.1410	TRA	-.4296	TC3	.4869	BAU	.1533
RDE	-.3256	RRA	-.0703	RC3	-.2109	FAU	.03047
FDE	.0375	FRA	.0958	FC3	-1.2208	BSP	2045
BDE	.3548	BRA	.4353	BC3	.5306	FSP	-239

MID-COURSE EXECUTION ACCURACY

SGT	741.9	SGR	456.0	SG3	98.7		
RRT	-.3160	RRF	.3694	RTF	-.6795		
SG8	870.9	R23	-.0548	R13	.6966		
SG1	762.3	SG2	421.1	THA	164.01		

ORBIT DETERMINATION ACCURACY

ST	242.4	SR	402.3	SS	54.7
CRT	-.6682	CRS	.7020	CST	-.0741
LSA	441.0	MSA	168.8	SSA	25.3
EL1	439.8	EL2	165.0	ALF	115.82

LAUNCH DATE SEP 14 1970 FLIGHT TIME 74.00 ARRIVAL DATE NOV 27 1970

HELIOCENTRIC CONIC DISTANCE 191.091

RL	150.48	LAL	.00	LOL	350.77	VL	25.991	GAL	-6.35	AZL	90.13	HCA	83.51	SMA	121.94	ECC	.25753	INC	.1271	V1	29.610
RP	107.81	LAP	-.13	LOP	74.28	VP	37.064	GAP	-13.39	AZP	90.01	TAL	199.07	TAP	282.58	RCA	90.54	APO	153.34	V2	35.152
RC	45.436	GL	-.73	GP	-14.27	ZAL	122.55	ZAP	15.36	ETS	64.36	ZAE	149.54	ETE	336.03	ZAC	87.59	ETC	261.44	CLP	-5.74

PLANETOCENTRIC CONIC

C3	20.060	VHL	4.479	DLA	-17.96	RAL	225.54	RAD	6567.8	VEL	11.893	PTH	2.11	VHP	8.693	DPA	-35.17	RAP	243.20	ECC	1.3301

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 21 10	1619.49	-2.09	6.57	86.40	118.25	5 48 9	1019.5	1.70	359.94
90.00	12 24 7	5454.73	28.22	251.56	93.45	87.58	13 55 2	4854.7	27.59	242.95
100.00	6 31 54	1391.23	-3.35	349.09	85.70	119.72	6 55 5	791.2	.63	342.57
100.00	13 56 4	5158.22	29.66	229.66	93.35	86.09	15 22 2	4558.2	28.80	220.96
110.00	7 16 56	1250.12	-6.52	336.43	83.74	123.63	7 37 46	650.1	-2.06	330.19
110.00	15 27 31	4872.09	33.37	207.48	92.91	82.12	16 48 43	4272.1	31.92	198.55

DIFFERENTIAL CORRECTIONS

TDE	.1307	TRA	-.4114	TC3	.5574	BAU	.1646
RDE	-.3079	RRA	-.0737	RC3	-.2570	FAU	.03295
FDE	.0687	FRA	.0790	FC3	-1.4218	BSP	2150
BDE	.3345	BRA	.4180	BC3	.6138	FSP	-273

MID-COURSE EXECUTION ACCURACY

SGT	763.8	SGR	466.9	SG3	110.7		
RRT	-.3532	RRF	.4147	RTF	-.6950		
SG8	895.2	R23	-.0640	R13	.7153		
SG1	789.0	SG2	422.8	THA	162.71		

ORBIT DETERMINATION ACCURACY

ST	236.1	SR	395.1	SS	75.9
CRT	-.6544	CRS	.8847	CST	-.3703
LSA	434.6	MSA	167.2	SSA	27.7
EL1	430.0	EL2	164.0	ALF	115.29

LAUNCH DATE SEP 14 1970 FLIGHT TIME 76.00 ARRIVAL DATE NOV 29 1970

HELIOCENTRIC CONIC DISTANCE 197.891

RL	150.48	LAL	.00	LOL	350.77	VL	26.187	GAL	-6.37	AZL	89.94	HCA	86.73	SMA	123.10	ECC	.24733	INC	.0633	V1	29.610
RP	107.77	LAP	.06	LOP	77.51	VP	37.212	GAP	-12.44	AZP	90.00	TAL	200.27	TAP	287.01	RCA	92.65	APO	153.54	V2	35.163
RC	46.738	GL	.39	GP	-15.21	ZAL	124.28	ZAP	17.19	ETS	58.05	ZAE	147.98	ETE	334.74	ZAC	86.72	ETC	261.59	CLP	-8.10

PLANETOCENTRIC CONIC

C3	18.782	VHL	4.334	DLA	-16.40	RAL	224.14	RAD	6567.8	VEL	11.839	PTH	2.10	VHP	8.189	DPA	-36.29	RAP	243.93	ECC	1.3091

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 0 5	1663.06	-3.49	9.01	83.74	118.12	5 27 48	1063.1	.30	2.37
90.00	12 34 2	5380.00	27.89	246.12	90.18	84.87	14 3 42	4780.0	26.88	237.60
100.00	6 12 13	1430.34	-4.66	351.25	83.09	119.56	6 36 3	830.3	-.69	344.71
100.00	14 4 36	5087.95	29.22	224.48	90.02	83.40	15 29 24	4488.0	28.00	215.89
110.00	7 0 3	1280.47	-7.66	338.03	81.24	123.42	7 21 24	680.5	-3.22	331.77
110.00	15 33 15	4810.59	32.70	202.80	89.41	79.43	16 53 25	4210.6	30.90	194.05

DIFFERENTIAL CORRECTIONS

TDE	.1188	TRA	-.3938	TC3	.6272	BAU	.1756
RDE	-.2898	RRA	-.0775	RC3	-.3096	FAU	.03571
FDE	.1075	FRA	.0602	FC3	-1.6460	BSP	2261
BDE	.3132	BRA	.4013	BC3	.6994	FSP	-312

MID-COURSE EXECUTION ACCURACY

SGT	784.0	SGR	479.8	SG3	124.1		
RRT	-.3937	RRF	.4637	RTF	-.7090		
SG8	919.2	R23	-.0741	R13	.7331		
SG1	815.6	SG2	424.0	THA	161.19		

ORBIT DETERMINATION ACCURACY

ST	226.8	SR	384.6	SS	106.5
CRT	-.6316	CRS	.9486	CST	-.5147
LSA	427.2	MSA	165.1	SSA	30.3
EL1	415.8	EL2	162.6	ALF	114.40

LAUNCH DATE SEP 14 1970 FLIGHT TIME 78.00 ARRIVAL DATE DEC 1 1970

HELIOCENTRIC CONIC DISTANCE 204.686

```
RL  150.48 LAL    .00 LOL 350.77 VL  26.364 GAL  -6.39 AZL  89.74 HCA  89.96 SMA 124.17 ECC .23824 INC  .2557 V1  29.610
RP  107.74 LAP    .26 LOP  80.73 VP  37.347 GAP -11.53 AZP  90.00 TAL 201.47 TAP 291.43 RCA  94.58 APO 153.75 V2  35.174
RC  48.150 GL    1.59 GP  -16.26 ZAL 125.95 ZAP  19.30 ETS  52.86 ZAE 146.61 ETE 333.26 ZAC  85.74 ETC 261.72 CLP -10.55
```

PLANETOCENTRIC CONIC

```
C3  17.736 VHL  4.211 DLA -14.76 RAL 222.82 RAD 6567.7 VEL 11.795 PTH   2.09 VHP  7.716 DPA -37.49 RAP 244.52 ECC 1.2919
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 39 32	1708.99	-4.96	11.58	81.35	117.92	5 8 1	1109.0	-1.18	4.93
90.00	12 44 4	5307.27	27.33	240.87	87.14	82.30	14 12 31	4707.3	25.98	232.46
100.00	5 52 56	1472.19	-6.06	353.57	80.75	119.33	6 17 28	872.2	-2.11	347.01
100.00	14 13 21	5019.30	28.58	219.48	86.93	80.85	15 37 1	4419.3	27.02	211.02
110.00	6 43 25	1314.06	-8.92	339.83	79.00	123.14	7 5 19	714.1	-4.49	333.53
110.00	15 39 22	4750.19	31.85	198.30	86.18	76.89	16 58 32	4150.2	29.72	189.74

DIFFERENTIAL CORRECTIONS

```
TDE  .1052 TRA -.3770 TC3  .6933 BAU  .1862
RDE -.2711 RRA -.0817 RC3 -.3691 FAU .03878
FDE  .1545 FRA  .0391 FC3-1.8930 BSP   2366
BDE  .2908 BRA  .3857 BC3  .7854 FSP   -357
```

MID-COURSE EXECUTION ACCURACY

```
SGT  801.7 SGR  495.8 SG3  139.0
RRT -.4361 RRF  .5161 RTF -.7210
SGB  942.7 R23 -.0859 R13  .7501
SG1  841.3 SG2  425.2 THA 159.43
```

ORBIT DETERMINATION ACCURACY

```
ST   214.7 SR   370.5 SS   144.1
CRT -.5965 CRS  .9692 CST -.5734
LSA  420.3 MSA  162.6 SSA   33.1
EL1  396.9 EL2  160.9 ALF 113.08
```

LAUNCH DATE SEP 14 1970 FLIGHT TIME 80.00 ARRIVAL DATE DEC 3 1970

HELIOCENTRIC CONIC DISTANCE 211.472

```
RL  150.48 LAL    .00 LOL 350.77 VL  26.522 GAL  -6.42 AZL  89.55 HCA  93.19 SMA 125.15 ECC .23018 INC  .4467 V1  29.610
RP  107.71 LAP    .45 LOP  83.96 VP  37.468 GAP -10.66 AZP  90.02 TAL 202.65 TAP 295.84 RCA  96.34 APO 153.95 V2  35.184
RC  49.661 GL    2.87 GP  -17.42 ZAL 127.54 ZAP  21.68 ETS  48.59 ZAE 145.40 ETE 331.57 ZAC  84.63 ETC 261.83 CLP -13.11
```

PLANETOCENTRIC CONIC

```
C3  16.886 VHL  4.109 DLA -13.06 RAL 221.61 RAD 6567.7 VEL 11.759 PTH   2.08 VHP  7.272 DPA -38.77 RAP 244.97 ECC 1.2779
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 19 40	1756.88	-6.48	14.28	79.27	117.63	4 48 57	1156.9	-2.73	7.61
90.00	12 54 15	5236.67	26.59	235.84	84.37	79.88	14 21 32	4636.7	24.92	227.57
100.00	5 34 13	1516.33	-7.53	356.02	78.70	119.01	5 59 29	916.3	-3.60	349.44
100.00	14 22 23	4952.46	27.76	214.68	84.11	78.45	15 44 55	4352.5	25.89	206.38
110.00	6 27 12	1350.41	-10.26	341.78	77.04	122.79	6 49 42	750.4	-5.87	335.44
110.00	15 45 54	4691.14	30.86	193.98	83.26	74.51	17 4 5	4091.1	28.43	185.63

DIFFERENTIAL CORRECTIONS

```
TDE  .0823 TRA -.3691 TC3  .7350 BAU  .1926
RDE -.2500 RRA -.0852 RC3 -.4335 FAU .04195
FDE  .2171 FRA  .0214 FC3-2.1507 BSP   2283
BDE  .2632 BRA  .3788 BC3  .8533 FSP   -395
```

MID-COURSE EXECUTION ACCURACY

```
SGT  810.7 SGR  513.2 SG3  155.0
RRT -.4586 RRF  .5655 RTF -.7217
SGB  959.4 R23 -.1144 R13  .7598
SG1  857.0 SG2  431.4 THA 157.95
```

ORBIT DETERMINATION ACCURACY

```
ST   196.5 SR   350.7 SS   193.2
CRT -.4994 CRS  .9766 CST -.5351
LSA  413.5 MSA  163.2 SSA   35.5
EL1  367.8 EL2  162.4 ALF 109.61
```

LAUNCH DATE SEP 14 1970 FLIGHT TIME 82.00 ARRIVAL DATE DEC 5 1970

HELIOCENTRIC CONIC DISTANCE 218.247

```
RL  150.48 LAL    .00 LOL 350.77 VL  26.664 GAL  -6.45 AZL  89.36 HCA  96.42 SMA 126.04 ECC .22306 INC  .6393 V1  29.610
RP  107.68 LAP    .64 LOP  87.19 VP  37.578 GAP  -9.83 AZP  90.07 TAL 203.81 TAP 300.23 RCA  97.93 APO 154.16 V2  35.193
RC  51.263 GL    4.21 GP  -18.71 ZAL 129.02 ZAP  24.30 ETS  45.03 ZAE 144.36 ETE 329.63 ZAC  83.39 ETC 261.90 CLP -15.79
```

PLANETOCENTRIC CONIC

```
C3  16.205 VHL  4.026 DLA -11.31 RAL 220.51 RAD 6567.6 VEL 11.730 PTH   2.07 VHP  6.858 DPA -40.14 RAP 245.24 ECC 1.2667
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 0 30	1806.54	-8.04	17.10	77.49	117.24	4 30 36	1206.5	-4.32	10.39
90.00	13 4 39	5168.16	25.68	231.03	81.88	77.63	14 30 48	4568.2	23.72	222.91
100.00	5 16 8	1562.49	-9.04	358.61	76.95	118.61	5 42 11	962.5	-5.16	351.98
100.00	14 31 42	4887.44	26.79	210.09	81.59	76.22	15 53 9	4287.4	24.63	201.96
110.00	6 11 29	1389.18	-11.69	343.88	75.37	122.35	6 34 38	789.2	-7.33	337.49
110.00	15 52 51	4633.52	29.74	189.87	80.65	72.31	17 10 4	4033.5	27.04	181.72

DIFFERENTIAL CORRECTIONS

```
TDE  .0713 TRA -.3498 TC3  .7975 BAU  .2050
RDE -.2289 RRA -.0908 RC3 -.5094 FAU .04586
FDE  .2820 FRA -.0068 FC3-2.4501 BSP   2495
BDE  .2398 BRA  .3614 BC3  .9463 FSP   -457
```

MID-COURSE EXECUTION ACCURACY

```
SGT  824.8 SGR  540.1 SG3  173.9
RRT -.5150 RRF  .6250 RTF -.7352
SGB  985.9 R23 -.1190 R13  .7804
SG1  887.0 SG2  430.6 THA 155.13
```

ORBIT DETERMINATION ACCURACY

```
ST   184.0 SR   328.5 SS   240.4
CRT -.4513 CRS  .9750 CST -.5363
LSA  416.1 MSA  158.0 SSA   38.3
EL1  341.8 EL2  157.8 ALF 108.20
```

LAUNCH DATE SEP 14 1970 FLIGHT TIME 84.00 ARRIVAL DATE DEC 7 1970

HELIOCENTRIC CONIC DISTANCE 225.007

```
RL  150.48 LAL    .00 LOL 350.77 VL  26.790 GAL  -6.49 AZL  89.17 HCA  99.65 SMA 126.86 ECC .21680 INC  .8342 V1  29.610
RP  107.65 LAP    .82 LOP  90.42 VP  37.676 GAP  -9.03 AZP  90.14 TAL 204.92 TAP 304.57 RCA  99.35 APO 154.36 V2  35.202
RC  52.948 GL    5.62 GP  -20.14 ZAL 130.37 ZAP  27.15 ETS  42.03 ZAE 143.46 ETE 327.41 ZAC  82.00 ETC 261.94 CLP -18.61
```

PLANETOCENTRIC CONIC

```
C3  15.667 VHL  3.958 DLA  -9.53 RAL 219.55 RAD 6567.6 VEL 11.707 PTH   2.06 VHP  6.474 DPA -41.62 RAP 245.29 ECC 1.2578
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 42 8	1857.61	-9.61	20.02	76.02	116.76	4 13 5	1257.6	-5.95	13.26
90.00	13 15 20	5101.74	24.63	226.45	79.70	75.57	14 40 22	4501.7	22.41	218.48
100.00	4 58 48	1610.33	-10.59	1.32	75.51	118.12	5 25 38	1010.3	-6.75	354.64
100.00	14 41 22	4824.30	25.69	205.72	79.38	74.17	16 1 46	4224.3	23.27	197.76
110.00	5 56 23	1429.93	-13.16	346.12	73.99	121.84	6 20 13	829.9	-8.86	339.67
110.00	16 0 15	4577.42	28.52	185.96	78.36	70.30	17 16 33	3977.4	25.56	178.03

DIFFERENTIAL CORRECTIONS

```
TDE  .0574 TRA -.3345 TC3  .8434 BAU  .2159
RDE -.2052 RRA -.0965 RC3 -.5929 FAU .05007
FDE  .3609 FRA -.0353 FC3-2.7667 BSP   2649
BDE  .2131 BRA  .3481 BC3 1.0309 FSP   -524
```

MID-COURSE EXECUTION ACCURACY

```
SGT  832.8 SGR  573.2 SG3  194.6
RRT -.5623 RRF  .6818 RTF -.7428
SGB 1011.0 R23 -.1296 R13  .7981
SG1  914.2 SG2  431.8 THA 152.11
```

ORBIT DETERMINATION ACCURACY

```
ST   170.3 SR   300.3 SS   294.6
CRT -.3657 CRS  .9706 CST -.4949
LSA  425.0 MSA  154.1 SSA   40.2
EL1  309.0 EL2  154.1 ALF 105.72
```

LAUNCH DATE SEP 14 1970 FLIGHT TIME 86.00 ARRIVAL DATE DEC 9 1970

HELIOCENTRIC CONIC DISTANCE 231.750

RL 150.48 LAL .00 LOL 350.77 VL 26.902 GAL -6.52 AZL 88.97 HCA 102.88 SMA 127.59 ECC .21131 INC 1.0330 V1 29.610
RP 107.63 LAP 1.01 LOP 93.65 VP 37.763 GAP -8.27 AZP 90.23 TAL 205.96 TAP 308.85 RCA 100.63 APO 154.55 V2 35.210
RC 54.707 GL 7.09 GP -21.71 ZAL 131.55 ZAP 30.24 ETS 39.43 ZAE 142.67 ETE 324.86 ZAC 80.45 ETC 261.94 CLP -21.59

PLANETOCENTRIC CONIC

C3 15.250 VHL 3.905 DLA -7.72 RAL 218.73 RAD 6567.6 VEL 11.689 PTH 2.06 VHP 6.119 DPA -43.21 RAP 245.10 ECC 1.2510

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 24 36	1909.93	-11.20	23.04	74.87	116.18	3 56 26	1309.9	-7.59	16.22
90.00	13 26 22	5037.27	23.46	222.08	77.83	73.68	14 50 19	4437.3	21.00	214.27
100.00	4 42 13	1659.50	-12.15	4.14	74.38	117.52	5 9 53	1059.5	-8.37	357.39
100.00	14 51 26	4762.93	24.49	201.56	77.49	72.30	16 10 49	4162.9	21.83	193.77
110.00	5 41 59	1472.38	-14.67	348.48	72.92	121.23	6 6 31	872.4	-10.43	341.95
110.00	16 8 9	4522.81	27.21	182.25	76.41	68.46	17 23 32	3922.8	24.03	174.52

DIFFERENTIAL CORRECTIONS
TDE .0422 TRA -.3225 TC3 .8717 BAU .2260
RDE -.1781 RRA -.1023 RC3 -.6846 FAU .05456
FDE .4548 FRA -.0637 FC3-3.0977 BSP 2766
BDE .1830 BRA .3384 BC3 1.1083 FSP -594

MID-COURSE EXECUTION ACCURACY
SGT 833.9 SGR 614.1 SG3 217.0
RRT -.6011 RRF .7349 RTF -.7452
SGB 1035.6 R23 -.1432 R13 .8148
SG1 939.5 SG2 435.6 THA 148.67

ORBIT DETERMINATION ACCURACY
ST 157.4 SR 265.7 SS 355.1
CRT -.2388 CRS .9630 CST -.4149
LSA 443.7 MSA 151.4 SSA 40.9
EL1 269.6 EL2 150.6 ALF 101.77

LAUNCH DATE SEP 14 1970 FLIGHT TIME 88.00 ARRIVAL DATE DEC 11 1970

HELIOCENTRIC CONIC DISTANCE 238.473

RL 150.48 LAL .00 LOL 350.77 VL 27.000 GAL -6.54 AZL 88.76 HCA 106.11 SMA 128.24 ECC .20653 INC 1.2371 V1 29.610
RP 107.60 LAP 1.19 LOP 96.89 VP 37.841 GAP -7.53 AZP 90.34 TAL 206.94 TAP 313.05 RCA 101.76 APO 154.73 V2 35.218
RC 56.533 GL 8.62 GP -23.45 ZAL 132.54 ZAP 33.57 ETS 37.12 ZAE 141.96 ETE 321.96 ZAC 78.73 ETC 261.89 CLP -24.74

PLANETOCENTRIC CONIC

C3 14.938 VHL 3.865 DLA -5.89 RAL 218.07 RAD 6567.6 VEL 11.676 PTH 2.05 VHP 5.795 DPA -44.91 RAP 244.62 ECC 1.2458

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 7 53	1963.38	-12.79	26.17	74.03	115.48	3 40 36	1363.4	-9.25	19.27
90.00	13 37 50	4974.54	22.20	217.92	76.27	71.96	15 0 44	4374.5	19.53	210.26
100.00	4 26 26	1709.98	-13.72	7.06	73.55	116.82	4 54 56	1110.0	-10.02	.23
100.00	15 1 58	4703.18	23.19	197.60	75.91	70.59	16 20 21	4103.2	20.33	189.97
110.00	5 28 17	1516.32	-16.21	350.96	72.15	120.52	5 53 33	916.3	-12.04	344.34
110.00	16 16 36	4469.60	25.83	178.73	74.78	66.79	17 31 5	3869.6	22.46	171.19

DIFFERENTIAL CORRECTIONS
TDE .0215 TRA -.3192 TC3 .8663 BAU .2329
RDE -.1455 RRA -.1067 RC3 -.7810 FAU .05900
FDE .5714 FRA -.0842 FC3-3.4197 BSP 2734
BDE .1471 BRA .3365 BC3 1.1664 FSP -655

MID-COURSE EXECUTION ACCURACY
SGT 822.0 SGR 660.5 SG3 240.1
RRT -.6180 RRF .7808 RTF -.7370
SGB 1054.5 R23 -.1621 R13 .8296
SG1 955.1 SG2 446.9 THA 144.82

ORBIT DETERMINATION ACCURACY
ST 147.6 SR 221.7 SS 426.4
CRT -.0136 CRS .9509 CST -.2452
LSA 477.6 MSA 151.8 SSA 39.4
EL1 221.7 EL2 147.6 ALF 90.93

LAUNCH DATE SEP 14 1970 FLIGHT TIME 90.00 ARRIVAL DATE DEC 13 1970

HELIOCENTRIC CONIC DISTANCE 245.175

RL 150.48 LAL .00 LOL 350.77 VL 27.087 GAL -6.56 AZL 88.55 HCA 109.35 SMA 128.82 ECC .20237 INC 1.4482 V1 29.610
RP 107.58 LAP 1.37 LOP 100.13 VP 37.909 GAP -6.83 AZP 90.48 TAL 207.83 TAP 317.18 RCA 102.75 APO 154.89 V2 35.225
RC 58.419 GL 10.21 GP -25.35 ZAL 133.34 ZAP 37.13 ETS 35.00 ZAE 141.29 ETE 318.65 ZAC 76.82 ETC 261.78 CLP -28.09

PLANETOCENTRIC CONIC

C3 14.718 VHL 3.836 DLA -4.04 RAL 217.57 RAD 6567.6 VEL 11.666 PTH 2.05 VHP 5.502 DPA -46.73 RAP 243.80 ECC 1.2422

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 51 55	2018.06	-14.37	29.41	73.49	114.67	3 25 33	1418.1	-10.92	22.42
90.00	13 49 48	4913.27	20.86	213.93	75.03	70.40	15 11 41	4313.3	18.00	206.42
100.00	4 11 22	1761.77	-15.29	10.11	73.04	116.00	4 40 44	1161.8	-11.67	3.19
100.00	15 13 2	4644.79	21.82	193.80	74.65	69.04	16 30 27	4044.8	18.77	186.33
110.00	5 15 16	1561.73	-17.76	353.57	71.68	119.70	5 41 17	961.7	-13.67	346.84
110.00	16 25 37	4417.60	24.39	175.38	73.47	65.27	17 39 15	3817.6	20.85	168.02

DIFFERENTIAL CORRECTIONS
TDE .0141 TRA -.3068 TC3 .8728 BAU .2459
RDE -.1109 RRA -.1139 RC3 -.8942 FAU .06431
FDE .6899 FRA -.1176 FC3-3.7830 BSP 2972
BDE .1118 BRA .3273 BC3 1.2495 FSP -751

MID-COURSE EXECUTION ACCURACY
SGT 812.3 SGR 726.1 SG3 266.6
RRT -.6520 RRF .8262 RTF -.7347
SGB 1089.6 R23 -.1649 R13 .8499
SG1 991.9 SG2 450.9 THA 139.89

ORBIT DETERMINATION ACCURACY
ST 140.8 SR 174.6 SS 492.2
CRT .1281 CRS .9193 CST -.1867
LSA 518.6 MSA 148.7 SSA 38.3
EL1 177.0 EL2 137.7 ALF 74.67

LAUNCH DATE SEP 14 1970 FLIGHT TIME 92.00 ARRIVAL DATE DEC 15 1970

HELIOCENTRIC CONIC DISTANCE 251.854

RL 150.48 LAL .00 LOL 350.77 VL 27.162 GAL -6.58 AZL 88.33 HCA 112.59 SMA 129.33 ECC .19877 INC 1.6678 V1 29.610
RP 107.56 LAP 1.54 LOP 103.36 VP 37.968 GAP -6.15 AZP 90.64 TAL 208.62 TAP 321.21 RCA 103.63 APO 155.04 V2 35.232
RC 60.358 GL 11.87 GP -27.43 ZAL 133.94 ZAP 40.92 ETS 32.97 ZAE 140.62 ETE 314.91 ZAC 74.73 ETC 261.61 CLP -31.65

PLANETOCENTRIC CONIC

C3 14.580 VHL 3.818 DLA -2.18 RAL 217.24 RAD 6567.6 VEL 11.660 PTH 2.05 VHP 5.241 DPA -48.66 RAP 242.57 ECC 1.2400

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 36 40	2074.01	-15.93	32.77	73.27	113.73	3 11 14	1474.0	-12.59	25.69
90.00	14 2 23	4853.13	19.44	210.09	74.09	68.99	15 23 16	4253.1	16.41	202.72
100.00	3 57 0	1814.89	-16.85	13.28	72.83	115.06	4 27 15	1214.9	-13.34	6.25
100.00	15 24 44	4587.49	20.38	190.15	73.70	67.64	16 41 12	3987.5	17.17	182.83
110.00	5 2 55	1608.51	-19.31	356.30	71.52	118.77	5 29 43	1008.5	-15.33	349.46
110.00	16 35 19	4366.59	22.90	172.17	72.48	63.90	17 48 5	3766.6	19.20	164.98

DIFFERENTIAL CORRECTIONS
TDE .0033 TRA -.3039 TC3 .8402 BAU .2563
RDE -.0686 RRA -.1191 RC3-1.0113 FAU .06932
FDE .8328 FRA -.1394 FC3-4.1159 BSP 3068
BDE .0686 BRA .3264 BC3 1.3148 FSP -833

MID-COURSE EXECUTION ACCURACY
SGT 787.4 SGR 799.4 SG3 292.8
RRT -.6584 RRF .8624 RTF -.7177
SGB 1122.1 R23 -.1675 R13 .8691
SG1 1021.8 SG2 463.6 THA 134.34

ORBIT DETERMINATION ACCURACY
ST 138.3 SR 118.3 SS 568.1
CRT .3908 CRS .8285 CST -.0742
LSA 576.7 MSA 148.5 SSA 35.5
EL1 153.2 EL2 98.4 ALF 34.07

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LAUNCH DATE  SEP 14 1970                          FLIGHT TIME  94.00                          ARRIVAL DATE  DEC 17 1970

 HELIOCENTRIC CONIC                                DISTANCE 258.510
  RL  150.48 LAL    .00 LOL 350.77 VL  27.226 GAL  -6.59 AZL  88.10 HCA 115.82 SMA 129.78 ECC .19566 INC 1.8981 V1  29.610
  RP  107.54 LAP   1.71 LOP 106.60 VP  38.020 GAP  -5.50 AZP  90.83 TAL 209.32 TAP 325.14 RCA 104.38 APO 155.17 V2  35.238
  RC  62.346 GL   13.60 GP  -29.68 ZAL 134.31 ZAP  44.94 ETS  30.95 ZAE 139.87 ETE 310.74 ZAC  72.44 ETC 261.35 CLP -35.44
 PLANETOCENTRIC CONIC
  C3  14.517 VHL  3.810 DLA   -.29 RAL 217.07 RAD 6567.6 VEL 11.658 PTH   2.05 VHP  5.013 DPA -50.69 RAP 240.89 ECC 1.2389
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     90.00     2 22  2   2131.48     -17.47      36.29      73.36      112.65     2 57 34     1531.5     -14.25      29.09
     90.00    14 15 43   4793.72      17.94     206.37      73.47       67.72    15 35 36     4193.7      14.77     199.13
    100.00     3 43 14   1869.54     -18.40      16.60      72.94      113.98     4 14 24     1269.5     -15.00       9.46
    100.00    15 37 11   4530.90      18.87     186.63      73.05       66.38    16 52 42     3930.9      15.52     179.44
    110.00     4 51 10   1656.90     -20.87     359.19      71.66      117.71     5 18 47     1056.9     -17.00     352.21
    110.00    16 45 48   4316.30      21.36     169.08      71.79       62.65    17 57 41     3716.3      17.52     162.04
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE -.0078 TRA -.3087 TC3  .7713 BAU  .2656      SGT  749.0 SGR  880.9 SG3  318.2            ST   140.9 SR    65.7 SS   653.4
  RDE -.0170 RRA -.1213 RC3-1.1304 FAU .07381      RRT -.6384 RRF  .8912 RTF -.6840            CRT  .8067 CRS  .3255 CST  .0481
  FDE 1.0000 FRA -.1486 FC3-4.4015 BSP   3074      SGB 1156.3 RZS -.1594 R13  .8895            LSA  653.8 HSA  150.5 SSA   31.7
  BDE  .0187 BRA  .3317 BC3 1.3684 FSP   -899      SG1 1050.3 SG2  483.5 THA 127.84            EL1  151.2 EL2   36.2 ALF  21.95

LAUNCH DATE  SEP 14 1970                          FLIGHT TIME  96.00                          ARRIVAL DATE  DEC 19 1970

 HELIOCENTRIC CONIC                                DISTANCE 265.139
  RL  150.48 LAL    .00 LOL 350.77 VL  27.281 GAL  -6.59 AZL  87.86 HCA 119.06 SMA 130.16 ECC .19298 INC 2.1414 V1  29.610
  RP  107.53 LAP   1.87 LOP 109.85 VP  38.064 GAP  -4.88 AZP  91.04 TAL 209.91 TAP 328.97 RCA 105.04 APO 155.27 V2  35.243
  RC  64.375 GL   15.41 GP  -32.11 ZAL 134.45 ZAP  49.18 ETS  28.85 ZAE 138.99 ETE 306.14 ZAC  69.97 ETC 261.01 CLP -39.49
 PLANETOCENTRIC CONIC
  C3  14.526 VHL  3.811 DLA   1.62 RAL 217.08 RAD 6567.6 VEL 11.658 PTH   2.05 VHP  4.820 DPA -52.80 RAP 238.66 ECC 1.2391
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     90.00     2  7 52   2190.92     -18.99      39.99      73.75      111.41     2 44 23     1590.9     -15.91      32.66
     90.00    14 29 54   4734.56      16.38     202.73      73.14       66.57    15 48 49     4134.6      13.07     195.62
    100.00     3 29 58   1926.12     -19.93      20.11      73.35      112.76     4  2  4     1326.1     -16.67      12.83
    100.00    15 50 30   4474.60      17.30     183.18      72.71       65.24    17  5  4     3874.6      13.82     176.12
    110.00     4 38 56   1707.10     -22.43       2.25      72.12      116.50     5  8 23     1107.1     -18.69     355.12
    110.00    16 57  1   4266.38      19.77     166.08      71.41       61.53    18  8  7     3666.4      15.81     159.19
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE -.0007 TRA -.3045 TC3  .7106 BAU  .2824      SGT  709.3 SGR  987.7 SG3  345.2            ST   138.4 SR    85.6 SS   726.5
  RDE  .0375 RRA -.1275 RC3-1.2689 FAU .07898      RRT -.6225 RRF  .9166 RTF -.6452            CRT  .6233 CRS -.7064 CST -.0291
  FDE 1.1571 FRA -.1605 FC3-4.7068 BSP   3386      SGB 1216.0 RZS -.1421 R13  .9105            LSA  729.1 HSA  147.9 SSA   29.6
  BDE  .0375 BRA  .3302 BC3 1.4543 FSP  -1008      SG1 1111.4 SG2  493.3 THA 120.78            EL1  150.6 EL2   61.5 ALF  25.66

LAUNCH DATE  SEP 14 1970                          FLIGHT TIME  98.00                          ARRIVAL DATE  DEC 21 1970

 HELIOCENTRIC CONIC                                DISTANCE 271.742
  RL  150.48 LAL    .00 LOL 350.77 VL  27.326 GAL  -6.59 AZL  87.60 HCA 122.30 SMA 130.47 ECC .19069 INC 2.4006 V1  29.610
  RP  107.51 LAP   2.03 LOP 113.09 VP  38.101 GAP  -4.28 AZP  91.28 TAL 210.40 TAP 332.70 RCA 105.59 APO 155.35 V2  35.247
  RC  66.441 GL   17.31 GP  -34.68 ZAL 134.36 ZAP  53.59 ETS  26.61 ZAE 137.92 ETE 301.15 ZAC  67.32 ETC 260.58 GLP -43.80
 PLANETOCENTRIC CONIC
  C3  14.606 VHL  3.822 DLA   3.57 RAL 217.26 RAD 6567.6 VEL 11.662 PTH   2.05 VHP  4.664 DPA -54.95 RAP 235.82 ECC 1.2404
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     90.00     1 54  3   2252.78     -20.48      43.92      74.48      110.00     2 31 36     1652.8     -17.57      36.45
     90.00    14 45  9   4675.13      14.74     199.14      73.12       65.54    16  3  4     4075.1      11.31     192.14
    100.00     3 17  4   1985.03     -21.43      23.84      74.09      111.35     3 50  9     1385.0     -18.34      16.41
    100.00    16  4 49   4418.12      15.66     179.79      72.67       64.21    17 18 27     3818.1      12.06     172.85
    110.00     4 29  8   1759.44     -23.98       5.53      72.90      115.12     4 58 28     1159.4     -20.40     358.22
    110.00    17  9 14   4216.46      18.12     163.14      71.33       60.51    18 19 31     3616.5      14.05     156.39
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE  .0088 TRA -.3098 TC3  .6060 BAU  .2984      SGT  656.8 SGR 1100.5 SG3  368.6            ST   140.9 SR   169.1 SS   807.9
  RDE  .1037 RRA -.1289 RC3-1.4026 FAU .08299      RRT -.5597 RRF  .9353 RTF -.5700            CRT  .4045 CRS -.9414 CST -.1223
  FDE 1.3341 FRA -.1703 FC3-4.9189 BSP   3587      SGB 1281.6 RZS -.1142 R13  .9300            LSA  823.7 HSA  148.0 SSA   26.6
  BDE  .1041 BRA  .3356 BC3 1.5280 FSP  -1088      SG1 1176.0 SG2  509.3 THA 113.03            EL1  186.6 EL2  116.8 ALF  57.21

LAUNCH DATE  SEP 14 1970                          FLIGHT TIME 100.00                          ARRIVAL DATE  DEC 23 1970

 HELIOCENTRIC CONIC                                DISTANCE 278.318
  RL  150.48 LAL    .00 LOL 350.77 VL  27.363 GAL  -6.57 AZL  87.32 HCA 125.54 SMA 130.74 ECC .18873 INC 2.6791 V1  29.610
  RP  107.50 LAP   2.18 LOP 116.34 VP  38.131 GAP  -3.70 AZP  91.56 TAL 210.78 TAP 336.31 RCA 106.06 APO 155.41 V2  35.251
  RC  68.539 GL   19.31 GP  -37.39 ZAL 134.03 ZAP  58.15 ETS  24.16 ZAE 136.60 ETE 295.83 ZAC  64.52 ETC 260.03 CLP -48.38
 PLANETOCENTRIC CONIC
  C3  14.760 VHL  3.842 DLA   5.57 RAL 217.61 RAD 6567.6 VEL 11.668 PTH   2.05 VHP  4.547 DPA -57.10 RAP 232.29 ECC 1.2429
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     90.00     1 40 23   2317.78     -21.93      48.13      75.53      108.37     2 19  1     1717.8     -19.22      40.50
     90.00    15  1 36   4614.82      13.01     195.56      73.42       64.62    16 18 33     4014.8       9.48     188.65
    100.00     3  4 22   2046.92     -22.91      27.84      75.17      109.74     3 38 29     1446.9     -20.01      20.24
    100.00    16 20 21   4360.91      13.94     176.42      72.95       63.29    17 33  2     3760.9      10.24     169.58
    110.00     4 18 39   1814.46     -25.53       9.05      74.03      113.55     4 48 53     1214.5     -22.12       1.56
    110.00    17 22 34   4166.14      16.41     160.24      71.56       59.58    18 32  0     3566.1      12.25     153.61
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE  .0288 TRA -.3182 TC3  .4792 BAU  .3168      SGT  602.0 SGR 1223.3 SG3  388.1            ST   149.6 SR   276.8 SS   888.4
  RDE  .1801 RRA -.1288 RC3-1.5334 FAU .08602      RRT -.4457 RRF  .9497 RTF -.4462            CRT  .4631 CRS -.9815 CST -.3098
  FDE 1.5136 FRA -.1501 FC3-5.0453 BSP   3835      SGB 1363.4 RZS -.0800 R13  .9466            LSA  930.4 HSA  148.3 SSA   23.7
  BDE  .1823 BRA  .3425 BC3 1.6054 FSP  -1155      SG1 1258.8 SG2  523.7 THA 105.03            EL1  287.6 EL2  127.6 ALF  72.37
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LAUNCH DATE SEP 14 1970 FLIGHT TIME 102.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 284.067

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RL  150.48 LAL    .00 LOL 350.77 VL  27.393 GAL  -6.55 AZL  87.02 HCA 128.77 SMA 130.95 ECC .18705 INC 2.9811 V1  29.610
RP  107.49 LAP   2.32 LOP 119.58 VP  30.155 GAP  -3.14 AZP  91.87 TAL 211.05 TAP 339.82 RCA 106.45 APO 155.44 V2  35.254
RC  70.666 GL   21.44 GP  -40.21 ZAL 133.45 ZAP  62.79 ETS  21.42 ZAE 134.98 ETE 290.29 ZAC  61.59 ETC 259.37 CLP -53.22
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PLANETOCENTRIC CONIC

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C3 . 14.998 VHL  3.873 DLA   7.64 RAL 218.15 RAD 6567.6 VEL 11.678 PTH   2.05 VHP  4.470 DPA -59.19 RAP 228.02 ECC 1.2468
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 26 40	2306.00	-23.34	52.70	76.95	106.50	2 6 27	1786.8	-20.86	44.90
90.00	15 19 30	4552.94	11.17	191.94	74.05	63.81	16 35 51	3052.9	7.56	185.12
100.00	2 51 41	2112.00	-24.35	32.19	76.61	107.89	3 26 53	1512.6	-21.68	24.41
100.00	16 37 18	4302.37	12.12	173.02	73.57	62.46	17 49 1	3702.4	8.34	166.28
110.00	4 8 18	1872.79	-27.06	12.90	75.53	111.74	4 39 31	1272.8	-23.86	5.19
110.00	17 37 10	4114.94	14.62	157.35	72.12	58.75	18 45 45	3514.9	10.38	150.82

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE  .0882 TRA -.3280 TC3  .3190 BAU  .3379    SGT  557.2 SGR 1353.1 SG3  402.2          ST   173.8 SR   400.2 SS   965.7
 RDE  .2060 RRA -.1201 RC3-1.6548 FAU .08776    RRT -.2581 RRF  .9805 RTF -.2479          CRT  .6318 CRS -.9926 CST -.5464
 FDE 1.6879 FRA -.1310 FC3-5.0860 BSP  4134     SGB 1463.3 RZS -.0439 R13  .9595          LSA 1049.0 NSA  148.8 SSA   21.0
 BDE  .2730 BRA  .3501 BC3 1.6653 FSP  -1206    SG1 1361.9 SG2  535.3 THA  97.10          EL1  416.6 EL2  129.4 ALF  72.96
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LAUNCH DATE SEP 14 1970 FLIGHT TIME 104.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 291.388

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RL  150.48 LAL    .00 LOL 350.77 VL  27.416 GAL  -6.52 AZL  88.00 HCA 132.01 SMA 131.11 ECC .18564 INC 3.3119 V1  29.610
RP  107.48 LAP   2.46 LOP 122.83 VP  30.173 GAP  -2.61 AZP  92.22 TAL 211.21 TAP 343.22 RCA 106.77 APO 155.44 V2  35.256
RC  72.018 GL   23.00 GP  -43.09 ZAL 132.62 ZAP  67.45 ETS  18.36 ZAE 133.06 ETE 284.61 ZAC  58.56 ETC 258.58 CLP -58.33
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PLANETOCENTRIC CONIC

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C3  15.334 VHL  3.916 DLA   9.78 RAL 218.87 RAD 6567.6 VEL 11.693 PTH   2.06 VHP  4.436 DPA -61.17 RAP 222.96 ECC 1.2524
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 12 36	2401.02	-24.09	57.72	78.76	104.33	1 53 37	1861.0	-22.47	49.74
90.00	15 39 28	4488.65	9.22	188.23	75.05	63.11	16 54 16	3088.7	5.53	181.48
100.00	2 30 45	2183.13	-23.74	36.96	78.44	105.74	3 15 9	1583.1	-23.34	28.99
100.00	16 55 50	4241.77	10.19	169.56	74.53	61.75	18 6 41	3641.8	6.33	162.09
110.00	3 57 57	1935.29	-28.56	17.14	77.43	109.64	4 30 13	1335.3	-25.62	9.20
110.00	17 53 16	4062.37	12.74	154.44	73.02	58.01	19 0 59	3462.4	8.43	148.00

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE  .1118 TRA -.3424 TC3  .1370 BAU  .3605    SGT  544.6 SGR 1482.2 SG3  408.9          ST   223.5 SR   539.0 SS  1041.1
 RDE  .3659 RRA -.1087 RC3-1.7535 FAU .08765    RRT  .0247 RRF  .9686 RTF  .0355          CRT  .7844 CRS -.9967 CST -.7390
 FDE 1.8546 FRA -.0849 FC3-4.9487 BSP  4434     SGB 1579.0 RZS -.0079 R13  .9686          LSA 1183.8 NSA  150.5 SSA   18.4
 BDE  .3825 BRA  .3563 BC3 1.7587 FSP  -1221    SG1 1482.2 SG2  544.4 THA  89.40          EL1  568.5 EL2  131.4 ALF  70.93
```

LAUNCH DATE SEP 14 1970 FLIGHT TIME 106.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 297.880

```
RL  150.48 LAL    .00 LOL 350.77 VL  27.432 GAL  -6.48 AZL  88.32 HCA 135.25 SMA 131.22 ECC .18444 INC 3.6782 V1  29.610
RP  107.48 LAP   2.59 LOP 126.08 VP  30.186 GAP  -2.09 AZP  92.61 TAL 211.27 TAP 346.52 RCA 107.02 APO 155.42 V2  35.258
RC  74.992 GL   26.11 GP  -46.01 ZAL 131.54 ZAP  72.06 ETS  14.93 ZAE 130.82 ETE 278.90 ZAC  55.48 ETC 257.66 CLP -63.67
```

PLANETOCENTRIC CONIC

```
C3  15.791 VHL  3.974 DLA  12.02 RAL 219.78 RAD 6567.6 VEL 11.712 PTH   2.06 VHP  4.448 DPA -62.98 RAP 217.11 ECC 1.2599
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 57 48	2541.90	-25.93	63.32	80.99	101.79	1 40 10	1942.0	-24.05	55.16
90.00	16 1 32	4420.94	7.11	184.37	76.44	62.52	17 15 13	3820.9	3.37	177.68
100.00	2 25 16	2259.68	-27.05	42.29	80.71	103.23	3 2 56	1659.9	-24.96	34.12
100.00	17 16 45	4178.27	8.12	165.96	75.89	61.13	18 26 23	3578.3	4.21	159.38
110.00	3 47 21	2003.03	-30.02	21.87	79.79	107.18	4 20 44	1403.0	-27.37	13.68
110.00	18 11 9	4007.88	10.76	151.46	74.30	57.36	19 17 57	3407.9	6.38	145.11

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE  .1863 TRA -.3514 TC3 -.0493 BAU  .3887    SGT  584.9 SGR 1616.7 SG3  409.0          ST   310.4 SR   678.2 SS  1097.9
 RDE  .4686 RRA -.0800 RC3-1.8406 FAU .08666    RRT  .3253 RRF  .9748 RTF  .3423          CRT  .8920 CRS -.9983 CST -.8684
 FDE 1.9797 FRA -.0430 FC3-4.7511 BSP  4942     SGB 1719.3 RZS  .0170 R13  .9750          LSA 1318.7 NSA  149.7 SSA   16.4
 BDE  .5043 BRA  .3628 BC3 1.8413 FSP  -1251    SG1 1629.4 SG2  548.8 THA  82.42          EL1  734.5 EL2  129.6 ALF  67.04
```

LAUNCH DATE SEP 14 1970 FLIGHT TIME 108.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 304.345

```
RL  150.48 LAL    .00 LOL 350.77 VL  27.442 GAL  -6.44 AZL  85.91 HCA 138.48 SMA 131.29 ECC .18344 INC 4.0889 V1  29.610
RP  107.48 LAP   2.71 LOP 129.33 VP  30.194 GAP  -1.59 AZP  93.06 TAL 211.23 TAP 349.71 RCA 107.21 APO 155.38 V2  35.259
RC  77.186 GL   28.09 GP  -48.94 ZAL 130.18 ZAP  76.51 ETS  11.12 ZAE 128.29 ETE 275.26 ZAC  52.36 ETC 256.59 CLP -69.20
```

PLANETOCENTRIC CONIC

```
C3  16.401 VHL  4.050 DLA  14.38 RAL 220.90 RAD 6567.7 VEL 11.738 PTH   2.07 VHP  4.510 DPA -64.58 RAP 210.53 ECC 1.2699
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 41 47	2631.75	-27.03	69.66	83.60	98.79	1 25 39	2031.8	-25.53	61.31
90.00	16 26 28	4348.43	4.81	180.28	78.29	62.06	17 38 56	3748.4	1.04	173.63
100.00	2 10 49	2344.66	-28.23	48.32	83.46	100.27	2 49 53	1744.7	-26.52	39.93
100.00	17 40 8	4110.75	5.88	162.22	77.71	60.64	18 48 38	3510.8	1.93	155.66
110.00	3 36 14	2077.38	-31.39	27.23	82.67	104.29	4 10 52	1477.4	-29.11	18.76
110.00	18 31 11	3950.82	8.65	148.38	76.01	56.80	19 37 2	3350.8	4.22	142.10

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE  .2840 TRA -.3611 TC3 -.2504 BAU  .4167    SGT  603.3 SGR 1738.9 SG3  399.8          ST   431.8 SR   826.2 SS  1149.8
 RDE  .5888 RRA -.0827 RC3-1.8840 FAU .08342    RRT  .5722 RRF  .9792 RTF  .5898          CRT  .9414 CRS -.9992 CST -.9291
 FDE 2.0842 FRA  .0803 FC3-4.4035 BSP  5417     SGB 1870.1 RZS  .0409 R13  .9790          LSA 1472.5 NSA  150.7 SSA   14.4
 BDE  .6483 BRA  .3665 BC3 1.9006 FSP  -1234    SG1 1786.6 SG2  552.8 THA  75.74          EL1  923.1 EL2  130.4 ALF  63.23
```

LAUNCH DATE SEP 14 1970 FLIGHT TIME 110.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 310.781

RL	150.48	LAL	.00	LOL	350.77	VL	27.447	GAL	-6.38	AZL	85.44	HCA	141.72	SMA	131.33	ECC	.18260	INC	4.5556	V1	29.610
RP	107.48	LAP	2.82	LOP	132.58	VP	38.198	GAP	-1.11	AZP	93.58	TAL	211.09	TAP	352.81	RCA	107.35	APO	155.31	V2	35.259
RC	79.396	GL	31.48	GP	-51.87	ZAL	128.55	ZAP	80.73	ETS	6.92	ZAE	125.49	ETE	267.74	ZAC	49.22	ETC	255.37	CLP	-74.88

PLANETOCENTRIC CONIC

C3	17.218	VHL	4.149	DLA	16.87	RAL	222.23	RAD	6567.7	VEL	11.773	PTH	2.08	VHP	4.627	DPA	-65.93	RAP	203.31	ECC	1.2833		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 23 48	2733.30	-27.87	76.97	86.92	95.22	1 9 22	2133.3	-26.85	68.45
90.00	16 55 6	4269.18	2.27	175.84	80.70	61.77	18 6 15	3669.2	-1.52	169.21
100.00	1 54 46	2439.97	-29.19	55.24	86.76	96.75	2 35 26	1840.0	-27.95	46.65
100.00	18 6 49	4037.74	3.43	158.18	80.06	60.29	19 14 7	3437.7	-.55	151.66
110.00	3 24 14	2160.06	-32.62	53.36	86.14	100.85	4 0 14	1560.1	-30.78	24.63
110.00	18 53 51	3890.42	6.38	145.18	78.23	56.35	19 58 41	3290.4	1.92	138.94

DIFFERENTIAL CORRECTIONS

TDE	.4117	TRA	-.3666	TC3	-.4488	BAU	.4455
RDE	.7039	RRA	-.0253	RC3	-1.8827	FAU	.07848
FDE	2.1533	FRA	.0918	FC3	-3.9465	BSP	5926
BDE	.8155	BRA	.3675	BC3	1.9355	FSP	-1190

MID-COURSE EXECUTION ACCURACY

SGT	861.3	SGR	1840.4	SG3	382.4		
RRT	.7279	RRF	.9825	RTF	.7452		
SGB	2032.0	RZ3	.0607	RI3	.9816		
SG1	1954.4	SG2	556.1	THA	69.45		

ORBIT DETERMINATION ACCURACY

ST	590.4	SR	973.2	SS	1189.5		
CRT	.9658	CRS	-.9996	CST	-.9594		
LSA	1639.3	NSA	152.0	SSA	12.6		
EL1	1130.6	EL2	131.8	ALF	59.17		

LAUNCH DATE SEP 14 1970 FLIGHT TIME 112.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 317.189

RL	150.48	LAL	.00	LOL	350.77	VL	27.447	GAL	-6.31	AZL	84.91	HCA	144.95	SMA	131.33	ECC	.18192	INC	5.0943	V1	29.610		
RP	107.48	LAP	2.92	LOP	135.83	VP	38.197	GAP	-.64	AZP	94.17	TAL	210.86	TAP	355.81	RCA	107.44	APO	155.22	V2	35.258		
RC	81.621	GL	34.48	GP	-54.79	ZAL	126.64	ZAP	84.63	ETS	2.33	ZAE	122.45	ETE	262.40	ZAC	46.08	ETC	253.99	CLP	-80.67		

PLANETOCENTRIC CONIC

C3	18.312	VHL	4.279	DLA	19.52	RAL	223.80	RAD	6567.7	VEL	11.819	PTH	2.09	VHP	4.806	DPA	-67.05	RAP	195.54	ECC	1.3014		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 2 37	2851.24	-28.30	85.57	90.70	90.94	0 50 9	2251.2	-27.87	76.93
90.00	17 28 40	4179.94	-.61	170.86	83.81	61.69	18 38 29	3579.9	-4.39	164.22
100.00	1 36 12	2549.51	-29.78	63.32	90.64	92.54	2 18 41	1949.5	-29.12	54.58
100.00	18 37 56	3956.90	.69	153.74	83.08	60.11	19 43 53	3356.9	-3.29	147.22
110.00	3 10 46	2253.51	-33.59	40.48	90.28	96.74	3 48 22	1653.5	-32.29	31.49
110.00	19 19 40	3825.66	3.93	141.78	81.07	56.02	20 23 35	3225.7	-.56	135.57

DIFFERENTIAL CORRECTIONS

TDE	.5786	TRA	-.3653	TC3	-.6325	BAU	.4725
RDE	.8334	RRA	.0284	RC3	-1.8233	FAU	.07175
FDE	2.1909	FRA	.1738	FC3	-3.3920	BSP	6394
BDE	1.0128	BRA	.3662	BC3	1.9299	FSP	-1108

MID-COURSE EXECUTION ACCURACY

SGT	1075.2	SGR	1918.8	SG3	357.2		
RRT	.8168	RRF	.9848	RTF	.8332		
SGB	2199.5	RZ3	.0790	RI3	.9829		
SG1	2127.1	SG2	559.6	THA	63.42		

ORBIT DETERMINATION ACCURACY

ST	786.4	SR	1116.8	SS	1219.0		
CRT	.9780	CRS	-.9998	CST	-.9749		
LSA	1824.2	NSA	154.6	SSA	10.8		
EL1	1359.2	EL2	134.9	ALF	55.06		

LAUNCH DATE SEP 14 1970 FLIGHT TIME 114.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 323.567

RL	150.48	LAL	.00	LOL	350.77	VL	27.442	GAL	-6.23	AZL	84.27	HCA	148.18	SMA	131.29	ECC	.18136	INC	5.7272	V1	29.610		
RP	107.48	LAP	3.02	LOP	139.08	VP	38.192	GAP	-.20	AZP	94.87	TAL	210.54	TAP	356.71	RCA	107.48	APO	155.10	V2	35.256		
RC	83.861	GL	37.71	GP	-57.73	ZAL	124.43	ZAP	88.14	ETS	357.36	ZAE	119.21	ETE	257.23	ZAC	42.92	ETC	252.41	CLP	-86.51		

PLANETOCENTRIC CONIC

C3	19.808	VHL	4.451	DLA	22.33	RAL	225.64	RAD	6567.8	VEL	11.882	PTH	2.11	VHP	5.058	DPA	-67.94	RAP	187.30	ECC	1.3260		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 31 57	2993.88	-28.02	95.99	95.01	85.73	24 21 51	2393.9	-28.32	87.33
90.00	18 10 10	4074.33	-4.01	164.96	87.83	61.94	19 18 4	3474.3	-7.73	158.26
100.00	1 13 26	2679.35	-29.79	72.97	95.13	87.46	1 58 6	2079.3	-29.83	64.16
100.00	19 15 18	3864.09	-2.45	148.65	86.97	60.20	20 19 42	3264.1	-6.40	142.09
110.00	2 55 9	2361.12	-34.14	48.83	95.16	91.83	3 34 30	1761.1	-33.51	39.64
110.00	19 50 4	3755.09	1.23	138.09	84.67	55.84	20 52 39	3155.1	-3.26	131.88

DIFFERENTIAL CORRECTIONS

TDE	.7838	TRA	-.3523	TC3	-.7834	BAU	.5011
RDE	.9590	RRA	.0839	RC3	-1.7227	FAU	.06445
FDE	2.1767	FRA	.2414	FC3	-2.8168	BSP	7017
BDE	1.2386	BRA	.3622	BC3	1.8924	FSP	-1035

MID-COURSE EXECUTION ACCURACY

SGT	1320.9	SGR	1972.1	SG3	328.2		
RRT	.8667	RRF	.9864	RTF	.8846		
SGB	2373.6	RZ3	.0918	RI3	.9839		
SG1	2305.7	SG2	563.6	THA	57.70		

ORBIT DETERMINATION ACCURACY

ST	1019.9	SR	1236.0	SS	1225.8		
CRT	.9849	CRS	-.9999	CST	-.9837		
LSA	2011.5	NSA	155.7	SSA	9.5		
EL1	1596.6	EL2	136.6	ALF	50.55		

LAUNCH DATE SEP 14 1970 FLIGHT TIME 116.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 329.916

RL	150.48	LAL	.00	LOL	350.77	VL	27.433	GAL	-6.14	AZL	83.51	HCA	151.40	SMA	131.23	ECC	.18092	INC	6.4865	V1	29.610		
RP	107.49	LAP	3.10	LOP	142.33	VP	38.183	GAP	.23	AZP	95.70	TAL	210.12	TAP	1.53	RCA	107.49	APO	154.97	V2	35.254		
RC	86.111	GL	41.19	GP	-60.73	ZAL	121.91	ZAP	91.17	ETS	352.00	ZAE	115.77	ETE	252.21	ZAC	39.69	ETC	250.56	CLP	-92.39		

PLANETOCENTRIC CONIC

C3	21.890	VHL	4.679	DLA	25.32	RAL	227.76	RAD	6567.9	VEL	11.970	PTH	2.13	VHP	5.400	DPA	-68.63	RAP	178.61	ECC	1.3603		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 53 39	3181.37	-26.34	109.43	99.63	79.20	23 46 40	2581.4	-27.56	100.98
90.00	19 5 26	3834.76	-8.42	157.08	93.21	62.86	20 11 0	3334.8	-11.99	150.22
100.00	0 42 55	2841.75	-28.71	84.90	100.09	81.28	1 30 17	2241.7	-29.61	76.22
100.00	20 2 46	3749.61	-6.30	142.33	92.07	60.72	21 5 16	3149.6	-10.15	135.66
110.00	2 35 57	2488.07	-35.97	58.73	100.78	85.98	3 17 26	1888.1	-34.16	49.49
110.00	20 26 13	3676.05	-1.79	133.96	89.27	55.88	21 27 29	3076.0	-6.26	127.73

DIFFERENTIAL CORRECTIONS

TDE	1.0478	TRA	-.3241	TC3	-.8906	BAU	.5250
RDE	1.0888	RRA	.1597	RC3	-1.5574	FAU	.05593
FDE	2.1352	FRA	.3125	FC3	-2.2121	BSP	7559
BDE	1.5109	BRA	.3613	BC3	1.7941	FSP	-929

MID-COURSE EXECUTION ACCURACY

SGT	1591.6	SGR	1987.0	SG3	290.5		
RRT	.8949	RRF	.9872	RTF	.9146		
SGB	2545.9	RZ3	.1051	RI3	.9841		
SG1	2481.5	SG2	568.0	THA	52.02		

ORBIT DETERMINATION ACCURACY

ST	1289.9	SR	1335.6	SS	1221.7		
CRT	.9885	CRS	-1.0000	CST	-.9886		
LSA	2217.0	NSA	158.6	SSA	8.1		
EL1	1851.5	EL2	140.4	ALF	46.01		

LAUNCH DATE SEP 14 1970 FLIGHT TIME 118.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 336.234

```
RL  150.40 LAL    .00 LOL 350.77 VL  27.420 GAL  -6.05 AZL  82.58 HCA 154.62 SHA 131.14 ECC .18058 INC 7.4205 V1  29.610
RP  107.50 LAP   3.17 LOP 145.58 VP  30.171 GAP    .65 AZP  96.71 TAL 209.63 TAP   4.25 RCA 107.46 APO 154.82 V2  35.251
RC  80.372 GL   44.92 GP  -63.85 ZAL 119.09 ZAP  95.66 ETS 346.18 ZAE 112.14 ETE 247.23 ZAC  36.36 ETC 248.31 CLP -98.35
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PLANETOCENTRIC CONIC

```
C3  24.873 VHL  4.987 DLA  28.47 RAL 230.22 RAD 6500.0 VEL 12.093 PTH   2.16 VHP  5.858 DPA -69.12 RAP 169.36 ECC 1.4093
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
86.92	20 43 36	3672.65	-18.42	142.70	102.35	67.90	21 44 48	3072.7	-21.26	135.16
93.08	21 35 5	3508.82	-18.41	130.48	102.34	67.89	22 33 31	2905.8	-21.25	122.95
100.00	23 47 58	3077.77	-25.13	101.51	104.90	73.26	24 39 16	2477.8	-27.19	93.31
100.00	21 13 23	3575.84	-11.95	132.53	90.25	62.39	22 12 59	2975.9	-15.55	125.59
110.00	2 10 31	2843.86	-32.59	70.67	106.99	79.05	2 54 35	2043.9	-33.75	61.63
110.00	21 11 16	3562.61	-5.35	129.07	95.28	56.19	22 10 58	2962.6	-9.75	122.75

DIFFERENTIAL CORRECTIONS

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TDE 1.3845 TRA -.2735 TC3 -.9407 BAU  .5452
RDE 1.2110 RRA  .2904 RC3-1.3427 FAU .04706
FDE 2.0590 FRA  .3734 FC3-1.6360 BSP  8126
BDE 1.8394 BRA  .3708 BC3 1.6305 FSP  -817
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MID-COURSE EXECUTION ACCURACY

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SGT 1881.0 SGR 1958.7 SGS  252.0
RRT  .9100 RRF  .9873 RTF  .9337
SGB 2715.6 RZS  .1172 RIS  .9640
SGI 2653.9 SGZ  575.6 THA  46.27
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ORBIT DETERMINATION ACCURACY

```
ST  1594.4 SR  1395.3 SS  1200.2
CRT  .9905 CRS -.9999 CST -.9917
LSA 2429.7 MSA  161.9 SSA    6.9
EL1 2113.8 EL2  145.0 ALF  41.15
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LAUNCH DATE SEP 14 1970 FLIGHT TIME 120.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 342.520

```
RL  150.40 LAL    .00 LOL 350.77 VL  27.404 GAL  -5.94 AZL  81.39 HCA 157.83 SHA 131.02 ECC .18035 INC 8.6052 V1  29.610
RP  107.51 LAP   3.24 LOP 148.83 VP  30.156 GAP   1.05 AZP  97.98 TAL 209.06 TAP   6.89 RCA 107.39 APO 154.65 V2  35.247
RC  90.641 GL   48.88 GP  -67.18 ZAL 115.97 ZAP  95.56 ETS 339.74 ZAE 108.27 ETE 242.06 ZAC  32.83 ETC 245.43 CLP-104.47
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PLANETOCENTRIC CONIC

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C3  29.311 VHL  5.414 DLA  31.76 RAL 233.06 RAD 6500.2 VEL 12.275 PTH   2.21 VHP  6.477 DPA -69.37 RAP 159.40 ECC 1.4824
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
74.98	19 23 7	4007.04	-19.23	167.91	108.78	64.23	20 29 54	3407.0	-22.54	160.53
105.02	23 18 15	3253.00	-19.22	112.11	108.77	64.21	24 12 28	2653.0	-22.53	104.73
74.98	19 23 7	4007.04	-19.23	167.91	108.78	64.23	20 29 54	3407.0	-22.54	160.53
105.02	23 18 15	3253.00	-19.22	112.11	108.77	64.21	24 12 28	2653.0	-22.53	104.73
110.00	1 31 5	2863.32	-28.85	85.02	113.13	70.82	2 18 39	2253.3	-31.19	77.40
110.00	22 13 28	3454.71	-10.13	122.26	108.52	57.18	23 10 58	2854.7	-14.39	115.75

DIFFERENTIAL CORRECTIONS

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TDE 1.8298 TRA -.1884 TC3 -.9233 BAU  .5575
RDE 1.3140 RRA  .3611 RC3-1.0825 FAU .03801
FDE 1.9906 FRA  .4251 FC3-1.1225 BSP  8653
BDE 2.2488 BRA  .4073 BC3 1.4227 FSP  -607
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MID-COURSE EXECUTION ACCURACY

```
SGT 2187.3 SGR 1873.4 SGS  212.7
RRT  .9156 RRF  .9860 RTF  .9466
SGB 2879.9 RZS  .1290 RIS  .9836
SGI 2820.1 SGZ  584.1 THA  40.18
```

ORBIT DETERMINATION ACCURACY

```
ST  1932.9 SR  1307.5 SS  1164.3
CRT  .9911 CRS -.9998 CST -.9936
LSA 2648.9 MSA  166.4 SSA    5.9
EL1 2380.4 EL2  150.9 ALF  35.79
```

LAUNCH DATE SEP 14 1970 FLIGHT TIME 122.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 348.770

```
RL  150.40 LAL    .00 LOL 350.77 VL  27.384 GAL  -5.81 AZL  78.83 HCA 161.03 SHA 130.88 ECC .18015 INC10.1671 V1  29.610
RP  107.53 LAP   3.29 LOP 152.08 VP  30.138 GAP   1.44 AZP  99.63 TAL 208.40 TAP   9.43 RCA 107.30 APO 154.46 V2  35.243
RC  92.017 GL   53.00 GP  -70.80 ZAL 112.57 ZAP  96.82 ETS 332.30 ZAE 104.11 ETE 236.24 ZAC  29.01 ETC 241.42 CLP-111.17
```

PLANETOCENTRIC CONIC

```
C3  36.257 VHL  6.021 DLA  35.11 RAL 236.36 RAD 6500.4 VEL 12.555 PTH   2.28 VHP  7.334 DPA -69.24 RAP 148.57 ECC 1.5967
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
68.31	18 54 26	4189.29	-19.31	182.04	116.49	60.09	20 4 15	3589.3	-23.14	174.92
111.69	0 17 10	3177.83	-19.29	106.34	116.48	60.08	1 10 8	2577.8	-23.12	99.22
68.31	18 54 26	4189.29	-19.31	182.04	116.49	60.09	20 4 15	3589.3	-23.14	174.92
111.69	0 17 10	3177.83	-19.29	106.34	116.48	60.08	1 10 8	2577.8	-23.12	99.22
68.31	18 54 26	4189.29	-19.31	182.04	116.49	60.09	20 4 15	3589.3	-23.14	174.92
111.69	0 17 10	3177.83	-19.29	106.34	116.48	60.08	1 10 8	2577.8	-23.12	99.22

DIFFERENTIAL CORRECTIONS

```
TDE 2.4187 TRA -.0481 TC3 -.8358 BAU  .5581
RDE 1.3587 RRA  .4936 RC3 -.7920 FAU .02916
FDE 1.8418 FRA  .4655 FC3 -.6963 BSP  9163
BDE 2.7742 BRA  .4980 BC3 1.1514 FSP  -577
```

MID-COURSE EXECUTION ACCURACY

```
SGT 2512.6 SGR 1706.1 SGS  174.3
RRT  .9106 RRF  .9812 RTF  .9565
SGB 3037.1 RZS  .1404 RIS  .9830
SGI 2978.2 SGZ  595.0 THA  33.23
```

ORBIT DETERMINATION ACCURACY

```
ST  2301.7 SR  1304.6 SS  1115.4
CRT  .9902 CRS -.9992 CST -.9950
LSA 2866.0 MSA  172.4 SSA    4.9
EL1 2641.0 EL2  158.7 ALF  29.42
```

LAUNCH DATE SEP 14 1970 FLIGHT TIME 124.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 354.978

```
RL  150.40 LAL    .00 LOL 350.77 VL  27.362 GAL  -5.68 AZL  77.67 HCA 164.21 SHA 130.72 ECC .18002 INC12.3326 V1  29.610
RP  107.54 LAP   3.35 LOP 155.33 VP  30.117 GAP   1.80 AZP 101.88 TAL 207.67 TAP  11.88 RCA 107.19 APO 154.26 V2  35.238
RC  95.197 GL   57.17 GP  -74.82 ZAL 108.98 ZAP  97.40 ETS 322.83 ZAE  99.53 ETE 228.64 ZAC  24.73 ETC 235.16 CLP-119.46
```

PLANETOCENTRIC CONIC

```
C3  47.902 VHL  6.921 DLA  38.39 RAL 240.18 RAD 6500.8 VEL 13.010 PTH   2.37 VHP  8.567 DPA -68.50 RAP 136.84 ECC 1.7883
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.92	18 41 5	4343.00	-18.26	193.83	125.57	55.63	19 53 29	3743.9	-22.64	187.10
117.08	1 0 50	3163.00	-18.25	104.50	125.56	55.63	1 53 43	2563.6	-22.63	97.77
62.92	18 41 5	4343.00	-18.26	193.83	125.57	55.63	19 53 29	3743.9	-22.64	187.10
117.08	1 0 50	3163.00	-18.25	104.50	125.56	55.63	1 53 43	2563.6	-22.63	97.77
62.92	18 41 5	4343.00	-18.26	193.83	125.57	55.63	19 53 29	3743.9	-22.64	187.10
117.08	1 0 50	3163.00	-18.25	104.50	125.56	55.63	1 53 43	2563.6	-22.63	97.77

DIFFERENTIAL CORRECTIONS

```
TDE 3.2517 TRA .1931 TC3 -.8613 BAU  .5578
RDE 1.2312 RRA .6420 RC3 -.4910 FAU .02079
FDE 1.7175 FRA .4963 FC3 -.3757 BSP  9641
BDE 3.4770 BRA .6705 BC3  .8398 FSP  -463
```

MID-COURSE EXECUTION ACCURACY

```
SGT 2859.6 SGR 1400.2 SGS  138.4
RRT  .8798 RRF  .9820 RTF  .9658
SGB 3184.0 RZS  .1507 RIS  .9828
SGI 3125.2 SGZ  608.9 THA  24.29
```

ORBIT DETERMINATION ACCURACY

```
ST  2692.7 SR  1039.5 SS  1058.9
CRT  .9848 CRS -.9962 CST -.9962
LSA 3069.2 MSA  180.6 SSA    3.9
EL1 2881.5 EL2  168.6 ALF  20.89
```

LAUNCH DATE SEP 14 1970 FLIGHT TIME 126.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 361.129

RL	150.48	LAL	.00	LOL	350.77	VL	27.337	GAL	-5.53	AZL	74.45	HCA	167.36	SMA	130.55	ECC	.17993	INC	15.5492
RP	107.56	LAP	3.36	LOP	158.58	VP	38.094	GAP	2.15	AZP	105.19	TAL	206.84	TAP	14.20	RCA	107.06	APO	154.04
RC	97.481	GL	61.09	GP	-79.29	ZAL	105.10	ZAP	97.26	ETS	308.39	ZAE	94.30	ETE	216.22	ZAC	19.74	ETC	223.58

V1	29.610	V2	35.232	CLP	-132.87														

PLANETOCENTRIC CONIC

C3	69.424	VHL	8.332	DLA	41.29	RAL	244.59	RAD	6569.3	VEL	13.812	PTH	2.52	VHP	10.453	DPA	-66.75	RAP	124.51
ECC	2.1425																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.60	18 38 42	4491.18	-15.65	204.24	136.00	51.29	19 53 33	3891.2	-20.55	198.00
121.40	1 38 34	3197.76	-15.64	105.36	135.99	51.28	2 31 52	2597.8	-20.53	99.12
58.60	18 38 42	4491.18	-15.65	204.24	136.00	51.29	19 53 33	3891.2	-20.55	198.00
121.40	1 38 34	3197.76	-15.64	105.36	135.99	51.28	2 31 52	2597.8	-20.53	99.12
58.60	18 38 42	4491.18	-15.65	204.24	136.00	51.29	19 53 33	3891.2	-20.55	198.00
121.40	1 38 34	3197.76	-15.64	105.36	135.99	51.28	2 31 52	2597.8	-20.53	99.12

DIFFERENTIAL CORRECTIONS

TDE	4.4379	TRA	.6465	TC3	-.4688	BAU	.4758
RDE	.5549	RRA	.7465	RC3	-.2074	FAU	.01299
FDE	1.6102	FRA	.5258	FC3	-.1620	BSP	10097
BDE	4.4724	BRA	.9875	BC3	.5126	FSP	-360

MID-COURSE EXECUTION ACCURACY

SGT	3205.2	SGR	855.4	SG3	106.9		
RRT	.6706	RRF	.7981	RTF	.9771		
SGB	3317.4	R23	.1576	R13	.9834		
SG1	3258.1	SG2	624.2	THA	10.54		

ORBIT DETERMINATION ACCURACY

ST	3056.9	SR	433.2	SS	1008.5
CRT	.9069	CRS	-.9346	CST	-.9974
LSA	3242.4	MSA	191.2	SSA	3.0
EL1	3082.2	EL2	181.1	ALF	7.35

LAUNCH DATE SEP 14 1970 FLIGHT TIME 128.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 367.191

RL	150.48	LAL	.00	LOL	350.77	VL	27.309	GAL	-5.35	AZL	69.18	HCA	170.44	SMA	130.36	ECC	.17981	INC	20.8228
RP	107.58	LAP	3.38	LOP	161.83	VP	38.068	GAP	2.47	AZP	110.56	TAL	205.91	TAP	16.35	RCA	106.92	APO	153.79
RC	99.767	GL	64.15	GP	-83.44	ZAL	101.20	ZAP	96.41	ETS	279.50	ZAE	87.93	ETE	189.36	ZAC	13.56	ETC	197.30

V1	29.610	V2	35.226	CLP	-168.05														

PLANETOCENTRIC CONIC

C3	115.346	VHL	10.740	DLA	43.22	RAL	249.58	RAD	6570.2	VEL	15.385	PTH	2.75	VHP	13.614	DPA	-63.29	RAP	112.29
ECC	2.8983																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.87	18 47 12	4634.47	-11.21	212.93	147.42	47.98	20 4 27	4034.5	-16.49	207.15
124.13	2 9 53	3278.88	-11.20	108.59	147.40	47.98	3 4 32	2678.9	-16.48	102.82
55.87	18 47 12	4634.47	-11.21	212.93	147.42	47.98	20 4 27	4034.5	-16.49	207.15
124.13	2 9 53	3278.88	-11.20	108.59	147.40	47.98	3 4 32	2678.9	-16.48	102.82
55.87	18 47 12	4634.47	-11.21	212.93	147.42	47.98	20 4 27	4034.5	-16.49	207.15
124.13	2 9 53	3278.88	-11.20	108.59	147.40	47.98	3 4 32	2678.9	-16.48	102.82

DIFFERENTIAL CORRECTIONS

TDE	5.6672	TRA	1.5310	TC3	-.2035	BAU	.3139
RDE	-1.9614	RRA	.3780	RC3	-.0049	FAU	.00532
FDE	1.5875	FRA	.5771	FC3	-.0399	BSP	10448
BDE	5.9971	BRA	1.5770	BC3	.2035	FSP	-274

MID-COURSE EXECUTION ACCURACY

SGT	3253.9	SGR	1082.4	SG3	81.3		
RRT	-.8089	RRF	-.7436	RTF	.9928		
SGB	3429.2	R23	-.1513	R13	-.9864		
SG1	3373.8	SG2	613.8	THA	164.41		

ORBIT DETERMINATION ACCURACY

ST	3042.0	SR	1049.7	SS	994.8
CRT	-.9820	CRS	.9738	CST	-.9992
LSA	3362.6	MSA	196.0	SSA	2.0
EL1	3212.6	EL2	187.7	ALF	161.21

LAUNCH DATE SEP 14 1970 FLIGHT TIME 130.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 373.070

RL	150.48	LAL	.00	LOL	350.77	VL	27.280	GAL	-5.14	AZL	59.15	HCA	173.37	SMA	130.15	ECC	.17952	INC	30.8542
RP	107.60	LAP	3.39	LOP	165.07	VP	38.041	GAP	2.74	AZP	120.69	TAL	204.79	TAP	18.16	RCA	106.79	APO	153.51
RC	102.053	GL	64.70	GP	-81.02	ZAL	97.38	ZAP	94.91	ETS	228.00	ZAE	79.13	ETE	139.79	ZAC	4.94	ETC	151.64

V1	29.610	V2	35.218	CLP	123.25														

PLANETOCENTRIC CONIC

C3	237.546	VHL	15.413	DLA	42.66	RAL	254.85	RAD	6571.4	VEL	18.944	PTH	3.07	VHP	19.678	DPA	-56.69	RAP	101.11
ECC	4.9094																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.66	19 11 25	4749.72	-5.46	217.87	158.92	47.63	20 30 34	4149.7	-10.81	212.28
123.34	2 27 43	3411.31	-5.44	115.06	158.90	47.62	3 24 34	2811.3	-10.79	109.47
56.66	19 11 25	4749.72	-5.46	217.87	158.92	47.63	20 30 34	4149.7	-10.81	212.28
123.34	2 27 43	3411.31	-5.44	115.06	158.90	47.62	3 24 34	2811.3	-10.79	109.47
56.66	19 11 25	4749.72	-5.46	217.87	158.92	47.63	20 30 34	4149.7	-10.81	212.28
123.34	2 27 43	3411.31	-5.44	115.06	158.90	47.62	3 24 34	2811.3	-10.79	109.47

DIFFERENTIAL CORRECTIONS

TDE	3.8499	TRA	2.1374	TC3	-.0040	BAU	.1995
RDE	-7.6470	RRA	-1.8132	RC3	-.0627	FAU	-.00459
FDE	1.6983	FRA	.7187	FC3	.0167	BSP	10703
BDE	8.5615	BRA	2.8029	BC3	.0628	FSP	-211

MID-COURSE EXECUTION ACCURACY

SGT	1793.3	SGR	2993.1	SG3	63.1		
RRT	-.9421	RRF	-.9781	RTF	.9893		
SGB	3489.2	R23	-.1158	R13	-.9920		
SG1	3449.9	SG2	521.9	THA	120.20		

ORBIT DETERMINATION ACCURACY

ST	1467.5	SR	2856.0	SS	1089.2
CRT	-.9920	CRS	.9972	CST	-.9987
LSA	3386.3	MSA	172.0	SSA	1.8
EL1	3206.7	EL2	164.7	ALF	117.09

LAUNCH DATE SEP 14 1970 FLIGHT TIME 132.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 378.416

RL	150.48	LAL	.00	LOL	350.77	VL	27.248	GAL	-4.81	AZL	35.81	HCA	175.82	SMA	129.93	ECC	.17854	INC	54.1934
RP	107.63	LAP	3.39	LOP	168.32	VP	38.011	GAP	2.85	AZP	144.12	TAL	203.22	TAP	19.03	RCA	106.73	APO	153.13
RC	104.339	GL	57.85	GP	-67.03	ZAL	94.02	ZAP	93.00	ETS	195.44	ZAE	63.89	ETE	109.15	ZAC	10.24	ETC	285.86

V1	29.610	V2	35.211	CLP	97.71														

PLANETOCENTRIC CONIC

C3	676.484	VHL	26.009	DLA	35.03	RAL	259.17	RAD	6572.7	VEL	28.245	PTH	3.42	VHP	33.362	DPA	-42.82	RAP	92.02
ECC	12.1332																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
68.45	20 26 16	4686.98	-.60	208.79	168.34	54.97	21 44 23	4087.0	-5.18	202.64
111.55	1 47 22	3680.44	-.58	133.48	168.32	54.97	2 48 42	3080.4	-5.16	127.32
68.45	20 26 16	4686.98	-.60	208.79	168.34	54.97	21 44 23	4087.0	-5.18	202.64
111.55	1 47 22	3680.44	-.58	133.48	168.32	54.97	2 48 42	3080.4	-5.16	127.32
68.45	20 26 16	4686.98	-.60	208.79	168.34	54.97	21 44 23	4087.0	-5.18	202.64
111.55	1 47 22	3680.44	-.58	133.48	168.32	54.97	2 48 42	3080.4	-5.16	127.32

DIFFERENTIAL CORRECTIONS

TDE	-1.5608	TRA	1.4307	TC3	-.0402	BAU	1.8361
RD	-12.5977	RRA	-5.5263	RC3	-.1990	FAU	-.02964
FDE	2.2219	FRA	1.1989	FC3	.0379	BSP	10285
BDE	12.6940	BRA	5.7108	BC3	.2030	FSP	-174

MID-COURSE EXECUTION ACCURACY

SGT	558.5	SGR	3314.1	SG3	53.4		
RRT	.3213	RRF	-.9963	RTF	-.2449		
SGB	3360.9	R23	-.0882	R13	-.9955		
SG1	3319.1	SG2	528.1	THA	86.82		

ORBIT DETERMINATION ACCURACY

ST	363.0	SR	2810.9	SS	1438.3
CRT	.8846	CRS	.9994	CST	.8673
LSA	3173.4	MSA	176.9	SSA	1.8
EL1	2829.3	EL2	168.2	ALF	83.46

LAUNCH DATE SEP 14 1970 FLIGHT TIME 134.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 389.225

RL	150.48	LAL	.00	LOL	350.77	VL	27.215	GAL	-5.57	AZL	166.82	HCA	183.47	SMA	129.70	ECC	.18662
INC76.8156	V1	29.610	RP	107.65	LAP	3.38	LOP	171.56	VP	37.979	GAP	4.48	AZP	13.21	TAL	205.74	TAP
29.22	RCA	105.50	APO	153.91	V2	35.202	RC	106.624	GL	-48.26	GP	53.92	ZAL	93.53	ZAP	93.53	ETS
180.88	ZAE	57.96	ETE	264.93	ZAC	131.07	ETC	277.06	CLP	96.00							

PLANETOCENTRIC CONIC

C3 1249.149 VHL 35.343 DLA -70.22 RAL 240.42 RAD 6573.1 VEL 37.019 PTH 3.54 VHP 45.666 DPA 77.41 RAP 70.76 ECC 21.5578

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
22.61	4 37 31	2447.49	-.98	78.41	150.76	160.21	5 18 18	1847.5	6.54	76.11
157.39	15 6 29	692.68	-.98	288.09	150.78	160.21	15 18 1	92.7	6.55	285.79
22.61	4 37 31	2447.49	-.98	78.41	150.76	160.21	5 18 18	1847.5	6.54	76.11
157.39	15 6 29	692.68	-.98	288.09	150.78	160.21	15 18 1	92.7	6.55	285.79
22.61	4 37 31	2447.49	-.98	78.41	150.76	160.21	5 18 18	1847.5	6.54	76.11
157.39	15 6 29	692.68	-.98	288.09	150.78	160.21	15 18 1	92.7	6.55	285.79

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 6.4049	TRA .8079	TC3 -.1014	BAU 3.7836	SGT 1319.7	SGR 2793.5	SG3 53.5	ST 1045.0	SR 2362.9	SS 2110.9								
RD-14.5512	RRA .9049	RC3 .2026	FAU-.06070	RRT -.8974	RRF .9993	RTF -.8924	CRT -.9862	CRS-1.0000	CST .9861								
FDE-3.2947	FRA .2072	FC3 .0421	BSP 9607	SGB 3089.5	RZS -.0869	RIS .9956	LSA 3332.3	HSA 164.8	SSA 2.4								
BDE15.8985	BRA 1.2131	BC3 .2266	FSP -172	SG1 3042.9	SG2 534.6	THA 113.75	EL1 2578.8	EL2 158.6	ALF 113.66								

LAUNCH DATE SEP 14 1970 FLIGHT TIME 136.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 393.842

RL	150.48	LAL	.00	LOL	350.77	VL	27.180	GAL	-5.08	AZL	129.82	HCA	185.25	SMA	129.46	ECC	.18437
INC39.8238	V1	29.610	RP	107.68	LAP	3.36	LOP	174.81	VP	37.946	GAP	4.38	AZP	50.29	TAL	203.63	TAP
28.88	RCA	105.59	APO	153.33	V2	35.193	RC	108.906	GL	-62.50	GP	74.30	ZAL	95.71	ZAP	96.19	ETS
169.12	ZAE	79.69	ETE	253.61	ZAC	151.71	ETC	274.27	CLP	113.50							

PLANETOCENTRIC CONIC

C3 382.080 VHL 19.547 DLA -79.90 RAL 193.45 RAD 6572.0 VEL 22.436 PTH 3.25 VHP 25.367 DPA 80.51 RAP 259.78 ECC 7.2882

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
11.49	1 7 33	2382.23	4.12	83.22	102.71	169.88	1 47 25	1792.2	11.99	82.21
168.51	12 21 44	5882.40	4.12	259.65	102.73	169.88	13 59 46	5282.4	12.00	258.64
11.49	1 7 33	2382.23	4.12	83.22	102.71	169.88	1 47 25	1792.2	11.99	82.21
168.51	12 21 44	5882.40	4.12	259.65	102.73	169.88	13 59 46	5282.4	12.00	258.64
11.49	1 7 33	2382.23	4.12	83.22	102.71	169.88	1 47 25	1792.2	11.99	82.21
168.51	12 21 44	5882.40	4.12	259.65	102.73	169.88	13 59 46	5282.4	12.00	258.64

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .4248	TRA .4346	TC3 -.0410	BAU .8502	SGT 754.4	SGR 3616.3	SG3 62.5	ST 251.0	SR 2675.7	SS 1241.4								
RDE-8.7733	RRA-1.4732	RC3 .1613	FAU-.01092	RRT -.8104	RRF .9970	RTF -.7663	CRT -.7163	CRS -.9994	CST .6922								
FDE-1.8742	FRA -.2749	FC3 .0247	BSP 11276	SGB 3694.2	RZS -.0913	RIS .9953	LSA 2954.9	HSA 180.0	SSA 1.4								
BDE 8.7835	BRA 1.5360	BC3 .1664	FSP -196	SG1 3668.4	SG2 435.8	THA 99.73	EL1 2681.8	EL2 174.8	ALF 93.86								

LAUNCH DATE SEP 14 1970 FLIGHT TIME 138.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 399.455

RL	150.48	LAL	.00	LOL	350.77	VL	27.144	GAL	-4.79	AZL	114.64	HCA	188.00	SMA	129.22	ECC	.18403
INC24.6430	V1	29.610	RP	107.71	LAP	3.32	LOP	178.05	VP	37.912	GAP	4.57	AZP	65.57	TAL	202.20	TAP
30.20	RCA	105.44	APO	153.00	V2	35.184	RC	111.186	GL	-64.69	GP	79.39	ZAL	98.31	ZAP	100.04	ETS
112.38	ZAE	91.10	ETE	197.11	ZAC	160.44	ETC	235.45	CLP	161.26							

PLANETOCENTRIC CONIC

C3 158.669 VHL 12.477 DLA -78.00 RAL 175.44 RAD 6570.7 VEL 16.643 PTH 2.89 VHP 16.319 DPA 88.52 RAP 251.65 ECC 3.5619

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
13.66	0 0 0	2265.56	12.32	80.75	82.77	167.71	0 37 45	1665.6	20.13	79.36
166.34	11 5 38	5761.75	12.33	259.30	82.79	167.71	12 41 40	5161.7	20.14	257.91
13.66	0 0 0	2265.56	12.32	80.75	82.77	167.71	0 37 45	1665.6	20.13	79.36
166.34	11 5 38	5761.75	12.33	259.30	82.79	167.71	12 41 40	5161.7	20.14	257.91
13.66	0 0 0	2265.56	12.32	80.75	82.77	167.71	0 37 45	1665.6	20.13	79.36
166.34	11 5 38	5761.75	12.33	259.30	82.79	167.71	12 41 40	5161.7	20.14	257.91

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-3.3613	TRA-1.1466	TC3 -.0596	BAU .1303	SGT 2969.3	SGR 2563.9	SG3 80.1	ST 1720.4	SR 1036.8	SS 754.3								
RDE-1.5873	RRA-1.1129	RC3 -.0190	FAU .00639	RRT .9662	RRF .9639	RTF .9990	CRT .9448	CRS -.9449	CST-1.0000								
FDE-1.0490	FRA -.3569	FC3 -.0355	BSP 12217	SGB 3923.1	RZS -.1154	RIS .9923	LSA 2124.5	HSA 300.3	SSA 1.7								
BDE 3.7172	BRA 1.5979	BC3 .0626	FSP -259	SG1 3890.5	SG2 504.7	THA 40.66	EL1 1987.0	EL2 294.1	ALF 30.39								

LAUNCH DATE SEP 14 1970 FLIGHT TIME 140.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 405.330

RL	150.48	LAL	.00	LOL	350.77	VL	27.107	GAL	-4.55	AZL	107.44	HCA	191.01	SMA	128.96	ECC	.18426
INC17.4411	V1	29.610	RP	107.74	LAP	3.28	LOP	181.28	VP	37.876	GAP	4.82	AZP	72.86	TAL	200.94	TAP
31.94	RCA	105.20	APO	152.72	V2	35.174	RC	113.462	GL	-62.69	GP	75.19	ZAL	100.66	ZAP	104.39	ETS
68.26	ZAE	98.51	ETE	153.72	ZAC	162.74	ETC	215.04	CLP-166.52								

PLANETOCENTRIC CONIC

C3 83.084 VHL 9.115 DLA -75.53 RAL 179.89 RAD 6569.6 VEL 14.298 PTH 2.60 VHP 12.069 DPA 60.04 RAP 247.49 ECC 2.3674

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.49	0 23 21	2133.27	20.58	76.99	84.31	164.52	0 58 55	1533.3	28.27	74.99
163.51	11 17 42	5630.97	20.58	258.33	84.34	164.52	12 51 41	5039.0	28.27	256.33
16.49	0 23 21	2133.27	20.58	76.99	84.31	164.52	0 58 55	1533.3	28.27	74.99
163.51	11 17 42	5630.97	20.58	258.33	84.34	164.52	12 51 41	5039.0	28.27	256.33
16.49	0 23 21	2133.27	20.58	76.99	84.31	164.52	0 58 55	1533.3	28.27	74.99
163.51	11 17 42	5630.97	20.58	258.33	84.34	164.52	12 51 41	5039.0	28.27	256.33

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.8143	TRA-1.3800	TC3 -.4038	BAU .4521	SGT 3988.5	SGR 641.4	SG3 104.4	ST 2057.0	SR 633.6	SS 777.7								
RDE 1.0079	RRA .0138	RC3 .0515	FAU .01646	RRT -.5127	RRF -.6440	RTF .9844	CRT -.8683	CRS .9315	CST -.9892								
FDE-1.0979	FRA -.3745	FC3 -.1715	BSP 12573	SGB 4039.7	RZS .1510	RIS -.9862	LSA 2267.0	HSA 313.4	SSA 2.4								
BDE 2.9894	BRA 1.3809	BC3 .4071	FSP -339	SG1 4002.3	SG2 548.8	THA 175.20	EL1 2130.9	EL2 303.4	ALF 164.71								

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LAUNCH DATE  SEP 14 1970                          FLIGHT TIME 142.00                          ARRIVAL DATE  FEB  3 1971

 HELIOCENTRIC CONIC                                   DISTANCE 411.286
  RL  150.48 LAL    .00 LOL 350.77 VL  27.069 GAL  -4.31 AZL 103.34 HCA 194.12 SMA 128.70 ECC .18474 INC13.3434 V1  29.610
  RP  107.77 LAP   3.23 LOP 184.52 VP  37.838 GAP   5.09 AZP  77.05 TAL 199.71 TAP  33.83 RCA 104.93 APO 152.48 V2  35.164
  RC 115.736 GL  -59.33 GP   69.19 ZAL 102.54 ZAP 108.95 ETS  57.43 ZAE 104.13 ETE 144.19 ZAC 161.16 ETC 224.59 CLP-156.09
 PLANETOCENTRIC CONIC
  C3  52.456 VHL  7.243 DLA -73.04 RAL 188.65 RAD 6568.9 VEL 13.184 PTH   2.41 VHP  9.759 DPA  52.94 RAP 244.63 ECC 1.8633
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC   INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     19.35     1  4  9   2017.71     27.40     72.48      89.54       160.82    1 37 47    1417.7      34.92      69.70
    160.65    11 46 50   5535.04     27.40    256.69      89.57       160.82   13 19  5    4935.0      34.92     253.91
     19.35     1  4  9   2017.71     27.40     72.48      89.54       160.82    1 37 47    1417.7      34.92      69.70
    160.65    11 46 50   5535.04     27.40    256.69      89.57       160.82   13 19  5    4935.0      34.92     253.91
     19.35     1  4  9   2017.71     27.40     72.48      89.54       160.82    1 37 47    1417.7      34.92      69.70
    160.65    11 46 50   5535.04     27.40    256.69      89.57       160.82   13 19  5    4935.0      34.92     253.91
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE-2.5648 TRA-1.1779 TC3 -.8289 BAU  .6024      SGT 3970.2 SGR 1156.8 SG3  133.0            ST  2244.2 SR  1000.7 SS   893.2
  RDE 1.2504 RRA  .1854 RC3  .2254 FAU .02481      RRT -.8722 RRF -.9536 RTF  .9728            CRT -.9583 CRS  .9910 CST -.9879
  FDE-1.2847 FRA -.3663 FC3 -.4094 BSP  12894      SGB 4135.3 RZS  .1811 R13 -.9796            LSA 2599.6 MSA  278.3 SSA    3.2
  BDE 2.8534 BRA 1.1924 BC3  .8590 FSP   -434      SG1 4098.8 SG2  548.1 THA 165.48            EL1 2443.1 EL2  262.8 ALF 156.58

LAUNCH DATE  SEP 14 1970                          FLIGHT TIME 144.00                          ARRIVAL DATE  FEB  5 1971

 HELIOCENTRIC CONIC                                   DISTANCE 417.272
  RL  150.48 LAL    .00 LOL 350.77 VL  27.029 GAL  -4.08 AZL 100.71 HCA 197.27 SMA 128.44 ECC .18538 INC10.7102 V1  29.610
  RP  107.80 LAP   3.16 LOP 187.75 VP  37.800 GAP   5.38 AZP  79.76 TAL 198.48 TAP  35.75 RCA 104.63 APO 152.25 V2  35.153
  RC 118.005 GL  -55.53 GP   63.29 ZAL 103.89 ZAP 113.53 ETS  53.80 ZAE 108.66 ETE 142.39 ZAC 157.74 ETC 234.31 CLP-152.65
 PLANETOCENTRIC CONIC
  C3  36.940 VHL  6.078 DLA -70.44 RAL 197.53 RAD 6568.4 VEL 12.582 PTH   2.28 VHP  8.379 DPA  46.60 RAP 242.63 ECC 1.6079
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC   INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     22.35     1 45 54   1922.34     32.49     67.31      94.45       156.62    2 17 56    1322.3      39.77      63.61
    157.65    12 15 58   5454.20     32.50    254.63      94.47       156.61   13 46 52    4854.2      39.77     250.92
     22.35     1 45 54   1922.34     32.49     67.31      94.45       156.62    2 17 56    1322.3      39.77      63.61
    157.65    12 15 58   5454.20     32.50    254.63      94.47       156.61   13 46 52    4854.2      39.77     250.92
     22.35     1 45 54   1922.34     32.49     67.31      94.45       156.62    2 17 56    1322.3      39.77      63.61
    157.65    12 15 58   5454.20     32.50    254.63      94.47       156.61   13 46 52    4854.2      39.77     250.92
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE-2.4689 TRA-1.0030 TC3-1.3270 BAU  .6832      SGT 3999.4 SGR 1295.7 SG3  161.9            ST  2477.3 SR  1118.8 SS   998.4
  RDE 1.1772 RRA  .1670 RC3  .3912 FAU .03199      RRT -.9028 RRF -.9751 RTF  .9643            CRT -.9753 CRS  .9971 CST -.9893
  FDE-1.4327 FRA -.3284 FC3 -.7497 BSP  13045      SGB 4204.1 RZS  .2062 R13 -.9729            LSA 2885.1 MSA  248.1 SSA    4.0
  BDE 2.7351 BRA 1.0168 BC3 1.3835 FSP   -525      SG1 4169.9 SG2  534.6 THA 163.42            EL1 2708.8 EL2  226.0 ALF 156.05

LAUNCH DATE  SEP 14 1970                          FLIGHT TIME 146.00                          ARRIVAL DATE  FEB  7 1971

 HELIOCENTRIC CONIC                                   DISTANCE 423.263
  RL  150.48 LAL    .00 LOL 350.77 VL  26.989 GAL  -3.84 AZL  98.87 HCA 200.44 SMA 128.17 ECC .18615 INC 8.8728 V1  29.610
  RP  107.84 LAP   3.09 LOP 190.99 VP  37.761 GAP   5.66 AZP  81.68 TAL 197.24 TAP  37.68 RCA 104.31 APO 152.03 V2  35.141
  RC 120.271 GL  -51.64 GP   57.81 ZAL 104.70 ZAP 117.98 ETS  52.17 ZAE 112.37 ETE 142.99 ZAC 153.74 ETC 240.97 CLP-151.71
 PLANETOCENTRIC CONIC
  C3  28.059 VHL  5.297 DLA -67.76 RAL 205.61 RAD 6568.1 VEL 12.224 PTH   2.20 VHP  7.806 DPA  40.82 RAP 241.30 ECC 1.4618
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC   INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     25.46     2 24 52   1844.32     36.03     61.72      98.30       152.09    2 55 36    1244.3      43.00      57.03
    154.54    12 41 27   5393.89     36.04    252.34      98.31       152.09   14 11 20    4793.9      43.01     247.65
     25.46     2 24 52   1844.32     36.03     61.72      98.30       152.09    2 55 36    1244.3      43.00      57.03
    154.54    12 41 27   5393.89     36.04    252.34      98.31       152.09   14 11 20    4793.9      43.01     247.65
     25.46     2 24 52   1844.32     36.03     61.72      98.30       152.09    2 55 36    1244.3      43.00      57.03
    154.54    12 41 27   5393.89     36.04    252.34      98.31       152.09   14 11 20    4793.9      43.01     247.65
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE-2.3815 TRA -.8671 TC3-1.9025 BAU  .7419      SGT 4103.5 SGR 1312.2 SG3  191.0            ST  2681.8 SR  1133.0 SS  1074.8
  RDE 1.0428 RRA  .1223 RC3  .5400 FAU .03848      RRT -.9147 RRF -.9803 RTF  .9596            CRT -.9825 CRS  .9987 CST -.9905
  FDE-1.5162 FRA -.2749 FC3-1.1872 BSP  13496      SGB 4308.2 RZS  .2197 R13 -.9680            LSA 3095.2 MSA  225.0 SSA    4.9
  BDE 2.5990 BRA  .8757 BC3 1.9777 FSP   -627      SG1 4278.0 SG2  508.8 THA 163.46            EL1 2904.7 EL2  195.9 ALF 157.35

LAUNCH DATE  SEP 14 1970                          FLIGHT TIME 148.00                          ARRIVAL DATE  FEB  9 1971

 HELIOCENTRIC CONIC                                   DISTANCE 429.251
  RL  150.48 LAL    .00 LOL 350.77 VL  26.948 GAL  -3.59 AZL  97.51 HCA 203.62 SMA 127.90 ECC .18705 INC 7.5128 V1  29.610
  RP  107.87 LAP   3.00 LOP 194.21 VP  37.721 GAP   5.95 AZP  83.11 TAL 195.98 TAP  39.60 RCA 103.97 APO 151.82 V2  35.130
  RC 122.531 GL  -47.81 GP   52.80 ZAL 104.96 ZAP 122.21 ETS  51.25 ZAE 115.38 ETE 144.57 ZAC 149.73 ETC 245.43 CLP-151.84
 PLANETOCENTRIC CONIC
  C3  22.523 VHL  4.746 DLA -65.06 RAL 212.83 RAD 6567.9 VEL 11.996 PTH   2.14 VHP  6.938 DPA  35.56 RAP 240.51 ECC 1.3707
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC   INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     28.62     3  0 46   1779.70     38.32     55.95     101.25       147.49    3 30 26    1179.7      44.92      50.30
    151.38    13  3  7   5350.24     38.33    250.04     101.27       147.48   14 32 17    4750.2      44.93     244.40
     28.62     3  0 46   1779.70     38.32     55.95     101.25       147.49    3 30 26    1179.7      44.92      50.30
    151.38    13  3  7   5350.24     38.33    250.04     101.27       147.48   14 32 17    4750.2      44.93     244.40
     28.62     3  0 46   1779.70     38.32     55.95     101.25       147.49    3 30 26    1179.7      44.92      50.30
    151.38    13  3  7   5350.24     38.33    250.04     101.27       147.48   14 32 17    4750.2      44.93     244.40
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE-2.2690 TRA -.7354 TC3-2.5111 BAU  .7810      SGT 4197.4 SGR 1261.8 SG3  215.0            ST  2812.1 SR  1083.8 SS  1106.0
  RDE  .9962 RRA  .0709 RC3  .6498 FAU .04339      RRT -.9179 RRF -.9800 RTF  .9554            CRT -.9855 CRS  .9994 CST -.9908
  FDE-1.5214 FRA -.1944 FC3-1.6679 BSP  13712      SGB 4383.0 RZS  .2301 R13 -.9630            LSA 3203.5 MSA  208.6 SSA    5.9
  BDE 2.4395 BRA  .7388 BC3 2.5938 FSP   -702      SG1 4356.3 SG2  482.5 THA 164.38            EL1 3008.8 EL2  171.9 ALF 159.13
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LAUNCH DATE SEP 14 1970 FLIGHT TIME 150.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 435.230

RL 150.48 LAL .00 LOL 350.77 VL 26.907 GAL -3.34 AZL 96.46 HCA 206.82 SMA 127.62 ECC .18805 INC 6.4607 V1 29.610
RP 107.91 LAP 2.91 LOP 197.44 VP 37.680 GAP 6.23 AZP 84.23 TAL 194.69 TAP 41.51 RCA 103.62 APO 151.62 V2 35.118
RC 124.786 GL -44.11 GP 48.29 ZAL 104.72 ZAP 126.17 ETS 50.59 ZAE 117.82 ETE 146.55 ZAC 145.96 ETC 248.53 CLP-152.49

PLANETOCENTRIC CONIC

C3 18.855 VHL 4.342 DLA -62.39 RAL 219.34 RAD 6567.8 VEL 11.842 PTH 2.10 VHP 6.566 DPA 30.76 RAP 240.15 ECC 1.3103

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.77	3 34 8	1725.10	39.63	50.21	103.65	143.00	4 2 53	1125.1	45.83	43.72
148.23	13 21 40	5319.79	39.64	247.92	103.67	142.99	14 50 20	4719.8	45.83	241.43
31.77	3 34 8	1725.10	39.63	50.21	103.65	143.00	4 2 53	1125.1	45.83	43.72
148.23	13 21 40	5319.79	39.64	247.92	103.67	142.99	14 50 20	4719.8	45.83	241.43
31.77	3 34 8	1725.10	39.63	50.21	103.65	143.00	4 2 53	1125.1	45.83	43.72
148.23	13 21 40	5319.79	39.64	247.92	103.67	142.99	14 50 20	4719.8	45.83	241.43

DIFFERENTIAL CORRECTIONS
TDE-2.1473 TRA -.6108 TC3-3.1447 BAU .8136
RDE .7645 RRA .0265 RC3 .7269 FAU .04706
FDE-1.4703 FRA -.1010 FC3-2.1806 BSP 13975
BDE 2.2793 BRA .6112 BC3 3.2276 FSP -766

MID-COURSE EXECUTION ACCURACY
SGT 4302.0 SGR 1192.3 SG3 234.5
RRT -.9189 RRF -.9774 RTF .9524
SGB 4464.2 RZ3 .2339 R13 -.9589
SG1 4440.9 SG2 455.8 THA 165.56

ORBIT DETERMINATION ACCURACY
ST 2882.1 SR 1009.1 SS 1102.1
CRT -.9873 CRS .9997 CST -.9906
LSA 3240.5 MSA 196.1 SSA 7.1
EL1 3049.9 EL2 151.7 ALF 160.88

LAUNCH DATE SEP 14 1970 FLIGHT TIME 152.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 441.197

RL 150.48 LAL .00 LOL 350.77 VL 26.865 GAL -3.07 AZL 95.62 HCA 210.01 SMA 127.34 ECC .18917 INC 5.6184 V1 29.610
RP 107.95 LAP 2.81 LOP 200.66 VP 37.639 GAP 6.52 AZP 85.13 TAL 193.39 TAP 43.40 RCA 103.25 APO 151.43 V2 35.105
RC 127.036 GL -40.56 GP 44.25 ZAL 104.00 ZAP 129.82 ETS 50.07 ZAE 119.76 ETE 148.69 ZAC 142.52 ETC 250.78 CLP-153.39

PLANETOCENTRIC CONIC

C3 16.316 VHL 4.039 DLA -59.76 RAL 225.30 RAD 6567.7 VEL 11.735 PTH 2.07 VHP 6.325 DPA 26.42 RAP 240.15 ECC 1.2685

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.89	4 5 37	1677.83	40.18	44.65	105.79	138.76	4 33 35	1077.8	45.97	37.48
145.11	13 37 44	5299.97	40.20	246.11	105.80	138.75	15 6 4	4700.0	45.98	238.94
34.89	4 5 37	1677.83	40.18	44.65	105.79	138.76	4 33 35	1077.8	45.97	37.48
145.11	13 37 44	5299.97	40.20	246.11	105.80	138.75	15 6 4	4700.0	45.98	238.94
34.89	4 5 37	1677.83	40.18	44.65	105.79	138.76	4 33 35	1077.8	45.97	37.48
145.11	13 37 44	5299.97	40.20	246.11	105.80	138.75	15 6 4	4700.0	45.98	238.94

DIFFERENTIAL CORRECTIONS
TDE-2.0214 TRA -.4806 TC3-3.7842 BAU .8425
RDE .6530 RRA -.0088 RC3 .7743 FAU .04954
FDE-1.3790 FRA -.0012 FC3-2.6285 BSP 14270
BDE 2.1243 BRA .4887 BC3 3.8626 FSP -816

MID-COURSE EXECUTION ACCURACY
SGT 4411.5 SGR 1118.0 SG3 249.4
RRT -.9185 RRF -.9728 RTF .9504
SGB 4550.9 RZ3 .2312 R13 -.9558
SG1 4530.5 SG2 430.5 THA 166.77

ORBIT DETERMINATION ACCURACY
ST 2898.3 SR 926.5 SS 1069.5
CRT -.9884 CRS .9999 CST -.9899
LSA 3219.9 MSA 186.1 SSA 8.4
EL1 3039.8 EL2 134.0 ALF 162.43

LAUNCH DATE SEP 14 1970 FLIGHT TIME 154.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 447.151

RL 150.48 LAL .00 LOL 350.77 VL 26.822 GAL -2.80 AZL 94.93 HCA 213.21 SMA 127.07 ECC .19041 INC 4.9252 V1 29.610
RP 107.99 LAP 2.70 LOP 203.88 VP 37.597 GAP 6.80 AZP 85.88 TAL 192.06 TAP 45.27 RCA 102.87 APO 151.26 V2 35.093
RC 129.278 GL -37.15 GP 40.66 ZAL 102.84 ZAP 133.18 ETS 49.62 ZAE 121.28 ETE 150.82 ZAC 139.43 ETC 252.50 CLP-154.43

PLANETOCENTRIC CONIC

C3 14.504 VHL 3.808 DLA -57.19 RAL 230.84 RAD 6567.6 VEL 11.657 PTH 2.05 VHP 6.176 DPA 22.49 RAP 240.46 ECC 1.2387

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.99	4 35 49	1635.80	40.17	39.33	107.86	134.84	5 3 5	1035.8	45.54	31.65
142.01	13 51 47	5289.01	40.18	244.70	107.88	134.83	15 19 56	4689.0	45.55	237.02
37.99	4 35 49	1635.80	40.17	39.33	107.86	134.84	5 3 5	1035.8	45.54	31.65
142.01	13 51 47	5289.01	40.18	244.70	107.88	134.83	15 19 56	4689.0	45.55	237.02
37.99	4 35 49	1635.80	40.17	39.33	107.86	134.84	5 3 5	1035.8	45.54	31.65
142.01	13 51 47	5289.01	40.18	244.70	107.88	134.83	15 19 56	4689.0	45.55	237.02

DIFFERENTIAL CORRECTIONS
TDE-1.8936 TRA -.3646 TC3-4.4074 BAU .8684
RDE .5811 RRA -.0400 RC3 .7947 FAU .05089
FDE-1.2613 FRA .1026 FC3-3.0376 BSP 14556
BDE 1.9750 BRA .3667 BC3 4.4785 FSP -851

MID-COURSE EXECUTION ACCURACY
SGT 4517.7 SGR 1044.7 SG3 259.7
RRT -.9163 RRF -.9662 RTF .9488
SGB 4637.0 RZ3 .2237 R13 -.9532
SG1 4618.9 SG2 409.2 THA 167.94

ORBIT DETERMINATION ACCURACY
ST 2866.7 SR 845.1 SS 1014.3
CRT -.9893 CRS .9999 CST -.9886
LSA 3151.0 MSA 178.2 SSA 9.9
EL1 2986.3 EL2 118.2 ALF 163.71

LAUNCH DATE SEP 14 1970 FLIGHT TIME 156.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 453.090

RL 150.48 LAL .00 LOL 350.77 VL 26.780 GAL -2.51 AZL 94.34 HCA 216.41 SMA 126.79 ECC .19177 INC 4.3414 V1 29.610
RP 108.03 LAP 2.58 LOP 207.10 VP 37.554 GAP 7.08 AZP 86.50 TAL 190.70 TAP 47.11 RCA 102.47 APO 151.10 V2 35.080
RC 131.513 GL -33.89 GP 37.47 ZAL 101.30 ZAP 136.25 ETS 49.24 ZAE 122.47 ETE 152.86 ZAC 136.68 ETC 253.86 CLP-155.53

PLANETOCENTRIC CONIC

C3 13.189 VHL 3.632 DLA -54.67 RAL 236.07 RAD 6567.5 VEL 11.601 PTH 2.03 VHP 6.093 DPA 18.94 RAP 241.02 ECC 1.2171

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.06	5 5 9	1597.52	39.71	34.28	110.00	131.27	5 31 46	997.5	44.69	26.23
138.94	14 4 12	5285.64	39.72	243.75	110.02	131.26	15 32 17	4685.6	44.70	235.70
41.06	5 5 9	1597.52	39.71	34.28	110.00	131.27	5 31 46	997.5	44.69	26.23
138.94	14 4 12	5285.64	39.72	243.75	110.02	131.26	15 32 17	4685.6	44.70	235.70
41.06	5 5 9	1597.52	39.71	34.28	110.00	131.27	5 31 46	997.5	44.69	26.23
138.94	14 4 12	5285.64	39.72	243.75	110.02	131.26	15 32 17	4685.6	44.70	235.70

DIFFERENTIAL CORRECTIONS
TDE-1.7651 TRA -.2383 TC3-5.0016 BAU .8930
RDE .4066 RRA -.0647 RC3 .7950 FAU .05137
FDE-1.1287 FRA .2053 FC3-3.3717 BSP 14873
BDE 1.8310 BRA .2469 BC3 5.0644 FSP -875

MID-COURSE EXECUTION ACCURACY
SGT 4623.4 SGR 976.8 SG3 266.1
RRT -.9126 RRF -.9576 RTF .9477
SGB 4725.4 RZ3 .2115 R13 -.9512
SG1 4709.1 SG2 392.1 THA 169.01

ORBIT DETERMINATION ACCURACY
ST 2793.7 SR 769.8 SS 942.4
CRT -.9903 CRS .9995 CST -.9886
LSA 3042.3 MSA 171.9 SSA 11.6
EL1 2896.0 EL2 103.4 ALF 164.72

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LAUNCH DATE  SEP 14 1970                          FLIGHT TIME 158.00                          ARRIVAL DATE  FEB 19 1971

 HELIOCENTRIC CONIC                                DISTANCE 459.013
  RL  150.48 LAL    .00 LOL 350.77 VL  26.736 GAL  -2.22 AZL  93.84 HCA 219.61 SMA 126.51 ECC .19325 INC 3.8402 V1  29.610
  RP  108.07 LAP   2.45 LOP 210.32 VP  37.511 GAP   7.57 AZP  87.04 TAL 189.33 TAP  48.94 RCA 102.06 APO 150.96 V2  35.067
  RC 133.740 GL  -30.77 GP   34.64 ZAL  99.41 ZAP 139.05 ETS  48.93 ZAE 123.39 ETE 154.78 ZAC 134.26 ETC 254.98 CLP-156.65
 PLANETOCENTRIC CONIC
  C3  12.231 VHL  3.497 DLA -52.21 RAL 241.05 RAD 6567.5 VEL 11.559 PTH   2.02 VHP  6.060 DPA  15.74 RAP 241.80 ECC 1.2013
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ Z LAT INJ Z LONG
     44.12     5 33 59   1561.67      38.91     29.48     112.28      128.04     6  0  1     961.7      43.53      21.20
    135.88    14 15  4   5289.18      38.92    243.29     112.29      128.03    15 43 14    4689.2      43.54     235.00
     44.12     5 33 59   1561.67      38.91     29.48     112.28      128.04     6  0  1     961.7      43.53      21.20
    135.88    14 15  4   5289.18      38.92    243.29     112.29      128.03    15 43 14    4689.2      43.54     235.00
     44.12     5 33 59   1561.67      38.91     29.48     112.28      128.04     6  0  1     961.7      43.53      21.20
    135.88    14 15  4   5289.18      38.92    243.29     112.29      128.03    15 43 14    4689.2      43.54     235.00
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
  TDE-1.6353 TRA -.1070 TC3-5.5456 BAU  .9157      SGT 4722.8 SGR  915.0 SG3  268.9          ST  2683.1 SR   702.6 SS   859.3
  RDE  .4267 RRA -.0854 RC3  .7784 FAU .05106      RRT -.9070 RRF -.9468 RTF  .9467          CRT -.9914 CRS  .9984 CST -.9835
  FDE -.9095 FRA  .3055 FC3-3.6143 BSP  15158      SGB 4810.7 RZS  .1959 RIS -.9496          LSA 2898.8 HSA  167.0 SSA   13.5
  BDE 1.6901 BRA  .1369 BC3 5.5999 FSP   -886      SG1 4795.7 SG2  379.5 THA 169.97          EL1 2772.1 EL2   88.9 ALF 165.43

LAUNCH DATE  SEP 14 1970                          FLIGHT TIME 160.00                          ARRIVAL DATE  FEB 21 1971

 HELIOCENTRIC CONIC                                DISTANCE 464.919
  RL  150.48 LAL    .00 LOL 350.77 VL  26.693 GAL  -1.91 AZL  93.40 HCA 222.81 SMA 126.23 ECC .19487 INC 3.4028 V1  29.610
  RP  108.11 LAP   2.31 LOP 213.53 VP  37.468 GAP   7.65 AZP  87.50 TAL 187.94 TAP  50.75 RCA 101.63 APO 150.83 V2  35.054
  RC 135.957 GL  -27.78 GP   32.14 ZAL  97.22 ZAP 141.62 ETS  48.69 ZAE 124.10 ETE 156.54 ZAC 132.12 ETC 255.94 CLP-157.78
 PLANETOCENTRIC CONIC
  C3  11.541 VHL  3.397 DLA -49.78 RAL 245.82 RAD 6567.4 VEL 11.529 PTH   2.01 VHP  6.063 DPA  12.84 RAP 242.77 ECC 1.1899
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ Z LAT INJ Z LONG
     47.19     6  2 38   1527.17      37.85     24.88     114.73      125.14     6 28  5     927.2      42.13      16.47
    132.81    14 24 29   5299.29      37.86    243.33     114.74      125.12    15 52 48    4699.3      42.14     234.91
     47.19     6  2 38   1527.17      37.85     24.88     114.73      125.14     6 28  5     927.2      42.13      16.47
    132.81    14 24 29   5299.29      37.86    243.33     114.74      125.12    15 52 48    4699.3      42.14     234.91
     47.19     6  2 38   1527.17      37.85     24.88     114.73      125.14     6 28  5     927.2      42.13      16.47
    132.81    14 24 29   5299.29      37.86    243.33     114.74      125.12    15 52 48    4699.3      42.14     234.91
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
  TDE-1.5096 TRA  .0283 TC3-6.0313 BAU  .9378      SGT 4821.4 SGR  861.3 SG3  269.2          ST  2542.3 SR   644.9 SS   771.0
  RDE  .3793 RRA -.1027 RC3  .7514 FAU .05024      RRT -.8997 RRF -.9338 RTF  .9462          CRT -.9929 CRS  .9956 CST -.9789
  FDE -.8513 FRA  .4001 FC3-3.7685 BSP  15478      SGB 4897.7 RZS  .1772 RIS -.9485          LSA 2728.8 HSA  163.4 SSA   15.7
  BDE 1.5526 BRA  .1065 BC3 6.0779 FSP   -891      SG1 4883.6 SG2  371.1 THA 170.82          EL1 2621.7 EL2   74.2 ALF 165.85

LAUNCH DATE  SEP 14 1970                          FLIGHT TIME 162.00                          ARRIVAL DATE  FEB 23 1971

 HELIOCENTRIC CONIC                                DISTANCE 470.808
  RL  150.48 LAL    .00 LOL 350.77 VL  26.650 GAL  -1.59 AZL  93.02 HCA 226.00 SMA 125.95 ECC .19662 INC 3.0154 V1  29.610
  RP  108.15 LAP   2.17 LOP 216.73 VP  37.425 GAP   7.93 AZP  87.90 TAL 186.53 TAP  52.53 RCA 101.19 APO 150.72 V2  35.041
  RC 138.166 GL  -24.92 GP   29.93 ZAL  94.78 ZAP 143.96 ETS  48.54 ZAE 124.63 ETE 158.14 ZAC 130.24 ETC 256.79 CLP-158.91
 PLANETOCENTRIC CONIC
  C3  11.064 VHL  3.326 DLA -47.38 RAL 250.41 RAD 6567.4 VEL 11.509 PTH   2.00 VHP  6.097 DPA  10.22 RAP 243.90 ECC 1.1821
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ Z LAT INJ Z LONG
     50.28     6 31 21   1493.01      36.57     20.44     117.34      122.53     6 56 14     893.0      40.55      11.97
    129.72    14 32 20   5315.96      36.58    243.90     117.35      122.52    16  0 56    4716.0      40.56     235.43
     50.28     6 31 21   1493.01      36.57     20.44     117.34      122.53     6 56 14     893.0      40.55      11.97
    129.72    14 32 20   5315.96      36.58    243.90     117.35      122.52    16  0 56    4716.0      40.56     235.43
     50.28     6 31 21   1493.01      36.57     20.44     117.34      122.53     6 56 14     893.0      40.55      11.97
    129.72    14 32 20   5315.96      36.58    243.90     117.35      122.52    16  0 56    4716.0      40.56     235.43
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
  TDE-1.3734 TRA  .1706 TC3-6.4391 BAU  .9583      SGT 4912.6 SGR  814.0 SG3  267.2          ST  2372.7 SR   595.1 SS   680.0
  RDE  .3414 RRA -.1181 RC3  .7154 FAU .04894      RRT -.8903 RRF -.9184 RTF  .9458          CRT -.9948 CRS  .9892 CST -.9715
  FDE -.7158 FRA  .4905 FC3-3.8295 BSP  15756      SGB 4979.6 RZS  .1575 RIS -.9475          LSA 2533.7 HSA  161.9 SSA   18.1
  BDE 1.4152 BRA  .2075 BC3 6.4787 FSP   -886      SG1 4966.1 SG2  366.7 THA 171.56          EL1 2445.5 EL2   58.6 ALF 165.98

LAUNCH DATE  SEP 14 1970                          FLIGHT TIME 164.00                          ARRIVAL DATE  FEB 25 1971

 HELIOCENTRIC CONIC                                DISTANCE 476.678
  RL  150.48 LAL    .00 LOL 350.77 VL  26.606 GAL  -1.26 AZL  92.67 HCA 229.20 SMA 125.68 ECC .19853 INC 2.6679 V1  29.610
  RP  108.19 LAP   2.02 LOP 219.94 VP  37.382 GAP   8.22 AZP  88.26 TAL 185.10 TAP  54.30 RCA 100.73 APO 150.63 V2  35.028
  RC 140.364 GL  -22.17 GP   27.96 ZAL  92.13 ZAP 146.10 ETS  48.48 ZAE 125.04 ETE 159.59 ZAC 128.59 ETC 257.55 CLP-160.01
 PLANETOCENTRIC CONIC
  C3  10.762 VHL  3.281 DLA -45.01 RAL 254.82 RAD 6567.4 VEL 11.496 PTH   2.00 VHP  6.154 DPA   7.84 RAP 245.18 ECC 1.1771
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ Z LAT INJ Z LONG
     53.42     7  0 23   1458.27      35.13     16.08     120.12      120.18     7 24 41     858.3      38.83       7.62
    126.58    14 38 32   5339.38      35.14    245.02     120.12      120.17    16  7 32    4739.4      38.84     236.55
     53.42     7  0 23   1458.27      35.13     16.08     120.12      120.18     7 24 41     858.3      38.83       7.62
    126.58    14 38 32   5339.38      35.14    245.02     120.12      120.17    16  7 32    4739.4      38.84     236.55
     53.42     7  0 23   1458.27      35.13     16.08     120.12      120.18     7 24 41     858.3      38.83       7.62
    126.58    14 38 32   5339.38      35.14    245.02     120.12      120.17    16  7 32    4739.4      38.84     236.55
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
  TDE-1.2349 TRA  .3241 TC3-6.7459 BAU  .9754      SGT 4968.3 SGR  771.9 SG3  265.2          ST  2174.3 SR   551.4 SS   588.6
  RDE  .3108 RRA -.1331 RC3  .6705 FAU .04714      RRT -.8778 RRF -.9006 RTF  .9447          CRT -.9969 CRS  .9751 CST -.9588
  FDE -.5827 FRA  .5798 FC3-3.7917 BSP  15927      SGB 5047.7 RZS  .1396 RIS -.9461          LSA 2313.1 HSA  164.0 SSA   20.7
  BDE 1.2734 BRA  .3504 BC3 6.7791 FSP   -869      SG1 5034.4 SG2  366.3 THA 172.22          EL1 2242.7 EL2   41.8 ALF 165.81
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LAUNCH DATE SEP 14 1970 FLIGHT TIME 166.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 482.530

RL	150.48	LAL	.00	LOL	350.77	VL	26.563	GAL	-.01	AZL	92.35	HCA	232.40	SMA	125.40	ECC	.20059	INC	2.3527	V1	29.610
RP	108.23	LAP	1.06	LOP	223.14	VP	37.338	GAP	8.51	AZP	88.56	TAL	183.65	TAP	56.05	RCA	100.25	APO	150.56	V2	35.014
RC	142.552	GL	-19.55	GP	26.21	ZAL	89.32	ZAP	148.08	ETS	48.52	ZAE	125.34	ETE	160.88	ZAC	127.14	ETC	258.26	CLP	-161.09

PLANETOCENTRIC CONIC

C3	10.613	VHL	3.258	DLA	-42.67	RAL	259.07	RAD	6567.4	VEL	11.489	PTH	2.00	VHP	6.230	DPA	5.68	RAP	246.59	ECC	1.1747

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.63	7 29 59	1421.79	33.56	11.73	123.04	118.08	7 53 41	821.8	37.01	3.31
123.37	14 42 50	5370.17	33.57	246.74	123.05	118.07	16 12 20	4770.2	37.02	238.31
56.63	7 29 59	1421.79	33.56	11.73	123.04	118.08	7 53 41	821.8	37.01	3.31
123.37	14 42 50	5370.17	33.57	246.74	123.05	118.07	16 12 20	4770.2	37.02	238.31
56.63	7 29 59	1421.79	33.56	11.73	123.04	118.08	7 53 41	821.8	37.01	3.31
123.37	14 42 50	5370.17	33.57	246.74	123.05	118.07	16 12 20	4770.2	37.02	238.31

DIFFERENTIAL CORRECTIONS

TDE	-1.0000	TRA	.4795	TC3	-6.9778	BAU	.9940														
RDE	.2872	RRA	-.1458	RC3	.6268	FAU	.04532														
FDE	-.4612	FRA	.6586	FC3	-3.6068	BSP	16191														
BDE	1.1357	BRA	.5012	BC3	7.0059	FSP	-856														

MID-COURSE EXECUTION ACCURACY

SGT	5071.4	SGR	737.4	SGS	258.4						
RRT	-.8646	RRF	-.8813	RTF	.9446						
SGB	5124.7	RZS	.1199	RIS	-.9458						
SGI	5111.5	SGZ	367.6	THA	172.80						

ORBIT DETERMINATION ACCURACY

ST	1967.6	SR	516.1	SS	506.9
CRT	-.9906	CRS	.9469	CST	-.9392
LSA	2089.4	MSA	169.1	SSA	23.3
EL1	2034.0	EL2	26.7	ALF	165.32

LAUNCH DATE SEP 14 1970 FLIGHT TIME 168.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 488.361

RL	150.48	LAL	.00	LOL	350.77	VL	26.519	GAL	-.56	AZL	92.06	HCA	235.59	SMA	125.13	ECC	.20283	INC	2.0636	V1	29.610
RP	108.27	LAP	1.70	LOP	226.34	VP	37.295	GAP	8.80	AZP	88.83	TAL	182.19	TAP	57.78	RCA	99.75	APO	150.51	V2	35.001
RC	144.730	GL	-17.06	GP	24.65	ZAL	86.38	ZAP	149.90	ETS	48.67	ZAE	125.57	ETE	162.05	ZAC	125.85	ETC	258.94	CLP	-162.16

PLANETOCENTRIC CONIC

C3	10.600	VHL	3.256	DLA	-40.37	RAL	263.16	RAD	6567.4	VEL	11.489	PTH	2.00	VHP	6.323	DPA	3.71	RAP	248.11	ECC	1.1745

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.93	8 0 31	1382.31	31.89	7.30	126.09	116.19	8 23 34	782.3	35.12	358.93
120.07	14 44 54	5409.18	31.91	249.11	126.10	116.17	16 15 3	4809.2	35.13	240.74
59.93	8 0 31	1382.31	31.89	7.30	126.09	116.19	8 23 34	782.3	35.12	358.93
120.07	14 44 54	5409.18	31.91	249.11	126.10	116.17	16 15 3	4809.2	35.13	240.74
59.93	8 0 31	1382.31	31.89	7.30	126.09	116.19	8 23 34	782.3	35.12	358.93
120.07	14 44 54	5409.18	31.91	249.11	126.10	116.17	16 15 3	4809.2	35.13	240.74

DIFFERENTIAL CORRECTIONS

TDE	-.0003	TRA	.6416	TC3	-7.1160	BAU	1.0119														
RDE	.2693	RRA	-.1578	RC3	.5828	FAU	.04340														
FDE	-.3486	FRA	.7315	FC3	-3.5446	BSP	16444														
BDE	.9974	BRA	.6608	BC3	7.1407	FSP	-839														

MID-COURSE EXECUTION ACCURACY

SGT	5150.6	SGR	708.2	SGS	252.8						
RRT	-.8499	RRF	-.8604	RTF	.9449						
SGB	5199.1	RZS	.1010	RIS	-.9458						
SGI	5185.8	SGZ	370.7	THA	173.30						

ORBIT DETERMINATION ACCURACY

ST	1753.0	SR	486.6	SS	436.4
CRT	-.9980	CRS	.8928	CST	-.9082
LSA	1882.1	MSA	180.0	SSA	25.5
EL1	1819.1	EL2	29.9	ALF	164.51

LAUNCH DATE SEP 14 1970 FLIGHT TIME 170.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 494.170

RL	150.48	LAL	.00	LOL	350.77	VL	26.476	GAL	-.18	AZL	91.80	HCA	238.78	SMA	124.86	ECC	.20525	INC	1.7960	V1	29.610
RP	108.31	LAP	1.54	LOP	229.54	VP	37.252	GAP	9.10	AZP	89.07	TAL	180.71	TAP	59.49	RCA	99.23	APO	150.48	V2	34.988
RC	146.899	GL	-14.68	GP	23.26	ZAL	83.37	ZAP	151.58	ETS	48.94	ZAE	125.74	ETE	163.09	ZAC	124.71	ETC	259.59	CLP	-163.20

PLANETOCENTRIC CONIC

C3	10.717	VHL	3.274	DLA	-38.10	RAL	267.08	RAD	6567.4	VEL	11.494	PTH	2.00	VHP	6.430	DPA	1.92	RAP	249.73	ECC	1.1764

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.36	8 32 25	1338.17	30.16	2.64	129.25	114.48	8 54 43	738.2	33.19	354.36
116.64	14 44 17	5457.76	30.17	252.22	129.25	114.47	16 15 15	4857.8	33.20	243.93
63.36	8 32 25	1338.17	30.16	2.64	129.25	114.48	8 54 43	738.2	33.19	354.36
116.64	14 44 17	5457.76	30.17	252.22	129.25	114.47	16 15 15	4857.8	33.20	243.93
63.36	8 32 25	1338.17	30.16	2.64	129.25	114.48	8 54 43	738.2	33.19	354.36
116.64	14 44 17	5457.76	30.17	252.22	129.25	114.47	16 15 15	4857.8	33.20	243.93

DIFFERENTIAL CORRECTIONS

TDE	-.8321	TRA	.8012	TC3	-7.1985	BAU	1.0343														
RDE	.2583	RRA	-.1676	RC3	.5451	FAU	.04176														
FDE	-.2563	FRA	.7905	FC3	-3.3735	BSP	17000														
BDE	.8713	BRA	.8185	BC3	7.2191	FSP	-844														

MID-COURSE EXECUTION ACCURACY

SGT	5244.9	SGR	686.1	SGS	247.0						
RRT	-.8350	RRF	-.8395	RTF	.9469						
SGB	5289.6	RZS	.0814	RIS	-.9476						
SGI	5276.3	SGZ	375.3	THA	173.73						

ORBIT DETERMINATION ACCURACY

ST	1557.8	SR	465.9	SS	386.5
CRT	-.9917	CRS	.8101	CST	-.8718
LSA	1659.7	MSA	195.0	SSA	27.0
EL1	1625.0	EL2	57.3	ALF	163.46

LAUNCH DATE SEP 14 1970 FLIGHT TIME 172.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 499.958

RL	150.48	LAL	.00	LOL	350.77	VL	26.432	GAL	.20	AZL	91.55	HCA	241.97	SMA	124.59	ECC	.20786	INC	1.5461	V1	29.610
RP	108.35	LAP	1.36	LOP	232.73	VP	37.209	GAP	9.40	AZP	89.27	TAL	179.22	TAP	61.19	RCA	98.69	APO	150.48	V2	34.975
RC	149.057	GL	-12.44	GP	22.01	ZAL	80.31	ZAP	153.14	ETS	49.33	ZAE	125.87	ETE	164.01	ZAC	123.70	ETC	260.22	CLP	-164.21

PLANETOCENTRIC CONIC

C3	10.958	VHL	3.310	DLA	-35.88	RAL	270.84	RAD	6567.4	VEL	11.504	PTH	2.00	VHP	6.551	DPA	.28	RAP	251.44	ECC	1.1803

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
66.98	9 6 18	1287.12	28.38	357.61	132.50	112.94	9 27 45	687.1	31.23	349.41
113.02	14 40 22	5517.91	28.39	256.20	132.50	112.92	16 12 20	4917.9	31.24	247.99
66.98	9 6 18	1287.12	28.38	357.61	132.50	112.94	9 27 45	687.1	31.23	349.41
113.02	14 40 22	5517.91	28.39	256.20	132.50	112.92	16 12 20	4917.9	31.24	247.99
66.98	9 6 18	1287.12	28.38	357.61	132.50	112.94	9 27 45	687.1	31.23	349.41
113.02	14 40 22	5517.91	28.39	256.20	132.50	112.92	16 12 20	4917.9	31.24	247.99

DIFFERENTIAL CORRECTIONS

TDE	-.8773	TRA	.9040	TC3	-7.1005	BAU	1.0427														
RDE	.2457	RRA	-.1826	RC3	.4886	FAU	.03894														
FDE	-.1483	FRA	.8695	FC3	-3.0766	BSP	16884														
BDE	.7204	BRA	1.0107	BC3	7.1173	FSP	-795														

MID-COURSE EXECUTION ACCURACY

SGT	5289.8	SGR	681.6	SGS	239.2						
RRT	-.8137	RRF	-.8149	RTF	.9437						
SGB	5331.0	RZS	.0741	RIS	-.9443						
SGI	5317.3	SGZ	382.6	THA	174.16						

ORBIT DETERMINATION ACCURACY

ST	1341.6	SR	441.2	SS	349.0
CRT	-.9705	CRS	.8433	CST	-.8034
LSA	1436.0	MSA	231.3	SSA	27.7
EL1	1408.6	EL2	101.3	ALF	162.20

LAUNCH DATE SEP 14 1970 FLIGHT TIME 174.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 505.723

RL 150.48 LAL .00 LOL 350.77 VL 26.389 GAL .61 AZL 91.31 HCA 245.16 SMA 124.32 ECC .21068 INC 1.3108 V1 29.610
RP 108.39 LAP 1.19 LOP 235.92 VP 37.186 GAP 9.71 AZP 89.45 TAL 177.72 TAP 62.88 RCA 98.13 APO 150.51 VE 34.962
RC 151.205 GL -10.33 GP 20.89 ZAL 77.25 ZAP 154.60 ETS 49.85 ZAE 125.96 ETE 164.84 ZAC 122.79 ETC 260.84 CLP-165.21

PLANETOCENTRIC CORIC

C3 11.324 VHL 3.365 DLA -33.72 RAL 274.42 RAD 6567.4 VEL 11.520 PTH 2.01 VHP 6.684 DPA -1.21 RAP 253.23 ECC 1.1864

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
70.88	9 43 19	1225.21	26.59	351.92	135.82	111.54	10 3 44	625.2	29.27	343.80
109.12	14 31 58	5593.37	26.60	261.31	135.82	111.53	16 5 12	4993.4	29.28	253.19
70.88	9 43 19	1225.21	26.59	351.92	135.82	111.54	10 3 44	625.2	29.27	343.80
109.12	14 31 58	5593.37	26.60	261.31	135.82	111.53	16 5 12	4993.4	29.28	253.19
110.00	13 54 36	5707.56	23.36	260.63	134.26	115.70	15 29 45	5107.6	26.62	260.98
110.00	15 19 50	5447.06	29.93	251.25	137.16	107.35	16 50 37	4847.1	32.00	242.66

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5314 TRA 1.1809 TC3-6.9745 BAU 1.0581 SGT 5356.9 SGR 644.2 SG3 232.6 ST 1168.1 SR 424.0 SS 336.7
RDE .2300 RRA -.1945 RC3 .4483 FAU .03606 RRT -.7959 RRF -.7921 RTF .9444 CRT -.9205 CRS .4494 CST -.7582
FDE -.0613 FRA .9296 FC3-2.8253 BSP 17116 SGB 5395.5 R23 .0602 R13 -.9449 LSA 1257.8 MSA 273.4 SSA 27.4
BDE .5826 BRA 1.1969 BC3 6.9888 FSP -777 SG1 5301.5 SG2 388.2 THA 174.50 EL1 1232.7 EL2 157.0 ALF 161.21

LAUNCH DATE SEP 14 1970 FLIGHT TIME 176.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 511.463

RL 150.48 LAL .00 LOL 350.77 VL 26.346 GAL 1.03 AZL 91.09 HCA 248.34 SMA 124.06 ECC .21373 INC 1.0874 V1 29.610
RP 108.43 LAP 1.01 LOP 239.11 VP 37.123 GAP 10.02 AZP 89.60 TAL 176.21 TAP 64.55 RCA 97.54 APO 150.57 VE 34.949
RC 153.343 GL -8.36 GP 19.88 ZAL 74.20 ZAP 155.95 ETS 50.51 ZAE 126.02 ETE 165.58 ZAC 121.98 ETC 261.45 CLP-166.18

PLANETOCENTRIC CONIC

C3 11.818 VHL 3.438 DLA -31.62 RAL 277.84 RAD 6567.5 VEL 11.541 PTH 2.01 VHP 6.828 DPA -2.57 RAP 255.10 ECC 1.1945

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
75.30	10 25 45	1144.82	24.80	344.99	139.20	110.28	10 44 50	544.8	27.33	336.96
104.70	14 16 49	5091.57	24.81	260.08	139.20	110.26	15 51 41	5091.6	27.34	260.04
75.30	10 25 45	1144.82	24.80	344.99	139.20	110.28	10 44 50	544.8	27.33	336.96
104.70	14 16 49	5091.57	24.81	260.08	139.20	110.26	15 51 41	5091.6	27.34	260.04
110.00	13 11 17	607.56	17.36	302.01	135.47	119.92	13 21 25	7.6	21.21	294.99
110.00	16 30 27	5276.83	32.73	238.79	141.68	100.47	17 58 24	4676.8	33.82	229.72

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.3837 TRA 1.3778 TC3-6.7697 BAU 1.0715 SGT 5417.2 SGR 628.6 SG3 225.5 ST 1040.7 SR 409.5 SS 343.9
RDE .2346 RRA -.2068 RC3 .4072 FAU .03482 RRT -.7767 RRF -.7688 RTF .9446 CRT -.8200 CRS .2462 CST -.7527
FDE .0188 FRA .9873 FC3-2.5504 BSP 17322 SGB 5453.5 R23 .0496 R13 -.9449 LSA 1123.9 MSA 324.1 SSA 26.4
BDE .4497 BRA 1.3932 BC3 6.7819 FSP -756 SG1 5439.2 SG2 394.3 THA 174.82 EL1 1096.0 EL2 222.5 ALF 161.32

LAUNCH DATE SEP 14 1970 FLIGHT TIME 178.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 517.175

RL 150.48 LAL .00 LOL 350.77 VL 26.303 GAL 1.47 AZL 90.87 HCA 251.53 SMA 123.79 ECC .21702 INC .8739 V1 29.610
RP 108.47 LAP .83 LOP 242.29 VP 37.081 GAP 10.35 AZP 89.72 TAL 174.69 TAP 66.22 RCA 96.93 APO 150.66 VE 34.937
RC 155.470 GL -6.53 GP 18.97 ZAL 71.20 ZAP 157.21 ETS 51.32 ZAE 126.07 ETE 166.25 ZAC 121.24 ETC 262.06 CLP-167.14

PLANETOCENTRIC CONIC

C3 12.446 VHL 3.528 DLA -29.60 RAL 281.09 RAD 6567.5 VEL 11.569 PTH 2.02 VHP 6.985 DPA -3.82 RAP 257.04 ECC 1.2048

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.01	11 20 34	1023.01	23.03	335.18	142.62	109.12	11 37 37	423.0	25.43	327.23
98.99	13 47 56	5035.26	23.04	278.14	142.63	109.11	15 25 12	5235.3	25.44	270.18
100.00	13 20 21	635.48	20.53	305.76	141.61	112.22	13 30 56	35.5	23.36	298.11
100.00	14 30 51	5698.02	25.59	268.84	143.51	106.00	16 5 49	5098.0	27.54	260.58
110.00	12 51 14	727.27	13.17	308.76	137.69	121.83	13 3 21	127.3	17.29	302.06
110.00	17 16 27	5179.00	33.69	231.32	145.34	96.15	18 42 46	4579.0	34.18	222.11

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.2342 TRA 1.5833 TC3-6.5035 BAU 1.0839 SGT 5472.4 SGR 614.8 SG3 218.2 ST 975.1 SR 397.3 SS 364.4
RDE .2326 RRA -.2193 RC3 .3681 FAU .03269 RRT -.7570 RRF -.7457 RTF .9448 CRT -.8552 CRS .0686 CST -.7954
FDE .0907 FRA 1.0415 FC3-2.2740 BSP 17514 SGB 5506.8 R23 .0407 R13 -.9450 LSA 1050.2 MSA 371.4 SSA 25.1
BDE .3301 BRA 1.5984 BC3 6.5139 FSP -734 SG1 5492.2 SG2 400.3 THA 175.11 EL1 1012.4 EL2 289.1 ALF 163.68

LAUNCH DATE SEP 14 1970 FLIGHT TIME 180.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 522.859

RL 150.48 LAL .00 LOL 350.77 VL 26.260 GAL 1.93 AZL 90.67 HCA 254.71 SMA 123.53 ECC .22058 INC .6682 V1 29.610
RP 108.51 LAP .64 LOP 245.48 VP 37.039 GAP 10.68 AZP 89.82 TAL 173.16 TAP 67.87 RCA 96.29 APO 150.78 VE 34.925
RC 157.587 GL -4.83 GP 18.15 ZAL 68.27 ZAP 158.39 ETS 52.29 ZAE 126.10 ETE 166.84 ZAC 120.57 ETC 262.68 CLP-168.07

PLANETOCENTRIC CONIC

C3 13.216 VHL 3.635 DLA -27.66 RAL 284.18 RAD 6567.5 VEL 11.602 PTH 2.03 VHP 7.152 DPA -4.95 RAP 259.03 ECC 1.2175

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 52 54	972.70	17.61	329.30	144.64	112.54	12 9 7	372.7	20.51	321.83
90.00	13 40 14	623.31	25.10	306.47	147.25	103.56	13 50 37	23.3	26.72	298.18
100.00	12 31 5	849.26	14.50	318.77	143.16	116.43	12 45 15	249.3	17.94	311.66
100.00	15 44 44	5510.03	28.44	255.61	148.02	99.61	17 16 34	4910.0	29.48	246.96
110.00	12 38 34	825.75	9.58	314.12	140.29	122.97	12 52 20	225.8	13.85	307.63
110.00	17 53 44	5106.30	34.08	225.60	148.74	92.84	19 18 50	4506.3	34.10	216.43

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.0834 TRA 1.7982 TC3-6.1911 BAU 1.0955 SGT 5524.3 SGR 602.7 SG3 211.1 ST 978.2 SR 387.1 SS 392.0
RDE .2327 RRA -.2321 RC3 .3318 FAU .03064 RRT -.7375 RRF -.7232 RTF .9451 CRT -.4439 CRS -.0710 CST -.8598
FDE .1558 FRA 1.0927 FC3-2.0069 BSP 17703 SGB 5557.1 R23 .0331 R13 -.9454 LSA 1048.9 MSA 399.6 SSA 23.6
BDE .2472 BRA 1.8131 BC3 6.2000 FSP -713 SG1 5542.3 SG2 405.7 THA 175.38 EL1 995.2 EL2 340.9 ALF 168.69

LAUNCH DATE SEP 14 1970 FLIGHT TIME 182.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 528.509

RL	150.48	LAL	.00	LOL	350.77	VL	26.217	GAL	2.41	AZL	90.47	HCA	257.89	SHA	123.28	ECC	.22442	INC	.4688
RP	108.54	LAP	.46	LOP	248.66	VP	36.998	GAP	11.03	AZP	89.90	TAL	171.63	TAP	69.51	RCA	95.61	APO	150.94
RC	159.692	GL	-3.27	GP	17.40	ZAL	65.43	ZAP	159.50	ETS	53.42	ZAE	126.11	ETE	167.38	ZAC	119.95	ETC	263.29

V1	29.610	V2	34.913	CLP	-168.99														

PLANETOCENTRIC CONIC

C3	14.140	VHL	3.760	DLA	-25.80	RAL	287.10	RAD	6567.6	VEL	11.642	PTH	2.04	VHP	7.332	DPA	-5.98	RAP	261.07
ECC	1.2327																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 13 44	1156.72	12.48	340.37	146.66	115.63	11 33 1	556.7	15.63	333.30
90.00	14 42 43	5756.85	27.12	273.52	151.41	96.48	16 18 40	5156.8	28.01	264.97
100.00	12 8 56	978.46	10.46	326.24	145.62	118.16	12 25 15	578.5	14.15	319.38
100.00	16 30 12	5410.34	29.36	248.35	151.74	95.89	18 0 22	4810.3	29.86	239.58
110.00	12 29 51	912.84	6.32	318.76	143.11	123.66	12 45 4	312.8	10.70	312.41
110.00	18 29 46	5048.73	34.18	221.19	132.04	90.18	19 49 55	4448.7	33.83	211.96

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0511	TRA	2.0047	TC3	-5.0044	BAU	1.1158	BGT	5502.9	BGR	592.8	BG3	203.8	ST	1029.5	SR	381.1	SS	413.9
RDE	.2366	RRA	-.2430	RC3	.3043	FAU	.02820	RRT	-.7196	RRF	-.7028	RTF	.9473	CRT	-.2508	CRS	-.1629	CST	-.9123
FDE	.2032	FRA	1.1302	FC3	-1.7875	BSP	18329	BGB	5614.3	RZS	.0250	R13	-.9475	LSA	1101.0	MSA	404.4	SSA	22.1
BDE	.2421	BRA	2.0194	BC3	5.9022	FSP	-717	BG1	5599.3	BG2	410.5	THA	175.61	EL1	1034.5	EL2	367.2	ALF	173.93

LAUNCH DATE SEP 14 1970 FLIGHT TIME 184.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 534.129

RL	150.48	LAL	.00	LOL	350.77	VL	26.175	GAL	2.91	AZL	90.27	HCA	261.07	SHA	123.02	ECC	.22858	INC	.2743
RP	108.58	LAP	.27	LOP	251.84	VP	36.987	GAP	11.39	AZP	89.96	TAL	170.09	TAP	71.15	RCA	94.90	APO	151.15
RC	161.784	GL	-1.84	GP	16.72	ZAL	62.69	ZAP	160.54	ETS	54.73	ZAE	126.12	ETE	167.86	ZAC	119.39	ETC	263.91

V1	29.610	V2	34.901	CLP	-169.90														

PLANETOCENTRIC CONIC

C3	15.231	VHL	3.903	DLA	-24.04	RAL	289.87	RAD	6567.6	VEL	11.688	PTH	2.06	VHP	7.524	DPA	-6.91	RAP	263.17
ECC	1.2507																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 53 12	1281.85	8.69	347.82	149.27	117.06	11 14 33	681.8	12.25	340.75
90.00	15 25 21	5064.81	27.87	298.89	155.09	95.24	16 59 46	5064.8	28.30	290.25
100.00	11 54 30	1083.48	7.03	332.15	148.38	119.13	12 12 42	483.5	10.86	325.45
100.00	17 6 35	5330.41	29.74	243.04	155.24	93.12	18 35 33	4730.4	29.86	234.23
110.00	12 23 38	902.56	3.29	322.95	146.07	124.04	12 40 11	392.6	7.74	316.68
110.00	18 54 5	5002.09	34.13	217.54	135.30	88.03	20 17 27	4402.1	33.48	208.36

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2814	TRA	2.2954	TC3	-5.4774	BAU	1.1167	BGT	5815.2	BGR	581.0	BG3	197.1	ST	1142.4	SR	371.0	SS	451.5
RDE	.2360	RRA	-.2501	RC3	.2868	FAU	.02675	RRT	-.6001	RRF	-.6805	RTF	.9462	CRT	-.0533	CRS	-.2539	CST	-.9509
FDE	.2068	FRA	1.1871	FC3	-1.5205	BSP	18142	BGB	5645.2	RZS	.0215	R13	-.9464	LSA	1221.5	MSA	392.8	SSA	20.9
BDE	.3251	BRA	2.2701	BC3	5.4839	FSP	-676	BG1	5629.9	BG2	414.4	THA	175.84	EL1	1142.8	EL2	370.4	ALF	178.89

LAUNCH DATE SEP 14 1970 FLIGHT TIME 186.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 539.709

RL	150.48	LAL	.00	LOL	350.77	VL	26.133	GAL	3.43	AZL	90.08	HCA	264.24	SHA	122.78	ECC	.23307	INC	.0825
RP	108.61	LAP	.08	LOP	255.01	VP	36.917	GAP	11.76	AZP	89.99	TAL	168.55	TAP	72.79	RCA	94.16	APO	151.39
RC	163.065	GL	-.54	GP	18.11	ZAL	60.06	ZAP	161.51	ETS	56.22	ZAE	126.12	ETE	168.30	ZAC	118.86	ETC	264.52

V1	29.610	V2	34.890	CLP	-170.80														

PLANETOCENTRIC CONIC

C3	16.507	VHL	4.063	DLA	-22.38	RAL	292.49	RAD	6567.7	VEL	11.743	PTH	2.07	VHP	7.729	DPA	-7.74	RAP	265.30
ECC	1.2717																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 39 26	1365.52	5.44	353.49	152.14	117.83	11 2 32	785.5	9.12	346.75
90.00	15 59 58	5597.60	28.19	262.00	150.60	92.81	17 33 16	4997.6	28.28	253.34
100.00	11 44 29	1175.55	3.95	337.25	151.32	119.65	12 4 5	575.6	7.87	330.65
100.00	17 37 36	5282.80	29.86	258.91	150.66	90.95	19 5 39	4682.8	29.69	250.11
110.00	12 19 7	1066.99	.45	326.84	140.14	124.18	12 36 54	467.0	4.93	320.62
110.00	19 19 28	4964.13	34.00	214.59	150.54	86.28	20 42 12	4364.1	33.12	205.46

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.3835	TRA	2.5063	TC3	-5.0788	BAU	1.1220	BGT	5651.0	BGR	570.4	BG3	190.5	ST	1273.9	SR	363.5	SS	482.6
RDE	.2421	RRA	-.2720	RC3	.2380	FAU	.02472	RRT	-.6000	RRF	-.6598	RTF	.9464	CRT	.0092	CRS	-.3160	CST	-.9721
FDE	.3188	FRA	1.2351	FC3	-1.2965	BSP	18208	BGB	5670.7	RZS	.0173	R13	-.9465	LSA	1358.8	MSA	375.6	SSA	19.8
BDE	.4536	BRA	2.5210	BC3	5.0043	FSP	-651	BG1	5664.4	BG2	417.3	THA	176.05	EL1	1274.3	EL2	361.9	ALF	1.59

LAUNCH DATE SEP 14 1970 FLIGHT TIME 188.00 ARRIVAL DATE MAR 21 1971

HELIOCENTRIC CONIC DISTANCE 545.248

RL	150.48	LAL	.00	LOL	350.77	VL	26.091	GAL	3.98	AZL	89.88	HCA	267.42	SHA	122.53	ECC	.23794	INC	.1049
RP	108.65	LAP	-.11	LOP	258.19	VP	36.877	GAP	12.16	AZP	90.00	TAL	167.00	TAP	74.42	RCA	93.37	APO	151.68
RC	165.932	GL	.65	GP	15.55	ZAL	57.54	ZAP	162.41	ETS	57.93	ZAE	126.11	ETE	168.70	ZAC	118.36	ETC	265.14

V1	29.610	V2	34.880	CLP	-171.68														

PLANETOCENTRIC CONIC

C3	17.987	VHL	4.241	DLA	-20.81	RAL	294.96	RAD	6567.7	VEL	11.805	PTH	2.09	VHP	7.948	DPA	-8.49	RAP	267.48
ECC	1.2960																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 29 26	1477.10	2.51	358.63	155.15	118.22	10 54 3	877.1	6.26	351.96
90.00	16 29 40	5545.70	28.30	258.21	162.03	90.91	18 2 5	4945.7	28.13	249.55
100.00	11 36 57	1259.25	1.12	341.85	154.38	119.87	11 57 56	659.2	5.09	335.31
100.00	18 4 51	5238.78	29.88	235.63	162.03	89.23	19 32 9	4638.8	29.46	226.86
110.00	12 15 50	1137.35	-2.24	330.51	152.28	124.12	12 34 48	537.3	2.25	324.30
110.00	19 42 26	4833.45	33.84	212.21	161.79	84.88	21 4 40	4333.4	32.76	203.13

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.5481	TRA	2.7081	TC3	-4.6830	BAU	1.1272	BGT	5683.5	BGR	580.0	BG3	184.0	ST	1412.4	SR	357.0	SS	509.9
RDE	.2479	RRA	-.2886	RC3	.2082	FAU	.02281	RRT	-.6812	RRF	-.6400	RTF	.9469	CRT	.1933	CRS	-.3622	CST	-.9837
FDE	.3646	FRA	1.2802	FC3	-1.0981	BSP	18328	BGB	5711.0	RZS	.0139	R13	-.9470	LSA	1501.2	MSA	358.4	SSA	18.7
BDE	.5908	BRA	2.7808	BC3	4.6877	FSP	-629	BG1	5695.6	BG2	419.2	THA	176.25	EL1	1414.2	EL2	349.9	ALF	2.98

LAUNCH DATE SEP 14 1970 FLIGHT TIME 190.00 ARRIVAL DATE MAR 23 1971

HELIOCENTRIC CONIC DISTANCE 550.737

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RL  150.48 LAL    .00 LOL 350.77 VL  26.050 GAL   4.56 AZL  89.71 HCA 270.59 SMA 122.28 ECC .24322 INC  .2928 V1  29.610
RP  108.68 LAP   -.29 LOP 261.36 VP  36.858 GAP  12.57 AZP  90.00 TAL 165.46 TAP  76.05 RCA  92.54 APO 152.03 V2  34.869
RC 167.985 GL    1.71 GP   15.04 ZAL  55.15 ZAP 163.26 ETS  59.86 ZAE 126.09 ETE 169.06 ZAC 117.90 ETC 265.77 CLP-172.56
PLANETOCENTRIC CONIC
C3  19.995 VHL  4.438 DLA -19.33 RAL 297.28 RAD 6567.8 VEL 11.878 PTH   2.11 VHP  8.183 DPA  -9.16 RAP 269.68 ECC 1.3241
LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
   90.00    10 21 52  1560.61       -.19       3.29      158.26      118.32  10 47 53     960.6       3.60      356.65
   90.00    16 55 47  5504.90      28.31     255.23      165.43       89.42  18 27 32    4904.9      27.93      246.58
  100.00    11 31 12  1336.91      -1.51     346.11      157.52      119.86  11 53 29     736.9       2.47      339.59
  100.00    18 29  9  5203.83      29.82     253.04      165.39       87.87  19 55 53    4603.8      29.21      224.29
  110.00    12 13 28  1204.43      -4.79     334.02      155.48      123.89  12 33 33     604.4       -.31      327.80
  110.00    20  3 22  4909.07      33.68     210.32      165.05       83.78  21 25 11    4309.1      32.45      201.30
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE  .6866 TRA 3.0147 TC3-4.3381 BAU 1.1433   SGT 5711.8 SGR  550.3 SG3  176.9     ST  1526.5 SR   353.4 SS   524.6
RDE  .2569 RRA -.2970 RC3  .1874 FAU .02157   RRT -.6435 RRF -.6218 RTF  .9490     CRT  .2643 CRS -.3936 CST -.9899
FDE  .3947 FRA 1.3126 FC3 -.9490 BSP  19001   SGB 5730.3 RZS  .0103 RIS -.9490     LSA 1615.7 MSA  345.6 SSA   17.7
BDE  .7331 BRA 3.0293 BC3 4.3422 FSP   -634   SG1 5722.8 SG2  420.4 THA 176.43     EL1 1529.5 EL2  340.2 ALF   3.68
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LAUNCH DATE SEP 14 1970 FLIGHT TIME 192.00 ARRIVAL DATE MAR 25 1971

HELIOCENTRIC CONIC DISTANCE 556.180

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RL  150.48 LAL    .00 LOL 350.77 VL  26.009 GAL   5.18 AZL  89.52 HCA 273.76 SMA 122.05 ECC .24895 INC  .4805 V1  29.610
RP  108.71 LAP   -.48 LOP 264.53 VP  36.800 GAP  13.01 AZP  89.97 TAL 163.93 TAP  77.69 RCA  91.66 APO 152.43 V2  34.859
RC 170.025 GL    2.68 GP   14.57 ZAL  52.87 ZAP 164.05 ETS  62.02 ZAE 126.06 ETE 169.39 ZAC 117.45 ETC 266.39 CLP-173.43
PLANETOCENTRIC CONIC
C3  21.662 VHL  4.654 DLA -17.95 RAL 299.48 RAD 6567.9 VEL 11.960 PTH   2.13 VHP  8.434 DPA  -9.75 RAP 271.91 ECC 1.3565
LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
   90.00    10 16  1  1638.27      -2.69       7.62      161.45      118.20  10 43 20    1038.3       1.10        .99
   90.00    17 19 10  5472.81      28.27     252.86      166.81       88.24  18 50 23    4872.8      27.72      244.26
  100.00    11 26 46  1409.99      -3.98     350.13      160.74      119.65  11 50 16     810.0       -.00      343.60
  100.00    18 51  6  5176.33      29.74     231.00      166.73       86.80  20 17 23    4576.3      28.97      222.28
  110.00    12 11 49  1266.83      -7.23     337.42      158.73      123.50  12 32 58     668.8      -2.77      331.16
  110.00    20 22 35  4980.25      33.53     208.87      166.33       82.93  21 44  3    4290.3      32.19      199.90
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE  .8779 TRA 3.3253 TC3-3.8079 BAU 1.1327   SGT 5735.3 SGR  538.6 SG3  171.6     ST  1686.5 SR   345.4 SS   556.6
RDE  .2627 RRA -.3125 RC3  .1594 FAU .01923   RRT -.6246 RRF -.6024 RTF  .9486     CRT  .3304 CRS -.4280 CST -.9939
FDE  .4457 FRA 1.3679 FC3 -.7684 BSP  18551   SGB 5760.5 RZS  .0086 RIS -.9486     LSA 1779.0 MSA  328.8 SSA   17.0
BDE  .9163 BRA 3.3379 BC3 3.9111 FSP   -589   SG1 5745.2 SG2  419.9 THA 176.63     EL1 1690.5 EL2  325.2 ALF   4.02
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LAUNCH DATE SEP 14 1970 FLIGHT TIME 194.00 ARRIVAL DATE MAR 27 1971

HELIOCENTRIC CONIC DISTANCE 561.562

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RL  150.48 LAL    .00 LOL 350.77 VL  25.969 GAL   5.82 AZL  89.33 HCA 276.93 SMA 121.81 ECC .25518 INC  .6697 V1  29.610
RP  108.74 LAP   -.66 LOP 267.70 VP  36.762 GAP  13.47 AZP  89.92 TAL 162.40 TAP  79.33 RCA  90.73 APO 152.89 V2  34.850
RC 172.049 GL    3.54 GP   14.14 ZAL  50.72 ZAP 164.77 ETS  64.43 ZAE 126.03 ETE 169.69 ZAC 117.02 ETC 267.01 CLP-174.30
PLANETOCENTRIC CONIC
C3  23.922 VHL  4.891 DLA -16.66 RAL 301.55 RAD 6568.0 VEL 12.054 PTH   2.15 VHP  8.703 DPA -10.26 RAP 274.16 ECC 1.3937
LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
   90.00    10 11 25  1711.36      -5.03      11.72      164.70      117.90  10 39 57    1111.4      -1.26        5.07
   90.00    17 40 16  5447.96      28.20     251.06      172.17       87.33  19 11  4    4848.0      27.53      242.46
  100.00    11 23 20  1479.35      -6.30     353.96      164.00      119.28  11 47 59     879.4      -2.35      347.40
  100.00    19 11  3  5155.20      29.65     229.43      172.08       85.98  20 36 58    4555.2      28.77      220.74
  110.00    12 10 43  1350.90      -9.54     340.73      162.03      122.98  12 32 54     730.9      -5.13      334.42
  110.00    20 40  9  4876.42      33.41     207.81      171.63       82.31  22  1 25    4276.4      31.99      198.87
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE 1.0496 TRA 3.6225 TC3-3.5382 BAU 1.1324   SGT 5754.3 SGR  527.2 SG3  165.8     ST  1813.4 SR   339.9 SS   576.2
RDE  .2717 RRA -.3255 RC3  .1381 FAU .01753   RRT -.6063 RRF -.5842 RTF  .9497     CRT  .3767 CRS -.4523 CST -.9961
FDE  .4820 FRA 1.4111 FC3 -.6343 BSP  18662   SGB 5778.4 RZS  .0067 RIS -.9497     LSA 1906.7 MSA  316.5 SSA   16.2
BDE 1.0842 BRA 3.6370 BC3 3.5409 FSP   -570   SG1 5763.2 SG2  418.6 THA 176.80     EL1 1818.1 EL2  314.1 ALF   4.16
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LAUNCH DATE SEP 14 1970 FLIGHT TIME 196.00 ARRIVAL DATE MAR 29 1971

HELIOCENTRIC CONIC DISTANCE 566.876

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RL  150.48 LAL    .00 LOL 350.77 VL  25.928 GAL   6.50 AZL  89.14 HCA 280.09 SMA 121.58 ECC .26195 INC  .8613 V1  29.610
RP  108.77 LAP   -.85 LOP 270.86 VP  36.726 GAP  13.98 AZP  89.85 TAL 160.88 TAP  80.98 RCA  89.73 APO 153.43 V2  34.841
RC 174.080 GL    4.31 GP   13.75 ZAL  48.68 ZAP 165.44 ETS  67.12 ZAE 125.99 ETE 169.97 ZAC 116.60 ETC 267.64 CLP-175.16
PLANETOCENTRIC CONIC
C3  26.514 VHL  5.149 DLA -15.46 RAL 303.49 RAD 6568.1 VEL 12.161 PTH   2.18 VHP  8.992 DPA -10.89 RAP 276.43 ECC 1.4364
LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
   90.00    10  7 47  1780.77      -7.23      15.63      167.99      117.45  10 37 28    1180.8      -3.50        8.94
   90.00    17 59 25  5429.28      28.13     249.70      175.54       86.65  19 29 55    4829.3      27.37      241.12
  100.00    11 20 39  1545.65      -8.49     357.67      167.31      118.77  11 46 25     945.6      -4.59      351.05
  100.00    19 29 14  5130.63      29.57     228.28      175.42       85.38  20 54 54    4539.6      28.61      219.61
  110.00    12 10  2  1390.96     -11.75     343.98      165.36      122.33  12 33 13     791.0      -7.40      337.59
  110.00    20 56 21  4867.09      33.32     207.09      174.93       81.90  22 17 28    4267.1      31.84      198.18
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE 1.2250 TRA 3.9361 TC3-3.1860 BAU 1.1301   SGT 5768.3 SGR  515.2 SG3  160.1     ST  1930.3 SR   334.6 SS   593.4
RDE  .2817 RRA -.3379 RC3  .1189 FAU .01591   RRT -.5879 RRF -.5662 RTF  .9511     CRT  .4139 CRS -.4730 CST -.9974
FDE  .5158 FRA 1.4542 FC3 -.5193 BSP  18785   SGB 5791.2 RZS  .0051 RIS -.9511     LSA 2024.0 MSA  305.3 SSA   15.6
BDE 1.2570 BRA 3.9506 BC3 3.1882 FSP   -553   SG1 5776.3 SG2  416.1 THA 176.98     EL1 1935.4 EL2  303.8 ALF   4.21
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LAUNCH DATE  SEP 14 1970                          FLIGHT TIME 198.00                          ARRIVAL DATE  MAR 31 1971

  HELIOCENTRIC CONIC                                  DISTANCE 572.115
   RL  150.48 LAL     .00 LOL 350.77 VL  25.889 GAL   7.23 AZL  88.04 HCA 283.26 SMA 121.35 ECC .26934 INC 1.0565 V1  29.610
   RP  108.79 LAP   -1.03 LOP 274.03 VP  36.690 GAP  14.48 AZP  89.76 TAL 159.38 TAP  82.64 RCA  88.67 APO 154.03 V2  34.833
   RC 176.055 GL     5.00 GP   13.39 ZAL  46.76 ZAP 166.04 ETS  70.10 ZAE 125.93 ETE 170.23 ZAC 116.20 ETC 268.26 CLP-176.03
  PLANETOCENTRIC CONIC
   C3  29.489 VHL   5.430 DLA -14.34 RAL 305.32 RAD 6568.2 VEL 12.283 PTH   2.21 VHP  9.304 DPA -11.06 RAP 278.71 ECC 1.4853
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      90.00     10  4 53   1847.08      -9.29      19.41      171.33      116.87   10 35 40    1247.1      -5.61      12.67
      90.00     18 16 55   5415.99      28.08     248.73      178.90       86.17   19 47 11    4816.0      27.25     240.17
     100.00     11 18 35   1609.44     -10.56       1.26      170.65      118.13   11 45 24    1009.4      -6.72     354.58
     100.00     19 45 54   5128.98      29.50     227.50      178.77       84.97   21 11 23    4529.0      28.49     218.84
     110.00     12  9 42   1449.22     -15.85     347.19      168.72      121.57   12 35 51     849.2      -9.57     340.70
     110.00     21 11 17   4861.84      33.27     206.69      178.25       81.67   22 32 19    4261.8      31.76     197.79
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
   TDE 1.4047 TRA 4.2856 TC3-2.8531 BAU 1.1255      SGT 5777.4 SGR  502.4 SGS  154.6          ST  2036.5 SR   329.3 SS   608.6
   RDE  .2927 RRA -.3496 RC3  .1014 FAU .01435      RRT -.5002 RRF -.5482 RTF  .9527          CRT  .4447 CRS -.4912 CST -.9983
   FDE  .5474 FRA 1.4974 FC3 -.4213 BSP  18921      SGB 5799.2 RZS  .0039 RIS -.9527          LSA 2130.5 MSA  295.2 SSA   14.9
   BDE 1.4349 BRA 4.2799 BC3 2.8549 FSP   -537      SG1 5784.5 SG2  412.6 THA 177.15          EL1 2041.9 EL2  294.1 ALF   4.20

LAUNCH DATE  SEP 14 1970                          FLIGHT TIME 200.00                          ARRIVAL DATE  APR  2 1971

  HELIOCENTRIC CONIC                                  DISTANCE 577.265
   RL  150.48 LAL     .00 LOL 350.77 VL  25.850 GAL   8.00 AZL  88.74 HCA 286.42 SMA 121.12 ECC .27740 INC 1.2568 V1  29.610
   RP  108.82 LAP   -1.21 LOP 277.19 VP  36.655 GAP  15.04 AZP  89.64 TAL 157.90 TAP  84.32 RCA  87.52 APO 154.73 V2  34.825
   RC 178.036 GL     5.82 GP   13.06 ZAL  44.96 ZAP 166.58 ETS  73.37 ZAE 125.87 ETE 170.47 ZAC 115.80 ETC 268.88 CLP-176.90
  PLANETOCENTRIC CONIC
   C3  32.906 VHL   5.736 DLA -13.31 RAL 307.04 RAD 6568.3 VEL 12.421 PTH   2.24 VHP  9.641 DPA -11.36 RAP 280.99 ECC 1.5416
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      90.00     10  2 35   1910.72     -11.23      23.09      174.60      116.17   10 34 26    1310.7      -7.62      16.27
      90.00     18 32 55   5407.44      28.04     248.11      182.25       85.86   20  3  2    4807.4      27.17     239.55
     100.00     11 16 59   1670.60     -12.51       4.78      174.03      117.37   11 44 50    1070.7      -8.74     358.02
     100.00     20  1 12   5122.71      29.47     227.04      182.12       84.73   21 26 35    4522.7      28.42     218.39
     110.00     12  9 37   1505.86     -15.84     350.37      172.12      120.69   12 34 43     905.9     -11.66     343.77
     110.00     21 28  4   4860.30      33.26     206.58      181.59       81.60   22 46  4    4260.3      31.74     197.68
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
   TDE 1.5083 TRA 4.6121 TC3-2.5408 BAU 1.1183      SGT 5781.2 SGR  488.8 SGS  149.3          ST  2131.7 SR   323.9 SS   622.4
   RDE  .3047 RRA -.3602 RC3  .0857 FAU .01286      RRT -.5498 RRF -.5298 RTF  .9545          CRT  .4711 CRS -.5078 CST -.9988
   FDE  .5776 FRA 1.5414 FC3 -.3384 BSP  19074      SGB 5801.9 RZS  .0029 RIS -.9545          LSA 2225.9 MSA  285.6 SSA   14.3
   BDE 1.6183 BRA 4.6261 BC3 2.5419 FSP   -522      SG1 5787.5 SG2  407.9 THA 177.33          EL1 2137.3 EL2  285.0 ALF   4.17

LAUNCH DATE  SEP 14 1970                          FLIGHT TIME 202.00                          ARRIVAL DATE  APR  4 1971

  HELIOCENTRIC CONIC                                  DISTANCE 582.313
   RL  150.48 LAL     .00 LOL 350.77 VL  25.811 GAL   8.82 AZL  88.54 HCA 289.58 SMA 120.90 ECC .28623 INC 1.4637 V1  29.610
   RP  108.84 LAP   -1.38 LOP 280.36 VP  36.621 GAP  15.64 AZP  89.51 TAL 156.44 TAP  86.02 RCA  86.30 APO 155.51 V2  34.818
   RC 180.002 GL     6.16 GP   12.76 ZAL  43.27 ZAP 167.05 ETS  76.95 ZAE 125.79 ETE 170.70 ZAC 115.41 ETC 269.49 CLP-177.78
  PLANETOCENTRIC CONIC
   C3  36.837 VHL   6.069 DLA -12.35 RAL 308.65 RAD 6568.4 VEL 12.578 PTH   2.28 VHP 10.006 DPA -11.59 RAP 283.28 ECC 1.6062
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      90.00     10  0 46   1972.01     -13.04      26.68      178.08      115.36   10 33 38    1372.0      -9.52      19.77
      90.00     18 47 36   5403.12      28.02     247.80      185.60       85.70   20 17 39    4803.1      27.13     239.24
     100.00     11 15 47   1729.99     -14.34       8.23      177.43      116.51   11 44 37    1130.0     -10.66       1.37
     100.00     20 15 16   5120.37      29.45     226.86      185.46       84.64   21 40 36    4520.4      28.40     218.22
     110.00     12  9 45   1560.99     -17.73     353.52      175.54      119.71   12 35 46     961.0     -13.65     346.80
     110.00     21 37 47   4862.14      33.27     206.72      184.92       81.68   22 58 50    4262.1      31.77     197.81
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
   TDE 1.7800 TRA 4.9777 TC3-2.2480 BAU 1.1077      SGT 5780.0 SGR  474.4 SGS  144.2          ST  2216.5 SR   318.4 SS   635.1
   RDE  .3176 RRA -.3087 RC3  .0715 FAU .01142      RRT -.5294 RRF -.5108 RTF  .9566          CRT  .4944 CRS -.5232 CST -.9992
   FDE  .6067 FRA 1.5087 FC3 -.2685 BSP  19230      SGB 5799.5 RZS  .0022 RIS -.9566          LSA 2311.1 MSA  276.5 SSA   13.8
   BDE 1.8081 BRA 4.9914 BC3 2.2492 FSP   -508      SG1 5785.5 SG2  402.1 THA 177.50          EL1 2222.2 EL2  276.1 ALF   4.13

LAUNCH DATE  SEP 14 1970                          FLIGHT TIME 204.00                          ARRIVAL DATE  APR  6 1971

  HELIOCENTRIC CONIC                                  DISTANCE 587.243
   RL  150.48 LAL     .00 LOL 350.77 VL  25.773 GAL   9.60 AZL  88.32 HCA 292.74 SMA 120.69 ECC .29591 INC 1.6787 V1  29.610
   RP  108.86 LAP   -1.55 LOP 283.52 VP  36.588 GAP  16.29 AZP  89.35 TAL 155.01 TAP  87.75 RCA  84.98 APO 156.40 V2  34.812
   RC 181.954 GL     6.65 GP   12.48 ZAL  41.69 ZAP 167.45 ETS  80.85 ZAE 125.69 ETE 170.92 ZAC 115.02 ETC 270.10 CLP-178.67
  PLANETOCENTRIC CONIC
   C3  41.368 VHL   6.432 DLA -11.46 RAL 310.16 RAD 6568.6 VEL 12.757 PTH   2.32 VHP 10.403 DPA -11.76 RAP 285.55 ECC 1.6808
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      90.00      9 59 20   2031.15     -14.74      30.19      181.48      114.46   10 33 11    1431.2     -11.31      23.18
      90.00     19  1  4   5402.59      28.01     247.76      188.93       85.69   20 31  6    4802.6      27.12     239.21
     100.00     11 14 53   1787.39     -16.05      11.63      180.84      115.56   11 44 41    1187.4     -12.48       4.66
     100.00     20 28 11   5121.59      29.46     226.95      188.80       84.68   21 53 33    4521.6      28.41     218.31
     110.00     12 10  2   1614.68     -19.52     356.67      178.98      118.64   12 36 57    1014.7     -15.54     349.80
     110.00     21 49 32   4867.06      33.32     207.08      188.26       81.90   23 10 39    4267.1      31.84     198.18
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
   TDE 1.9786 TRA 5.3881 TC3-1.9746 BAU 1.0926      SGT 5774.0 SGR  459.1 SGS  139.3          ST  2291.8 SR   312.7 SS   647.7
   RDE  .3314 RRA -.3778 RC3  .0588 FAU .01001      RRT -.5079 RRF -.4907 RTF  .9588          CRT  .5156 CRS -.5381 CST -.9994
   FDE  .6357 FRA 1.6341 FC3 -.2095 BSP  19393      SGB 5792.2 RZS  .0017 RIS -.9588          LSA 2387.1 MSA  267.5 SSA   13.3
   BDE 2.0081 BRA 5.3784 BC3 1.9755 FSP   -494      SG1 5778.7 SG2  395.2 THA 177.68          EL1 2297.6 EL2  267.3 ALF   4.08
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LAUNCH DATE SEP 14 1970 FLIGHT TIME 206.00 ARRIVAL DATE APR 8 1971

HELIOCENTRIC CONIC DISTANCE 592.033

RL	150.48	LAL	.00	LOL	350.77	VL	25.736	GAL	10.64	AZL	88.10	HCA	295.90	SMA	120.48	ECC	.30654	INC	1.9040
RP	108.87	LAP	-1.71	LOP	286.68	VP	36.556	GAP	17.00	AZP	89.17	TAL	153.61	TAP	89.52	RCA	83.55	APO	157.41
RC	183.891	GL	7.07	GP	12.23	ZAL	40.21	ZAP	167.77	ETS	85.05	ZAE	125.57	ETE	171.12	ZAC	114.63	ETC	270.70

V1 29.610 V2 34.806 CLP-179.58

PLANETOCENTRIC CONIC

C3	46.606	VHL	6.827	DLA	-10.64	RAL	311.57	RAD	6560.7	VEL	12.960	PTH	2.36	VHP	10.836	DPA	-11.88	RAP	287.82

ECC 1.7670

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 58 13	2088.29	-14.32	33.64	184.89	113.47	10 33 1	1488.3	-13.00	26.53
90.00	19 13 25	5405.46	28.03	247.97	192.25	85.79	20 43 30	4805.5	27.15	239.41
100.00	11 14 15	1842.98	-17.65	14.98	184.26	114.52	11 44 58	1243.0	-14.20	7.90
100.00	20 40 4	5126.00	29.49	227.28	192.12	84.65	22 5 30	4526.0	28.46	218.62
110.00	12 10 27	1666.97	-21.19	359.80	182.44	117.47	12 38 14	1067.0	-17.34	352.79
110.00	22 0 21	4874.77	33.40	207.68	191.60	82.24	23 21 35	4274.8	31.96	198.75

DIFFERENTIAL CORRECTIONS

TDE	2.1068	TRA	5.7775	TC3	-1.7191	BAU	1.0715
RDE	.3462	RRA	-.3841	RC3	.0475	FAU	.00861
FDE	.6647	FRA	1.6842	FC3	-.1600	BSP	19508
BDE	2.2140	BRA	5.7903	BC3	1.7197	FSP	-480

MID-COURSE EXECUTION ACCURACY

SGT	5783.6	SGR	443.0	SG3	134.6		
RRT	-.4846	RRF	-.4691	RTF	.9613		
SGB	5780.6	RZ3	.0014	R13	-.9613		
SG1	5767.7	SG2	387.2	THA	177.86		

ORBIT DETERMINATION ACCURACY

ST	2358.8	SR	306.8	SS	660.3
CRT	.5355	CRS	-.5529	CST	-.9996
LSA	2455.0	NSA	258.6	SSA	12.7
EL1	2364.6	EL2	258.5	ALF	4.03

LAUNCH DATE SEP 14 1970 FLIGHT TIME 208.00 ARRIVAL DATE APR 10 1971

HELIOCENTRIC CONIC DISTANCE 596.657

RL	150.48	LAL	.00	LOL	350.77	VL	25.889	GAL	11.65	AZL	87.86	HCA	299.06	SMA	120.27	ECC	.31827	INC	2.1414
RP	108.89	LAP	-1.87	LOP	289.85	VP	36.526	GAP	17.77	AZP	88.96	TAL	152.27	TAP	91.32	RCA	81.99	APO	158.55
RC	185.813	GL	7.45	GP	11.99	ZAL	38.85	ZAP	168.00	ETS	89.55	ZAE	125.43	ETE	171.32	ZAC	114.25	ETC	271.29

V1 29.610 V2 34.801 CLP 179.49

PLANETOCENTRIC CONIC

C3	52.683	VHL	7.258	DLA	-9.89	RAL	312.86	RAD	6560.9	VEL	13.193	PTH	2.41	VHP	11.310	DPA	-11.94	RAP	290.07

ECC 1.8670

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 57 21	2143.50	-17.78	37.03	188.29	112.41	10 33 5	1543.5	-14.59	29.81
90.00	19 24 43	5411.39	28.06	248.40	195.54	86.00	20 54 54	4811.4	27.21	239.84
100.00	11 13 40	1906.82	-19.14	18.29	187.69	113.41	11 45 26	1296.8	-15.81	11.08
100.00	20 50 56	5133.30	29.53	227.82	195.41	85.13	22 16 30	4533.3	28.54	219.15
110.00	12 10 50	1717.87	-22.78	2.92	185.90	116.22	12 39 36	1117.9	-19.05	355.75
110.00	22 18 17	4885.02	33.49	206.47	194.92	82.70	23 31 42	4285.0	32.11	199.51

DIFFERENTIAL CORRECTIONS

TDE	2.4066	TRA	6.2180	TC3	-1.4831	BAU	1.0449
RDE	.3620	RRA	-.3883	RC3	.0374	FAU	.00720
FDE	.6949	FRA	1.7383	FC3	-.1182	BSP	19599
BDE	2.4336	BRA	6.2301	BC3	1.4836	FSP	-466

MID-COURSE EXECUTION ACCURACY

SGT	5750.6	SGR	426.0	SG3	130.2		
RRT	-.4591	RRF	-.4456	RTF	.9638		
SGB	5766.4	RZ3	.0013	R13	-.9638		
SG1	5753.9	SG2	378.2	THA	178.04		

ORBIT DETERMINATION ACCURACY

ST	2418.1	SR	300.6	SS	673.8
CRT	.5547	CRS	-.5679	CST	-.9997
LSA	2515.8	NSA	249.6	SSA	12.2
EL1	2425.9	EL2	249.6	ALF	3.99

LAUNCH DATE SEP 14 1970 FLIGHT TIME 210.00 ARRIVAL DATE APR 12 1971

HELIOCENTRIC CONIC DISTANCE 601.083

RL	150.48	LAL	.00	LOL	350.77	VL	25.663	GAL	12.75	AZL	87.61	HCA	302.22	SMA	120.07	ECC	.33122	INC	2.3939
RP	108.90	LAP	-2.03	LOP	293.01	VP	36.496	GAP	18.62	AZP	88.72	TAL	150.97	TAP	93.19	RCA	80.30	APO	159.84
RC	187.719	GL	7.77	GP	11.77	ZAL	37.58	ZAP	168.14	ETS	94.30	ZAE	125.25	ETE	171.51	ZAC	113.86	ETC	271.87

V1 29.610 V2 34.797 CLP 178.54

PLANETOCENTRIC CONIC

C3	59.762	VHL	7.731	DLA	-9.21	RAL	314.09	RAD	6569.1	VEL	13.458	PTH	2.46	VHP	11.831	DPA	-11.94	RAP	292.29

ECC 1.9835

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 56 42	2196.80	-19.13	40.36	191.68	111.28	10 33 19	1596.8	-16.07	33.02
90.00	19 35 2	5420.09	28.10	249.03	198.80	86.32	21 5 22	4820.1	27.29	240.46
100.00	11 13 33	1948.91	-20.52	21.54	191.09	112.23	11 46 2	1348.9	-17.33	14.21
100.00	21 0 53	5143.21	29.58	228.55	198.68	85.51	22 26 36	4543.2	28.65	219.87
110.00	12 11 32	1767.33	-24.21	6.08	189.35	114.90	12 40 59	1167.3	-20.65	358.69
110.00	22 19 23	4897.55	33.59	209.43	198.21	83.26	23 41 0	4297.6	32.29	200.44

DIFFERENTIAL CORRECTIONS

TDE	2.6404	TRA	6.6922	TC3	-1.2627	BAU	1.0091
RDE	.3789	RRA	-.3900	RC3	.0286	FAU	.00574
FDE	.7266	FRA	1.7968	FC3	-.0831	BSP	19609
BDE	2.6675	BRA	6.7036	BC3	1.2630	FSP	-450

MID-COURSE EXECUTION ACCURACY

SGT	5734.9	SGR	408.2	SG3	126.0		
RRT	-.4308	RRF	-.4193	RTF	.9666		
SGB	5749.4	RZ3	.0013	R13	-.9666		
SG1	5737.6	SG2	368.2	THA	178.24		

ORBIT DETERMINATION ACCURACY

ST	2470.9	SR	294.3	SS	688.6
CRT	.5756	CRS	-.5835	CST	-.9998
LSA	2570.7	NSA	240.5	SSA	11.8
EL1	2476.7	EL2	240.5	ALF	3.95

LAUNCH DATE SEP 14 1970 FLIGHT TIME 212.00 ARRIVAL DATE APR 14 1971

HELIOCENTRIC CONIC DISTANCE 605.270

RL	150.48	LAL	.00	LOL	350.77	VL	25.628	GAL	13.94	AZL	87.34	HCA	305.37	SMA	119.88	ECC	.34558	INC	2.6644
RP	108.92	LAP	-2.17	LOP	296.17	VP	36.468	GAP	19.55	AZP	88.46	TAL	149.74	TAP	95.11	RCA	78.45	APO	161.30
RC	189.010	GL	8.06	GP	11.57	ZAL	36.43	ZAP	168.18	ETS	99.27	ZAE	125.05	ETE	171.70	ZAC	113.48	ETC	272.43

V1 29.610 V2 34.793 CLP 177.56

PLANETOCENTRIC CONIC

C3	68.047	VHL	8.249	DLA	-8.59	RAL	315.20	RAD	6580.3	VEL	13.762	PTH	2.51	VHP	12.407	DPA	-11.90	RAP	294.48

ECC 2.1199

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 56 14	2240.16	-20.37	43.62	195.03	110.11	10 33 42	1640.2	-17.45	36.16
90.00	19 44 24	5431.26	28.14	249.85	202.01	86.72	21 14 55	4831.3	27.39	241.26
100.00	11 13 24	1999.20	-21.78	24.75	194.47	111.00	11 46 43	1399.2	-18.73	17.28
100.00	21 9 55	5155.46	29.65	229.45	201.90	85.99	22 35 50	4555.5	28.77	220.76
110.00	12 12 8	1815.28	-25.55	9.11	192.78	113.52	12 42 23	1215.3	-22.15	1.61
110.00	22 27 40	4912.14	33.70	210.56	201.48	83.91	23 49 32	4312.1	32.49	201.53

DIFFERENTIAL CORRECTIONS

TDE	2.9910	TRA	7.2032	TC3	-1.0580	BAU	.9627
RDE	.3971	RRA	-.3887	RC3	.0210	FAU	.00422
FDE	.7605	FRA	1.8612	FC3	-.0537	BSP	19531
BDE	2.9181	BRA	7.2137	BC3	1.0582	FSP	-435

MID-COURSE EXECUTION ACCURACY

SGT	5716.8	SGR	380.7	SG3	122.1		
RRT	-.3988	RRF	-.3895	RTF	.9695		
SGB	5730.0	RZ3	.0014	R13	-.9695		
SG1	5718.9	SG2	357.2	THA	178.44		

ORBIT DETERMINATION ACCURACY

ST	2517.7	SR	287.7	SS	705.2
CRT	.5928	CRS	-.5998	CST	-.9998
LSA	2620.2	NSA	231.2	SSA	11.3
EL1	2523.6	EL2	231.2	ALF	3.91

LAUNCH DATE SEP 14 1970 FLIGHT TIME 214.00 ARRIVAL DATE APR 16 1971

HELIOCENTRIC CONIC DISTANCE 609.168

RL	150.48	LAL	.00	LOL	350.77	VL	25.594	GAL	15.24	AZL	87.04	HCA	308.52	SMA	119.69	ECC	.36155	INC	2.9570
RP	108.93	LAP	-2.31	LOP	299.33	VP	36.441	GAP	20.59	AZP	88.16	TAL	148.80	TAP	97.12	RCA	76.42	APO	162.96
RC	191.483	GL	8.30	GP	11.38	ZAL	35.38	ZAP	168.11	ETS	104.40	ZAE	124.80	ETE	171.89	ZAC	113.09	ETC	272.98

V1 29.610 V2 34.790 CLP 176.54

PLANETOCENTRIC CONIC

C3	77.797	VHL	8.820	DLA	-8.03	RAL	316.21	RAD	6509.5	VEL	14.112	PTH	2.57	VHP	13.045	DPA	-11.82	RAP	296.63

ECC 2.2803

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 55 53	2297.50	-21.49	48.80	190.34	108.90	10 34 10	1697.5	-18.71	39.23
90.00	19 52 49	5444.68	28.19	250.83	205.15	87.21	21 23 34	4844.7	27.51	242.23
100.00	11 13 21	2047.59	-22.93	27.88	197.79	109.73	11 47 28	1447.6	-20.03	20.29
100.00	21 18 2	5180.82	29.71	230.52	205.06	86.54	22 44 12	4569.8	28.91	221.80
110.00	12 12 45	1861.60	-26.77	12.15	196.18	112.10	12 43 46	1261.6	-23.53	4.48
110.00	22 35 8	4928.57	33.81	211.83	204.69	84.66	23 57 16	4328.6	32.70	202.77

DIFFERENTIAL CORRECTIONS

TDE	3.1810	TRA	7.7905	TC3	-.0688	BAU	.9038	SGT	5697.2	SGR	370.6	SG3	118.4	ST	2559.1	SR	281.0	SS	724.1
RDE	.4167	RRA	-.3687	RC3	.0146	FAU	.00280	RRT	-.3621	RRF	-.3549	RTF	.9725	CRT	.6125	CRS	-.6173	CST	-.9999
FDE	.7972	FRA	1.9322	FC3	-.0299	BSP	19334	SGB	5709.3	RZS	.0016	RIS	-.9725	LSA	2665.1	MSA	221.6	SSA	10.8
BDE	3.1804	BRA	7.7660	BC3	.0090	FSP	-414	SG1	5698.8	SG2	345.3	THA	178.65	EL1	2564.9	EL2	221.6	ALF	3.88

LAUNCH DATE SEP 14 1970 FLIGHT TIME 216.00 ARRIVAL DATE APR 18 1971

HELIOCENTRIC CONIC DISTANCE 612.712

RL	150.48	LAL	.00	LOL	350.77	VL	25.562	GAL	16.67	AZL	86.72	HCA	311.68	SMA	119.51	ECC	.37936	INC	3.2763
RP	108.93	LAP	-2.45	LOP	302.49	VP	36.416	GAP	21.74	AZP	87.82	TAL	147.54	TAP	99.22	RCA	74.17	APO	164.85
RC	193.340	GL	8.51	GP	11.21	ZAL	34.44	ZAP	167.92	ETS	109.62	ZAE	124.49	ETE	172.08	ZAC	112.71	ETC	273.51

V1 29.610 V2 34.788 CLP 175.47

PLANETOCENTRIC CONIC

C3	80.340	VHL	9.452	DLA	-7.53	RAL	317.12	RAD	6580.7	VEL	14.515	PTH	2.63	VHP	13.756	DPA	-11.70	RAP	298.73

ECC 2.4703

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 55 30	2344.67	-22.50	49.89	201.57	107.66	10 34 43	1744.7	-19.87	42.21
90.00	20 0 19	5460.12	28.24	251.95	208.22	87.78	21 31 19	4860.1	27.63	243.34
100.00	11 13 22	2083.93	-23.96	30.94	201.05	108.43	11 48 16	1493.9	-21.22	23.22
100.00	21 25 16	5186.09	29.77	231.72	208.15	87.17	22 51 42	4586.1	29.06	222.99
110.00	12 13 21	1906.14	-27.88	15.14	199.50	110.64	12 45 7	1306.1	-24.81	7.31
110.00	22 41 47	4946.65	33.92	213.23	207.83	85.48	24 4 14	4346.7	32.92	204.13

DIFFERENTIAL CORRECTIONS

TDE	3.4580	TRA	8.3578	TC3	-.0047	BAU	.8298	SGT	5676.4	SGR	351.0	SG3	114.9	ST	2594.8	SR	274.4	SS	745.7
RDE	.4302	RRA	-.3742	RC3	.0093	FAU	.00086	RRT	-.3193	RRF	-.3143	RTF	.9755	CRT	.6332	CRS	-.6361	CST	-.9999
FDE	.8373	FRA	2.0110	FC3	-.0083	BSP	19019	SGB	5687.3	RZS	.0018	RIS	-.9755	LSA	2705.4	MSA	211.9	SSA	10.3
BDE	3.4806	BRA	8.3682	BC3	.0047	FSP	-384	SG1	5677.6	SG2	332.6	THA	178.86	EL1	2600.7	EL2	211.9	ALF	3.86

LAUNCH DATE SEP 14 1970 FLIGHT TIME 218.00 ARRIVAL DATE APR 20 1971

HELIOCENTRIC CONIC DISTANCE 615.816

RL	150.48	LAL	.00	LOL	350.77	VL	25.530	GAL	18.24	AZL	86.37	HCA	314.83	SMA	119.34	ECC	.39930	INC	3.6285
RP	108.94	LAP	-2.57	LOP	305.66	VP	36.393	GAP	23.03	AZP	87.44	TAL	146.61	TAP	101.44	RCA	71.69	APO	166.99
RC	195.178	GL	8.69	GP	11.05	ZAL	33.62	ZAP	167.60	ETS	114.87	ZAE	124.13	ETE	172.28	ZAC	112.33	ETC	274.01

V1 29.610 V2 34.786 CLP 174.34

PLANETOCENTRIC CONIC

C3	103.102	VHL	10.154	DLA	-7.10	RAL	317.92	RAD	6570.0	VEL	14.981	PTH	2.70	VHP	14.552	DPA	-11.55	RAP	300.77

ECC 2.6968

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 55 29	2389.49	-23.39	52.88	204.69	106.43	10 35 18	1789.5	-20.92	45.08
90.00	20 6 51	5477.39	28.28	253.21	211.19	88.41	21 38 8	4877.4	27.76	244.59
100.00	11 13 26	2138.04	-24.88	33.90	204.20	107.13	11 49 4	1538.0	-22.29	26.05
100.00	21 31 35	5204.07	29.82	233.06	211.14	87.88	22 58 19	4604.1	29.21	224.31
110.00	12 13 54	1948.68	-28.86	16.06	202.74	109.16	12 46 23	1348.7	-25.98	10.07
110.00	22 47 36	4966.19	34.01	214.75	210.89	86.37	24 10 22	4366.2	33.14	205.62

DIFFERENTIAL CORRECTIONS

TDE	3.7699	TRA	9.0133	TC3	-.5349	BAU	.7374	SGT	5654.6	SGR	331.4	SG3	111.7	ST	2625.0	SR	267.8	SS	770.5
RDE	.4621	RRA	-.3991	RC3	.0051	FAU	-.00106	RRT	-.2687	RRF	-.2659	RTF	.9786	CRT	.6549	CRS	-.6563	CST	-.9999
FDE	.8813	FRA	2.0982	FC3	.0089	BSP	18565	SGB	5664.3	RZS	.0022	RIS	-.9786	LSA	2741.3	MSA	202.0	SSA	9.8
BDE	3.7981	BRA	9.0205	BC3	.5350	FSP	-372	SG1	5655.3	SG2	319.1	THA	179.10	EL1	2630.8	EL2	202.0	ALF	3.85

LAUNCH DATE SEP 14 1970 FLIGHT TIME 220.00 ARRIVAL DATE APR 22 1971

HELIOCENTRIC CONIC DISTANCE 618.300

RL	150.48	LAL	.00	LOL	350.77	VL	25.500	GAL	19.99	AZL	85.98	HCA	317.98	SMA	119.17	ECC	.42170	INC	4.0214
RP	108.94	LAP	-2.69	LOP	308.82	VP	36.371	GAP	24.48	AZP	87.01	TAL	145.82	TAP	103.80	RCA	68.92	APO	169.43
RC	196.907	GL	8.84	GP	10.89	ZAL	32.92	ZAP	167.15	ETS	120.09	ZAE	123.70	ETE	172.49	ZAC	111.95	ETC	274.50

V1 29.610 V2 34.785 CLP 173.14

PLANETOCENTRIC CONIC

C3	119.631	VHL	10.938	DLA	-6.74	RAL	318.60	RAD	6570.2	VEL	15.523	PTH	2.77	VHP	15.450	DPA	-11.38	RAP	302.73

ECC 2.9688

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 55 22	2431.69	-24.18	55.72	207.69	105.21	10 35 54	1831.7	-21.85	47.82
90.00	20 12 22	5496.34	28.30	254.60	214.04	89.10	21 43 59	4896.3	27.88	245.96
100.00	11 13 30	2179.64	-25.68	36.73	207.23	105.85	11 49 50	1579.6	-23.26	28.76
100.00	21 36 56	5223.62	29.86	234.51	214.01	88.64	23 3 59	4623.6	29.36	225.74
110.00	12 14 24	1988.98	-29.73	20.88	205.85	107.70	12 47 33	1389.0	-27.02	12.74
110.00	22 52 31	4987.05	34.09	216.37	213.83	87.33	24 15 38	4387.0	33.35	207.21

DIFFERENTIAL CORRECTIONS

TDE	4.0783	TRA	9.0854	TC3	-.4016	BAU	.6424	SGT	5610.7	SGR	311.9	SG3	108.2	ST	2630.2	SR	261.9	SS	792.8
RDE	.4996	RRA	-.3306	RC3	.0023	FAU	-.00278	RRT	-.2083	RRF	-.2076	RTF	.9815	CRT	.6767	CRS	-.6767	CST	-.9999
FDE	.9210	FRA	2.1090	FC3	.0201	BSP	18837	SGB	5619.4	RZS	.0026	RIS	-.9815	LSA	2752.8	MSA	192.4	SSA	9.3
BDE	4.1076	BRA	9.0993	BC3	.4017	FSP	-367	SG1	5611.1	SG2	305.1	THA	179.33	EL1	2636.2	EL2	192.4	ALF	3.87

LAUNCH DATE SEP 15 1970 FLIGHT TIME 70.00 ARRIVAL DATE NOV 24 1970

HELIOCENTRIC CONIC DISTANCE 178.454

RL	150.44	LAL	-.00	LOL	351.74	VL	25.678	GAL	-6.68	AZL	90.42	HCA	77.71	SMA	120.10	ECC	.27650	INC	.4214
RP	107.86	LAP	-.41	LOP	69.45	VP	36.823	GAP	-14.97	AZP	90.09	TAL	198.19	TAP	275.90	RCA	86.90	APO	153.31
RC	43.711	GL	-2.23	GP	-12.98	ZAL	121.48	ZAP	13.18	ETS	76.43	ZAE	152.18	ETE	337.78	ZAC	88.74	ETC	261.18

V1 29.618 V2 35.135 CLP -2.30

PLANETOCENTRIC CONIC

C3 23.288 VHL 4.826 DLA -19.95 RAL 227.16 RAD 6567.9 VEL 12.028 PTH 2.15 VHP 9.556 DPA -33.59 RAP 241.99 ECC 1.3832

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 45 9	1575.22	-.66	4.10	90.75	118.31	6 11 25	975.2	3.13	357.47
90.00	12 5 13	5570.94	28.26	260.06	98.67	91.84	13 38 4	4970.9	28.22	251.39
100.00	6 53 45	1353.85	-2.08	347.04	89.96	119.83	7 16 19	753.8	1.90	340.52
100.00	13 39 18	5267.54	29.89	237.77	98.71	90.36	15 7 5	4667.5	29.62	228.98
110.00	7 34 40	1225.64	-5.60	335.13	87.78	123.78	7 55 6	625.6	-1.12	328.91
110.00	15 14 53	4968.51	34.02	214.93	98.57	86.48	16 37 41	4368.5	33.16	205.79

DIFFERENTIAL CORRECTIONS

TDE	.1448	TRA	-.4330	TC3	.4371	BAU	.1475
RDE	-.3376	RRA	-.0741	RC3	-.1830	FAU	.02918
FDE	.0302	FRA	.0865	FC3	-1.0848	BSP	1920
BDE	.3673	BRA	.4393	BC3	.4738	FSP	-217

MID-COURSE EXECUTION ACCURACY

SGT	711.8	SGR	447.9	SG3	91.0		
RRT	-.2892	RRF	.3398	RTF	-.6606		
SGB	841.0	R23	-.0495	R13	.6768		
SG1	729.6	SG2	418.3	THA	164.46		

ORBIT DETERMINATION ACCURACY

ST	238.0	SR	401.9	SS	47.7
CRT	-.6730	CRS	.6503	CST	-.0277
LSA	439.1	MSA	164.5	SSA	24.3
EL1	438.3	EL2	161.4	ALF	115.42

LAUNCH DATE SEP 15 1970 FLIGHT TIME 72.00 ARRIVAL DATE NOV 26 1970

HELIOCENTRIC CONIC DISTANCE 185.257

RL	150.44	LAL	-.00	LOL	351.74	VL	25.909	GAL	-6.67	AZL	90.22	HCA	80.93	SMA	121.41	ECC	.26435	INC	.2244
RP	107.82	LAP	-.22	LOP	72.67	VP	36.995	GAP	-13.95	AZP	90.04	TAL	199.39	TAP	280.32	RCA	89.32	APO	153.51
RC	44.829	GL	-1.25	GP	-13.78	ZAL	123.22	ZAP	14.50	ETS	68.04	ZAE	150.37	ETE	336.72	ZAC	88.04	ETC	261.36

V1 29.618 V2 35.146 CLP -4.56

PLANETOCENTRIC CONIC

C3 21.539 VHL 4.641 DLA -18.54 RAL 225.69 RAD 6567.9 VEL 11.955 PTH 2.13 VHP 9.000 DPA -34.59 RAP 242.85 ECC 1.3545

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 23 48	1614.04	-1.91	6.27	87.72	118.26	5 50 42	1014.0	1.88	359.64
90.00	12 14 50	5494.29	28.30	254.45	95.16	89.03	13 46 24	4894.3	27.87	245.81
100.00	6 33 58	1387.60	-3.22	348.89	87.00	119.73	6 57 6	787.6	.76	342.37
100.00	13 47 20	5195.96	29.80	232.45	95.11	87.56	15 13 56	4596.0	29.14	223.71
110.00	7 17 53	1249.99	-6.52	336.42	84.96	123.63	7 38 43	650.0	-2.05	330.18
110.00	15 19 55	4906.33	33.66	210.11	94.76	83.65	16 41 41	4306.3	32.42	201.10

DIFFERENTIAL CORRECTIONS

TDE	.1384	TRA	-.4147	TC3	.5039	BAU	.1588
RDE	-.3200	RRA	-.0776	RC3	-.2241	FAU	.03151
FDE	.0588	FRA	.0898	FC3	-1.2664	BSP	2023
BDE	.3475	BRA	.4219	BC3	.5515	FSP	-248

MID-COURSE EXECUTION ACCURACY

SGT	733.6	SGR	457.8	SG3	102.1		
RRT	-.3239	RRF	.3821	RTF	-.6770		
SGB	864.7	R23	-.0579	R13	.6962		
SG1	755.6	SG2	420.5	THA	163.25		

ORBIT DETERMINATION ACCURACY

ST	233.2	SR	396.3	SS	66.2
CRT	-.6625	CRS	.8675	CST	-.3637
LSA	434.2	MSA	163.2	SSA	26.5
EL1	430.8	EL2	160.7	ALF	115.01

LAUNCH DATE SEP 15 1970 FLIGHT TIME 74.00 ARRIVAL DATE NOV 28 1970

HELIOCENTRIC CONIC DISTANCE 192.062

RL	150.44	LAL	-.00	LOL	351.74	VL	26.117	GAL	-6.67	AZL	90.03	HCA	84.15	SMA	122.63	ECC	.25346	INC	.0280
RP	107.79	LAP	-.03	LOP	75.89	VP	37.152	GAP	-12.96	AZP	90.00	TAL	200.61	TAP	284.76	RCA	91.55	APO	153.71
RC	46.073	GL	-.18	GP	-14.67	ZAL	124.96	ZAP	16.17	ETS	61.00	ZAE	148.75	ETE	335.51	ZAC	87.23	ETC	261.52

V1 29.618 V2 35.158 CLP -6.89

PLANETOCENTRIC CONIC

C3 20.098 VHL 4.483 DLA -17.03 RAL 224.26 RAD 6567.8 VEL 11.894 PTH 2.11 VHP 8.475 DPA -35.66 RAP 243.61 ECC 1.3308

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 2 45	1655.66	-3.25	8.59	84.95	118.15	5 30 21	1055.7	.54	1.96
90.00	12 24 29	5419.47	28.09	248.99	91.80	86.30	13 54 48	4819.5	27.28	240.42
100.00	6 14 20	1424.65	-4.47	350.93	84.27	119.59	6 38 5	824.7	-.50	344.40
100.00	13 55 35	5125.71	29.48	227.26	91.68	84.84	15 21 0	4525.7	28.46	218.60
110.00	7 1 6	1278.19	-7.58	337.91	82.36	123.43	7 22 24	678.2	-3.13	331.65
110.00	15 25 19	4844.94	33.10	205.41	91.15	80.92	16 46 4	4244.9	31.49	196.55

DIFFERENTIAL CORRECTIONS

TDE	.1244	TRA	-.3968	TC3	.5710	BAU	.1698
RDE	-.3024	RRA	-.0815	RC3	-.2711	FAU	.03412
FDE	.0940	FRA	.0505	FC3	-1.4698	BSP	2130
BDE	.3270	BRA	.4051	BC3	.6320	FSP	-284

MID-COURSE EXECUTION ACCURACY

SGT	754.1	SGR	469.3	SG3	114.5		
RRT	-.3619	RRF	.4286	RTF	-.6919		
SGB	888.2	R23	-.0674	R13	.7147		
SG1	781.4	SG2	422.2	THA	161.83		

ORBIT DETERMINATION ACCURACY

ST	225.4	SR	387.9	SS	93.8
CRT	-.6444	CRS	.9419	CST	-.5287
LSA	428.0	MSA	161.3	SSA	29.1
EL1	419.4	EL2	159.5	ALF	114.26

LAUNCH DATE SEP 15 1970 FLIGHT TIME 76.00 ARRIVAL DATE NOV 30 1970

HELIOCENTRIC CONIC DISTANCE 198.863

RL	150.44	LAL	-.00	LOL	351.74	VL	26.305	GAL	-6.69	AZL	89.84	HCA	87.37	SMA	123.76	ECC	.24376	INC	.1598
RP	107.76	LAP	.16	LOP	79.12	VP	37.294	GAP	-12.03	AZP	89.99	TAL	201.85	TAP	289.22	RCA	93.59	APO	153.92
RC	47.431	GL	.96	GP	-15.65	ZAL	126.66	ZAP	18.15	ETS	55.20	ZAE	147.31	ETE	334.13	ZAC	86.32	ETC	261.66

V1 29.618 V2 35.168 CLP -9.32

PLANETOCENTRIC CONIC

C3 18.916 VHL 4.349 DLA -15.44 RAL 222.90 RAD 6567.8 VEL 11.845 PTH 2.10 VHP 7.982 DPA -36.80 RAP 244.26 ECC 1.3113

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 42 11	1699.72	-4.66	11.06	82.44	117.96	5 10 31	1099.7	-.89	4.42
90.00	12 34 13	5346.69	27.66	243.71	88.66	83.68	14 3 20	4746.7	26.50	235.23
100.00	5 55 4	1464.55	-5.81	353.14	81.81	119.37	6 19 28	864.5	-1.85	346.59
100.00	14 4 1	5057.09	28.96	222.22	88.48	82.24	15 28 18	4457.1	27.58	213.69
110.00	6 44 29	1309.75	-8.76	339.60	80.01	123.17	7 6 19	709.8	-4.33	333.31
110.00	15 31 5	4784.65	32.36	200.86	87.80	78.33	16 50 50	4184.7	30.41	192.18

DIFFERENTIAL CORRECTIONS

TDE	.1118	TRA	-.3796	TC3	.6362	BAU	.1806
RDE	-.2842	RRA	-.0859	RC3	-.3245	FAU	.03705
FDE	.1370	FRA	.0288	FC3	-1.6957	BSP	2237
BDE	.3054	BRA	.3892	BC3	.7142	FSP	-325

MID-COURSE EXECUTION ACCURACY

SGT	772.7	SGR	483.4	SG3	128.4		
RRT	-.4029	RRF	.4790	RTF	-.7053		
SGB	911.4	R23	-.0781	R13	.7326		
SG1	807.0	SG2	423.6	THA	160.18		

ORBIT DETERMINATION ACCURACY

ST	214.9	SR	376.2	SS	128.4
CRT	-.6161	CRS	.9653	CST	-.6000
LSA	421.8	MSA	159.0	SSA	31.8
EL1	403.5	EL2	157.8	ALF	113.13

LAUNCH DATE SEP 15 1970 FLIGHT TIME 78.00 ARRIVAL DATE DEC 2 1970

HELIOCENTRIC CONIC DISTANCE 205.658

```
RL  150.44 LAL   -.00 LOL 351.74 VL  26.474 GAL  -6.71 AZL  89.65 HCA  90.60 SMA 124.79 ECC .23515 INC  .3510 V1  29.618
RP  107.72 LAP    .35 LOP  82.34 VP  37.423 GAP -11.13 AZP  90.00 TAL 203.07 TAP 293.67 RCA  95.45 APO 154.14 V2  35.179
RC  48.893 GL    2.18 GP  -16.74 ZAL 128.29 ZAP  20.40 ETS  50.43 ZAE 146.04 ETE 332.55 ZAC  85.29 ETC 261.77 CLP -11.84
```

PLANETOCENTRIC CONIC

```
C3  17.933 VHL  4.237 DLA -13.79 RAL 221.64 RAD 6567.7 VEL 11.804 PTH   2.09 VHP  7.519 DPA -38.02 RAP 244.77 ECC 1.2955
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 22 14	1745.85	-6.13	13.66	80.23	117.70	4 51 20	1145.8	-2.37	6.99
90.00	12 44 5	5276.08	27.03	238.64	85.77	81.22	14 12 1	4676.1	25.54	230.29
100.00	5 36 18	1506.86	-7.22	355.50	79.64	119.09	6 1 25	906.9	-3.28	348.92
100.00	14 12 42	4990.30	28.25	217.39	85.54	79.79	15 35 52	4390.3	26.55	209.00
110.00	6 28 14	1344.21	-10.04	341.45	77.93	122.85	6 50 38	744.2	-5.64	335.12
110.00	15 37 15	4725.71	31.46	198.50	84.74	75.89	16 56 1	4125.7	29.20	188.02

DIFFERENTIAL CORRECTIONS

```
TDE  .0978 TRA -.3634 TC3  .6065 BAU  .1910
RDE -.2651 RRA -.0807 RC3 -.3846 FAU .04030
FDE  .1991 FRA  .0047 FC3-1.9435 BSP   2339
BDE  .2826 BRA  .3746 BC3  .7957 FSP   -371
```

MID-COURSE EXECUTION ACCURACY

```
SGT  788.6 SGR  500.7 SG3  144.0
RRT -.4493 RRF  .5324 RTF -.7184
SGB  934.2 RZS -.0805 R13  .7495
SG1  831.9 SG2  425.1 THA 158.27
```

ORBIT DETERMINATION ACCURACY

```
ST   202.1 SR   360.7 SS   169.2
CRT -.5737 CRS  .9717 CST -.6199
LSA  417.0 MSA  156.4 SSA   34.6
EL1  382.9 EL2  155.9 ALF 111.57
```

LAUNCH DATE SEP 15 1970 FLIGHT TIME 80.00 ARRIVAL DATE DEC 4 1970

HELIOCENTRIC CONIC DISTANCE 212.443

```
RL  150.44 LAL   -.00 LOL 351.74 VL  26.626 GAL  -6.73 AZL  89.46 HCA  93.83 SMA 125.74 ECC .22754 INC  .5420 V1  29.618
RP  107.69 LAP    .54 LOP  85.57 VP  37.540 GAP -10.28 AZP  90.04 TAL 204.27 TAP 298.09 RCA  97.13 APO 154.35 V2  35.188
RC  50.451 GL    3.46 GP  -17.94 ZAL 129.82 ZAP  22.90 ETS  46.48 ZAE 144.95 ETE 330.74 ZAC  84.14 ETC 261.86 CLP -14.48
```

PLANETOCENTRIC CONIC

```
C3  17.176 VHL  4.144 DLA -12.09 RAL 220.49 RAD 6567.7 VEL 11.771 PTH   2.08 VHP  7.086 DPA -39.33 RAP 245.11 ECC 1.2827
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 3 0	1793.00	-7.63	16.37	78.32	117.35	4 32 54	1193.7	-3.91	9.67
90.00	12 54 7	5207.60	26.22	233.79	83.15	78.92	14 20 55	4607.7	24.43	225.58
100.00	5 18 11	1551.17	-8.67	357.98	77.76	118.72	5 44 2	951.2	-4.78	351.36
100.00	14 21 38	4925.45	27.38	212.76	82.88	77.51	15 43 43	4325.4	25.38	204.53
110.00	6 12 29	1301.09	-11.39	343.44	76.13	122.45	6 35 30	701.1	-7.03	337.07
110.00	15 43 40	4660.29	30.43	192.34	81.98	73.63	17 1 37	4068.3	27.89	184.07

DIFFERENTIAL CORRECTIONS

```
TDE  .0888 TRA -.3484 TC3  .7495 BAU  .2010
RDE -.2446 RRA -.0980 RC3 -.4518 FAU .04391
FDE  .2516 FRA -.0216 FC3-2.2132 BSP   2436
BDE  .2582 BRA  .3614 BC3  .8752 FSP   -423
```

MID-COURSE EXECUTION ACCURACY

```
SGT  801.1 SGR  522.6 SG3  181.3
RRT -.4883 RRF  .5077 RTF -.7252
SGB  956.4 RZS -.1043 R13  .7660
SG1  855.9 SG2  426.8 THA 156.02
```

ORBIT DETERMINATION ACCURACY

```
ST   187.7 SR   340.8 SS   215.7
CRT -.5130 CRS  .9715 CST -.6058
LSA  415.8 MSA  153.7 SSA   37.3
EL1  357.5 EL2  153.6 ALF 109.53
```

LAUNCH DATE SEP 15 1970 FLIGHT TIME 82.00 ARRIVAL DATE DEC 6 1970

HELIOCENTRIC CONIC DISTANCE 219.215

```
RL  150.44 LAL   -.00 LOL 351.74 VL  26.761 GAL  -6.75 AZL  89.27 HCA  97.06 SMA 126.61 ECC .22094 INC  .7346 V1  29.618
RP  107.67 LAP    .73 LOP  88.80 VP  37.644 GAP  -9.46 AZP  90.09 TAL 205.42 TAP 302.48 RCA  98.65 APO 154.57 V2  35.198
RC  52.096 GL    4.80 GP  -19.28 ZAL 131.21 ZAP  25.64 ETS  43.18 ZAE 144.00 ETE 328.66 ZAC  82.84 ETC 261.92 CLP -17.24
```

PLANETOCENTRIC CONIC

```
C3  16.555 VHL  4.089 DLA -10.36 RAL 219.47 RAD 6567.7 VEL 11.745 PTH   2.07 VHP  6.683 DPA -40.73 RAP 245.26 ECC 1.2724
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 44 36	1842.93	-9.16	19.18	76.72	116.91	4 15 19	1242.9	-5.48	12.43
90.00	13 4 23	5141.52	25.28	229.18	80.84	76.79	14 30 4	4541.5	23.21	221.12
100.00	5 0 47	1597.10	-10.17	.57	76.19	118.26	5 27 25	997.1	-6.31	353.90
100.00	14 30 52	4862.58	26.38	208.36	80.53	75.40	15 51 55	4262.6	24.11	200.29
110.00	5 57 21	1419.98	-12.80	345.57	74.63	121.97	6 21 1	820.0	-8.49	339.13
110.00	15 50 48	4612.47	29.30	188.39	79.55	71.54	17 7 40	4012.5	26.50	180.33

DIFFERENTIAL CORRECTIONS

```
TDE  .0801 TRA -.3417 TC3  .7764 BAU  .2073
RDE -.2209 RRA -.1006 RC3 -.5238 FAU .04760
FDE  .3318 FRA -.0440 FC3-2.4895 BSP   2376
BDE  .2290 BRA  .3562 BC3  .9366 FSP   -470
```

MID-COURSE EXECUTION ACCURACY

```
SGT  803.5 SGR  547.0 SG3  179.7
RRT -.5124 RRF  .6391 RTF -.7238
SGB  972.0 RZS -.1307 R13  .7774
SG1  869.8 SG2  433.9 THA 153.78
```

ORBIT DETERMINATION ACCURACY

```
ST   170.5 SR   314.3 SS   272.3
CRT -.3777 CRS  .9699 CST -.5122
LSA  420.5 MSA  153.8 SSA   38.8
EL1  322.9 EL2  153.7 ALF 105.06
```

LAUNCH DATE SEP 15 1970 FLIGHT TIME 84.00 ARRIVAL DATE DEC 8 1970

HELIOCENTRIC CONIC DISTANCE 225.970

```
RL  150.44 LAL   -.00 LOL 351.74 VL  26.881 GAL  -6.78 AZL  89.07 HCA 100.29 SMA 127.39 ECC .21497 INC  .9300 V1  29.618
RP  107.64 LAP    .92 LOP  92.04 VP  37.738 GAP  -8.67 AZP  90.17 TAL 206.52 TAP 306.81 RCA 100.00 APO 154.77 V2  35.206
RC  53.818 GL    6.21 GP  -20.75 ZAL 132.46 ZAP  28.62 ETS  40.37 ZAE 143.19 ETE 326.28 ZAC  81.39 ETC 261.94 CLP -20.16
```

PLANETOCENTRIC CONIC

```
C3  16.080 VHL  4.009 DLA  -8.60 RAL 218.58 RAD 6567.6 VEL 11.724 PTH   2.07 VHP  6.309 DPA -42.23 RAP 245.18 ECC 1.2644
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 26 39	1883.41	-10.70	22.08	75.43	116.37	3 58 33	1293.4	-7.08	15.28
90.00	13 14 56	5077.43	24.21	224.79	78.82	74.84	14 39 34	4477.4	21.89	216.88
100.00	4 44 9	1644.48	-11.68	3.27	74.92	117.71	5 11 34	1044.5	-7.88	356.55
100.00	14 40 27	4801.60	25.26	204.17	78.49	73.46	16 0 29	4201.6	22.75	196.27
110.00	5 42 32	1480.61	-14.26	347.82	73.42	121.40	6 7 13	860.6	-10.00	341.31
110.00	15 38 14	4558.23	28.07	184.65	77.45	69.64	17 14 12	3958.2	25.04	176.78

DIFFERENTIAL CORRECTIONS

```
TDE  .0480 TRA -.3253 TC3  .8184 BAU  .2190
RDE -.1964 RRA -.1074 RC3 -.6080 FAU .05209
FDE  .4155 FRA -.0775 FC3-2.8086 BSP   2576
BDE  .2024 BRA  .3428 BC3 1.0195 FSP   -542
```

MID-COURSE EXECUTION ACCURACY

```
SGT  810.3 SGR  583.6 SG3  201.3
RRT -.5634 RRF  .6969 RTF -.7321
SGB  996.6 RZS -.1376 R13  .7972
SG1  899.1 SG2  434.5 THA 150.34
```

ORBIT DETERMINATION ACCURACY

```
ST   158.7 SR   285.0 SS   326.4
CRT -.2950 CRS  .9624 CST -.4729
LSA  434.5 MSA  149.9 SSA   40.3
EL1  290.2 EL2  148.9 ALF 102.73
```

LAUNCH DATE SEP 15 1970 FLIGHT TIME 86.00 ARRIVAL DATE DEC 10 1970

HELIOCENTRIC CONIC DISTANCE 232.707

RL	150.44	LAL	-.00	LOL	351.74	VL	26.986	GAL	-6.80	AZL	88.87	HCA	103.52	SMA	128.09	ECC	.20984	INC	1.1295	V1	29.618
RP	107.61	LAP	1.10	LOP	95.27	VP	37.821	GAP	-7.92	AZP	90.26	TAL	207.55	TAP	311.07	RCA	101.21	APO	154.97	V2	35.214
RC	55.612	GL	7.66	GP	-22.38	ZAL	133.54	ZAP	31.83	ETS	37.90	ZAE	142.48	ETE	323.55	ZAC	79.78	ETC	261.91	CLP	-23.25

PLANETOCENTRIC CONIC

C3	15.697	VHL	3.962	DLA	-6.83	RAL	217.85	RAD	6567.6	VEL	11.708	PTH	2.06	VHP	5.966	DPA	-43.85	RAP	244.83	ECC	1.2583

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 10 14	1944.94	-12.25	25.06	74.44	115.73	3 42 39	1344.9	-8.68	18.22
90.00	13 25 51	5015.28	23.04	220.61	77.12	73.06	14 49 26	4415.3	20.50	212.86
100.00	4 28 19	1693.04	-13.20	6.06	73.95	117.06	4 56 32	1093.0	-9.47	359.28
100.00	14 50 27	4742.41	24.05	200.19	76.77	71.70	16 9 30	4142.4	21.33	192.45
110.00	5 29 6	1502.69	-15.73	350.19	72.51	120.75	5 54 9	902.7	-11.54	343.59
110.00	16 6 9	4505.52	26.77	181.10	75.66	67.90	17 21 14	3905.5	23.53	173.43

DIFFERENTIAL CORRECTIONS

TDE	.0356	TRA	-.3137	TC3	.8396	BAU	.2294
RDE	-.1681	RRA	-.1142	RC3	-.6998	FAU	.05683
FDE	.5156	FRA	-.1099	FC3	-3.1345	BSP	2712
BDE	.1718	BRA	.3339	BC3	1.0930	FSP	-617

MID-COURSE EXECUTION ACCURACY

SGT	808.7	SGR	627.9	SG3	224.5		
RRT	-.6015	RRF	.7495	RTF	-.7333		
SGB	1023.9	RZ3	-.1490	R13	.8152		
SG1	925.3	SG2	438.4	THA	146.52		

ORBIT DETERMINATION ACCURACY

ST	147.8	SR	248.7	SS	387.1
CRT	-.1637	CRS	.9511	CST	-.3921
LSA	458.3	NSA	147.8	SSA	40.4
EL1	250.5	EL2	144.8	ALF	98.37

LAUNCH DATE SEP 15 1970 FLIGHT TIME 88.00 ARRIVAL DATE DEC 12 1970

HELIOCENTRIC CONIC DISTANCE 239.423

RL	150.44	LAL	-.00	LOL	351.74	VL	27.079	GAL	-6.82	AZL	88.67	HCA	106.76	SMA	128.71	ECC	.20538	INC	1.3346	V1	29.618
RP	107.59	LAP	1.28	LOP	98.51	VP	37.894	GAP	-7.19	AZP	90.38	TAL	208.49	TAP	315.25	RCA	102.28	APO	155.15	V2	35.222
RC	57.469	GL	9.18	GP	-24.17	ZAL	134.42	ZAP	35.28	ETS	35.67	ZAE	141.84	ETE	320.44	ZAC	77.99	ETC	261.83	CLP	-26.52

PLANETOCENTRIC CONIC

C3	15.423	VHL	3.927	DLA	-5.04	RAL	217.28	RAD	6567.6	VEL	11.696	PTH	2.06	VHP	5.654	DPA	-45.58	RAP	244.17	ECC	1.2538

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 54 17	1997.46	-13.78	28.18	73.76	114.99	3 27 34	1397.5	-10.30	21.23
90.00	13 37 13	4954.82	21.78	216.62	75.73	71.45	14 59 47	4354.8	19.05	209.02
100.00	4 13 15	1742.71	-14.72	8.98	73.29	116.31	4 42 18	1142.7	-11.07	2.10
100.00	15 0 55	4684.81	22.77	196.39	75.36	70.09	16 19 0	4084.8	19.85	188.81
110.00	5 16 4	1546.07	-17.23	352.66	71.90	119.99	5 41 50	946.1	-13.11	345.97
110.00	16 14 36	4454.20	25.41	177.73	74.20	66.33	17 26 51	3854.2	21.99	170.25

DIFFERENTIAL CORRECTIONS

TDE	.0286	TRA	-.3058	TC3	.8411	BAU	.2393
RDE	-.1352	RRA	-.1209	RC3	-.7998	FAU	.06180
FDE	.6522	FRA	-.1406	FC3	-3.4669	BSP	2825
BDE	.1371	BRA	.3289	BC3	1.1607	FSP	-696

MID-COURSE EXECUTION ACCURACY

SGT	798.8	SGR	681.9	SG3	249.2		
RRT	-.6282	RRF	.7964	RTF	-.7280		
SGB	1050.3	RZ3	-.1600	R13	.8333		
SG1	951.1	SG2	445.6	THA	142.10		

ORBIT DETERMINATION ACCURACY

ST	139.8	SR	205.2	SS	453.4
CRT	.0093	CRS	.9303	CST	-.2859
LSA	494.0	NSA	146.9	SSA	39.2
EL1	205.2	EL2	139.8	ALF	89.33

LAUNCH DATE SEP 15 1970 FLIGHT TIME 90.00 ARRIVAL DATE DEC 14 1970

HELIOCENTRIC CONIC DISTANCE 246.117

RL	150.44	LAL	-.00	LOL	351.74	VL	27.160	GAL	-6.83	AZL	88.45	HCA	109.99	SMA	129.26	ECC	.20152	INC	1.5469	V1	29.618
RP	107.57	LAP	1.45	LOP	101.74	VP	37.958	GAP	-8.50	AZP	90.53	TAL	209.35	TAP	319.34	RCA	103.21	APO	155.31	V2	35.229
RC	59.382	GL	10.75	GP	-26.13	ZAL	135.10	ZAP	38.96	ETS	33.58	ZAE	141.22	ETE	316.90	ZAC	76.03	ETC	261.68	CLP	-29.99

PLANETOCENTRIC CONIC

C3	15.236	VHL	3.903	DLA	-3.23	RAL	216.86	RAD	6567.6	VEL	11.688	PTH	2.06	VHP	5.374	DPA	-47.41	RAP	243.14	ECC	1.2507

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 39 6	2051.03	-15.29	31.38	73.38	114.12	3 13 17	1451.0	-11.91	24.34
90.00	13 49 6	4895.75	20.45	212.80	74.64	69.98	15 10 42	4295.7	17.54	205.34
100.00	3 58 56	1793.51	-16.23	12.00	72.93	115.45	4 28 49	1193.5	-12.67	5.02
100.00	15 11 57	4628.51	21.42	192.76	74.25	68.63	16 29 6	4028.5	18.33	185.33
110.00	5 3 42	1590.72	-18.73	355.26	71.58	119.13	5 30 13	990.7	-14.70	348.45
110.00	16 23 40	4404.06	24.00	174.52	73.05	64.89	17 37 4	3804.1	20.42	167.21

DIFFERENTIAL CORRECTIONS

TDE	.0115	TRA	-.3012	TC3	.8216	BAU	.2494
RDE	-.0970	RRA	-.1275	RC3	-.9080	FAU	.06691
FDE	.7854	FRA	-.1692	FC3	-3.8018	BSP	2930
BDE	.0977	BRA	.3271	BC3	1.2246	FSP	-779

MID-COURSE EXECUTION ACCURACY

SGT	779.6	SGR	746.9	SG3	275.0		
RRT	-.6424	RRF	.8372	RTF	-.7150		
SGB	1079.7	RZ3	-.1662	R13	.8525		
SG1	978.6	SG2	456.0	THA	136.91		

ORBIT DETERMINATION ACCURACY

ST	135.3	SR	154.5	SS	524.4
CRT	.2228	CRS	.8814	CST	-.1778
LSA	542.5	NSA	146.6	SSA	37.0
EL1	162.9	EL2	125.2	ALF	60.45

LAUNCH DATE SEP 15 1970 FLIGHT TIME 92.00 ARRIVAL DATE DEC 16 1970

HELIOCENTRIC CONIC DISTANCE 252.786

RL	150.44	LAL	-.00	LOL	351.74	VL	27.230	GAL	-6.84	AZL	88.23	HCA	113.23	SMA	129.74	ECC	.19818	INC	1.7682	V1	29.618
RP	107.55	LAP	1.62	LOP	104.98	VP	38.014	GAP	-5.83	AZP	90.70	TAL	210.10	TAP	323.33	RCA	104.03	APO	155.45	V2	35.235
RC	61.346	GL	12.39	GP	-28.25	ZAL	135.57	ZAP	42.87	ETS	31.55	ZAE	140.56	ETE	312.93	ZAC	73.87	ETC	261.47	CLP	-33.69

PLANETOCENTRIC CONIC

C3	15.126	VHL	3.889	DLA	-1.42	RAL	216.61	RAD	6567.6	VEL	11.684	PTH	2.05	VHP	5.126	DPA	-49.35	RAP	241.68	ECC	1.2489

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 24 35	2105.84	-16.79	34.71	73.30	113.14	2 59 41	1505.8	-13.51	27.57
90.00	14 1 37	4837.68	19.06	209.11	73.85	68.65	15 22 15	4237.7	15.99	201.78
100.00	3 45 18	1845.58	-17.73	15.14	72.87	114.47	4 16 2	1245.6	-14.28	8.05
100.00	15 23 37	4573.18	20.01	189.26	73.44	67.31	16 39 50	3973.2	16.76	181.97
110.00	4 52 0	1636.68	-20.23	357.98	71.56	118.16	5 19 17	1036.7	-16.31	351.05
110.00	16 33 23	4354.84	22.54	171.44	72.20	63.60	17 45 57	3754.8	18.81	164.29

DIFFERENTIAL CORRECTIONS

TDE	.0039	TRA	-.3000	TC3	.7800	BAU	.2603
RDE	-.0523	RRA	-.1336	RC3	-1.0238	FAU	.07200
FDE	.9148	FRA	-.1931	FC3	-4.1209	BSP	3038
BDE	.0524	BRA	.3284	BC3	1.2871	FSP	-863

MID-COURSE EXECUTION ACCURACY

SGT	750.7	SGR	823.9	SG3	301.4		
RRT	-.6412	RRF	.8714	RTF	-.6916		
SGB	1114.6	RZ3	-.1643	R13	.8731		
SG1	1010.9	SG2	469.5	THA	130.87		

ORBIT DETERMINATION ACCURACY

ST	134.0	SR	100.0	SS	599.4
CRT	.5192	CRS	.7131	CST	-.0952
LSA	603.8	NSA	146.6	SSA	34.2
EL1	148.3	EL2	77.2	ALF	30.11

LAUNCH DATE SEP 15 1970 FLIGHT TIME 94.00 ARRIVAL DATE DEC 18 1970

HELIOCENTRIC CONIC DISTANCE 259.431

RL 150.44 LAL -.00 LOL 351.74 VL 27.289 GAL -6.84 AZL 88.00 HCA 116.47 SMA 130.16 ECC .19530 INC 2.0006 V1 29.618
RP 107.53 LAP 1.79 LOP 108.23 VP 38.061 GAP -5.19 AZP 90.89 TAL 210.75 TAP 327.22 RCA 104.74 APO 155.57 V2 35.240
RC 63.355 GL 14.09 GP -30.55 ZAL 135.82 ZAP 47.00 ETS 29.49 ZAE 139.80 ETE 308.52 ZAC 71.54 ETC 261.18 CLP -37.63

PLANETOCENTRIC CONIC

C3 15.086 VHL 3.884 DLA .42 RAL 216.53 RAD 6567.6 VEL 11.682 PTH 2.05 VHP 4.912 DPA -51.37 RAP 239.74 ECC 1.2483

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 10 39	2162.16	-18.26	38.19	73.52	112.02	2 46 42	1562.2	-15.12	30.93
90.00	14 14 54	4780.20	17.59	205.53	73.36	67.45	15 34 34	4180.2	14.38	198.32
100.00	3 32 12	1899.15	-19.21	18.43	73.10	113.36	4 3 51	1299.1	-15.88	11.22
100.00	15 36 3	4518.45	18.53	185.86	72.93	66.12	16 51 21	3918.4	15.15	178.70
110.00	4 40 53	1684.13	-21.73	.84	71.84	117.06	5 8 57	1084.1	-17.92	353.78
110.00	16 43 51	4306.23	21.04	168.46	71.65	62.42	17 55 37	3706.2	17.18	161.46

DIFFERENTIAL CORRECTIONS

TDE -.0011 TRA -.3048 TC3 .7077 BAU .2711
RDE .0011 RRA -.1374 RC3-1.1428 FAU .07664
FDE 1.0836 FRA -.2050 FC3-4.3980 BSP 3106
BDE .0016 BRA .3343 BC3 1.3442 FSP -936

MID-COURSE EXECUTION ACCURACY

SGT 710.2 SGR 910.6 SGS 326.9
RRT -.6130 RRF .0988 RTF -.6493
SGB 1154.8 RZS -.1503 RIS .8947
SGI 1046.8 SGZ 487.8 THA 123.87

ORBIT DETERMINATION ACCURACY

ST 135.9 SR 66.4 SS 680.8
CRT .8590 CRS -.1016 CST -.0360
LSA 680.9 MSA 147.8 SSA 30.8
EL1 148.0 EL2 31.1 ALF 23.91

LAUNCH DATE SEP 15 1970 FLIGHT TIME 96.00 ARRIVAL DATE DEC 20 1970

HELIOCENTRIC CONIC DISTANCE 266.050

RL 150.44 LAL -.00 LOL 351.74 VL 27.339 GAL -6.84 AZL 87.75 HCA 119.71 SMA 130.50 ECC .19282 INC 2.2465 V1 29.618
RP 107.52 LAP 1.95 LOP 111.47 VP 38.102 GAP -4.57 AZP 91.11 TAL 211.30 TAP 331.00 RCA 105.34 APO 155.67 V2 35.245
RC 65.403 GL 15.88 GP -33.00 ZAL 135.85 ZAP 51.33 ETS 27.32 ZAE 138.89 ETE 303.68 ZAC 69.02 ETC 260.79 CLP -41.83

PLANETOCENTRIC CONIC

C3 15.117 VHL 3.888 DLA 2.28 RAL 216.62 RAD 6567.6 VEL 11.683 PTH 2.05 VHP 4.734 DPA -53.45 RAP 237.22 ECC 1.2488

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 57 9	2220.43	-19.71	41.85	74.04	110.75	2 34 10	1620.4	-16.71	34.46
90.00	14 29 4	4722.82	16.06	202.02	73.15	66.36	15 47 47	4122.8	12.73	194.92
100.00	3 19 34	1954.63	-20.67	21.91	73.64	112.09	3 52 8	1354.6	-17.49	14.55
100.00	15 49 21	4463.86	16.99	182.53	72.71	65.03	17 3 45	3863.9	13.49	175.50
110.00	4 30 15	1733.30	-23.22	3.89	72.42	115.82	4 59 8	1133.4	-19.55	356.67
110.00	16 55 9	4257.87	19.49	165.57	71.39	61.34	18 6 7	3657.9	15.51	158.71

DIFFERENTIAL CORRECTIONS

TDE .0079 TRA -.3081 TC3 .6290 BAU .2873
RDE .0994 RRA -.1429 RC3-1.2747 FAU .08147
FDE 1.2487 FRA -.2222 FC3-4.6656 BSP 3364
BDE .0599 BRA .3378 BC3 1.4214 FSP -1034

MID-COURSE EXECUTION ACCURACY

SGT 665.7 SGR 1017.1 SGS 352.6
RRT -.5740 RRF .9217 RTF -.5908
SGB 1215.6 RZS -.1279 RIS .9159
SGI 1107.8 SGZ 500.5 THA 116.37

ORBIT DETERMINATION ACCURACY

ST 136.7 SR 112.0 SS 755.0
CRT .5969 CRS -.8249 CST -.1309
LSA 760.9 MSA 146.5 SSA 28.4
EL1 158.9 EL2 77.3 ALF 35.71

LAUNCH DATE SEP 15 1970 FLIGHT TIME 98.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 272.641

RL 150.44 LAL -.00 LOL 351.74 VL 27.380 GAL -6.83 AZL 87.49 HCA 122.94 SMA 130.79 ECC .19071 INC 2.5089 V1 29.618
RP 107.51 LAP 2.11 LOP 114.71 VP 38.135 GAP -3.98 AZP 91.36 TAL 211.73 TAP 334.67 RCA 105.85 APO 155.74 V2 35.249
RC 67.486 GL 17.76 GP -35.59 ZAL 135.64 ZAP 55.82 ETS 24.97 ZAE 137.76 ETE 298.47 ZAC 66.35 ETC 260.31 CLP -46.30

PLANETOCENTRIC CONIC

C3 15.216 VHL 3.901 DLA 4.19 RAL 216.87 RAD 6567.6 VEL 11.688 PTH 2.06 VHP 4.592 DPA -55.55 RAP 234.08 ECC 1.2504

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 43 57	2281.20	-21.13	45.75	74.88	109.30	2 21 59	1681.2	-18.30	38.21
90.00	14 44 19	4685.00	14.45	198.53	73.25	65.38	16 2 4	4065.0	11.01	191.55
100.00	3 7 16	2012.50	-22.10	25.60	74.50	110.65	3 40 48	1412.5	-19.09	18.10
100.00	16 3 42	4408.93	15.39	179.25	72.79	64.05	17 17 10	3808.9	11.77	172.32
110.00	4 20 1	1784.81	-24.71	7.14	73.32	114.41	4 49 45	1184.8	-21.20	359.75
110.00	17 7 26	4209.38	17.88	162.73	71.42	60.37	18 17 35	3609.4	13.80	155.99

DIFFERENTIAL CORRECTIONS

TDE .0227 TRA -.3142 TC3 .5157 BAU .3041
RDE .1286 RRA -.1443 RC3-1.4030 FAU .08522
FDE 1.4268 FRA -.2211 FC3-4.8485 BSP 3583
BDE .1305 BRA .3457 BC3 1.4948 FSP -1110

MID-COURSE EXECUTION ACCURACY

SGT 614.0 SGR 1130.9 SGS 374.7
RRT -.4835 RRF .9390 RTF -.4887
SGB 1286.8 RZS -.0955 RIS .9350
SGI 1179.0 SGZ 515.6 THA 108.33

ORBIT DETERMINATION ACCURACY

ST 143.3 SR 202.0 SS 833.7
CRT .5096 CRS -.9559 CST -.2726
LSA 856.8 MSA 146.6 SSA 25.6
EL1 220.4 EL2 113.0 ALF 62.25

LAUNCH DATE SEP 15 1970 FLIGHT TIME 100.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 279.205

RL 150.44 LAL -.00 LOL 351.74 VL 27.414 GAL -6.81 AZL 87.21 HCA 126.18 SMA 131.03 ECC .18890 INC 2.7913 V1 29.618
RP 107.50 LAP 2.25 LOP 117.96 VP 38.162 GAP -3.41 AZP 91.65 TAL 212.05 TAP 338.24 RCA 106.28 APO 155.78 V2 35.253
RC 69.600 GL 19.75 GP -38.30 ZAL 135.19 ZAP 60.43 ETS 22.39 ZAE 136.36 ETE 292.98 ZAC 63.54 ETC 259.71 CLP -51.04

PLANETOCENTRIC CONIC

C3 15.390 VHL 3.923 DLA 6.14 RAL 217.30 RAD 6567.6 VEL 11.695 PTH 2.06 VHP 4.490 DPA -57.62 RAP 230.24 ECC 1.2533

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 30 51	2345.20	-22.51	49.93	76.05	107.65	2 9 57	1745.2	-19.88	42.24
90.00	15 0 50	4806.11	12.75	195.04	73.86	64.50	16 17 36	4006.1	9.21	188.15
100.00	2 55 7	2073.43	-23.51	29.58	75.69	109.01	3 29 40	1473.4	-20.70	21.91
100.00	16 19 16	4353.11	13.70	175.96	73.18	63.17	17 31 49	3753.1	9.99	169.14
110.00	4 10 2	1838.96	-26.18	10.66	74.56	112.80	4 40 41	1230.0	-22.86	3.07
110.00	17 20 50	4160.34	16.21	159.91	71.76	59.48	18 30 10	3560.3	12.04	153.29

DIFFERENTIAL CORRECTIONS

TDE .0497 TRA -.3891 TC3 .3777 BAU .3236
RDE .2071 RRA -.1421 RC3-1.5269 FAU .08788
FDE 1.6029 FRA -.2084 FC3-4.9438 BSP 3853
BDE .2130 BRA .3548 BC3 1.5729 FSP -1172

MID-COURSE EXECUTION ACCURACY

SGT 566.7 SGR 1253.1 SGS 392.3
RRT -.3285 RRF .9523 RTF -.3243
SGB 1375.3 RZS -.0593 RIS .9505
SGI 1269.8 SGZ 528.2 THA 100.24

ORBIT DETERMINATION ACCURACY

ST 160.9 SR 311.0 SS 910.0
CRT .6123 CRS -.9843 CST -.4825
LSA 963.7 MSA 146.8 SSA 22.9
EL1 328.8 EL2 120.3 ALF 69.57

LAUNCH DATE SEP 15 1970 FLIGHT TIME 102.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 285.741

RL	150.44	LAL	-.00	LOL	351.74	VL	27.439	GAL	-6.78	AZL	86.90	HCA	129.42	SMA	131.21	ECC	.18736	INC	3.0981
RP	107.49	LAP	2.39	LOP	121.20	VP	38.183	GAP	-2.06	AZP	91.97	TAL	212.27	TAP	341.69	RCA	106.63	APO	155.80
RC	71.740	GL	21.86	GP	-41.08	ZAL	134.50	ZAP	65.10	ETS	19.50	ZAE	134.66	ETE	287.31	ZAC	60.62	ETC	259.00

V1 29.618 V2 35.255 CLP -56.04

PLANETOCENTRIC CONIC

C3	15.648	VHL	3.956	DLA	8.17	RAL	217.91	RAD	6567.6	VEL	11.706	PTH	2.06	VHP	4.429	DPA	-59.60	RAP	225.68

ECC 1.2575

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 17 38	2413.37	-23.84	54.48	77.57	105.74	1 57 51	1813.4	-21.45	46.62
90.00	15 18 54	4545.45	10.95	191.50	74.39	63.72	16 34 40	3945.4	7.33	184.69
100.00	2 42 55	2138.28	-24.88	35.91	77.23	107.13	3 18 34	1538.3	-22.30	26.07
100.00	16 36 18	4295.77	11.91	172.64	73.89	62.38	17 47 53	3695.8	8.12	165.91
110.00	4 0 10	1898.53	-27.64	14.49	76.17	110.96	4 31 47	1296.5	-24.54	6.70
110.00	17 35 32	4110.29	14.46	157.09	72.41	58.68	18 44 2	3510.3	10.20	150.57

DIFFERENTIAL CORRECTIONS

TDE	.0916	TRA	-.3384	TC3	.2160	BAU	.3458
RDE	.2956	RRA	-.1350	RC3	-1.6388	FAU	.08912
FDE	1.7703	FRA	-.1763	FC3	-4.9307	BSP	4174
BDE	.3094	BRA	.3643	BC3	1.6529	FSP	-1216

MID-COURSE EXECUTION ACCURACY

SGT	540.3	SGR	1379.6	SGS	403.9		
RRT	-.0898	RRF	.9622	RTF	-.0786		
SGB	1481.6	RZS	-.0234	RIS	.9620		
SGI	1380.6	SGZ	537.7	THA	92.37		

ORBIT DETERMINATION ACCURACY

ST	199.2	SR	433.9	SS	982.7
CRT	.7565	CRS	-.9933	CST	-.6863
LSA	1082.4	NSA	147.3	SSA	20.4
EL1	461.5	EL2	122.5	ALF	69.32

LAUNCH DATE SEP 15 1970 FLIGHT TIME 104.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 292.249

RL	150.44	LAL	-.00	LOL	351.74	VL	27.458	GAL	-6.74	AZL	86.57	HCA	132.66	SMA	131.35	ECC	.18605	INC	3.4349
RP	107.48	LAP	2.53	LOP	124.45	VP	38.198	GAP	-2.33	AZP	92.33	TAL	212.38	TAP	345.03	RCA	106.91	APO	155.78
RC	73.903	GL	24.10	GP	-43.92	ZAL	133.56	ZAP	69.75	ETS	16.29	ZAE	132.65	ETE	281.56	ZAC	57.62	ETC	258.17

V1 29.618 V2 35.257 CLP -61.28

PLANETOCENTRIC CONIC

C3	16.008	VHL	4.001	DLA	10.27	RAL	218.70	RAD	6567.6	VEL	11.721	PTH	2.07	VHP	4.411	DPA	-61.45	RAP	220.37

ECC 1.2634

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 3 50	2486.95	-25.11	59.50	79.47	103.54	1 45 26	1886.9	-23.00	51.46
90.00	15 38 51	4482.15	9.02	187.85	75.48	63.04	16 53 33	3882.1	5.33	181.12
100.00	2 30 26	2208.15	-26.20	38.69	79.17	104.94	3 7 14	1608.2	-23.89	30.65
100.00	16 55 6	4236.16	10.01	169.24	74.95	61.69	18 5 42	3636.2	6.15	162.58
110.00	3 50 15	1958.39	-29.08	18.74	78.18	108.82	4 22 53	1358.4	-26.23	10.71
110.00	17 51 46	4058.69	12.61	154.23	73.41	57.96	18 59 25	3458.7	8.29	147.80

DIFFERENTIAL CORRECTIONS

TDE	.1810	TRA	-.3536	TC3	.0327	BAU	.3698
RDE	.3947	RRA	-.1202	RC3	-1.7278	FAU	.08054
FDE	1.9241	FRA	-.1270	FC3	-4.7887	BSP	4516
BDE	.4226	BRA	.3735	BC3	1.7282	FSP	-1228

MID-COURSE EXECUTION ACCURACY

SGT	558.9	SGR	1503.9	SGS	408.1		
RRT	.2095	RRF	.9896	RTF	.2238		
SGB	1604.3	RZS	.0103	RIS	.9698		
SGI	1509.1	SGZ	544.6	THA	84.88		

ORBIT DETERMINATION ACCURACY

ST	265.7	SR	569.2	SS	1051.4
CRT	.8615	CRS	-.9969	CST	-.8245
LSA	1215.6	NSA	148.6	SSA	18.0
EL1	615.6	EL2	124.7	ALF	67.10

LAUNCH DATE SEP 15 1970 FLIGHT TIME 106.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 298.729

RL	150.44	LAL	-.00	LOL	351.74	VL	27.471	GAL	-6.69	AZL	86.19	HCA	135.89	SMA	131.44	ECC	.18495	INC	3.8088
RP	107.48	LAP	2.65	LOP	127.70	VP	38.209	GAP	-1.82	AZP	92.74	TAL	212.38	TAP	348.27	RCA	107.13	APO	155.75
RC	76.087	GL	26.51	GP	-46.77	ZAL	132.37	ZAP	74.30	ETS	12.70	ZAE	130.32	ETE	275.83	ZAC	54.59	ETC	257.20

V1 29.618 V2 35.258 CLP -66.73

PLANETOCENTRIC CONIC

C3	16.491	VHL	4.061	DLA	12.48	RAL	219.68	RAD	6567.7	VEL	11.742	PTH	2.07	VHP	4.440	DPA	-63.10	RAP	214.36

ECC 1.2714

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 49 33	2567.52	-26.27	65.11	81.80	100.96	1 32 20	1967.5	-24.50	56.89
90.00	16 1 7	4415.17	6.93	184.04	76.97	62.48	17 14 42	3815.2	3.19	177.36
100.00	2 17 18	2284.49	-27.42	44.03	81.53	102.39	2 55 22	1684.5	-25.44	35.79
100.00	17 16 2	4173.42	7.96	165.71	76.41	61.09	18 25 36	3573.4	4.04	159.11
110.00	3 40 1	2025.68	-30.46	23.49	80.65	106.32	4 13 46	1425.7	-27.92	15.21
110.00	18 9 49	4005.00	10.65	151.31	74.78	57.35	19 16 34	3405.0	6.27	144.95

DIFFERENTIAL CORRECTIONS

TDE	.2353	TRA	-.3685	TC3	-.1557	BAU	.3982
RDE	.4974	RRA	-.1028	RC3	-1.7996	FAU	.08681
FDE	2.0379	FRA	-.0774	FC3	-4.5574	BSP	5015
BDE	.5503	BRA	.3795	BC3	1.8064	FSP	-1243

MID-COURSE EXECUTION ACCURACY

SGT	636.8	SGR	1628.1	SGS	405.1		
RRT	.4785	RRF	.9753	RTF	.4965		
SGB	1748.1	RZS	.0339	RIS	.9753		
SGI	1659.9	SGZ	548.2	THA	78.09		

ORBIT DETERMINATION ACCURACY

ST	367.8	SR	704.6	SS	1103.9
CRT	.9266	CRS	-.9984	CST	-.9071
LSA	1352.1	NSA	148.2	SSA	16.0
EL1	785.1	EL2	124.1	ALF	63.47

LAUNCH DATE SEP 15 1970 FLIGHT TIME 108.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 305.180

RL	150.44	LAL	-.00	LOL	351.74	VL	27.478	GAL	-6.64	AZL	85.77	HCA	139.13	SMA	131.49	ECC	.18403	INC	4.2290
RP	107.48	LAP	2.77	LOP	130.95	VP	38.214	GAP	-1.33	AZP	93.20	TAL	212.28	TAP	351.41	RCA	107.29	APO	155.68
RC	78.289	GL	29.09	GP	-49.62	ZAL	130.91	ZAP	78.67	ETS	8.74	ZAE	127.72	ETE	270.21	ZAC	51.53	ETC	256.11

V1 29.618 V2 35.259 CLP -72.35

PLANETOCENTRIC CONIC

C3	17.137	VHL	4.140	DLA	14.81	RAL	220.86	RAD	6567.7	VEL	11.769	PTH	2.08	VHP	4.519	DPA	-64.54	RAP	207.72

ECC 1.2820

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 35 46	2657.28	-27.28	71.49	84.60	97.91	1 18 3	2057.3	-25.90	63.09
90.00	16 26 19	4343.08	4.64	179.98	78.92	62.03	17 38 43	3743.1	.86	173.33
100.00	2 3 6	2369.18	-28.51	50.08	84.39	99.38	2 42 35	1769.2	-26.92	41.64
100.00	17 39 40	4106.41	5.74	161.98	78.32	60.61	18 48 7	3506.4	1.78	155.42
110.00	3 29 12	2090.80	-31.76	28.87	83.63	103.37	4 4 12	1499.8	-29.59	20.33
110.00	18 30 4	3948.55	8.56	148.27	76.59	56.78	19 35 53	3348.6	4.13	141.98

DIFFERENTIAL CORRECTIONS

TDE	.3442	TRA	-.3785	TC3	-.3525	BAU	.4268
RDE	.6094	RRA	-.0731	RC3	-1.8293	FAU	.08301
FDE	2.1288	FRA	-.0084	FC3	-4.1935	BSP	5502
BDE	.6999	BRA	.3835	BC3	1.8629	FSP	-1217

MID-COURSE EXECUTION ACCURACY

SGT	776.3	SGR	1736.7	SGS	393.3		
RRT	.6677	RRF	.9794	RTF	.6856		
SGB	1902.3	RZS	.0556	RIS	.9788		
SGI	1820.7	SGZ	551.2	THA	71.64		

ORBIT DETERMINATION ACCURACY

ST	503.1	SR	845.3	SS	1149.9
CRT	.9576	CRS	-.9992	CST	-.9473
LSA	1505.8	NSA	149.2	SSA	14.1
EL1	975.7	EL2	125.5	ALF	59.76

LAUNCH DATE SEP 15 1970 FLIGHT TIME 110.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 311.602

RL	150.44	LAL	-.00	LOL	351.74	VL	27.479	GAL	-6.57	AZL	85.29	HCA	142.36	SMA	131.50	ECC	.18326	INC	4.7080
RP	107.48	LAP	2.87	LOP	134.20	VP	30.215	GAP	-.86	AZP	95.73	TAL	212.09	TAP	354.45	RCA	107.40	APO	155.60
RC	80.507	GL	31.88	GP	-52.46	ZAL	129.18	ZAP	82.77	ETS	4.41	ZAE	124.86	ETE	264.77	ZAC	48.47	ETC	254.87

V1 29.618 V2 35.258 CLP -78.09

PLANETOCENTRIC CONIC

C3	10.001	VHL	4.243	DLA	17.29	RAL	222.26	RAD	6567.7	VEL	11.806	PTH	2.09	VHP	4.653	DPA	-65.75	RAP	200.57

ECC 1.2963

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 15 53	2759.37	-28.02	78.86	87.92	94.29	1 1 52	2159.4	-27.13	70.31
90.00	16 55 24	4263.81	2.10	175.54	81.44	61.75	18 6 27	3663.8	-1.69	168.91
100.00	1 47 12	2464.86	-29.38	57.06	87.78	95.80	2 28 17	1864.9	-28.26	48.44
100.00	18 6 45	4033.55	3.29	157.95	80.78	60.27	19 13 59	3433.6	-.69	151.43
110.00	3 17 24	2182.63	-32.89	35.06	87.21	99.88	3 53 47	1582.6	-31.18	26.26
110.00	18 53 2	3888.55	6.31	145.08	78.91	56.33	19 57 51	3288.5	1.84	138.85

DIFFERENTIAL CORRECTIONS

TDE	.4839	TRA	-.3827	TC3	-.5425	BAU	.4958
RDE	.7263	RRA	-.0340	RC3	-1.8145	FAU	.07757
FDE	2.1788	FRA	.0885	FC3	-3.7305	BSP	6022
BDE	.8727	BRA	.3842	BC3	1.8839	FSP	-1166

MID-COURSE EXECUTION ACCURACY

SGT	965.4	SGR	1888.2	SG3	373.5		
RRT	.7804	RRF	.9824	RTF	.7979		
SGB	2065.7	RZS	.0756	RIS	.9809		
SG1	1990.0	SG2	554.0	THA	65.56		

ORBIT DETERMINATION ACCURACY

ST	673.5	SR	962.0	SS	1183.4
CRT	.9736	CRS	-.9996	CST	-.9681
LSA	1672.0	MSA	150.5	SSA	12.3
EL1	1183.9	EL2	127.5	ALF	55.81

LAUNCH DATE SEP 15 1970 FLIGHT TIME 112.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 317.996

RL	150.44	LAL	-.00	LOL	351.74	VL	27.476	GAL	-6.50	AZL	84.74	HCA	145.60	SMA	131.48	ECC	.18262	INC	5.2626
RP	107.48	LAP	2.97	LOP	137.45	VP	30.211	GAP	-.40	AZP	94.35	TAL	211.80	TAP	357.40	RCA	107.46	APO	155.49
RC	82.739	GL	34.80	GP	-55.31	ZAL	127.16	ZAP	86.52	ETS	359.72	ZAE	121.79	ETE	259.53	ZAC	45.41	ETC	253.47

V1 29.618 V2 35.257 CLP -83.89

PLANETOCENTRIC CONIC

C3	19.166	VHL	4.378	DLA	19.92	RAL	223.90	RAD	6567.8	VEL	11.855	PTH	2.10	VHP	4.849	DPA	-66.75	RAP	192.98

ECC 1.3154

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 50 37	2878.72	-28.32	87.58	91.78	89.93	24 38 36	2278.7	-28.03	78.92
90.00	17 29 48	4173.89	-.80	170.52	84.67	61.69	18 39 22	3573.9	-4.58	163.88
100.00	1 28 36	2575.46	-29.86	65.25	91.76	91.52	2 11 31	1975.5	-29.33	56.48
100.00	18 38 26	3952.38	.54	153.49	83.92	60.11	19 44 18	3352.4	-5.44	146.97
110.00	3 4 6	2276.67	-33.76	42.28	91.47	95.70	3 42 3	1676.7	-32.60	33.22
110.00	19 19 26	3823.83	5.86	141.69	81.85	56.01	20 23 9	3223.9	-.63	135.48

DIFFERENTIAL CORRECTIONS

TDE	.6608	TRA	-.3608	TC3	-.7127	BAU	.4828
RDE	.8495	RRA	.0191	RC3	-1.7442	FAU	.07048
FDE	2.1997	FRA	.1495	FC3	-3.1837	BSP	6501
BDE	1.0763	BRA	.3814	BC3	1.8842	FSP	-1081

MID-COURSE EXECUTION ACCURACY

SGT	1191.0	SGR	1889.2	SG3	346.7		
RRT	.8446	RRF	.9845	RTF	.8619		
SGB	2233.3	RZS	.0802	RIS	.9820		
SG1	2162.7	SG2	557.0	THA	59.75		

ORBIT DETERMINATION ACCURACY

ST	879.6	SR	1112.8	SS	1207.0
CRT	.9820	CRS	-.9998	CST	-.9793
LSA	1856.2	MSA	152.9	SSA	10.7
EL1	1412.4	EL2	130.9	ALF	51.79

LAUNCH DATE SEP 15 1970 FLIGHT TIME 114.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 324.359

RL	150.44	LAL	-.00	LOL	351.74	VL	27.469	GAL	-6.42	AZL	84.08	HCA	148.82	SMA	131.42	ECC	.18211	INC	5.9168
RP	107.49	LAP	3.06	LOP	140.70	VP	30.204	GAP	.04	AZP	95.07	TAL	211.43	TAP	.25	RCA	107.49	APO	155.35
RC	84.989	GL	38.14	GP	-58.18	ZAL	124.84	ZAP	89.85	ETS	354.67	ZAE	118.52	ETE	254.48	ZAC	42.30	ETC	251.87

V1 29.618 V2 35.255 CLP -89.71

PLANETOCENTRIC CONIC

C3	20.762	VHL	4.556	DLA	22.73	RAL	225.80	RAD	6567.8	VEL	11.922	PTH	2.12	VHP	5.121	DPA	-67.57	RAP	185.00

ECC 1.3417

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 23 16	3024.45	-27.84	98.21	96.16	84.63	24 13 40	2424.5	-28.30	89.57
90.00	18 12 19	4066.20	-4.27	164.51	88.87	61.98	19 20 5	3466.2	-7.98	157.80
100.00	1 5 29	2707.55	-29.69	75.06	96.33	86.37	1 50 37	2107.5	-29.88	66.26
100.00	19 16 43	3858.34	-2.65	148.33	87.97	60.21	20 21 1	3258.3	-6.59	141.77
110.00	2 48 25	2385.51	-34.18	50.75	96.46	90.71	3 28 11	1785.5	-33.70	41.52
110.00	19 50 16	3753.15	1.16	137.99	85.59	55.83	20 52 49	3153.1	-3.33	131.78

DIFFERENTIAL CORRECTIONS

TDE	.8828	TRA	-.3671	TC3	-.8479	BAU	.5105
RDE	.9687	RRA	.0794	RC3	-1.6323	FAU	.06283
FDE	2.1737	FRA	.2211	FC3	-2.6199	BSP	7102
BDE	1.3106	BRA	.3756	BC3	1.8393	FSP	-1000

MID-COURSE EXECUTION ACCURACY

SGT	1442.1	SGR	1925.6	SG3	314.6		
RRT	.8813	RRF	.9859	RTF	.9003		
SGB	2405.8	RZS	.1024	RIS	.9828		
SG1	2339.5	SG2	561.0	THA	54.20		

ORBIT DETERMINATION ACCURACY

ST	1120.4	SR	1219.4	SS	1210.4
CRT	.9869	CRS	-.9999	CST	-.9860
LSA	2045.3	MSA	154.3	SSA	9.3
EL1	1650.5	EL2	133.3	ALF	47.45

LAUNCH DATE SEP 15 1970 FLIGHT TIME 116.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 330.695

RL	150.44	LAL	-.00	LOL	351.74	VL	27.457	GAL	-6.32	AZL	83.29	HCA	152.05	SMA	131.34	ECC	.18170	INC	6.7053
RP	107.50	LAP	3.14	LOP	143.95	VP	30.193	GAP	.46	AZP	95.93	TAL	210.97	TAP	3.02	RCA	107.47	APO	155.20
RC	87.241	GL	41.64	GP	-61.13	ZAL	122.22	ZAP	92.68	ETS	349.24	ZAE	115.06	ETE	249.59	ZAC	39.13	ETC	250.00

V1 29.618 V2 35.253 CLP -95.56

PLANETOCENTRIC CONIC

C3	22.995	VHL	4.795	DLA	25.72	RAL	228.00	RAD	6567.9	VEL	12.016	PTH	2.14	VHP	5.486	DPA	-68.22	RAP	176.58

ECC 1.3784

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 42 50	3220.05	-25.81	112.15	100.78	77.94	23 36 50	2620.0	-27.22	103.76
90.00	19 10 19	3919.99	-8.88	156.23	94.52	63.00	20 15 39	3320.0	-12.43	149.36
100.00	0 33 50	2874.87	-28.34	87.30	101.34	80.07	1 21 45	2274.9	-29.42	78.66
100.00	20 5 56	3740.40	-6.61	141.82	93.29	60.78	21 8 16	3140.4	-10.45	135.14
110.00	2 28 56	2514.74	-33.83	60.80	102.19	84.76	3 10 51	1914.7	-34.18	51.58
110.00	20 27 19	3673.30	-1.89	133.82	90.38	55.86	21 28 32	3073.3	-6.36	127.58

DIFFERENTIAL CORRECTIONS

TDE	1.1622	TRA	-.3306	TC3	-.9360	BAU	.5336
RDE	1.0992	RRA	.1571	RC3	-1.4615	FAU	.05417
FDE	2.1200	FRA	.2936	FC3	-2.0394	BSP	7640
BDE	1.5928	BRA	.3715	BC3	1.7356	FSP	-893

MID-COURSE EXECUTION ACCURACY

SGT	1712.8	SGR	1924.0	SG3	278.6		
RRT	.9020	RRF	.9865	RTF	.9236		
SGB	2575.9	RZS	.1150	RIS	.9829		
SG1	2512.9	SG2	566.1	THA	48.68		

ORBIT DETERMINATION ACCURACY

ST	1395.3	SR	1303.5	SS	1202.6
CRT	.9896	CRS	-1.0000	CST	-.9899
LSA	2251.1	MSA	157.2	SSA	8.0
EL1	1904.5	EL2	137.7	ALF	43.03

LAUNCH DATE SEP 15 1970 FLIGHT TIME 118.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 336.998

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RL  150.44 LAL   -.00 LOL 351.74 VL  27.441 GAL  -6.21 AZL  82.32 HCA 155.26 SMA 131.23 ECC .18139 INC 7.6807 V1  29.618
RP  107.51 LAP   3.21 LOP 147.20 VP  38.179 GAP    .87 AZP  96.98 TAL 210.43 TAP   5.69 RCA 107.42 APO 155.03 V2  35.249
RC  89.506 GL   45.40 GP  -64.23 ZAL 119.29 ZAP  94.96 ETS 343.35 ZAE 111.41 ETE 244.71 ZAC  35.81 ETC 247.72 CLP-101.47
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PLANETOCENTRIC CONIC

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C3  26.219 VHL  5.120 DLA  28.88 RAL 230.55 RAD 6568.1 VEL 12.149 PTH   2.18 VHP  5.973 DPA -68.71 RAP 167.59 ECC 1.4315
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.09	20 17 42	3760.90	-18.33	149.14	103.65	67.29	21 20 23	3160.9	-21.25	141.64
95.91	21 55 45	3443.59	-18.32	125.87	103.64	67.28	22 53 9	2843.6	-21.24	118.38
100.00	23 33 25	3129.82	-24.07	105.01	105.95	71.71	24 25 35	2529.8	-26.34	96.95
100.00	21 22 43	3549.91	-12.76	131.03	100.96	62.74	22 21 52	2949.9	-16.32	124.04
110.00	2 2 40	2674.81	-32.16	72.98	108.45	77.74	2 47 15	2074.8	-33.51	64.01
110.00	21 13 53	3577.69	-5.53	128.81	96.64	56.21	22 13 30	2977.7	-9.93	122.49

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE 1.5182 TRA -.2822 TC3 -.9656 BAU  .5523   SGT 1998.5 SGR 1878.5 SG3  240.4          ST  1702.5 SR  1346.1 SS  1178.6
 RDE 1.1994 RRA  .2499 RC3-1.2451 FAU .04525   RRT  .9125 RRF  .9682 RTF  .9389          CRT  .9909 CRS -.9999 CST -.9924
 FDE 2.0370 FRA  .3555 FC3-1.4941 BSP   8198   SGB 2742.8 RZS  .1266 R13  .9827          LSA 2464.5 HSA  160.6 SSA    6.8
 BDE 1.9348 BRA  .3770 BC3 1.5756 FSP   -782   SG1 2682.3 SG2  572.6 THA  43.06          EL1 2165.7 EL2  142.7 ALF  38.27
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LAUNCH DATE SEP 15 1970 FLIGHT TIME 120.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 343.269

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RL  150.44 LAL   -.00 LOL 351.74 VL  27.423 GAL  -6.10 AZL  81.07 HCA 158.47 SMA 131.09 ECC .18115 INC 8.9265 V1  29.618
RP  107.52 LAP   3.26 LOP 150.45 VP  38.162 GAP   1.27 AZP  98.31 TAL 209.81 TAP   8.28 RCA 107.35 APO 154.84 V2  35.245
RC  91.778 GL   49.39 GP  -67.57 ZAL 116.05 ZAP  96.63 ETS 336.80 ZAE 107.51 ETE 239.59 ZAC  32.28 ETC 244.74 CLP-107.61
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PLANETOCENTRIC CONIC

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C3  31.058 VHL  5.573 DLA  32.17 RAL 233.49 RAD 6568.2 VEL 12.346 PTH   2.23 VHP  6.632 DPA -68.96 RAP 157.80 ECC 1.5111
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
74.05	19 14 35	4041.28	-19.03	170.41	110.27	63.55	20 21 56	3441.3	-22.42	163.08
105.95	23 22 21	3247.79	-19.01	111.60	110.26	63.54	24 16 29	2647.8	-22.41	104.28
74.05	19 14 35	4041.28	-19.03	170.41	110.27	63.55	20 21 56	3441.3	-22.42	163.08
105.95	23 22 21	3247.79	-19.01	111.60	110.26	63.54	24 16 29	2647.8	-22.41	104.28
110.00	1 20 18	2995.32	-27.88	88.70	114.47	69.37	2 8 33	2295.3	-30.42	80.43
110.00	22 19 48	3441.74	-10.61	121.56	105.34	57.31	23 17 7	2841.7	-14.85	115.02

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE 1.9834 TRA -.1911 TC3 -.9280 BAU  .5629   SGT 2298.3 SGR 1774.6 SG3  201.8          ST  2040.6 SR  1326.9 SS  1140.9
 RDE 1.2838 RRA  .3624 RC3 -.9682 FAU .03626   RRT  .9142 RRF  .9841 RTF  .9498          CRT  .9910 CRS -.9997 CST -.9941
 FDE 1.9309 FRA  .4074 FC3-1.0108 BSP   8727   SGB 2903.6 RZS  .1378 R13  .9823          LSA 2683.1 HSA  165.2 SSA    5.7
 BDE 2.3626 BRA  .4097 BC3 1.3556 FSP   -664   SG1 2844.9 SG2  580.9 THA  37.02          EL1 2429.5 EL2  149.1 ALF  32.94
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LAUNCH DATE SEP 15 1970 FLIGHT TIME 122.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 349.503

```
RL  150.44 LAL   -.00 LOL 351.74 VL  27.401 GAL  -5.97 AZL  79.42 HCA 161.67 SMA 130.94 ECC .18098 INC10.5836 V1  29.618
RP  107.53 LAP   3.31 LOP 153.71 VP  38.142 GAP   1.65 AZP 100.06 TAL 209.11 TAP  10.78 RCA 107.24 APO 154.64 V2  35.240
RC  94.056 GL   53.55 GP  -71.24 ZAL 112.53 ZAP  97.65 ETS 329.14 ZAE 103.29 ETE 233.67 ZAC  28.40 ETC 240.52 CLP-114.44
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PLANETOCENTRIC CONIC

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C3  38.722 VHL  6.223 DLA  35.53 RAL 236.91 RAD 6568.5 VEL 12.653 PTH   2.30 VHP  7.548 DPA -68.82 RAP 147.02 ECC 1.6373
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.59	18 48 36	4218.24	-18.94	184.11	118.20	59.36	19 58 54	3618.2	-22.86	177.06
112.41	0 19 32	3182.11	-18.93	106.45	118.19	59.36	1 12 34	2582.1	-22.85	99.41
67.59	18 48 36	4218.24	-18.94	184.11	118.20	59.36	19 58 54	3618.2	-22.86	177.06
112.41	0 19 32	3182.11	-18.93	106.45	118.19	59.36	1 12 34	2582.1	-22.85	99.41
67.59	18 48 36	4218.24	-18.94	184.11	118.20	59.36	19 58 54	3618.2	-22.86	177.06
112.41	0 19 32	3182.11	-18.93	106.45	118.19	59.36	1 12 34	2582.1	-22.85	99.41

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE 2.6141 TRA -.0388 TC3 -.8206 BAU  .5600   SGT 2615.0 SGR 1583.8 SG3  164.5          ST  2407.2 SR  1205.0 SS  1092.1
 RDE 1.2955 RRA  .4970 RC3 -.7047 FAU .02752   RRT  .9036 RRF  .9771 RTF  .9588          CRT  .9893 CRS -.9987 CST -.9953
 FDE 1.8109 FRA  .4488 FC3 -.6152 BSP   9217   SGB 3057.2 RZS  .1486 R13  .9818          LSA 2900.0 HSA  171.4 SSA    4.7
 BDE 2.9175 BRA  .4986 BC3 1.0817 FSP   -546   SG1 2999.4 SG2  591.6 THA  29.97          EL1 2687.3 EL2  157.3 ALF  26.45
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LAUNCH DATE SEP 15 1970 FLIGHT TIME 124.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 355.692

```
RL  150.44 LAL   -.00 LOL 351.74 VL  27.376 GAL  -5.83 AZL  77.09 HCA 164.84 SMA 130.77 ECC .18086 INC12.9090 V1  29.618
RP  107.55 LAP   3.35 LOP 156.95 VP  38.119 GAP   2.01 AZP 102.47 TAL 208.33 TAP  13.17 RCA 107.12 APO 154.42 V2  35.235
RC  96.339 GL   57.73 GP  -75.34 ZAL 108.76 ZAP  97.97 ETS 319.14 ZAE  98.61 ETE 225.64 ZAC  24.01 ETC 233.73 CLP-123.23
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PLANETOCENTRIC CONIC

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C3  51.785 VHL  7.196 DLA  38.77 RAL 240.88 RAD 6568.9 VEL 13.158 PTH   2.40 VHP  8.880 DPA -68.02 RAP 135.25 ECC 1.8522
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.33	18 37 3	4371.69	-17.67	195.70	127.53	54.91	19 49 54	3771.7	-22.13	189.06
117.67	1 2 45	3174.67	-17.65	104.98	127.52	54.90	1 55 40	2574.7	-22.12	98.34
62.33	18 37 3	4371.69	-17.67	195.70	127.53	54.91	19 49 54	3771.7	-22.13	189.06
117.67	1 2 45	3174.67	-17.65	104.98	127.52	54.90	1 55 40	2574.7	-22.12	98.34
62.33	18 37 3	4371.69	-17.67	195.70	127.53	54.91	19 49 54	3771.7	-22.13	189.06
117.67	1 2 45	3174.67	-17.65	104.98	127.52	54.90	1 55 40	2574.7	-22.12	98.34

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE 3.4998 TRA  .2250 TC3 -.6503 BAU  .5344   SGT 2948.3 SGR 1243.3 SG3  130.0          ST  2787.4 SR   891.8 SS  1037.5
 RDE 1.0921 RRA  .6431 RC3 -.4159 FAU .01933   RRT  .8550 RRF  .9459 RTF  .9678          CRT  .9804 CRS -.9935 CST -.9964
 FDE 1.6882 FRA  .4806 FC3 -.3231 BSP   9722   SGB 3199.7 RZS  .1578 R13  .9818          LSA 3099.8 HSA  179.7 SSA    3.8
 BDE 3.6660 BRA  .6813 BC3  .7719 FSP   -438   SG1 3142.0 SG2  605.1 THA  20.63          EL1 2921.7 EL2  167.6 ALF  17.47
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LAUNCH DATE SEP 15 1970 FLIGHT TIME 126.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 361.821

RL 150.44 LAL -.00 LOL 351.74 VL 27.349 GAL -5.67 AZL 73.58 HCA 167.98 SMA 130.58 ECC .18075 INC16.4214 V1 29.618
RP 107.57 LAP 3.37 LOP 160.20 VP 38.094 GAP 2.35 AZP 106.08 TAL 207.46 TAP 15.44 RCA 106.97 APO 154.18 V2 35.229
RC 98.624 GL 61.60 GP -79.86 ZAL 104.81 ZAP 97.58 ETS 303.20 ZAE 93.21 ETE 211.78 ZAC 18.84 ETC 220.74 CLP-138.55

PLANETOCENTRIC CONIC

C3 76.506 VHL 8.747 DLA 41.58 RAL 245.47 RAD 6569.5 VEL 14.066 PTH 2.56 VHP 10.948 DPA -66.09 RAP 122.87 ECC 2.2591

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.18	18 36 29	4518.92	-14.77	205.90	138.20	50.68	19 51 48	3918.9	-19.74	199.75
121.82	1 39 58	3215.53	-14.75	106.15	138.19	50.67	2 33 33	2615.5	-19.72	100.00
58.18	18 36 29	4518.92	-14.77	205.90	138.20	50.68	19 51 48	3918.9	-19.74	199.75
121.82	1 39 58	3215.53	-14.75	106.15	138.19	50.67	2 33 33	2615.5	-19.72	100.00
58.18	18 36 29	4518.92	-14.77	205.90	138.20	50.68	19 51 48	3918.9	-19.74	199.75
121.82	1 39 58	3215.53	-14.75	106.15	138.19	50.67	2 33 33	2615.5	-19.72	100.00

DIFFERENTIAL CORRECTIONS
TDE 4.7417 TRA .7345 TC3 -.4219 BAU .4580
RDE .2012 RRA .7182 RC3 -.1499 FAU .01159
FDE 1.5916 FRA .5151 FC3 -.1311 BSP 10101
BDE 4.7460 BRA 1.0271 BC3 .4477 FSP -337

MID-COURSE EXECUTION ACCURACY
SGT 3256.7 SGR 694.1 SG3 100.1
RRT .4457 RRF .5983 RTF .9797
SGB 3329.8 RZS .1623 R13 .9829
SG1 3271.9 SG2 618.4 THA 5.63

ORBIT DETERMINATION ACCURACY
ST 3112.1 SR 230.3 SS 994.5
CRT .6223 CRS -.6733 CST -.9978
LSA 3269.7 MSA 190.1 SSA 2.8
EL1 3115.4 EL2 180.1 ALF 2.65

LAUNCH DATE SEP 15 1970 FLIGHT TIME 128.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 367.850

RL 150.44 LAL -.00 LOL 351.74 VL 27.320 GAL -5.48 AZL 67.67 HCA 171.04 SMA 130.37 ECC .18059 INC22.3253 V1 29.618
RP 107.59 LAP 3.39 LOP 163.45 VP 38.067 GAP 2.65 AZP 112.08 TAL 206.47 TAP 17.52 RCA 106.83 APO 153.92 V2 35.222
RC 100.910 GL 64.41 GP -83.52 ZAL 100.80 ZAP 96.48 ETS 270.36 ZAE 86.50 ETE 180.99 ZAC 12.30 ETC 191.05 CLP 178.99

PLANETOCENTRIC CONIC

C3 131.194 VHL 11.454 DLA 43.23 RAL 250.66 RAD 6570.4 VEL 15.891 PTH 2.81 VHP 14.495 DPA -62.23 RAP 110.70 ECC 3.1591

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.86	18 47 32	4660.06	-10.05	214.14	149.81	47.73	20 5 12	4060.1	-15.37	208.43
124.14	2 10 21	3304.11	-10.04	109.77	149.79	47.73	3 5 25	2704.1	-15.35	104.06
55.86	18 47 32	4660.06	-10.05	214.14	149.81	47.73	20 5 12	4060.1	-15.37	208.43
124.14	2 10 21	3304.11	-10.04	109.77	149.79	47.73	3 5 25	2704.1	-15.35	104.06
55.86	18 47 32	4660.06	-10.05	214.14	149.81	47.73	20 5 12	4060.1	-15.37	208.43
124.14	2 10 21	3304.11	-10.04	109.77	149.79	47.73	3 5 25	2704.1	-15.35	104.06

DIFFERENTIAL CORRECTIONS
TDE 5.7399 TRA 1.6025 TC3 -.1492 BAU .2622
RDE-2.8966 RRA .1406 RC3 .0084 FAU .00378
FDE 1.5744 FRA .5781 FC3 -.0250 BSP 10580
BDE 6.4294 BRA 1.6809 BC3 .1495 FSP -255

MID-COURSE EXECUTION ACCURACY
SGT 3113.7 SGR 1452.7 SG3 76.4
RRT -.0051 RRF -.0580 RTF .9955
SGB 3435.9 RZS -.1497 R13 -.9869
SG1 3383.8 SG2 595.9 THA 156.56

ORBIT DETERMINATION ACCURACY
ST 2892.1 SR 1449.3 SS 997.5
CRT -.9900 CRS .9854 CST -.9996
LSA 3379.8 MSA 191.1 SSA 1.9
EL1 3229.7 EL2 182.9 ALF 153.52

LAUNCH DATE SEP 15 1970 FLIGHT TIME 130.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 373.661

RL 150.44 LAL -.00 LOL 351.74 VL 27.289 GAL -5.25 AZL 56.01 HCA 173.92 SMA 130.15 ECC .18020 INC33.9863 V1 29.618
RP 107.61 LAP 3.39 LOP 166.70 VP 38.037 GAP 2.90 AZP 123.84 TAL 205.28 TAP 19.20 RCA 106.70 APO 153.61 V2 35.215
RC 103.196 GL 64.12 GP -79.11 ZAL 96.91 ZAP 94.76 ETS 219.55 ZAE 76.89 ETE 132.12 ZAC 2.97 ETC 157.11 CLP 116.04

PLANETOCENTRIC CONIC

C3 285.034 VHL 16.883 DLA 41.85 RAL 256.07 RAD 6571.7 VEL 20.158 PTH 3.15 VHP 21.532 DPA -54.70 RAP 99.77 ECC 5.6909

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.79	19 17 6	4760.70	-4.29	217.78	161.28	48.33	20 36 27	4160.7	-9.57	212.15
122.21	2 23 53	3448.29	-4.27	117.25	161.27	48.33	3 21 21	2848.3	-9.56	111.62
57.79	19 17 6	4760.70	-4.29	217.78	161.28	48.33	20 36 27	4160.7	-9.57	212.15
122.21	2 23 53	3448.29	-4.27	117.25	161.27	48.33	3 21 21	2848.3	-9.56	111.62
57.79	19 17 6	4760.70	-4.29	217.78	161.28	48.33	20 36 27	4160.7	-9.57	212.15
122.21	2 23 53	3448.29	-4.27	117.25	161.27	48.33	3 21 21	2848.3	-9.56	111.62

DIFFERENTIAL CORRECTIONS
TDE 3.0108 TRA 2.0587 TC3 .0014 BAU .3708
RDE-8.9041 RRA-2.3437 RC3 -.0973 FAU-.00743
FDE 1.7662 FRA .7570 FC3 .0226 BSP 10484
BDE 9.3047 BRA 3.1195 BC3 .0973 FSP -197

MID-COURSE EXECUTION ACCURACY
SGT 1387.0 SGR 3189.9 SG3 60.1
RRT -.9167 RRF -.9842 RTF .9703
SGB 3478.4 RZS -.1099 R13 -.9928
SG1 3440.2 SG2 513.8 THA 112.26

ORBIT DETERMINATION ACCURACY
ST 1059.8 SR 3005.0 SS 1131.6
CRT -.9869 CRS .9979 CST -.9952
LSA 3377.2 MSA 168.8 SSA 1.8
EL1 3182.3 EL2 161.4 ALF 109.24

LAUNCH DATE SEP 15 1970 FLIGHT TIME 132.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 378.785

RL 150.44 LAL -.00 LOL 351.74 VL 27.256 GAL -4.88 AZL 27.98 HCA 176.16 SMA 129.92 ECC .17886 INC62.0158 V1 29.618
RP 107.64 LAP 3.39 LOP 169.94 VP 38.006 GAP 2.95 AZP 151.96 TAL 203.51 TAP 19.68 RCA 106.68 APO 153.16 V2 35.207
RC 105.482 GL 54.71 GP -62.59 ZAL 93.61 ZAP 92.75 ETS 192.43 ZAE 59.42 ETE 107.06 ZAC 14.66 ETC 282.49 CLP 95.98

PLANETOCENTRIC CONIC

C3 865.205 VHL 29.380 DLA 31.76 RAL 260.19 RAD 6572.9 VEL 31.377 PTH 3.47 VHP 37.664 DPA -38.41 RAP 91.35 ECC15.2062

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
74.98	21 7 23	4574.87	-.05	199.77	170.14	58.24	22 23 38	3974.9	-4.25	193.37
105.02	1 6 30	3820.67	-.03	143.95	170.13	58.24	2 10 11	3220.7	-4.23	137.55
74.98	21 7 23	4574.87	-.05	199.77	170.14	58.24	22 23 38	3974.9	-4.25	193.37
105.02	1 6 30	3820.67	-.03	143.95	170.13	58.24	2 10 11	3220.7	-4.23	137.55
110.00	3 15 21	3421.18	-11.37	120.45	177.25	57.54	4 12 22	2821.2	-15.57	113.86
110.00	0 1 38	4022.35	11.29	152.25	163.01	57.52	1 8 41	3422.4	6.93	145.87

DIFFERENTIAL CORRECTIONS
TDE-2.6168 TRA 1.2843 TC3 -.0535 BAU 2.4712
RD-13.2008 RRA-6.3421 RC3 -.2074 FAU-.03962
FDE 2.3761 FRA 1.3827 FC3 .0397 BSP 9532
BDE13.4574 BRA 6.4709 BC3 .2141 FSP -162

MID-COURSE EXECUTION ACCURACY
SGT 667.4 SGR 3188.1 SG3 52.3
RRT .5936 RRF -.9973 RTF -.5382
SGB 3267.0 RZS -.0879 R13 -.9957
SG1 3223.3 SG2 532.9 THA 82.74

ORBIT DETERMINATION ACCURACY
ST 517.9 SR 2611.3 SS 1538.6
CRT .9430 CRS .9995 CST .9319
LSA 3069.6 MSA 179.2 SSA 1.7
EL1 2656.8 EL2 169.5 ALF 79.36

LAUNCH DATE SEP 15 1970 FLIGHT TIME 134.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 389.418
RL 150.44 LAL -.00 LOL 351.74 VL 27.221 GAL -5.59 AZL 156.89 HCA 183.67 SMA 129.68 ECC .18676 INC66.8868 V1 29.618
RP 107.66 LAP 3.37 LOP 173.18 VP 37.973 GAP 4.53 AZP 23.15 TAL 205.87 TAP 29.53 RCA 105.46 APO 153.90 V2 35.198
RC 107.765 GL -52.52 GP 59.27 ZAL 93.99 ZAP 94.01 ETS 179.80 ZAE 63.49 ETE 263.63 ZAC 136.39 ETC 276.90 CLP 97.86
PLANETOCENTRIC CONIC
C3 985.864 VHL 31.398 DLA -74.17 RAL 235.18 RAD 6572.9 VEL 33.274 PTH 3.50 VHP 40.610 DPA 83.09 RAP 70.35 ECC17.2248

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.05	4 3 10	2448.39	-.36	80.54	145.27	164.17	4 43 58	1848.4	7.33	78.77
161.95	14 51 12	672.11	-.35	285.54	145.30	164.17	15 2 24	72.1	7.34	283.76
18.05	4 3 10	2448.39	-.36	80.54	145.27	164.17	4 43 58	1848.4	7.33	78.77
161.95	14 51 12	672.11	-.35	285.54	145.30	164.17	15 2 24	72.1	7.34	283.76
18.05	4 3 10	2448.39	-.36	80.54	145.27	164.17	4 43 58	1848.4	7.33	78.77
161.95	14 51 12	672.11	-.35	285.54	145.30	164.17	15 2 24	72.1	7.34	283.76

DIFFERENTIAL CORRECTIONS
TDE 5.7158 TRA .7703 TC3 -.0942 BAU 3.0010
RD-14.7081 RRA .1738 RC3 .2073 FAU-.04582
FDE-3.1700 FRA .0491 FC3 .0402 BSP 9790
BDE15.7797 BRA .7897 BC3 .2277 FSP -169

MID-COURSE EXECUTION ACCURACY
SGT 1305.1 SGR 2985.2 SG3 54.6
RRT -.9008 RRF .9991 RTF -.8920
SGB 3258.1 R23 -.0846 R13 .9957
SG1 3215.3 SG2 526.2 THA 112.12

ORBIT DETERMINATION ACCURACY
ST 1054.6 SR 2684.4 SS 2030.1
CRT -.9872 CRS-1.0000 CST .9865
LSA 3523.3 MSA 162.2 SSA 2.3
EL1 2879.9 EL2 156.7 ALF 111.26

LAUNCH DATE SEP 15 1970 FLIGHT TIME 136.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 394.349
RL 150.44 LAL -.00 LOL 351.74 VL 27.185 GAL -5.17 AZL 125.59 HCA 185.75 SMA 129.43 ECC .18505 INC35.5878 V1 29.618
RP 107.69 LAP 3.34 LOP 176.43 VP 37.939 GAP 4.52 AZP 54.55 TAL 203.96 TAP 29.71 RCA 105.48 APO 153.38 V2 35.189
RC 110.046 GL -63.51 GP 76.36 ZAL 96.47 ZAP 97.07 ETS 161.92 ZAE 82.59 ETE 246.08 ZAC 154.16 ETC 269.78 CLP 121.48
PLANETOCENTRIC CONIC
C3 309.896 VHL 17.604 DLA -79.94 RAL 186.88 RAD 6571.8 VEL 20.765 PTH 3.18 VHP 22.898 DPA 77.43 RAP 255.60 ECC 6.1001

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
11.45	0 37 18	2369.53	5.64	83.07	95.86	169.89	1 16 48	1769.5	13.52	82.04
168.55	11 51 30	5859.59	5.65	259.45	95.88	169.89	13 29 19	5259.6	13.52	258.43
11.45	0 37 18	2369.53	5.64	83.07	95.86	169.89	1 16 48	1769.5	13.52	82.04
168.55	11 51 30	5859.59	5.65	259.45	95.88	169.89	13 29 19	5259.6	13.52	258.43
11.45	0 37 18	2369.53	5.64	83.07	95.86	169.89	1 16 48	1769.5	13.52	82.04
168.55	11 51 30	5859.59	5.65	259.45	95.88	169.89	13 29 19	5259.6	13.52	258.43

DIFFERENTIAL CORRECTIONS
TDE -.8442 TRA .1973 TC3 -.0219 BAU .5503
RDE-6.8688 RRA-1.5584 RC3 .1310 FAU-.00600
FDE-1.5440 FRA -.2942 FC3 .0168 BSP 11206
BDE 6.9205 BRA 1.5709 BC3 .1328 FSP -200

MID-COURSE EXECUTION ACCURACY
SGT 465.4 SGR 3693.2 SG3 64.4
RRT -.2842 RRF .9953 RTF -.1956
SGB 3722.4 R23 -.0953 R13 .9949
SG1 3695.6 SG2 445.9 THA 92.08

ORBIT DETERMINATION ACCURACY
ST 296.1 SR 2399.3 SS 1046.0
CRT .7295 CRS -.9985 CST -.7662
LSA 2626.0 MSA 206.8 SSA 1.4
EL1 2409.1 EL2 201.7 ALF 84.82

LAUNCH DATE SEP 15 1970 FLIGHT TIME 138.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 400.037
RL 150.44 LAL -.00 LOL 351.74 VL 27.147 GAL -4.89 AZL 112.73 HCA 188.58 SMA 129.18 ECC .18484 INC22.7305 V1 29.618
RP 107.72 LAP 3.30 LOP 179.67 VP 37.903 GAP 4.72 AZP 67.50 TAL 202.57 TAP 31.15 RCA 105.30 APO 153.05 V2 35.179
RC 112.324 GL -64.35 GP 78.71 ZAL 99.17 ZAP 101.14 ETS 97.73 ZAE 92.89 ETE 182.25 ZAC 161.29 ETC 225.39 CLP 170.74
PLANETOCENTRIC CONIC
C3 134.428 VHL 11.594 DLA -77.53 RAL 176.24 RAD 6570.4 VEL 15.992 PTH 2.82 VHP 15.223 DPA 66.39 RAP 250.12 ECC 3.2123

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
14.20	0 0 18	2257.80	14.09	80.08	83.05	167.13	0 37 36	1637.8	21.88	78.58
165.80	11 3 48	5735.66	14.09	259.16	83.07	167.13	12 39 24	5135.7	21.88	257.66
14.20	0 0 18	2257.80	14.09	80.08	83.05	167.13	0 37 36	1637.8	21.88	78.58
165.80	11 3 48	5735.66	14.09	259.16	83.07	167.13	12 39 24	5135.7	21.88	257.66
14.20	0 0 18	2257.80	14.09	80.08	83.05	167.13	0 37 36	1637.8	21.88	78.58
165.80	11 3 48	5735.66	14.09	259.16	83.07	167.13	12 39 24	5135.7	21.88	257.66

DIFFERENTIAL CORRECTIONS
TDE-3.3456 TRA-1.3539 TC3 -.1208 BAU .2239
RDE -.5257 RRA -.7451 RC3 -.0304 FAU .00881
FDE-1.0098 FRA -.3570 FC3 -.0567 BSP 12108
BDE 3.3866 BRA 1.5454 BC3 .1246 FSP -268

MID-COURSE EXECUTION ACCURACY
SGT 3522.2 SGR 1725.8 SG3 83.5
RRT .9425 RRF .9183 RTF .9967
SGB 3922.3 R23 -.1262 R13 .9907
SG1 3887.3 SG2 522.4 THA 25.28

ORBIT DETERMINATION ACCURACY
ST 1896.5 SR 573.6 SS 731.2
CRT .8316 CRS -.7995 CST -.9984
LSA 2088.3 MSA 315.6 SSA 1.8
EL1 1957.2 EL2 308.7 ALF 14.49

LAUNCH DATE SEP 15 1970 FLIGHT TIME 140.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 405.928
RL 150.44 LAL -.00 LOL 351.74 VL 27.109 GAL -4.65 AZL 106.38 HCA 191.62 SMA 128.91 ECC .18510 INC16.3775 V1 29.618
RP 107.75 LAP 3.26 LOP 182.90 VP 37.866 GAP 4.98 AZP 73.94 TAL 201.50 TAP 32.92 RCA 105.05 APO 152.77 V2 35.169
RC 114.599 GL -61.85 GP 73.71 ZAL 101.55 ZAP 105.62 ETS 65.28 ZAE 99.86 ETE 150.70 ZAC 162.57 ETC 216.82 CLP-163.76
PLANETOCENTRIC CONIC
C3 74.659 VHL 8.641 DLA -74.95 RAL 182.37 RAD 6569.5 VEL 14.000 PTH 2.55 VHP 11.505 DPA 58.21 RAP 246.58 ECC 2.2287

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.16	0 30 39	2107.44	22.13	76.04	86.08	163.72	1 5 47	1507.4	29.78	73.89
162.84	11 22 19	5615.66	22.13	258.05	86.10	163.72	12 55 55	5015.7	29.79	255.89
17.16	0 30 39	2107.44	22.13	76.04	86.08	163.72	1 5 47	1507.4	29.78	73.89
162.84	11 22 19	5615.66	22.13	258.05	86.10	163.72	12 55 55	5015.7	29.79	255.89
17.16	0 30 39	2107.44	22.13	76.04	86.08	163.72	1 5 47	1507.4	29.78	73.89
162.84	11 22 19	5615.66	22.13	258.05	86.10	163.72	12 55 55	5015.7	29.79	255.89

DIFFERENTIAL CORRECTIONS
TDE-2.7060 TRA-1.3481 TC3 -.4928 BAU .4989
RDE 1.0801 RRA .0717 RC3 .0835 FAU .01838
FDE-1.1175 FRA -.3714 FC3 -.2132 BSP 12585
BDE 2.9136 BRA 1.3500 BC3 .4998 FSP -354

MID-COURSE EXECUTION ACCURACY
SGT 3974.3 SGR 753.2 SG3 108.7
RRT -.6809 RRF -.7991 RTF .9812
SGB 4045.1 R23 .1612 R13 -.9842
SG1 4007.9 SG2 547.0 THA 172.51

ORBIT DETERMINATION ACCURACY
ST 2070.5 SR 718.4 SS 789.0
CRT -.9023 CRS .9582 CST -.9879
LSA 2309.0 MSA 306.7 SSA 2.6
EL1 2171.6 EL2 295.3 ALF 162.28

LAUNCH DATE SEP 15 1970 FLIGHT TIME 142.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 411.886

```
RL  150.44 LAL   -.00 LOL 351.74 VL  27.069 GAL  -4.41 AZL 102.66 HCA 194.74 SMA 128.64 ECC .18559 INC12.6591 V1  29.618
RP  107.79 LAP   3.20 LOP 186.14 VP  37.827 GAP   5.25 AZP  77.74 TAL 200.06 TAP  34.80 RCA 104.77 APO 152.52 V2  35.158
RC 116.871 GL  -58.27 GP   67.65 ZAL 103.43 ZAP 110.25 ETS  56.91 ZAE 105.23 ETE 143.80 ZAC 160.40 ETC 227.36 CLP-155.55
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PLANETOCENTRIC CONIC

```
C3  48.360 VHL  6.954 DLA -72.33 RAL 191.31 RAD 6568.8 VEL 13.028 PTH   2.38 VHP  9.439 DPA  51.24 RAP 244.07 ECC 1.7959
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
20.16	1 12 30	1995.62	28.58	71.25	91.30	159.78	1 45 46	1395.6	36.04	68.26
159.84	11 51 48	5516.64	28.58	256.30	91.33	159.78	13 23 45	4916.6	36.05	253.30
20.16	1 12 30	1995.62	28.58	71.25	91.30	159.78	1 45 46	1395.6	36.04	68.26
159.84	11 51 48	5516.64	28.58	256.30	91.33	159.78	13 23 45	4916.6	36.05	253.30
20.16	1 12 30	1995.62	28.58	71.25	91.30	159.78	1 45 46	1395.6	36.04	68.26
159.84	11 51 48	5516.64	28.58	256.30	91.33	159.78	13 23 45	4916.6	36.05	253.30

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.5212 TRA-1.1497 TC3 -.9592 BAU  .6296   SGT 3970.4 SGR 1161.3 SG3  137.2      ST  2278.9 SR  1003.9 SS   902.8
RDE 1.2055 RRA  .1783 RC3  .2570 FAU .02645   RRT -.8764 RRF -.9582 RTF  .9703      CRT -.9615 CRS  .9925 CST -.9878
FDE-1.2958 FRA -.3588 FC3 -.4735 BSP  12888   SGB 4136.8 RZ3  .1904 R13 -.9774     LSA 2634.9 MSA  271.0 SSA    3.3
BDE 2.7946 BRA 1.1634 BC3  .9738 FSP   -448   SG1 4101.2 SG2  541.4 THA 165.36     EL1 2477.2 EL2  253.8 ALF 156.79
```

LAUNCH DATE SEP 15 1970 FLIGHT TIME 144.00 ARRIVAL DATE FEB 6 1971

HELIOCENTRIC CONIC DISTANCE 417.867

```
RL  150.44 LAL   -.00 LOL 351.74 VL  27.028 GAL  -4.17 AZL 100.22 HCA 197.89 SMA 128.37 ECC .18623 INC10.2244 V1  29.618
RP  107.82 LAP   3.13 LOP 189.37 VP  37.788 GAP   5.53 AZP  80.26 TAL 198.81 TAP  36.71 RCA 104.46 APO 152.28 V2  35.147
RC 119.138 GL  -54.36 GP   61.81 ZAL 104.75 ZAP 114.85 ETS  53.86 ZAE 109.58 ETE 142.70 ZAC 156.75 ETC 236.33 CLP-152.82
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PLANETOCENTRIC CONIC

```
C3  34.666 VHL  5.888 DLA -69.82 RAL 199.98 RAD 6568.4 VEL 12.491 PTH   2.26 VHP  8.188 DPA  44.99 RAP 242.33 ECC 1.5705
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
23.30	1 53 44	1903.73	33.29	65.83	95.84	155.38	2 25 28	1303.7	40.49	61.88
156.70	12 19 44	5440.71	33.30	254.15	95.86	155.38	13 50 25	4840.7	40.50	250.19
23.30	1 53 44	1903.73	33.29	65.83	95.84	155.38	2 25 28	1303.7	40.49	61.88
156.70	12 19 44	5440.71	33.30	254.15	95.86	155.38	13 50 25	4840.7	40.50	250.19
23.30	1 53 44	1903.73	33.29	65.83	95.84	155.38	2 25 28	1303.7	40.49	61.88
156.70	12 19 44	5440.71	33.30	254.15	95.86	155.38	13 50 25	4840.7	40.50	250.19

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.4290 TRA -.9078 TC3-1.4592 BAU  .7034   SGT 4018.1 SGR 1282.6 SG3  165.5      ST  2502.3 SR  1090.0 SS   997.4
RDE 1.1123 RRA  .1523 RC3  .4174 FAU .03540   RRT -.9017 RRF -.9753 RTF  .9623      CRT -.9759 CRS  .9973 CST -.9892
FDE-1.4224 FRA -.3179 FC3 -.8341 BSP  13093   SGB 4211.8 RZ3  .2138 R13 -.9707     LSA 2895.8 MSA  242.9 SSA    4.2
BDE 2.6687 BRA  .9995 BC3 1.5178 FSP   -538   SG1 4179.0 SG2  525.0 THA 163.92     EL1 2720.6 EL2  218.8 ALF 156.81
```

LAUNCH DATE SEP 15 1970 FLIGHT TIME 146.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 423.851

```
RL  150.44 LAL   -.00 LOL 351.74 VL  26.987 GAL  -3.93 AZL  98.50 HCA 201.07 SMA 128.10 ECC .18701 INC 8.5028 V1  29.618
RP  107.86 LAP   3.05 LOP 192.60 VP  37.748 GAP   5.81 AZP  82.06 TAL 197.55 TAP  38.62 RCA 104.14 APO 152.05 V2  35.136
RC 121.402 GL  -50.42 GP   56.41 ZAL 105.52 ZAP 119.28 ETS  52.39 ZAE 113.13 ETE 143.57 ZAC 152.70 ETC 242.37 CLP-152.15
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PLANETOCENTRIC CONIC

```
C3  26.677 VHL  5.165 DLA -66.85 RAL 207.77 RAD 6568.1 VEL 12.168 PTH   2.18 VHP  7.393 DPA  39.29 RAP 241.21 ECC 1.4390
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.52	2 31 53	1828.42	36.51	60.06	99.31	150.72	3 2 21	1228.4	43.37	55.10
153.48	12 43 46	5384.66	36.51	251.83	99.33	150.72	14 13 30	4784.7	43.38	246.87
26.52	2 31 53	1828.42	36.51	60.06	99.31	150.72	3 2 21	1228.4	43.37	55.10
153.48	12 43 46	5384.66	36.51	251.83	99.33	150.72	14 13 30	4784.7	43.38	246.87
26.52	2 31 53	1828.42	36.51	60.06	99.31	150.72	3 2 21	1228.4	43.37	55.10
153.48	12 43 46	5384.66	36.51	251.83	99.33	150.72	14 13 30	4784.7	43.38	246.87

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.3298 TRA -.8581 TC3-2.0511 BAU  .7582   SGT 4127.2 SGR 1286.2 SG3  193.5      ST  2685.4 SR  1088.5 SS  1061.0
RDE  .9776 RRA  .1080 RC3  .5584 FAU .03957   RRT -.9127 RRF -.9795 RTF  .9579      CRT -.9821 CRS  .9988 CST -.9902
FDE-1.4836 FRA -.2617 FC3-1.2842 BSP  13549   SGB 4317.0 RZ3  .2256 R13 -.9659     LSA 3077.8 MSA  221.3 SSA    5.1
BDE 2.5266 BRA  .8650 BC3 2.1258 FSP   -637   SG1 4288.2 SG2  498.0 THA 164.14     EL1 2891.4 EL2  190.2 ALF 158.19
```

LAUNCH DATE SEP 15 1970 FLIGHT TIME 148.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 429.851

```
RL  150.44 LAL   -.00 LOL 351.74 VL  26.945 GAL  -3.67 AZL  97.22 HCA 204.25 SMA 127.82 ECC .18790 INC 7.2161 V1  29.618
RP  107.89 LAP   2.96 LOP 195.83 VP  37.707 GAP   6.10 AZP  83.41 TAL 196.27 TAP  40.52 RCA 103.80 APO 151.83 V2  35.124
RC 123.660 GL  -46.58 GP   51.51 ZAL 105.73 ZAP 123.47 ETS  51.49 ZAE 116.01 ETE 145.24 ZAC 148.73 ETC 246.43 CLP-152.39
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PLANETOCENTRIC CONIC

```
C3  21.628 VHL  4.651 DLA -64.10 RAL 214.73 RAD 6567.9 VEL 11.959 PTH   2.13 VHP  6.874 DPA  34.11 RAP 240.59 ECC 1.3559
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
29.75	3 7 2	1765.76	38.52	54.17	101.98	146.06	3 36 27	1165.8	44.99	48.28
150.25	13 4 9	5344.56	38.53	249.55	102.00	146.06	14 33 13	4744.6	45.00	243.66
29.75	3 7 2	1765.76	38.52	54.17	101.98	146.06	3 36 27	1165.8	44.99	48.28
150.25	13 4 9	5344.56	38.53	249.55	102.00	146.06	14 33 13	4744.6	45.00	243.66
29.75	3 7 2	1765.76	38.52	54.17	101.98	146.06	3 36 27	1165.8	44.99	48.28
150.25	13 4 9	5344.56	38.53	249.55	102.00	146.06	14 33 13	4744.6	45.00	243.66

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.2083 TRA -.7285 TC3-2.6645 BAU  .7935   SGT 4212.2 SGR 1209.3 SG3  215.2      ST  2790.2 SR  1031.6 SS  1078.5
RDE  .8362 RRA  .0592 RC3  .6567 FAU .04400   RRT -.9146 RRF -.9785 RTF  .9534      CRT -.9849 CRS  .9994 CST -.9903
FDE-1.4884 FRA -.1767 FC3-1.7614 BSP  13690   SGB 4302.3 RZ3  .2360 R13 -.9606     LSA 3157.5 MSA  206.4 SSA    6.2
BDE 2.3613 BRA  .7289 BC3 2.7442 FSP   -703   SG1 4356.7 SG2  472.8 THA 165.11     EL1 2970.0 EL2  167.6 ALF 159.92
```

LAUNCH DATE SEP 15 1970 FLIGHT TIME 150.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 435.802

```
RL  150.44 LAL   -.00 LOL 351.74 VL  26.903 GAL  -3.41 AZL  96.21 HCA 207.45 SMA 127.54 ECC .18890 INC 6.2134 V1  29.618
RP  107.93 LAP   2.86 LOP 199.05 VP  37.665 GAP   6.38 AZP  84.48 TAL 194.96 TAP  42.41 RCA 103.44 APO 151.63 V2  35.112
RC 125.912 GL  -42.87 GP   47.11 ZAL 105.42 ZAP 127.36 ETS  50.83 ZAE 118.32 ETE 147.26 ZAC 145.03 ETC 249.29 CLP-153.08
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PLANETOCENTRIC CONIC

```
C3  18.249 VHL  4.272 DLA -61.39 RAL 221.02 RAD 6567.7 VEL 11.817 PTH   2.09 VHP  6.534 DPA  29.41 RAP 240.37 ECC 1.3003
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.95	3 39 48	1712.45	39.60	48.39	104.19	141.58	4 8 21	1112.4	45.66	41.69
147.05	13 21 35	5317.12	39.61	247.50	104.20	141.57	14 50 12	4717.1	45.67	240.81
32.95	3 39 48	1712.45	39.60	48.39	104.19	141.58	4 8 21	1112.4	45.66	41.69
147.05	13 21 35	5317.12	39.61	247.50	104.20	141.57	14 50 12	4717.1	45.67	240.81
32.95	3 39 48	1712.45	39.60	48.39	104.19	141.58	4 8 21	1112.4	45.66	41.69
147.05	13 21 35	5317.12	39.61	247.50	104.20	141.57	14 50 12	4717.1	45.67	240.81

DIFFERENTIAL CORRECTIONS

```
TDE-2.0842 TRA -.6052 TC3-3.3052 BAU  .8257
RDE  .7136 RRA  .0186 RC3  .7269 FAU .04737
FDE-1.4061 FRA -.0843 FC3-2.2472 BSP  13981
BDE 2.2030 BRA  .6055 BC3 3.3842 FSP   -763
```

MID-COURSE EXECUTION ACCURACY

```
SGT 4320.0 SGR 1142.1 SG3  233.4
RRT -.9156 RRF -.9754 RTF  .9506
SGB 4468.4 R23  .2379 R13 -.9567
SG1 4446.1 SG2  446.3 THA 166.25
```

ORBIT DETERMINATION ACCURACY

```
ST  2842.5 SR   957.4 SS  1065.9
CRT -.9866 CRS  .9997 CST -.9899
LSA 3177.2 MSA  194.6 SSA    7.4
EL1 2995.8 EL2  148.3 ALF 161.57
```

LAUNCH DATE SEP 15 1970 FLIGHT TIME 152.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 441.760

```
RL  150.44 LAL   -.00 LOL 351.74 VL  26.860 GAL  -3.14 AZL  95.41 HCA 210.64 SMA 127.25 ECC .19002 INC 5.4057 V1  29.618
RP  107.97 LAP   2.75 LOP 202.27 VP  37.623 GAP   6.66 AZP  85.35 TAL 193.63 TAP  44.28 RCA 103.07 APO 151.43 V2  35.099
RC 128.158 GL  -39.33 GP   43.18 ZAL 104.64 ZAP 130.94 ETS  50.29 ZAE 120.16 ETE 149.37 ZAC 141.67 ETC 251.38 CLP-153.99
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PLANETOCENTRIC CONIC

```
C3  15.892 VHL  3.987 DLA -58.74 RAL 226.82 RAD 6567.6 VEL 11.717 PTH   2.06 VHP  6.316 DPA  25.16 RAP 240.50 ECC 1.2616
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.11	4 10 52	1665.97	39.98	42.82	106.21	137.38	4 38 38	1066.0	45.62	35.49
143.89	13 36 44	5299.87	39.99	245.80	106.23	137.37	15 5 4	4699.9	45.63	238.47
36.11	4 10 52	1665.97	39.98	42.82	106.21	137.38	4 38 38	1066.0	45.62	35.49
143.89	13 36 44	5299.87	39.99	245.80	106.23	137.37	15 5 4	4699.9	45.63	238.47
36.11	4 10 52	1665.97	39.98	42.82	106.21	137.38	4 38 38	1066.0	45.62	35.49
143.89	13 36 44	5299.87	39.99	245.80	106.23	137.37	15 5 4	4699.9	45.63	238.47

DIFFERENTIAL CORRECTIONS

```
TDE-1.9572 TRA -.4835 TC3-3.9433 BAU  .8535
RDE  .6109 RRA -.0155 RC3  .7672 FAU .04952
FDE-1.3086 FRA  .0154 FC3-2.6974 BSP  14265
BDE 2.0503 BRA  .4838 BC3 4.0172 FSP   -807
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MID-COURSE EXECUTION ACCURACY

```
SGT 4426.3 SGR 1070.9 SG3  246.9
RRT -.9146 RRF -.9702 RTF  .9484
SGB 4554.0 R23  .2342 R13 -.9535
SG1 4534.3 SG2  422.7 THA 167.41
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ORBIT DETERMINATION ACCURACY

```
ST  2843.1 SR   878.2 SS  1027.0
CRT -.9877 CRS  .9999 CST -.9890
LSA 3142.4 MSA  185.2 SSA    8.8
EL1 2972.8 EL2  131.3 ALF 163.00
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LAUNCH DATE SEP 15 1970 FLIGHT TIME 154.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 447.704

```
RL  150.44 LAL   -.00 LOL 351.74 VL  26.816 GAL  -2.87 AZL  94.74 HCA 213.84 SMA 126.97 ECC .19126 INC 4.7378 V1  29.618
RP  108.01 LAP   2.64 LOP 205.49 VP  37.580 GAP   6.94 AZP  86.06 TAL 192.28 TAP  46.12 RCA 102.69 APO 151.25 V2  35.086
RC 130.397 GL  -35.94 GP   39.69 ZAL 103.42 ZAP 134.22 ETS  49.83 ZAE 121.61 ETE 151.47 ZAC 138.67 ETC 253.00 CLP-155.02
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PLANETOCENTRIC CONIC

```
C3  14.202 VHL  3.769 DLA -56.17 RAL 232.23 RAD 6567.6 VEL 11.644 PTH   2.04 VHP  6.183 DPA  21.33 RAP 240.91 ECC 1.2337
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.23	4 40 47	1624.35	39.82	37.52	108.24	133.54	5 7 52	1024.4	45.06	29.73
140.77	13 50 2	5291.16	39.83	244.53	108.25	133.53	15 18 13	4691.2	45.07	236.73
39.23	4 40 47	1624.35	39.82	37.52	108.24	133.54	5 7 52	1024.4	45.06	29.73
140.77	13 50 2	5291.16	39.83	244.53	108.25	133.53	15 18 13	4691.2	45.07	236.73
39.23	4 40 47	1624.35	39.82	37.52	108.24	133.54	5 7 52	1024.4	45.06	29.73
140.77	13 50 2	5291.16	39.83	244.53	108.25	133.53	15 18 13	4691.2	45.07	236.73

DIFFERENTIAL CORRECTIONS

```
TDE-1.8298 TRA -.3606 TC3-4.5634 BAU  .8791
RDE  .5268 RRA -.0434 RC3  .7831 FAU .05063
FDE-1.1892 FRA  .1168 FC3-3.0860 BSP  14565
BDE 1.9041 BRA  .3632 BC3 4.6301 FSP   -839
```

MID-COURSE EXECUTION ACCURACY

```
SGT 4532.0 SGR 1002.0 SG3  256.0
RRT -.9120 RRF -.9629 RTF  .9469
SGB 4641.4 R23  .2253 R13 -.9510
SG1 4623.9 SG2  402.7 THA 168.51
```

ORBIT DETERMINATION ACCURACY

```
ST  2799.4 SR   801.9 SS   967.9
CRT -.9886 CRS  .9998 CST -.9875
LSA 3063.5 MSA  177.6 SSA   10.3
EL1 2909.7 EL2  115.9 ALF 164.16
```

LAUNCH DATE SEP 15 1970 FLIGHT TIME 156.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 453.634

```
RL  150.44 LAL   -.00 LOL 351.74 VL  26.773 GAL  -2.58 AZL  94.17 HCA 217.04 SMA 126.69 ECC .19262 INC 4.1730 V1  29.618
RP  108.05 LAP   2.51 LOP 208.71 VP  37.537 GAP   7.22 AZP  86.67 TAL 190.91 TAP  47.95 RCA 102.28 APO 151.09 V2  35.074
RC 132.627 GL  -32.71 GP   36.60 ZAL 101.81 ZAP 137.22 ETS  49.45 ZAE 122.73 ETE 153.47 ZAC 136.01 ETC 254.29 CLP-156.10
```

PLANETOCENTRIC CONIC

```
C3  12.972 VHL  3.602 DLA -53.65 RAL 237.36 RAD 6567.5 VEL 11.591 PTH   2.03 VHP  6.112 DPA  17.87 RAP 241.57 ECC 1.2135
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.32	5 9 59	1586.10	39.26	32.50	110.37	130.05	5 36 25	986.1	44.11	24.38
137.68	14 1 45	5289.89	39.27	243.73	110.39	130.04	15 29 55	4689.9	44.12	235.61
42.32	5 9 59	1586.10	39.26	32.50	110.37	130.05	5 36 25	986.1	44.11	24.38
137.68	14 1 45	5289.89	39.27	243.73	110.39	130.04	15 29 55	4689.9	44.12	235.61
42.32	5 9 59	1586.10	39.26	32.50	110.37	130.05	5 36 25	986.1	44.11	24.38
137.68	14 1 45	5289.89	39.27	243.73	110.39	130.04	15 29 55	4689.9	44.12	235.61

DIFFERENTIAL CORRECTIONS

```
TDE-1.7027 TRA -.2348 TC3-5.1497 BAU  .9033
RDE  .4591 RRA -.0664 RC3  .7802 FAU .05090
FDE-1.0587 FRA  .2167 FC3-3.3967 BSP  14684
BDE 1.7635 BRA  .2440 BC3 5.2085 FSP   -860
```

MID-COURSE EXECUTION ACCURACY

```
SGT 4636.2 SGR  938.7 SG3  261.5
RRT -.9079 RRF -.9535 RTF  .9458
SGB 4730.2 R23  .2118 R13 -.9491
SG1 4714.4 SG2  387.1 THA 169.51
```

ORBIT DETERMINATION ACCURACY

```
ST  2717.5 SR   732.5 SS   894.9
CRT -.9897 CRS  .9993 CST -.9851
LSA 2948.3 MSA  171.4 SSA   12.1
EL1 2812.6 EL2  101.4 ALF 165.04
```

LAUNCH DATE SEP 15 1970 FLIGHT TIME 150.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 459.548

RL	150.44	LAL	-.00	LOL	351.74	VL	26.729	GAL	-2.27	AZL	93.69	HCA	220.24	SHA	126.40	ECC	.19410	INC	3.6864
RP	100.09	LAP	2.38	LOP	211.92	VP	37.494	GAP	7.50	AZP	87.18	TAL	189.52	TAP	49.76	RCA	101.87	APO	150.94
RC	134.850	GL	-29.62	GP	33.87	ZAL	99.85	ZAP	139.95	ETS	49.13	ZAE	123.60	ETE	155.32	ZAC	135.66	ETC	255.37

V1	29.618	V2	35.061	CLP	-157.21														

PLANETOCENTRIC CONIC

C3	12.075	VHL	3.475	DLA	-51.19	RAL	242.26	RAD	6567.5	VEL	11.553	PTH	2.02	VHP	6.087	DPA	14.74	RAP	242.43
ECC	1.1987																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.40	5 38 48	1549.97	38.38	27.72	112.67	126.91	6 4 38	950.0	42.87	19.40
134.60	14 12 1	5295.45	38.39	243.43	112.68	126.90	15 40 16	4695.5	42.88	235.11
45.40	5 38 48	1549.97	38.38	27.72	112.67	126.91	6 4 38	950.0	42.87	19.40
134.60	14 12 1	5295.45	38.39	243.43	112.68	126.90	15 40 16	4695.5	42.88	235.11
45.40	5 38 48	1549.97	38.38	27.72	112.67	126.91	6 4 38	950.0	42.87	19.40
134.60	14 12 1	5295.45	38.39	243.43	112.68	126.90	15 40 16	4695.5	42.88	235.11

DIFFERENTIAL CORRECTIONS

TDE	-1.5741	TRA	-.1034	TC3	-5.6833	BAU	.9257
RDE	.4048	RRA	-.0880	RC3	.7625	FAU	.05046
FDE	-.9232	FRA	.3141	FC3	-3.6182	BSP	15164
BDE	1.6253	BRA	.1344	BC3	5.7343	FSP	-868

MID-COURSE EXECUTION ACCURACY

SGT	4734.1	SGR	881.7	SG3	263.8		
RRT	-.9018	RRF	-.9418	RTF	.9449		
SGB	4815.5	RZS	.1950	R13	-.9476		
SG1	4800.8	SG2	375.8	THA	170.41		

ORBIT DETERMINATION ACCURACY

ST	2599.5	SR	671.0	SS	812.1		
CRT	-.9910	CRS	.9979	CST	-.9815		
LSA	2799.8	MSA	166.6	SSA	14.2		
EL1	2683.3	EL2	87.1	ALF	165.64		

LAUNCH DATE SEP 15 1970 FLIGHT TIME 160.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 465.444

RL	150.44	LAL	-.00	LOL	351.74	VL	26.685	GAL	-1.96	AZL	93.26	HCA	223.43	SHA	126.12	ECC	.19572	INC	3.2605
RP	100.13	LAP	2.24	LOP	215.13	VP	37.450	GAP	7.78	AZP	87.63	TAL	188.11	TAP	51.54	RCA	101.44	APO	150.81
RC	137.083	GL	-26.66	GP	31.45	ZAL	97.61	ZAP	142.44	ETS	48.90	ZAE	124.26	ETE	157.03	ZAC	131.60	ETC	256.30

V1	29.618	V2	35.047	CLP	-158.32														

PLANETOCENTRIC CONIC

C3	11.431	VHL	3.381	DLA	-48.77	RAL	246.97	RAD	6567.4	VEL	11.525	PTH	2.01	VHP	6.098	DPA	11.92	RAP	243.47
ECC	1.1881																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.48	6 7 31	1514.94	37.25	23.14	115.15	124.10	6 32 46	914.9	41.42	14.72
131.52	14 20 50	5307.55	37.26	243.64	115.16	124.08	15 49 18	4707.5	41.43	235.21
48.48	6 7 31	1514.94	37.25	23.14	115.15	124.10	6 32 46	914.9	41.42	14.72
131.52	14 20 50	5307.55	37.26	243.64	115.16	124.08	15 49 18	4707.5	41.43	235.21
48.48	6 7 31	1514.94	37.25	23.14	115.15	124.10	6 32 46	914.9	41.42	14.72
131.52	14 20 50	5307.55	37.26	243.64	115.16	124.08	15 49 18	4707.5	41.43	235.21

DIFFERENTIAL CORRECTIONS

TDE	-1.4482	TRA	.0329	TC3	-6.1554	BAU	.9474
RDE	.3617	RRA	-.1026	RC3	.7349	FAU	.04953
FDE	-.7893	FRA	.4086	FC3	-3.7514	BSP	15475
BDE	1.4890	BRA	.1078	BC3	6.1991	FSP	-872

MID-COURSE EXECUTION ACCURACY

SGT	4830.1	SGR	832.0	SG3	263.7		
RRT	-.8830	RRF	-.9278	RTF	.9444		
SGB	4901.3	RZS	.1757	R13	-.9465		
SG1	4887.4	SG2	368.8	THA	171.20		

ORBIT DETERMINATION ACCURACY

ST	2452.5	SR	618.1	SS	724.9		
CRT	-.9927	CRS	.9943	CST	-.9760		
LSA	2625.9	MSA	163.3	SSA	16.5		
EL1	2528.1	EL2	72.4	ALF	165.94		

LAUNCH DATE SEP 15 1970 FLIGHT TIME 162.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 471.324

RL	150.44	LAL	-.00	LOL	351.74	VL	26.641	GAL	-1.64	AZL	92.88	HCA	226.63	SHA	125.84	ECC	.19749	INC	2.8823
RP	100.17	LAP	2.09	LOP	218.34	VP	37.406	GAP	8.06	AZP	88.02	TAL	186.68	TAP	53.31	RCA	100.99	APO	150.69
RC	139.286	GL	-23.82	GP	29.30	ZAL	95.11	ZAP	144.72	ETS	48.76	ZAE	124.77	ETE	158.58	ZAC	129.78	ETC	257.12

V1	29.618	V2	35.034	CLP	-159.42														

PLANETOCENTRIC CONIC

C3	10.990	VHL	3.315	DLA	-46.38	RAL	251.50	RAD	6567.4	VEL	11.506	PTH	2.00	VHP	6.136	DPA	9.37	RAP	244.67
ECC	1.1809																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
51.59	6 36 26	1479.94	35.94	18.70	117.80	121.57	7 1 6	879.9	39.80	10.24
128.41	14 28 7	5326.30	35.95	244.39	117.81	121.56	15 56 53	4726.3	39.81	235.93
51.59	6 36 26	1479.94	35.94	18.70	117.80	121.57	7 1 6	879.9	39.80	10.24
128.41	14 28 7	5326.30	35.95	244.39	117.81	121.56	15 56 53	4726.3	39.81	235.93
51.59	6 36 26	1479.94	35.94	18.70	117.80	121.57	7 1 6	879.9	39.80	10.24
128.41	14 28 7	5326.30	35.95	244.39	117.81	121.56	15 56 53	4726.3	39.81	235.93

DIFFERENTIAL CORRECTIONS

TDE	-1.3145	TRA	.1753	TC3	-6.5488	BAU	.9677
RDE	.3274	RRA	-.1174	RC3	.8095	FAU	.04818
FDE	-.6595	FRA	.4941	FC3	-3.7952	BSP	15755
BDE	1.3547	BRA	.2110	BC3	6.5860	FSP	-867

MID-COURSE EXECUTION ACCURACY

SGT	4920.1	SGR	788.6	SG3	261.5		
RRT	-.8837	RRF	-.9116	RTF	.9440		
SGB	4982.9	RZS	.1556	R13	-.9456		
SG1	4969.5	SG2	365.5	THA	171.89		

ORBIT DETERMINATION ACCURACY

ST	2279.4	SR	572.9	SS	636.8		
CRT	-.9948	CRS	.9965	CST	-.9672		
LSA	2429.6	MSA	162.0	SSA	19.0		
EL1	2349.7	EL2	56.7	ALF	165.95		

LAUNCH DATE SEP 15 1970 FLIGHT TIME 164.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 477.184

RL	150.44	LAL	-.00	LOL	351.74	VL	26.597	GAL	-1.30	AZL	92.54	HCA	229.83	SHA	125.56	ECC	.19940	INC	2.5422
RP	100.21	LAP	1.94	LOP	221.54	VP	37.362	GAP	8.35	AZP	88.36	TAL	185.24	TAP	55.06	RCA	100.52	APO	150.60
RC	141.459	GL	-21.12	GP	27.40	ZAL	92.41	ZAP	146.81	ETS	48.71	ZAE	125.15	ETE	159.97	ZAC	128.19	ETC	257.88

V1	29.618	V2	35.021	CLP	-160.50														

PLANETOCENTRIC CONIC

C3	10.718	VHL	3.274	DLA	-44.03	RAL	255.87	RAD	6567.4	VEL	11.494	PTH	2.00	VHP	6.197	DPA	7.06	RAP	246.00
ECC	1.1764																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.76	7 5 46	1443.97	34.46	14.31	120.62	119.30	7 29 50	844.0	38.06	5.86
125.24	14 33 40	5352.02	34.47	245.71	120.63	119.29	16 2 52	4752.0	38.07	237.26
54.76	7 5 46	1443.97	34.46	14.31	120.62	119.30	7 29 50	844.0	38.06	5.86
125.24	14 33 40	5352.02	34.47	245.71	120.63	119.29	16 2 52	4752.0	38.07	237.26
54.76	7 5 46	1443.97	34.46	14.31	120.62	119.30	7 29 50	844.0	38.06	5.86
125.24	14 33 40	5352.02	34.47	245.71	120.63	119.29	16 2 52	4752.0	38.07	237.26

DIFFERENTIAL CORRECTIONS

TDE	-1.1911	TRA	.3154	TC3	-6.8903	BAU	.9920
RDE	.3027	RRA	-.1288	RC3	.6678	FAU	.04696
FDE	-.5451	FRA	.5678	FC3	-3.7930	BSP	16259
BDE	1.2290	BRA	.3407	BC3	6.9226	FSP	-876

MID-COURSE EXECUTION ACCURACY

SGT	5028.8	SGR	755.1	SG3	259.0		
RRT	-.8737	RRF	-.8944	RTF	.9455		
SGB	5085.2	RZS	.1315	R13	-.9468		
SG1	5072.1	SG2	364.2	THA	172.49		

ORBIT DETERMINATION ACCURACY

ST	2101.6	SR	538.3	SS	558.3		
CRT	-.9970	CRS	.9717	CST	-.9555		
LSA	2234.2	MSA	161.3	SSA	21.8		
EL1	2169.1	EL2	40.1	ALF	165.67		

LAUNCH DATE SEP 15 1970 FLIGHT TIME 166.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 483.027

```
RL  150.44 LAL   -.00 LOL 351.74 VL  26.552 GAL   -.95 AZL  92.23 HCA 233.02 SMA 125.28 ECC .20147 INC 2.2330 V1  29.618
RP  108.25 LAP   1.78 LOP 224.74 VP  37.318 GAP   8.63 AZP  88.66 TAL 183.77 TAP  56.79 RCA 100.04 APO 150.52 V2  35.008
RC 143.643 GL  -18.53 GP   25.71 ZAL  89.55 ZAP 148.73 ETS  48.77 ZAE 125.44 ETE 161.23 ZAC 126.78 ETC 258.58 CLP-161.57
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PLANETOCENTRIC CONIC

```
C3  10.593 VHL  3.255 DLA -41.71 RAL 260.10 RAD 6567.4 VEL 11.488 PTH   2.00 VHP  6.276 DPA   4.95 RAP 247.46 ECC 1.1743
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.00	7 35 52	1405.80	32.87	9.90	123.60	117.27	7 59 18	805.8	36.23	1.50
122.00	14 37 15	5385.43	32.88	247.65	123.61	117.25	16 7 1	4785.4	36.24	239.24
58.00	7 35 52	1405.80	32.87	9.90	123.60	117.27	7 59 18	805.8	36.23	1.50
122.00	14 37 15	5385.43	32.88	247.65	123.61	117.25	16 7 1	4785.4	36.24	239.24
58.00	7 35 52	1405.80	32.87	9.90	123.60	117.27	7 59 18	805.8	36.23	1.50
122.00	14 37 15	5385.43	32.88	247.65	123.61	117.25	16 7 1	4785.4	36.24	239.24

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.0425 TRA  .4856 TC3-7.0544 BAU 1.0028   SGT 5076.1 SGR  718.4 SG3  252.6     ST  1872.2 SR   501.2 SS   472.3
 RDE  .2786 RRA -.1446 RC3  .6130 FAU .04450   RRT -.8564 RRF -.8728 RTF  .9429    CRT -.9986 CRS  .9344 CST -.9288
 FDE -.4164 FRA  .6578 FC3-3.6367 BSP  16170   SGB 5126.6 RZS  .1181 R13 -.9439   LSA 1987.4 MSA  170.3 SSA   24.5
 BDE 1.0791 BRA  .5067 BC3 7.0810 FSP   -834   SG1 5113.4 SG2  368.1 THA 173.05   EL1 1938.0 EL2   26.0 ALF 165.03
```

LAUNCH DATE SEP 15 1970 FLIGHT TIME 168.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 488.849

```
RL  150.44 LAL   -.00 LOL 351.74 VL  26.508 GAL   -.59 AZL  91.95 HCA 236.21 SMA 125.00 ECC .20372 INC 1.9490 V1  29.618
RP  108.29 LAP   1.62 LOP 227.94 VP  37.275 GAP   8.92 AZP  88.92 TAL 182.29 TAP  58.51 RCA  99.54 APO 150.47 V2  34.995
RC 145.816 GL  -16.07 GP   24.20 ZAL  86.58 ZAP 150.51 ETS  48.95 ZAE 125.66 ETE 162.35 ZAC 125.54 ETC 259.25 CLP-162.61
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PLANETOCENTRIC CONIC

```
C3  10.603 VHL  3.256 DLA -39.42 RAL 264.16 RAD 6567.4 VEL 11.489 PTH   2.00 VHP  6.371 DPA   3.04 RAP 249.03 ECC 1.1745
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.34	8 7 5	1364.02	31.20	5.35	126.70	115.43	8 29 49	764.0	34.34	357.02
118.66	14 36 28	5427.59	31.21	250.27	126.70	115.42	16 8 55	4827.6	34.34	241.93
61.34	8 7 5	1364.02	31.20	5.35	126.70	115.43	8 29 49	764.0	34.34	357.02
118.66	14 36 28	5427.59	31.21	250.27	126.70	115.42	16 8 55	4827.6	34.34	241.93
61.34	8 7 5	1364.02	31.20	5.35	126.70	115.43	8 29 49	764.0	34.34	357.02
118.66	14 36 28	5427.59	31.21	250.27	126.70	115.42	16 8 55	4827.6	34.34	241.93

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.9044 TRA  .6497 TC3-7.1735 BAU 1.0201   SGT 5152.5 SGR  691.5 SG3  247.0     ST  1658.1 SR   474.0 SS   407.0
 RDE  .2623 RRA -.1569 RC3  .5694 FAU .04253   RRT -.8408 RRF -.8511 RTF  .9427    CRT -.9972 CRS  .8677 CST -.8912
 FDE -.3077 FRA  .7304 FC3-3.4721 BSP  16455   SGB 5198.7 RZS  .1004 R13 -.9436   LSA 1762.2 MSA  183.2 SSA   26.7
 BDE  .9417 BRA  .6684 BC3 7.1961 FSP   -821   SG1 5185.4 SG2  372.0 THA 173.53   EL1 1724.2 EL2   34.3 ALF 164.08
```

LAUNCH DATE SEP 15 1970 FLIGHT TIME 170.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 494.649

```
RL  150.44 LAL   -.00 LOL 351.74 VL  26.464 GAL   -.21 AZL  91.69 HCA 239.40 SMA 124.73 ECC .20615 INC 1.6856 V1  29.618
RP  108.33 LAP   1.45 LOP 231.13 VP  37.231 GAP   9.22 AZP  89.14 TAL 180.80 TAP  60.21 RCA  99.02 APO 150.44 V2  34.982
RC 147.979 GL  -13.74 GP   22.85 ZAL  83.53 ZAP 152.15 ETS  49.24 ZAE 125.83 ETE 163.35 ZAC 124.43 ETC 259.90 CLP-163.63
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PLANETOCENTRIC CONIC

```
C3  10.741 VHL  3.277 DLA -37.17 RAL 268.06 RAD 6567.4 VEL 11.495 PTH   2.00 VHP  6.481 DPA   1.30 RAP 250.69 ECC 1.1768
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.84	8 39 53	1316.82	29.46	.53	129.91	113.78	9 1 50	716.8	32.40	352.28
115.16	14 36 48	5480.03	29.47	253.67	129.91	113.76	16 8 8	4880.0	32.41	245.41
64.84	8 39 53	1316.82	29.46	.53	129.91	113.78	9 1 50	716.8	32.40	352.28
115.16	14 36 48	5480.03	29.47	253.67	129.91	113.76	16 8 8	4880.0	32.41	245.41
64.84	8 39 53	1316.82	29.46	.53	129.91	113.78	9 1 50	716.8	32.40	352.28
115.16	14 36 48	5480.03	29.47	253.67	129.91	113.76	16 8 8	4880.0	32.41	245.41

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.7731 TRA  .8111 TC3-7.2438 BAU 1.0430   SGT 5247.7 SGR  671.5 SG3  241.8     ST  1460.2 SR   453.8 SS   360.8
 RDE  .2518 RRA -.1668 RC3  .5356 FAU .04104   RRT -.8267 RRF -.8299 RTF  .9451    CRT -.9886 CRS  .7639 CST -.8451
 FDE -.2154 FRA  .7883 FC3-3.3076 BSP  16979   SGB 5290.4 RZS  .0793 R13 -.9457   LSA 1557.8 MSA  201.5 SSA   28.1
 BDE  .8130 BRA  .8281 BC3 7.2636 FSP   -827   SG1 5277.1 SG2  375.7 THA 173.93   EL1 1527.6 EL2   65.3 ALF 162.89
```

LAUNCH DATE SEP 15 1970 FLIGHT TIME 172.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 500.429

```
RL  150.44 LAL   -.00 LOL 351.74 VL  26.420 GAL    .18 AZL  91.44 HCA 242.59 SMA 124.46 ECC .20878 INC 1.4391 V1  29.618
RP  108.37 LAP   1.28 LOP 234.33 VP  37.188 GAP   9.52 AZP  89.34 TAL 179.30 TAP  61.89 RCA  98.47 APO 150.44 V2  34.969
RC 150.132 GL  -11.54 GP   21.64 ZAL  80.43 ZAP 153.67 ETS  49.66 ZAE 125.95 ETE 164.24 ZAC 123.45 ETC 260.53 CLP-164.63
```

PLANETOCENTRIC CONIC

```
C3  11.002 VHL  3.317 DLA -34.97 RAL 271.80 RAD 6567.4 VEL 11.506 PTH   2.00 VHP  6.603 DPA   -.29 RAP 252.45 ECC 1.1811
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
68.56	9 15 9	1261.20	27.68	355.23	133.20	112.28	9 36 10	661.2	30.45	347.05
111.44	14 31 24	5545.48	27.69	258.05	133.21	112.27	16 3 49	4945.5	30.46	249.88
68.56	9 15 9	1261.20	27.68	355.23	133.20	112.28	9 36 10	661.2	30.45	347.05
111.44	14 31 24	5545.48	27.69	258.05	133.21	112.27	16 3 49	4945.5	30.46	249.88
68.56	9 15 9	1261.20	27.68	355.23	133.20	112.28	9 36 10	661.2	30.45	347.05
111.44	14 31 24	5545.48	27.69	258.05	133.21	112.27	16 3 49	4945.5	30.46	249.88

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.6200 TRA 1.0006 TC3-7.1246 BAU 1.0503   SGT 5285.3 SGR  647.0 SG3  233.3     ST  1251.9 SR   431.0 SS   331.5
 RDE  .2405 RRA -.1807 RC3  .4787 FAU .03813   RRT -.8040 RRF -.8036 RTF  .9418    CRT -.9611 CRS  .5725 CST -.7708
 FDE -.1123 FRA  .8609 FC3-3.0005 BSP  16874   SGB 5324.7 RZS  .0712 R13 -.9424   LSA 1343.3 MSA  240.4 SSA   28.5
 BDE  .6650 BRA 1.0168 BC3 7.1407 FSP   -776   SG1 5311.0 SG2  382.9 THA 174.35   EL1 1319.2 EL2  113.0 ALF 161.55
```

LAUNCH DATE SEP 15 1970 FLIGHT TIME 174.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 506.184

RL	150.44	LAL	-.00	LOL	351.74	VL	26.376	GAL	.59	AZL	91.21	HCA	245.78	SMA	124.19	ECC	.21163	INC	1.2066	V1	29.618
RP	108.41	LAP	1.10	LOP	237.52	VP	37.144	GAP	9.82	AZP	89.50	TAL	177.78	TAP	63.56	RCA	97.91	APO	150.47	V2	34.956
RC	152.275	GL	-9.47	GP	20.56	ZAL	77.34	ZAP	155.08	ETS	50.22	ZAE	126.04	ETE	165.04	ZAC	122.57	ETC	261.15	CLP	-165.61

PLANETOCENTRIC CONIC

C3	11.388	VHL	3.375	DLA	-32.83	RAL	275.38	RAD	6567.4	VEL	11.523	PTH	2.01	VHP	6.737	DPA	-1.74	RAP	254.28	ECC	1.1874

LNCH AZMTH	LNCH TIME	L-1 TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
72.65	9 54 19	1192.18	25.89	349.06	136.57	110.93	10 14 11	592.2	28.50	340.97
107.35	14 20 46	5028.75	25.90	263.74	136.58	110.91	15 54 34	5028.7	28.51	255.65
72.65	9 54 19	1192.18	25.89	349.06	136.57	110.93	10 14 11	592.2	28.50	340.97
107.35	14 20 46	5028.75	25.90	263.74	136.58	110.91	15 54 34	5028.7	28.51	255.65
110.00	13 24 34	5001.06	20.45	274.41	135.88	118.00	15 1 16	5201.9	24.03	267.09
110.00	15 49 41	5355.11	31.61	244.62	138.61	103.75	17 18 56	4755.1	33.17	235.74

DIFFERENTIAL CORRECTIONS

TDE	-.4764	TRA	1.1915	TC3	-6.9858	BAU	1.0657
RDE	.2354	RRA	-.1934	RC3	.4398	FAU	.03618
FDE	-.0326	FRA	.9230	FC3	-2.7502	BSP	17065
BDE	.5314	BRA	1.2071	BC3	6.9996	FSP	-755

MID-COURSE EXECUTION ACCURACY

SGT	5355.5	SGR	633.0	SG3	227.4		
RRT	-.7858	RRF	-.7816	RTF	.9427		
SGB	5392.7	RZS	.0596	RIS	-.9431		
SG1	5378.6	SG2	389.8	THA	174.67		

ORBIT DETERMINATION ACCURACY

ST	1093.6	SR	416.7	SS	328.9
CRT	-.8982	CRS	.3748	CST	-.7394
LSA	1181.3	NSA	285.5	SSA	28.0
EL1	1157.4	EL2	173.1	ALF	160.66

LAUNCH DATE SEP 15 1970 FLIGHT TIME 176.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 511.914

RL	150.44	LAL	-.00	LOL	351.74	VL	26.333	GAL	1.02	AZL	90.99	HCA	248.96	SMA	123.92	ECC	.21470	INC	.9857	V1	29.618
RP	108.45	LAP	.92	LOP	240.70	VP	37.102	GAP	10.14	AZP	89.65	TAL	176.26	TAP	65.22	RCA	97.32	APO	150.53	V2	34.943
RC	154.408	GL	-7.54	GP	19.58	ZAL	74.27	ZAP	156.40	ETS	50.92	ZAE	126.10	ETE	165.76	ZAC	121.77	ETC	261.77	CLP	-166.57

PLANETOCENTRIC CONIC

C3	11.903	VHL	3.450	DLA	-30.76	RAL	278.79	RAD	6567.5	VEL	11.545	PTH	2.02	VHP	6.883	DPA	-3.06	RAP	256.18	ECC	1.1959

LNCH AZMTH	LNCH TIME	L-1 TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
77.47	10 40 54	1098.19	24.11	341.20	140.00	109.69	10 59 12	498.2	26.57	333.20
102.53	14 1 24	5741.21	24.12	271.55	140.00	109.68	15 37 5	5141.2	26.58	263.54
77.47	10 40 54	1098.19	24.11	341.20	140.00	109.69	10 59 12	498.2	26.57	333.20
102.53	14 1 24	5741.21	24.12	271.55	140.00	109.68	15 37 5	5141.2	26.58	263.54
110.00	12 55 47	659.12	15.59	304.95	135.73	120.81	13 6 46	59.1	19.56	298.08
110.00	16 48 41	5228.28	33.27	235.10	142.60	98.36	18 12 50	4628.3	34.06	225.95

DIFFERENTIAL CORRECTIONS

TDE	-.3298	TRA	1.3888	TC3	-6.7706	BAU	1.0794
RDE	.2320	RRA	-.2057	RC3	.4006	FAU	.03412
FDE	.0435	FRA	.9790	FC3	-2.4814	BSP	17302
BDE	.4029	BRA	1.4041	BC3	6.7825	FSP	-738

MID-COURSE EXECUTION ACCURACY

SGT	5415.7	SGR	618.8	SG3	220.6		
RRT	-.7667	RRF	-.7582	RTF	.9431		
SGB	5451.0	RZS	.0487	RIS	-.9434		
SG1	5436.6	SG2	395.7	THA	174.97		

ORBIT DETERMINATION ACCURACY

ST	983.5	SR	403.4	SS	341.6
CRT	-.7763	CRS	.1740	CST	-.7517
LSA	1063.9	NSA	337.8	SSA	26.8
EL1	1035.2	EL2	241.6	ALF	161.28

LAUNCH DATE SEP 15 1970 FLIGHT TIME 178.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 517.617

RL	150.44	LAL	-.00	LOL	351.74	VL	26.289	GAL	1.47	AZL	90.77	HCA	252.14	SMA	123.66	ECC	.21802	INC	.7742	V1	29.618
RP	108.49	LAP	.74	LOP	243.89	VP	37.059	GAP	10.46	AZP	89.76	TAL	174.72	TAP	66.87	RCA	96.70	APO	150.62	V2	34.931
RC	156.530	GL	-5.75	GP	18.70	ZAL	71.25	ZAP	157.64	ETS	51.76	ZAE	126.15	ETE	166.40	ZAC	121.05	ETC	262.39	CLP	-167.51

PLANETOCENTRIC CONIC

C3	12.554	VHL	3.543	DLA	-28.75	RAL	282.04	RAD	6567.5	VEL	11.573	PTH	2.02	VHP	7.041	DPA	-4.26	RAP	258.14	ECC	1.2066

LNCH AZMTH	LNCH TIME	L-1 TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.78	11 50 32	927.95	22.36	327.92	143.47	108.57	12 6 0	328.0	24.69	319.99
95.22	13 17 39	645.94	22.37	307.27	143.47	108.55	13 28 25	45.9	24.70	299.34
100.00	12 46 16	747.08	17.51	312.67	141.42	114.62	12 58 43	147.1	20.68	305.31
100.00	15 4 37	5590.09	27.40	261.33	145.01	102.45	16 37 47	4990.1	28.84	252.83
110.00	12 39 39	767.86	11.71	310.99	138.17	122.35	12 52 27	167.9	15.89	304.38
110.00	17 27 43	5142.07	33.92	228.46	146.13	94.48	18 53 25	4542.1	34.17	219.23

DIFFERENTIAL CORRECTIONS

TDE	-.1803	TRA	1.5952	TC3	-6.4945	BAU	1.0917
RDE	.2306	RRA	-.2182	RC3	.3627	FAU	.03205
FDE	.1128	FRA	1.0317	FC3	-2.2101	BSP	17509
BDE	.2927	BRA	1.6101	BC3	6.5046	FSP	-719

MID-COURSE EXECUTION ACCURACY

SGT	5470.2	SGR	605.9	SG3	213.5		
RRT	-.7470	RRF	-.7349	RTF	.9434		
SGB	5505.6	RZS	.0397	RIS	-.9437		
SG1	5489.0	SG2	401.5	THA	175.24		

ORBIT DETERMINATION ACCURACY

ST	939.8	SR	392.1	SS	365.7
CRT	-.5872	CRS	.0055	CST	-.8094
LSA	1012.0	NSA	382.1	SSA	25.3
EL1	970.9	EL2	307.2	ALF	164.66

LAUNCH DATE SEP 15 1970 FLIGHT TIME 180.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 523.291

RL	150.44	LAL	-.00	LOL	351.74	VL	26.246	GAL	1.93	AZL	90.57	HCA	255.32	SMA	123.40	ECC	.22161	INC	.5703	V1	29.618
RP	108.53	LAP	.55	LOP	247.07	VP	37.017	GAP	10.80	AZP	89.86	TAL	173.18	TAP	68.51	RCA	96.05	APO	150.74	V2	34.919
RC	158.641	GL	-4.10	GP	17.90	ZAL	68.31	ZAP	158.79	ETS	52.77	ZAE	126.18	ETE	166.97	ZAC	120.40	ETC	263.00	CLP	-168.43

PLANETOCENTRIC CONIC

C3	13.348	VHL	3.653	DLA	-26.84	RAL	285.12	RAD	6567.5	VEL	11.608	PTH	2.03	VHP	7.209	DPA	-5.36	RAP	260.16	ECC	1.2197

LNCH AZMTH	LNCH TIME	L-1 TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 26 7	1062.80	15.17	334.79	144.77	114.20	11 43 49	462.8	18.32	327.53
90.00	14 6 41	5825.55	26.33	278.40	148.53	100.81	15 43 46	5225.6	27.56	269.95
100.00	12 14 40	905.96	12.76	322.08	143.58	117.26	12 29 46	306.0	16.31	315.09
100.00	16 0 49	5457.62	28.98	251.81	149.02	97.68	17 31 46	4857.6	29.74	243.09
110.00	12 29 3	860.80	8.27	316.00	140.91	125.29	12 43 24	260.8	12.60	309.57
110.00	18 2 55	5075.54	34.16	225.28	148.50	91.42	19 27 31	4475.5	33.98	214.04

DIFFERENTIAL CORRECTIONS

TDE	-.0898	TRA	1.8118	TC3	-6.1715	BAU	1.1029
RDE	.2312	RRA	-.2312	RC3	.3209	FAU	.03001
FDE	.1754	FRA	1.0828	FC3	-1.9486	BSP	17690
BDE	.2330	BRA	1.8265	BC3	6.1802	FSP	-698

MID-COURSE EXECUTION ACCURACY

SGT	5520.6	SGR	594.7	SG3	206.6		
RRT	-.7273	RRF	-.7125	RTF	.9438		
SGB	5552.6	RZS	.0325	RIS	-.9440		
SG1	5537.7	SG2	406.8	THA	175.50		

ORBIT DETERMINATION ACCURACY

ST	965.9	SR	382.5	SS	395.7
CRT	-.3627	CRS	-.1227	CST	-.8779
LSA	1036.0	NSA	402.6	SSA	23.8
EL1	977.3	EL2	352.3	ALF	170.59

LAUNCH DATE SEP 15 1970 FLIGHT TIME 182.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 528.931

```
RL  150.44 LAL   -.00 LOL 351.74 VL  26.203 GAL   2.42 AZL  90.37 HCA 258.50 SMA 123.14 ECC .22549 INC  .3721 V1  29.618
RP  108.56 LAP    .37 LOP 250.25 VP  36.976 GAP  11.14 AZP  89.93 TAL 171.64 TAP  70.14 RCA  95.37 APO 150.90 V2  34.907
RC 160.740 GL   -2.58 GP   17.18 ZAL  65.45 ZAP 159.87 ETS  53.95 ZAE 126.20 ETE 167.49 ZAC 119.79 ETC 263.62 CLP-169.34
```

PLANETOCENTRIC CONIC

```
C3  14.298 VHL  3.781 DLA -25.01 RAL 288.04 RAD 6567.6 VEL 11.648 PTH   2.04 VHP  7.390 DPA  -6.35 RAP 262.24 ECC 1.2353
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 58 12	1211.55	10.84	343.57	147.18	116.32	11 18 24	611.6	14.29	336.59
90.00	14 57 53	5706.92	27.57	269.94	152.41	96.74	16 33 0	5106.9	28.21	261.35
100.00	11 56 43	1022.65	9.03	328.74	146.22	118.62	12 13 45	422.7	12.79	321.96
100.00	16 42 4	5371.05	29.60	245.45	152.64	94.39	18 11 35	4771.1	29.89	236.66
110.00	12 21 39	944.45	5.12	320.43	143.85	123.84	12 37 23	344.4	9.53	314.11
110.00	18 33 37	5022.02	34.17	219.10	152.79	88.95	19 57 19	4422.0	33.65	209.90

DIFFERENTIAL CORRECTIONS

```
TDE  .1083 TRA 2.0221 TC3-5.8591 BAU 1.1214
RDE  .2352 RRA -.2425 RC3  .2989 FAU .02851
FDE  .2225 FRA 1.1216 FC3-1.7263 BSP  18261
BDE  .2589 BRA 2.0366 BC3 5.8667 FSP   -699
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5575.9 SGR  585.3 SGS  199.6
RRT -.7091 RRF -.6919 RTF  .9458
SGB 5606.6 RZS  .0250 RIS -.9459
SGI 5591.4 SGZ  411.5 THA 175.72
```

ORBIT DETERMINATION ACCURACY

```
ST  1036.0 SR   376.7 SS   419.6
CRT -.1686 CRS -.2080 CST -.9272
LSA 1109.1 MSA  400.9 SSA   22.2
EL1 1038.3 EL2  370.5 ALF 175.98
```

LAUNCH DATE SEP 15 1970 FLIGHT TIME 184.00 ARRIVAL DATE MAR 18 1971

HELIOCENTRIC CONIC DISTANCE 534.540

```
RL  150.44 LAL   -.00 LOL 351.74 VL  26.160 GAL   2.93 AZL  90.18 HCA 261.68 SMA 122.88 ECC .22969 INC  .1785 V1  29.618
RP  108.60 LAP    .18 LOP 253.42 VP  36.935 GAP  11.50 AZP  89.97 TAL 170.09 TAP  71.77 RCA  94.66 APO 151.11 V2  34.896
RC 162.828 GL   -1.19 GP   16.52 ZAL  62.70 ZAP 160.88 ETS  55.30 ZAE 126.21 ETE 167.96 ZAC 119.23 ETC 264.24 CLP-170.23
```

PLANETOCENTRIC CONIC

```
C3  15.419 VHL  3.927 DLA -23.27 RAL 290.81 RAD 6567.6 VEL 11.696 PTH   2.06 VHP  7.584 DPA  -7.24 RAP 264.35 ECC 1.2537
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 41 16	1325.78	7.32	350.12	149.96	117.43	11 3 22	725.8	10.94	343.31
90.00	15 36 54	5626.37	28.07	264.10	156.02	93.86	17 10 40	5026.4	28.31	255.44
100.00	11 44 34	1121.46	5.77	334.26	149.11	119.38	12 3 15	521.5	9.64	327.61
100.00	17 16 17	5305.91	29.84	240.62	156.12	91.86	18 44 43	4705.9	29.78	231.82
110.00	12 16 21	1021.79	2.18	324.48	146.88	124.12	12 33 23	421.8	6.64	318.23
110.00	19 0 50	4978.35	34.06	215.69	156.06	86.93	20 23 57	4378.4	33.26	206.54

DIFFERENTIAL CORRECTIONS

```
TDE  .2773 TRA 2.2727 TC3-5.4414 BAU 1.1230
RDE  .2372 RRA -.2575 RC3  .2628 FAU .02617
FDE  .2830 FRA 1.1767 FC3-1.4695 BSP  18104
BDE  .3650 BRA 2.2872 BC3 5.4478 FSP   -661
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5608.5 SGR  574.2 SGS  193.1
RRT -.6888 RRF -.6698 RTF  .9450
SGB 5637.8 RZS  .0212 RIS -.9451
SGI 5622.5 SGZ  415.2 THA 175.94
```

ORBIT DETERMINATION ACCURACY

```
ST  1163.2 SR   367.3 SS   456.8
CRT  .0151 CRS -.2887 CST -.9603
LSA 1244.1 MSA  385.1 SSA   20.9
EL1 1163.2 EL2  367.3 ALF    .30
```

LAUNCH DATE SEP 15 1970 FLIGHT TIME 186.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 540.109

```
RL  150.44 LAL   -.00 LOL 351.74 VL  26.118 GAL   3.46 AZL  89.99 HCA 264.85 SMA 122.63 ECC .23423 INC  .0000 V1  29.618
RP  108.63 LAP   -.01 LOP 256.60 VP  36.895 GAP  11.88 AZP  90.00 TAL 168.53 TAP  73.39 RCA  93.91 APO 151.36 V2  34.885
RC 164.900 GL     .07 GP   15.92 ZAL  60.06 ZAP 161.82 ETS  56.86 ZAE 126.21 ETE 168.39 ZAC 118.71 ETC 264.86 CLP-171.12
```

PLANETOCENTRIC CONIC

```
C3  16.727 VHL  4.090 DLA -21.63 RAL 293.43 RAD 6567.7 VEL 11.752 PTH   2.07 VHP  7.790 DPA  -8.04 RAP 266.51 ECC 1.2753
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 29 28	1423.72	4.22	355.64	152.93	118.03	10 53 12	823.7	7.94	348.93
90.00	16 9 34	5565.47	28.27	259.66	159.51	91.64	17 42 19	4965.5	28.20	250.99
100.00	11 35 46	1209.71	2.60	339.13	152.14	119.77	11 55 56	609.7	6.74	332.56
100.00	17 45 56	5254.71	29.89	236.82	159.53	89.85	19 13 31	4654.7	29.55	228.03
110.00	12 12 33	1094.45	-.60	328.27	150.02	124.18	12 30 47	494.4	3.89	322.06
110.00	19 25 39	4942.74	33.90	212.93	159.33	85.30	20 48 2	4342.7	32.88	203.84

DIFFERENTIAL CORRECTIONS

```
TDE  .4395 TRA 2.5246 TC3-5.0396 BAU 1.1282
RDE  .2418 RRA -.2713 RC3  .2324 FAU .02418
FDE  .3329 FRA 1.2241 FC3-1.2513 BSP  18174
BDE  .5016 BRA 2.5391 BC3 5.0449 FSP   -837
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5643.3 SGR  564.0 SGS  186.7
RRT -.6695 RRF -.6491 RTF  .9452
SGB 5671.4 RZS  .0172 RIS -.9453
SGI 5656.0 SGZ  418.0 THA 176.15
```

ORBIT DETERMINATION ACCURACY

```
ST  1302.7 SR   360.3 SS   487.6
CRT  .1445 CRS -.3444 CST -.9777
LSA 1389.1 MSA  367.0 SSA   19.8
EL1 1303.8 EL2  356.2 ALF   2.47
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LAUNCH DATE SEP 15 1970 FLIGHT TIME 188.00 ARRIVAL DATE MAR 22 1971

HELIOCENTRIC CONIC DISTANCE 545.636

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RL  150.44 LAL   -.00 LOL 351.74 VL  26.076 GAL   4.02 AZL  89.80 HCA 268.03 SMA 122.39 ECC .23916 INC  .1986 V1  29.618
RP  108.66 LAP   -.20 LOP 259.77 VP  36.855 GAP  12.27 AZP  90.01 TAL 166.98 TAP  75.01 RCA  93.12 APO 151.65 V2  34.874
RC 166.961 GL    1.21 GP   15.38 ZAL  57.53 ZAP 162.71 ETS  58.62 ZAE 126.21 ETE 168.77 ZAC 118.22 ETC 265.49 CLP-171.99
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PLANETOCENTRIC CONIC

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C3  18.244 VHL  4.271 DLA -20.08 RAL 295.89 RAD 6567.7 VEL 11.816 PTH   2.09 VHP  8.011 DPA  -8.76 RAP 268.70 ECC 1.3003
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 20 44	1511.65	1.39	.56	156.02	118.29	10 45 56	911.7	5.16	353.91
90.00	16 37 59	5517.78	28.32	256.17	162.94	89.89	18 9 56	4917.8	28.00	247.52
100.00	11 29 11	1290.76	.06	343.58	155.28	119.89	11 50 42	690.8	4.03	337.05
100.00	18 12 13	5213.90	29.85	233.79	162.91	88.26	19 39 7	4613.9	29.29	225.03
110.00	12 9 49	1163.44	-3.23	331.87	153.23	124.05	12 29 12	563.4	1.26	325.66
110.00	19 48 4	4913.99	33.72	210.70	162.61	84.00	21 9 58	4314.0	32.52	201.67

DIFFERENTIAL CORRECTIONS

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TDE  .6080 TRA 2.7981 TC3-4.6412 BAU 1.1331
RDE  .2478 RRA -.2950 RC3  .2050 FAU .02232
FDE  .3773 FRA 1.2991 FC3-1.0590 BSP  18292
BDE  .6510 BRA 2.8006 BC3 4.6457 FSP   -616
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MID-COURSE EXECUTION ACCURACY

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SGT 5675.0 SGR  553.9 SGS  180.4
RRT -.6508 RRF -.6294 RTF  .9458
SGB 5701.9 RZS  .0138 RIS -.9459
SGI 5686.5 SGZ  419.7 THA 176.35
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ORBIT DETERMINATION ACCURACY

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ST  1446.1 SR   354.1 SS   514.5
CRT  .2383 CRS -.3863 CST -.9870
LSA 1535.8 MSA  350.1 SSA   18.7
EL1 1448.7 EL2  343.3 ALF   3.54
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LAUNCH DATE SEP 15 1970 FLIGHT TIME 190.00 ARRIVAL DATE MAR 24 1971

HELIOCENTRIC CONIC DISTANCE 551.116

RL	150.44	LAL	-.00	LOL	351.74	VL	26.035	GAL	4.61	AZL	89.81	HCA	271.20	SMA	122.14	ECC	.24450	INC	.3862	V1	29.618
RP	108.69	LAP	-.39	LOP	262.94	VP	36.816	GAP	12.69	AZP	89.99	TAL	165.43	TAP	76.63	RCA	92.28	APO	152.00	V2	34.864
RC	169.007	GL	2.24	GP	14.88	ZAL	55.13	ZAP	163.53	ETS	60.60	ZAE	126.19	ETE	169.12	ZAC	117.75	ETC	266.11	CLP	-172.86

PLANETOCENTRIC CONIC

C3	19.995	VHL	4.472	DLA	-18.63	RAL	298.22	RAD	6567.8	VEL	11.890	PTH	2.11	VHP	8.248	DPA	-9.39	RAP	270.93	ECC	1.3291

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 14 5	1592.62	-1.22	5.07	159.21	118.29	10 40 36	992.6	2.57	358.44
90.00	17 3 12	5480.07	28.28	253.41	166.35	88.51	18 34 32	4880.1	27.77	244.78
100.00	11 24 10	1366.49	-2.51	347.73	158.49	119.80	11 46 57	786.5	1.47	341.21
100.00	18 35 49	5181.43	29.75	231.38	166.28	86.99	20 2 10	4581.4	29.02	222.65
110.00	12 7 54	1229.44	-5.74	335.35	156.49	123.76	12 28 24	629.4	-1.27	329.11
110.00	20 8 34	4891.25	33.54	208.95	165.89	82.97	21 30 5	4291.2	32.20	199.97

DIFFERENTIAL CORRECTIONS

TDE	.7874	TRA	3.0598	TCS	-4.2473	BAU	1.1364
RDE	.2549	RRA	-.2985	RCS	.1799	FAU	.02093
FDE	.4183	FRA	1.3130	FCS	-.8887	BSP	18407
BDE	.8066	BRA	3.0743	BCS	4.2511	FSP	-597

MID-COURSE EXECUTION ACCURACY

SGT	5702.0	SGR	543.6	SGS	174.3		
RRT	-.6323	RRF	-.6103	RTF	.9467		
SGB	5727.8	RZS	.0109	R13	-.9467		
SGI	5712.4	SGZ	420.4	THA	176.53		

ORBIT DETERMINATION ACCURACY

ST	1587.6	SR	348.4	SS	538.7
CRT	.3080	CRS	-.4194	CST	-.9922
LSA	1679.1	MSA	335.0	SSA	17.8
EL1	1591.3	EL2	330.7	ALF	4.04

LAUNCH DATE SEP 15 1970 FLIGHT TIME 192.00 ARRIVAL DATE MAR 26 1971

HELIOCENTRIC CONIC DISTANCE 556.542

RL	150.44	LAL	-.00	LOL	351.74	VL	25.993	GAL	5.23	AZL	89.43	HCA	274.37	SMA	121.80	ECC	.25030	INC	.5740	V1	29.618
RP	108.72	LAP	-.57	LOP	266.11	VP	36.778	GAP	13.13	AZP	89.96	TAL	163.89	TAP	78.26	RCA	91.39	APO	152.41	V2	34.855
RC	171.039	GL	3.17	GP	14.42	ZAL	52.85	ZAP	164.30	ETS	62.83	ZAE	126.17	ETE	169.45	ZAC	117.31	ETC	266.74	CLP	-173.73

PLANETOCENTRIC CONIC

C3	22.011	VHL	4.692	DLA	-17.27	RAL	300.42	RAD	6567.9	VEL	11.975	PTH	2.13	VHP	8.501	DPA	-9.94	RAP	273.17	ECC	1.3622

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 8 56	1660.36	-3.66	9.30	162.46	118.10	10 36 44	1060.4	.13	2.67
90.00	17 25 53	5490.43	28.21	251.24	169.75	87.42	18 56 43	4850.4	27.55	242.64
100.00	11 20 18	1430.04	-4.92	351.67	161.77	119.58	11 44 16	830.0	-.95	345.14
100.00	18 57 11	5155.98	29.65	229.49	169.65	86.01	20 23 7	4556.0	28.78	220.80
110.00	12 6 37	1292.93	-8.13	336.70	159.80	123.32	12 28 10	692.9	-3.69	332.42
110.00	20 27 21	4873.86	33.39	207.61	169.20	82.20	21 48 35	4273.9	31.95	198.68

DIFFERENTIAL CORRECTIONS

TDE	.9362	TRA	3.3486	TCS	-3.8636	BAU	1.1378
RDE	.2632	RRA	-.3117	RCS	.1568	FAU	.01879
FDE	.4562	FRA	1.3565	FCS	-.7390	BSP	18525
BDE	.9725	BRA	3.3611	BCS	3.8668	FSP	-578

MID-COURSE EXECUTION ACCURACY

SGT	5724.3	SGR	532.8	SGS	168.4		
RRT	-.6138	RRF	-.5916	RTF	.9477		
SGB	5749.1	RZS	.0086	R13	-.9477		
SGI	5733.7	SGZ	420.0	THA	176.71		

ORBIT DETERMINATION ACCURACY

ST	1722.7	SR	343.0	SS	560.2
CRT	.3613	CRS	-.4463	CST	-.9951
LSA	1815.3	MSA	321.8	SSA	17.0
EL1	1727.3	EL2	319.0	ALF	4.26

LAUNCH DATE SEP 15 1970 FLIGHT TIME 194.00 ARRIVAL DATE MAR 28 1971

HELIOCENTRIC CONIC DISTANCE 561.909

RL	150.44	LAL	-.00	LOL	351.74	VL	25.953	GAL	5.88	AZL	89.24	HCA	277.54	SMA	121.66	ECC	.25661	INC	.7632	V1	29.618
RP	108.75	LAP	-.76	LOP	269.28	VP	36.740	GAP	13.59	AZP	89.90	TAL	162.35	TAP	79.89	RCA	90.44	APO	152.88	V2	34.846
RC	173.056	GL	4.00	GP	14.01	ZAL	50.69	ZAP	165.00	ETS	65.31	ZAE	126.14	ETE	169.74	ZAC	116.88	ETC	267.36	CLP	-174.59

PLANETOCENTRIC CONIC

C3	24.326	VHL	4.932	DLA	-16.00	RAL	302.48	RAD	6568.0	VEL	12.071	PTH	2.16	VHP	8.773	DPA	-10.42	RAP	275.44	ECC	1.4003

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 4 52	1739.96	-5.94	13.33	165.77	117.74	10 33 52	1140.0	-2.18	6.66
90.00	17 46 26	5427.58	28.13	249.58	173.13	86.59	19 16 53	4827.6	27.36	241.00
100.00	11 17 19	1506.20	-7.19	355.46	165.09	119.09	11 42 26	906.2	-3.26	348.88
100.00	19 16 40	5136.57	29.55	228.06	173.02	85.26	20 42 16	4536.6	28.58	219.39
110.00	12 5 50	1354.24	-10.41	341.99	163.14	122.75	12 28 24	754.2	-6.02	335.65
110.00	20 44 30	4861.29	33.27	206.65	172.52	81.64	22 5 40	4261.3	31.75	197.75

DIFFERENTIAL CORRECTIONS

TDE	1.1094	TRA	3.6479	TCS	-3.4941	BAU	1.1372
RDE	.2724	RRA	-.3246	RCS	.1357	FAU	.01713
FDE	.4918	FRA	1.3000	FCS	-.6095	BSP	18826
BDE	1.1424	BRA	3.6823	BCS	3.4967	FSP	-559

MID-COURSE EXECUTION ACCURACY

SGT	5742.3	SGR	521.5	SGS	162.8		
RRT	-.5954	RRF	-.5733	RTF	.9489		
SGB	5766.0	RZS	.0067	R13	-.9490		
SGI	5750.8	SGZ	418.4	THA	176.89		

ORBIT DETERMINATION ACCURACY

ST	1849.5	SR	337.7	SS	579.4
CRT	.4032	CRS	-.4688	CST	-.9969
LSA	1942.7	MSA	310.0	SSA	16.2
EL1	1854.7	EL2	308.2	ALF	4.33

LAUNCH DATE SEP 15 1970 FLIGHT TIME 196.00 ARRIVAL DATE MAR 30 1971

HELIOCENTRIC CONIC DISTANCE 567.208

RL	150.44	LAL	-.00	LOL	351.74	VL	25.912	GAL	6.57	AZL	89.04	HCA	280.70	SMA	121.43	ECC	.26347	INC	.9551	V1	29.618
RP	108.78	LAP	-.94	LOP	272.45	VP	36.704	GAP	14.08	AZP	89.82	TAL	160.83	TAP	81.53	RCA	89.44	APO	153.42	V2	34.837
RC	175.059	GL	4.74	GP	13.63	ZAL	48.66	ZAP	165.64	ETS	68.07	ZAE	126.10	ETE	170.01	ZAC	116.46	ETC	267.99	CLP	-175.45

PLANETOCENTRIC CONIC

C3	28.983	VHL	5.194	DLA	-14.82	RAL	304.43	RAD	6568.1	VEL	12.180	PTH	2.19	VHP	9.065	DPA	-10.82	RAP	277.72	ECC	1.4441

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 1 41	1808.15	-8.09	17.19	169.12	117.23	10 31 49	1208.2	-4.37	10.48
90.00	18 5 9	5410.59	28.05	246.34	176.52	85.97	19 35 19	4910.6	27.20	239.78
100.00	11 15 2	1571.49	-9.34	359.12	169.45	118.53	11 41 13	971.5	-5.46	352.46
100.00	19 34 29	5122.49	29.46	227.02	176.39	84.72	20 59 51	4522.5	28.42	218.37
110.00	12 5 25	1413.65	-12.57	345.22	166.52	122.05	12 28 59	813.6	-8.25	338.80
110.00	21 0 35	4853.10	33.18	206.03	175.85	81.28	22 21 28	4253.1	31.62	197.15

DIFFERENTIAL CORRECTIONS

TDE	1.2861	TRA	3.9889	TCS	-3.1425	BAU	1.1344
RDE	.2827	RRA	-.3380	RCS	.1166	FAU	.01553
FDE	.5249	FRA	1.4431	FCS	-.4983	BSP	18751
BDE	1.3168	BRA	3.9782	BCS	3.1447	FSP	-543

MID-COURSE EXECUTION ACCURACY

SGT	5755.4	SGR	509.5	SGS	157.3		
RRT	-.5767	RRF	-.5551	RTF	.9504		
SGB	5777.9	RZS	.0051	R13	-.9504		
SGI	5763.0	SGZ	415.7	THA	177.06		

ORBIT DETERMINATION ACCURACY

ST	1965.4	SR	332.5	SS	596.2
CRT	.4370	CRS	-.4881	CST	-.9980
LSA	2058.9	MSA	299.4	SSA	15.5
EL1	1970.9	EL2	296.2	ALF	4.33

LAUNCH DATE SEP 15 1970 FLIGHT TIME 198.00 ARRIVAL DATE APR 1 1971

HELIOCENTRIC CONIC DISTANCE 572.428

RL 150.44 LAL -.00 LOL 351.74 VL 25.872 GAL 7.31 AZL 88.85 HCA 283.87 SHA 121.20 ECC .27096 INC 1.1509 V1 29.618
RP 108.80 LAP -1.12 LOP 273.61 VP 36.668 GAP 14.61 AZP 89.72 TAL 159.32 TAP 83.18 RCA 88.36 APO 154.04 V2 34.829
RC 177.047 GL 5.40 GP 13.28 ZAL 46.74 ZAP 166.23 ETS 71.11 ZAE 126.05 ETE 170.27 ZAC 116.05 ETC 268.61 CLP-176.31

PLANETOCENTRIC CONIC

C3 30.033 VHL 5.480 DLA -13.72 RAL 306.26 RAD 6568.2 VEL 12.305 PTH 2.22 VHP 9.381 DPA -11.16 RAP 280.01 ECC 1.4943

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 59 10	1873.46	-10.10	20.93	172.50	116.60	10 30 23	1273.5	-6.45	14.15
90.00	18 22 15	5398.76	27.99	247.48	179.90	85.55	19 52 14	4798.8	27.08	238.93
100.00	11 13 17	1634.32	-11.36	2.00	171.84	117.84	11 40 31	1034.3	-7.55	355.98
100.00	19 50 49	5113.13	29.40	226.33	179.76	84.36	21 16 2	4513.1	28.31	217.70
110.00	12 5 19	1471.34	-14.64	348.42	180.94	121.24	12 29 50	871.3	-10.39	341.89
110.00	21 15 17	4848.87	33.14	205.70	179.20	81.09	22 36 5	4248.9	31.56	196.84

DIFFERENTIAL CORRECTIONS
TDE 1.4672 TRA 4.2954 TC3-2.8110 BAU 1.1294
RDE .2940 RRA -.3482 RC3 .0993 FAU .01400
FDE .5582 FRA 1.4866 FC3 -.4036 BSP 18890
BDE 1.4964 BRA 4.3095 BC3 2.8128 FSP -527

MID-COURSE EXECUTION ACCURACY
SGT 5763.3 SGR 496.8 SG3 152.0
RRT -.5575 RRF -.5367 RTF .9521
SGB 5764.7 R23 .0039 R13 -.9521
SG1 5770.0 SG2 411.9 THA 177.23

ORBIT DETERMINATION ACCURACY
ST 2070.0 SR 327.3 SS 611.2
CRT .4653 CRS -.5054 CST -.9986
LSA 2163.7 MSA 289.7 SSA 14.9
EL1 2075.7 EL2 288.9 ALF 4.29

LAUNCH DATE SEP 15 1970 FLIGHT TIME 200.00 ARRIVAL DATE APR 3 1971

HELIOCENTRIC CONIC DISTANCE 577.558

RL 150.44 LAL -.00 LOL 351.74 VL 25.833 GAL 8.09 AZL 88.65 HCA 287.03 SHA 120.98 ECC .27915 INC 1.3520 V1 29.618
RP 108.83 LAP -1.29 LOP 278.78 VP 36.633 GAP 15.18 AZP 89.60 TAL 157.83 TAP 84.86 RCA 87.21 APO 154.75 V2 34.822
RC 179.021 GL 5.98 GP 12.96 ZAL 44.93 ZAP 166.74 ETS 74.46 ZAE 125.99 ETE 170.51 ZAC 115.65 ETC 269.23 CLP-177.17

PLANETOCENTRIC CONIC

C3 33.537 VHL 5.791 DLA -12.70 RAL 307.98 RAD 6568.3 VEL 12.446 PTH 2.25 VHP 9.722 DPA -11.42 RAP 282.30 ECC 1.5519

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 57 11	1936.25	-11.99	24.58	175.91	115.85	10 29 27	1336.2	-8.41	17.72
90.00	18 37 57	5391.49	27.95	246.95	183.27	85.29	20 7 48	4791.5	27.01	238.41
100.00	11 11 58	1694.95	-13.26	6.19	175.26	117.04	11 40 13	1094.9	-9.53	359.38
100.00	20 5 50	5108.03	29.37	225.95	183.12	84.17	21 30 58	4508.0	28.25	217.33
110.00	12 5 26	1527.47	-16.59	351.60	173.38	120.32	12 30 54	927.5	-12.44	344.95
110.00	21 28 51	4848.27	33.13	205.86	182.55	81.07	22 49 39	4248.3	31.55	196.79

DIFFERENTIAL CORRECTIONS
TDE 1.6535 TRA 4.6447 TC3-2.4998 BAU 1.1214
RDE .3063 RRA -.3586 RC3 .0837 FAU .01254
FDE .5861 FRA 1.5310 FC3 -.3237 BSP 19037
BDE 1.6816 BRA 4.6586 BC3 2.5012 FSP -513

MID-COURSE EXECUTION ACCURACY
SGT 5766.2 SGR 483.2 SG3 146.8
RRT -.5377 RRF -.5180 RTF .9540
SGB 5766.4 R23 .0029 R13 -.9541
SG1 5772.1 SG2 407.0 THA 177.41

ORBIT DETERMINATION ACCURACY
ST 2163.5 SR 322.1 SS 624.8
CRT .4898 CRS -.5211 CST -.9991
LSA 2257.5 MSA 280.5 SSA 14.3
EL1 2169.4 EL2 280.1 ALF 4.24

LAUNCH DATE SEP 15 1970 FLIGHT TIME 202.00 ARRIVAL DATE APR 5 1971

HELIOCENTRIC CONIC DISTANCE 582.584

RL 150.44 LAL -.00 LOL 351.74 VL 25.794 GAL 8.92 AZL 88.44 HCA 290.19 SHA 120.76 ECC .28811 INC 1.5600 V1 29.618
RP 108.85 LAP -1.46 LOP 281.94 VP 36.600 GAP 15.78 AZP 89.46 TAL 156.36 TAP 86.55 RCA 85.97 APO 155.55 V2 34.815
RC 180.980 GL 6.50 GP 12.66 ZAL 43.24 ZAP 167.19 ETS 78.11 ZAE 125.91 ETE 170.73 ZAC 115.25 ETC 269.84 CLP-178.05

PLANETOCENTRIC CONIC

C3 37.571 VHL 6.129 DLA -11.76 RAL 309.59 RAD 6568.5 VEL 12.607 PTH 2.29 VHP 10.091 DPA -11.63 RAP 284.59 ECC 1.6183

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 55 38	1996.78	-13.76	28.14	179.34	115.00	10 28 54	1396.8	-10.28	21.19
90.00	18 52 21	5388.32	27.94	246.72	186.64	85.17	20 22 9	4788.3	26.97	238.19
100.00	11 11 0	1753.60	-15.05	9.62	178.70	116.14	11 40 14	1153.6	-11.41	2.72
100.00	20 19 39	5106.73	29.36	225.86	186.49	84.12	21 44 46	4506.7	28.24	217.24
110.00	12 5 45	1582.13	-18.44	354.75	176.84	119.30	12 32 7	982.1	-14.40	347.97
110.00	21 41 23	4850.97	33.16	205.86	185.91	81.19	23 2 14	4251.0	31.59	196.99

DIFFERENTIAL CORRECTIONS
TDE 1.8465 TRA 5.0134 TC3-2.2090 BAU 1.1101
RDE .3195 RRA -.3677 RC3 .0697 FAU .01112
FDE .6151 FRA 1.5768 FC3 -.2563 BSP 19192
BDE 1.8740 BRA 5.0269 BC3 2.2101 FSP -499

MID-COURSE EXECUTION ACCURACY
SGT 5764.2 SGR 468.8 SG3 141.9
RRT -.5167 RRF -.4985 RTF .9562
SGB 5763.2 R23 .0023 R13 -.9562
SG1 5769.3 SG2 401.0 THA 177.58

ORBIT DETERMINATION ACCURACY
ST 2246.8 SR 316.7 SS 637.5
CRT .5116 CRS -.5360 CST -.9993
LSA 2341.1 MSA 271.7 SSA 13.7
EL1 2252.7 EL2 271.4 ALF 4.19

LAUNCH DATE SEP 15 1970 FLIGHT TIME 204.00 ARRIVAL DATE APR 7 1971

HELIOCENTRIC CONIC DISTANCE 587.488

RL 150.44 LAL -.00 LOL 351.74 VL 25.756 GAL 9.81 AZL 88.22 HCA 293.35 SHA 120.54 ECC .29794 INC 1.7765 V1 29.618
RP 108.87 LAP -1.63 LOP 285.10 VP 36.567 GAP 16.44 AZP 89.30 TAL 154.93 TAP 88.28 RCA 84.63 APO 156.45 V2 34.809
RC 182.925 GL 6.95 GP 12.39 ZAL 41.66 ZAP 167.56 ETS 82.07 ZAE 125.81 ETE 170.94 ZAC 114.86 ETC 270.45 CLP-178.94

PLANETOCENTRIC CONIC

C3 42.223 VHL 6.498 DLA -10.89 RAL 311.09 RAD 6568.6 VEL 12.790 PTH 2.35 VHP 10.494 DPA -11.77 RAP 286.87 ECC 1.6949

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 54 26	2055.25	-15.41	31.64	182.78	114.05	10 28 41	1455.3	-12.03	24.59
90.00	19 5 34	5388.81	27.94	246.76	189.99	85.19	20 35 23	4788.8	26.98	238.22
100.00	11 10 19	1810.41	-16.72	13.01	182.16	115.14	11 40 30	1210.4	-13.20	5.99
100.00	20 32 21	5108.89	29.38	226.02	189.84	84.20	21 57 30	4508.9	28.26	217.39
110.00	12 6 13	1635.39	-20.19	357.90	180.32	118.19	12 33 28	1035.4	-16.26	350.98
110.00	21 52 57	4856.67	33.22	206.30	189.27	81.44	23 13 54	4256.7	31.68	197.41

DIFFERENTIAL CORRECTIONS
TDE 2.0472 TRA 5.4040 TC3-1.9381 BAU 1.0945
RDE .3337 RRA -.3753 RC3 .0571 FAU .00973
FDE .6440 FRA 1.6248 FC3 -.1995 BSP 19346
BDE 2.0742 BRA 5.4170 BC3 1.9390 FSP -486

MID-COURSE EXECUTION ACCURACY
SGT 5757.5 SGR 453.5 SG3 137.1
RRT -.4944 RRF -.4777 RTF .9585
SGB 5775.3 R23 .0018 R13 -.9585
SG1 5761.9 SG2 393.9 THA 177.76

ORBIT DETERMINATION ACCURACY
ST 2320.2 SR 311.2 SS 650.1
CRT .5317 CRS -.5506 CST -.9995
LSA 2415.2 MSA 263.0 SSA 13.2
EL1 2326.2 EL2 262.9 ALF 4.13

LAUNCH DATE SEP 15 1970 FLIGHT TIME 206.00 ARRIVAL DATE APR 9 1971

HELIOCENTRIC CONIC DISTANCE 592.247

RL	150.44	LAL	-.00	LOL	351.74	VL	25.719	GAL	10.77	AZL	88.00	HCA	296.51	SMA	120.33	ECC	.30875	INC	2.0035	V1	29.618
RP	108.88	LAP	-1.79	LOP	288.27	VP	36.535	GAP	17.16	AZP	89.11	TAL	153.53	TAP	90.04	RCA	83.18	APO	157.48	V2	34.804
RC	184.054	GL	7.36	GP	12.14	ZAL	40.19	ZAP	167.85	ETS	86.33	ZAE	125.69	ETE	171.14	ZAC	114.46	ETC	271.05	CLP	-179.84

PLANETOCENTRIC CONIC

C3	47.605	VHL	6.900	DLA	-10.09	RAL	312.50	RAD	6568.8	VEL	12.999	PTH	2.37	VHP	10.933	DPA	-11.86	RAP	289.14	ECC	1.7835

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 53 31	2111.77	-16.95	35.08	186.23	113.03	10 28 43	1511.8	-13.69	27.92
90.00	19 17 41	5302.61	27.06	247.03	193.32	85.33	20 47 34	4792.6	27.02	238.49
100.00	11 9 52	1865.45	-18.28	16.35	185.62	114.07	11 40 58	1265.5	-14.88	9.22
100.00	20 44 2	5114.16	29.41	226.41	193.17	84.40	22 9 16	4514.2	28.32	217.77
110.00	12 6 46	1687.27	-21.82	1.04	183.82	116.99	12 34 54	1087.3	-18.03	353.96
110.00	22 3 37	4865.11	33.30	206.94	192.62	81.81	23 24 42	4265.1	31.81	198.03

DIFFERENTIAL CORRECTIONS

TDE	2.2575	TRA	5.8205	TC3	-1.6841	BAU	1.0722
RDE	.3489	RRA	-.3810	RC3	.0459	FAU	.00834
FDE	.6733	FRA	1.6758	FC3	-.1516	BSP	19494
BDE	2.2843	BRA	5.8329	BC3	1.6847	FSP	-473

MID-COURSE EXECUTION ACCURACY

SGT	5746.0	SGR	437.3	SG3	132.6		
RRT	-.4703	RRF	-.4554	RTF	.9611		
SGB	5762.6	RZS	.0014	R13	-.9611		
SG1	5749.7	SG2	385.7	THA	177.94		

ORBIT DETERMINATION ACCURACY

ST	2385.0	SR	305.4	SS	662.9
CRT	.5506	CRS	-.5651	CST	-.9996
LSA	2481.1	MSA	254.3	SSA	12.7
EL1	2391.0	EL2	254.3	ALF	4.08

LAUNCH DATE SEP 15 1970 FLIGHT TIME 208.00 ARRIVAL DATE APR 11 1971

HELIOCENTRIC CONIC DISTANCE 596.836

RL	150.44	LAL	-.00	LOL	351.74	VL	25.682	GAL	11.80	AZL	87.76	HCA	299.66	SMA	120.12	ECC	.32068	INC	2.2433	V1	29.618
RP	108.90	LAP	-1.95	LOP	291.43	VP	36.505	GAP	17.95	AZP	88.89	TAL	152.18	TAP	91.85	RCA	81.60	APO	158.65	V2	34.799
RC	186.768	GL	7.71	GP	11.91	ZAL	38.83	ZAP	168.06	ETS	90.87	ZAE	125.55	ETE	171.34	ZAC	114.07	ETC	271.64	CLP	179.23

PLANETOCENTRIC CONIC

C3	53.854	VHL	7.339	DLA	-9.36	RAL	313.81	RAD	6588.9	VEL	13.237	PTH	2.42	VHP	11.414	DPA	-11.89	RAP	291.39	ECC	1.8863

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 52 51	2166.39	-18.37	38.45	189.67	111.93	10 28 57	1566.4	-15.23	31.18
90.00	19 28 48	5399.39	28.00	247.53	196.63	85.57	20 58 47	4799.4	27.09	238.98
100.00	11 9 36	1918.77	-19.73	19.65	189.07	112.92	11 41 35	1318.8	-16.46	12.39
100.00	20 54 43	5122.25	29.46	227.00	196.48	84.71	22 20 6	4522.2	28.42	218.35
110.00	12 7 25	1737.75	-23.35	4.16	187.31	115.71	12 36 23	1137.8	-19.70	356.92
110.00	22 13 84	4876.02	33.41	207.78	195.96	82.29	23 34 40	4276.0	31.98	198.84

DIFFERENTIAL CORRECTIONS

TDE	2.4814	TRA	6.2656	TC3	-1.4496	BAU	1.0440
RDE	.3691	RRA	-.3846	RC3	.0360	FAU	.00893
FDE	.7038	FRA	1.7308	FC3	-.1114	BSP	19541
BDE	2.5081	BRA	6.2774	BC3	1.4500	FSP	-458

MID-COURSE EXECUTION ACCURACY

SGT	5732.4	SGR	420.3	SG3	128.3		
RRT	-.4437	RRF	-.4307	RTF	.9638		
SGB	5747.8	RZS	.0014	R13	-.9638		
SG1	5735.4	SG2	376.5	THA	178.13		

ORBIT DETERMINATION ACCURACY

ST	2443.3	SR	299.3	SS	676.6
CRT	.5693	CRS	-.5800	CST	-.9997
LSA	2541.0	MSA	245.5	SSA	12.2
EL1	2449.3	EL2	245.5	ALF	4.03

LAUNCH DATE SEP 15 1970 FLIGHT TIME 210.00 ARRIVAL DATE APR 13 1971

HELIOCENTRIC CONIC DISTANCE 601.220

RL	150.44	LAL	-.00	LOL	351.74	VL	25.646	GAL	12.91	AZL	87.50	HCA	302.82	SMA	119.92	ECC	.33387	INC	2.4986	V1	29.618
RP	108.91	LAP	-2.10	LOP	294.59	VP	36.476	GAP	18.81	AZP	88.65	TAL	150.89	TAP	93.71	RCA	79.89	APO	159.96	V2	34.795
RC	188.867	GL	8.01	GP	11.70	ZAL	37.57	ZAP	168.17	ETS	95.66	ZAE	125.37	ETE	171.53	ZAC	113.68	ETC	272.21	CLP	178.28

PLANETOCENTRIC CONIC

C3	61.141	VHL	7.819	DLA	-8.69	RAL	315.02	RAD	6589.1	VEL	13.509	PTH	2.47	VHP	11.944	DPA	-11.87	RAP	293.61	ECC	2.0062

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 52 22	2219.12	-19.68	41.77	193.08	110.78	10 29 21	1619.1	-16.68	34.38
90.00	19 38 55	5408.86	28.04	248.22	199.89	85.91	21 9 4	4808.9	27.18	239.66
100.00	11 9 29	1970.34	-21.06	22.90	192.51	111.71	11 42 19	1370.3	-17.93	15.51
100.00	21 4 29	5132.88	29.53	227.78	199.76	85.12	22 30 2	4532.9	28.54	219.12
110.00	12 8 6	1786.80	-24.76	7.27	190.80	114.36	12 37 53	1186.8	-21.26	359.87
110.00	22 22 22	4889.17	33.52	208.79	199.27	82.88	23 43 51	4289.2	32.18	199.82

DIFFERENTIAL CORRECTIONS

TDE	2.7186	TRA	6.7446	TC3	-1.2312	BAU	1.0066
RDE	.3825	RRA	-.3855	RC3	.0273	FAU	.00549
FDE	.7359	FRA	1.7905	FC3	-.0777	BSP	19547
BDE	2.7434	BRA	6.7557	BC3	1.2315	FSP	-443

MID-COURSE EXECUTION ACCURACY

SGT	5715.8	SGR	402.5	SG3	124.2		
RRT	-.4141	RRF	-.4032	RTF	.9666		
SGB	5730.0	RZS	.0014	R13	-.9666		
SG1	5718.3	SG2	366.2	THA	178.32		

ORBIT DETERMINATION ACCURACY

ST	2494.2	SR	293.1	SS	691.7
CRT	.5877	CRS	-.5955	CST	-.9998
LSA	2594.1	MSA	236.6	SSA	11.7
EL1	2500.2	EL2	236.6	ALF	3.99

LAUNCH DATE SEP 15 1970 FLIGHT TIME 212.00 ARRIVAL DATE APR 15 1971

HELIOCENTRIC CONIC DISTANCE 605.358

RL	150.44	LAL	-.00	LOL	351.74	VL	25.611	GAL	14.13	AZL	87.23	HCA	305.98	SMA	119.73	ECC	.34850	INC	2.7726	V1	29.618
RP	108.92	LAP	-2.24	LOP	297.75	VP	36.448	GAP	19.75	AZP	88.37	TAL	149.67	TAP	95.64	RCA	78.00	APO	161.46	V2	34.791
RC	190.549	GL	8.28	GP	11.51	ZAL	36.41	ZAP	168.18	ETS	100.64	ZAE	125.16	ETE	171.72	ZAC	113.29	ETC	272.77	CLP	177.29

PLANETOCENTRIC CONIC

C3	69.678	VHL	8.347	DLA	-8.09	RAL	316.13	RAD	6589.3	VEL	13.821	PTH	2.52	VHP	12.529	DPA	-11.81	RAP	295.80	ECC	2.1467

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 52 3	2260.92	-20.87	45.02	196.46	109.58	10 29 53	1669.9	-18.01	37.51
90.00	19 48 6	5420.75	28.10	249.08	203.11	86.34	21 18 26	4820.7	27.30	240.51
100.00	11 9 29	2020.11	-22.28	26.10	195.91	110.46	11 43 9	1420.1	-19.30	18.57
100.00	21 13 21	5145.79	29.60	228.74	202.99	85.61	22 39 6	4545.8	28.68	220.06
110.00	12 8 49	1834.33	-26.06	10.35	194.28	112.95	12 39 23	1234.3	-22.72	2.78
110.00	22 30 30	4904.33	33.64	209.96	202.54	83.56	23 52 14	4304.3	32.39	200.95

DIFFERENTIAL CORRECTIONS

TDE	2.9737	TRA	7.2817	TC3	-1.0284	BAU	.9582
RDE	.4012	RRA	-.3833	RC3	.0199	FAU	.00396
FDE	.7705	FRA	1.8561	FC3	-.0492	BSP	19442
BDE	3.0007	BRA	7.2718	BC3	1.0286	FSP	-426

MID-COURSE EXECUTION ACCURACY

SGT	5697.4	SGR	384.1	SG3	120.4		
RRT	-.3805	RRF	-.3718	RTF	.9696		
SGB	5710.3	RZS	.0015	R13	-.9696		
SG1	5699.2	SG2	355.1	THA	178.52		

ORBIT DETERMINATION ACCURACY

ST	2539.7	SR	286.7	SS	708.8
CRT	.6066	CRS	-.6119	CST	-.9998
LSA	2642.5	MSA	227.4	SSA	11.2
EL1	2545.7	EL2	227.4	ALF	3.95

LAUNCH DATE SEP 15 1970 FLIGHT TIME 214.00 ARRIVAL DATE APR 17 1971

HELIOCENTRIC CONIC DISTANCE 609.196

RL	150.44	LAL	-.00	LOL	351.74	VL	25.577	GAL	15.45	AZL	86.93	HCA	309.13	SMA	119.54	ECC	.36478	INC	3.0604
RP	108.93	LAP	-2.38	LOP	300.91	VP	36.422	GAP	20.81	AZP	88.06	TAL	148.53	TAP	97.66	RCA	75.94	APO	163.15
RC	192.414	GL	8.50	GP	11.32	ZAL	35.37	ZAP	168.08	ETS	105.77	ZAE	124.91	ETE	171.91	ZAC	112.90	ETC	273.31

V1	29.618	V2	34.789	CLP	176.27														

PLANETOCENTRIC CONIC

C3	79.736	VHL	8.930	DLA	-7.55	RAL	317.13	RAD	6500.6	VEL	14.180	PTH	2.58	VHP	13.179	DPA	-11.70	RAP	297.95
ECC	2.3123																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 51 50	2318.68	-21.95	48.19	199.78	108.35	10 30 29	1718.7	-19.24	40.56
90.00	19 56 20	5434.82	28.16	250.11	206.26	86.85	21 26 55	4834.8	27.42	241.52
100.00	11 9 33	2067.96	-23.39	29.22	199.25	109.17	11 44 1	1468.0	-20.56	21.57
100.00	21 21 18	5160.77	29.67	229.85	206.15	86.19	22 47 19	4560.8	28.83	221.14
110.00	12 9 31	1880.20	-27.24	13.39	197.67	111.50	12 40 52	1280.2	-24.08	5.66
110.00	22 37 50	4921.29	33.77	211.26	205.76	84.33	23 59 51	4321.3	32.61	202.22

DIFFERENTIAL CORRECTIONS

TDE	3.2484	TRA	7.8216	TC3	-.8412	BAU	.8969
RDE	.4215	RRA	-.3771	RC3	.0137	FAU	.00234
FDE	.8079	FRA	1.9286	FC3	-.0254	BSP	19230
BDE	3.2756	BRA	7.8307	BC3	.8414	FSP	-407

MID-COURSE EXECUTION ACCURACY

SGT	5677.2	SGR	365.1	SG3	116.8		
RRT	-.3419	RRF	-.3354	RTF	.9727		
SGB	5669.0	R23	.0017	R13	-.9727		
SG1	5678.6	SG2	343.0	THA	178.74		

ORBIT DETERMINATION ACCURACY

ST	2579.4	SR	280.2	SS	728.2
CRT	.6260	CRS	-.6294	CST	-.9999
LSA	2685.9	NSA	218.0	SSA	10.7
EL1	2585.4	EL2	216.0	ALF	3.92

LAUNCH DATE SEP 15 1970 FLIGHT TIME 216.00 ARRIVAL DATE APR 19 1971

HELIOCENTRIC CONIC DISTANCE 612.665

RL	150.44	LAL	-.00	LOL	351.74	VL	25.544	GAL	16.91	AZL	86.61	HCA	312.28	SMA	119.36	ECC	.38295	INC	3.3940
RP	108.94	LAP	-2.51	LOP	304.08	VP	36.397	GAP	21.98	AZP	87.72	TAL	147.49	TAP	99.77	RCA	73.65	APO	165.07
RC	194.261	GL	8.69	GP	11.15	ZAL	34.44	ZAP	167.87	ETS	110.98	ZAE	124.60	ETE	172.10	ZAC	112.52	ETC	273.84
V1	29.618	V2	34.787	CLP	175.19														

PLANETOCENTRIC CONIC

C3	91.661	VHL	9.574	DLA	-7.07	RAL	318.04	RAD	6500.8	VEL	14.595	PTH	2.65	VHP	13.904	DPA	-11.56	RAP	300.04
ECC	2.5085																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 51 44	2365.25	-22.92	51.26	203.02	107.10	10 31 9	1765.2	-20.36	43.52
90.00	20 3 30	5450.87	28.21	251.28	209.33	87.44	21 34 30	4850.9	27.56	242.67
100.00	11 9 41	2113.74	-24.38	32.26	202.52	107.86	11 44 55	1513.7	-21.71	24.48
100.00	21 28 22	5177.61	29.74	231.09	209.24	86.85	22 54 40	4577.6	28.99	222.37
110.00	12 10 13	1924.26	-29.30	16.38	201.02	110.02	12 42 17	1324.3	-25.32	8.48
110.00	22 44 80	4959.86	33.88	212.70	208.90	85.17	24 6 40	4339.9	32.84	203.62

DIFFERENTIAL CORRECTIONS

TDE	3.5490	TRA	8.4308	TC3	-.6691	BAU	.8200
RDE	.4437	RRA	-.3663	RC3	.0086	FAU	.00058
FDE	.8489	FRA	2.0092	FC3	-.0055	BSP	16896
BDE	3.5736	BRA	8.4387	BC3	.6692	FSP	-387

MID-COURSE EXECUTION ACCURACY

SGT	5656.2	SGR	345.8	SG3	113.5		
RRT	-.2968	RRF	-.2925	RTF	.9758		
SGB	5666.7	R23	.0020	R13	-.9758		
SG1	5657.1	SG2	330.2	THA	178.96		

ORBIT DETERMINATION ACCURACY

ST	2613.6	SR	273.7	SS	750.5
CRT	.6465	CRS	-.6482	CST	-.9999
LSA	2725.0	NSA	208.3	SSA	10.2
EL1	2619.6	EL2	208.3	ALF	3.90

LAUNCH DATE SEP 15 1970 FLIGHT TIME 218.00 ARRIVAL DATE APR 21 1971

HELIOCENTRIC CONIC DISTANCE 615.678

RL	150.44	LAL	-.00	LOL	351.74	VL	25.513	GAL	18.52	AZL	86.25	HCA	315.43	SMA	119.19	ECC	.40331	INC	3.7528
RP	108.94	LAP	-2.63	LOP	307.24	VP	36.374	GAP	23.30	AZP	87.32	TAL	146.57	TAP	102.00	RCA	71.12	APO	167.26
RC	196.090	GL	8.85	GP	10.99	ZAL	33.63	ZAP	167.52	ETS	116.19	ZAE	124.23	ETE	172.30	ZAC	112.13	ETC	274.34
V1	29.618	V2	34.786	CLP	174.06														

PLANETOCENTRIC CONIC

C3	105.897	VHL	10.291	DLA	-6.65	RAL	318.83	RAD	6570.0	VEL	15.074	PTH	2.71	VHP	14.718	DPA	-11.39	RAP	302.06
ECC	2.7428																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 51 41	2409.42	-23.77	54.21	206.15	105.86	10 31 51	1809.4	-21.37	46.37
90.00	20 9 59	5468.71	28.26	252.58	212.30	88.09	21 41 8	4868.7	27.69	243.96
100.00	11 9 52	2157.24	-25.25	35.20	205.68	106.55	11 45 49	1557.2	-22.75	27.30
100.00	21 34 30	5196.12	29.80	232.47	212.23	87.57	23 1 6	4596.1	29.15	223.72
110.00	12 10 51	1966.28	-29.25	19.29	204.26	108.54	12 43 37	1366.3	-26.44	11.23
110.00	22 50 0	4959.86	33.99	214.25	211.96	86.08	24 12 40	4359.9	33.07	205.14

DIFFERENTIAL CORRECTIONS

TDE	3.8688	TRA	9.0946	TC3	-.5115	BAU	.7242
RDE	.4684	RRA	-.3496	RC3	.0046	FAU	-.00135
FDE	.8940	FRA	2.0992	FC3	.0110	BSP	18429
BDE	3.8970	BRA	9.1014	BC3	.5116	FSP	-366

MID-COURSE EXECUTION ACCURACY

SGT	5633.7	SGR	326.4	SG3	110.4		
RRT	-.2433	RRF	-.2412	RTF	.9789		
SGB	5643.1	R23	.0023	R13	-.9789		
SG1	5634.2	SG2	316.5	THA	179.19		

ORBIT DETERMINATION ACCURACY

ST	2642.0	SR	267.4	SS	776.0
CRT	.6680	CRS	-.6685	CST	-.9999
LSA	2759.4	NSA	198.5	SSA	9.7
EL1	2648.0	EL2	198.5	ALF	3.89

LAUNCH DATE SEP 15 1970 FLIGHT TIME 220.00 ARRIVAL DATE APR 23 1971

HELIOCENTRIC CONIC DISTANCE 618.115

RL	150.44	LAL	-.00	LOL	351.74	VL	25.483	GAL	20.30	AZL	85.85	HCA	318.58	SMA	119.03	ECC	.42621	INC	4.1541
RP	108.94	LAP	-2.75	LOP	310.40	VP	36.352	GAP	24.78	AZP	88.88	TAL	145.80	TAP	104.38	RCA	68.30	APO	169.76
RC	197.900	GL	8.98	GP	10.84	ZAL	32.94	ZAP	167.03	ETS	121.37	ZAE	123.78	ETE	172.51	ZAC	111.75	ETC	274.81
V1	29.618	V2	34.785	CLP	172.85														

PLANETOCENTRIC CONIC

C3	123.021	VHL	11.091	DLA	-6.30	RAL	319.49	RAD	6570.3	VEL	15.632	PTH	2.78	VHP	15.635	DPA	-11.20	RAP	304.01
ECC	3.0246																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 51 41	2450.92	-24.51	57.03	209.14	104.64	10 32 32	1850.9	-22.26	49.08
90.00	20 15 19	5488.20	28.29	254.01	215.14	88.80	21 46 47	4888.2	27.83	245.37
100.00	11 10 2	2198.18	-26.02	38.00	208.69	105.26	11 46 40	1598.2	-23.67	29.99
100.00	21 39 40	5216.17	29.85	233.95	215.10	88.35	23 6 36	4616.2	29.30	225.19
110.00	12 11 25	2005.90	-30.08	22.08	207.36	107.07	12 44 51	1406.0	-27.45	13.88
110.00	22 54 46	4981.14	34.07	215.91	214.90	87.06	24 17 47	4381.1	33.29	206.76

DIFFERENTIAL CORRECTIONS

TDE	4.1808	TRA	9.7812	TC3	-.3812	BAU	.6269
RDE	.4969	RRA	-.3252	RC3	.0020	FAU	-.00307
FDE	.9342	FRA	2.1905	FC3	.0216	BSP	18759
BDE	4.2102	BRA	9.7866	BC3	.3812	FSP	-363

MID-COURSE EXECUTION ACCURACY

SGT	5587.6	SGR	307.4	SG3	106.9		
RRT	-.1798	RRF	-.1797	RTF	.9819		
SGB	5596.0	R23	.0027	R13	-.9819		
SG1	5587.8	SG2	302.4	THA	179.43		

ORBIT DETERMINATION ACCURACY

ST	2644.0	SR	261.6	SS	798.6
CRT	.6895	CRS	-.6888	CST	-.9999
LSA	2767.9	NSA	189.1	SSA	9.2
EL1	2650.2	EL2	189.1	ALF	3.92

LAUNCH DATE SEP 16 1970 FLIGHT TIME 70.00 ARRIVAL DATE NOV 25 1970

HELIOCENTRIC CONIC DISTANCE 179.423

RL	150.40	LAL	-.00	LOL	352.72	VL	25.821	GAL	-7.01	AZL	90.32	HCA	78.34	SHA	120.86	ECC	.27162	INC	.3235
RP	107.84	LAP	-.32	LOP	71.06	VP	36.922	GAP	-14.53	AZP	90.07	TAL	199.70	TAP	278.05	RCA	88.03	APO	153.68
RC	44.254	GL	-1.72	GP	-13.32	ZAL	125.88	ZAP	13.74	ETS	72.13	ZAE	151.24	ETE	337.38	ZAC	88.45	ETC	261.28

V1 29.626 V2 35.141 CLP -3.39

PLANETOCENTRIC CONIC

C3	23.188	VHL	4.815	DLA	-19.08	RAL	225.86	RAD	6567.9	VEL	12.024	PTH	2.15	VHP	9.321	DPA	-34.04	RAP	242.48

ECC 1.3816

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 26 21	1010.21	-1.79	6.05	89.12	118.27	5 53 11	1010.2	2.00	359.42
90.00	12 5 47	5533.82	28.31	257.35	96.94	90.48	13 38 1	4933.9	28.08	248.69
100.00	6 35 57	1308.59	-3.16	348.78	88.36	119.74	6 59 3	785.6	.83	342.26
100.00	13 38 52	5233.75	29.88	235.26	96.93	89.03	15 6 6	4633.8	29.42	226.49
110.00	7 18 46	1251.44	-6.57	336.50	86.24	123.62	7 39 37	651.4	-2.11	330.25
110.00	15 12 33	4040.66	33.89	212.78	96.70	85.21	16 34 53	4340.7	32.85	203.68

DIFFERENTIAL CORRECTIONS

TDE	.1397	TRA	-.4184	TC3	.4533	BAU	.1530
RDE	-.3322	RRA	-.0812	RC3	-.1947	FAU	.03014
FDE	.0490	FRA	.0616	FC3	-1.1253	BSP	1900
BDE	.3604	BRA	.4282	BC3	.4934	FSP	-225

MID-COURSE EXECUTION ACCURACY

SGT	704.1	SGR	449.3	SG3	94.0		
RRT	-.2963	RRF	.3516	RTF	-.6580		
SGB	835.2	RZ3	-.0523	R13	.6761		
SG1	723.2	SG2	417.7	THA	163.73		

ORBIT DETERMINATION ACCURACY

ST	229.7	SR	396.5	SS	57.6
CRT	-.6690	CRS	.8454	CST	-.3506
LSA	432.8	NSA	159.2	SSA	25.4
EL1	430.4	EL2	157.3	ALF	114.71

LAUNCH DATE SEP 16 1970 FLIGHT TIME 72.00 ARRIVAL DATE NOV 27 1970

HELIOCENTRIC CONIC DISTANCE 186.231

RL	150.40	LAL	-.00	LOL	352.72	VL	26.043	GAL	-7.00	AZL	90.13	HCA	81.56	SHA	122.14	ECC	.26001	INC	.1272
RP	107.81	LAP	-.13	LOP	74.28	VP	37.088	GAP	-13.51	AZP	90.02	TAL	200.95	TAP	282.51	RCA	90.38	APO	153.89
RC	45.436	GL	-.71	GP	-14.15	ZAL	125.63	ZAP	15.24	ETS	64.31	ZAE	149.55	ETE	336.24	ZAC	87.70	ETC	261.44

V1 29.626 V2 35.152 CLP -5.71

PLANETOCENTRIC CONIC

C3	21.562	VHL	4.643	DLA	-17.62	RAL	224.41	RAD	6567.9	VEL	11.956	PTH	2.13	VHP	8.775	DPA	-35.06	RAP	243.27

ECC 1.3549

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 5 21	1649.84	-3.06	8.27	86.24	118.16	5 32 51	1049.8	.73	1.64
90.00	12 15 12	5458.99	28.23	251.87	93.51	87.74	13 46 11	4859.0	27.62	243.26
100.00	6 16 25	1420.56	-4.34	350.71	85.53	119.61	6 40 5	820.6	-.36	344.18
100.00	13 46 49	5163.50	29.60	230.05	93.42	86.30	15 12 53	4563.5	28.85	221.34
110.00	7 2 5	1277.47	-7.55	337.00	83.55	123.44	7 23 22	677.5	-3.10	331.61
110.00	15 17 38	4079.36	33.44	208.03	92.99	82.44	16 38 58	4279.4	32.03	199.09

DIFFERENTIAL CORRECTIONS

TDE	.1298	TRA	-.4004	TC3	.5175	BAU	.1640
RDE	-.3148	RRA	-.0852	RC3	-.2368	FAU	.03282
FDE	.0820	FRA	.0422	FC3	-1.3096	BSP	2002
BDE	.3404	BRA	.4085	BC3	.5691	FSP	-258

MID-COURSE EXECUTION ACCURACY

SGT	724.7	SGR	459.8	SG3	105.6		
RRT	-.3317	RRF	.3954	RTF	-.6739		
SGB	858.2	RZ3	-.0614	R13	.6954		
SG1	748.5	SG2	420.0	THA	162.42		

ORBIT DETERMINATION ACCURACY

ST	223.4	SR	389.9	SS	82.5
CRT	-.6544	CRS	.9336	CST	-.5387
LSA	427.9	NSA	157.7	SSA	27.8
EL1	421.3	EL2	156.3	ALF	114.08

LAUNCH DATE SEP 16 1970 FLIGHT TIME 74.00 ARRIVAL DATE NOV 29 1970

HELIOCENTRIC CONIC DISTANCE 193.039

RL	150.40	LAL	-.00	LOL	352.72	VL	26.243	GAL	-7.00	AZL	89.93	HCA	84.79	SHA	123.32	ECC	.24966	INC	.0633
RP	107.77	LAP	.06	LOP	77.51	VP	37.239	GAP	-12.54	AZP	89.99	TAL	202.21	TAP	287.00	RCA	92.53	APO	154.11
RC	46.738	GL	.38	GP	-15.07	ZAL	127.35	ZAP	17.07	ETS	57.82	ZAE	148.04	ETE	334.94	ZAC	86.86	ETC	261.59

V1 29.626 V2 35.163 CLP -8.10

PLANETOCENTRIC CONIC

C3	20.225	VHL	4.497	DLA	-16.09	RAL	223.02	RAD	6567.8	VEL	11.900	PTH	2.11	VHP	8.261	DPA	-36.15	RAP	243.07

ECC 1.3328

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 44 47	1692.03	-4.42	10.63	85.62	118.00	5 12 59	1092.0	-.64	3.99
90.00	12 24 40	5306.09	27.92	246.56	90.27	85.09	13 54 26	4786.1	26.95	238.03
100.00	5 57 9	1458.50	-5.61	352.81	82.96	119.41	6 21 28	858.5	-1.85	346.26
100.00	13 54 58	5094.86	29.27	224.99	90.12	83.66	15 19 53	4494.9	28.09	216.38
110.00	6 45 31	1307.00	-8.66	339.45	81.10	123.20	7 7 18	707.0	-4.23	333.16
110.00	15 23 6	4819.13	32.80	203.45	89.52	79.80	16 43 25	4219.1	31.05	194.67

DIFFERENTIAL CORRECTIONS

TDE	.1178	TRA	-.3830	TC3	.5805	BAU	.1748
RDE	-.2971	RRA	-.0898	RC3	-.2846	FAU	.03538
FDE	.1215	FRA	.0202	FC3	-1.5146	BSP	2104
BDE	.3196	BRA	.3934	BC3	.6465	FSP	-296

MID-COURSE EXECUTION ACCURACY

SGT	743.6	SGR	472.2	SG3	118.5		
RRT	-.3703	RRF	.4431	RTF	-.6881		
SGB	880.9	RZ3	-.0714	R13	.7137		
SG1	773.3	SG2	421.8	THA	160.88		

ORBIT DETERMINATION ACCURACY

ST	214.4	SR	380.3	SS	114.4
CRT	-.6315	CRS	.9607	CST	-.6216
LSA	422.5	NSA	155.6	SSA	30.4
EL1	408.2	EL2	154.9	ALF	113.12

LAUNCH DATE SEP 16 1970 FLIGHT TIME 76.00 ARRIVAL DATE DEC 1 1970

HELIOCENTRIC CONIC DISTANCE 199.841

RL	150.40	LAL	-.00	LOL	352.72	VL	26.423	GAL	-7.00	AZL	89.74	HCA	88.01	SHA	124.42	ECC	.24046	INC	.2560
RP	107.74	LAP	.26	LOP	80.73	VP	37.376	GAP	-11.62	AZP	89.99	TAL	203.47	TAP	291.48	RCA	94.50	APO	154.34
RC	48.190	GL	1.54	GP	-16.09	ZAL	129.01	ZAP	19.19	ETS	52.50	ZAE	146.71	ETE	333.46	ZAC	85.90	ETC	261.72

V1 29.626 V2 35.174 CLP -10.59

PLANETOCENTRIC CONIC

C3	19.132	VHL	4.374	DLA	-14.49	RAL	221.71	RAD	6567.8	VEL	11.854	PTH	2.10	VHP	7.778	DPA	-37.31	RAP	244.53

ECC 1.3149

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 24 47	1736.37	-5.83	13.12	81.28	117.76	4 53 44	1136.4	-2.07	6.46
90.00	12 34 14	5315.40	27.41	241.45	87.26	82.58	14 2 49	4715.4	26.09	233.03
100.00	5 38 22	1498.94	-6.95	355.05	80.67	119.15	6 3 21	898.9	-3.02	348.48
100.00	14 3 19	5028.07	29.67	220.11	87.06	81.17	15 27 7	4428.1	27.16	211.64
110.00	6 29 16	1339.52	-9.86	341.19	78.90	122.90	6 51 36	739.5	-5.46	334.87
110.00	15 28 55	4760.25	32.01	199.04	86.32	77.30	16 48 15	4160.2	29.93	190.45

DIFFERENTIAL CORRECTIONS

TDE	.1046	TRA	-.3684	TC3	.6402	BAU	.1852
RDE	-.2788	RRA	-.0948	RC3	-.3385	FAU	.03847
FDE	.1692	FRA	-.0043	FC3	-1.7409	BSP	2204
BDE	.2977	BRA	.3785	BC3	.7242	FSP	-338

MID-COURSE EXECUTION ACCURACY

SGT	760.4	SGR	487.3	SG3	133.0		
RRT	-.4110	RRF	.4944	RTF	-.7005		
SGB	903.1	RZ3	-.0829	R13	.7315		
SG1	797.7	SG2	425.4	THA	159.10		

ORBIT DETERMINATION ACCURACY

ST	202.9	SR	367.3	SS	152.1
CRT	-.5964	CRS	.9680	CST	-.6500
LSA	417.8	NSA	153.3	SSA	33.2
EL1	390.6	EL2	153.1	ALF	111.74

LAUNCH DATE SEP 16 1970 FLIGHT TIME 78.00 ARRIVAL DATE DEC 3 1970

HELIOCENTRIC CONIC DISTANCE 208.635

RL	150.40	LAL	-.00	LOL	352.72	VL	26.584	GAL	-7.02	AZL	89.55	HCA	91.24	SMA	125.43	ECC	.23232	INC	.4461
RP	107.71	LAP	.45	LOP	83.96	VP	37.500	GAP	-10.74	AZP	90.01	TAL	204.71	TAP	295.95	RCA	96.29	APO	154.57
RC	49.661	GL	2.76	GP	-17.22	ZAL	130.58	ZAP	21.57	ETS	48.11	ZAE	145.56	ETE	331.77	ZAC	84.83	ETC	261.82

PLANETOCENTRIC CONIC

C3	18.247	VHL	4.272	DLA	-12.84	RAL	220.51	RAD	6567.7	VEL	11.816	PTH	2.09	VHP	7.325	DPA	-38.56	RAP	244.94

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 5 30	1782.48	-7.28	15.73	79.25	117.44	4 35 12	1182.5	-3.55	9.04
90.00	12 43 55	5247.02	26.71	236.57	84.53	80.23	14 11 23	4647.0	25.09	228.28
100.00	5 20 12	1541.46	-8.36	357.43	78.67	118.80	5 45 53	941.5	-4.45	350.82
100.00	14 11 54	4963.27	27.91	215.45	84.28	78.83	15 34 38	4363.3	26.08	207.12
110.00	6 13 29	1374.57	-11.15	343.09	76.99	122.52	6 36 23	774.6	-6.78	336.72
110.00	15 35 7	4702.92	31.07	194.83	83.43	74.98	16 53 30	4102.9	28.70	186.44

DIFFERENTIAL CORRECTIONS

TDE	.0901	TRA	-.3510	TC3	.6940	BAU	.1953
RDE	-.2592	RRA	-.1002	RC3	-.3989	FAU	.04191
FDE	.2267	FRA	-.0314	FC3	-1.9885	BSP	2304
BDE	.2745	BRA	.3651	BC3	.8005	FSP	-386

MID-COURSE EXECUTION ACCURACY

SGT	774.2	SGR	506.0	SG3	149.2		
RRT	-.4531	RRF	.5485	RTF	-.7105		
SGB	924.9	RZ3	-.0959	RI3	.7485		
SG1	821.4	SG2	425.2	THA	157.02		

ORBIT DETERMINATION ACCURACY

ST	189.5	SR	350.3	SS	195.3
CRT	-.5457	CRS	.9683	CST	-.6452
LSA	415.6	NSA	151.0	SSA	35.9
EL1	368.6	EL2	151.0	ALF	109.93

LAUNCH DATE SEP 16 1970 FLIGHT TIME 80.00 ARRIVAL DATE DEC 5 1970

HELIOCENTRIC CONIC DISTANCE 213.418

RL	150.40	LAL	-.00	LOL	352.72	VL	26.729	GAL	-7.03	AZL	89.36	HCA	94.47	SMA	126.34	ECC	.22515	INC	.6371
RP	107.68	LAP	.64	LOP	87.19	VP	37.611	GAP	-9.89	AZP	90.05	TAL	205.91	TAP	300.38	RCA	97.90	APO	154.79
RC	51.263	GL	4.04	GP	-18.47	ZAL	132.03	ZAP	24.20	ETS	44.47	ZAE	144.57	ETE	329.82	ZAC	83.62	ETC	261.89

PLANETOCENTRIC CONIC

C3	17.535	VHL	4.188	DLA	-11.15	RAL	219.43	RAD	6567.7	VEL	11.786	PTH	2.08	VHP	6.903	DPA	-39.89	RAP	245.17

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 46 59	1830.02	-8.76	18.44	77.51	117.03	4 17 29	1230.0	-5.07	11.71
90.00	12 53 49	5180.95	25.86	231.92	82.08	78.05	14 20 10	4580.9	23.95	223.77
100.00	5 2 44	1585.67	-9.80	359.92	76.96	118.38	5 29 9	985.7	-5.93	353.27
100.00	14 20 45	4900.53	27.00	211.01	81.79	76.66	15 42 26	4300.5	24.89	202.84
110.00	5 58 17	1411.71	-12.50	345.12	75.36	122.08	6 21 48	811.7	-8.18	338.69
110.00	15 41 42	4647.26	30.02	190.84	80.85	72.83	16 59 9	4047.3	27.38	182.65

DIFFERENTIAL CORRECTIONS

TDE	.0752	TRA	-.3369	TC3	.7399	BAU	.2050
RDE	-.2381	RRA	-.1063	RC3	-.4663	FAU	.04572
FDE	.2949	FRA	-.0610	FC3	-2.2571	BSP	2402
BDE	.2496	BRA	.3533	BC3	.8746	FSP	-441

MID-COURSE EXECUTION ACCURACY

SGT	784.4	SGR	529.7	SG3	167.2		
RRT	-.4955	RRF	.6044	RTF	-.7181		
SGB	946.5	RZ3	-.1101	RI3	.7652		
SG1	844.6	SG2	427.3	THA	154.55		

ORBIT DETERMINATION ACCURACY

ST	175.5	SR	329.0	SS	243.5
CRT	-.4756	CRS	.9652	CST	-.6147
LSA	418.0	NSA	148.7	SSA	38.2
EL1	342.0	EL2	148.5	ALF	107.67

LAUNCH DATE SEP 16 1970 FLIGHT TIME 82.00 ARRIVAL DATE DEC 7 1970

HELIOCENTRIC CONIC DISTANCE 220.185

RL	150.40	LAL	-.00	LOL	352.72	VL	26.857	GAL	-7.05	AZL	89.17	HCA	97.70	SMA	127.18	ECC	.21887	INC	.8299
RP	107.65	LAP	.82	LOP	90.42	VP	37.711	GAP	-9.08	AZP	90.11	TAL	207.06	TAP	304.76	RCA	99.34	APO	155.01
RC	52.948	GL	5.38	GP	-19.86	ZAL	133.34	ZAP	27.06	ETS	41.39	ZAE	143.72	ETE	327.60	ZAC	82.27	ETC	261.92

PLANETOCENTRIC CONIC

C3	16.971	VHL	4.120	DLA	-9.44	RAL	218.48	RAD	6567.7	VEL	11.762	PTH	2.08	VHP	6.511	DPA	-41.32	RAP	245.19

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 29 19	1878.74	-10.26	21.24	76.09	116.54	4 0 38	1278.7	-6.61	14.45
90.00	13 3 56	5117.13	24.89	227.50	79.93	76.04	14 29 14	4517.1	22.72	219.50
100.00	4 46 2	1631.26	-11.26	2.52	75.56	117.87	5 13 13	1031.3	-7.44	355.81
100.00	14 29 55	4839.84	25.98	206.79	79.61	74.66	15 50 35	4239.8	23.62	198.78
110.00	5 43 44	1450.56	-13.90	347.26	74.02	121.55	6 7 55	850.6	-9.62	340.77
110.00	15 48 42	4593.30	28.88	187.06	78.60	70.86	17 5 15	3993.3	25.99	179.06

DIFFERENTIAL CORRECTIONS

TDE	.0598	TRA	-.3244	TC3	.7751	BAU	.2145
RDE	-.2146	RRA	-.1127	RC3	-.5409	FAU	.04989
FDE	.3757	FRA	-.0926	FC3	-2.5448	BSP	2494
BDE	.2227	BRA	.3434	BC3	.9452	FSP	-502

MID-COURSE EXECUTION ACCURACY

SGT	789.9	SGR	559.4	SG3	187.0		
RRT	-.5358	RRF	.6600	RTF	-.7228		
SGB	967.9	RZ3	-.1251	RI3	.7817		
SG1	867.0	SG2	430.3	THA	151.65		

ORBIT DETERMINATION ACCURACY

ST	161.6	SR	302.5	SS	296.9
CRT	-.3789	CRS	.9598	CST	-.5582
LSA	427.3	NSA	146.9	SSA	39.8
EL1	310.4	EL2	145.7	ALF	104.76

LAUNCH DATE SEP 16 1970 FLIGHT TIME 84.00 ARRIVAL DATE DEC 9 1970

HELIOCENTRIC CONIC DISTANCE 226.936

RL	150.40	LAL	-.00	LOL	352.72	VL	26.970	GAL	-7.07	AZL	88.97	HCA	100.93	SMA	127.93	ECC	.21338	INC	1.0256
RP	107.63	LAP	1.01	LOP	93.65	VP	37.799	GAP	-8.31	AZP	90.19	TAL	208.14	TAP	309.07	RCA	100.63	APO	155.22
RC	54.707	GL	6.77	GP	-21.38	ZAL	134.48	ZAP	30.16	ETS	38.74	ZAE	143.00	ETE	325.04	ZAC	80.76	ETC	261.91

PLANETOCENTRIC CONIC

C3	16.532	VHL	4.066	DLA	-7.72	RAL	217.69	RAD	6567.7	VEL	11.744	PTH	2.07	VHP	6.149	DPA	-42.85	RAP	244.96

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 12 31	1928.41	-11.76	24.12	74.97	115.95	3 44 40	1328.4	-8.17	17.27
90.00	13 14 23	5055.41	23.81	223.30	78.09	74.20	14 38 38	4455.4	21.41	215.45
100.00	4 30 9	1677.97	-12.73	5.20	74.46	117.27	4 58 7	1078.0	-8.98	358.43
100.00	14 39 26	4781.08	24.86	202.78	77.75	72.84	15 59 7	4181.1	22.27	194.94
110.00	5 29 55	1490.83	-15.32	349.52	72.98	120.94	5 54 46	890.8	-11.11	342.95
110.00	15 56 9	4540.99	27.65	183.48	76.67	69.06	17 11 50	3941.0	24.55	175.68

DIFFERENTIAL CORRECTIONS

TDE	.0399	TRA	-.3189	TC3	.7855	BAU	.2213
RDE	-.1870	RRA	-.1186	RC3	-.6208	FAU	.05417
FDE	.4753	FRA	-.1204	FC3	-2.8368	BSP	2472
BDE	.1913	BRA	.3402	BC3	1.0012	FSP	-558

MID-COURSE EXECUTION ACCURACY

SGT	785.4	SGR	593.9	SG3	208.1		
RRT	-.5592	RRF	.7110	RTF	-.7181		
SGB	984.6	RZ3	-.1468	RI3	.7959		
SG1	881.5	SG2	438.7	THA	148.42		

ORBIT DETERMINATION ACCURACY

ST	148.4	SR	268.8	SS	358.8
CRT	-.2064	CRS	.9524	CST	-.4324
LSA	446.9	NSA	147.5	SSA	39.7
EL1	271.2	EL2	143.9	ALF	99.08

LAUNCH DATE SEP 16 1970 FLIGHT TIME 86.00 ARRIVAL DATE DEC 11 1970

HELIOCENTRIC CONIC DISTANCE 233.666

RL	150.40	LAL	-.00	LOL	352.72	VL	27.070	GAL	-7.08	AZL	88.77	HCA	104.17	SMA	128.59	ECC	.20859	INC	1.2258	V1	29.626
RP	107.60	LAP	1.19	LOP	96.89	VP	37.878	GAP	-7.56	AZP	90.30	TAL	209.15	TAP	313.31	RCA	101.77	APO	155.42	V2	35.218
RC	56.533	GL	8.21	GP	-23.06	ZAL	135.45	ZAP	33.49	ETS	36.38	ZAE	142.36	ETE	322.11	ZAC	79.09	ETC	261.86	CLP	-24.99

PLANETOCENTRIC CONIC

C3	16.201	VHL	4.025	DLA	-5.98	RAL	217.04	RAD	6567.6	VEL	11.730	PTH	2.07	VHP	5.818	DPA	-44.48	RAP	244.45	ECC	1.2666

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 56 35	1978.99	-13.24	27.09	74.14	115.26	3 29 32	1379.0	-9.73	20.17
90.00	13 25 11	4995.58	22.64	219.30	76.55	72.52	14 48 27	4395.6	20.04	211.60
100.00	4 15 3	1725.73	-14.21	7.98	73.66	116.58	4 43 49	1125.7	-10.52	1.13
100.00	14 49 22	4724.08	23.66	198.97	76.19	71.17	16 8 6	4124.1	20.87	191.29
110.00	5 16 49	1532.37	-16.76	351.88	72.23	120.24	5 42 21	932.4	-12.62	345.22
110.00	16 4 5	4490.20	26.37	180.08	75.06	67.42	17 18 56	3890.2	23.08	172.47

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0296	TRA	-.3070	TC3	.8017	BAU	.2324	SGT	781.9	SGR	642.3	SG3	232.1	ST	139.8	SR	231.3
RDE	-.1575	RRA	-.1266	RC3	-.7130	FAU	.05919	RRT	-.5980	RRF	.7632	RTF	-.7184	CRT	-.0813	CRS	.9359
FDE	.5809	FRA	-.1578	FC3	-3.1631	BSP	2651	SG8	1011.9	RZ3	-.1548	R13	.8157	LSA	475.0	MSA	145.7
BDE	.1603	BRA	.3321	BC3	1.0729	FSP	-640	SG1	910.1	SG2	442.3	THA	144.16	EL1	231.8	EL2	139.0

SS	418.8	CST	-.3636	ALF	94.39
SSA	39.4				

LAUNCH DATE SEP 16 1970 FLIGHT TIME 88.00 ARRIVAL DATE DEC 13 1970

HELIOCENTRIC CONIC DISTANCE 240.374

RL	150.40	LAL	-.00	LOL	352.72	VL	27.157	GAL	-7.09	AZL	88.57	HCA	107.40	SMA	129.19	ECC	.20445	INC	1.4319	V1	29.626
RP	107.58	LAP	1.37	LOP	100.13	VP	37.947	GAP	-6.85	AZP	90.43	TAL	210.06	TAP	317.46	RCA	102.77	APO	155.60	V2	35.225
RC	58.419	GL	9.70	GP	-24.91	ZAL	136.21	ZAP	37.06	ETS	34.21	ZAE	141.78	ETE	318.78	ZAC	77.24	ETC	261.74	CLP	-28.38

PLANETOCENTRIC CONIC

C3	15.961	VHL	3.995	DLA	-4.23	RAL	216.55	RAD	6567.6	VEL	11.719	PTH	2.06	VHP	5.518	DPA	-46.23	RAP	243.59	ECC	1.2627

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 41 23	2030.44	-14.72	30.15	73.61	114.47	3 15 13	1430.4	-11.29	23.14
90.00	13 36 27	4937.36	21.40	215.49	75.31	71.00	14 58 44	4337.4	18.61	207.92
100.00	4 0 44	1774.44	-15.67	10.86	73.15	115.79	4 30 19	1174.4	-12.07	3.92
100.00	14 59 46	4668.59	22.39	195.34	74.93	69.66	16 17 35	4068.6	19.42	187.80
110.00	5 4 26	1575.04	-18.21	354.34	71.76	119.44	5 30 41	975.0	-14.15	347.58
110.00	16 12 34	4440.76	25.04	176.86	73.75	65.93	17 26 35	3840.8	21.57	169.42

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0190	TRA	-.3004	TC3	.7946	BAU	.2425	SGT	768.4	SGR	699.8	SG3	257.4	ST	133.8	SR	186.6
RDE	-.1229	RRA	-.1343	RC3	-.8124	FAU	.06434	RRT	-.6203	RRF	.8086	RTF	-.7094	CRT	.0930	CRS	.9046
FDE	.7040	FRA	-.1921	FC3	-3.4900	BSP	2773	SG8	1039.3	RZ3	-.1631	R13	.8552	LSA	514.8	MSA	145.2
BDE	.1244	BRA	.3290	BC3	1.1364	FSP	-722	SG1	936.7	SG2	450.3	THA	139.29	EL1	187.4	EL2	132.6

SS	484.6	CST	-.2700	ALF	82.33
SSA	37.9				

LAUNCH DATE SEP 16 1970 FLIGHT TIME 90.00 ARRIVAL DATE DEC 15 1970

HELIOCENTRIC CONIC DISTANCE 247.059

RL	150.40	LAL	-.00	LOL	352.72	VL	27.233	GAL	-7.10	AZL	88.35	HCA	110.64	SMA	129.70	ECC	.20086	INC	1.6454	V1	29.626
RP	107.56	LAP	1.54	LOP	103.36	VP	38.007	GAP	-6.17	AZP	90.58	TAL	210.87	TAP	321.51	RCA	103.65	APO	155.76	V2	35.232
RC	60.358	GL	11.26	GP	-26.91	ZAL	136.78	ZAP	40.86	ETS	32.14	ZAE	141.19	ETE	315.01	ZAC	75.22	ETC	261.56	CLP	-31.99

PLANETOCENTRIC CONIC

C3	15.803	VHL	3.975	DLA	-2.48	RAL	216.22	RAD	6567.6	VEL	11.713	PTH	2.06	VHP	5.251	DPA	-48.08	RAP	242.34	ECC	1.2601

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 26 57	2082.85	-16.17	33.31	73.38	113.57	3 1 40	1482.8	-12.85	26.21
90.00	13 48 15	4880.42	20.09	211.82	74.37	69.62	15 9 36	4280.4	17.14	204.39
100.00	3 47 8	1824.17	-17.12	13.84	72.93	114.89	4 17 33	1224.2	-13.62	6.80
100.00	15 10 45	4614.33	21.06	191.85	73.97	68.29	16 27 39	4014.3	17.93	184.46
110.00	4 52 44	1618.83	-19.65	356.91	71.59	118.55	5 19 43	1018.8	-15.69	350.04
110.00	16 21 38	4392.44	23.66	173.78	72.75	64.58	17 34 51	3792.4	20.04	166.51

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0095	TRA	-.2989	TC3	.7627	BAU	.2522	SGT	744.2	SGR	767.1	SG3	283.2	ST	131.3	SR	134.8
RDE	-.0820	RRA	-.1412	RC3	-.9183	FAU	.06947	RRT	-.6245	RRF	.8470	RTF	-.6891	CRT	.3327	CRS	.8241
FDE	.8463	FRA	-.2205	FC3	-3.8057	BSP	2858	SG8	1060.8	RZ3	-.1659	R13	.8555	LSA	568.1	MSA	145.6
BDE	.0825	BRA	.3305	BC3	1.1937	FSP	-802	SG1	963.3	SG2	462.8	THA	133.61	EL1	153.7	EL2	108.7

SS	556.6	CST	-.1698	ALF	47.27
SSA	35.4				

LAUNCH DATE SEP 16 1970 FLIGHT TIME 92.00 ARRIVAL DATE DEC 17 1970

HELIOCENTRIC CONIC DISTANCE 253.719

RL	150.40	LAL	-.00	LOL	352.72	VL	27.297	GAL	-7.10	AZL	88.13	HCA	113.88	SMA	130.15	ECC	.19777	INC	1.8684	V1	29.626
RP	107.54	LAP	1.71	LOP	106.60	VP	38.059	GAP	-5.51	AZP	90.76	TAL	211.58	TAP	325.46	RCA	104.41	APO	155.89	V2	35.238
RC	62.346	GL	12.87	GP	-29.08	ZAL	137.12	ZAP	44.09	ETS	30.09	ZAE	140.54	ETE	310.79	ZAC	73.01	ETC	261.31	CLP	-35.84

PLANETOCENTRIC CONIC

C3	15.717	VHL	3.964	DLA	-.71	RAL	216.05	RAD	6567.6	VEL	11.709	PTH	2.06	VHP	5.017	DPA	-50.01	RAP	240.64	ECC	1.2587

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 13 10	2136.45	-17.60	36.59	73.43	112.55	2 48 46	1536.4	-14.39	29.39
90.00	14 0 42	4824.36	18.72	208.28	73.72	68.36	15 21 7	4224.4	15.62	200.98
100.00	3 34 11	1875.12	-18.55	16.95	73.00	113.87	4 5 26	1275.1	-15.17	9.79
100.00	15 22 23	4560.91	19.68	188.49	73.30	67.04	16 38 24	3960.9	16.40	181.23
110.00	4 41 40	1663.87	-21.09	359.61	71.70	117.54	5 9 24	1063.9	-17.24	352.61
110.00	16 31 23	4344.94	22.24	170.83	72.03	63.35	17 43 48	3744.9	18.48	163.71

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0086	TRA	-.2987	TC3	.7150	BAU	.2641	SGT	712.6	SGR	848.6	SG3	309.8	ST	131.0	SR	85.8
RDE	-.0354	RRA	-.1485	RC3	-1.0334	FAU	.07471	RRT	-.6158	RRF	.8796	RTF	-.6579	CRT	.6616	CRS	.5179
FDE	.9993	FRA	-.2479	FC3	-4.1152	BSP	3007	SG8	1100.1	RZ3	-.1585	R13	.8777	LSA	631.0	MSA	145.4
BDE	.0360	BRA	.3335	BC3	1.2567	FSP	-892	SG1	1000.6	SG2	476.2	THA	127.05	EL1	145.4	EL2	57.9

SS	629.1	CST	-.1366	ALF	28.32
SSA	32.9				

LAUNCH DATE SEP 16 1970 FLIGHT TIME 94.00 ARRIVAL DATE DEC 19 1970

HELIOCENTRIC CONIC DISTANCE 260.353

RL	150.40	LAL	-.00	LOL	352.72	VL	27.352	GAL	-7.10	AZL	87.90	HCA	117.11	SMA	130.53	ECC	.19510	INC	2.1029
RP	107.53	LAP	1.87	LOP	109.85	VP	38.103	GAP	-4.88	AZP	90.96	TAL	212.18	TAP	329.30	RCA	105.07	APO	156.00
RC	64.375	GL	14.56	GP	-31.41	ZAL	137.25	ZAP	49.12	ETS	27.97	ZAE	139.76	ETE	306.13	ZAC	70.63	ETC	260.97

V1	29.626	V2	35.243	CLP	-39.93														

PLANETOCENTRIC CONIC

C3	15.699	VHL	3.962	DLA	1.08	RAL	216.05	RAD	6567.6	VEL	11.708	PTH	2.06	VHP	4.817	DPA	-52.02	RAP	238.42

ECC	1.2584	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	1 59 55	2191.56	-19.00	40.03	73.78	111.40	2 36 27	1591.6	-15.93	32.70							
		90.00	14 13 56	4768.73	17.29	204.82	73.35	67.22	15 33 25	4168.7	14.06	197.64							
		100.00	3 21 46	1927.56	-19.96	20.20	73.36	112.72	3 53 54	1327.6	-16.71	12.92							
		100.00	15 34 47	4507.96	18.24	185.21	72.91	65.90	16 49 55	3908.0	14.83	178.08							
		110.00	4 31 10	1710.35	-22.53	2.46	72.11	116.42	4 59 40	1110.3	-18.80	355.31							
		110.00	16 41 53	4297.93	20.78	167.96	71.60	62.23	17 53 30	3697.9	16.90	160.99							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0072	TRA	-.3045	TC3	.6376	BAU	.2763	SGT	670.4	SGR	939.6	SG3	335.2	ST	133.4	SR	77.6	SS	707.1
RDE	.0200	RRA	-.1535	RC3	-1.1515	FAU	.07943	RRT	-.5764	RRF	.9054	RTF	-.6032	CRT	.8388	CRS	-.4506	CST	-.1368
FDE	1.1699	FRA	-.2627	FC3	-4.3804	BSP	3120	SGB	1154.2	RZS	-.1385	RIS	.9003	LSA	708.2	MSA	146.0	SSA	29.9
BDE	.0213	BRA	.3410	BC3	1.3163	FSP	-970	SG1	1043.5	SG2	493.3	THA	119.58	EL1	149.7	EL2	37.6	ALF	27.93

LAUNCH DATE SEP 16 1970 FLIGHT TIME 96.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 266.960

RL	150.40	LAL	-.00	LOL	352.72	VL	27.397	GAL	-7.08	AZL	87.65	HCA	120.35	SMA	130.85	ECC	.19282	INC	2.3514
RP	107.51	LAP	2.03	LOP	113.09	VP	38.139	GAP	-4.27	AZP	91.19	TAL	212.67	TAP	333.02	RCA	105.62	APO	156.08
RC	66.441	GL	16.33	GP	-33.88	ZAL	137.16	ZAP	53.54	ETS	25.71	ZAE	138.81	ETE	301.06	ZAC	68.08	ETC	260.54

V1	29.626	V2	35.247	CLP	-44.29														

PLANETOCENTRIC CONIC

C3	15.748	VHL	3.968	DLA	2.90	RAL	216.21	RAD	6567.6	VEL	11.710	PTH	2.06	VHP	4.653	DPA	-54.05	RAP	235.62

ECC	1.2592	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	1 47 4	2248.65	-20.38	43.65	74.42	110.09	2 24 33	1648.7	-17.46	36.19							
		90.00	14 28 5	4713.03	15.79	201.42	73.26	66.19	15 46 38	4113.0	12.44	194.35							
		100.00	3 9 46	1981.92	-21.35	23.64	74.02	111.43	3 42 48	1381.9	-18.25	16.22							
		100.00	15 48 5	4455.00	16.74	182.00	72.81	64.87	17 2 20	3855.0	13.22	174.98							
		110.00	4 21 7	1758.62	-23.96	5.47	72.81	115.14	4 50 25	1158.6	-20.37	358.17							
		110.00	16 53 14	4251.05	19.27	165.17	71.46	61.20	18 4 5	3651.0	15.27	158.32							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0195	TRA	-.3104	TC3	.5451	BAU	.2923	SGT	624.0	SGR	1045.8	SG3	359.5	ST	138.1	SR	140.0	SS	781.1
RDE	.0818	RRA	-.1585	RC3	-1.2770	FAU	.08393	RRT	-.5093	RRF	.9264	RTF	-.5204	CRT	.6298	CRS	-.8832	CST	-.2574
FDE	1.3409	FRA	-.2754	FC3	-4.6139	BSP	3351	SGB	1217.8	RZS	-.1103	RIS	.9215	LSA	791.8	MSA	145.3	SSA	27.4
BDE	.0841	BRA	.3485	BC3	1.3885	FSP	-1058	SG1	1107.2	SG2	507.2	THA	111.67	EL1	177.6	EL2	84.6	ALF	45.62

LAUNCH DATE SEP 16 1970 FLIGHT TIME 98.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 273.539

RL	150.40	LAL	-.00	LOL	352.72	VL	27.434	GAL	-7.06	AZL	87.38	HCA	123.59	SMA	131.11	ECC	.19087	INC	2.6170
RP	107.50	LAP	2.18	LOP	116.34	VP	38.169	GAP	-3.68	AZP	91.45	TAL	213.05	TAP	336.64	RCA	106.09	APO	156.14
RC	68.539	GL	18.19	GP	-36.47	ZAL	136.83	ZAP	58.10	ETS	23.26	ZAE	137.61	ETE	295.65	ZAC	65.39	ETC	260.01

V1	29.626	V2	35.251	CLP	-48.92														

PLANETOCENTRIC CONIC

C3	15.864	VHL	3.983	DLA	4.75	RAL	216.54	RAD	6567.6	VEL	11.715	PTH	2.06	VHP	4.527	DPA	-56.08	RAP	232.18

ECC	1.2611	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	1 34 28	2308.31	-21.73	47.51	75.36	108.62	2 12 56	1708.3	-18.98	39.91							
		90.00	14 43 20	4656.72	14.21	198.04	73.46	65.25	16 0 57	4056.7	10.76	191.07							
		100.00	2 58 2	2038.73	-22.72	27.31	74.98	109.96	3 32 1	1438.7	-19.80	19.73							
		100.00	16 2 26	4401.53	15.17	178.81	73.00	63.93	17 15 48	3801.5	11.54	171.90							
		110.00	4 11 25	1809.11	-25.38	8.71	73.82	113.71	4 41 34	1209.1	-21.96	1.23							
		110.00	17 5 34	4203.92	17.70	162.41	71.60	60.27	18 15 37	3603.9	13.61	155.69							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0407	TRA	-.3214	TC3	.4238	BAU	.3101	SGT	576.7	SGR	1159.5	SG3	380.0	ST	151.3	SR	233.5	SS	856.3
RDE	.1533	RRA	-.1598	RC3	-1.3993	FAU	.08735	RRT	-.3833	RRF	.9423	RTF	-.3834	CRT	.6282	CRS	-.9650	CST	-.4315
FDE	1.5175	FRA	-.2714	FC3	-4.7671	BSP	3587	SGB	1295.0	RZS	-.0745	RIS	.9396	LSA	888.2	MSA	145.4	SSA	24.7
BDE	.1586	BRA	.3590	BC3	1.4621	FSP	-1129	SG1	1185.6	SG2	521.0	THA	103.44	EL1	256.8	EL2	107.0	ALF	62.73

LAUNCH DATE SEP 16 1970 FLIGHT TIME 100.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 280.091

RL	150.40	LAL	-.00	LOL	352.72	VL	27.463	GAL	-7.04	AZL	87.10	HCA	126.83	SMA	131.32	ECC	.18920	INC	2.9034
RP	107.49	LAP	2.32	LOP	119.58	VP	38.193	GAP	-3.12	AZP	91.74	TAL	213.32	TAP	340.14	RCA	106.48	APO	156.17
RC	70.666	GL	20.16	GP	-39.16	ZAL	136.27	ZAP	62.75	ETS	20.53	ZAE	136.12	ETE	290.01	ZAC	62.58	ETC	259.37

V1	29.626	V2	35.254	CLP	-53.81														

PLANETOCENTRIC CONIC

C3	16.055	VHL	4.007	DLA	6.67	RAL	217.04	RAD	6567.6	VEL	11.723	PTH	2.07	VHP	4.441	DPA	-58.05	RAP	228.05

ECC	1.2642	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	1 21 54	2371.31	-23.04	51.66	76.63	106.94	2 1 25	1771.3	-20.50	43.91							
		90.00	14 59 53	4599.16	12.55	194.64	73.97	64.41	16 16 32	3999.2	9.00	187.75							
		100.00	2 46 25	2098.71	-24.06	31.26	76.27	108.29	3 21 24	1498.7	-21.34	23.52							
		100.00	16 18 3	4347.00	13.51	175.61	73.48	63.08	17 30 30	3747.0	9.79	168.79							
		110.00	4 1 56	1862.39	-26.79	12.20	75.16	112.07	4 32 58	1262.4	-23.56	4.53							
		110.00	17 19 2	4156.08	16.06	159.67	72.03	59.41	18 28 18	3556.1	11.88	153.06							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0752	TRA	-.3350	TC3	.2796	BAU	.3308	SGT	542.6	SGR	1279.9	SG3	395.5	ST	180.4	SR	342.8	SS	928.3
RDE	.2336	RRA	-.1574	RC3	-1.5156	FAU	.08961	RRT	-.1828	RRF	.9545	RTF	-.1739	CRT	.7357	CRS	-.9863	CST	-.6291
FDE	1.6884	FRA	-.2537	FC3	-4.8318	BSP	3884	SGB	1390.2	RZS	-.0375	RIS	.9537	LSA	995.1	MSA	145.4	SSA	22.2
BDE	.2454	BRA	.3702	BC3	1.5412	FSP	-1187	SG1	1284.6	SG2	531.5	THA	95.35	EL1	370.5	EL2	113.0	ALF	66.53

LAUNCH DATE SEP 16 1970 FLIGHT TIME 102.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 286.614

RL	150.40	LAL	-.00	LOL	352.72	VL	27.485	GAL	-7.00	AZL	86.78	HCA	130.07	SMA	131.48	ECC	.18778	INC	3.2153	V1	29.626
RP	107.48	LAP	2.46	LOP	122.83	VP	30.211	GAP	-2.58	AZP	92.07	TAL	213.47	TAP	343.54	RCA	106.79	APO	156.17	V2	35.256
RC	72.818	GL	22.25	GP	-41.91	ZAL	135.48	ZAP	67.43	ETS	17.50	ZAE	134.33	ETE	284.23	ZAC	59.68	ETC	258.61	CLP	-58.96

PLANETOCENTRIC CONIC

C3	16.332	VHL	4.041	DLA	8.65	RAL	217.72	RAD	6567.7	VEL	11.735	PTH	2.07	VHP	4.395	DPA	-59.91	RAP	223.23	ECC	1.2688

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 9 9	2438.65	-24.30	56.19	78.24	105.00	1 49 48	1838.6	-22.00	48.27
90.00	15 18 1	4539.61	10.77	191.16	74.79	63.65	16 33 41	3939.6	7.14	184.36
100.00	2 34 42	2162.74	-25.36	35.57	77.92	106.38	3 10 45	1562.7	-22.87	27.66
100.00	16 35 10	4290.75	11.75	172.36	74.28	62.32	17 46 40	3690.8	7.95	165.62
110.00	3 52 31	1919.19	-28.19	16.03	76.87	110.19	4 24 31	1319.2	-25.18	8.15
110.00	17 33 49	4107.07	14.34	156.91	72.78	58.63	18 42 16	3507.1	10.08	150.40

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1255	TRA	-.3509	TC3	.1136	BAU	.3541	SGT	541.6	SGR	1402.0	SG3	404.6	ST	233.4	SR	464.0	SS	995.8
RDE	.3229	RRA	-.1496	RC3	-1.6179	FAU	.09033	RRT	.0914	RRF	.9636	RTF	.1061	CRT	.6411	CRS	-.9938	CST	-.7840
FDE	1.8466	FRA	-.2194	FC3	-4.7882	BSP	4230	SGB	1503.0	RZS	-.0028	R13	.9638	LSA	1113.5	MSA	145.8	SSA	19.9
BDE	.3464	BRA	.3815	BC3	1.6219	FSP	-1224	SG1	1403.1	SG2	539.0	THA	87.63	EL1	506.3	EL2	115.7	ALF	65.72

LAUNCH DATE SEP 16 1970 FLIGHT TIME 104.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 293.109

RL	150.40	LAL	-.00	LOL	352.72	VL	27.500	GAL	-6.96	AZL	86.44	HCA	133.30	SMA	131.59	ECC	.18658	INC	3.5582	V1	29.626
RP	107.48	LAP	2.59	LOP	126.08	VP	30.223	GAP	-2.06	AZP	92.44	TAL	213.52	TAP	346.83	RCA	107.04	APO	156.14	V2	35.258
RC	74.992	GL	24.48	GP	-44.68	ZAL	134.43	ZAP	72.05	ETS	14.13	ZAE	132.22	ETE	278.43	ZAC	56.73	ETC	257.74	CLP	-64.32

PLANETOCENTRIC CONIC

C3	16.712	VHL	4.088	DLA	10.72	RAL	218.58	RAD	6567.7	VEL	11.751	PTH	2.07	VHP	4.394	DPA	-61.61	RAP	217.73	ECC	1.2750

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 55 55	2511.59	-25.49	61.20	80.24	102.76	1 37 46	1911.6	-23.48	53.11
90.00	15 38 5	4477.21	8.86	187.57	75.97	63.00	16 52 42	3877.2	5.17	180.84
100.00	2 22 36	2231.96	-26.60	40.34	79.94	104.16	2 59 48	1632.0	-24.39	32.24
100.00	16 54 5	4232.05	9.87	169.01	75.43	61.64	18 4 37	3632.0	6.01	162.35
110.00	3 43 0	1980.44	-29.55	20.28	78.98	108.02	4 16 0	1380.4	-26.80	12.17
110.00	17 50 11	4056.36	12.53	154.10	73.86	57.93	18 57 47	3456.4	8.20	147.68

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1948	TRA	-.3681	TC3	-.0702	BAU	.3793	SGT	594.6	SGR	1519.4	SG3	406.0	ST	315.2	SR	594.9	SS	1058.4
RDE	.4215	RRA	-.1339	RC3	-1.6062	FAU	.08919	RRT	.3776	RRF	.9705	RTF	.3943	CRT	.9085	CRS	-.9970	CST	-.8781
FDE	1.9870	FRA	-.1664	FC3	-4.6205	BSP	4600	SGB	1631.6	RZS	.0281	R13	.9705	LSA	1245.6	MSA	146.9	SSA	17.6
BDE	.4643	BRA	.3917	BC3	1.6976	FSP	-1229	SG1	1538.3	SG2	543.8	THA	80.38	EL1	662.8	EL2	118.2	ALF	63.38

LAUNCH DATE SEP 16 1970 FLIGHT TIME 106.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 299.576

RL	150.40	LAL	-.00	LOL	352.72	VL	27.509	GAL	-6.90	AZL	86.06	HCA	136.54	SMA	131.65	ECC	.18556	INC	3.9399	V1	29.626
RP	107.48	LAP	2.71	LOP	129.33	VP	30.230	GAP	-1.56	AZP	92.86	TAL	213.47	TAP	350.01	RCA	107.22	APO	156.08	V2	35.259
RC	77.186	GL	26.88	GP	-47.46	ZAL	133.14	ZAP	76.54	ETS	10.41	ZAE	129.82	ETE	272.72	ZAC	53.76	ETC	256.74	CLP	-69.87

PLANETOCENTRIC CONIC

C3	17.223	VHL	4.150	DLA	12.90	RAL	219.62	RAD	6567.7	VEL	11.773	PTH	2.08	VHP	4.436	DPA	-63.11	RAP	211.63	ECC	1.2834

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 41 48	2591.80	-26.58	66.82	82.66	100.15	1 25 0	1991.8	-24.91	58.55
90.00	16 0 33	4410.85	6.79	183.80	77.55	62.44	17 14 4	3810.8	3.05	177.12
100.00	2 9 49	2307.91	-27.75	45.69	82.41	101.57	2 48 17	1707.9	-25.88	37.39
100.00	17 15 13	4169.96	7.85	165.51	76.98	61.06	18 24 43	3570.0	3.93	158.92
110.00	3 33 7	2047.28	-30.06	25.04	81.55	105.48	4 7 14	1447.3	-28.43	16.68
110.00	18 8 25	4003.36	10.59	151.22	75.32	57.31	19 15 8	3403.4	6.21	144.87

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2851	TRA	-.3066	TC3	-.2689	BAU	.4031	SGT	710.4	SGR	1620.4	SG3	398.5	ST	426.6	SR	739.0	SS	1121.1
RDE	.5334	RRA	-.1034	RC3	-1.7300	FAU	.08548	RRT	.6000	RRF	.9755	RTF	.6133	CRT	.9434	CRS	-.9986	CST	-.9272
FDE	2.1161	FRA	-.0813	FC3	-4.2970	BSP	4878	SGB	1769.2	RZS	.0589	R13	.9743	LSA	1400.8	MSA	150.5	SSA	15.1
BDE	.6049	BRA	.4002	BC3	1.7507	FSP	-1173	SG1	1682.4	SG2	547.3	THA	73.46	EL1	844.3	EL2	123.9	ALF	60.74

LAUNCH DATE SEP 16 1970 FLIGHT TIME 108.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 306.012

RL	150.40	LAL	-.00	LOL	352.72	VL	27.513	GAL	-6.84	AZL	85.63	HCA	139.78	SMA	131.68	ECC	.18471	INC	4.3700	V1	29.626
RP	107.48	LAP	2.82	LOP	132.58	VP	30.233	GAP	-1.08	AZP	93.34	TAL	213.32	TAP	353.09	RCA	107.36	APO	156.00	V2	35.259
RC	79.396	GL	29.46	GP	-50.23	ZAL	131.58	ZAP	80.82	ETS	6.32	ZAE	127.15	ETE	267.16	ZAC	50.78	ETC	255.62	CLP	-75.55

PLANETOCENTRIC CONIC

C3	17.907	VHL	4.232	DLA	15.21	RAL	220.87	RAD	6567.7	VEL	11.802	PTH	2.09	VHP	4.533	DPA	-64.39	RAP	205.01	ECC	1.2947

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 26 14	2681.81	-27.49	73.24	85.54	97.06	1 10 55	2081.6	-26.23	64.80
90.00	16 26 2	4339.11	4.51	179.75	79.60	62.02	17 38 21	3739.1	.74	173.11
100.00	1 55 52	2382.57	-28.76	51.78	85.35	98.52	2 35 44	1792.6	-27.28	43.29
100.00	17 39 6	4103.38	5.64	161.81	78.98	60.60	18 47 29	3503.4	1.68	155.26
110.00	3 22 34	2121.26	-32.08	30.46	84.63	102.49	3 57 55	1521.3	-30.03	21.85
110.00	18 28 53	3947.45	8.52	148.21	77.21	56.77	19 34 40	3347.5	4.09	141.93

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.4086	TRA	-.3048	TC3	-.4495	BAU	.4372	SGT	870.4	SGR	1728.6	SG3	385.7	ST	577.8	SR	856.9	SS	1146.0
RDE	.6314	RRA	-.0830	RC3	-1.7899	FAU	.08244	RRT	.7359	RRF	.9794	RTF	.7541	CRT	.9682	CRS	-.9992	CST	-.9592
FDE	2.1597	FRA	-.0380	FC3	-3.9856	BSP	5600	SGB	1935.4	RZS	.0697	R13	.9782	LSA	1536.0	MSA	147.7	SSA	13.8
BDE	.7521	BRA	.4034	BC3	1.8261	FSP	-1199	SG1	1836.0	SG2	548.9	THA	67.60	EL1	1026.4	EL2	120.7	ALF	56.33

LAUNCH DATE SEP 16 1970 FLIGHT TIME 110.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 312.420

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RL  150.40 LAL   -.00 LOL 352.72 VL  27.511 GAL  -6.77 AZL  85.14 HCA 143.01 SMA 131.67 ECC .18399 INC 4.8617 V1  29.626
RP  107.48 LAP   2.92 LOP 135.83 VP  38.231 GAP   -.61 AZP  93.89 TAL 213.07 TAP 356.08 RCA 107.44 APO 155.89 V2  35.258
RC  81.621 GL   32.26 GP  -52.98 ZAL 129.75 ZAP  84.78 ETS   1.88 ZAE 124.24 ETE 261.81 ZAC  47.79 ETC 254.37 CLP -81.31
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PLANETOCENTRIC CONIC

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C3  18.821 VHL  4.338 DLA  17.67 RAL 222.33 RAD 6567.8 VEL 11.841 PTH   2.10 VHP  4.684 DPA -65.48 RAP 197.99 ECC 1.3097
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 8 24	2784.29	-28.13	80.68	88.95	93.38	0 54 49	2184.3	-27.36	72.10
90.00	16 55 33	4259.74	1.97	175.31	82.22	61.75	18 6 32	3659.7	-1.83	168.69
100.00	1 40 5	2488.67	-29.53	58.82	88.83	94.89	2 21 33	1888.7	-28.54	50.15
100.00	18 6 33	4030.59	3.19	157.79	81.54	60.26	19 13 44	3430.6	-.79	151.27
110.00	3 10 59	2204.26	-33.13	36.71	88.32	98.93	3 47 43	1604.3	-31.55	27.84
110.00	18 52 9	3887.76	6.28	145.04	79.83	56.33	19 56 56	3287.8	1.81	138.81

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .5599 TRA -.4015 TC3 -.6296 BAU  .4661   SGT 1074.6 SGR 1803.8 SG3  364.0     ST   758.2 SR   983.5 SS  1174.6
 RDE  .7438 RRA -.0419 RC3-1.7424 FAU .07652   RRT  .8174 RRF  .9822 RTF  .8354    CRT  .9789 CRS -.9996 CST -.9741
 FDE 2.1966 FRA  .0410 FC3-3.5197 BSP   6124   SGB 2099.6 RZS  .0861 RIS  .9800    LSA 1702.8 MSA  149.0 SSA   12.1
 BDE  .9309 BRA  .4036 BC3 1.8526 FSP  -1141   SG1 2026.0 SG2  551.2 THA  61.76    EL1 1235.7 EL2  123.2 ALF  52.52
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LAUNCH DATE SEP 16 1970 FLIGHT TIME 112.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 318.800

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RL  150.40 LAL   -.00 LOL 352.72 VL  27.505 GAL  -6.69 AZL  84.57 HCA 146.24 SMA 131.62 ECC .18341 INC 5.4330 V1  29.626
RP  107.48 LAP   3.02 LOP 139.08 VP  38.225 GAP   -.16 AZP  94.52 TAL 212.73 TAP 358.97 RCA 107.48 APO 155.76 V2  35.256
RC  83.861 GL   35.28 GP  -55.74 ZAL 127.63 ZAP  88.37 ETS 357.10 ZAE 121.14 ETE 256.69 ZAC  44.80 ETC 252.97 CLP -87.10
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PLANETOCENTRIC CONIC

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C3  20.057 VHL  4.479 DLA  20.29 RAL 224.03 RAD 6567.8 VEL 11.893 PTH   2.11 VHP  4.898 DPA -66.39 RAP 190.62 ECC 1.3301
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 42 59	2905.14	-28.30	89.51	92.90	88.96	24 31 24	2305.1	-28.14	80.85
90.00	17 30 38	4169.01	-.96	170.25	85.58	61.70	18 40 7	3569.0	-4.74	163.61
100.00	1 21 25	2600.41	-29.89	67.10	92.90	90.55	2 4 45	2000.4	-29.49	58.32
100.00	18 38 49	3948.98	.43	153.31	84.81	60.11	19 44 38	3349.0	-3.55	146.78
110.00	2 57 46	2298.95	-33.30	43.99	92.69	94.69	3 36 5	1699.0	-32.88	34.90
110.00	19 18 57	3823.20	3.83	141.65	82.68	56.01	20 22 40	3223.2	-.65	135.44

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .7499 TRA -.3992 TC3 -.7858 BAU  .4932   SGT 1307.6 SGR 1851.8 SG3  335.8     ST   972.2 SR  1101.1 SS  1192.6
 RDE  .8600 RRA  .0126 RC3-1.6629 FAU .06914   RRT  .8644 RRF  .9841 RTF  .8826    CRT  .9848 CRS -.9998 CST -.9825
 FDE 2.2013 FRA  .1265 FC3-2.9842 BSP   6617   SGB 2266.9 RZS  .1011 RIS  .9809    LSA 1885.9 MSA  151.2 SSA   10.5
 BDE 1.1403 BRA  .3994 BC3 1.8392 FSP  -1054   SG1 2198.2 SG2  553.9 THA  56.16    EL1 1463.4 EL2  127.0 ALF  48.61
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LAUNCH DATE SEP 16 1970 FLIGHT TIME 114.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 325.149

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RL  150.40 LAL   -.00 LOL 352.72 VL  27.495 GAL  -6.60 AZL  83.89 HCA 149.47 SMA 131.55 ECC .18293 INC 6.1095 V1  29.626
RP  107.49 LAP   3.10 LOP 142.33 VP  38.216 GAP    .27 AZP  95.27 TAL 212.31 TAP   1.77 RCA 107.48 APO 155.61 V2  35.254
RC  86.111 GL   38.55 GP  -58.55 ZAL 125.21 ZAP  91.51 ETS 351.99 ZAE 117.85 ETE 251.79 ZAC  41.76 ETC 251.37 CLP -92.89
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PLANETOCENTRIC CONIC

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C3  21.759 VHL  4.665 DLA  23.10 RAL 226.00 RAD 6567.9 VEL 11.964 PTH   2.13 VHP  5.190 DPA -67.16 RAP 182.92 ECC 1.3581
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 14 57	3054.17	-27.64	100.36	97.34	83.57	24 5 51	2454.2	-28.24	91.74
90.00	18 14 23	4059.06	-4.50	164.11	89.94	62.01	19 22 2	3459.1	-8.21	157.39
100.00	0 57 54	2734.88	-29.56	77.08	97.55	85.31	1 43 29	2134.9	-29.89	68.29
100.00	19 18 3	3653.57	-2.81	148.07	89.01	60.23	20 22 17	3253.6	-6.75	141.50
110.00	2 42 2	2409.12	-34.18	52.58	97.79	89.62	3 22 11	1809.1	-33.86	43.35
110.00	19 50 25	3752.10	1.12	137.93	86.55	55.83	20 52 57	3152.1	-3.37	131.73

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .9835 TRA -.3844 TC3 -.9050 BAU  .5203   SGT 1560.7 SGR 1872.4 SG3  303.0     ST  1218.1 SR  1194.4 SS  1192.3
 RDE  .9715 RRA  .0752 RC3-1.5429 FAU .06124   RRT  .8915 RRF  .9852 RTF  .9119    CRT  .9884 CRS -.9999 CST -.9877
 FDE 2.1632 FRA  .2010 FC3-2.4365 BSP   7215   SGB 2437.5 RZS  .1127 RIS  .9816    LSA 2075.7 MSA  152.8 SSA    9.1
 BDE 1.3824 BRA  .3917 BC3 1.7887 FSP   -970   SG1 2372.8 SG2  557.8 THA  50.80    EL1 1701.0 EL2  130.1 ALF  44.43
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LAUNCH DATE SEP 16 1970 FLIGHT TIME 116.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 331.469

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RL  150.40 LAL   -.00 LOL 352.72 VL  27.480 GAL  -6.50 AZL  83.07 HCA 152.69 SMA 131.44 ECC .18255 INC 6.9289 V1  29.626
RP  107.50 LAP   3.17 LOP 145.58 VP  38.203 GAP    .69 AZP  96.16 TAL 211.80 TAP   4.49 RCA 107.45 APO 155.44 V2  35.251
RC  88.372 GL   42.08 GP  -61.47 ZAL 122.48 ZAP  94.13 ETS 346.50 ZAE 114.37 ETE 247.03 ZAC  38.62 ETC 249.49 CLP -98.68
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PLANETOCENTRIC CONIC

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C3  24.156 VHL  4.915 DLA  26.09 RAL 228.28 RAD 6568.0 VEL 12.064 PTH   2.16 VHP  5.578 DPA -67.80 RAP 174.77 ECC 1.3975
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 32 6	3258.86	-25.23	114.84	101.94	76.71	23 26 25	2658.9	-26.81	106.53
90.00	19 15 24	3905.24	-9.33	155.39	95.87	63.14	20 20 29	3305.2	-12.86	148.49
100.00	0 25 1	2907.53	-27.93	89.64	102.59	78.90	1 13 28	2307.5	-29.18	81.06
100.00	20 9 6	3731.81	-6.89	141.34	94.56	60.84	21 11 18	3131.8	-10.73	134.65
110.00	2 22 14	2540.77	-33.65	62.81	103.81	83.58	3 4 35	1940.8	-34.17	53.61
110.00	20 28 23	3671.33	-1.97	133.72	91.52	55.87	21 29 34	3071.3	-6.43	127.48

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.2778 TRA -.3817 TC3 -.9742 BAU  .5427   SGT 1828.7 SGR 1855.2 SG3  266.8     ST  1496.2 SR  1263.0 SS  1180.8
 RDE 1.0816 RRA  .1542 RC3-1.3694 FAU .05251   RRT  .9066 RRF  .9856 RTF  .9304    CRT  .9902 CRS -.9999 CST -.9909
 FDE 2.0994 FRA  .2739 FC3-1.8820 BSP   7758   SGB 2605.0 RZS  .1245 RIS  .9816    LSA 2281.1 MSA  155.6 SSA    7.8
 BDE 1.6741 BRA  .3840 BC3 1.6806 FSP   -863   SG1 2543.5 SG2  562.8 THA  45.45    EL1 1953.3 EL2  134.8 ALF  40.12
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LAUNCH DATE SEP 16 1970 FLIGHT TIME 118.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 337.758

RL	150.40	LAL	-.00	LOL	352.72	VL	27.463	GAL	-6.38	AZL	82.05	HCA	155.91	SMA	131.32	ECC	.18225	INC	7.9484
RP	107.51	LAP	3.24	LOP	148.83	VP	30.186	GAP	1.09	AZP	97.26	TAL	211.21	TAP	7.11	RCA	107.38	APO	155.25
RC	90.641	GL	45.88	GP	-64.57	ZAL	119.44	ZAP	96.19	ETS	340.55	ZAE	110.69	ETE	242.26	ZAC	35.31	ETC	247.16

V1	29.626	V2	35.247	CLP	-104.55														

PLANETOCENTRIC CONIC

C3	27.641	VHL	5.257	DLA	29.26	RAL	230.91	RAD	6568.1	VEL	12.207	PTH	2.19	VHP	6.095	DPA	-68.29	RAP	165.99
ECC	1.4549																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.30	20 0 51	3020.29	-18.21	153.46	104.98	66.69	21 4 31	3220.3	-21.21	146.00
97.70	22 7 30	3410.45	-18.19	123.38	104.98	66.68	23 4 29	2810.4	-21.20	115.92
100.00	23 17 7	3187.78	-22.78	108.83	106.91	70.10	24 10 15	2587.8	-25.28	100.93
100.00	21 34 3	3518.18	-13.74	129.18	102.81	63.19	22 32 42	2918.2	-17.23	122.13
110.00	1 55 2	2705.44	-31.70	75.25	109.92	76.48	2 40 8	2105.4	-33.23	66.36
110.00	21 16 33	3573.29	-5.70	128.58	98.05	56.24	22 16 6	2973.3	-10.10	122.25

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.6530	TRA	-.2989	TC3	-.9834	BAU	.5594	SGT	2109.1	SGR	1793.6	SG3	229.1	ST	1805.0	SR	1290.3	SS	1155.9
RDE	1.1804	RRA	.2904	RC3	-1.1509	FAU	.04348	RRT	.9131	RRF	.9849	RTF	.9429	CRT	.9910	CRS	-.9999	CST	-.9930
FDE	2.0104	FRA	.3387	FC3	-1.3620	BSP	8278	SGB	2760.6	RZS	.1359	R13	.9813	LSA	2496.7	MSA	159.4	SSA	6.6
BDE	2.0511	BRA	.3853	BC3	1.5138	FSP	-748	SG1	2709.4	SG2	569.2	THA	39.95	EL1	2214.3	EL2	140.6	ALF	35.48

LAUNCH DATE SEP 16 1970 FLIGHT TIME 120.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 344.014

RL	150.40	LAL	-.00	LOL	352.72	VL	27.442	GAL	-6.26	AZL	80.74	HCA	159.11	SMA	131.17	ECC	.18202	INC	9.2601
RP	107.53	LAP	3.29	LOP	152.08	VP	30.167	GAP	1.48	AZP	98.66	TAL	210.54	TAP	9.65	RCA	107.29	APO	155.04
RC	98.917	GL	49.91	GP	-67.94	ZAL	116.09	ZAP	97.63	ETS	335.90	ZAE	106.75	ETE	237.18	ZAC	31.75	ETC	244.08

V1	29.626	V2	35.243	CLP	-110.70														

PLANETOCENTRIC CONIC

C3	32.924	VHL	5.738	DLA	32.57	RAL	233.96	RAD	6568.3	VEL	12.422	PTH	2.24	VHP	6.796	DPA	-68.56	RAP	156.32
ECC	1.5418																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.19	19 6 53	4073.49	-18.79	172.74	111.80	62.90	20 14 46	3473.5	-22.27	165.47
106.81	23 25 55	3244.94	-18.78	111.26	111.79	62.89	24 20 0	2644.9	-22.26	103.98
73.19	19 6 53	4073.49	-18.79	172.74	111.80	62.90	20 14 46	3473.5	-22.27	165.47
106.81	23 25 55	3244.94	-18.78	111.26	111.79	62.89	24 20 0	2644.9	-22.26	103.98
110.00	1 9 7	2930.90	-26.80	91.63	115.76	67.94	1 58 6	2330.9	-29.55	83.52
110.00	22 26 47	3427.53	-11.13	120.79	107.26	57.47	23 23 54	2827.5	-15.35	114.22

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.1448	TRA	-.1946	TC3	-.9257	BAU	.5676	SGT	2401.5	SGR	1672.1	SG3	191.3	ST	2142.7	SR	1250.9	SS	1117.4
RDE	1.2455	RRA	.3654	RC3	-.8978	FAU	.03455	RRT	.9110	RRF	.9818	RTF	.9524	CRT	.9907	CRS	-.9995	CST	-.9944
FDE	1.9005	FRA	.3914	FC3	-.9085	BSP	8794	SGB	2926.3	RZS	.1466	R13	.9809	LSA	2716.2	MSA	164.1	SSA	5.6
BDE	2.4799	BRA	.4140	BC3	1.2096	FSP	-632	SG1	2868.7	SG2	577.4	THA	33.95	EL1	2476.7	EL2	147.5	ALF	30.16

LAUNCH DATE SEP 16 1970 FLIGHT TIME 122.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 350.231

RL	150.40	LAL	-.00	LOL	352.72	VL	27.418	GAL	-6.12	AZL	78.98	HCA	162.30	SMA	131.00	ECC	.18185	INC	11.0214
RP	107.54	LAP	3.33	LOP	155.33	VP	30.145	GAP	1.85	AZP	100.51	TAL	209.80	TAP	12.10	RCA	107.17	APO	154.82
RC	95.197	GL	54.10	GP	-71.67	ZAL	112.44	ZAP	98.40	ETS	325.99	ZAE	102.47	ETE	231.14	ZAC	27.81	ETC	239.61

V1	29.626	V2	35.238	CLP	-117.69														

PLANETOCENTRIC CONIC

C3	41.398	VHL	6.434	DLA	35.93	RAL	237.50	RAD	6568.6	VEL	12.758	PTH	2.32	VHP	7.777	DPA	-68.42	RAP	145.55
ECC	1.6813																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
66.91	18 43 14	4246.47	-18.54	186.10	119.95	58.66	19 54 0	3646.5	-22.55	179.13
113.09	0 21 46	3187.64	-18.52	106.64	119.94	58.65	1 14 53	2587.6	-22.54	99.66
66.91	18 43 14	4246.47	-18.54	186.10	119.95	58.66	19 54 0	3646.5	-22.55	179.13
113.09	0 21 46	3187.64	-18.52	106.64	119.94	58.65	1 14 53	2587.6	-22.54	99.66
66.91	18 43 14	4246.47	-18.54	186.10	119.95	58.66	19 54 0	3646.5	-22.55	179.13
113.09	0 21 46	3187.64	-18.52	106.64	119.94	58.65	1 14 53	2587.6	-22.54	99.66

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.8125	TRA	-.0299	TC3	-.8007	BAU	.5613	SGT	2708.4	SGR	1458.4	SG3	155.2	ST	2504.7	SR	1099.4	SS	1069.0
RDE	1.2202	RRA	.5019	RC3	-.6225	FAU	.02594	RRT	.8933	RRF	.9713	RTF	.9606	CRT	.9879	CRS	-.9981	CST	-.9956
FDE	1.7793	FRA	.4333	FC3	-.5424	BSP	9285	SGB	3076.1	RZS	.1567	R13	.9806	LSA	2931.9	MSA	170.5	SSA	4.5
BDE	3.0658	BRA	.5028	BC3	1.0142	FSP	-518	SG1	3019.4	SG2	587.9	THA	26.79	EL1	2731.0	EL2	156.1	ALF	23.52

LAUNCH DATE SEP 16 1970 FLIGHT TIME 124.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 356.402

RL	150.40	LAL	-.00	LOL	352.72	VL	27.391	GAL	-5.97	AZL	76.48	HCA	165.47	SMA	130.81	ECC	.18173	INC	13.5247
RP	107.56	LAP	3.36	LOP	158.58	VP	30.121	GAP	2.21	AZP	103.11	TAL	208.97	TAP	14.45	RCA	107.04	APO	154.58
RC	97.481	GL	58.28	GP	-75.85	ZAL	108.55	ZAP	98.48	ETS	315.37	ZAE	97.69	ETE	222.57	ZAC	23.30	ETC	232.23

V1	29.626	V2	35.232	CLP	-127.10														

PLANETOCENTRIC CONIC

C3	56.098	VHL	7.490	DLA	39.14	RAL	241.63	RAD	6569.0	VEL	13.321	PTH	2.43	VHP	9.218	DPA	-67.54	RAP	133.70
ECC	1.9232																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.77	18 33 25	4399.14	-17.03	197.51	129.54	54.21	19 46 44	3799.1	-21.58	190.96
118.23	1 4 29	3186.77	-17.01	105.52	129.52	54.20	1 57 36	2586.8	-21.57	98.96
61.77	18 33 25	4399.14	-17.03	197.51	129.54	54.21	19 46 44	3799.1	-21.58	190.96
118.23	1 4 29	3186.77	-17.01	105.52	129.52	54.20	1 57 36	2586.8	-21.57	98.96
61.77	18 33 25	4399.14	-17.03	197.51	129.54	54.21	19 46 44	3799.1	-21.58	190.96
118.23	1 4 29	3186.77	-17.01	105.52	129.52	54.20	1 57 36	2586.8	-21.57	98.96

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	3.7546	TRA	.2020	TC3	-.6137	BAU	.5282	SGT	3026.8	SGR	1085.2	SG3	122.1	ST	2873.4	SR	735.6	SS	1018.0
RDE	.9284	RRA	.6454	RC3	-.3456	FAU	.01786	RRT	.8160	RRF	.9191	RTF	.9697	CRT	.9723	CRS	-.9881	CST	-.9967
FDE	1.6610	FRA	.4673	FC3	-.2756	BSP	9751	SGB	3215.4	RZS	.1646	R13	.9809	LSA	3130.7	MSA	178.9	SSA	3.6
BDE	3.8677	BRA	.6965	BC3	.7043	FSP	-412	SG1	3158.7	SG2	601.0	THA	16.94	EL1	2961.3	EL2	166.8	ALF	14.02

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LAUNCH DATE  SEP 16 1970                          FLIGHT TIME 126.00                          ARRIVAL DATE  JAN 20 1971

  HELIOCENTRIC CONIC                                  DISTANCE 362.508
   RL  150.40 LAL   -.00 LOL 352.72 VL  27.362 GAL  -5.81 AZL  72.62 HCA 168.60 SMA 130.60 ECC .18160 INC17.3750 V1  29.626
   RP  107.58 LAP   3.38 LOP 161.83 VP  38.094 GAP   2.54 AZP 107.05 TAL 208.06 TAP  16.66 RCA 106.89 APO 154.32 V2  35.226
   RC  99.767 GL   62.08 GP  -80.40 ZAL 104.48 ZAP  97.83 ETS 297.66 ZAE  92.09 ETE 206.99 ZAC  17.91 ETC 217.62 CLP-144.81
  PLANETOCENTRIC CONIC
   C3  84.642 VHL  9.200 DLA  41.83 RAL 246.41 RAD 6569.7 VEL 14.352 PTH   2.61 VHP 11.493 DPA -65.40 RAP 121.25 ECC 2.3930
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      57.82    18 34 44   4546.30     -13.84     207.49     140.46      50.12   19 50 30    3946.3     -18.87     201.42
     122.18     1 41 21   3234.34     -13.82     107.00     140.44      50.11    2 35 15    2634.3     -18.86     100.94
      57.82    18 34 44   4546.30     -13.84     207.49     140.46      50.12   19 50 30    3946.3     -18.87     201.42
     122.18     1 41 21   3234.34     -13.82     107.00     140.44      50.11    2 35 15    2634.3     -18.86     100.94
      57.82    18 34 44   4546.30     -13.84     207.49     140.46      50.12   19 50 30    3946.3     -18.87     201.42
     122.18     1 41 21   3234.34     -13.82     107.00     140.44      50.11    2 35 15    2634.3     -18.86     100.94
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
   TDE 5.0324 TRA  .8291 TC3 -.3738 BAU  .4379      SGT 3282.6 SGR  612.5 SG3   93.8            ST  3141.0 SR   219.2 SS   982.4
   RDE -.2215 RRA  .6789 RC3 -.1004 FAU .01026      RRT  .0437 RRF  .2106 RTF  .9824            CRT -.5764 CRS  .5245 CST -.9981
   FDE 1.5754 FRA  .5053 FC3 -.1050 BSP  10177      SGB 3339.2 RZS  .1662 RIS  .9826            LSA 3292.9 MSA  188.9 SSA    2.6
   BDE 5.0372 BRA 1.0715 BC3  .3870 FSP   -318      SG1 3282.7 SG2  611.9 THA   .48            EL1 3143.5 EL2  179.0 ALF 177.69

LAUNCH DATE  SEP 16 1970                          FLIGHT TIME 128.00                          ARRIVAL DATE  JAN 22 1971

  HELIOCENTRIC CONIC                                  DISTANCE 368.500
   RL  150.40 LAL   -.00 LOL 352.72 VL  27.331 GAL  -5.61 AZL  65.98 HCA 171.64 SMA 130.38 ECC .18140 INC24.0246 V1  29.626
   RP  107.60 LAP   3.39 LOP 165.07 VP  38.065 GAP   2.83 AZP 113.80 TAL 207.02 TAP  18.66 RCA 106.73 APO 154.04 V2  35.218
   RC 102.053 GL   64.58 GP  -83.30 ZAL 100.36 ZAP  96.48 ETS 260.71 ZAE  84.98 ETE 172.12 ZAC  10.96 ETC 184.76 CLP 165.46
  PLANETOCENTRIC CONIC
   C3 150.326 VHL 12.261 DLA  43.15 RAL 251.81 RAD 6570.6 VEL 16.482 PTH   2.87 VHP 15.495 DPA -61.07 RAP 109.13 ECC 3.4740
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      55.97    18 48 38   4684.15      -8.88     215.21     152.24      47.60   20  6 42    4084.1     -14.21     209.54
     124.03     2 10 32   3330.68      -8.86     111.06     152.22      47.60    3  6  2    2730.7     -14.20     105.39
      55.97    18 48 38   4684.15      -8.88     215.21     152.24      47.60   20  6 42    4084.1     -14.21     209.54
     124.03     2 10 32   3330.68      -8.86     111.06     152.22      47.60    3  6  2    2730.7     -14.20     105.39
      55.97    18 48 38   4684.15      -8.88     215.21     152.24      47.60   20  6 42    4084.1     -14.21     209.54
     124.03     2 10 32   3330.68      -8.86     111.06     152.22      47.60    3  6  2    2730.7     -14.20     105.39
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
   TDE 5.0641 TRA 1.8118 TC3 -.1008 BAU  .2036      SGT 2900.7 SGR 1843.5 SG3   71.8            ST  2669.7 SR  1841.5 SS  1004.8
   RDE-3.9403 RRA -.1321 RC3  .0102 FAU .00223      RRT -.9310 RRF -.9131 RTF  .9975            CRT -.9932 CRS  .9908 CST -.9998
   FDE 1.5881 FRA  .5819 FC3 -.0128 BSP  10432      SGB 3436.9 RZS -.1464 RIS -.9876            LSA 3390.3 MSA  185.3 SSA    1.8
   BDE 6.0999 BRA 1.8166 BC3  .1013 FSP   -240      SG1 3388.3 SG2  576.1 THA 148.37            EL1 3238.4 EL2  177.2 ALF 145.47

LAUNCH DATE  SEP 16 1970                          FLIGHT TIME 130.00                          ARRIVAL DATE  JAN 24 1971

  HELIOCENTRIC CONIC                                  DISTANCE 374.228
   RL  150.40 LAL   -.00 LOL 352.72 VL  27.298 GAL  -5.36 AZL  52.30 HCA 174.45 SMA 130.15 ECC .18087 INC37.6983 V1  29.626
   RP  107.63 LAP   3.39 LOP 168.32 VP  38.034 GAP   3.05 AZP 127.57 TAL 205.74 TAP  20.19 RCA 106.61 APO 153.69 V2  35.211
   RC 104.339 GL   63.24 GP  -76.84 ZAL  96.42 ZAP  94.55 ETS 212.31 ZAE  74.37 ETE 125.68 ZAC   1.53 ETC 206.08 CLP 110.41
  PLANETOCENTRIC CONIC
   C3 346.443 VHL 18.613 DLA  40.75 RAL 257.33 RAD 6571.9 VEL 21.627 PTH   3.22 VHP 23.720 DPA -52.39 RAP  98.52 ECC 6.7016
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      59.38    19 25  5   4764.27      -3.19     217.13     163.63      49.36   20 44 29    4164.3      -8.37     211.42
     120.62     2 18  5   3489.93      -3.18     119.89     163.62      49.35    3 16 15    2889.9      -8.36     114.18
      59.38    19 25  5   4764.27      -3.19     217.13     163.63      49.36   20 44 29    4164.3      -8.37     211.42
     120.62     2 18  5   3489.93      -3.18     119.89     163.62      49.35    3 16 15    2889.9      -8.36     114.18
      59.38    19 25  5   4764.27      -3.19     217.13     163.63      49.36   20 44 29    4164.3      -8.37     211.42
     120.62     2 18  5   3489.93      -3.18     119.89     163.62      49.35    3 16 15    2889.9      -8.36     114.18
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
   TDE 2.0680 TRA 1.9565 TC3 -.0020 BAU  .5961      SGT 1098.5 SGR 3302.3 SG3   57.5            ST   679.8 SR  3068.4 SS  1185.4
   RDE-9.9015 RRA-2.8972 RC3 -.1287 FAU-.01084      RRT -.8541 RRF -.9884 RTF  .9193            CRT -.9706 CRS  .9984 CST -.9825
   FDE 1.8515 FRA  .8079 FC3  .0271 BSP  10393      SGB 3455.8 RZS -.1044 RIS -.9934            LSA 3354.7 MSA  167.5 SSA    1.9
   BDE10.1151 BRA 3.4959 BC3  .1287 FSP   -187      SG1 3417.7 SG2  511.9 THA 105.10            EL1 3138.7 EL2  160.0 ALF 102.17

LAUNCH DATE  SEP 16 1970                          FLIGHT TIME 132.00                          ARRIVAL DATE  JAN 26 1971

  HELIOCENTRIC CONIC                                  DISTANCE 379.065
   RL  150.40 LAL   -.00 LOL 352.72 VL  27.263 GAL  -4.93 AZL  18.84 HCA 176.43 SMA 129.91 ECC .17906 INC71.1569 V1  29.626
   RP  107.65 LAP   3.38 LOP 171.56 VP  38.001 GAP   3.02 AZP 161.12 TAL 203.73 TAP  20.16 RCA 106.65 APO 153.17 V2  35.202
   RC 106.624 GL   50.84 GP  -57.53 ZAL  93.24 ZAP  92.50 ETS 190.05 ZAE  54.34 ETE 105.73 ZAC  19.70 ETC 279.97 CLP  94.65
  PLANETOCENTRIC CONIC
   C31099.026 VHL 33.152 DLA  27.78 RAL 261.17 RAD 6573.0 VEL 34.933 PTH   3.52 VHP 42.484 DPA -33.36 RAP  90.89 ECC19.0672
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      90.00    23 53 23   4051.56      -4.74     163.68     174.47      62.05   25  0 55    3451.6      -8.44     156.96
      90.00    22 16 33   4366.52       5.39     181.29     169.12      62.16   23 29 19    3766.5       1.62     174.64
     100.00     2  4 22   3641.97      -9.84     136.30     177.22      61.63    3  5  4    3042.0     -13.55     129.48
     100.00    22 52 11   4251.35      10.50     170.10     166.38      61.85   24  3  2    3651.3       6.65     163.43
     110.00     4 14 37   3234.37     -17.94     109.97     181.84      60.40    5  8 31    2634.4     -21.74     102.90
     110.00    22 58 26   4231.71      18.63     164.03     161.79      60.81   24  8 57    3631.7      14.59     157.24
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
   TDE-3.6036 TRA 1.1297 TC3 -.0650 BAU 3.1844      SGT  788.9 SGR 3022.3 SG3   51.3            ST   626.4 SR  2347.5 SS  1624.9
   RD-13.3660 RRA-7.0916 RC3 -.2068 FAU-.05178      RRT  .7230 RRF -.9981 RTF -.6823            CRT  .9600 CRS  .9996 CST  .9516
   FDE 2.5063 FRA 1.5500 FC3  .0408 BSP   9685      SGB 3123.6 RZS -.0907 RIS -.9956            LSA 2917.3 MSA  181.2 SSA    1.6
   BDE13.8433 BRA 7.1810 BC3  .2167 FSP   -168      SG1 3077.4 SG2  535.3 THA  78.98            EL1 2423.7 EL2  169.9 ALF  75.56
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LAUNCH DATE SEP 16 1970 FLIGHT TIME 134.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 389.707

RL	150.40	LAL	-.00	LOL	352.72	VL	27.226	GAL	-5.64	AZL	148.17	HCA	183.95	SMA	129.66	ECC	.18708	INC	50.1739
RP	107.68	LAP	3.36	LOP	174.81	VP	37.967	GAP	4.60	AZP	31.89	TAL	206.06	TAP	30.01	RCA	105.40	APO	153.92
RC	108.906	GL	-56.06	GP	64.01	ZAL	94.56	ZAP	94.60	ETS	178.09	ZAE	68.48	ETE	261.65	ZAC	141.15	ETC	276.42

V1	29.626	V2	35.193	CLP	100.55														

PLANETOCENTRIC CONIC

C3	769.977	VHL	27.748	DLA	-77.22	RAL	227.68	RAD	6572.8	VEL	29.854	PTH	3.45	VHP	35.938	DPA	88.25	RAP	68.49
ECC	13.6719																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
14.56	3 22 17	2442.05	.48	82.12	137.56	167.22	4 2 59	1842.1	8.28	80.76
165.44	14 24 23	652.99	.48	283.64	137.59	167.22	14 35 16	53.0	8.28	282.28
14.56	3 22 17	2442.05	.48	82.12	137.56	167.22	4 2 59	1842.1	8.28	80.76
165.44	14 24 23	652.99	.48	283.64	137.59	167.22	14 35 16	53.0	8.28	282.28
14.56	3 22 17	2442.05	.48	82.12	137.56	167.22	4 2 59	1842.1	8.28	80.76
165.44	14 24 23	652.99	.48	283.64	137.59	167.22	14 35 16	53.0	8.28	282.28

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	4.6282	TRA	.7162	TC3	-.0834	BAU	2.2656	SGT	1254.6	SGR	3153.9	SG3	56.0	ST	976.5	SR	2919.3
SS	1895.4	RD	-14.1249	RRA	-.4325	RC3	.2037	FAU	-.03320	RRT	-.9047	RRF	.9988	RTF	-.8899	CRT	-.9864
CRS	-1.0000	CST	.9848	FDE	-2.9546	FRA	-.0710	FC3	.0373	BSP	10599	SGB	3394.3	RZS	-.0871	R13	.9955
LSA	3611.9	MSA	158.0	SSA	2.0	BDE	14.8638	BRA	.8366	BC3	.2201	FSP	-179	SG1	3356.9	SG2	502.2
THA	110.27	EL1	3074.5	EL2	152.6	ALF	108.31										

LAUNCH DATE SEP 16 1970 FLIGHT TIME 136.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 394.878

RL	150.40	LAL	-.00	LOL	352.72	VL	27.189	GAL	-5.26	AZL	122.03	HCA	186.28	SMA	129.40	ECC	.18579	INC	32.0341
RP	107.71	LAP	3.32	LOP	178.05	VP	37.931	GAP	4.66	AZP	58.12	TAL	204.31	TAP	30.59	RCA	105.36	APO	153.44
RC	111.186	GL	-64.11	GP	77.76	ZAL	97.28	ZAP	98.03	ETS	151.65	ZAE	85.18	ETE	235.51	ZAC	156.21	ETC	262.68

V1	29.626	V2	35.184	CLP	131.21														

PLANETOCENTRIC CONIC

C3	254.825	VHL	15.963	DLA	-79.70	RAL	182.45	RAD	6571.5	VEL	19.394	PTH	3.10	VHP	20.821	DPA	74.60	RAP	253.02
ECC	5.1938																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
11.72	0 16 15	2344.71	7.28	82.71	91.11	169.61	0 55 20	1744.7	15.14	81.64
168.28	11 29 32	5835.47	7.28	259.37	91.13	169.61	13 6 47	5235.5	15.15	258.30
11.72	0 16 15	2344.71	7.28	82.71	91.11	169.61	0 55 20	1744.7	15.14	81.64
168.28	11 29 32	5835.47	7.28	259.37	91.13	169.61	13 6 47	5235.5	15.15	258.30
11.72	0 16 15	2344.71	7.28	82.71	91.11	169.61	0 55 20	1744.7	15.14	81.64
168.28	11 29 32	5835.47	7.28	259.37	91.13	169.61	13 6 47	5235.5	15.15	258.30

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.8037	TRA	-.1190	TC3	-.0081	BAU	.3047	SGT	717.5	SGR	3714.4	SG3	67.5	ST	679.9	SR	2102.8
SS	907.0	RDE	-5.2143	RRA	-1.5928	RC3	.0891	FAU	-.00172	RRT	.7584	RRF	.9923	RTF	.8301	CRT	.9331
CRS	-.9957	CST	-.9823	FDE	-1.3039	FRA	-.3116	FC3	.0050	BSP	11717	SGB	3783.1	RZS	-.1008	R13	.9943
LSA	2376.9	MSA	239.3	SSA	1.4	BDE	5.5441	BRA	1.5972	BC3	.0094	FSP	-216	SG1	3754.7	SG2	462.6
THA	81.54	EL1	2197.6	EL2	234.0	ALF	73.01										

LAUNCH DATE SEP 16 1970 FLIGHT TIME 138.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 400.621

RL	150.40	LAL	-.00	LOL	352.72	VL	27.150	GAL	-4.99	AZL	111.05	HCA	189.17	SMA	129.13	ECC	.18567	INC	21.0908
RP	107.74	LAP	3.28	LOP	181.28	VP	37.894	GAP	4.87	AZP	69.19	TAL	202.94	TAP	32.11	RCA	105.16	APO	153.11
RC	113.462	GL	-63.84	GP	77.71	ZAL	100.07	ZAP	102.29	ETS	86.72	ZAE	94.56	ETE	171.08	ZAC	161.90	ETC	219.26

V1	29.626	V2	35.174	CLP	178.37														

PLANETOCENTRIC CONIC

C3	117.153	VHL	10.824	DLA	-77.00	RAL	177.68	RAD	6570.2	VEL	15.443	PTH	2.76	VHP	14.272	DPA	64.32	RAP	248.86
ECC	2.9280																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
14.80	0 3 17	2209.94	15.84	79.32	83.91	166.48	0 40 7	1609.9	23.61	77.71
165.20	11 4 26	5709.70	15.84	258.99	83.94	166.48	12 39 35	5109.7	23.61	257.37
14.80	0 3 17	2209.94	15.84	79.32	83.91	166.48	0 40 7	1609.9	23.61	77.71
165.20	11 4 26	5709.70	15.84	258.99	83.94	166.48	12 39 35	5109.7	23.61	257.37
14.80	0 3 17	2209.94	15.84	79.32	83.91	166.48	0 40 7	1609.9	23.61	77.71
165.20	11 4 26	5709.70	15.84	258.99	83.94	166.48	12 39 35	5109.7	23.61	257.37

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-3.1651	TRA	-1.4332	TC3	-.1958	BAU	.3099	SGT	3790.4	SGR	1070.0	SG3	87.4	ST	1957.4	SR	329.4
SS	723.1	RDE	.1498	RRA	-.4528	RC3	-.0237	FAU	.01116	RRT	.8591	RRF	.8005	RTF	.9931	CRT	.2958
CRS	-.2019	CST	-.9953	FDE	-.9991	FRA	-.3585	FC3	-.0825	BSP	12200	SGB	3938.5	RZS	-.1365	R13	.9890
LSA	2087.8	MSA	322.2	SSA	2.0	BDE	3.1686	BRA	1.5031	BC3	.1972	FSP	-282	SG1	3902.4	SG2	531.8
THA	13.90	EL1	1959.9	EL2	314.3	ALF	2.93										

LAUNCH DATE SEP 16 1970 FLIGHT TIME 140.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 406.526

RL	150.40	LAL	-.00	LOL	352.72	VL	27.110	GAL	-4.74	AZL	105.41	HCA	192.23	SMA	129.06	ECC	.18596	INC	15.4101
RP	107.77	LAP	3.23	LOP	184.52	VP	37.855	GAP	5.13	AZP	74.92	TAL	201.66	TAP	33.09	RCA	104.90	APO	152.83
RC	115.736	GL	-60.92	GP	72.18	ZAL	102.47	ZAP	106.09	ETS	63.17	ZAE	101.15	ETE	148.59	ZAC	162.22	ETC	219.25

V1	29.626	V2	35.164	CLP	-161.71														

PLANETOCENTRIC CONIC

C3	67.477	VHL	8.214	DLA	-74.32	RAL	184.98	RAD	6569.3	VEL	13.742	PTH	2.51	VHP	11.003	DPA	56.40	RAP	245.80
ECC	2.1105																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.88	0 38 37	2082.17	23.61	75.01	87.91	162.84	1 13 19	1482.2	31.23	72.67
162.12	11 27 20	5593.26	23.61	257.74	87.94	162.84	13 0 33	4993.3	31.23	255.40
17.88	0 38 37	2082.17	23.61	75.01	87.91	162.84	1 13 19	1482.2	31.23	72.67
162.12	11 27 20	5593.26	23.61	257.74	87.94	162.84	13 0 33	4993.3	31.23	255.40
17.88	0 38 37	2082.17	23.61	75.01	87.91	162.84	1 13 19	1482.2	31.23	72.67
162.12	11 27 20	5593.26	23.61	257.74	87.94	162.84	13 0 33	4993.3	31.23	255.40

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.6268	TRA	-1.3099	TC3	-.5877	BAU	.5405	SGT	3963.5	SGR	841.7	SG3	113.1	ST	2093.9	SR	777.2
SS	801.6	RDE	1.1080	RRA	.1059	RC3	.1164	FAU	.02026	RRT	-.7564	RRF	-.8861	RTF	.9781	CRT	-.9211
CRS	.9715	CST	-.9871	FDE	-1.1377	FRA	-.3681	FC3	-.2599	BSP	12617	SGB	4051.9	RZS	.1712	R13	-.9822
LSA	2354.1	MSA	299.0	SSA	2.7	BDE	2.8505	BRA	1.3141	BC3	.5991	FSP	-369	SG1	4015.3	SG2	543.4
THA	170.70	EL1	2215.1	EL2	286.0	ALF	160.79										

LAUNCH DATE SEP 16 1970 FLIGHT TIME 142.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 412.484

RL	150.40	LAL	-.00	LOL	352.72	VL	27.069	GAL	-4.50	AZL	102.02	HCA	195.36	SMA	128.59	ECC	.18646	INC	12.0221
RP	107.80	LAP	3.16	LOP	187.75	VP	37.816	GAP	5.41	AZP	78.40	TAL	200.40	TAP	35.76	RCA	104.61	APO	152.56
RC	118.005	GL	-57.15	GP	66.10	ZAL	104.34	ZAP	111.58	ETS	56.56	ZAE	106.29	ETE	143.61	ZAC	159.57	ETC	229.98

V1	29.626	V2	35.153	CLP	-155.20														

PLANETOCENTRIC CONIC

C3	44.763	VHL	6.691	DLA	-71.57	RAL	193.94	RAD	6568.7	VEL	12.889	PTH	2.35	VHP	9.150	DPA	49.54	RAP	243.60
ECC	1.7367																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.04	1 20 56	1974.14	29.67	69.92	92.99	158.66	1 53 50	1374.1	37.07	66.70
158.96	11 56 33	5499.35	29.68	255.88	93.01	158.66	13 28 13	4899.4	37.08	252.65
21.04	1 20 56	1974.14	29.67	69.92	92.99	158.66	1 53 50	1374.1	37.07	66.70
158.96	11 56 33	5499.35	29.68	255.88	93.01	158.66	13 28 13	4899.4	37.08	252.65
21.04	1 20 56	1974.14	29.67	69.92	92.99	158.66	1 53 50	1374.1	37.07	66.70
158.96	11 56 33	5499.35	29.68	255.88	93.01	158.66	13 28 13	4899.4	37.08	252.65

DIFFERENTIAL CORRECTIONS

TDE	-2.4810	TRA	-1.1279	TC3	-1.0574	BAU	.6558
RDE	1.1555	RRA	.1689	RC3	.2876	FAU	.02807
FDE	-1.3027	FRA	-.3513	FC3	-.5428	BSP	12945
BDE	2.7369	BRA	1.1405	BC3	1.0958	FSP	-463

MID-COURSE EXECUTION ACCURACY

SGT	3981.5	SGR	1156.2	SG3	141.4		
RRT	-.8788	RRF	-.9614	RTF	.9679		
SGB	4146.0	RZ3	.1995	R13	-.9752		
SG1	4111.4	SG2	534.4	THA	165.43		

ORBIT DETERMINATION ACCURACY

ST	2314.3	SR	999.1	SS	910.6		
CRT	-.9639	CRS	.9936	CST	-.9877		
LSA	2667.1	MSA	264.5	SSA	3.5		
EL1	2508.8	EL2	245.4	ALF	157.18		

LAUNCH DATE SEP 16 1970 FLIGHT TIME 144.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 418.459

RL	150.40	LAL	-.00	LOL	352.72	VL	27.027	GAL	-4.26	AZL	99.76	HCA	198.52	SMA	128.30	ECC	.18711	INC	9.7645
RP	107.84	LAP	3.09	LOP	190.99	VP	37.776	GAP	5.69	AZP	80.73	TAL	199.14	TAP	37.65	RCA	104.30	APO	152.31
RC	120.271	GL	-53.15	GP	60.33	ZAL	105.63	ZAP	116.18	ETS	53.94	ZAE	110.46	ETE	143.08	ZAC	155.74	ETC	238.19

V1	29.626	V2	35.141	CLP	-153.05		

PLANETOCENTRIC CONIC

C3	32.630	VHL	5.712	DLA	-68.75	RAL	202.36	RAD	6568.3	VEL	12.410	PTH	2.24	VHP	8.016	DPA	43.37	RAP	242.11
ECC	1.5370																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
24.31	2 1 30	1885.60	34.01	64.27	97.13	154.07	2 32 55	1285.6	41.12	60.05
155.69	12 23 7	5428.31	34.02	253.65	97.15	154.07	13 53 35	4828.3	41.13	249.44
24.31	2 1 30	1885.60	34.01	64.27	97.13	154.07	2 32 55	1285.6	41.12	60.05
155.69	12 23 7	5428.31	34.02	253.65	97.15	154.07	13 53 35	4828.3	41.13	249.44
24.31	2 1 30	1885.60	34.01	64.27	97.13	154.07	2 32 55	1285.6	41.12	60.05
155.69	12 23 7	5428.31	34.02	253.65	97.15	154.07	13 53 35	4828.3	41.13	249.44

DIFFERENTIAL CORRECTIONS

TDE	-2.3774	TRA	-.9733	TC3	-1.5941	BAU	.7214
RDE	1.0468	RRA	.1369	RC3	.4401	FAU	.03466
FDE	-1.4045	FRA	-.3052	FC3	-.9195	BSP	13088
BDE	2.5976	BRA	.9828	BC3	1.6537	FSP	-547

MID-COURSE EXECUTION ACCURACY

SGT	4032.1	SGR	1224.2	SG3	168.5		
RRT	-.8994	RRF	-.9750	RTF	.9600		
SGB	4213.9	RZ3	.2222	R13	-.9682		
SG1	4182.2	SG2	515.9	THA	164.48		

ORBIT DETERMINATION ACCURACY

ST	2518.4	SR	1056.2	SS	991.5		
CRT	-.9761	CRS	.9975	CST	-.9890		
LSA	2895.5	MSA	238.3	SSA	4.4		
EL1	2722.6	EL2	212.3	ALF	157.59		

LAUNCH DATE SEP 16 1970 FLIGHT TIME 146.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 424.435

RL	150.40	LAL	-.00	LOL	352.72	VL	26.985	GAL	-4.01	AZL	98.15	HCA	201.69	SMA	128.02	ECC	.18788	INC	8.1484
RP	107.87	LAP	3.00	LOP	194.21	VP	37.735	GAP	5.97	AZP	82.42	TAL	197.85	TAP	39.55	RCA	103.97	APO	152.07
RC	122.531	GL	-49.17	GP	55.03	ZAL	106.35	ZAP	120.59	ETS	52.59	ZAE	113.86	ETE	144.16	ZAC	151.66	ETC	243.66

V1	29.626	V2	35.130	CLP	-152.60		

PLANETOCENTRIC CONIC

C3	25.425	VHL	5.042	DLA	-65.91	RAL	209.86	RAD	6568.0	VEL	12.116	PTH	2.17	VHP	7.291	DPA	37.77	RAP	241.18
ECC	1.4184																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.62	2 38 48	1812.86	36.90	58.32	100.23	149.31	3 9 0	1212.9	43.65	53.11
152.38	12 45 42	5376.43	36.91	251.31	100.25	149.30	14 15 19	4776.4	43.66	246.09
27.62	2 38 48	1812.86	36.90	58.32	100.23	149.31	3 9 0	1212.9	43.65	53.11
152.38	12 45 42	5376.43	36.91	251.31	100.25	149.30	14 15 19	4776.4	43.66	246.09
27.62	2 38 48	1812.86	36.90	58.32	100.23	149.31	3 9 0	1212.9	43.65	53.11
152.38	12 45 42	5376.43	36.91	251.31	100.25	149.30	14 15 19	4776.4	43.66	246.09

DIFFERENTIAL CORRECTIONS

TDE	-2.2761	TRA	-.8514	TC3	-2.2045	BAU	.7744
RDE	.9157	RRA	.0968	RC3	.5750	FAU	.04060
FDE	-1.4472	FRA	-.2487	FC3	-1.3826	BSP	13626
BDE	2.4534	BRA	.8569	BC3	2.2783	FSP	-647

MID-COURSE EXECUTION ACCURACY

SGT	4153.2	SGR	1221.4	SG3	195.7		
RRT	-.9107	RRF	-.9785	RTF	.9563		
SGB	4329.1	RZ3	.2311	R13	-.9639		
SG1	4301.6	SG2	487.2	THA	164.81		

ORBIT DETERMINATION ACCURACY

ST	2683.1	SR	1043.8	SS	1044.4		
CRT	-.9818	CRS	.9988	CST	-.9898		
LSA	3054.8	MSA	218.0	SSA	5.4		
EL1	2873.1	EL2	184.9	ALF	159.00		

LAUNCH DATE SEP 16 1970 FLIGHT TIME 148.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 430.408

RL	150.40	LAL	-.00	LOL	352.72	VL	26.942	GAL	-3.76	AZL	96.93	HCA	204.88	SMA	127.74	ECC	.18877	INC	6.9294
RP	107.91	LAP	2.91	LOP	197.44	VP	37.693	GAP	6.24	AZP	83.71	TAL	196.55	TAP	41.43	RCA	103.62	APO	151.85
RC	124.786	GL	-45.31	GP	50.24	ZAL	106.50	ZAP	124.72	ETS	51.72	ZAE	116.61	ETE	145.92	ZAC	147.73	ETC	247.37

V1	29.626	V2	35.118	CLP	-152.94		

PLANETOCENTRIC CONIC

C3	20.812	VHL	4.562	DLA	-63.10	RAL	216.58	RAD	6567.8	VEL	11.924	PTH	2.12	VHP	6.817	DPA	32.68	RAP	240.72
ECC	1.3425																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.92	3 13 13	1751.99	38.64	52.35	102.64	144.61	3 42 25	1152.0	44.99	46.22
149.08	13 4 49	5339.82	38.65	249.07	102.66	144.60	14 33 49	4739.8	45.00	242.95
30.92	3 13 13	1751.99	38.64	52.35	102.64	144.61	3 42 25	1152.0	44.99	46.22
149.08	13 4 49	5339.82	38.65	249.07	102.66	144.60	14 33 49	4739.8	45.00	242.95
30.92	3 13 13	1751.99	38.64	52.35	102.64	144.61	3 42 25	1152.0	44.99	46.22
149.08	13 4 49	5339.82	38.65	249.07	102.66	144.60	14 33 49	4739.8	45.00	242.95

DIFFERENTIAL CORRECTIONS

TDE	-2.1480	TRA	-.7218	TC3	-2.8241	BAU	.8071
RDE	.7807	RRA	.0493	RC3	.6630	FAU	.04460
FDE	-1.4143	FRA	-.1610	FC3	-1.8554	BSP	13728
BDE	2.2854	BRA	.7235	BC3	2.9009	FSP	-704

MID-COURSE EXECUTION ACCURACY

SGT	4234.8	SGR	1160.2	SG3	215.5		
RRT	-.9115	RRF	-.9769	RTF	.9515		
SGB	4390.8	RZ3	.2410	R13	-.9583		
SG1	4366.3	SG2	462.9	THA	165.82		

ORBIT DETERMINATION ACCURACY

ST	2765.0	SR	981.5	SS	1049.6		
CRT	-.9843	CRS	.9994	CST	-.9897		
LSA	3109.4	MSA	204.4	SSA	6.5		
EL1	2929.5	EL2	163.7	ALF	160.68		

LAUNCH DATE SEP 16 1970 FLIGHT TIME 150.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 436.360

RL 150.40 LAL -.00 LOL 352.72 VL 26.898 GAL -3.49 AZL 95.97 HCA 208.07 SHA 127.45 ECC .18977 INC 5.9726 V1 29.626
RP 107.95 LAP 2.81 LOP 200.66 VP 37.650 GAP 6.52 AZP 84.73 TAL 195.22 TAP 43.30 RCA 103.26 APO 151.63 V2 35.105
RC 127.036 GL -41.62 GP 45.95 ZAL 106.13 ZAP 128.54 ETS 51.05 ZAE 118.81 ETE 147.95 ZAC 144.11 ETC 250.00 CLP-153.65

PLANETOCENTRIC CONIC

C3 17.695 VHL 4.206 DLA -60.37 RAL 222.67 RAD 6567.7 VEL 11.793 PTH 2.09 VHP 6.508 DPA 28.07 RAP 240.64 ECC 1.2912

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.17	3 45 28	1099.84	39.51	46.53	104.68	140.14	4 13 48	1099.8	45.43	39.64
145.83	13 21 12	5315.33	39.52	247.11	104.70	140.13	14 49 47	4715.3	45.44	240.22
34.17	3 45 28	1099.84	39.51	46.53	104.68	140.14	4 13 48	1099.8	45.43	39.64
145.83	13 21 12	5315.33	39.52	247.11	104.70	140.13	14 49 47	4715.3	45.44	240.22
34.17	3 45 28	1099.84	39.51	46.53	104.68	140.14	4 13 48	1099.8	45.43	39.64
145.83	13 21 12	5315.33	39.52	247.11	104.70	140.13	14 49 47	4715.3	45.44	240.22

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-2.0217 TRA -.0018 TC3-3.4670 BAU .8379 SGT 4340.3 SGR 1094.9 SGS 232.2 ST 2799.6 SR 908.8 SS 1029.2
RDE .6670 RRA .0113 RC3 .7254 FAU .04762 RRT -.9121 RRF -.9732 RTF .9487 CRT -.9858 CRS .9997 CST -.9891
FDE-1.3426 FRA -.0005 FC3-2.3299 BSP 14020 SGB 4476.3 RZS .2415 RIS -.9545 LSA 3112.2 NSA 193.2 SSA 7.7
BDE 2.1299 BRA .6019 BC3 3.5421 FSP -760 SGI 4454.9 SGZ 437.4 THA 166.91 EL1 2939.8 EL2 145.1 ALF 162.21

LAUNCH DATE SEP 16 1970 FLIGHT TIME 152.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 442.318

RL 150.40 LAL -.00 LOL 352.72 VL 26.854 GAL -3.22 AZL 95.20 HCA 211.27 SHA 127.16 ECC .19089 INC 5.1976 V1 29.626
RP 107.99 LAP 2.70 LOP 203.08 VP 37.607 GAP 6.80 AZP 85.55 TAL 193.87 TAP 45.14 RCA 102.89 APO 151.43 V2 35.093
RC 129.278 GL -36.09 GP 42.13 ZAL 105.28 ZAP 132.05 ETS 50.50 ZAE 120.55 ETE 150.05 ZAC 140.83 ETC 251.96 CLP-154.57

PLANETOCENTRIC CONIC

C3 15.505 VHL 3.938 DLA -57.71 RAL 228.30 RAD 6567.6 VEL 11.700 PTH 2.06 VHP 6.311 DPA 23.92 RAP 240.89 ECC 1.2552

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.36	4 16 10	1054.05	39.72	40.96	106.62	136.01	4 43 44	1054.0	45.22	33.49
142.64	13 35 28	5300.64	39.73	245.53	106.63	136.00	15 3 48	4700.6	45.23	230.06
37.36	4 16 10	1054.05	39.72	40.96	106.62	136.01	4 43 44	1054.0	45.22	33.49
142.64	13 35 28	5300.64	39.73	245.53	106.63	136.00	15 3 48	4700.6	45.23	230.06
37.36	4 16 10	1054.05	39.72	40.96	106.62	136.01	4 43 44	1054.0	45.22	33.49
142.64	13 35 28	5300.64	39.73	245.53	106.63	136.00	15 3 48	4700.6	45.23	230.06

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.0037 TRA -.4007 TC3-4.1032 BAU .8650 SGT 4444.0 SGR 1088.6 SGS 244.2 ST 2785.0 SR 832.9 SS 984.2
RDE .5722 RRA -.0203 RC3 .7594 FAU .04946 RRT -.9106 RRF -.9673 RTF .9465 CRT -.9889 CRS .9999 CST -.9880
FDE-1.2396 FRA .0304 FC3-2.7817 BSP 14295 SGB 4561.0 RZS .2367 RIS -.9513 LSA 3063.5 NSA 184.4 SSA 9.2
BDE 1.9783 BRA .4012 BC3 4.1729 FSP -800 SGI 4542.1 SGZ 415.1 THA 168.02 EL1 2904.1 EL2 128.8 ALF 163.52

LAUNCH DATE SEP 16 1970 FLIGHT TIME 154.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 448.254

RL 150.40 LAL -.00 LOL 352.72 VL 26.810 GAL -2.93 AZL 94.55 HCA 214.47 SHA 126.87 ECC .19212 INC 4.5535 V1 29.626
RP 108.03 LAP 2.58 LOP 207.10 VP 37.564 GAP 7.08 AZP 86.24 TAL 192.50 TAP 46.07 RCA 102.50 APO 151.25 V2 35.080
RC 131.513 GL -34.72 GP 38.75 ZAL 103.99 ZAP 135.25 ETS 50.03 ZAE 121.92 ETE 152.11 ZAC 137.92 ETC 253.48 CLP-155.59

PLANETOCENTRIC CONIC

C3 13.927 VHL 3.732 DLA -55.13 RAL 233.60 RAD 6567.5 VEL 11.632 PTH 2.04 VHP 6.193 DPA 20.17 RAP 241.40 ECC 1.2292

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.50	4 45 40	1012.73	39.43	35.09	108.61	132.24	5 12 42	1012.7	44.53	27.80
139.50	13 48 1	5294.18	39.45	244.41	108.63	132.23	15 16 15	4604.2	44.54	236.51
40.50	4 45 40	1012.73	39.43	35.09	108.61	132.24	5 12 42	1012.7	44.53	27.80
139.50	13 48 1	5294.18	39.45	244.41	108.63	132.23	15 16 15	4604.2	44.54	236.51
40.50	4 45 40	1012.73	39.43	35.09	108.61	132.24	5 12 42	1012.7	44.53	27.80
139.50	13 48 1	5294.18	39.45	244.41	108.63	132.23	15 16 15	4604.2	44.54	236.51

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.7669 TRA -.3582 TC3-4.7193 BAU .8904 SGT 4548.7 SGR 902.1 SGS 252.4 ST 2730.0 SR 761.7 SS 922.1
RDE .4954 RRA -.0464 RC3 .7715 FAU .05036 RRT -.9076 RRF -.9593 RTF .9449 CRT -.9879 CRS .9998 CST -.9861
FDE-1.1195 FRA .1300 FC3-3.1302 BSP 14598 SGB 4649.4 RZS .2265 RIS -.9488 LSA 2975.2 NSA 177.1 SSA 10.8
BDE 1.8350 BRA .3612 BC3 4.7819 FSP -828 SGI 4632.4 SGZ 396.7 THA 169.05 EL1 2832.0 EL2 113.9 ALF 164.56

LAUNCH DATE SEP 16 1970 FLIGHT TIME 156.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 454.174

RL 150.40 LAL -.00 LOL 352.72 VL 26.766 GAL -2.64 AZL 94.01 HCA 217.66 SHA 126.58 ECC .19348 INC 4.0069 V1 29.626
RP 108.07 LAP 2.45 LOP 210.32 VP 37.520 GAP 7.35 AZP 86.83 TAL 191.11 TAP 46.78 RCA 102.09 APO 151.08 V2 35.067
RC 133.740 GL -31.51 GP 35.75 ZAL 102.31 ZAP 136.17 ETS 49.64 ZAE 122.98 ETE 154.05 ZAC 135.34 ETC 254.71 CLP-156.66

PLANETOCENTRIC CONIC

C3 12.775 VHL 3.574 DLA -52.61 RAL 236.63 RAD 6567.5 VEL 11.583 PTH 2.03 VHP 6.133 DPA 16.80 RAP 242.14 ECC 1.2102

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.61	5 14 55	1574.38	38.77	30.70	110.75	128.85	5 41 10	974.4	43.49	22.53
136.39	13 59 3	5295.04	38.78	243.77	110.76	128.84	15 27 19	4605.0	43.49	235.59
43.61	5 14 55	1574.38	38.77	30.70	110.75	128.85	5 41 10	974.4	43.49	22.53
136.39	13 59 3	5295.04	38.78	243.77	110.76	128.84	15 27 19	4605.0	43.49	235.59
43.61	5 14 55	1574.38	38.77	30.70	110.75	128.85	5 41 10	974.4	43.49	22.53
136.39	13 59 3	5295.04	38.78	243.77	110.76	128.84	15 27 19	4605.0	43.49	235.59

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-1.6408 TRA -.2382 TC3-5.2900 BAU .9141 SGT 4650.6 SGR 903.2 SGS 257.1 ST 2638.6 SR 697.7 SS 847.9
RDE .4336 RRA -.0080 RC3 .7661 FAU .05045 RRT -.9029 RRF -.9490 RTF .9438 CRT -.9890 CRS .9991 CST -.9834
FDE -.9808 FRA .2276 FC3-3.4106 BSP 14910 SGB 4737.5 RZS .2118 RIS -.9469 LSA 2852.8 NSA 171.1 SSA 12.7
BDE 1.6909 BRA .2419 BC3 5.3520 FSP -846 SGI 4722.1 SGZ 382.4 THA 169.99 EL1 2727.4 EL2 99.7 ALF 165.32

LAUNCH DATE SEP 16 1970 FLIGHT TIME 158.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 460.078

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RL  150.40 LAL   -.00 LOL 352.72 VL  26.721 GAL  -2.33 AZL  93.53 HCA 220.86 SMA 126.30 ECC .19497 INC 3.5344 V1  29.626
RP  108.11 LAP   2.31 LOP 213.53 VP  37.476 GAP   7.63 AZP  87.33 TAL 189.70 TAP  50.57 RCA 101.67 APO 150.92 V2  35.054
RC 135.957 GL  -28.45 GP   33.11 ZAL 100.29 ZAP 140.83 ETS  49.32 ZAE 123.79 ETE 155.86 ZAC 133.08 ETC 255.75 CLP-157.75
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PLANETOCENTRIC CONIC

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C3  11.935 VHL  3.455 DLA -50.16 RAL 243.45 RAD 6567.5 VEL 11.547 PTH   2.02 VHP  6.116 DPA  13.76 RAP 243.08 ECC 1.1964
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.70	5 43 44	1537.94	37.82	25.95	113.07	125.81	6 9 22	937.9	42.18	17.61
133.30	14 8 43	5302.59	37.83	243.64	113.08	125.79	15 37 6	4702.6	42.19	235.29
46.70	5 43 44	1537.94	37.82	25.95	113.07	125.81	6 9 22	937.9	42.18	17.61
133.30	14 8 43	5302.59	37.83	243.64	113.08	125.79	15 37 6	4702.6	42.19	235.29
46.70	5 43 44	1537.94	37.82	25.95	113.07	125.81	6 9 22	937.9	42.18	17.61
133.30	14 8 43	5302.59	37.83	243.64	113.08	125.79	15 37 6	4702.6	42.19	235.29

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.5138 TRA -.1011 TC3-5.8197 BAU  .9362   SGT 4747.7 SGR  850.4 SG3  258.8     ST  2514.6 SR   641.6 SS   765.9
RDE  .3846 RRA -.0864 RC3  .7468 FAU .04987   RRT -.8961 RRF -.9364 RTF  .9430     CRT -.9905 CRS  .9972 CST -.9791
FDE -.8596 FRA  .3220 FC3-3.6174 BSP  15209   SGB 4823.3 RZS  .1941 R13 -.9455     LSA 2700.7 MSA  166.5 SSA   14.9
BDE 1.5619 BRA  .1329 BC3 5.8675 FSP   -854   SG1 4808.9 SG2  372.6 THA 170.83     EL1 2593.8 EL2   85.6 ALF 165.80
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LAUNCH DATE SEP 16 1970 FLIGHT TIME 160.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 465.966

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RL  150.40 LAL   -.00 LOL 352.72 VL  26.676 GAL  -2.01 AZL  93.12 HCA 224.06 SMA 126.01 ECC .19659 INC 3.1195 V1  29.626
RP  108.15 LAP   2.17 LOP 216.73 VP  37.431 GAP   7.91 AZP  87.76 TAL 188.28 TAP  52.34 RCA 101.24 APO 150.78 V2  35.041
RC 130.166 GL  -25.53 GP   30.77 ZAL  97.99 ZAP 143.25 ETS  49.10 ZAE 124.42 ETE 157.51 ZAC 131.08 ETC 256.65 CLP-158.84
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PLANETOCENTRIC CONIC

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C3  11.335 VHL  3.367 DLA -47.75 RAL 248.10 RAD 6567.4 VEL 11.521 PTH   2.01 VHP  6.133 DPA  11.02 RAP 244.19 ECC 1.1865
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.80	6 12 35	1502.22	36.64	21.38	115.59	123.08	6 37 37	902.2	40.68	12.95
130.20	14 16 56	5316.77	36.65	244.03	115.60	123.07	15 45 33	4716.8	40.69	235.60
49.80	6 12 35	1502.22	36.64	21.38	115.59	123.08	6 37 37	902.2	40.68	12.95
130.20	14 16 56	5316.77	36.65	244.03	115.60	123.07	15 45 33	4716.8	40.69	235.60
49.80	6 12 35	1502.22	36.64	21.38	115.59	123.08	6 37 37	902.2	40.68	12.95
130.20	14 16 56	5316.77	36.65	244.03	115.60	123.07	15 45 33	4716.8	40.69	235.60

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.3050 TRA  .0360 TC3-6.2774 BAU  .9575   SGT 4841.2 SGR  804.4 SG3  258.4     ST  2361.9 SR   593.2 SS   680.0
RDE  .3455 RRA -.1025 RC3  .7187 FAU .04884   RRT -.8874 RRF -.9215 RTF  .9423     CRT -.9924 CRS  .9928 CST -.9725
FDE -.7300 FRA  .4125 FC3-3.7300 BSP  15503   SGB 4907.6 RZS  .1745 R13 -.9443     LSA 2523.1 MSA  163.4 SSA   17.3
BDE 1.4282 BRA  .1086 BC3 6.3184 FSP   -855   SG1 4893.8 SG2  366.9 THA 171.56     EL1 2434.3 EL2   70.8 ALF 165.99
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LAUNCH DATE SEP 16 1970 FLIGHT TIME 162.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 471.836

```
RL  150.40 LAL   -.00 LOL 352.72 VL  26.632 GAL  -1.68 AZL  92.75 HCA 227.25 SMA 125.72 ECC .19836 INC 2.7501 V1  29.626
RP  108.19 LAP   2.02 LOP 219.94 VP  37.387 GAP   8.19 AZP  88.13 TAL 186.83 TAP  54.08 RCA 100.79 APO 150.66 V2  35.028
RC 140.364 GL  -22.73 GP   28.69 ZAL  95.43 ZAP 145.47 ETS  48.97 ZAE 124.90 ETE 159.01 ZAC 129.33 ETC 257.46 CLP-159.92
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PLANETOCENTRIC CONIC

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C3  10.928 VHL  3.306 DLA -45.38 RAL 252.59 RAD 6567.4 VEL 11.503 PTH   2.00 VHP  6.176 DPA   8.53 RAP 245.45 ECC 1.1799
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.93	6 41 44	1466.19	35.28	16.92	118.29	120.63	7 6 11	866.2	39.04	8.47
127.07	14 23 36	5337.73	35.29	244.98	118.30	120.62	15 52 33	4737.7	39.05	236.52
52.93	6 41 44	1466.19	35.28	16.92	118.29	120.63	7 6 11	866.2	39.04	8.47
127.07	14 23 36	5337.73	35.29	244.98	118.30	120.62	15 52 33	4737.7	39.05	236.52
52.93	6 41 44	1466.19	35.28	16.92	118.29	120.63	7 6 11	866.2	39.04	8.47
127.07	14 23 36	5337.73	35.29	244.98	118.30	120.62	15 52 33	4737.7	39.05	236.52

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.2564 TRA  .1790 TC3-6.6567 BAU  .9777   SGT 4930.2 SGR  764.9 SG3  256.1     ST  2185.6 SR   552.2 SS   594.7
RDE  .3146 RRA -.1167 RC3  .6845 FAU .04746   RRT -.8768 RRF -.9044 RTF  .9421     CRT -.9947 CRS  .9829 CST -.9621
FDE -.6055 FRA  .4974 FC3-3.7595 BSP  15781   SGB 4989.[illegible] RZS  .1537 R13 -.9436     LSA 2325.7 MSA  162.3 SSA   20.0
BDE 1.2952 BRA  .2137 BC3 6.6918 FSP   -849   SG1 4975.[illegible] SG2  384.[illegible] THA 172.21     EL1 2253.6 EL2   54.9 ALF 165.88
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LAUNCH DATE SEP 16 1970 FLIGHT TIME 164.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 477.687

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RL  150.40 LAL   -.00 LOL 352.72 VL  26.587 GAL  -1.34 AZL  92.42 HCA 230.45 SMA 125.[illegible] ECC .20026 INC 2.4173 V1  29.626
RP  108.23 LAP   1.86 LOP 223.14 VP  37.343 GAP   8.47 AZP  88.46 TAL 185.37 TAP  55.82 RCA 100.32 APO 150.56 V2  35.014
RC 142.552 GL  -20.06 GP   26.85 ZAL  92.68 ZAP 147.51 ETS  48.94 ZAE 125.27 ETE 160.35 ZAC 127.79 ETC 258.20 CLP-160.98
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PLANETOCENTRIC CONIC

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C3  10.684 VHL  3.269 DLA -43.04 RAL 256.92 RAD 6567.4 VEL 11.492 PTH   2.00 VHP  6.240 DPA   6.28 RAP 246.84 ECC 1.1756
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.12	7 11 27	1428.83	33.78	12.50	121.16	118.44	7 35 16	828.8	37.28	4.07
123.88	14 28 29	5365.88	33.79	246.50	121.17	118.43	15 57 55	4765.9	37.29	238.07
56.12	7 11 27	1428.83	33.78	12.50	121.16	118.44	7 35 16	828.8	37.28	4.07
123.88	14 28 29	5365.88	33.79	246.50	121.17	118.43	15 57 55	4765.9	37.29	238.07
56.12	7 11 27	1428.83	33.78	12.50	121.16	118.44	7 35 16	828.8	37.28	4.07
123.88	14 28 29	5365.88	33.79	246.50	121.17	118.43	15 57 55	4765.9	37.29	238.07

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.1288 TRA  .3253 TC3-8.9588 BAU  .9983   SGT 5021.5 SGR  731.9 SG3  252.6     ST  1996.0 SR   518.9 SS   515.9
RDE  .2912 RRA -.1230 RC3  .6481 FAU .04592   RRT -.8647 RRF -.8856 RTF  .9426     CRT -.9971 CRS  .9832 CST -.9464
FDE -.4908 FRA  .5737 FC3-3.7206 BSP  16143   SGB 5074.5 RZS  .1318 R13 -.9439     LSA 2119.5 MSA  163.1 SSA   22.9
BDE 1.1651 BRA  .3500 BC3 6.9890 FSP   -846   SG1 5061.4 SG2  364.7 THA 172.78     EL1 2062.0 EL2   38.1 ALF 165.46
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LAUNCH DATE SEP 16 1970 FLIGHT TIME 166.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 483.521

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RL  150.40 LAL   -.00 LOL 352.72 VL  26.542 GAL   -.98 AZL  92.11 HCA 233.64 SHA 125.16 ECC .20237 INC 2.1140 V1  29.626
RP  108.27 LAP   1.70 LOP 226.34 VP  37.298 GAP   8.75 AZP  88.75 TAL 183.89 TAP  57.53 RCA  99.83 APO 150.49 V2  35.001
RC 144.730 GL  -17.51 GP   25.22 ZAL  89.76 ZAP 149.38 ETS  49.03 ZAE 125.54 ETE 161.56 ZAC 126.43 ETC 258.90 CLP-162.03
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PLANETOCENTRIC CONIC

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C3  10.584 VHL  3.253 DLA -40.74 RAL 261.12 RAD 6567.4 VEL 11.488 PTH   2.00 VHP  6.322 DPA   4.24 RAP 248.35 ECC 1.1742
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.39	7 42 5	1388.76	32.17	8.01	124.18	116.47	8 5 14	788.8	35.44	359.63
120.61	14 31 18	5402.11	32.18	248.67	124.19	116.46	16 1 20	4802.1	35.45	240.29
59.39	7 42 5	1388.76	32.17	8.01	124.18	116.47	8 5 14	788.8	35.44	359.63
120.61	14 31 18	5402.11	32.18	248.67	124.19	116.46	16 1 20	4802.1	35.45	240.29
59.39	7 42 5	1388.76	32.17	8.01	124.18	116.47	8 5 14	788.8	35.44	359.63
120.61	14 31 18	5402.11	32.18	248.67	124.19	116.46	16 1 20	4802.1	35.45	240.29

DIFFERENTIAL CORRECTIONS

```
TDE -.0053 TRA  .4907 TC3-7.1287 BAU 1.0123
RDE  .2702 RRA -.1435 RC3  .6002 FAU .04373
FDE -.3710 FRA  .6564 FC3-3.5767 BSP  16200
BDE 1.0217 BRA  .5112 BC3 7.1539 FSP   -816
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5082.0 SGR  699.9 SGS  247.0
RRT -.8482 RRF -.8637 RTF  .9409
SGB 5130.0 RZS  .1158 RIS -.9420
SGI 5116.7 SGZ  368.1 THA 173.30
```

ORBIT DETERMINATION ACCURACY

```
ST  1774.2 SR   486.3 SS   437.4
CRT -.9984 CRS  .9178 CST -.9151
LSA 1882.9 HSA  172.1 SSA   25.7
EL1 1839.5 EL2   26.2 ALF 164.69
```

LAUNCH DATE SEP 16 1970 FLIGHT TIME 168.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 489.334

```
RL  150.40 LAL   -.00 LOL 352.72 VL  26.497 GAL   -.62 AZL  91.83 HCA 236.83 SHA 124.88 ECC .20462 INC 1.8348 V1  29.626
RP  108.31 LAP   1.54 LOP 229.54 VP  37.254 GAP   9.04 AZP  89.00 TAL 182.40 TAP  59.23 RCA  99.33 APO 150.43 V2  34.988
RC 146.889 GL  -15.09 GP   25.76 ZAL  86.76 ZAP 151.10 ETS  49.22 ZAE 125.75 ETE 162.64 ZAC 125.22 ETC 259.56 CLP-163.05
```

PLANETOCENTRIC CONIC

```
C3  10.616 VHL  3.258 DLA -38.47 RAL 265.16 RAD 6567.4 VEL 11.489 PTH   2.00 VHP  6.420 DPA   2.38 RAP 249.97 ECC 1.1747
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.79	8 14 4	1344.38	30.49	3.33	127.33	114.69	8 36 28	744.4	33.54	355.02
117.21	14 31 34	5447.70	30.50	251.56	127.33	114.68	16 2 21	4847.7	33.55	243.25
62.79	8 14 4	1344.38	30.49	3.33	127.33	114.69	8 36 28	744.4	33.54	355.02
117.21	14 31 34	5447.70	30.50	251.56	127.33	114.68	16 2 21	4847.7	33.55	243.25
62.79	8 14 4	1344.38	30.49	3.33	127.33	114.69	8 36 28	744.4	33.54	355.02
117.21	14 31 34	5447.70	30.50	251.56	127.33	114.68	16 2 21	4847.7	33.55	243.25

DIFFERENTIAL CORRECTIONS

```
TDE -.0480 TRA  .6557 TC3-7.2294 BAU 1.0290
RDE  .2580 RRA -.1554 RC3  .5577 FAU .04174
FDE -.2090 FRA  .7260 FC3-3.4040 BSP  16460
BDE  .8067 BRA  .6738 BC3 7.2508 FSP   -802
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5156.5 SGR  675.7 SGS  241.5
RRT -.8317 RRF -.8415 RTF  .9410
SGB 5200.6 RZS  .0986 RIS -.9418
SGI 5187.2 SGZ  372.9 THA 173.75
```

ORBIT DETERMINATION ACCURACY

```
ST  1563.3 SR   482.3 SS   379.5
CRT -.9980 CRS  .8377 CST -.8714
LSA 1663.2 HSA  186.2 SSA   28.0
EL1 1629.7 EL2   39.5 ALF 163.58
```

LAUNCH DATE SEP 16 1970 FLIGHT TIME 170.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 495.125

```
RL  150.40 LAL   -.00 LOL 352.72 VL  26.452 GAL   -.23 AZL  91.58 HCA 240.02 SHA 124.60 ECC .20707 INC 1.5755 V1  29.626
RP  108.35 LAP   1.36 LOP 232.73 VP  37.210 GAP   9.34 AZP  89.21 TAL 180.89 TAP  60.91 RCA  98.80 APO 150.40 V2  34.975
RC 149.057 GL  -12.80 GP   22.45 ZAL  83.67 ZAP 152.70 ETS  49.55 ZAE 125.91 ETE 163.60 ZAC 124.15 ETC 260.21 CLP-164.05
```

PLANETOCENTRIC CONIC

```
C3  10.773 VHL  3.282 DLA -36.24 RAL 269.04 RAD 6567.4 VEL 11.496 PTH   2.00 VHP  6.531 DPA    .89 RAP 251.67 ECC 1.1773
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
66.37	8 47 57	1293.52	28.74	358.30	130.58	113.09	9 9 31	693.5	31.61	350.07
113.63	14 28 40	5504.56	28.76	255.30	130.59	113.08	16 0 24	4904.6	31.62	247.07
66.37	8 47 57	1293.52	28.74	358.30	130.58	113.09	9 9 31	693.5	31.61	350.07
113.63	14 28 40	5504.56	28.76	255.30	130.59	113.08	16 0 24	4904.6	31.62	247.07
66.37	8 47 57	1293.52	28.74	358.30	130.58	113.09	9 9 31	693.5	31.61	350.07
113.63	14 28 40	5504.56	28.76	255.30	130.59	113.08	16 0 24	4904.6	31.62	247.07

DIFFERENTIAL CORRECTIONS

```
TDE -.7202 TRA  .8203 TC3-7.2738 BAU 1.0503
RDE  .2476 RRA -.1659 RC3  .5226 FAU .04011
FDE -.1848 FRA  .7858 FC3-3.2236 BSP  16907
BDE  .7616 BRA  .8369 BC3 7.2926 FSP   -801
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5247.1 SGR  658.4 SGS  236.2
RRT -.8160 RRF -.8201 RTF  .9431
SGB 5288.2 RZS  .0804 RIS -.9437
SGI 5274.7 SGZ  378.6 THA 174.12
```

ORBIT DETERMINATION ACCURACY

```
ST  1372.9 SR   445.5 SS   342.5
CRT -.9846 CRS  .7213 CST -.8238
LSA 1468.8 HSA  206.3 SSA   29.3
EL1 1441.5 EL2   74.3 ALF 162.23
```

LAUNCH DATE SEP 16 1970 FLIGHT TIME 172.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 500.895

```
RL  150.40 LAL   -.00 LOL 352.72 VL  26.408 GAL    .17 AZL  91.33 HCA 243.21 SHA 124.33 ECC .20972 INC 1.3325 V1  29.626
RP  108.39 LAP   1.19 LOP 235.92 VP  37.167 GAP   9.63 AZP  89.40 TAL 179.37 TAP  62.58 RCA  98.25 APO 150.40 V2  34.962
RC 151.205 GL  -10.64 GP   21.28 ZAL  80.55 ZAP 154.18 ETS  50.00 ZAE 126.03 ETE 164.47 ZAC 123.20 ETC 260.84 CLP-165.04
```

PLANETOCENTRIC CONIC

```
C3  11.054 VHL  3.325 DLA -34.06 RAL 272.77 RAD 6567.4 VEL 11.508 PTH   2.00 VHP  6.655 DPA   -.85 RAP 253.46 ECC 1.1819
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
70.22	9 24 52	1232.45	26.97	352.65	133.93	111.64	9 45 24	632.4	29.66	344.50
109.78	14 21 31	5876.18	26.98	260.14	133.93	111.63	15 54 27	4976.2	29.67	251.99
70.22	9 24 52	1232.45	26.97	352.65	133.93	111.64	9 45 24	632.4	29.66	344.50
109.78	14 21 31	5576.18	26.98	260.14	133.93	111.63	15 54 27	4976.2	29.67	251.99
110.00	14 1 13	5638.08	25.34	264.20	133.17	113.75	15 35 11	5038.1	28.32	236.30
110.00	14 44 20	5506.59	28.64	255.41	134.64	109.51	16 16 7	4906.6	31.03	247.02

DIFFERENTIAL CORRECTIONS

```
TDE -.5830 TRA 1.0119 TC3-7.1590 BAU 1.0603
RDE  .2302 RRA -.1803 RC3  .4732 FAU .03758
FDE -.0800 FRA  .8586 FC3-2.9434 BSP  16891
BDE  .6114 BRA 1.0278 BC3 7.1746 FSP   -758
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5295.0 SGR  636.7 SGS  229.2
RRT -.7958 RRF -.7943 RTF  .9403
SGB 5333.1 RZS  .0694 RIS -.9408
SGI 5319.3 SGZ  383.8 THA 174.51
```

ORBIT DETERMINATION ACCURACY

```
ST  1167.7 SR   422.4 SS   319.9
CRT -.9487 CRS  .4976 CST -.7399
LSA 1257.1 HSA  251.3 SSA   29.4
EL1 1235.3 EL2  126.3 ALF 160.85
```

LAUNCH DATE SEP 16 1970 FLIGHT TIME 174.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 506.641

RL 150.40 LAL -.00 LOL 352.72 VL 26.364 GAL .58 AZL 91.10 HCA 246.40 SMA 124.06 ECC .21258 INC 1.1029 V1 29.626
RP 108.43 LAP 1.01 LOP 239.11 VP 37.123 GAP 9.94 AZP 89.56 TAL 177.84 TAP 64.24 RCA 97.68 APO 150.43 V2 34.949
RC 153.343 GL -8.62 GP 20.23 ZAL 77.43 ZAP 155.56 ETS 50.59 ZAE 126.12 ETE 165.24 ZAC 122.34 ETC 261.47 CLP-166.00

PLANETOCENTRIC CONIC

C3 11.461 VHL 3.385 DLA -31.94 RAL 276.34 RAD 6567.4 VEL 11.526 PTH 2.01 VHP 6.791 DPA -2.26 RAP 255.33 ECC 1.1886

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
74.56	10 6 49	1154.24	25.19	345.87	137.34	110.32	10 26 4	554.2	27.73	337.81
105.44	14 8 1	5669.32	25.20	266.55	137.35	110.31	15 42 30	5069.3	27.74	258.49
74.56	10 6 49	1154.24	25.19	345.87	137.34	110.32	10 26 4	554.2	27.73	337.81
105.44	14 8 1	5669.32	25.20	266.55	137.35	110.31	15 42 30	5069.3	27.74	258.49
110.00	13 3 50	5868.54	18.27	278.35	133.89	119.40	14 41 39	5268.5	22.05	271.25
110.00	16 10 10	5291.05	32.55	239.86	139.70	101.08	17 38 21	4691.0	33.73	230.82

DIFFERENTIAL CORRECTIONS
TDE -.4324 TRA 1.2008 TC3-6.9940 BAU 1.0737
RDE .2324 RRA -.1982 RC3 .4320 FAU .03544
FDE -.0058 FRA .9156 FC3-2.6774 BSP 17105
BDE .4821 BRA 1.2161 BC3 7.0073 FSP -742

MID-COURSE EXECUTION ACCURACY
SGT 5354.6 SGR 622.2 SG3 222.3
RRT -.7756 RRF -.7707 RTF .9410
SGB 5390.6 RZ3 .0586 R13 -.9414
SG1 5376.4 SG2 391.2 THA 174.82

ORBIT DETERMINATION ACCURACY
ST 1023.5 SR 409.9 SS 323.1
CRT -.0702 CRS .2982 CST -.7245
LSA 1109.1 MSA 298.4 SSA 28.7
EL1 1086.0 EL2 190.3 ALF 160.15

LAUNCH DATE SEP 16 1970 FLIGHT TIME 176.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 512.361

RL 150.40 LAL -.00 LOL 352.72 VL 26.320 GAL 1.02 AZL 90.68 HCA 249.58 SMA 123.79 ECC .21568 INC .8843 V1 29.626
RP 108.47 LAP .83 LOP 242.30 VP 37.080 GAP 10.25 AZP 89.69 TAL 176.30 TAP 65.88 RCA 97.09 APO 150.48 V2 34.937
RC 155.470 GL -6.74 GP 19.28 ZAL 74.33 ZAP 156.85 ETS 51.32 ZAE 126.19 ETE 165.93 ZAC 121.57 ETC 262.09 CLP-166.94

PLANETOCENTRIC CONIC

C3 11.997 VHL 3.464 DLA -29.89 RAL 279.74 RAD 6567.5 VEL 11.549 PTH 2.02 VHP 6.938 DPA -3.54 RAP 257.26 ECC 1.1974

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.00	10 50 37	1039.86	23.42	336.58	140.81	109.12	11 16 56	439.9	25.82	328.60
100.00	13 42 24	5802.82	23.44	275.88	140.82	109.10	15 19 6	5202.8	25.83	267.90
100.00	13 40 5	5810.17	23.27	276.36	140.75	109.31	15 16 56	5210.2	25.69	268.40
100.00	13 44 36	5795.79	23.59	275.42	140.87	108.91	15 21 11	5195.8	25.95	267.41
110.00	12 42 13	705.28	13.96	307.54	136.09	121.52	12 53 58	105.3	18.03	300.79
110.00	16 58 56	5185.40	33.64	231.81	143.45	96.44	18 25 23	4585.4	34.17	222.61

DIFFERENTIAL CORRECTIONS
TDE -.2754 TRA 1.3991 TC3-6.7656 BAU 1.0869
RDE .2296 RRA -.2046 RC3 .3937 FAU .03341
FDE .0675 FRA .9706 FC3-2.4108 BSP 17302
BDE .3585 BRA 1.4140 BC3 6.7770 FSP -722

MID-COURSE EXECUTION ACCURACY
SGT 5412.9 SGR 609.1 SG3 215.7
RRT -.7562 RRF -.7472 RTF .9414
SGB 5447.0 RZ3 .0480 R13 -.9417
SG1 5432.6 SG2 397.1 THA 175.11

ORBIT DETERMINATION ACCURACY
ST 932.0 SR 397.5 SS 341.0
CRT -.7232 CRS .1021 CST -.7566
LSA 1009.2 MSA 351.7 SSA 27.2
EL1 979.0 EL2 261.4 ALF 161.49

LAUNCH DATE SEP 16 1970 FLIGHT TIME 178.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 518.055

RL 150.40 LAL -.00 LOL 352.72 VL 26.276 GAL 1.47 AZL 90.67 HCA 252.76 SMA 123.52 ECC .21903 INC .6748 V1 29.626
RP 108.51 LAP .64 LOP 245.48 VP 37.037 GAP 10.58 AZP 89.80 TAL 174.76 TAP 67.52 RCA 96.47 APO 150.58 V2 34.925
RC 157.587 GL -4.98 GP 18.43 ZAL 71.30 ZAP 158.05 ETS 52.21 ZAE 126.24 ETE 166.55 ZAC 120.86 ETC 262.71 CLP-167.87

PLANETOCENTRIC CONIC

C3 12.069 VHL 3.559 DLA -27.91 RAL 282.98 RAD 6567.5 VEL 11.578 PTH 2.02 VHP 7.097 DPA -4.70 RAP 259.26 ECC 1.2085

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 51 59	925.23	18.82	326.35	143.22	111.55	12 7 24	325.2	21.59	318.76
90.00	13 15 53	652.57	24.62	308.48	145.25	104.45	13 26 45	52.6	26.36	300.25
100.00	12 24 10	821.17	15.35	317.11	141.62	115.97	12 37 51	221.2	18.72	309.94
100.00	15 26 23	5519.90	28.33	256.32	146.15	99.97	16 58 23	4919.9	29.41	247.69
110.00	12 29 0	805.98	10.31	313.06	138.72	122.77	12 42 26	206.0	14.56	306.53
110.00	17 38 2	5107.85	34.07	225.80	146.90	92.91	19 3 10	4507.9	34.10	216.55

DIFFERENTIAL CORRECTIONS
TDE -.1265 TRA 1.6071 TC3-6.4791 BAU 1.0990
RDE .2200 RRA -.2173 RC3 .3569 FAU .03138
FDE .1535 FRA 1.0229 FC3-2.1442 BSP 17495
BDE .2616 BRA 1.6217 BC3 6.4889 FSP -702

MID-COURSE EXECUTION ACCURACY
SGT 5466.7 SGR 597.5 SG3 208.9
RRT -.7365 RRF -.7241 RTF .9419
SGB 5499.3 RZ3 .0394 R13 -.9421
SG1 5484.5 SG2 402.9 THA 175.37

ORBIT DETERMINATION ACCURACY
ST 912.2 SR 387.2 SS 368.3
CRT -.5108 CRS -.0534 CST -.8279
LSA 981.9 MSA 390.8 SSA 25.6
EL1 936.4 EL2 324.3 ALF 166.06

LAUNCH DATE SEP 16 1970 FLIGHT TIME 180.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 523.718

RL 150.40 LAL -.00 LOL 352.72 VL 26.232 GAL 1.94 AZL 90.47 HCA 255.94 SMA 123.26 ECC .22265 INC .4726 V1 29.626
RP 108.54 LAP .46 LOP 248.66 VP 36.995 GAP 10.91 AZP 89.89 TAL 173.20 TAP 68.14 RCA 95.82 APO 150.70 V2 34.913
RC 159.692 GL -3.38 GP 17.65 ZAL 68.33 ZAP 159.18 ETS 53.26 ZAE 126.27 ETE 167.11 ZAC 120.22 ETC 263.33 CLP-168.78

PLANETOCENTRIC CONIC

C3 13.487 VHL 3.675 DLA -26.02 RAL 286.06 RAD 6567.5 VEL 11.614 PTH 2.03 VHP 7.267 DPA -5.75 RAP 261.31 ECC 1.2220

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 6 17	1130.94	13.23	338.86	145.14	115.28	11 25 8	530.9	16.53	331.73
90.00	14 26 9	5761.92	27.07	273.88	149.62	98.66	16 2 11	5161.9	27.99	265.34
100.00	12 0 23	956.23	11.18	324.97	144.08	117.91	12 16 19	356.2	14.82	318.08
100.00	16 14 44	5411.87	29.35	248.46	149.95	95.95	17 44 56	4811.9	29.86	239.69
110.00	12 20 5	894.42	7.01	317.79	141.58	123.54	12 34 59	294.4	11.37	311.41
110.00	18 11 31	5046.44	34.18	221.01	150.25	90.08	19 35 38	4446.4	33.82	211.78

DIFFERENTIAL CORRECTIONS
TDE .0249 TRA 1.0848 TC3-6.1477 BAU 1.1100
RDE .2290 RRA -.2303 RC3 .3220 FAU .02939
FDE .1938 FRA 1.0728 FC3-1.8864 BSP 17686
BDE .2313 BRA 1.0393 BC3 6.1561 FSP -683

MID-COURSE EXECUTION ACCURACY
SGT 5518.1 SGR 586.9 SG3 202.3
RRT -.7168 RRF -.7015 RTF .9424
SGB 5547.2 RZ3 .0321 R13 -.9425
SG1 5532.2 SG2 408.1 THA 175.61

ORBIT DETERMINATION ACCURACY
ST 960.8 SR 378.3 SS 399.7
CRT -.2780 CRS -.1709 CST -.8965
LSA 1031.2 MSA 402.6 SSA 23.9
EL1 967.5 EL2 360.9 ALF 172.74

LAUNCH DATE SEP 16 1970 FLIGHT TIME 182.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 529.348

RL 150.40 LAL -.00 LOL 352.72 VL 26.189 GAL 2.43 AZL 90.28 HCA 259.12 SNA 123.00 ECC .22657 INC .2761 V1 29.626
RP 108.58 LAP .27 LOP 251.84 VP 36.954 GAP 11.26 AZP 89.95 TAL 171.65 TAP 70.76 RCA 95.13 APO 150.87 V2 34.901
RC 161.784 GL -1.90 GP 16.95 ZAL 65.47 ZAP 160.23 ETS 54.49 ZAE 126.30 ETE 167.61 ZAC 119.62 ETC 263.95 CLP-169.68

PLANETOCENTRIC CONIC

C3 14.464 VHL 3.803 DLA -24.21 RAL 288.98 RAD 6567.6 VEL 11.655 PTH 2.05 VHP 7.449 DPA -6.70 RAP 263.41 ECC 1.2380

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 44 30	1200.83	9.34	346.41	147.77	116.85	11 5 31	660.8	12.87	339.51
90.00	15 11 13	5662.75	27.88	286.74	153.36	95.17	16 45 35	5062.8	28.30	258.10
100.00	11 45 29	1083.94	7.68	331.05	146.88	118.98	12 3 13	463.9	11.49	324.34
100.00	16 52 54	5334.87	29.76	242.77	153.51	92.98	18 21 49	4734.9	29.85	233.97
110.00	12 13 49	975.11	5.96	322.04	144.59	123.98	12 30 4	375.1	8.39	315.75
110.00	18 41 4	4986.47	34.12	217.11	153.54	87.77	20 4 21	4386.5	33.43	207.93

DIFFERENTIAL CORRECTIONS

TDE .1646 TRA 2.0386 TC3-5.8820 BAU 1.1272
RDE .2341 RRA -.2420 RC3 .2937 FAU .02785
FDE .2402 FRA 1.1125 FC3-1.6660 BSP 18186
BDE .2982 BRA 2.0529 BC3 5.8294 FSP -681

MID-COURSE EXECUTION ACCURACY

SGT 5860.0 SGR 578.0 SG3 195.4
RRT -.0083 RRF -.0009 RTF .9442
SGB 5598.7 RZS .0250 R13 -.9444
SG1 5583.5 SG2 412.6 THA 175.83

ORBIT DETERMINATION ACCURACY

ST 1048.7 SR 372.6 SS 425.2
CRT -.0885 CRS -.2490 CST -.9408
LSA 1123.7 NSA 305.1 SSA 22.3
EL1 1049.3 EL2 370.9 ALF 177.94

LAUNCH DATE SEP 16 1970 FLIGHT TIME 184.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 534.946

RL 150.40 LAL -.00 LOL 352.72 VL 26.146 GAL 2.95 AZL 90.08 HCA 262.29 SNA 122.74 ECC .23081 INC .0828 V1 29.626
RP 108.61 LAP .08 LOP 255.01 VP 36.913 GAP 11.62 AZP 89.99 TAL 170.08 TAP 72.38 RCA 94.41 APO 151.07 V2 34.890
RC 163.865 GL -.55 GP 16.31 ZAL 62.70 ZAP 161.22 ETS 55.89 ZAE 126.31 ETE 168.06 ZAC 119.07 ETC 264.58 CLP-170.56

PLANETOCENTRIC CONIC

C3 15.814 VHL 3.951 DLA -22.50 RAL 291.75 RAD 6567.6 VEL 11.705 PTH 2.06 VHP 7.644 DPA -7.56 RAP 265.55 ECC 1.2570

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 30 16	1367.01	6.02	352.45	150.60	117.72	10 53 3	767.0	9.69	345.69
90.00	15 47 31	5580.83	28.21	261.51	156.92	92.56	17 20 42	4980.8	28.27	252.84
100.00	11 35 5	1157.76	4.55	336.26	149.88	119.50	11 54 23	557.8	8.46	329.65
100.00	17 25 22	5275.32	29.09	236.35	156.98	90.66	18 53 17	4675.3	29.66	229.55
110.00	12 9 21	1050.54	1.09	325.97	147.72	124.17	12 26 52	450.3	5.56	319.74
110.00	19 7 36	4955.50	33.96	213.92	156.83	85.09	20 30 11	4355.5	33.02	204.80

DIFFERENTIAL CORRECTIONS

TDE .3328 TRA 2.2801 TC3-5.4034 BAU 1.1292
RDE .2567 RRA -.2568 RC3 .2587 FAU .02550
FDE .2901 FRA 1.1061 FC3-1.4190 BSP 18071
BDE .4084 BRA 2.3034 BC3 5.4096 FSP -647

MID-COURSE EXECUTION ACCURACY

SGT 5601.3 SGR 567.4 SG3 189.2
RRT -.6781 RRF -.6588 RTF .9436
SGB 5630.0 RZS .0210 R13 -.9437
SG1 5614.6 SG2 416.1 THA 176.05

ORBIT DETERMINATION ACCURACY

ST 1187.8 SR 363.9 SS 462.0
CRT .0799 CRS -.3211 CST -.9683
LSA 1270.6 NSA 376.6 SSA 21.0
EL1 1188.2 EL2 362.6 ALF 1.55

LAUNCH DATE SEP 16 1970 FLIGHT TIME 186.00 ARRIVAL DATE MAR 21 1971

HELIOCENTRIC CONIC DISTANCE 540.505

RL 150.40 LAL -.00 LOL 352.72 VL 26.103 GAL 3.49 AZL 89.89 HCA 265.47 SNA 122.49 ECC .23540 INC .1051 V1 29.626
RP 108.65 LAP -.11 LOP 258.19 VP 36.872 GAP 12.00 AZP 90.01 TAL 168.52 TAP 73.99 RCA 93.66 APO 151.33 V2 34.880
RC 165.932 GL .67 GP 15.73 ZAL 60.05 ZAP 162.14 ETS 57.50 ZAE 126.31 ETE 168.47 ZAC 118.56 ETC 265.20 CLP-171.44

PLANETOCENTRIC CONIC

C3 16.056 VHL 4.118 DLA -20.88 RAL 294.36 RAD 6567.7 VEL 11.762 PTH 2.08 VHP 7.852 DPA -8.33 RAP 267.73 ECC 1.2791

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 20 4	1460.28	3.05	357.69	153.76	118.17	10 44 24	860.3	6.79	351.01
90.00	16 18 34	5535.17	28.31	257.44	160.41	90.53	17 50 49	4935.2	28.09	248.78
100.00	11 27 28	1242.74	1.68	340.94	153.00	119.85	11 48 11	842.7	5.64	334.39
100.00	17 53 51	5227.94	29.87	234.83	160.40	88.81	19 20 58	4827.9	29.39	226.06
110.00	12 6 11	1121.40	-1.63	329.67	150.93	124.15	12 24 52	521.4	2.86	323.47
110.00	19 31 37	4922.05	33.77	211.32	160.12	84.36	20 53 39	4322.0	32.62	202.28

DIFFERENTIAL CORRECTIONS

TDE .4947 TRA 2.5420 TC3-5.0000 BAU 1.1346
RDE .2416 RRA -.2706 RC3 .2290 FAU .02566
FDE .3460 FRA 1.2129 FC3-1.2082 BSP 18157
BDE .5506 BRA 2.5564 BC3 5.0052 FSP -624

MID-COURSE EXECUTION ACCURACY

SGT 5635.7 SGR 557.7 SG3 183.0
RRT -.6509 RRF -.6383 RTF .9440
SGB 5663.2 RZS .0170 R13 -.9441
SG1 5647.7 SG2 410.6 THA 176.25

ORBIT DETERMINATION ACCURACY

ST 1353.8 SR 357.3 SS 492.2
CRT .1960 CRS -.3709 CST -.9623
LSA 1421.3 NSA 358.3 SSA 19.8
EL1 1355.7 EL2 349.8 ALF 3.23

LAUNCH DATE SEP 16 1970 FLIGHT TIME 188.00 ARRIVAL DATE MAR 23 1971

HELIOCENTRIC CONIC DISTANCE 546.020

RL 150.40 LAL -.00 LOL 352.72 VL 26.061 GAL 4.05 AZL 89.71 HCA 268.64 SNA 122.24 ECC .24039 INC .2928 V1 29.626
RP 108.68 LAP -.29 LOP 261.36 VP 36.833 GAP 12.39 AZP 90.01 TAL 166.96 TAP 75.60 RCA 92.86 APO 151.63 V2 34.869
RC 167.985 GL 1.77 GP 15.20 ZAL 57.52 ZAP 163.00 ETS 59.32 ZAE 126.31 ETE 168.85 ZAC 118.07 ETC 265.83 CLP-172.30

PLANETOCENTRIC CONIC

C3 18.511 VHL 4.302 DLA -19.35 RAL 296.83 RAD 6567.7 VEL 11.828 PTH 2.09 VHP 8.075 DPA -9.01 RAP 269.94 ECC 1.3046

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 12 26	1545.09	.31	2.42	156.93	118.32	10 38 11	945.1	4.10	355.78
90.00	16 45 53	5491.15	28.30	254.22	163.05	88.91	18 17 24	4991.1	27.85	245.58
100.00	11 21 44	1321.47	-.99	345.26	156.21	119.88	11 43 45	721.5	3.00	338.74
100.00	18 19 16	5190.00	29.78	232.01	163.79	87.33	19 45 46	4580.0	29.10	223.28
110.00	12 3 58	1100.14	-4.21	333.22	154.20	123.95	12 23 47	580.1	.27	327.00
110.00	19 53 31	4895.10	33.57	209.24	163.42	83.15	21 15 7	4295.1	32.26	200.26

DIFFERENTIAL CORRECTIONS

TDE .6579 TRA 2.8080 TC3-4.5984 BAU 1.1391
RDE .2479 RRA -.2843 RC3 .2310 FAU .02183
FDE .3090 FRA 1.2577 FC3-1.0810 BSP 18274
BDE .7030 BRA 2.8194 BC3 4.6029 FSP -604

MID-COURSE EXECUTION ACCURACY

SGT 5685.7 SGR 547.9 SG3 176.9
RRT -.6400 RRF -.6186 RTF .9447
SGB 5682.1 RZS .0137 R13 -.9448
SG1 5676.6 SG2 420.2 THA 176.44

ORBIT DETERMINATION ACCURACY

ST 1480.7 SR 351.5 SS 518.7
CRT .2799 CRS -.4087 CST -.9098
LSA 1570.9 NSA 341.8 SSA 18.7
EL1 1484.1 EL2 336.6 ALF 4.01

LAUNCH DATE SEP 16 1970 FLIGHT TIME 190.00 ARRIVAL DATE MAR 25 1971

HELIOCENTRIC CONIC DISTANCE 551.487

RL 150.40 LAL -.00 LOL 352.72 VL 26.019 GAL 4.65 AZL 89.52 HCA 271.81 SHA 122.00 ECC .24579 INC .4798 V1 29.626
RP 108.71 LAP -.48 LOP 264.53 VP 36.794 GAP 12.81 AZP 89.98 TAL 165.40 TAP 77.21 RCA 92.01 APO 151.98 V2 34.859
RC 170.025 GL 2.76 GP 14.72 ZAL 55.11 ZAP 163.80 ETS 61.36 ZAE 126.30 ETE 169.19 ZAC 117.60 ETC 266.46 CLP-173.16

PLANETOCENTRIC CONIC

C3 20.306 VHL 4.506 DLA -17.92 RAL 299.16 RAD 6567.8 VEL 11.903 PTH 2.11 VHP 8.313 DPA -9.61 RAP 272.18 ECC 1.3342

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 6 36	1623.81	-2.23	6.81	160.19	118.24	10 33 39	1023.8	1.57	.18
90.00	17 10 18	5456.23	28.23	251.67	167.27	87.63	18 41 14	4856.2	27.60	243.06
100.00	11 17 22	1395.44	-3.49	349.32	159.49	119.71	11 40 37	795.4	.49	342.80
100.00	18 42 13	5159.83	29.67	229.78	167.18	86.16	20 8 13	4550.8	28.82	221.07
110.00	12 2 28	1254.12	-6.67	336.64	157.52	123.60	12 23 22	654.1	-2.21	330.39
110.00	20 13 36	4873.91	33.39	207.62	166.74	82.20	21 34 50	4273.9	31.95	198.68

DIFFERENTIAL CORRECTIONS

TDE .8243 TRA 3.0805 TC3-4.2038 BAU 1.1422
RDE .2553 RRA -.2978 RC3 .1770 FAU .02007
FDE .4291 FRA 1.3017 FC3 -.8558 BSP 18393
BDE .8629 BRA 3.0948 BC3 4.2075 FSP -586

MID-COURSE EXECUTION ACCURACY

SGT 5691.9 SGR 537.8 SG3 171.0
RRT -.6215 RRF -.5994 RTF .9456
SGB 5717.3 RZS .0109 R13 -.9457
SG1 5701.8 SG2 420.6 THA 176.62

ORBIT DETERMINATION ACCURACY

ST 1623.7 SR 345.9 SS 542.6
CRT .3423 CRS -.4391 CST -.9938
LSA 1715.5 MSA 327.4 SSA 17.7
EL1 1628.2 EL2 324.1 ALF 4.34

LAUNCH DATE SEP 16 1970 FLIGHT TIME 192.00 ARRIVAL DATE MAR 27 1971

HELIOCENTRIC CONIC DISTANCE 556.900

RL 150.40 LAL -.00 LOL 352.72 VL 25.977 GAL 5.28 AZL 89.33 HCA 274.98 SHA 121.76 ECC .25166 INC .6673 V1 29.626
RP 108.74 LAP -.66 LOP 267.70 VP 36.756 GAP 13.25 AZP 89.94 TAL 163.84 TAP 78.82 RCA 91.11 APO 152.40 V2 34.850
RC 172.049 GL 3.65 GP 14.28 ZAL 52.83 ZAP 164.54 ETS 63.65 ZAE 126.28 ETE 169.50 ZAC 117.16 ETC 267.09 CLP-174.02

PLANETOCENTRIC CONIC

C3 22.371 VHL 4.730 DLA -16.59 RAL 301.35 RAD 6567.9 VEL 11.990 PTH 2.14 VHP 8.569 DPA -10.12 RAP 274.44 ECC 1.3682

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 2 3	1697.83	-4.60	10.95	163.50	117.97	10 30 21	1097.8	-.82	4.31
90.00	17 32 21	5428.82	28.13	249.67	170.69	86.64	19 2 50	4828.8	27.37	241.09
100.00	11 14 1	1465.61	-5.85	353.20	162.82	119.37	11 38 27	865.6	-1.89	346.65
100.00	19 3 4	5136.27	29.55	228.04	170.57	85.25	20 28 40	4536.3	28.57	219.37
110.00	12 1 32	1316.75	-9.02	339.97	160.88	123.11	12 23 29	716.8	-4.60	333.67
110.00	20 32 2	4857.89	33.23	206.39	170.07	81.49	21 53 0	4257.9	31.70	197.50

DIFFERENTIAL CORRECTIONS

TDE .9943 TRA 3.3886 TC3-3.8190 BAU 1.1431
RDE .2639 RRA -.3109 RC3 .1542 FAU .01837
FDE .4661 FRA 1.3452 FC3 -.7109 BSP 18498
BDE 1.0287 BRA 3.3839 BC3 3.8221 FSP -567

MID-COURSE EXECUTION ACCURACY

SGT 5713.3 SGR 527.2 SG3 165.3
RRT -.6028 RRF -.5807 RTF .9468
SGB 5737.6 RZS .0086 R13 -.9468
SG1 5722.2 SG2 419.9 THA 176.80

ORBIT DETERMINATION ACCURACY

ST 1759.3 SR 340.7 SS 563.5
CRT .3902 CRS -.4637 CST -.9962
LSA 1851.9 MSA 314.9 SSA 16.9
EL1 1764.5 EL2 312.8 ALF 4.46

LAUNCH DATE SEP 16 1970 FLIGHT TIME 194.00 ARRIVAL DATE MAR 29 1971

HELIOCENTRIC CONIC DISTANCE 562.252

RL 150.40 LAL -.00 LOL 352.72 VL 25.936 GAL 5.94 AZL 89.14 HCA 278.14 SHA 121.52 ECC .25805 INC .8566 V1 29.626
RP 108.77 LAP -.85 LOP 270.86 VP 36.718 GAP 13.71 AZP 89.88 TAL 162.30 TAP 80.44 RCA 90.16 APO 152.88 V2 34.841
RC 174.060 GL 4.45 GP 13.88 ZAL 50.67 ZAP 165.22 ETS 66.20 ZAE 126.25 ETE 169.79 ZAC 116.72 ETC 267.72 CLP-174.87

PLANETOCENTRIC CONIC

C3 24.743 VHL 4.974 DLA -15.34 RAL 303.42 RAD 6568.0 VEL 12.088 PTH 2.16 VHP 8.843 DPA -10.57 RAP 276.72 ECC 1.4072

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 58 30	1768.06	-6.83	14.91	166.86	117.55	10 27 58	1168.1	-3.09	8.23
90.00	17 52 24	5407.83	28.04	248.14	174.10	85.88	19 22 32	4807.8	27.17	239.58
100.00	11 11 28	1532.64	-8.07	356.94	166.20	118.88	11 37 1	932.6	-4.15	350.34
100.00	19 22 7	5118.48	29.44	226.72	173.96	84.56	20 47 26	4518.5	28.37	218.08
110.00	12 1 3	1377.35	-11.25	343.24	164.28	122.49	12 24 0	777.3	-6.89	336.87
110.00	20 49 2	4846.54	33.11	205.53	173.42	80.99	22 9 48	4246.5	31.52	196.67

DIFFERENTIAL CORRECTIONS

TDE 1.1685 TRA 3.6727 TC3-3.4500 BAU 1.1421
RDE .2734 RRA -.3236 RC3 .1333 FAU .01674
FDE .5010 FRA 1.3806 FC3 -.5856 BSP 18608
BDE 1.2001 BRA 3.6869 BC3 3.4526 FSP -550

MID-COURSE EXECUTION ACCURACY

SGT 5730.1 SGR 515.9 SG3 159.9
RRT -.5841 RRF -.5622 RTF .9481
SGB 5753.3 RZS .0067 R13 -.9481
SG1 5738.1 SG2 418.2 THA 176.97

ORBIT DETERMINATION ACCURACY

ST 1885.2 SR 335.6 SS 582.3
CRT .4281 CRS -.4846 CST -.9975
LSA 1978.2 MSA 303.7 SSA 16.1
EL1 1890.8 EL2 302.4 ALF 4.47

LAUNCH DATE SEP 16 1970 FLIGHT TIME 196.00 ARRIVAL DATE MAR 31 1971

HELIOCENTRIC CONIC DISTANCE 567.534

RL 150.40 LAL -.00 LOL 352.72 VL 25.896 GAL 6.64 AZL 88.95 HCA 281.31 SHA 121.28 ECC .26501 INC 1.0487 V1 29.626
RP 108.79 LAP -1.03 LOP 274.03 VP 36.682 GAP 14.21 AZP 89.79 TAL 160.77 TAP 82.08 RCA 89.14 APO 153.43 V2 34.833
RC 176.055 GL 5.15 GP 13.50 ZAL 48.63 ZAP 165.85 ETS 69.03 ZAE 126.22 ETE 170.06 ZAC 116.30 ETC 268.34 CLP-175.72

PLANETOCENTRIC CONIC

C3 27.466 VHL 5.241 DLA -14.18 RAL 305.37 RAD 6568.1 VEL 12.200 PTH 2.19 VHP 9.139 DPA -10.94 RAP 279.01 ECC 1.4520

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 55 44	1835.13	-8.92	18.73	170.27	116.99	10 26 19	1235.1	-5.23	11.99
90.00	18 10 42	5392.44	27.96	247.02	177.50	85.32	19 40 34	4792.4	27.02	238.48
100.00	11 9 32	1597.00	-10.16	.56	169.61	118.26	11 36 9	997.0	-6.31	353.90
100.00	19 39 35	5105.80	29.35	225.79	177.35	84.08	21 4 41	4505.8	28.22	217.17
110.00	12 0 53	1436.13	-13.38	346.46	167.71	121.75	12 24 50	836.1	-9.09	340.00
110.00	21 4 43	4839.43	33.04	204.99	176.78	80.68	22 25 22	4239.4	31.40	196.15

DIFFERENTIAL CORRECTIONS

TDE 1.3464 TRA 3.9807 TC3-3.0994 BAU 1.1389
RDE .2840 RRA -.3357 RC3 .1143 FAU .01517
FDE .5335 FRA 1.4320 FC3 -.4781 BSP 18726
BDE 1.3760 BRA 4.0048 BC3 3.1015 FSP -533

MID-COURSE EXECUTION ACCURACY

SGT 5742.0 SGR 504.0 SG3 154.5
RRT -.5651 RRF -.5438 RTF .9497
SGB 5764.1 RZS .0052 R13 -.9497
SG1 5749.1 SG2 415.3 THA 177.15

ORBIT DETERMINATION ACCURACY

ST 1999.7 SR 330.6 SS 598.8
CRT .4589 CRS -.5026 CST -.9984
LSA 2092.9 MSA 293.7 SSA 15.5
EL1 2005.6 EL2 292.9 ALF 4.43

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LAUNCH DATE  SEP 16 1970                                   FLIGHT TIME 198.00                                   ARRIVAL DATE  APR  2 1971

 HELIOCENTRIC CONIC                                        DISTANCE 572.736
  RL  150.40 LAL   -.00 LOL 352.72 VL  25.056 GAL   7.39 AZL  88.75 HCA 284.47 SMA 121.05 ECC .27261 INC 1.2450 V1  29.626
  RP  108.82 LAP  -1.21 LOP 277.19 VP  36.646 GAP  14.74 AZP  89.69 TAL 159.25 TAP  83.72 RCA  88.05 APO 154.05 V2  34.825
  RC 178.036 GL    5.78 GP   13.17 ZAL  46.71 ZAP 166.40 ETS  72.14 ZAE 126.17 ETE 170.31 ZAC 115.89 ETC 268.97 CLP-176.58
 PLANETOCENTRIC CONIC
  C3  30.593 VHL  5.531 DLA -13.10 RAL 307.20 RAD 6568.2 VEL 12.327 PTH   2.22 VHP  9.458 DPA -11.25 RAP 281.31 ECC 1.5035
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     90.00     9 53 33   1889.49     -10.89     22.44     173.70     116.30   10 25 13     1299.5      -7.27      15.63
     90.00    18 27 28   5381.99      27.90    246.26     180.90      84.94   19 57 10     4782.0      26.91     237.74
    100.00    11  8  5   1659.02     -12.14      4.11     173.05     117.53   11 35 44     1059.0      -8.36     357.36
    100.00    19 55 37   5087.69      29.30    225.20     180.75      83.77   21 20 35     4497.7      28.12     216.59
    110.00    12  1  0   1493.28     -15.41    349.66     171.17     120.90   12 25 54      893.3     -11.20     343.08
    110.00    21 19 11   4836.20      33.00    204.74     180.15      80.54   22 39 47     4236.2      31.34     195.91
 DIFFERENTIAL CORRECTIONS                                  MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE 1.5292 TRA 4.3290 TC3-2.7692 BAU 1.1333              SGT 5749.1 SGR  491.2 SG3  149.4            ST  2102.9 SR   325.5 SS   613.6
  RDE  .2955 RRA -.3460 RC3  .0971 FAU .01367              RRT -.5456 RRF -.5251 RTF  .9515            CRT  .4849 CRS -.5190 CST -.9989
  FDE  .5845 FRA 1.4790 FC3 -.3868 BSP  18865              SGB 5770.1 RZS  .0039 RIS -.9515            LSA 2196.2 HSA  284.4 SSA   14.8
  BDE 1.5575 BRA 4.3300 BC3 2.7709 FSP   -519              SG1 5755.4 SG2  411.2 THA 177.32            EL1 2108.9 EL2  283.9 ALF   4.37

LAUNCH DATE  SEP 16 1970                                   FLIGHT TIME 200.00                                   ARRIVAL DATE  APR  4 1971

 HELIOCENTRIC CONIC                                        DISTANCE 577.846
  RL  150.40 LAL   -.00 LOL 352.72 VL  25.816 GAL   8.18 AZL  88.55 HCA 287.64 SMA 120.83 ECC .28091 INC 1.4470 V1  29.626
  RP  108.84 LAP  -1.38 LOP 280.36 VP  36.612 GAP  15.31 AZP  89.56 TAL 157.75 TAP  85.39 RCA  86.89 APO 154.77 V2  34.818
  RC 180.002 GL    6.34 GP   12.85 ZAL  44.91 ZAP 166.90 ETS  75.56 ZAE 126.11 ETE 170.54 ZAC 115.49 ETC 269.58 CLP-177.44
 PLANETOCENTRIC CONIC
  C3  34.187 VHL  5.847 DLA -12.10 RAL 308.91 RAD 6568.3 VEL 12.472 PTH   2.26 VHP  9.803 DPA -11.48 RAP 283.61 ECC 1.5626
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     90.00     9 51 52   1961.47     -12.73     26.06     177.15     115.51   10 24 34     1361.5      -9.20      19.16
     90.00    18 42 51   5375.95      27.86    245.83     184.30      84.73   20 12 27     4776.0      26.84     237.31
    100.00    11  7  2   1718.96     -14.00      7.59     176.51     116.68   11 35 41     1119.0     -10.31        .74
    100.00    20 10 22   5093.70      29.27    224.90     184.13      83.62   21 35 16     4493.7      28.07     216.30
    110.00    12  1 20   1548.91     -17.32    352.83     174.65     119.94   12 27  9      948.9     -13.21     346.13
    110.00    21 32 34   4836.51      33.01    204.76     183.53      80.55   22 53 10     4236.5      31.35     195.93
 DIFFERENTIAL CORRECTIONS                                  MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE 1.7173 TRA 4.6706 TC3-2.4597 BAU 1.1248              SGT 5750.8 SGR  477.7 SG3  144.4            ST  2194.6 SR   320.4 SS   627.1
  RDE  .3081 RRA -.3560 RC3  .0817 FAU .01223              RRT -.5252 RRF -.5059 RTF  .9536            CRT  .5076 CRS -.5340 CST -.9992
  FDE  .5941 FRA 1.5200 FC3 -.3096 BSP  19013              SGB 5770.6 RZS  .0030 RIS -.9536            LSA 2288.2 HSA  275.6 SSA   14.2
  BDE 1.7447 BRA 4.6902 BC3 2.4810 FSP   -505              SG1 5756.3 SG2  406.1 THA 177.49            EL1 2200.7 EL2  275.3 ALF   4.31

LAUNCH DATE  SEP 16 1970                                   FLIGHT TIME 202.00                                   ARRIVAL DATE  APR  6 1971

 HELIOCENTRIC CONIC                                        DISTANCE 582.849
  RL  150.40 LAL   -.00 LOL 352.72 VL  25.777 GAL   9.02 AZL  88.34 HCA 290.80 SMA 120.61 ECC .29001 INC 1.6561 V1  29.626
  RP  108.86 LAP  -1.55 LOP 283.52 VP  36.578 GAP  15.93 AZP  89.41 TAL 156.29 TAP  87.08 RCA  85.63 APO 155.59 V2  34.812
  RC 181.954 GL    6.83 GP   12.57 ZAL  43.22 ZAP 167.32 ETS  79.28 ZAE 126.03 ETE 170.76 ZAC 115.08 ETC 270.20 CLP-178.32
 PLANETOCENTRIC CONIC
  C3  38.326 VHL  6.191 DLA -11.18 RAL 310.52 RAD 6568.5 VEL 12.637 PTH   2.29 VHP 10.177 DPA -11.66 RAP 285.91 ECC 1.6307
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     90.00     9 50 35   2021.29     -14.46     29.60     180.62     114.61   10 24 16     1421.3     -11.02      22.61
     90.00    18 56 50   5373.87      27.85    245.67     187.68      84.65   20 26 33     4773.9      26.82     237.16
    100.00    11  6 18   1776.99     -15.75     11.01     180.00     115.74   11 35 55     1177.0     -12.15       4.06
    100.00    20 23 57   5093.41      29.26    224.88     187.52      83.61   21 48 51     4493.4      28.07     216.28
    110.00    12  1 49   1603.12     -19.14    355.99     178.16     118.88   12 28 32     1003.1     -15.14     349.15
    110.00    21 44 55   4840.04      33.04    205.03     186.91      80.71   23  5 35     4240.0      31.41     196.19
 DIFFERENTIAL CORRECTIONS                                  MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE 1.9121 TRA 5.0482 TC3-2.1706 BAU 1.1127              SGT 5747.6 SGR  483.2 SG3  139.6            ST  2275.8 SR   315.2 SS   639.7
  RDE  .3217 RRA -.3655 RC3  .0678 FAU .01083              RRT -.5037 RRF -.4858 RTF  .9558            CRT  .5281 CRS -.5485 CST -.9995
  FDE  .6231 FRA 1.5870 FC3 -.2446 BSP  19174              SGB 5766.3 RZS  .0023 RIS -.9558            LSA 2369.9 HSA  267.1 SSA   13.7
  BDE 1.9309 BRA 5.0615 BC3 2.1716 FSP   -492              SG1 5752.4 SG2  399.9 THA 177.66            EL1 2282.0 EL2  266.9 ALF   4.24

LAUNCH DATE  SEP 16 1970                                   FLIGHT TIME 204.00                                   ARRIVAL DATE  APR  8 1971

 HELIOCENTRIC CONIC                                        DISTANCE 587.726
  RL  150.40 LAL   -.00 LOL 352.72 VL  25.739 GAL   9.93 AZL  88.13 HCA 293.95 SMA 120.39 ECC .30000 INC 1.8741 V1  29.626
  RP  108.87 LAP  -1.71 LOP 286.68 VP  36.546 GAP  16.60 AZP  89.24 TAL 154.85 TAP  88.80 RCA  84.27 APO 156.51 V2  34.806
  RC 183.091 GL    7.26 GP   12.30 ZAL  41.64 ZAP 167.67 ETS  83.30 ZAE 125.93 ETE 170.97 ZAC 114.68 ETC 270.80 CLP-179.20
 PLANETOCENTRIC CONIC
  C3  43.103 VHL  6.565 DLA -10.33 RAL 312.03 RAD 6568.6 VEL 12.825 PTH   2.33 VHP 10.585 DPA -11.77 RAP 288.19 ECC 1.7094
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     90.00     9 40 37   2079.11     -16.07     33.08     184.10     113.63   10 24 16     1479.1     -12.74      25.99
     90.00    19  0 59   5375.35      27.86    245.78     191.05      84.71   20 39 34     4775.4      26.83     237.27
    100.00    11  5 50   1833.22     -17.38     14.39     183.49     114.71   11 36 23     1233.2     -13.90       7.32
    100.00    20 36 27   5086.48      29.29    225.11     190.69      83.73   22  1 23     4496.5      28.11     216.50
    110.00    12  2 26   1685.96     -20.84    359.13     181.68     117.73   12 30  2     1056.0     -16.97     352.15
    110.00    21 56 20   4846.51      33.11    205.52     190.29      80.99   23 17  6     4246.5      31.52     196.66
 DIFFERENTIAL CORRECTIONS                                  MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE 2.1198 TRA 6.4425 TC3-1.9009 BAU 1.0959              SGT 5740.0 SGR  447.9 SG3  135.0            ST  2347.8 SR   309.7 SS   652.3
  RDE  .3962 RRA -.3728 RC3  .0554 FAU .00946              RRT -.4808 RRF -.4643 RTF  .9583            CRT  .5473 CRS -.5627 CST -.9996
  FDE  .6920 FRA 1.6157 FC3 -.1899 BSP  19330              SGB 5767.4 RZS  .0019 RIS -.9583            LSA 2442.6 HSA  258.6 SSA   13.1
  BDE 2.1421 BRA 5.4552 BC3 1.9017 FSP   -479              SG1 5744.0 SG2  392.5 THA 177.84            EL1 2354.0 EL2  258.6 ALF   4.18
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LAUNCH DATE SEP 16 1970 FLIGHT TIME 206.00 ARRIVAL DATE APR 10 1971

HELIOCENTRIC CONIC DISTANCE 592.455

RL 150.40 LAL -.00 LOL 352.72 VL 25.701 GAL 10.90 AZL 87.90 HCA 297.11 SMA 120.18 ECC .31100 INC 2.1029 V1 29.626
RP 108.89 LAP -1.87 LOP 289.85 VP 36.514 GAP 17.32 AZP 89.04 TAL 153.45 TAP 90.56 RCA 82.81 APO 157.56 V2 34.801
RC 185.813 GL 7.63 GP 12.06 ZAL 40.17 ZAP 167.94 ETS 87.62 ZAE 125.81 ETE 171.17 ZAC 114.29 ETC 271.40 CLP 179.90

PLANETOCENTRIC CONIC

C3 48.634 VHL 6.974 DLA -9.54 RAL 313.43 RAD 6568.8 VEL 13.038 PTH 2.38 VHP 11.031 DPA -11.83 RAP 290.46 ECC 1.8004

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 48 54	2135.03	-17.56	36.51	187.58	112.58	10 24 29	1535.0	-14.35	29.30
90.00	19 21 54	5380.05	27.89	246.12	194.40	84.87	20 51 34	4780.0	26.88	237.60
100.00	11 5 33	1887.73	-18.90	17.72	186.99	113.60	11 37 1	1287.7	-15.54	10.54
100.00	20 47 55	5102.58	29.33	225.55	194.24	83.96	22 12 58	4502.6	28.18	216.94
110.00	12 3 8	1707.43	-22.44	2.27	185.22	116.49	12 31 36	1107.4	-18.70	355.14
110.00	22 6 50	4855.65	33.21	206.22	193.65	81.39	23 27 46	4255.6	31.66	197.34

DIFFERENTIAL CORRECTIONS
TDE 2.3290 TRA 5.8638 TC3-1.6505 BAU 1.0735
RDE .3518 RRA -.3777 RC3 .0443 FAU .00806
FDE .6815 FRA 1.6676 FC3 -.1439 BSP 19424
BDE 2.3555 BRA 5.8760 BC3 1.6511 FSP -466

MID-COURSE EXECUTION ACCURACY
SGT 5729.4 SGR 431.7 SGS 130.6
RRT -.4555 RRF -.4411 RTF .9609
SGB 5745.7 R23 .0016 R13 -.9609
SG1 5732.8 SG2 384.1 THA 178.03

ORBIT DETERMINATION ACCURACY
ST 2411.3 SR 304.1 SS 665.2
CRT .5654 CRS -.5770 CST -.9997
LSA 2507.3 HSA 250.2 SSA 12.6
EL1 2417.4 EL2 250.1 ALF 4.12

LAUNCH DATE SEP 16 1970 FLIGHT TIME 208.00 ARRIVAL DATE APR 12 1971

HELIOCENTRIC CONIC DISTANCE 597.007

RL 150.40 LAL -.00 LOL 352.72 VL 25.664 GAL 11.95 AZL 87.65 HCA 300.27 SMA 119.98 ECC .32313 INC 2.3450 V1 29.626
RP 108.90 LAP -2.03 LOP 293.01 VP 36.484 GAP 18.12 AZP 88.82 TAL 152.10 TAP 92.37 RCA 81.21 APO 158.74 V2 34.797
RC 187.719 GL 7.96 GP 11.84 ZAL 38.80 ZAP 168.12 ETS 92.20 ZAE 125.67 ETE 171.36 ZAC 113.89 ETC 271.98 CLP 178.97

PLANETOCENTRIC CONIC

C3 55.061 VHL 7.420 DLA -8.83 RAL 314.74 RAD 6569.0 VEL 13.282 PTH 2.43 VHP 11.520 DPA -11.83 RAP 292.71 ECC 1.9062

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 48 25	2189.08	-18.94	39.87	191.05	111.45	10 24 54	1589.1	-15.86	32.55
90.00	19 32 48	5387.84	27.93	246.67	197.71	85.15	21 2 35	4787.6	26.97	238.14
100.00	11 5 27	1940.53	-20.30	21.02	190.47	112.42	11 37 48	1340.5	-17.09	13.70
100.00	20 58 26	5111.43	29.39	226.20	197.56	84.30	22 23 38	4511.4	28.29	217.57
110.00	12 3 54	1757.51	-23.93	5.40	188.75	115.17	12 33 12	1157.5	-20.33	358.10
110.00	22 16 20	4867.21	33.32	207.10	197.00	81.90	23 37 36	4267.2	31.85	198.19

DIFFERENTIAL CORRECTIONS
TDE 2.5553 TRA 6.3127 TC3-1.4169 BAU 1.0433
RDE .3684 RRA -.3806 RC3 .0346 FAU .00669
FDE .7123 FRA 1.7234 FC3 -.1051 BSP 19498
BDE 2.5818 BRA 6.3242 BC3 1.4173 FSP -452

MID-COURSE EXECUTION ACCURACY
SGT 5713.7 SGR 414.8 SGS 128.4
RRT -.4278 RRF -.4154 RTF .9637
SGB 5728.8 R23 .0015 R13 -.9637
SG1 5716.5 SG2 374.7 THA 178.21

ORBIT DETERMINATION ACCURACY
ST 2467.2 SR 298.2 SS 679.2
CRT .5834 CRS -.5918 CST -.9998
LSA 2564.9 HSA 241.6 SSA 12.1
EL1 2473.4 EL2 241.5 ALF 4.07

LAUNCH DATE SEP 16 1970 FLIGHT TIME 210.00 ARRIVAL DATE APR 14 1971

HELIOCENTRIC CONIC DISTANCE 601.349

RL 150.40 LAL -.00 LOL 352.72 VL 25.628 GAL 13.09 AZL 87.40 HCA 303.43 SMA 119.78 ECC .33656 INC 2.6031 V1 29.626
RP 108.92 LAP -2.17 LOP 296.17 VP 36.455 GAP 18.99 AZP 88.57 TAL 150.81 TAP 94.24 RCA 79.46 APO 160.09 V2 34.793
RC 189.610 GL 8.24 GP 11.63 ZAL 37.55 ZAP 168.20 ETS 97.02 ZAE 125.49 ETE 171.55 ZAC 113.50 ETC 272.55 CLP 178.02

PLANETOCENTRIC CONIC

C3 62.563 VHL 7.910 DLA -8.18 RAL 315.94 RAD 6569.2 VEL 13.562 PTH 2.48 VHP 12.058 DPA -11.79 RAP 294.94 ECC 2.0296

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 48 6	2241.26	-20.21	43.18	194.50	110.27	10 25 27	1641.3	-17.27	35.74
90.00	19 42 44	5397.86	27.99	247.42	200.99	85.51	21 12 42	4797.9	27.07	238.87
100.00	11 5 29	1991.60	-21.59	24.26	193.93	111.19	11 38 40	1391.6	-18.52	16.81
100.00	21 8 2	5122.75	29.47	227.04	200.85	84.73	22 33 25	4522.8	28.42	218.39
110.00	12 4 42	1806.15	-25.30	8.52	192.26	113.79	12 34 49	1206.2	-21.86	1.05
110.00	22 25 18	4880.96	33.45	208.16	200.32	82.51	23 46 39	4281.0	32.06	199.21

DIFFERENTIAL CORRECTIONS
TDE 2.7966 TRA 6.7968 TC3-1.2002 BAU 1.0041
RDE .3663 RRA -.3807 RC3 .0261 FAU .00524
FDE .7490 FRA 1.7843 FC3 -.0725 BSP 19485
BDE 2.8231 BRA 6.8075 BC3 1.2004 FSP -436

MID-COURSE EXECUTION ACCURACY
SGT 5696.5 SGR 397.0 SGS 122.5
RRT -.3968 RRF -.3865 RTF .9667
SGB 5710.3 R23 .0015 R13 -.9667
SG1 5698.6 SG2 364.3 THA 178.41

ORBIT DETERMINATION ACCURACY
ST 2516.7 SR 292.0 SS 694.7
CRT .6015 CRS -.6072 CST -.9998
LSA 2616.8 HSA 232.7 SSA 11.6
EL1 2522.9 EL2 232.7 ALF 4.03

LAUNCH DATE SEP 16 1970 FLIGHT TIME 212.00 ARRIVAL DATE APR 16 1971

HELIOCENTRIC CONIC DISTANCE 605.435

RL 150.40 LAL -.00 LOL 352.72 VL 25.593 GAL 14.32 AZL 87.12 HCA 306.58 SMA 119.58 ECC .35147 INC 2.8806 V1 29.626
RP 108.93 LAP -2.31 LOP 299.33 VP 36.428 GAP 19.96 AZP 88.28 TAL 149.59 TAP 96.17 RCA 77.55 APO 161.61 V2 34.790
RC 191.483 GL 8.48 GP 11.44 ZAL 36.40 ZAP 168.19 ETS 102.01 ZAE 125.27 ETE 171.74 ZAC 113.10 ETC 273.11 CLP 177.03

PLANETOCENTRIC CONIC

C3 71.361 VHL 8.448 DLA -7.59 RAL 317.05 RAD 6569.4 VEL 13.882 PTH 2.53 VHP 12.654 DPA -11.70 RAP 297.12 ECC 2.1744

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 47 55	2291.50	-21.36	46.41	197.90	109.05	10 26 6	1691.5	-18.56	38.85
90.00	19 51 44	5410.44	28.05	248.33	204.21	85.97	21 21 54	4810.4	27.20	239.77
100.00	11 5 37	2040.85	-22.77	27.44	197.36	109.91	11 39 37	1440.8	-19.85	19.86
100.00	21 16 43	5136.32	29.55	228.04	204.08	85.25	22 42 20	4536.3	28.58	219.37
110.00	12 5 31	1853.25	-26.56	11.60	195.75	112.36	12 36 25	1253.3	-23.29	3.96
110.00	22 33 18	4896.68	33.58	209.37	203.60	83.22	23 54 55	4296.7	32.28	200.38

DIFFERENTIAL CORRECTIONS
TDE 3.0557 TRA 7.3197 TC3 -.9996 BAU .9538
RDE .4088 RRA -.3775 RC3 .0188 FAU .00372
FDE .7802 FRA 1.8512 FC3 -.0451 BSP 19371
BDE 3.0625 BRA 7.3294 BC3 .9997 FSP -419

MID-COURSE EXECUTION ACCURACY
SGT 5677.4 SGR 378.7 SGS 118.8
RRT -.3616 RRF -.3535 RTF .9697
SGB 5690.0 R23 .0016 R13 -.9698
SG1 5679.0 SG2 352.9 THA 178.61

ORBIT DETERMINATION ACCURACY
ST 2580.4 SR 285.8 SS 712.2
CRT .6199 CRS -.6236 CST -.9999
LSA 2663.5 HSA 223.7 SSA 11.1
EL1 2566.6 EL2 223.7 ALF 3.99

LAUNCH DATE SEP 16 1970 FLIGHT TIME 214.00 ARRIVAL DATE APR 18 1971

HELIOCENTRIC CONIC DISTANCE 609.210

RL 150.40 LAL -.00 LOL 352.72 VL 25.559 GAL 15.67 AZL 86.82 HCA 309.73 SHA 119.40 ECC .36807 INC 3.1818 V1 29.626
RP 108.93 LAP -2.45 LOP 302.49 VP 36.402 GAP 21.03 AZP 87.96 TAL 148.46 TAP 90.19 RCA 75.45 APO 163.34 V2 34.788
RC 193.340 GL 8.69 GP 11.26 ZAL 35.36 ZAP 168.06 ETS 107.14 ZAE 125.01 ETE 171.93 ZAC 112.71 ETC 273.65 CLP 176.00

PLANETOCENTRIC CONIC

C3 81.739 VHL 9.041 DLA -7.06 RAL 318.05 RAD 6569.6 VEL 14.251 PTH 2.59 VHP 13.316 DPA -11.57 RAP 299.26 ECC 2.3452

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 47 51	2339.68	-22.39	49.57	201.23	107.80	10 26 50	1739.7	-19.75	41.09
90.00	19 59 48	5425.15	28.12	249.40	207.37	86.50	21 30 15	4825.1	27.34	240.82
100.00	11 5 49	2068.17	-23.83	30.56	200.72	108.60	11 40 37	1488.2	-21.07	22.85
100.00	21 24 31	5151.09	29.63	229.19	207.25	85.85	22 50 23	4551.9	28.74	220.50
110.00	12 6 20	1898.68	-27.70	14.64	199.18	110.09	12 37 59	1298.7	-24.60	6.83
110.00	22 40 29	4914.15	33.72	210.71	206.83	84.00	24 2 23	4314.2	32.52	201.68

DIFFERENTIAL CORRECTIONS

TDE 3.3355 TRA 7.8867 TC3 -.8143 BAU .0900
RDE .4265 RRA -.3702 RC3 .0128 FAU .00209
FDE .8185 FRA 1.9292 FC3 -.0221 BSP 19142
BDE 3.3627 BRA 7.8954 BC3 .8144 FSP -401

MID-COURSE EXECUTION ACCURACY

SGT 5656.9 SGR 359.8 SG3 115.3
RRT -.3200 RRF -.3191 RTF .9729
SGB 5668.4 RZS .0018 R13 -.9729
SG1 5658.1 SG2 340.7 THA 178.83

ORBIT DETERMINATION ACCURACY

ST 2598.7 SR 279.4 SS 732.2
CRT .6392 CRS -.6412 CST -.9999
LSA 2705.8 MSA 214.4 SSA 10.6
EL1 2604.8 EL2 214.4 ALF 3.96

LAUNCH DATE SEP 16 1970 FLIGHT TIME 216.00 ARRIVAL DATE APR 20 1971

HELIOCENTRIC CONIC DISTANCE 612.602

RL 150.40 LAL -.00 LOL 352.72 VL 25.527 GAL 17.16 AZL 86.49 HCA 312.88 SHA 119.22 ECC .38662 INC 3.5118 V1 29.626
RP 108.94 LAP -2.57 LOP 305.66 VP 36.377 GAP 22.23 AZP 87.61 TAL 147.43 TAP 100.31 RCA 73.13 APO 165.31 V2 34.706
RC 195.178 GL 8.86 GP 11.10 ZAL 34.44 ZAP 167.81 ETS 112.32 ZAE 124.70 ETE 172.12 ZAC 112.31 ETC 274.16 CLP 174.92

PLANETOCENTRIC CONIC

C3 94.060 VHL 9.696 DLA -6.60 RAL 318.95 RAD 6569.8 VEL 14.677 PTH -2.66 VHP 14.055 DPA -11.41 RAP 301.34 ECC 2.5480

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 47 52	2365.65	-23.32	52.82	204.48	106.54	10 27 37	1765.6	-20.83	44.83
90.00	20 6 56	5441.79	28.18	250.61	210.44	87.11	21 37 37	4841.8	27.48	242.02
100.00	11 6 3	2133.30	-24.70	33.50	203.99	107.27	11 41 37	1533.4	-22.18	25.75
100.00	21 31 25	5189.29	29.71	230.48	210.34	86.52	22 57 34	4569.3	28.91	221.76
110.00	12 7 6	1942.24	-28.72	17.82	202.53	109.39	12 39 29	1342.2	-25.80	9.65
110.00	22 46 51	4933.19	33.84	212.19	209.97	84.87	24 9 4	4333.2	32.76	203.12

DIFFERENTIAL CORRECTIONS

TDE 3.6306 TRA 8.5036 TC3 -.6442 BAU .0101
RDE .4495 RRA -.3980 RC3 .0079 FAU .00032
FDE .8604 FRA 2.0075 FC3 -.0029 BSP 18788
BDE 3.6662 BRA 8.5111 BC3 .6442 FSP -381

MID-COURSE EXECUTION ACCURACY

SGT 5635.4 SGR 340.7 SG3 112.1
RRT -.2734 RRF -.2698 RTF .9761
SGB 5645.7 RZS .0021 R13 -.9761
SG1 5636.1 SG2 327.7 THA 179.05

ORBIT DETERMINATION ACCURACY

ST 2631.3 SR 273.1 SS 755.1
CRT .6594 CRS -.6601 CST -.9999
LSA 2743.5 MSA 204.9 SSA 10.1
EL1 2637.5 EL2 204.9 ALF 3.94

LAUNCH DATE SEP 16 1970 FLIGHT TIME 218.00 ARRIVAL DATE APR 22 1971

HELIOCENTRIC CONIC DISTANCE 615.519

RL 150.40 LAL -.00 LOL 352.72 VL 25.496 GAL 18.80 AZL 86.12 HCA 316.03 SHA 119.05 ECC .40741 INC 3.8774 V1 29.626
RP 108.94 LAP -2.69 LOP 306.82 VP 36.355 GAP 23.57 AZP 87.21 TAL 146.53 TAP 102.56 RCA 70.54 APO 167.55 V2 34.785
RC 196.997 GL 9.00 GP 10.94 ZAL 33.63 ZAP 167.43 ETS 117.51 ZAE 124.32 ETE 172.32 ZAC 111.92 ETC 274.66 CLP 173.78

PLANETOCENTRIC CONIC

C3 108.790 VHL 10.430 DLA -6.21 RAL 319.73 RAD 6570.1 VEL 15.170 PTH 2.72 VHP 14.886 DPA -11.22 RAP 303.36 ECC 2.7904

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 47 56	2429.17	-24.13	55.55	207.61	105.28	10 28 25	1829.2	-21.80	47.65
90.00	20 13 5	5460.19	28.24	251.96	213.40	87.78	21 44 5	4860.2	27.63	243.34
100.00	11 6 20	2176.27	-25.62	36.50	207.16	105.96	11 42 36	1576.3	-23.18	28.54
100.00	21 37 22	5188.32	29.78	231.80	213.32	87.26	23 3 51	4588.3	29.08	223.15
110.00	12 7 50	1983.72	-29.62	20.51	205.78	107.90	12 40 54	1383.7	-26.89	12.39
110.00	22 52 22	4953.64	33.96	213.77	213.03	85.80	24 14 55	4353.6	33.00	204.66

DIFFERENTIAL CORRECTIONS

TDE 3.9676 TRA 9.1765 TC3 -.4886 BAU .7107
RDE .4752 RRA -.3307 RC3 .0042 FAU-.00164
FDE .9066 FRA 2.0995 FC3 .0130 BSP 18297
BDE 3.9980 BRA 9.1828 BC3 .4886 FSP -360

MID-COURSE EXECUTION ACCURACY

SGT 5612.5 SGR 321.6 SG3 109.1
RRT -.2171 RRF -.2156 RTF .9792
SGB 5621.7 RZS .0024 R13 -.9792
SG1 5612.9 SG2 313.9 THA 179.29

ORBIT DETERMINATION ACCURACY

ST 2658.1 SR 287.0 SS 781.4
CRT .6808 CRS -.6804 CST -.9999
LSA 2776.5 MSA 195.2 SSA 9.6
EL1 2664.3 EL2 195.1 ALF 3.93

LAUNCH DATE SEP 16 1970 FLIGHT TIME 220.00 ARRIVAL DATE APR 24 1971

HELIOCENTRIC CONIC DISTANCE 617.835

RL 150.40 LAL -.00 LOL 352.72 VL 25.466 GAL 20.62 AZL 85.71 HCA 319.18 SHA 118.89 ECC .43082 INC 4.2872 V1 29.626
RP 108.94 LAP -2.80 LOP 311.98 VP 36.334 GAP 25.09 AZP 86.75 TAL 145.78 TAP 104.97 RCA 67.67 APO 170.10 V2 34.785
RC 198.798 GL 9.11 GP 10.79 ZAL 32.96 ZAP 166.91 ETS 122.63 ZAE 123.86 ETE 172.53 ZAC 111.54 ETC 275.12 CLP 172.55

PLANETOCENTRIC CONIC

C3 126.537 VHL 11.249 DLA -5.88 RAL 320.39 RAD 6570.3 VEL 15.744 PTH 2.79 VHP 15.824 DPA -11.01 RAP 305.29 ECC 3.0825

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 48 3	2469.97	-24.83	58.33	210.59	104.06	10 29 13	1870.0	-22.86	50.34
90.00	20 18 13	5480.22	28.28	253.42	216.23	88.51	21 49 33	4880.2	27.78	244.79
100.00	11 6 36	2216.54	-26.34	39.27	210.16	104.67	11 43 33	1616.5	-24.07	31.21
100.00	21 42 20	5208.87	29.84	233.41	216.18	88.06	23 9 9	4608.9	29.25	224.66
110.00	12 8 28	2022.83	-30.41	23.28	208.88	106.43	12 42 11	1422.8	-27.86	15.02
110.00	22 56 57	4975.34	34.05	215.46	215.06	86.79	24 19 53	4375.3	33.23	206.31

DIFFERENTIAL CORRECTIONS

TDE 4.2829 TRA 9.8883 TC3 -.3612 BAU .6110
RDE .5047 RRA -.3134 RC3 .0017 FAU-.00336
FDE .9473 FRA 2.1923 FC3 .0230 BSP 18701
BDE 4.3126 BRA 9.8742 BC3 .3612 FSP -358

MID-COURSE EXECUTION ACCURACY

SGT 5563.8 SGR 305.1 SG3 105.7
RRT -.1909 RRF -.1509 RTF .9822
SGB 5572.1 RZS .0028 R13 -.9822
SG1 5564.0 SG2 299.6 THA 179.53

ORBIT DETERMINATION ACCURACY

ST 2656.7 SR 261.5 SS 804.5
CRT .7020 CRS -.7007 CST -.9999
LSA 2781.9 MSA 185.9 SSA 9.1
EL1 2663.0 EL2 185.8 ALF 3.97

LAUNCH DATE SEP 17 1970 FLIGHT TIME 70.00 ARRIVAL DATE NOV 26 1970

HELIOCENTRIC CONIC DISTANCE 180.399

RL	150.36	LAL	-.00	LOL	353.69	VL	25.963	GAL	-7.35	AZL	90.23	HCA	78.98	SMA	121.62	ECC	.26701	INC	.2256	V1	29.634
RP	107.82	LAP	-.22	LOP	72.67	VP	37.020	GAP	-14.08	AZP	90.04	TAL	201.28	TAP	280.25	RCA	89.14	APO	154.09	V2	35.146
RC	44.829	GL	-1.21	GP	-13.67	ZAL	126.28	ZAP	14.39	ETS	68.02	ZAE	150.38	ETE	336.92	ZAC	88.14	ETC	261.37	CLP	-4.53

PLANETOCENTRIC CONIC

C3 23.192 VHL 4.816 DLA -18.19 RAL 224.58 RAD 6567.9 VEL 12.024 PTH 2.15 VHP 9.089 DPA -34.50 RAP 242.91 ECC 1.3817

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	5 7 54	1645.60	-2.93	8.03	87.60	118.18	5 35 19	1045.6	.86	1.40
90.00	12 6 9	5498.59	28.31	254.76	95.29	89.18	13 37 48	4898.6	27.89	246.12
100.00	6 18 25	1418.05	-4.25	350.57	86.87	119.62	6 42 3	818.1	-.28	344.04
100.00	13 38 19	5201.37	29.82	232.86	95.24	87.77	15 5 1	4601.4	29.19	224.11
110.00	7 3 1	1278.31	-7.58	337.92	84.82	123.43	7 24 19	678.3	-3.13	331.66
110.00	15 10 13	4913.87	33.71	210.69	94.91	83.99	16 32 7	4313.9	32.52	201.66

DIFFERENTIAL CORRECTIONS

TDE	.1343	TRA	-.4046	TC3	.4668	BAU	.1582
RDE	-.3271	RRA	-.0887	RC3	-.2061	FAU	.03117
FDE	.0715	FRA	.0352	FC3	-1.1637	BSP	1874
BDE	.3536	BRA	.4142	BC3	.5103	FSP	-234

MID-COURSE EXECUTION ACCURACY

SGT	696.0	SGR	450.8	SG3	97.2		
RRT	-.3031	RRF	.3638	RTF	-.6548		
SGB	829.3	RZ3	-.0557	R13	.6751		
SG1	716.7	SG2	417.2	THA	162.96		

ORBIT DETERMINATION ACCURACY

ST	220.9	SR	390.7	SS	72.6
CRT	-.6626	CRS	.9237	CST	-.5450
LSA	426.9	MSA	154.2	SSA	26.6
EL1	421.8	EL2	153.3	ALF	113.89

LAUNCH DATE SEP 17 1970 FLIGHT TIME 72.00 ARRIVAL DATE NOV 28 1970

HELIOCENTRIC CONIC DISTANCE 187.211

RL	150.36	LAL	-.00	LOL	353.69	VL	26.176	GAL	-7.33	AZL	90.03	HCA	82.20	SMA	122.87	ECC	.25596	INC	.0280	V1	29.634
RP	107.79	LAP	-.03	LOP	75.89	VP	37.180	GAP	-13.08	AZP	90.00	TAL	202.56	TAP	284.76	RCA	91.42	APO	154.32	V2	35.158
RC	46.073	GL	-.17	GP	-14.54	ZAL	128.01	ZAP	16.06	ETS	60.79	ZAE	148.80	ETE	335.71	ZAC	87.36	ETC	261.52	CLP	-6.90

PLANETOCENTRIC CONIC

C3 21.678 VHL 4.656 DLA -16.70 RAL 223.16 RAD 6567.9 VEL 11.961 PTH 2.13 VHP 8.553 DPA -35.54 RAP 243.64 ECC 1.3568

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 47 20	1685.90	-4.22	10.29	84.87	118.03	5 15 26	1085.9	-.44	3.65
90.00	12 15 23	5425.53	28.12	249.43	91.96	86.52	13 45 48	4825.5	27.34	240.85
100.00	5 59 12	1454.00	-5.46	352.56	84.19	119.44	6 23 26	854.0	-1.50	346.01
100.00	13 46 12	5132.66	29.53	227.77	91.84	85.11	15 11 44	4532.7	28.54	219.11
110.00	6 46 31	1305.77	-8.61	339.38	82.26	123.21	7 8 17	705.8	-4.18	333.10
110.00	15 15 22	4853.66	33.19	206.07	91.33	81.30	16 36 16	4253.7	31.63	197.19

DIFFERENTIAL CORRECTIONS

TDE	.1238	TRA	-.3869	TC3	.5275	BAU	.1690
RDE	-.3098	RRA	-.0953	RC3	-.2488	FAU	.03379
FDE	.1075	FRA	.0132	FC3	-1.3495	BSP	1979
BDE	.3335	BRA	.3980	BC3	.5832	FSP	-268

MID-COURSE EXECUTION ACCURACY

SGT	715.2	SGR	462.0	SG3	109.2		
RRT	-.3394	RRF	.4088	RTF	-.6701		
SGB	851.4	RZ3	-.0649	R13	.6942		
SG1	740.9	SG2	419.5	THA	161.52		

ORBIT DETERMINATION ACCURACY

ST	213.4	SR	383.0	SS	101.8
CRT	-.6443	CRS	.9552	CST	-.6394
LSA	422.5	MSA	152.5	SSA	29.1
EL1	411.3	EL2	152.0	ALF	113.07

LAUNCH DATE SEP 17 1970 FLIGHT TIME 74.00 ARRIVAL DATE NOV 30 1970

HELIOCENTRIC CONIC DISTANCE 194.021

RL	150.36	LAL	-.00	LOL	353.69	VL	26.368	GAL	-7.32	AZL	89.84	HCA	85.42	SMA	124.03	ECC	.24613	INC	.1599	V1	29.634
RP	107.76	LAP	.16	LOP	79.12	VP	37.326	GAP	-12.13	AZP	89.99	TAL	203.85	TAP	289.28	RCA	93.50	APO	154.55	V2	35.168
RC	47.431	GL	.93	GP	-15.49	ZAL	129.70	ZAP	18.04	ETS	54.83	ZAE	147.40	ETE	334.32	ZAC	86.47	ETC	261.65	CLP	-9.36

PLANETOCENTRIC CONIC

C3 20.439 VHL 4.521 DLA -15.15 RAL 221.81 RAD 6567.8 VEL 11.909 PTH 2.12 VHP 8.050 DPA -36.64 RAP 244.25 ECC 1.3364

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 27 19	1728.45	-5.58	12.68	82.42	117.81	4 56 7	1128.4	-1.81	6.02
90.00	12 24 40	5354.71	27.72	244.29	88.85	83.97	13 53 55	4754.7	26.59	235.80
100.00	5 40 25	1492.58	-6.74	354.70	81.79	119.19	6 5 17	892.6	-2.80	348.13
100.00	13 54 15	5065.81	29.04	222.86	88.67	82.57	15 18 41	4465.8	27.70	214.31
110.00	6 30 17	1336.36	-9.75	341.02	79.96	122.93	6 52 33	736.4	-5.34	334.70
110.00	15 20 52	4794.79	32.50	201.62	88.01	78.76	16 40 47	4194.8	30.60	192.91

DIFFERENTIAL CORRECTIONS

TDE	.1111	TRA	-.3701	TC3	.5862	BAU	.1796
RDE	-.2921	RRA	-.0984	RC3	-.2972	FAU	.03673
FDE	.1513	FRA	-.0115	FC3	-1.5558	BSP	2079
BDE	.3125	BRA	.3829	BC3	.6573	FSP	-308

MID-COURSE EXECUTION ACCURACY

SGT	732.8	SGR	475.3	SG3	122.7		
RRT	-.3784	RRF	.4579	RTF	-.6837		
SGB	873.4	RZ3	-.0754	R13	.7128		
SG1	765.0	SG2	421.4	THA	159.86		

ORBIT DETERMINATION ACCURACY

ST	203.3	SR	372.3	SS	136.6
CRT	-.6158	CRS	.9638	CST	-.6760
LSA	418.3	MSA	150.5	SSA	31.7
EL1	396.6	EL2	150.4	ALF	111.89

LAUNCH DATE SEP 17 1970 FLIGHT TIME 76.00 ARRIVAL DATE DEC 2 1970

HELIOCENTRIC CONIC DISTANCE 200.824

RL	150.36	LAL	-.00	LOL	353.69	VL	26.540	GAL	-7.32	AZL	89.65	HCA	88.65	SMA	125.09	ECC	.23743	INC	.3511	V1	29.634
RP	107.72	LAP	.35	LOP	82.34	VP	37.457	GAP	-11.22	AZP	89.99	TAL	205.13	TAP	293.78	RCA	95.39	APO	154.79	V2	35.179
RC	48.893	GL	2.10	GP	-16.55	ZAL	131.31	ZAP	20.30	ETS	49.94	ZAE	146.19	ETE	332.73	ZAC	85.47	ETC	261.76	CLP	-11.92

PLANETOCENTRIC CONIC

C3 19.430 VHL 4.408 DLA -13.55 RAL 220.57 RAD 6567.8 VEL 11.866 PTH 2.11 VHP 7.577 DPA -37.83 RAP 244.73 ECC 1.3198

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 7 57	1772.84	-6.98	15.18	80.26	117.51	4 37 30	1172.8	-3.24	8.50
90.00	12 34 4	5286.24	27.13	239.36	86.00	81.57	14 2 10	4686.2	25.69	230.99
100.00	5 22 11	1533.32	-8.09	356.97	79.66	118.87	5 47 45	933.3	-4.18	350.37
100.00	14 2 31	5000.99	28.37	218.16	85.77	80.18	15 25 52	4401.0	26.73	209.74
110.00	6 14 28	1369.57	-10.97	342.82	77.93	122.58	6 37 18	769.6	-6.60	336.46
110.00	15 26 43	4737.50	31.65	197.36	84.98	76.37	16 45 41	4137.5	29.46	188.84

DIFFERENTIAL CORRECTIONS

TDE	.0974	TRA	-.3542	TC3	.6399	BAU	.1897
RDE	-.2734	RRA	-.1040	RC3	-.3515	FAU	.03999
FDE	.2041	FRA	-.0301	FC3	-1.7820	BSP	2175
BDE	.2903	BRA	.3692	BC3	.7301	FSP	-352

MID-COURSE EXECUTION ACCURACY

SGT	747.4	SGR	491.6	SG3	137.7		
RRT	-.4189	RRF	.5101	RTF	-.6949		
SGB	894.6	RZ3	-.0877	R13	.7303		
SG1	788.1	SG2	423.3	THA	157.92		

ORBIT DETERMINATION ACCURACY

ST	191.1	SR	358.0	SS	176.7
CRT	-.5737	CRS	.9646	CST	-.6792
LSA	415.5	MSA	148.4	SSA	34.4
EL1	377.7	EL2	148.4	ALF	110.29

LAUNCH DATE SEP 17 1970 FLIGHT TIME 78.00 ARRIVAL DATE DEC 4 1970

HELIOCENTRIC CONIC DISTANCE 207.617

RL	150.36	LAL	-.00	LOL	353.69	VL	26.694	GAL	-7.33	AZL	89.46	HCA	91.88	SMA	126.06	ECC	.22976	INC	.5410
RP	107.69	LAP	.54	LOP	85.57	VP	37.576	GAP	-10.34	AZP	90.02	TAL	206.38	TAP	298.26	RCA	97.10	APO	155.03
RC	50.451	GL	3.32	GP	-17.72	ZAL	132.81	ZAP	22.81	ETS	45.91	ZAE	145.15	ETE	330.91	ZAC	84.34	ETC	261.85

V1 29.634 V2 35.188 CLP -14.60

PLANETOCENTRIC CONIC

C3	18.616	VHL	4.315	DLA	-11.91	RAL	219.43	RAD	6567.8	VEL	11.832	PTH	2.10	VHP	7.135	DPA	-39.09	RAP	245.03

ECC 1.3064

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 49 22	1818.71	-8.41	17.79	78.40	117.14	4 19 41	1218.7	-4.71	11.07
90.00	12 43 36	5220.17	26.39	234.67	83.42	79.33	14 10 37	4620.2	24.65	226.43
100.00	5 4 39	1575.82	-9.48	359.37	77.84	118.48	5 30 55	975.8	-5.60	352.72
100.00	14 11 0	4938.30	27.56	213.67	83.15	77.95	15 33 19	4338.3	25.63	205.41
110.00	5 59 13	1404.96	-12.26	344.75	76.18	122.16	6 22 37	805.0	-7.93	338.33
110.00	15 32 56	4681.92	30.69	193.32	82.27	74.15	16 50 58	4081.9	28.21	185.00

DIFFERENTIAL CORRECTIONS

TDE	.0830	TRA	-.3306	TC3	.6871	BAU	.1994
RDE	-.2534	RRA	-.1102	RC3	-.4121	FAU	.04363
FDE	.2670	FRA	-.0805	FC3	-2.0290	BSP	2270
BDE	.2066	BRA	.3571	BC3	.8012	FSP	-403

MID-COURSE EXECUTION ACCURACY

SGT	759.0	SGR	511.9	SG3	154.6		
RRT	-.4606	RRF	.5650	RTF	-.7037		
SGB	915.5	RZS	-.1013	R13	.7474		
SG1	810.7	SG2	425.4	THA	155.63		

ORBIT DETERMINATION ACCURACY

ST	177.7	SR	339.6	SS	221.7
CRT	-.5148	CRS	.9620	CST	-.6582
LSA	416.3	MSA	146.4	SSA	36.9
EL1	354.4	EL2	146.0	ALF	108.29

LAUNCH DATE SEP 17 1970 FLIGHT TIME 80.00 ARRIVAL DATE DEC 6 1970

HELIOCENTRIC CONIC DISTANCE 214.396

RL	150.36	LAL	-.00	LOL	353.69	VL	26.831	GAL	-7.33	AZL	89.27	HCA	95.11	SMA	126.95	ECC	.22303	INC	.7319
RP	107.67	LAP	.73	LOP	88.80	VP	37.682	GAP	-9.51	AZP	90.07	TAL	207.58	TAP	302.69	RCA	98.64	APO	155.26
RC	52.066	GL	4.60	GP	-19.02	ZAL	134.17	ZAP	25.57	ETS	42.54	ZAE	144.26	ETE	328.82	ZAC	83.08	ETC	261.89

V1 29.634 V2 35.198 CLP -17.41

PLANETOCENTRIC CONIC

C3	17.965	VHL	4.239	DLA	-10.24	RAL	218.43	RAD	6567.7	VEL	11.805	PTH	2.09	VHP	6.724	DPA	-40.45	RAP	245.14

ECC 1.2957

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 31 37	1865.76	-9.86	20.49	76.85	116.68	4 2 43	1265.8	-6.20	13.72
90.00	12 53 21	5156.48	25.51	230.22	81.14	77.26	14 19 18	4556.5	23.50	222.12
100.00	4 47 53	1619.72	-10.89	1.86	76.31	118.01	5 14 53	1019.7	-7.06	355.16
100.00	14 19 46	4877.75	26.83	209.42	80.84	75.90	15 41 4	4277.8	24.43	201.31
110.00	5 44 36	1442.12	-13.60	346.79	74.72	121.67	6 8 38	842.1	-9.31	340.32
110.00	15 30 58	4628.11	29.63	189.49	79.87	72.12	16 56 41	4028.1	26.90	181.36

DIFFERENTIAL CORRECTIONS

TDE	.0880	TRA	-.3287	TC3	.7248	BAU	.2087
RDE	-.2314	RRA	-.1188	RC3	-.4793	FAU	.04762
FDE	.3418	FRA	-.1021	FC3	-2.2950	BSP	2361
BDE	.2411	BRA	.3470	BC3	.8690	FSP	-459

MID-COURSE EXECUTION ACCURACY

SGT	766.4	SGR	537.3	SG3	173.2		
RRT	-.5010	RRF	.6207	RTF	-.7095		
SGB	936.0	RZS	-.1161	R13	.7641		
SG1	832.3	SG2	428.2	THA	152.95		

ORBIT DETERMINATION ACCURACY

ST	164.0	SR	316.7	SS	271.6
CRT	-.4327	CRS	.9573	CST	-.6134
LSA	422.4	MSA	145.0	SSA	38.7
EL1	326.5	EL2	143.4	ALF	105.75

LAUNCH DATE SEP 17 1970 FLIGHT TIME 82.00 ARRIVAL DATE DEC 8 1970

HELIOCENTRIC CONIC DISTANCE 221.159

RL	150.36	LAL	-.00	LOL	353.69	VL	26.953	GAL	-7.34	AZL	89.08	HCA	98.34	SMA	127.75	ECC	.21715	INC	.9248
RP	107.64	LAP	.92	LOP	92.04	VP	37.777	GAP	-8.71	AZP	90.13	TAL	208.72	TAP	307.06	RCA	100.01	APO	155.49
RC	53.818	GL	5.93	GP	-20.45	ZAL	135.38	ZAP	28.55	ETS	39.66	ZAE	143.51	ETE	326.43	ZAC	81.67	ETC	261.90

V1 29.634 V2 35.206 CLP -20.37

PLANETOCENTRIC CONIC

C3	17.493	VHL	4.178	DLA	-8.56	RAL	217.57	RAD	6567.7	VEL	11.783	PTH	2.08	VHP	6.344	DPA	-41.90	RAP	245.02

ECC 1.2872

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 14 44	1913.75	-11.32	23.26	75.59	116.13	3 46 38	1313.7	-7.71	16.44
90.00	13 3 21	5095.04	24.51	225.99	79.16	75.37	14 28 16	4495.0	22.27	218.04
100.00	4 31 55	1664.74	-12.32	4.44	75.07	117.45	4 59 40	1064.7	-8.55	357.68
100.00	14 28 51	4819.28	25.60	205.38	78.83	74.01	15 49 10	4219.3	23.16	197.43
110.00	5 30 42	1480.71	-14.97	348.95	73.55	121.10	5 55 22	880.7	-10.74	342.40
110.00	15 46 34	4576.07	28.48	185.87	77.79	70.25	17 2 50	3976.1	25.53	177.94

DIFFERENTIAL CORRECTIONS

TDE	.0532	TRA	-.3155	TC3	.7518	BAU	.2178
RDE	-.2068	RRA	-.1242	RC3	-.5536	FAU	.05200
FDE	.4292	FRA	-.1372	FC3	-2.5794	BSP	2452
BDE	.2135	BRA	.3390	BC3	.9336	FSP	-522

MID-COURSE EXECUTION ACCURACY

SGT	768.9	SGR	569.3	SG3	193.7		
RRT	-.5389	RRF	.6759	RTF	-.7119		
SGB	956.7	RZS	-.1314	R13	.7810		
SG1	853.7	SG2	431.9	THA	149.76		

ORBIT DETERMINATION ACCURACY

ST	151.4	SR	288.6	SS	326.0
CRT	-.3245	CRS	.9499	CST	-.5467
LSA	436.1	MSA	144.1	SSA	39.6
EL1	294.0	EL2	140.5	ALF	102.57

LAUNCH DATE SEP 17 1970 FLIGHT TIME 84.00 ARRIVAL DATE DEC 10 1970

HELIOCENTRIC CONIC DISTANCE 227.904

RL	150.36	LAL	-.00	LOL	353.69	VL	27.060	GAL	-7.35	AZL	88.88	HCA	101.58	SMA	128.46	ECC	.21202	INC	1.1209
RP	107.61	LAP	1.10	LOP	95.27	VP	37.880	GAP	-7.95	AZP	90.22	TAL	209.78	TAP	311.35	RCA	101.23	APO	155.70
RC	55.612	GL	7.30	GP	-22.03	ZAL	136.42	ZAP	31.78	ETS	37.14	ZAE	142.87	ETE	323.69	ZAC	80.11	ETC	261.87

V1 29.634 V2 35.214 CLP -23.50

PLANETOCENTRIC CONIC

C3	17.056	VHL	4.130	DLA	-6.87	RAL	216.85	RAD	6567.7	VEL	11.766	PTH	2.08	VHP	5.994	DPA	-43.45	RAP	244.64

ECC 1.2807

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 58 44	1982.48	-12.78	26.11	74.63	115.49	3 31 27	1362.5	-9.23	19.22
90.00	13 13 40	5035.68	23.43	221.97	77.49	73.63	14 37 36	4435.7	20.97	214.17
100.00	4 16 48	1710.65	-13.75	7.10	74.14	116.81	4 45 19	1110.7	-10.04	.27
100.00	14 38 17	4762.74	24.48	201.55	77.14	72.29	15 57 40	4162.7	21.83	193.76
110.00	5 17 33	1520.47	-16.35	351.20	72.67	120.45	5 42 53	920.5	-12.19	344.56
110.00	15 54 2	4525.68	27.28	182.45	76.03	68.55	17 9 28	3925.7	24.12	174.70

DIFFERENTIAL CORRECTIONS

TDE	.0304	TRA	-.3184	TC3	.7445	BAU	.2225
RDE	-.1788	RRA	-.1298	RC3	-.6308	FAU	.05625
FDE	.5410	FRA	-.1630	FC3	-2.8553	BSP	2335
BDE	.1795	BRA	.3411	BC3	.9758	FSP	-571

MID-COURSE EXECUTION ACCURACY

SGT	757.8	SGR	603.8	SG3	214.7		
RRT	-.5483	RRF	.7237	RTF	-.6999		
SGB	968.9	RZS	-.1568	R13	.7940		
SG1	861.0	SG2	444.4	THA	146.34		

ORBIT DETERMINATION ACCURACY

ST	140.0	SR	251.8	SS	392.0
CRT	-.0980	CRS	.9408	CST	-.3719
LSA	462.3	MSA	146.7	SSA	38.4
EL1	252.3	EL2	139.1	ALF	94.49

LAUNCH DATE SEP 17 1970 FLIGHT TIME 86.00 ARRIVAL DATE DEC 12 1970

HELIOCENTRIC CONIC DISTANCE 234.626

RL	150.36	LAL	-.00	LOL	353.69	VL	27.153	GAL	-7.36	AZL	88.68	HCA	104.81	SMA	129.10	ECC	.20757	INC	1.3218	V1	29.634
RP	107.59	LAP	1.28	LOP	98.51	VP	37.935	GAP	-7.21	AZP	90.34	TAL	210.75	TAP	315.56	RCA	102.30	APO	155.90	V2	35.222
RC	57.469	GL	8.73	GP	-23.76	ZAL	137.27	ZAP	35.23	ETS	34.87	ZAE	142.30	ETE	320.55	ZAC	78.38	ETC	261.78	CLP	-26.82

PLANETOCENTRIC CONIC

C3	16.761	VHL	4.094	DLA	-5.18	RAL	216.29	RAD	6567.7	VEL	11.753	PTH	2.07	VHP	5.675	DPA	-45.11	RAP	243.94	ECC	1.2758

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 43 33	2012.00	-14.19	29.05	73.97	114.76	3 17 5	1412.0	-10.74	22.07
90.00	13 24 22	4978.13	22.28	218.15	76.11	72.05	14 47 20	4378.1	19.62	210.49
100.00	4 2 27	1757.47	-15.16	9.85	73.49	116.07	4 31 45	1157.5	-11.54	2.94
100.00	14 48 9	4707.90	23.30	197.91	75.73	70.72	16 6 37	4107.9	20.45	190.26
110.00	5 5 6	1561.32	-17.74	355.54	72.07	119.71	5 31 8	961.3	-13.66	346.82
110.00	16 1 59	4476.81	26.02	179.20	74.58	67.01	17 16 36	3876.8	22.68	171.64

DIFFERENTIAL CORRECTIONS

TDE	.0243	TRA	-.3029	TC3	.7570	BAU	.2347
RDE	-.1462	RRA	-.1301	RC3	-.7236	FAU	.06159
FDE	.6509	FRA	-.2062	FC3	-3.1811	BSP	2569
BDE	.1482	BRA	.3334	BC3	1.0472	FSP	-660

MID-COURSE EXECUTION ACCURACY

SGT	752.7	SGR	656.6	SG3	239.7		
RRT	-.5887	RRF	.7759	RTF	-.6992		
SGB	990.9	RZS	-.1603	RIS	.8162		
SG1	893.1	SG2	447.3	THA	141.55		

ORBIT DETERMINATION ACCURACY

ST	133.5	SR	213.6	SS	450.3
CRT	.0069	CRS	.9171	CST	-.3316
LSA	493.7	NSA	144.9	SSA	38.0
EL1	213.6	EL2	133.5	ALF	89.60

LAUNCH DATE SEP 17 1970 FLIGHT TIME 88.00 ARRIVAL DATE DEC 14 1970

HELIOCENTRIC CONIC DISTANCE 241.326

RL	150.36	LAL	-.00	LOL	353.69	VL	27.235	GAL	-7.36	AZL	88.47	HCA	108.05	SMA	129.66	ECC	.20372	INC	1.5288	V1	29.634
RP	107.57	LAP	1.45	LOP	101.74	VP	37.999	GAP	-6.51	AZP	90.47	TAL	211.63	TAP	319.67	RCA	103.24	APO	156.07	V2	35.229
RC	59.382	GL	10.20	GP	-25.65	ZAL	137.92	ZAP	38.92	ETS	32.74	ZAE	141.76	ETE	316.98	ZAC	76.48	ETC	261.63	CLP	-30.34

PLANETOCENTRIC CONIC

C3	16.552	VHL	4.068	DLA	-3.48	RAL	215.80	RAD	6567.7	VEL	11.745	PTH	2.07	VHP	5.388	DPA	-46.87	RAP	242.88	ECC	1.2724

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 29 9	2082.28	-15.61	32.06	73.58	113.93	3 3 32	1482.3	-12.24	25.00
90.00	13 35 32	4922.10	21.06	214.50	75.02	70.62	14 57 34	4322.1	18.22	206.97
100.00	3 48 52	1805.12	-16.57	12.60	73.12	115.24	4 18 57	1205.1	-13.03	5.69
100.00	14 56 30	4654.49	22.05	194.43	74.63	69.29	16 16 4	4054.5	19.04	186.93
110.00	4 53 23	1603.15	-19.14	355.99	71.75	118.88	5 20 6	1003.1	-15.14	349.15
110.00	16 10 28	4429.23	24.72	176.12	73.42	65.60	17 24 18	3829.2	21.21	168.72

DIFFERENTIAL CORRECTIONS

TDE	.0170	TRA	-.2973	TC3	.7433	BAU	.2453
RDE	-.1099	RRA	-.1479	RC3	-.6227	FAU	.06695
FDE	.7799	FRA	-.2442	FC3	-3.5018	BSP	2719
BDE	.1112	BRA	.3321	BC3	1.1087	FSP	-747

MID-COURSE EXECUTION ACCURACY

SGT	736.4	SGR	718.1	SG3	265.5		
RRT	-.6071	RRF	.8199	RTF	-.6860		
SGB	1028.5	RZS	-.1648	RIS	.8374		
SG1	922.1	SG2	455.7	THA	136.19		

ORBIT DETERMINATION ACCURACY

ST	129.4	SR	168.2	SS	515.1
CRT	.1750	CRS	.8696	CST	-.2637
LSA	536.8	NSA	144.4	SSA	36.4
EL1	171.6	EL2	124.9	ALF	73.30

LAUNCH DATE SEP 17 1970 FLIGHT TIME 90.00 ARRIVAL DATE DEC 16 1970

HELIOCENTRIC CONIC DISTANCE 248.002

RL	150.36	LAL	-.00	LOL	353.69	VL	27.305	GAL	-7.36	AZL	88.26	HCA	111.28	SMA	130.14	ECC	.20040	INC	1.7437	V1	29.634
RP	107.55	LAP	1.62	LOP	104.98	VP	38.055	GAP	-5.84	AZP	90.63	TAL	212.40	TAP	323.68	RCA	104.06	APO	156.22	V2	35.235
RC	61.346	GL	11.73	GP	-27.70	ZAL	138.36	ZAP	42.84	ETS	30.67	ZAE	141.20	ETE	312.96	ZAC	74.40	ETC	261.42	CLP	-34.09

PLANETOCENTRIC CONIC

C3	16.419	VHL	4.052	DLA	-1.77	RAL	215.64	RAD	6567.7	VEL	11.739	PTH	2.07	VHP	5.134	DPA	-48.72	RAP	241.40	ECC	1.2702

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 15 28	2113.46	-16.99	35.18	73.48	113.00	2 50 42	1513.5	-13.73	28.02
90.00	13 47 16	4867.22	19.78	210.98	74.21	69.31	15 8 23	4267.2	16.79	203.58
100.00	3 35 59	1853.72	-17.96	15.64	73.04	114.31	4 6 53	1253.7	-14.52	8.53
100.00	15 9 26	4602.19	20.76	191.08	73.80	67.99	16 26 8	4002.2	17.59	183.72
110.00	4 42 21	1646.01	-20.53	358.54	71.71	117.95	5 9 47	1046.0	-16.63	351.58
110.00	16 19 34	4382.66	23.37	173.17	72.56	64.32	17 32 36	3782.7	19.73	165.93

DIFFERENTIAL CORRECTIONS

TDE	.0117	TRA	-.2967	TC3	.7056	BAU	.2559
RDE	-.0673	RRA	-.1561	RC3	-.9282	FAU	.07227
FDE	.9264	FRA	-.2766	FC3	-3.8107	BSP	2837
BDE	.0683	BRA	.3353	BC3	1.1660	FSP	-833

MID-COURSE EXECUTION ACCURACY

SGT	709.5	SGR	789.7	SG3	291.8		
RRT	-.6050	RRF	.8567	RTF	-.6593		
SGB	1061.7	RZS	-.1625	RIS	.8596		
SG1	952.8	SG2	468.2	THA	129.97		

ORBIT DETERMINATION ACCURACY

ST	128.2	SR	118.1	SS	584.8
CRT	.4216	CRS	.7368	CST	-.2065
LSA	591.9	NSA	144.5	SSA	34.1
EL1	147.3	EL2	93.2	ALF	39.50

LAUNCH DATE SEP 17 1970 FLIGHT TIME 92.00 ARRIVAL DATE DEC 18 1970

HELIOCENTRIC CONIC DISTANCE 254.651

RL	150.36	LAL	-.00	LOL	353.69	VL	27.364	GAL	-7.36	AZL	88.03	HCA	114.52	SMA	130.56	ECC	.19754	INC	1.9683	V1	29.634
RP	107.53	LAP	1.79	LOP	108.23	VP	38.103	GAP	-5.19	AZP	90.82	TAL	213.06	TAP	327.58	RCA	104.77	APO	156.35	V2	35.240
RC	63.353	GL	13.33	GP	-29.91	ZAL	138.59	ZAP	46.98	ETS	28.58	ZAE	140.54	ETE	308.48	ZAC	72.14	ETC	261.12	CLP	-38.09

PLANETOCENTRIC CONIC

C3	16.354	VHL	4.044	DLA	-.05	RAL	215.56	RAD	6567.7	VEL	11.736	PTH	2.07	VHP	4.914	DPA	-50.64	RAP	239.44	ECC	1.2691

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 2 24	2168.80	-18.36	38.42	73.66	111.95	2 38 30	1565.8	-15.22	31.15
90.00	13 59 39	4813.07	18.44	207.57	73.68	68.12	15 19 52	4213.1	15.31	200.29
100.00	3 23 43	1903.49	-19.32	18.70	73.24	113.26	3 55 27	1303.5	-16.01	11.47
100.00	15 21 1	4550.61	19.41	187.85	73.26	66.81	16 36 52	3950.6	16.10	180.61
110.00	4 31 54	1680.05	-21.91	1.21	71.94	116.92	5 0 4	1080.1	-18.12	354.12
110.00	16 29 19	4336.82	21.99	170.33	71.97	63.15	17 41 36	3736.8	18.21	163.23

DIFFERENTIAL CORRECTIONS

TDE	.0114	TRA	-.3000	TC3	.6461	BAU	.2677
RDE	-.0177	RRA	-.1636	RC3	-1.0401	FAU	.07742
FDE	1.0870	FRA	-.3028	FC3	-4.0903	BSP	2969
BDE	.0210	BRA	.3417	BC3	1.2244	FSP	-919

MID-COURSE EXECUTION ACCURACY

SGT	673.8	SGR	872.9	SG3	318.0		
RRT	-.5805	RRF	.8869	RTF	-.6149		
SGB	1102.7	RZS	-.1492	RIS	.8829		
SG1	991.2	SG2	483.2	THA	122.86		

ORBIT DETERMINATION ACCURACY

ST	129.5	SR	78.1	SS	657.5
CRT	.7977	CRS	.2243	CST	-.1981
LSA	658.2	NSA	144.6	SSA	31.5
EL1	145.3	EL2	42.0	ALF	28.26

LAUNCH DATE SEP 17 1970 FLIGHT TIME 94.00 ARRIVAL DATE DEC 20 1970

HELIOCENTRIC CONIC DISTANCE 261.274

RL	150.36	LAL	-.00	LOL	353.69	VL	27.414	GAL	-7.35	AZL	87.80	HCA	117.76	SMA	130.91	ECC	.19508	INC	2.2049	V1	29.634
RP	107.52	LAP	1.95	LOP	111.47	VP	38.143	GAP	-4.56	AZP	91.03	TAL	213.60	TAP	331.36	RCA	105.37	APO	156.45	V2	35.245
RC	65.403	GL	14.99	GP	-32.26	ZAL	138.60	ZAP	51.31	ETS	26.40	ZAE	139.74	ETE	303.57	ZAC	69.72	ETC	260.74	CLP	-42.34

PLANETOCENTRIC CONIC

C3	16.354	VHL	4.044	DLA	1.69	RAL	215.63	RAD	6567.7	VEL	11.736	PTH	2.07	VHP	4.728	DPA	-52.61	RAP	236.95	ECC	1.2691

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 49 49	2219.67	-19.69	41.80	74.12	110.77	2 26 49	1619.7	-16.69	34.41
90.00	14 12 51	4759.20	17.04	204.24	73.43	67.04	15 32 10	4159.2	13.76	197.07
100.00	3 11 57	1954.77	-20.67	21.91	73.71	112.09	3 44 32	1354.8	-17.49	14.56
100.00	15 33 24	4499.34	18.00	184.69	72.99	65.73	16 48 23	3899.3	14.57	177.57
110.00	4 21 59	1735.53	-23.28	4.02	72.46	115.77	4 50 55	1135.5	-19.62	356.79
110.00	16 39 51	4291.35	20.57	167.57	71.66	62.08	17 51 22	3691.3	16.67	160.61

DIFFERENTIAL CORRECTIONS

TDE	.0176	TRA	-.3078	TC3	.5822	BAU	.2810
RDE	.0307	RRA	-.1884	RC3	-1.1558	FAU	.08211
FDE	1.2588	FRA	-.3188	FC3	-4.3466	BSP	3116
BDE	.0434	BRA	.3514	BC3	1.2852	FSP	-999

MID-COURSE EXECUTION ACCURACY

SGT	630.7	SGR	986.8	SG3	342.8		
RRT	-.5220	RRF	.9111	RTF	-.5422		
SGB	1154.3	RZS	-.1233	R13	.9060		
SG1	1040.7	SG2	499.4	THA	114.95		

ORBIT DETERMINATION ACCURACY

ST	134.0	SR	95.6	SS	732.0
CRT	.8162	CRS	-.6598	CST	-.2536
LSA	735.6	NSA	144.8	SSA	28.8
EL1	157.7	EL2	46.9	ALF	33.58

LAUNCH DATE SEP 17 1970 FLIGHT TIME 96.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 267.870

RL	150.36	LAL	-.00	LOL	353.69	VL	27.455	GAL	-7.33	AZL	87.54	HCA	121.00	SMA	131.20	ECC	.19297	INC	2.4561	V1	29.634
RP	107.51	LAP	2.11	LOP	114.71	VP	38.176	GAP	-3.97	AZP	91.27	TAL	214.03	TAP	335.03	RCA	105.88	APO	156.52	V2	35.249
RC	67.486	GL	16.74	GP	-34.74	ZAL	138.38	ZAP	55.61	ETS	24.04	ZAE	138.73	ETE	298.28	ZAC	67.15	ETC	260.27	CLP	-46.86

PLANETOCENTRIC CONIC

C3	16.418	VHL	4.052	DLA	3.46	RAL	215.87	RAD	6567.7	VEL	11.739	PTH	2.07	VHP	4.580	DPA	-54.59	RAP	233.86	ECC	1.2702

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 37 36	2275.54	-21.00	45.38	74.87	109.44	2 15 32	1675.5	-18.16	37.86
90.00	14 26 58	4705.10	15.57	200.94	73.45	66.05	15 45 24	4105.1	12.21	193.88
100.00	3 0 34	2007.97	-21.99	25.31	74.48	110.77	3 34 2	1408.0	-18.97	17.82
100.00	15 46 42	4447.91	16.53	181.57	72.99	64.74	17 0 50	3847.9	13.00	174.57
110.00	4 12 31	1782.77	-24.65	7.01	73.27	114.47	4 42 13	1182.8	-21.14	359.62
110.00	16 51 14	4245.86	19.09	164.86	71.62	61.09	18 2 0	3645.9	15.09	158.03

DIFFERENTIAL CORRECTIONS

TDE	.0884	TRA	-.3841	TC3	.4432	BAU	.2941
RDE	.1080	RRA	-.1885	RC3	-1.2645	FAU	.08545
FDE	1.4508	FRA	-.3082	FC3	-4.5060	BSP	3183
BDE	.1126	BRA	.3657	BC3	1.3599	FSP	-1042

MID-COURSE EXECUTION ACCURACY

SGT	584.3	SGR	1083.7	SG3	363.8		
RRT	-.4040	RRF	.9294	RTF	-.4179		
SGB	1213.6	RZS	-.0815	R13	.9269		
SG1	1097.6	SG2	517.7	THA	106.25		

ORBIT DETERMINATION ACCURACY

ST	143.0	SR	172.9	SS	814.4
CRT	.6342	CRS	-.9244	CST	-.3349
LSA	831.6	NSA	147.1	SSA	25.5
EL1	204.2	EL2	94.1	ALF	53.12

LAUNCH DATE SEP 17 1970 FLIGHT TIME 98.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 274.436

RL	150.36	LAL	-.00	LOL	353.69	VL	27.487	GAL	-7.30	AZL	87.27	HCA	124.23	SMA	131.43	ECC	.19117	INC	2.7250	V1	29.634
RP	107.50	LAP	2.25	LOP	117.96	VP	38.203	GAP	-3.39	AZP	91.53	TAL	214.36	TAP	338.59	RCA	106.31	APO	156.56	V2	35.253
RC	69.600	GL	18.58	GP	-37.32	ZAL	137.95	ZAP	60.43	ETS	21.48	ZAE	137.45	ETE	292.69	ZAC	64.45	ETC	259.69	CLP	-51.65

PLANETOCENTRIC CONIC

C3	16.550	VHL	4.068	DLA	5.27	RAL	218.27	RAD	6567.7	VEL	11.745	PTH	2.07	VHP	4.469	DPA	-56.54	RAP	230.12	ECC	1.2724

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 25 33	2334.12	-22.28	49.20	75.91	107.94	2 4 27	1734.1	-19.62	41.54
90.00	14 42 13	4850.20	14.03	197.65	73.75	65.15	15 59 43	4050.2	10.56	190.69
100.00	2 49 23	2063.74	-23.29	28.94	75.54	109.28	3 23 47	1463.7	-20.45	21.30
100.00	16 1 4	4395.82	14.99	178.47	73.28	63.83	17 14 20	3795.8	11.36	171.57
110.00	4 3 19	1832.33	-26.01	10.22	74.39	113.01	4 33 52	1232.3	-22.66	2.66
110.00	17 3 37	4199.99	17.56	162.19	71.85	60.19	18 13 37	3600.0	13.47	155.47

DIFFERENTIAL CORRECTIONS

TDE	.0626	TRA	-.3315	TC3	.3310	BAU	.3164
RDE	.1777	RRA	-.1753	RC3	-1.3913	FAU	.08036
FDE	1.6056	FRA	-.3209	FC3	-4.6743	BSP	3603
BDE	.1884	BRA	.3750	BC3	1.4301	FSP	-1147

MID-COURSE EXECUTION ACCURACY

SGT	547.9	SGR	1185.5	SG3	384.3		
RRT	-.2564	RRF	.9451	RTF	-.2512		
SGB	1306.0	RZS	-.0519	R13	.9437		
SG1	1195.8	SG2	525.0	THA	98.39		

ORBIT DETERMINATION ACCURACY

ST	166.2	SR	263.2	SS	875.8
CRT	.7371	CRS	-.9711	CST	-.5772
LSA	917.9	NSA	144.3	SSA	23.9
EL1	294.7	EL2	100.3	ALF	61.43

LAUNCH DATE SEP 17 1970 FLIGHT TIME 100.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 280.975

RL	150.36	LAL	-.00	LOL	353.69	VL	27.512	GAL	-7.27	AZL	86.98	HCA	127.47	SMA	131.61	ECC	.18963	INC	3.0155	V1	29.634
RP	107.49	LAP	2.39	LOP	121.21	VP	38.223	GAP	-2.84	AZP	91.84	TAL	214.56	TAP	342.04	RCA	106.65	APO	156.57	V2	35.255
RC	71.740	GL	20.53	GP	-39.98	ZAL	137.29	ZAP	65.11	ETS	18.60	ZAE	135.87	ETE	286.91	ZAC	61.66	ETC	259.00	CLP	-56.69

PLANETOCENTRIC CONIC

C3	16.756	VHL	4.093	DLA	7.14	RAL	216.84	RAD	6567.7	VEL	11.753	PTH	2.07	VHP	4.398	DPA	-58.39	RAP	225.74	ECC	1.2758

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 13 30	2306.14	-23.52	53.32	77.27	106.24	1 53 26	1796.1	-21.07	45.51
90.00	14 58 48	4593.86	12.39	194.33	74.35	64.33	16 15 22	3993.9	8.84	187.45
100.00	2 38 16	2122.76	-24.57	32.87	76.92	107.59	3 13 39	1522.8	-21.93	25.06
100.00	16 16 43	4342.47	13.37	175.34	73.85	63.01	17 29 6	3742.5	9.64	168.54
110.00	3 54 19	1884.75	-27.35	13.70	75.83	111.35	4 25 44	1284.7	-24.21	5.95
110.00	17 17 9	4153.25	15.96	159.51	72.38	59.36	18 26 23	3553.3	11.78	152.90

DIFFERENTIAL CORRECTIONS

TDE	.1048	TRA	-.3481	TC3	.1812	BAU	.3582
RDE	.2985	RRA	-.1722	RC3	-1.4989	FAU	.09112
FDE	1.7702	FRA	-.2986	FC3	-4.7076	BSP	3918
BDE	.2797	BRA	.3884	BC3	1.5098	FSP	-1197

MID-COURSE EXECUTION ACCURACY

SGT	533.9	SGR	1302.5	SG3	397.5		
RRT	-.0137	RRF	.9563	RTF	-.0006		
SGB	1407.6	RZS	-.0151	R13	.9562		
SG1	1302.6	SG2	533.5	THA	90.39		

ORBIT DETERMINATION ACCURACY

ST	207.9	SR	372.1	SS	943.7
CRT	.8248	CRS	-.9879	CST	-.7387
LSA	1025.1	NSA	144.3	SSA	21.6
EL1	412.8	EL2	105.9	ALF	63.36

LAUNCH DATE SEP 17 1970 FLIGHT TIME 102.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 287.485

RL 150.36 LAL -.00 LOL 353.69 VL 27.530 GAL -7.22 AZL 86.67 HCA 130.71 SMA 131.74 ECC .18832 INC 3.3324 V1 29.634
RP 107.48 LAP 2.53 LOP 124.45 VP 38.238 GAP -2.30 AZP 92.17 TAL 214.66 TAP 345.37 RCA 106.93 APO 156.55 V2 35.257
RC 73.903 GL 22.61 GP -42.67 ZAL 136.39 ZAP 69.78 ETS 15.43 ZAE 133.98 ETE 281.06 ZAC 58.80 ETC 258.21 CLP -61.97

PLANETOCENTRIC CONIC

C3 17.050 VHL 4.129 DLA 9.09 RAL 217.58 RAD 6567.7 VEL 11.766 PTH 2.08 VHP 4.368 DPA -60.11 RAP 220.70 ECC 1.2806

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 1 12	2462.66	-24.71	57.83	78.98	104.28	1 42 15	1862.7	-22.51	49.85
90.00	15 17 0	4535.34	10.64	190.92	75.26	63.60	16 32 35	3935.3	7.01	184.12
100.00	2 26 59	2185.99	-25.80	37.16	78.66	105.65	3 3 25	1586.0	-23.40	29.18
100.00	16 33 54	4287.24	11.64	172.15	74.74	62.27	17 45 21	3687.2	7.84	165.43
110.00	3 45 20	1940.80	-28.68	17.52	77.63	109.44	4 17 41	1340.8	-25.76	9.56
110.00	17 32 2	4105.19	14.28	156.81	73.20	58.61	18 40 28	3505.2	10.02	150.30

DIFFERENTIAL CORRECTIONS
TDE .1640 TRA -.3665 TC3 .0127 BAU .3627
RDE .3488 RRA -.1633 RC3-1.5910 FAU .09129
FDE 1.9176 FRA -.2595 FC3-4.6352 BSP 4288
BDE .3854 BRA .4013 BC3 1.5911 FSP -1226

MID-COURSE EXECUTION ACCURACY
SGT 563.2 SGR 1418.9 SG3 404.0
RRT .2684 RRF .9647 RTF .2860
SGB 1526.6 R23 .0173 R13 .9650
SG1 1428.3 SG2 539.0 THA 82.90

ORBIT DETERMINATION ACCURACY
ST 275.1 SR 490.4 SS 1006.0
CRT .8952 CRS -.9943 CST -.8488
LSA 1143.2 MSA 144.5 SSA 19.4
EL1 551.6 EL2 109.0 ALF 62.16

LAUNCH DATE SEP 17 1970 FLIGHT TIME 104.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 293.966

RL 150.36 LAL -.00 LOL 353.69 VL 27.542 GAL -7.17 AZL 86.32 HCA 133.95 SMA 131.82 ECC .18721 INC 3.6818 V1 29.634
RP 107.48 LAP 2.65 LOP 127.70 VP 38.247 GAP -1.79 AZP 92.56 TAL 214.65 TAP 348.60 RCA 107.14 APO 156.50 V2 35.258
RC 76.087 GL 24.84 GP -45.38 ZAL 135.25 ZAP 74.36 ETS 11.91 ZAE 131.79 ETE 275.25 ZAC 55.90 ETC 257.30 CLP -67.44

PLANETOCENTRIC CONIC

C3 17.451 VHL 4.177 DLA 11.13 RAL 218.50 RAD 6567.7 VEL 11.783 PTH 2.08 VHP 4.382 DPA -61.66 RAP 215.08 ECC 1.2872

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 48 21	2535.00	-25.83	62.83	81.06	102.02	1 30 36	1935.0	-23.92	54.68
90.00	15 37 11	4473.74	8.76	187.37	76.52	62.96	16 51 45	3873.7	5.06	180.64
100.00	2 15 17	2254.63	-26.97	41.92	80.77	103.41	2 52 51	1654.6	-24.86	33.76
100.00	16 52 56	4229.34	9.79	168.86	75.97	61.61	18 3 26	3629.3	5.92	162.20
110.00	3 36 11	2001.46	-29.98	21.76	79.83	107.24	4 9 33	1401.5	-27.33	13.57
110.00	17 48 31	4055.28	12.49	154.05	74.36	57.92	18 56 7	3455.3	8.16	147.62

DIFFERENTIAL CORRECTIONS
TDE .2429 TRA -.3859 TC3 -.1706 BAU .3888
RDE .4459 RRA -.1461 RC3-1.6578 FAU .08957
FDE 2.0435 FRA -.2013 FC3-4.4436 BSP 4681
BDE .5078 BRA .4126 BC3 1.6666 FSP -1225

MID-COURSE EXECUTION ACCURACY
SGT 649.8 SGR 1527.8 SG3 402.6
RRT .5151 RRF .9710 RTF .5332
SGB 1660.3 R23 .0454 R13 .9707
SG1 1569.2 SG2 542.3 THA 75.93

ORBIT DETERMINATION ACCURACY
ST 370.5 SR 616.1 SS 1062.5
CRT .9372 CRS -.9972 CST -.9120
LSA 1274.5 MSA 145.4 SSA 17.2
EL1 710.1 EL2 112.1 ALF 59.76

LAUNCH DATE SEP 17 1970 FLIGHT TIME 106.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 300.419

RL 150.36 LAL -.00 LOL 353.69 VL 27.547 GAL -7.11 AZL 85.93 HCA 137.19 SMA 131.86 ECC .18626 INC 4.0714 V1 29.634
RP 107.48 LAP 2.77 LOP 130.95 VP 38.252 GAP -1.30 AZP 92.99 TAL 214.54 TAP 351.72 RCA 107.30 APO 156.42 V2 35.259
RC 78.289 GL 27.23 GP -48.07 ZAL 133.85 ZAP 78.77 ETS 8.05 ZAE 129.31 ETE 269.58 ZAC 53.00 ETC 256.28 CLP -73.06

PLANETOCENTRIC CONIC

C3 17.988 VHL 4.241 DLA 13.28 RAL 219.61 RAD 6567.7 VEL 11.806 PTH 2.09 VHP 4.443 DPA -63.01 RAP 208.95 ECC 1.2960

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 34 32	2614.89	-26.84	68.46	83.56	99.37	1 18 7	2014.9	-25.27	60.14
90.00	15 59 50	4407.94	6.70	183.63	78.18	62.42	17 13 18	3807.9	2.95	176.95
100.00	2 2 48	2330.21	-28.05	47.28	83.32	100.78	2 41 38	1730.2	-26.27	38.93
100.00	17 14 15	4167.85	7.78	165.40	77.60	61.05	18 23 43	3567.8	3.86	158.80
110.00	3 26 38	2067.92	-31.23	26.54	82.49	104.66	4 1 6	1467.9	-28.90	18.11
110.00	18 6 55	4002.91	10.58	151.19	75.90	57.30	19 13 38	3402.9	6.19	144.84

DIFFERENTIAL CORRECTIONS
TDE .3445 TRA -.4048 TC3 -.3627 BAU .4142
RDE .5534 RRA -.1158 RC3-1.6837 FAU .08552
FDE 2.1517 FRA -.1169 FC3-4.1158 BSP 5016
BDE .6518 BRA .4210 BC3 1.7224 FSP -1172

MID-COURSE EXECUTION ACCURACY
SGT 791.8 SGR 1620.0 SG3 392.8
RRT .6842 RRF .9757 RTF .6996
SGB 1803.2 R23 .0720 R13 .9740
SG1 1719.1 SG2 544.2 THA 69.35

ORBIT DETERMINATION ACCURACY
ST 495.0 SR 750.3 SS 1116.7
CRT .9595 CRS -.9986 CST -.9457
LSA 1425.8 MSA 148.3 SSA 14.9
EL1 891.2 EL2 117.4 ALF 57.02

LAUNCH DATE SEP 17 1970 FLIGHT TIME 108.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 306.841

RL 150.36 LAL -.00 LOL 353.69 VL 27.548 GAL -7.04 AZL 85.49 HCA 140.42 SMA 131.87 ECC .18547 INC 4.5117 V1 29.634
RP 107.48 LAP 2.87 LOP 134.20 VP 38.251 GAP -.82 AZP 93.48 TAL 214.33 TAP 354.75 RCA 107.41 APO 156.32 V2 35.258
RC 80.507 GL 29.82 GP -50.75 ZAL 132.20 ZAP 82.93 ETS 3.85 ZAE 126.58 ETE 264.10 ZAC 50.09 ETC 255.15 CLP -78.78

PLANETOCENTRIC CONIC

C3 18.708 VHL 4.325 DLA 15.57 RAL 220.91 RAD 6567.8 VEL 11.836 PTH 2.10 VHP 4.554 DPA -64.16 RAP 202.42 ECC 1.3079

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 19 10	2704.78	-27.68	74.91	86.52	96.24	1 4 14	2104.8	-26.52	66.43
90.00	16 25 37	4336.43	4.43	179.60	80.31	62.00	17 37 53	3736.4	.65	172.96
100.00	1 49 4	2414.86	-28.98	53.40	86.34	97.69	2 29 18	1814.9	-27.61	44.86
100.00	17 38 24	4101.58	5.58	161.71	79.68	60.58	18 46 46	3501.6	1.62	155.16
110.00	3 16 20	2141.77	-32.37	31.99	85.67	101.63	3 52 2	1541.8	-30.43	23.31
110.00	18 27 36	3947.44	8.52	148.21	77.88	56.77	19 33 24	3347.4	4.09	141.93

DIFFERENTIAL CORRECTIONS
TDE .4771 TRA -.4154 TC3 -.5398 BAU .4473
RDE .6496 RRA -.0911 RC3-1.7052 FAU .08165
FDE 2.1861 FRA -.0626 FC3-3.7783 BSP 5691
BDE .8060 BRA .4253 BC3 1.7886 FSP -1176

MID-COURSE EXECUTION ACCURACY
SGT 971.4 SGR 1712.4 SG3 377.4
RRT .7840 RRF .9793 RTF .8026
SGB 1968.7 R23 .0830 R13 .9774
SG1 1891.5 SG2 545.8 THA 63.66

ORBIT DETERMINATION ACCURACY
ST 654.9 SR 862.5 SS 1140.0
CRT .9752 CRS -.9992 CST -.9674
LSA 1565.6 MSA 146.2 SSA 13.6
EL1 1076.8 EL2 116.0 ALF 52.98

LAUNCH DATE SEP 17 1970 FLIGHT TIME 110.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 313.235

RL	150.36	LAL	-.00	LOL	353.69	VL	27.543	GAL	-6.96	AZL	84.98	HCA	143.65	SMA	131.83	ECC	.18481	INC	5.0166
RP	107.48	LAP	2.97	LOP	137.45	VP	38.247	GAP	-.36	AZP	94.04	TAL	214.03	TAP	357.68	RCA	107.47	APO	156.20
RC	82.739	GL	32.62	GP	-53.42	ZAL	130.27	ZAP	86.75	ETS	359.33	ZAE	123.63	ETE	258.88	ZAC	47.19	ETC	253.90

V1	29.634	V2	35.257	CLP	-84.55														

PLANETOCENTRIC CONIC

C3	19.674	VHL	4.435	DLA	18.01	RAL	222.44	RAD	6567.8	VEL	11.877	PTH	2.11	VHP	4.721	DPA	-65.14	RAP	195.59
ECC	1.3238																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 1 23	2800.11	-28.21	82.41	90.00	92.52	0 48 11	2208.1	-27.57	73.81
90.00	16 55 34	4256.88	1.87	175.15	83.04	61.74	18 6 30	3656.9	-1.92	168.53
100.00	1 33 23	2511.44	-29.65	60.50	89.92	94.01	2 15 14	1911.4	-28.77	51.80
100.00	18 6 15	4028.77	3.13	157.69	82.34	60.26	19 13 24	3428.8	-.85	151.17
110.00	3 4 56	2225.00	-33.34	38.29	89.46	98.02	3 42 1	1625.0	-31.87	29.37
110.00	18 51 11	3887.98	6.29	145.05	80.38	56.33	19 55 59	3288.0	1.82	138.82

DIFFERENTIAL CORRECTIONS

TDE	.6392	TRA	-.4224	TC3	-.7089	BAU	.4763
RDE	.7565	RRA	-.0479	RC3	-1.6663	FAU	.07530
FDE	2.2077	FRA	.0200	FC3	-3.3137	BSP	6218
BDE	.9904	BRA	.4251	BC3	1.8109	FSP	-1113

MID-COURSE EXECUTION ACCURACY

SGT	1185.9	SGR	1773.2	SG3	353.9		
RRT	.8435	RRF	.9818	RTF	.8622		
SGB	2133.2	RZ3	.0981	R13	.9789		
SG1	2061.7	SG2	547.8	THA	58.05		

ORBIT DETERMINATION ACCURACY

ST	843.6	SR	978.4	SS	1163.7
CRT	.9826	CRS	-.9996	CST	-.9783
LSA	1732.4	MSA	147.5	SSA	11.9
EL1	1286.4	EL2	119.2	ALF	49.31

LAUNCH DATE SEP 17 1970 FLIGHT TIME 112.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 319.600

RL	150.36	LAL	-.00	LOL	353.69	VL	27.534	GAL	-6.87	AZL	84.39	HCA	146.88	SMA	131.77	ECC	.18426	INC	5.6053
RP	107.49	LAP	3.06	LOP	140.70	VP	38.239	GAP	.08	AZP	94.70	TAL	213.64	TAP	.52	RCA	107.49	APO	156.05
RC	84.985	GL	35.65	GP	-56.11	ZAL	128.06	ZAP	90.17	ETS	354.49	ZAE	120.50	ETE	253.91	ZAC	44.26	ETC	252.50

V1	29.634	V2	35.255	CLP	-90.30														

PLANETOCENTRIC CONIC

C3	20.985	VHL	4.581	DLA	20.63	RAL	224.20	RAD	6567.9	VEL	11.932	PTH	2.12	VHP	4.953	DPA	-65.99	RAP	188.48
ECC	1.3454																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 35 45	2930.55	-28.25	91.37	94.03	88.03	24 24 36	2330.6	-28.23	82.70
90.00	17 31 21	4165.24	-1.08	170.04	86.52	61.70	18 40 47	3565.2	-4.86	163.40
100.00	1 14 37	2624.40	-29.89	68.88	94.07	89.61	1 58 22	2024.4	-29.62	60.09
100.00	18 39 6	3946.63	.35	153.18	85.72	60.11	19 44 52	3346.6	-3.63	146.65
110.00	2 51 47	2320.41	-34.01	45.86	95.93	93.71	3 30 28	1720.4	-33.12	36.53
110.00	19 18 25	3823.39	3.84	141.66	83.54	56.01	20 22 9	3223.4	-.65	135.45

DIFFERENTIAL CORRECTIONS

TDE	.8395	TRA	-.4195	TC3	-.8505	BAU	.5033
RDE	.8652	RRA	.0079	RC3	-1.5795	FAU	.06769
FDE	2.1972	FRA	.1066	FC3	-2.7924	BSP	6726
BDE	1.2055	BRA	.4196	BC3	1.7939	FSP	-1025

MID-COURSE EXECUTION ACCURACY

SGT	1422.7	SGR	1807.0	SG3	324.6		
RRT	.8783	RRF	.9835	RTF	.8978		
SGB	2299.8	RZ3	.1118	R13	.9797		
SG1	2233.0	SG2	550.4	THA	52.68		

ORBIT DETERMINATION ACCURACY

ST	1063.7	SR	1083.0	SS	1176.6
CRT	.9868	CRS	-.9998	CST	-.9848
LSA	1914.7	MSA	149.6	SSA	10.3
EL1	1512.9	EL2	123.3	ALF	45.52

LAUNCH DATE SEP 17 1970 FLIGHT TIME 114.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 325.935

RL	150.36	LAL	-.00	LOL	353.69	VL	27.521	GAL	-6.78	AZL	83.69	HCA	150.11	SMA	131.67	ECC	.18381	INC	6.3054
RP	107.50	LAP	3.14	LOP	143.95	VP	38.227	GAP	.51	AZP	95.47	TAL	213.16	TAP	3.27	RCA	107.47	APO	155.87
RC	87.241	GL	38.95	GP	-58.87	ZAL	125.54	ZAP	93.12	ETS	349.53	ZAE	117.19	ETE	249.17	ZAC	41.27	ETC	250.90

V1	29.634	V2	35.253	CLP	-96.03														

PLANETOCENTRIC CONIC

C3	22.800	VHL	4.775	DLA	23.44	RAL	226.24	RAD	6567.9	VEL	12.007	PTH	2.14	VHP	5.264	DPA	-66.72	RAP	181.06
ECC	1.3752																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 6 59	3083.07	-27.40	102.44	98.53	82.55	23 58 22	2483.1	-28.15	93.85
90.00	18 16 23	4052.82	-4.70	183.76	91.05	62.04	19 23 56	3452.8	-8.40	157.03
100.00	0 50 41	2761.40	-29.39	79.03	98.79	84.30	1 36 42	2161.4	-29.87	70.26
100.00	19 19 18	3849.72	-2.94	147.86	90.08	60.24	20 23 28	3249.7	-6.88	141.29
110.00	2 35 58	2432.00	-34.16	54.36	99.14	88.56	3 16 30	1832.0	-33.98	45.12
110.00	19 50 30	3751.89	1.11	137.92	87.55	55.83	20 53 2	3151.9	-3.38	131.71

DIFFERENTIAL CORRECTIONS

TDE	1.0864	TRA	-.4034	TC3	-.9529	BAU	.5295
RDE	.9692	RRA	.0729	RC3	-1.4524	FAU	.05955
FDE	2.1490	FRA	.1840	FC3	-2.2612	BSP	7306
BDE	1.4559	BRA	.4099	BC3	1.7371	FSP	-936

MID-COURSE EXECUTION ACCURACY

SGT	1675.1	SGR	1812.6	SG3	291.3		
RRT	.8985	RRF	.9845	RTF	.9206		
SGB	2468.1	RZ3	.1229	R13	.9802		
SG1	2405.0	SG2	554.3	THA	47.51		

ORBIT DETERMINATION ACCURACY

ST	1313.5	SR	1164.0	SS	1173.5
CRT	.9893	CRS	-.9999	CST	-.9889
LSA	2105.8	MSA	151.4	SSA	9.0
EL1	1750.4	EL2	127.2	ALF	41.51

LAUNCH DATE SEP 17 1970 FLIGHT TIME 116.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 332.241

RL	150.36	LAL	-.00	LOL	353.69	VL	27.504	GAL	-6.67	AZL	82.84	HCA	153.35	SMA	131.55	ECC	.18345	INC	7.1575
RP	107.51	LAP	3.21	LOP	147.20	VP	38.211	GAP	.92	AZP	96.40	TAL	212.60	TAP	5.94	RCA	107.42	APO	155.68
RC	89.506	GL	42.51	GP	-61.76	ZAL	122.71	ZAP	95.53	ETS	343.80	ZAE	113.69	ETE	244.55	ZAC	38.16	ETC	249.00

V1	29.634	V2	35.249	CLP	-101.76														

PLANETOCENTRIC CONIC

C3	25.374	VHL	5.037	DLA	26.44	RAL	228.59	RAD	6568.0	VEL	12.114	PTH	2.17	VHP	5.675	DPA	-67.37	RAP	173.16
ECC	1.4176																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 21 21	3298.07	-24.59	117.53	103.08	75.50	23 16 19	2698.1	-26.35	109.30
90.00	19 20 46	3880.23	-9.79	154.53	97.28	63.30	20 25 37	3290.2	-13.30	147.60
100.00	0 16 25	2939.81	-27.49	91.94	103.85	77.77	1 5 25	2339.8	-28.90	83.42
100.00	20 12 20	3723.72	-7.16	140.89	95.87	60.90	21 14 24	3123.7	-10.99	134.19
110.00	2 15 49	2566.23	-33.44	64.77	105.05	82.44	2 58 35	1966.2	-34.12	55.60
110.00	20 29 25	3670.07	-2.02	133.65	92.70	55.87	21 30 36	3070.1	-6.48	127.41

DIFFERENTIAL CORRECTIONS

TDE	1.3955	TRA	-.3879	TC3	-1.0033	BAU	.5507
RDE	1.0697	RRA	.1541	RC3	-1.2782	FAU	.05072
FDE	2.0769	FRA	.2582	FC3	-1.7307	BSP	7838
BDE	1.7583	BRA	.3988	BC3	1.6233	FSP	-828

MID-COURSE EXECUTION ACCURACY

SGT	1939.0	SGR	1780.9	SG3	255.3		
RRT	.9091	RRF	.9845	RTF	.9355		
SGB	2632.7	RZ3	.1342	R13	.9802		
SG1	2572.7	SG2	559.0	THA	42.32		

ORBIT DETERMINATION ACCURACY

ST	1593.8	SR	1218.7	SS	1159.7
CRT	.9907	CRS	-.9999	CST	-.9916
LSA	2312.2	MSA	154.3	SSA	7.7
EL1	2002.0	EL2	132.4	ALF	37.34

LAUNCH DATE SEP 17 1970 FLIGHT TIME 118.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 338.515

RL	150.36	LAL	-.00	LOL	353.69	VL	27.483	GAL	-6.55	AZL	81.78	HCA	156.55	SMA	131.40	ECC	.18316	INC	8.2242
RP	107.52	LAP	3.26	LOP	150.46	VP	38.193	GAP	1.32	AZP	97.55	TAL	211.97	TAP	8.51	RCA	107.34	APO	155.47
RC	91.778	GL	46.34	GP	-64.87	ZAL	119.56	ZAP	97.37	ETS	337.79	ZAE	109.99	ETE	239.89	ZAC	34.85	ETC	246.63

V1	29.634	V2	35.245	CLP	-107.57														

PLANETOCENTRIC CONIC

C3	29.145	VHL	5.399	DLA	29.63	RAL	231.31	RAD	6568.2	VEL	12.269	PTH	2.21	VHP	6.224	DPA	-67.89	RAP	164.56
ECC	1.4796																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.90	19 47 33	3868.64	-18.06	156.97	106.35	66.11	20 52 1	3268.6	-21.14	149.55
99.10	22 16 16	3388.53	-18.05	121.69	106.34	66.10	23 12 44	2788.5	-21.12	114.27
100.00	22 56 41	3259.29	-21.04	113.43	107.68	68.27	23 51 0	2659.3	-23.81	105.73
100.00	21 49 49	3473.12	-15.11	126.54	104.91	63.90	22 47 42	2873.1	-18.50	119.38
110.00	1 47 37	2735.85	-31.19	77.48	111.40	75.25	2 33 12	2135.8	-32.90	68.67
110.00	21 19 18	3569.33	-5.85	128.37	99.50	56.26	22 18 48	2969.3	-10.24	122.04

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.7899	TRA	-.3043	TC3	-.9929	BAU	.5657	SGT	2212.6	SGR	1704.9	SG3	218.1	ST	1903.1	SR	1230.1
RDE	1.1553	RRA	.2527	RC3	-1.0592	FAU	.04171	RRT	.9121	RRF	.9833	RTF	.9460	CRT	.9910	CRS	-.9998
FDE	1.9821	FRA	.3239	FC3	-1.2390	BSP	8344	SGB	2793.3	R23	.1451	R13	.9799	LSA	2528.7	MSA	158.2
BDE	2.1303	BRA	.3955	BC3	1.4518	FSP	-714	SG1	2735.4	SG2	565.4	THA	36.94	EL1	2261.8	EL2	138.7

SS	1133.2				
CST	-.9934				
SSA	6.5				
ALF	32.78				

LAUNCH DATE SEP 17 1970 FLIGHT TIME 120.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 344.754

RL	150.36	LAL	-.00	LOL	353.69	VL	27.460	GAL	-6.42	AZL	80.39	HCA	159.75	SMA	131.24	ECC	.18294	INC	9.6071
RP	107.53	LAP	3.31	LOP	153.71	VP	38.172	GAP	1.70	AZP	99.02	TAL	211.25	TAP	11.01	RCA	107.23	APO	155.24
RC	94.056	GL	50.41	GP	-68.28	ZAL	116.09	ZAP	98.57	ETS	331.02	ZAE	106.01	ETE	234.83	ZAC	31.25	ETC	243.44

V1	29.634	V2	35.240	CLP	-113.74														

PLANETOCENTRIC CONIC

C3	34.920	VHL	5.909	DLA	32.95	RAL	234.46	RAD	6568.4	VEL	12.502	PTH	2.26	VHP	6.970	DPA	-68.19	RAP	154.95
ECC	1.5747																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
72.40	18 59 52	4104.10	-18.52	174.95	113.36	62.25	20 8 16	3504.1	-22.09	167.73
107.60	23 29 5	3244.03	-18.51	111.04	113.35	62.24	24 23 9	2644.0	-22.07	103.82
72.40	18 59 52	4104.10	-18.52	174.95	113.36	62.25	20 8 16	3504.1	-22.09	167.73
107.60	23 29 5	3244.03	-18.51	111.04	113.35	62.24	24 23 9	2644.0	-22.07	103.82
110.00	0 57 19	2984.84	-25.59	94.65	117.01	66.52	1 47 4	2384.8	-28.54	86.71
110.00	22 34 44	3411.29	-11.73	119.91	109.29	57.66	23 31 35	2811.3	-15.91	113.30

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.3079	TRA	-.1985	TC3	-.9169	BAU	.5716	SGT	2496.8	SGR	1567.0	SG3	181.3	ST	2239.0	SR	1170.4
RDE	1.1995	RRA	.3702	RC3	-.8115	FAU	.03287	RRT	.9057	RRF	.9788	RTF	.9543	CRT	.9901	CRS	-.9992
FDE	1.8690	FRA	.3770	FC3	-.8149	BSP	8852	SGB	2947.8	R23	.1552	R13	.9795	LSA	2748.4	MSA	163.1
BDE	2.6010	BRA	.4201	BC3	1.2245	FSP	-600	SG1	2891.5	SG2	573.5	THA	30.97	EL1	2522.2	EL2	146.0

SS	1094.3				
CST	-.9947				
SSA	5.4				
ALF	27.46				

LAUNCH DATE SEP 17 1970 FLIGHT TIME 122.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 350.955

RL	150.36	LAL	-.00	LOL	353.69	VL	27.434	GAL	-6.28	AZL	78.52	HCA	162.94	SMA	131.05	ECC	.18277	INC	11.4827
RP	107.55	LAP	3.35	LOP	156.95	VP	38.148	GAP	2.06	AZP	100.99	TAL	210.47	TAP	13.41	RCA	107.10	APO	155.00
RC	96.339	GL	54.64	GP	-72.08	ZAL	112.32	ZAP	99.10	ETS	322.83	ZAE	101.65	ETE	228.63	ZAC	27.23	ETC	238.70

V1	29.634	V2	35.235	CLP	-120.93														

PLANETOCENTRIC CONIC

C3	44.310	VHL	6.657	DLA	36.31	RAL	238.13	RAD	6568.7	VEL	12.871	PTH	2.34	VHP	8.021	DPA	-68.03	RAP	144.13
ECC	1.7292																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
66.26	18 38 19	4274.04	-18.10	188.03	121.74	57.97	19 49 33	3674.0	-22.20	181.12
113.74	0 23 52	3194.33	-18.08	106.89	121.73	57.97	1 17 6	2594.3	-22.18	99.99
66.26	18 38 19	4274.04	-18.10	188.03	121.74	57.97	19 49 33	3674.0	-22.20	181.12
113.74	0 23 52	3194.33	-18.08	106.89	121.73	57.97	1 17 6	2594.3	-22.18	99.99
66.26	18 38 19	4274.04	-18.10	188.03	121.74	57.97	19 49 33	3674.0	-22.20	181.12
113.74	0 23 52	3194.33	-18.08	106.89	121.73	57.97	1 17 6	2594.3	-22.18	99.99

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	3.0153	TRA	-.0198	TC3	-.7753	BAU	.5616	SGT	2793.2	SGR	1330.8	SG3	146.3	ST	2595.6	SR	988.0
RDE	1.1318	RRA	.5081	RC3	-.5455	FAU	.02440	RRT	.8788	RRF	.9629	RTF	.9622	CRT	.9859	CRS	-.9970
FDE	1.7476	FRA	.4190	FC3	-.4768	BSP	9348	SGB	3094.0	R23	.1644	R13	.9794	LSA	2963.1	MSA	169.5
BDE	3.2207	BRA	.5085	BC3	.9480	FSP	-490	SG1	3038.4	SG2	583.9	THA	23.64	EL1	2772.9	EL2	154.9

SS	1046.6				
CST	-.9958				
SSA	4.4				
ALF	20.64				

LAUNCH DATE SEP 17 1970 FLIGHT TIME 124.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 357.107

RL	150.36	LAL	-.00	LOL	353.69	VL	27.405	GAL	-6.12	AZL	75.81	HCA	166.10	SMA	130.85	ECC	.18263	INC	14.1850
RP	107.57	LAP	3.37	LOP	160.20	VP	38.122	GAP	2.41	AZP	103.79	TAL	209.60	TAP	15.70	RCA	106.95	APO	154.74
RC	98.624	GL	58.82	GP	-76.36	ZAL	108.30	ZAP	98.92	ETS	311.49	ZAE	96.74	ETE	219.42	ZAC	22.57	ETC	230.63

V1	29.634	V2	35.229	CLP	-131.10														

PLANETOCENTRIC CONIC

C3	60.912	VHL	7.805	DLA	39.49	RAL	242.42	RAD	6569.1	VEL	13.501	PTH	2.47	VHP	9.584	DPA	-67.06	RAP	132.16
ECC	2.0025																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.24	18 30 12	4426.31	-16.35	199.27	131.59	53.54	19 43 58	3826.3	-20.98	192.80
118.76	1 6 12	3199.85	-16.33	106.09	131.57	53.53	1 59 32	2599.9	-20.97	99.63
61.24	18 30 12	4426.31	-16.35	199.27	131.59	53.54	19 43 58	3826.3	-20.98	192.80
118.76	1 6 12	3199.85	-16.33	106.09	131.57	53.53	1 59 32	2599.9	-20.97	99.63
61.24	18 30 12	4426.31	-16.35	199.27	131.59	53.54	19 43 58	3826.3	-20.98	192.80
118.76	1 6 12	3199.85	-16.33	106.09	131.57	53.53	1 59 32	2599.9	-20.97	99.63

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	4.0152	TRA	.3040	TC3	-.5729	BAU	.5195	SGT	3093.9	SGR	929.3	SG3	114.7	ST	2949.1	SR	571.2
RDE	.7360	RRA	.6477	RC3	-.2808	FAU	.01641	RRT	.7522	RRF	.8717	RTF	.9716	CRT	.9552	CRS	-.9754
FDE	1.6355	FRA	.4558	FC3	-.2333	BSP	9757	SGB	3230.5	R23	.1709	R13	.9800	LSA	3161.0	MSA	178.3
BDE	4.0821	BRA	.7155	BC3	.6380	FSP	-386	SG1	3174.9	SG2	596.7	THA	13.21	EL1	2999.3	EL2	166.2

SS	1000.1				
CST	-.9969				
SSA	3.4				
ALF	10.51				

LAUNCH DATE SEP 17 1970 FLIGHT TIME 126.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 363.187

```
RL  150.36 LAL   -.00 LOL 353.69 VL  27.374 GAL  -5.94 AZL  71.58 HCA 169.22 SMA 130.63 ECC .18248 INC18.4232 V1  29.634
RP  107.59 LAP   3.39 LOP 163.45 VP  38.093 GAP   2.73 AZP 108.12 TAL 208.64 TAP  17.85 RCA 106.79 APO 154.46 V2  35.222
RC 100.910 GL   62.53 GP  -80.90 ZAL 104.10 ZAP  98.01 ETS 291.68 ZAE  90.92 ETE 201.78 ZAC  16.93 ETC 214.17 CLP-151.80
PLANETOCENTRIC CONIC
C3  94.058 VHL  9.698 DLA  42.05 RAL 247.41 RAD 6569.8 VEL 14.677 PTH   2.66 VHP 12.097 DPA -64.67 RAP 119.63 ECC 2.5480
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.51	18 33 31	4573.20	-12.87	208.99	142.75	49.62	19 49 44	3973.2	-17.96	203.01
122.49	1 42 40	3254.23	-12.85	107.89	142.74	49.61	2 36 55	2654.2	-17.95	101.91
57.51	18 33 31	4573.20	-12.87	208.99	142.75	49.62	19 49 44	3973.2	-17.96	203.01
122.49	1 42 40	3254.23	-12.85	107.89	142.74	49.61	2 36 55	2654.2	-17.95	101.91
57.51	18 33 31	4573.20	-12.87	208.99	142.75	49.62	19 49 44	3973.2	-17.96	203.01
122.49	1 42 40	3254.23	-12.85	107.89	142.74	49.61	2 36 55	2654.2	-17.95	101.91

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 5.3095 TRA  .9412 TC3 -.3203 BAU  .4095   SGT 3284.1 SGR  685.9 SG3   88.0     ST  3144.8 SR   453.9 SS   974.4
RDE -.7258 RRA  .6241 RC3 -.0588 FAU .00884   RRT -.4126 RRF -.2669 RTF  .9851     CRT -.9187 CRS  .8948 CST -.9984
FDE 1.5651 FRA  .4997 FC3 -.0814 BSP  10096   SGB 3351.0 R23 -.1688 R13 -.9826     LSA 3318.2 MSA  187.5 SSA    2.4
BDE 5.3588 BRA 1.1293 BC3  .3256 FSP   -295   SG1 3296.0 SG2  604.4 THA 175.05     EL1 3172.4 EL2  177.7 ALF 172.42
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LAUNCH DATE SEP 17 1970 FLIGHT TIME 128.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 369.138

```
RL  150.36 LAL   -.00 LOL 353.69 VL  27.341 GAL  -5.74 AZL  64.04 HCA 172.23 SMA 130.40 ECC .18221 INC25.9623 V1  29.634
RP  107.61 LAP   3.39 LOP 166.70 VP  38.062 GAP   3.01 AZP 115.75 TAL 207.54 TAP  19.77 RCA 106.64 APO 154.16 V2  35.215
RC 103.196 GL   64.64 GP  -82.74 ZAL  99.88 ZAP  96.42 ETS 250.84 ZAE  83.34 ETE 163.03 ZAC   9.52 ETC 179.05 CLP 152.34
PLANETOCENTRIC CONIC
C3 173.697 VHL 13.179 DLA  42.95 RAL 253.02 RAD 6570.9 VEL 17.176 PTH   2.94 VHP 16.640 DPA -59.77 RAP 107.60 ECC 3.8586
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.25	18 50 39	4706.27	-7.69	216.08	154.70	47.61	20 9 6	4106.3	-13.04	210.44
123.75	2 10 19	3358.78	-7.68	112.46	154.68	47.61	3 6 18	2758.8	-13.02	106.83
56.25	18 50 39	4706.27	-7.69	216.08	154.70	47.61	20 9 6	4106.3	-13.04	210.44
123.75	2 10 19	3358.78	-7.68	112.46	154.68	47.61	3 6 18	2758.8	-13.02	106.83
56.25	18 50 39	4706.27	-7.69	216.08	154.70	47.61	20 9 6	4106.3	-13.04	210.44
123.75	2 10 19	3358.78	-7.68	112.46	154.68	47.61	3 6 18	2758.8	-13.02	106.83

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 5.4200 TRA 1.9163 TC3 -.0595 BAU  .1380   SGT 2621.7 SGR 2223.7 SG3   67.8     ST  2381.2 SR  2207.6 SS  1019.1
RDE-5.0743 RRA -.4715 RC3 -.0029 FAU .00049   RRT -.9462 RRF -.9432 RTF  .9986     CRT -.9944 CRS  .9938 CST-1.0000
FDE 1.6124 FRA  .5917 FC3 -.0024 BSP  10374   SGB 3437.8 R23 -.1412 R13 -.9885     LSA 3398.5 MSA  179.2 SSA    1.7
BDE 7.4292 BRA 1.9734 BC3  .0594 FSP   -226   SG1 3392.5 SG2  556.2 THA 139.96     EL1 3242.6 EL2  171.3 ALF 137.18
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LAUNCH DATE SEP 17 1970 FLIGHT TIME 130.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 374.763

```
RL  150.36 LAL   -.00 LOL 353.69 VL  27.306 GAL  -5.46 AZL  47.86 HCA 174.95 SMA 130.15 ECC .18151 INC42.1363 V1  29.634
RP  107.64 LAP   3.39 LOP 169.94 VP  38.030 GAP   3.20 AZP 132.03 TAL 206.17 TAP  21.11 RCA 106.53 APO 153.78 V2  35.207
RC 105.482 GL   61.97 GP  -74.16 ZAL  95.91 ZAP  94.30 ETS 206.22 ZAE  71.50 ETE 120.39 ZAC   3.11 ETC 264.81 CLP 105.95
PLANETOCENTRIC CONIC
C3 426.841 VHL 20.660 DLA  39.27 RAL 258.62 RAD 6572.2 VEL 23.412 PTH   3.29 VHP 26.317 DPA -49.71 RAP  97.39 ECC 8.0247
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.57	19 36 20	4756.89	-2.20	215.67	165.95	50.78	20 55 37	4156.9	-7.23	209.85
118.43	2 9 18	3539.12	-2.18	123.22	165.94	50.78	3 8 17	2939.1	-7.22	117.40
61.57	19 36 20	4756.89	-2.20	215.67	165.95	50.78	20 55 37	4156.9	-7.23	209.85
118.43	2 9 18	3539.12	-2.18	123.22	165.94	50.78	3 8 17	2939.1	-7.22	117.40
61.57	19 36 20	4756.89	-2.20	215.67	165.95	50.78	20 55 37	4156.9	-7.23	209.85
118.43	2 9 18	3539.12	-2.18	123.22	165.94	50.78	3 8 17	2939.1	-7.22	117.40

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.0518 TRA 1.8456 TC3 -.0108 BAU  .8954   SGT  724.0 SGR 3349.1 SG3   55.4     ST   352.7 SR  3060.1 SS  1253.9
RD-10.9502 RRA-3.5048 RC3 -.1565 FAU-.01523   RRT -.6957 RRF -.9915 RTF  .7778     CRT -.8898 CRS  .9988 CST -.9109
FDE 1.9591 FRA  .8785 FC3  .0309 BSP  10053   SGB 3426.5 R23 -.0994 R13 -.9941     LSA 3321.5 MSA  167.8 SSA    1.8
BDE11.0006 BRA 3.9611 BC3  .1569 FSP   -175   SG1 3387.7 SG2  514.2 THA  98.76     EL1 3076.2 EL2  160.1 ALF  95.87
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LAUNCH DATE SEP 17 1970 FLIGHT TIME 132.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 379.235

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RL  150.36 LAL   -.00 LOL 353.69 VL  27.270 GAL  -4.95 AZL   8.57 HCA 176.59 SMA 129.90 ECC .17910 INC81.4288 V1  29.634
RP  107.66 LAP   3.37 LOP 173.18 VP  37.996 GAP   3.07 AZP 171.42 TAL 203.86 TAP  20.46 RCA 106.63 APO 153.16 V2  35.198
RC 107.765 GL   46.32 GP  -51.95 ZAL  92.91 ZAP  92.26 ETS 188.22 ZAE  48.79 ETE 105.16 ZAC  25.24 ETC 278.05 CLP  93.66
PLANETOCENTRIC CONIC
C31379.651 VHL 37.144 DLA  23.17 RAL 262.12 RAD 6573.1 VEL 38.742 PTH   3.55 VHP 47.590 DPA -27.77 RAP  90.72 ECC23.7056
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 30 0	3718.80	-14.84	144.47	180.09	65.60	2 39 59	3118.8	-18.01	137.23
90.00	20 35 33	4716.48	15.89	201.63	166.58	66.25	21 54 9	4116.5	12.54	194.55
100.00	3 17 10	3399.04	-17.28	122.10	181.25	65.22	4 13 49	2799.0	-20.48	114.77
100.00	21 39 3	4511.48	18.34	185.43	165.45	65.97	22 54 15	3911.5	14.94	178.29
110.00	5 1 32	3072.53	-23.09	100.24	184.18	64.06	5 52 45	2472.5	-26.38	92.62
110.00	22 11 11	4410.75	24.19	174.94	162.59	65.08	23 24 42	3810.7	20.63	167.61

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-4.4431 TRA  .9547 TC3 -.0755 BAU 3.9669   SGT  900.1 SGR 2823.1 SG3   50.8     ST   687.3 SR  2048.0 SS  1690.2
RD-13.0304 RRA-7.7526 RC3 -.2014 FAU-.06682   RRT  .7904 RRF -.9986 RTF -.7594     CRT  .9660 CRS  .9996 CST  .9587
FDE 2.6007 FRA 1.7701 FC3  .0419 BSP   8285   SGB 2963.1 R23 -.0966 R13 -.9951     LSA 2736.8 MSA  182.8 SSA    1.5
BDE13.7671 BRA 7.8112 BC3  .2151 FSP   -151   SG1 2914.6 SG2  534.0 THA  75.35     EL1 2153.6 EL2  169.1 ALF  71.92
```

LAUNCH DATE SEP 17 1970 FLIGHT TIME 134.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 390.073

```
RL  150.36 LAL   -.00 LOL 353.69 VL  27.232 GAL  -5.70 AZL 140.78 HCA 184.32 SMA 129.64 ECC .18755 INC50.7767 V1  29.634
RP  107.69 LAP   3.34 LOP 176.43 VP  37.960 GAP   4.70 AZP  79.30 TAL 206.29 TAP  30.61 RCA 105.32 APO 153.95 V2  35.189
RC 110.046 GL  -58.84 GP   68.05 ZAL  95.23 ZAP  95.30 ETS 175.43 ZAE  72.88 ETE 258.71 ZAC 145.27 ETC 275.36 CLP 104.32
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PLANETOCENTRIC CONIC

```
C3 601.786 VHL 24.531 DLA -79.27 RAL 218.11 RAD 6572.5 VEL 26.890 PTH   3.39 VHP 31.827 DPA  87.16 RAP 251.26 ECC10.9039
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
12.21	2 35 31	2429.84	1.53	83.15	127.81	169.27	3 16 1	1829.8	9.39	82.07
167.79	13 46 53	633.84	1.54	282.38	127.83	169.27	13 57 27	33.8	9.40	281.29
12.21	2 35 31	2429.84	1.53	83.15	127.81	169.27	3 16 1	1829.8	9.39	82.07
167.79	13 46 53	633.84	1.54	282.38	127.83	169.27	13 57 27	33.8	9.40	281.29
12.21	2 35 31	2429.84	1.53	83.15	127.81	169.27	3 16 1	1829.8	9.39	82.07
167.79	13 46 53	633.84	1.54	282.38	127.83	169.27	13 57 27	33.8	9.40	281.29

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 3.1566 TRA  .6240 TC3 -.0693 BAU 1.6519   SGT 1127.8 SGR 3312.9 SG3   57.4     ST   773.8 SR  3002.4 SS  1699.7
 RD-12.7790 RRA -.8613 RC3  .1933 FAU-.02326   RRT -.9016 RRF  .9981 RTF -.8784    CRT -.9800 CRS -.9999 CST  .9768
 FDE-2.6350 FRA -.1518 FC3  .0335 BSP  10943   SGB 3499.6 R23 -.0917 R13  .9952    LSA 3532.4 MSA  154.9 SSA    1.8
 BDE13.1630 BRA 1.0636 BC3  .2053 FSP   -184   SG1 3468.4 SG2  465.9 THA 107.39    EL1 3096.9 EL2  149.2 ALF 104.21
```

LAUNCH DATE SEP 17 1970 FLIGHT TIME 136.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 395.424

```
RL  150.36 LAL   -.00 LOL 353.69 VL  27.192 GAL  -5.35 AZL 119.03 HCA 186.82 SMA 129.37 ECC .18658 INC29.0255 V1  29.634
RP  107.72 LAP   3.30 LOP 179.67 VP  37.923 GAP   4.80 AZP  61.15 TAL 204.66 TAP  31.48 RCA 105.23 APO 153.50 V2  35.179
RC 112.324 GL  -64.36 GP   78.51 ZAL  98.15 ZAP  99.05 ETS 138.01 ZAE  87.51 ETE 221.60 ZAC 157.91 ETC 252.68 CLP 142.14
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PLANETOCENTRIC CONIC

```
C3 212.311 VHL 14.571 DLA -79.29 RAL 179.95 RAD 6571.2 VEL 18.266 PTH   3.03 VHP 19.065 DPA  71.97 RAP 251.19 ECC 4.4941
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
12.19	0 3 16	2318.32	8.99	82.21	88.23	169.16	0 41 55	1718.3	16.85	81.06
167.81	11 14 44	5810.29	9.00	259.31	88.25	169.16	12 51 34	5210.3	16.85	258.16
12.19	0 3 16	2318.32	8.99	82.21	88.23	169.16	0 41 55	1718.3	16.85	81.06
167.81	11 14 44	5810.29	9.00	259.31	88.25	169.16	12 51 34	5210.3	16.85	258.16
12.19	0 3 16	2318.32	8.99	82.21	88.23	169.16	0 41 55	1718.3	16.85	81.06
167.81	11 14 44	5810.29	9.00	259.31	88.25	169.16	12 51 34	5210.3	16.85	258.16

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-2.6920 TRA -.5084 TC3 -.0083 BAU  .1292   SGT 1509.4 SGR 3485.5 SG3   70.2     ST  1106.6 SR  1733.4 SS   809.8
 RDE-3.6871 RRA-1.4967 RC3  .0447 FAU .00172   RRT  .9387 RRF  .9861 RTF  .9814    CRT  .9599 CRS -.9881 CST -.9915
 FDE-1.1385 FRA -.3201 FC3 -.0070 BSP  11668   SGB 3798.3 R23 -.1093 R13  .9933    LSA 2193.8 MSA  269.4 SSA    1.4
 BDE 4.5652 BRA 1.5807 BC3  .0455 FSP   -223   SG1 3767.7 SG2  481.5 THA  67.49    EL1 2039.6 EL2  263.7 ALF  57.90
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LAUNCH DATE SEP 17 1970 FLIGHT TIME 138.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 401.209

```
RL  150.36 LAL   -.00 LOL 353.69 VL  27.152 GAL  -5.09 AZL 109.56 HCA 189.76 SMA 129.09 ECC .18654 INC19.5633 V1  29.634
RP  107.75 LAP   3.26 LOP 182.90 VP  37.884 GAP   5.03 AZP  70.70 TAL 203.30 TAP  33.06 RCA 105.01 APO 153.17 V2  35.169
RC 114.599 GL  -63.19 GP   76.48 ZAL 101.00 ZAP 103.49 ETS  78.94 ZAE  96.15 ETE 163.19 ZAC 162.26 ETC 216.56 CLP-175.72
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PLANETOCENTRIC CONIC

```
C3 102.955 VHL 10.147 DLA -76.43 RAL 179.59 RAD 6570.0 VEL 14.977 PTH   2.70 VHP 13.443 DPA  62.29 RAP 247.80 ECC 2.6944
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
15.46	0 8 19	2182.14	17.56	78.49	85.20	165.76	0 44 41	1582.1	25.30	76.73
164.54	11 6 49	5684.13	17.57	258.80	85.22	165.75	12 41 33	5084.1	25.31	257.04
15.46	0 8 19	2182.14	17.56	78.49	85.20	165.76	0 44 41	1582.1	25.30	76.73
164.54	11 6 49	5684.13	17.57	258.80	85.22	165.75	12 41 33	5084.1	25.31	257.04
15.46	0 8 19	2182.14	17.56	78.49	85.20	165.76	0 44 41	1582.1	25.30	76.73
164.54	11 6 49	5684.13	17.57	258.80	85.22	165.75	12 41 33	5084.1	25.31	257.04

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-2.9663 TRA-1.4382 TC3 -.2755 BAU  .3793   SGT 3886.2 SGR  675.0 SG3   91.2     ST  1970.9 SR   354.3 SS   722.5
 RDE  .5397 RRA -.2502 RC3 -.0048 FAU .01331   RRT  .6022 RRF  .4895 RTF  .9892    CRT -.4624 CRS  .5704 CST -.9920
 FDE-1.0018 FRA -.3581 FC3 -.1119 BSP  12199   SGB 3944.4 R23 -.1474 R13  .9871    LSA 2104.3 MSA  322.2 SSA    2.1
 BDE 3.0150 BRA 1.4598 BC3  .2756 FSP   -294   SG1 3907.8 SG2  535.9 THA   6.09    EL1 1977.9 EL2  313.0 ALF 175.13
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LAUNCH DATE SEP 17 1970 FLIGHT TIME 140.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 407.122

```
RL  150.36 LAL   -.00 LOL 353.69 VL  27.111 GAL  -4.84 AZL 104.53 HCA 192.84 SMA 128.81 ECC .18685 INC14.5256 V1  29.634
RP  107.79 LAP   3.20 LOP 186.14 VP  37.845 GAP   5.29 AZP  75.82 TAL 202.01 TAP  34.86 RCA 104.74 APO 152.88 V2  35.158
RC 116.871 GL  -59.91 GP   70.62 ZAL 103.41 ZAP 108.19 ETS  61.65 ZAE 102.40 ETE 147.13 ZAC 161.73 ETC 222.01 CLP-160.19
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PLANETOCENTRIC CONIC

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C3  61.316 VHL  7.830 DLA -73.62 RAL 187.67 RAD 6569.1 VEL 13.516 PTH   2.47 VHP 10.555 DPA  54.58 RAP 245.14 ECC 2.0091
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.68	0 47 3	2057.48	25.01	73.87	89.77	161.87	1 21 20	1457.5	32.58	71.34
161.32	11 32 29	5571.89	25.02	257.41	89.80	161.87	13 5 21	4971.9	32.59	254.88
18.68	0 47 3	2057.48	25.01	73.87	89.77	161.87	1 21 20	1457.5	32.58	71.34
161.32	11 32 29	5571.89	25.02	257.41	89.80	161.87	13 5 21	4971.9	32.59	254.88
18.68	0 47 3	2057.48	25.01	73.87	89.77	161.87	1 21 20	1457.5	32.58	71.34
161.32	11 32 29	5571.89	25.02	257.41	89.80	161.87	13 5 21	4971.9	32.59	254.88

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-2.5820 TRA-1.2741 TC3 -.6869 BAU  .5761   SGT 3950.5 SGR  901.0 SG3  117.1     ST  2121.2 SR   815.5 SS   812.9
 RDE 1.1067 RRA  .1231 RC3  .1484 FAU .02201   RRT -.7935 RRF -.8992 RTF  .9750    CRT -.9327 CRS  .9791 CST -.9866
 FDE-1.1552 FRA -.3629 FC3 -.3108 BSP  12590   SGB 4051.9 R23  .1820 R13 -.9798    LSA 2395.9 MSA  291.2 SSA    2.9
 BDE 2.7908 BRA 1.2801 BC3  .7028 FSP   -381   SG1 4015.9 SG2  539.4 THA 169.55    EL1 2255.6 EL2  276.6 ALF 159.96
```

LAUNCH DATE SEP 17 1970 FLIGHT TIME 142.00 ARRIVAL DATE FEB 6 1971

HELIOCENTRIC CONIC DISTANCE 413.078

RL	150.36	LAL	-.00	LOL	353.69	VL	27.069	GAL	-4.60	AZL	101.43	HCA	195.98	SHA	128.52	ECC	.18735	INC	11.4265
RP	107.82	LAP	3.13	LOP	189.37	VP	37.804	GAP	5.56	AZP	79.00	TAL	200.74	TAP	36.71	RCA	104.45	APO	152.60
RC	119.138	GL	-55.98	GP	64.55	ZAL	105.27	ZAP	112.92	ETS	56.32	ZAE	107.33	ETE	143.58	ZAC	158.66	ETC	232.43

V1	29.634	V2	35.147	CLP	-155.01														

PLANETOCENTRIC CONIC

C3	41.592	VHL	6.449	DLA	-70.75	RAL	196.54	RAD	6568.6	VEL	12.766	PTH	2.32	VHP	8.890	DPA	47.84	RAP	243.23
ECC	1.6845																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.99	1 29 22	1953.26	30.68	68.50	94.58	157.46	2 1 55	1353.3	38.01	65.04
158.01	12 1 0	5483.21	30.69	255.43	94.60	157.46	13 32 23	4883.2	38.02	251.97
21.99	1 29 22	1953.26	30.68	68.50	94.58	157.46	2 1 55	1353.3	38.01	65.04
158.01	12 1 0	5483.21	30.69	255.43	94.60	157.46	13 32 23	4883.2	38.02	251.97
21.99	1 29 22	1953.26	30.68	68.50	94.58	157.46	2 1 55	1353.3	38.01	65.04
158.01	12 1 0	5483.21	30.69	255.43	94.60	157.46	13 32 23	4883.2	38.02	251.97

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.4345	TRA	-1.1047	TC3	-1.1768	BAU	.6775	SGT	3980.9	SGR	1139.9	SG3	144.9	ST	2340.5	SR	985.9	SS	913.5
RDE	1.1004	RRA	.1566	RC3	.3154	FAU	.02952	RRT	-.8790	RRF	-.9634	RTF	.9652	CRT	-.9656	CRS	.9944	CST	-.9876
FDE	-1.3019	FRA	-.3411	FC3	-.6144	BSP	12886	SGB	4140.9	RZ3	.2093	R13	-.9726	LSA	2686.6	NSA	258.1	SSA	3.7
BDE	2.6717	BRA	1.1157	BC3	1.2184	FSP	-473	SG1	4107.2	SG2	526.8	THA	165.63	EL1	2528.6	EL2	237.1	ALF	157.66

LAUNCH DATE SEP 17 1970 FLIGHT TIME 144.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 419.048

RL	150.36	LAL	-.00	LOL	353.69	VL	27.026	GAL	-4.35	AZL	99.33	HCA	199.14	SHA	128.24	ECC	.18799	INC	9.3279
RP	107.86	LAP	3.05	LOP	192.60	VP	37.763	GAP	5.84	AZP	81.18	TAL	199.45	TAP	38.59	RCA	104.13	APO	152.34
RC	121.402	GL	-51.91	GP	58.86	ZAL	106.52	ZAP	117.52	ETS	54.04	ZAE	111.32	ETE	143.52	ZAC	154.70	ETC	239.90

V1	29.634	V2	35.136	CLP	-153.32														

PLANETOCENTRIC CONIC

C3	30.804	VHL	5.550	DLA	-67.83	RAL	204.68	RAD	6568.2	VEL	12.336	PTH	2.22	VHP	7.861	DPA	41.76	RAP	241.96
ECC	1.5070																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
25.38	2 9 8	1867.95	34.65	62.62	98.31	152.70	2 40 16	1267.9	41.66	58.14
154.62	12 26 6	5416.99	34.65	253.15	98.33	152.70	13 56 23	4817.0	41.67	248.66
25.38	2 9 8	1867.95	34.65	62.62	98.31	152.70	2 40 16	1267.9	41.66	58.14
154.62	12 26 6	5416.99	34.65	253.15	98.33	152.70	13 56 23	4817.0	41.67	248.66
25.38	2 9 8	1867.95	34.65	62.62	98.31	152.70	2 40 16	1267.9	41.66	58.14
154.62	12 26 6	5416.99	34.65	253.15	98.33	152.70	13 56 23	4817.0	41.67	248.66

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.3249	TRA	-.9800	TC3	-1.7322	BAU	.7381	SGT	4044.4	SGR	1184.6	SG3	171.0	ST	2526.8	SR	1020.0	SS	982.2
RDE	.9831	RRA	.1221	RC3	.4606	FAU	.03582	RRT	-.8980	RRF	-.9745	RTF	.9577	CRT	-.9761	CRS	.9977	CST	-.9887
FDE	-1.3811	FRA	-.2918	FC3	-1.0067	BSP	13075	SGB	4214.3	RZ3	.2302	R13	-.9656	LSA	2887.0	NSA	234.0	SSA	4.6
BDE	2.5242	BRA	.9677	BC3	1.7924	FSP	-555	SG1	4183.7	SG2	506.4	THA	165.06	EL1	2717.1	EL2	205.9	ALF	158.36

LAUNCH DATE SEP 17 1970 FLIGHT TIME 146.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 425.016

RL	150.36	LAL	-.00	LOL	353.69	VL	26.982	GAL	-4.10	AZL	97.81	HCA	202.32	SHA	127.95	ECC	.18876	INC	7.8081
RP	107.89	LAP	2.96	LOP	195.83	VP	37.721	GAP	6.11	AZP	82.77	TAL	198.14	TAP	40.46	RCA	103.79	APO	152.10
RC	123.660	GL	-47.89	GP	53.66	ZAL	107.19	ZAP	121.89	ETS	52.78	ZAE	114.57	ETE	144.78	ZAC	150.62	ETC	244.86

V1	29.634	V2	35.124	CLP	-153.07														

PLANETOCENTRIC CONIC

C3	24.289	VHL	4.928	DLA	-64.92	RAL	211.90	RAD	6568.0	VEL	12.069	PTH	2.16	VHP	7.199	DPA	36.24	RAP	241.21
ECC	1.3997																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.78	2 45 38	1797.56	37.21	56.53	101.08	147.85	3 15 35	1197.6	43.85	51.05
151.22	12 47 15	5369.24	37.22	250.81	101.09	147.84	14 16 44	4769.2	43.85	245.33
28.78	2 45 38	1797.56	37.21	56.53	101.08	147.85	3 15 35	1197.6	43.85	51.05
151.22	12 47 15	5369.24	37.22	250.81	101.09	147.84	14 16 44	4769.2	43.85	245.33
28.78	2 45 38	1797.56	37.21	56.53	101.08	147.85	3 15 35	1197.6	43.85	51.05
151.22	12 47 15	5369.24	37.22	250.81	101.09	147.84	14 16 44	4769.2	43.85	245.33

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.2155	TRA	-.8417	TC3	-2.3534	BAU	.7875	SGT	4164.8	SGR	1172.0	SG3	196.6	ST	2668.0	SR	996.4	SS	1022.1
RDE	.8549	RRA	.0834	RC3	.5858	FAU	.04137	RRT	-.9071	RRF	-.9772	RTF	.9540	CRT	-.9813	CRS	.9988	CST	-.9893
FDE	-1.4033	FRA	-.2317	FC3	-1.4747	BSP	13584	SGB	4326.6	RZ3	.2382	R13	-.9612	LSA	3018.2	NSA	215.4	SSA	5.6
BDE	2.3747	BRA	.8458	BC3	2.4252	FSP	-649	SG1	4300.1	SG2	477.9	THA	165.50	EL1	2842.3	EL2	180.2	ALF	159.79

LAUNCH DATE SEP 17 1970 FLIGHT TIME 148.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 430.980

RL	150.36	LAL	-.00	LOL	353.69	VL	26.938	GAL	-3.84	AZL	96.65	HCA	205.51	SHA	127.65	ECC	.18965	INC	6.6517
RP	107.93	LAP	2.86	LOP	199.05	VP	37.678	GAP	6.39	AZP	83.99	TAL	196.82	TAP	42.33	RCA	103.44	APO	151.86
RC	125.912	GL	-44.03	GP	48.98	ZAL	107.28	ZAP	125.96	ETS	51.92	ZAE	117.19	ETE	146.60	ZAC	146.75	ETC	248.25

V1	29.634	V2	35.112	CLP	-153.48														

PLANETOCENTRIC CONIC

C3	20.067	VHL	4.480	DLA	-62.08	RAL	218.37	RAD	6567.8	VEL	11.893	PTH	2.11	VHP	6.767	DPA	31.25	RAP	240.90
ECC	1.3303																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.13	3 19 23	1738.34	38.69	50.48	103.24	143.13	3 48 21	1138.3	44.91	44.13
147.87	13 5 9	5336.05	38.70	248.63	103.26	143.13	14 34 5	4736.1	44.92	242.27
32.13	3 19 23	1738.34	38.69	50.48	103.24	143.13	3 48 21	1138.3	44.91	44.13
147.87	13 5 9	5336.05	38.70	248.63	103.26	143.13	14 34 5	4736.1	44.92	242.27
32.13	3 19 23	1738.34	38.69	50.48	103.24	143.13	3 48 21	1138.3	44.91	44.13
147.87	13 5 9	5336.05	38.70	248.63	103.26	143.13	14 34 5	4736.1	44.92	242.27

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.0848	TRA	-.7184	TC3	-2.9819	BAU	.8197	SGT	4251.6	SGR	1112.4	SG3	215.3	ST	2731.6	SR	932.7	SS	1018.3
RDE	.7287	RRA	.0399	RC3	.6669	FAU	.04509	RRT	-.9080	RRF	-.9751	RTF	.9495	CRT	-.9835	CRS	.9994	CST	-.9890
FDE	-1.3578	FRA	-.1444	FC3	-1.8455	BSP	13735	SGB	4394.8	RZ3	.2459	R13	-.9559	LSA	3054.0	NSA	202.5	SSA	6.8
BDE	2.2085	BRA	.7175	BC3	3.0555	FSP	-704	SG1	4371.3	SG2	453.2	THA	166.49	EL1	2882.0	EL2	159.9	ALF	161.38

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LAUNCH DATE  SEP 17 1970                          FLIGHT TIME 150.00                          ARRIVAL DATE  FEB 14 1971

 HELIOCENTRIC CONIC                                DISTANCE 436.933
  RL  150.36 LAL   -.00 LOL 353.69 VL  26.894 GAL  -3.57 AZL  95.74 HCA 208.70 SMA 127.36 ECC .19065 INC 5.7378 V1  29.634
  RP  107.97 LAP   2.75 LOP 202.27 VP  37.635 GAP   6.67 AZP  84.96 TAL 195.47 TAP  44.17 RCA 103.08 APO 151.64 V2  35.099
  RC 128.158 GL  -40.34 GP   44.81 ZAL 106.84 ZAP 129.71 ETS  51.25 ZAE 119.28 ETE 148.64 ZAC 143.20 ETC 250.68 CLP-154.22
 PLANETOCENTRIC CONIC
  C3  17.187 VHL  4.146 DLA -59.32 RAL 224.28 RAD 6567.7 VEL 11.772 PTH   2.08 VHP  6.486 DPA  26.74 RAP 240.95 ECC 1.2829
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     35.42     3 51  6   1687.27      39.36      44.65     105.14      138.71    4 19 13    1087.3      45.14      37.58
    144.58    13 20 32   5314.43      39.37     246.77     105.16      138.70   14 49  6    4714.4      45.15     239.70
     35.42     3 51  6   1687.27      39.36      44.65     105.14      138.71    4 19 13    1087.3      45.14      37.58
    144.58    13 20 32   5314.43      39.37     246.77     105.16      138.70   14 49  6    4714.4      45.15     239.70
     35.42     3 51  6   1687.27      39.36      44.65     105.14      138.71    4 19 13    1087.3      45.14      37.58
    144.58    13 20 32   5314.43      39.37     246.77     105.16      138.70   14 49  6    4714.4      45.15     239.70
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
  TDE-1.9568 TRA -.5973 TC3-3.6253 BAU  .8494      SGT 4355.1 SGR 1048.6 SG3  230.4          ST  2749.1 SR   861.5 SS   990.1
  RDE  .6232 RRA  .0045 RC3  .7213 FAU .04775      RRT -.9080 RRF -.9707 RTF  .9465          CRT -.9850 CRS  .9997 CST -.9882
  FDE-1.2773 FRA -.0514 FC3-2.4054 BSP  14020      SGB 4479.6 RZ3  .2454 RI3 -.9520          LSA 3040.2 MSA  192.2 SSA    8.1
  BDE 2.0537 BRA  .5974 BC3 3.6964 FSP   -754      SG1 4459.0 SG2  429.2 THA 167.55          EL1 2877.4 EL2  142.2 ALF 162.80

LAUNCH DATE  SEP 17 1970                          FLIGHT TIME 152.00                          ARRIVAL DATE  FEB 16 1971

 HELIOCENTRIC CONIC                                DISTANCE 442.873
  RL  150.36 LAL   -.00 LOL 353.69 VL  26.849 GAL  -3.29 AZL  94.99 HCA 211.90 SMA 127.07 ECC .19176 INC 4.9935 V1  29.634
  RP  108.01 LAP   2.64 LOP 205.49 VP  37.591 GAP   6.94 AZP  85.76 TAL 194.10 TAP  46.00 RCA 102.70 APO 151.43 V2  35.086
  RC 130.397 GL  -36.83 GP   41.10 ZAL 105.91 ZAP 133.14 ETS  50.69 ZAE 120.93 ETE 150.72 ZAC 140.01 ETC 252.51 CLP-155.14
 PLANETOCENTRIC CONIC
  C3  15.151 VHL  3.892 DLA -56.65 RAL 229.76 RAD 6567.6 VEL 11.685 PTH   2.06 VHP  6.309 DPA  22.69 RAP 241.31 ECC 1.2493
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     38.64     4 21 29   1641.99      39.41      39.09     107.02      134.64    4 48 51    1042.0      44.77      31.49
    141.36    13 33 55   5302.30      39.42     245.33     107.03      134.63   15  2 17    4702.3      44.78     237.72
     38.64     4 21 29   1641.99      39.41      39.09     107.02      134.64    4 48 51    1042.0      44.77      31.49
    141.36    13 33 55   5302.30      39.42     245.33     107.03      134.63   15  2 17    4702.3      44.78     237.72
     38.64     4 21 29   1641.99      39.41      39.09     107.02      134.64    4 48 51    1042.0      44.77      31.49
    141.36    13 33 55   5302.30      39.42     245.33     107.03      134.63   15  2 17    4702.3      44.78     237.72
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
  TDE-1.8292 TRA -.4779 TC3-4.2594 BAU  .8760      SGT 4459.0 SGR  984.3 SG3  241.4          ST  2721.6 SR   790.0 SS   940.7
  RDE  .5364 RRA -.0247 RC3  .7501 FAU .04933      RRT -.9063 RRF -.9641 RTF  .9444          CRT -.9860 CRS  .9999 CST -.9868
  FDE-1.1713 FRA  .0454 FC3-2.8189 BSP  14316      SGB 4566.4 RZ3  .2389 RI3 -.9489          LSA 2980.3 MSA  183.6 SSA    9.6
  BDE 1.9062 BRA  .4786 BC3 4.3250 FSP   -791      SG1 4548.1 SG2  407.9 THA 168.59          EL1 2831.1 EL2  126.5 ALF 163.99

LAUNCH DATE  SEP 17 1970                          FLIGHT TIME 154.00                          ARRIVAL DATE  FEB 18 1971

 HELIOCENTRIC CONIC                                DISTANCE 448.799
  RL  150.36 LAL   -.00 LOL 353.69 VL  26.804 GAL  -3.00 AZL  94.37 HCA 215.09 SMA 126.77 ECC .19300 INC 4.3723 V1  29.634
  RP  108.05 LAP   2.51 LOP 208.71 VP  37.547 GAP   7.21 AZP  86.42 TAL 192.72 TAP  47.81 RCA 102.31 APO 151.24 V2  35.074
  RC 132.627 GL  -33.49 GP   37.82 ZAL 104.55 ZAP 136.26 ETS  50.21 ZAE 122.22 ETE 152.73 ZAC 137.19 ETC 253.95 CLP-156.15
 PLANETOCENTRIC CONIC
  C3  13.677 VHL  3.698 DLA -54.07 RAL 234.94 RAD 6567.5 VEL 11.622 PTH   2.04 VHP  6.205 DPA  19.04 RAP 241.92 ECC 1.2251
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     41.80     4 50 57   1600.83      39.00      33.85     108.99      130.97    5 17 38    1000.8      43.96      25.87
    138.20    13 45 44   5298.11      39.01     244.36     109.00      130.96   15 14  2    4698.1      43.97     236.38
     41.80     4 50 57   1600.83      39.00      33.85     108.99      130.97    5 17 38    1000.8      43.96      25.87
    138.20    13 45 44   5298.11      39.01     244.36     109.00      130.96   15 14  2    4698.1      43.97     236.38
     41.80     4 50 57   1600.83      39.00      33.85     108.99      130.97    5 17 38    1000.8      43.96      25.87
    138.20    13 45 44   5298.11      39.01     244.36     109.00      130.96   15 14  2    4698.1      43.97     236.38
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
  TDE-1.7032 TRA -.3558 TC3-4.8683 BAU  .9009      SGT 4562.0 SGR  923.8 SG3  248.5          ST  2656.0 SR   723.8 SS   876.1
  RDE  .4664 RRA -.0491 RC3  .7581 FAU .04999      RRT -.9027 RRF -.9553 RTF  .9428          CRT -.9871 CRS  .9997 CST -.9846
  FDE-1.0512 FRA  .1430 FC3-3.1644 BSP  14619      SGB 4654.5 RZ3  .2276 RI3 -.9464          LSA 2883.4 MSA  176.7 SSA   11.3
  BDE 1.7659 BRA  .3592 BC3 4.9270 FSP   -816      SG1 4638.1 SG2  391.0 THA 169.57          EL1 2750.5 EL2  112.1 ALF 164.92

LAUNCH DATE  SEP 17 1970                          FLIGHT TIME 156.00                          ARRIVAL DATE  FEB 20 1971

 HELIOCENTRIC CONIC                                DISTANCE 454.710
  RL  150.36 LAL   -.00 LOL 353.69 VL  26.759 GAL  -2.70 AZL  93.84 HCA 218.29 SMA 126.48 ECC .19435 INC 3.8429 V1  29.634
  RP  108.09 LAP   2.38 LOP 211.92 VP  37.502 GAP   7.49 AZP  86.98 TAL 191.31 TAP  49.60 RCA 101.90 APO 151.06 V2  35.061
  RC 134.850 GL  -30.31 GP   34.92 ZAL 102.81 ZAP 139.11 ETS  49.82 ZAE 123.22 ETE 154.63 ZAC 134.69 ETC 255.12 CLP-157.21
 PLANETOCENTRIC CONIC
  C3  12.598 VHL  3.549 DLA -51.56 RAL 239.88 RAD 6567.5 VEL 11.575 PTH   2.02 VHP  6.156 DPA  15.75 RAP 242.74 ECC 1.2073
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     44.92     5 19 58   1562.35      38.25      28.89     111.14      127.67    5 46  1     962.4      42.83      20.67
    135.08    13 56  7   5301.09      38.26     243.89     111.15      127.66   15 24 28    4701.1      42.84     235.66
     44.92     5 19 58   1562.35      38.25      28.89     111.14      127.67    5 46  1     962.4      42.83      20.67
    135.08    13 56  7   5301.09      38.26     243.89     111.15      127.66   15 24 28    4701.1      42.84     235.66
     44.92     5 19 58   1562.35      38.25      28.89     111.14      127.67    5 46  1     962.4      42.83      20.67
    135.08    13 56  7   5301.09      38.26     243.89     111.15      127.66   15 24 28    4701.1      42.84     235.66
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
  TDE-1.5778 TRA -.2295 TC3-5.4355 BAU  .9242      SGT 4661.6 SGR  869.0 SG3  252.5          ST  2555.9 SR   665.0 SS   801.1
  RDE  .4105 RRA -.0694 RC3  .7503 FAU .04991      RRT -.8974 RRF -.9441 RTF  .9417          CRT -.9883 CRS  .9988 CST -.9813
  FDE -.9249 FRA  .2383 FC3-3.4296 BSP  14918      SGB 4741.9 RZ3  .2118 RI3 -.9446          LSA 2754.5 MSA  170.9 SSA   13.3
  BDE 1.6304 BRA  .2398 BC3 5.4870 FSP   -830      SG1 4726.8 SG2  378.2 THA 170.44          EL1 2639.2 EL2   98.1 ALF 165.56
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LAUNCH DATE  SEP 17 1970                          FLIGHT TIME 158.00                          ARRIVAL DATE  FEB 22 1971

 HELIOCENTRIC CONIC                                DISTANCE 460.605
  RL  150.36 LAL   -.00 LOL 353.69 VL  26.713 GAL  -2.38 AZL  93.38 HCA 221.49 SMA 126.19 ECC .19584 INC 3.3838 V1  29.634
  RP  108.13 LAP   2.24 LOP 215.13 VP  37.458 GAP   7.76 AZP  87.46 TAL 189.88 TAP  51.37 RCA 101.48 APO 150.90 V2  35.047
  RC 137.063 GL  -27.28 GP   32.36 ZAL 100.73 ZAP 141.69 ETS  49.51 ZAE 123.99 ETE 156.38 ZAC 132.50 ETC 256.12 CLP-158.28
 PLANETOCENTRIC CONIC
  C3  11.812 VHL  3.437 DLA -49.12 RAL 244.63 RAD 6567.5 VEL 11.541 PTH   2.01 VHP  6.147 DPA  12.79 RAP 243.76 ECC 1.1944
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     48.03     5 48 50   1525.42      37.22     24.16      113.49      124.72    6 14 15     925.4      41.47      15.80
    131.97    14  5  9   5310.74      37.23    243.93      113.50      124.71   15 33 40    4710.7      41.47     235.57
     48.03     5 48 50   1525.42      37.22     24.16      113.49      124.72    6 14 15     925.4      41.47      15.80
    131.97    14  5  9   5310.74      37.23    243.93      113.50      124.71   15 33 40    4710.7      41.47     235.57
     48.03     5 48 50   1525.42      37.22     24.16      113.49      124.72    6 14 15     925.4      41.47      15.80
    131.97    14  5  9   5310.74      37.23    243.93      113.50      124.71   15 33 40    4710.7      41.47     235.57
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
  TDE-1.4524 TRA -.0087 TC3-5.9475 BAU  .9463      SGT 4758.0 SGR  820.5 SG3  253.8          ST  2425.5 SR   613.9 SS   719.9
  RDE  .3660 RRA -.0066 RC3  .7308 FAU .04925      RRT -.8902 RRF -.9306 RTF  .9410          CRT -.9900 CRS  .9964 CST -.9763
  FDE -.7977 FRA  .3296 FC3-3.6094 BSP  15224      SGB 4828.2 RZS  .1928 R13 -.9433          LSA 2598.2 HSA  166.2 SSA   15.6
  BDE 1.4978 BRA  .1313 BC3 5.9923 FSP   -838      SG1 4814.1 SG2  369.5 THA 171.22          EL1 2500.6 EL2   84.0 ALF 165.92

LAUNCH DATE  SEP 17 1970                          FLIGHT TIME 160.00                          ARRIVAL DATE  FEB 24 1971

 HELIOCENTRIC CONIC                                DISTANCE 466.483
  RL  150.36 LAL   -.00 LOL 353.69 VL  26.668 GAL  -2.06 AZL  92.98 HCA 224.68 SMA 125.90 ECC .19747 INC 2.9797 V1  29.634
  RP  108.17 LAP   2.09 LOP 218.34 VP  37.413 GAP   8.04 AZP  87.88 TAL 188.43 TAP  53.12 RCA 101.04 APO 150.76 V2  35.034
  RC 139.266 GL  -24.39 GP   30.10 ZAL  98.36 ZAP 144.05 ETS  49.29 ZAE 124.58 ETE 157.98 ZAC 130.58 ETC 257.00 CLP-159.35
 PLANETOCENTRIC CONIC
  C3  11.253 VHL  3.355 DLA -46.72 RAL 249.22 RAD 6567.4 VEL 11.517 PTH   2.01 VHP  6.169 DPA  10.12 RAP 244.94 ECC 1.1852
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     51.14     6 17 50   1488.92      35.99     19.59      116.05      122.08    6 42 39     888.9      39.93      11.17
    128.86    14 12 46   5327.04      36.01    244.51      116.06      122.07   15 41 33    4727.0      39.94     236.08
     51.14     6 17 50   1488.92      35.99     19.59      116.05      122.08    6 42 39     888.9      39.93      11.17
    128.86    14 12 46   5327.04      36.01    244.51      116.06      122.07   15 41 33    4727.0      39.94     236.08
     51.14     6 17 50   1488.92      35.99     19.59      116.05      122.08    6 42 39     888.9      39.93      11.17
    128.86    14 12 46   5327.04      36.01    244.51      116.06      122.07   15 41 33    4727.0      39.94     236.08
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
  TDE-1.3280 TRA  .0585 TC3-6.3908 BAU  .9672      SGT 4850.0 SGR  778.3 SG3  253.0          ST  2268.6 SR   570.0 SS   636.2
  RDE  .3306 RRA -.1020 RC3  .7026 FAU .04813      RRT -.8807 RRF -.9147 RTF  .9404          CRT -.9921 CRS  .9908 CST -.9605
  FDE -.6731 FRA  .4172 FC3-3.7030 BSP  15521      SGB 4912.0 RZS  .1725 R13 -.9423          LSA 2418.6 HSA  163.3 SSA   18.2
  BDE 1.3646 BRA  .1090 BC3 6.4293 FSP   -837      SG1 4898.4 SG2  364.9 THA 171.91          EL1 2338.1 EL2   69.2 ALF 165.99

LAUNCH DATE  SEP 17 1970                          FLIGHT TIME 162.00                          ARRIVAL DATE  FEB 26 1971

 HELIOCENTRIC CONIC                                DISTANCE 472.344
  RL  150.36 LAL   -.00 LOL 353.69 VL  26.622 GAL  -1.73 AZL  92.62 HCA 227.88 SMA 125.61 ECC .19924 INC 2.6189 V1  29.634
  RP  108.21 LAP   1.94 LOP 221.54 VP  37.368 GAP   8.31 AZP  88.24 TAL 186.97 TAP  54.85 RCA 100.58 APO 150.64 V2  35.021
  RC 141.459 GL  -21.63 GP   28.09 ZAL  95.75 ZAP 146.21 ETS  49.18 ZAE 125.03 ETE 159.42 ZAC 128.88 ETC 257.79 CLP-160.41
 PLANETOCENTRIC CONIC
  C3  10.878 VHL  3.298 DLA -44.37 RAL 253.66 RAD 6567.4 VEL 11.501 PTH   2.00 VHP  6.216 DPA   7.71 RAP 246.26 ECC 1.1790
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     54.29     6 47 16   1451.76      34.60     15.12      118.79      119.72    7 11 28     851.8      38.25       6.68
    125.71    14 18 47   5350.27      34.61    245.65      118.80      119.70   15 47 57    4750.3      38.26     237.21
     54.29     6 47 16   1451.76      34.60     15.12      118.79      119.72    7 11 28     851.8      38.25       6.68
    125.71    14 18 47   5350.27      34.61    245.65      118.80      119.70   15 47 57    4750.3      38.26     237.21
     54.29     6 47 16   1451.76      34.60     15.12      118.79      119.72    7 11 28     851.8      38.25       6.68
    125.71    14 18 47   5350.27      34.61    245.65      118.80      119.70   15 47 57    4750.3      38.26     237.21
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
  TDE-1.1974 TRA  .1827 TC3-6.7513 BAU  .9866      SGT 4935.3 SGR  741.6 SG3  250.4          ST  2088.6 SR   532.7 SS   553.4
  RDE  .3026 RRA -.1161 RC3  .8677 FAU .04664      RRT -.8690 RRF -.9965 RTF  .9399          CRT -.9947 CRS  .9783 CST -.9558
  FDE -.5531 FRA  .5006 FC3-3.7116 BSP  15788      SGB 4990.7 RZS  .1522 R13 -.9414          LSA 2219.3 HSA  162.6 SSA   21.2
  BDE 1.2350 BRA  .2165 BC3 6.7842 FSP   -830      SG1 4977.4 SG2  363.9 THA 172.52          EL1 2154.8 EL2   53.2 ALF 165.76

LAUNCH DATE  SEP 17 1970                          FLIGHT TIME 164.00                          ARRIVAL DATE  FEB 28 1971

 HELIOCENTRIC CONIC                                DISTANCE 478.187
  RL  150.36 LAL   -.00 LOL 353.69 VL  26.577 GAL  -1.38 AZL  92.29 HCA 231.07 SMA 125.32 ECC .20117 INC 2.2930 V1  29.634
  RP  108.25 LAP   1.78 LOP 224.74 VP  37.323 GAP   8.59 AZP  88.56 TAL 185.49 TAP  56.56 RCA 100.11 APO 150.53 V2  35.008
  RC 143.643 GL  -19.00 GP   26.32 ZAL  92.95 ZAP 148.19 ETS  49.17 ZAE 125.38 ETE 160.72 ZAC 127.39 ETC 258.52 CLP-161.45
 PLANETOCENTRIC CONIC
  C3  10.661 VHL  3.265 DLA -42.05 RAL 257.96 RAD 6567.4 VEL 11.491 PTH   2.00 VHP  6.284 DPA   5.52 RAP 247.70 ECC 1.1755
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     57.51     7 17 27   1412.73      33.08     10.64      121.71      117.60    7 40 59     812.7      36.48       2.23
    122.49    14 22 56   5381.08      33.09    247.40      121.72      117.59   15 52 37    4781.1      36.49     238.99
     57.51     7 17 27   1412.73      33.08     10.64      121.71      117.60    7 40 59     812.7      36.48       2.23
    122.49    14 22 56   5381.08      33.09    247.40      121.72      117.59   15 52 37    4781.1      36.49     238.99
     57.51     7 17 27   1412.73      33.08     10.64      121.71      117.60    7 40 59     812.7      36.48       2.23
    122.49    14 22 56   5381.08      33.09    247.40      121.72      117.59   15 52 37    4781.1      36.49     238.99
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
  TDE-1.0675 TRA  .3327 TC3-7.0286 BAU 1.0058      SGT 5019.3 SGR  710.8 SG3  246.7          ST  1893.0 SR   501.5 SS   476.6
  RDE  .2809 RRA -.1287 RC3  .6307 FAU .04498      RRT -.8558 RRF -.8766 RTF  .9400          CRT -.9972 CRS  .9527 CST -.9356
  FDE -.4406 FRA  .5775 FC3-3.6528 BSP  16072      SGB 5069.4 RZS  .1312 R13 -.9412          LSA 2008.6 HSA  164.7 SSA   24.2
  BDE 1.1038 BRA  .3567 BC3 7.0568 FSP   -821      SG1 5056.3 SG2  365.1 THA 173.05          EL1 1958.0 EL2   36.4 ALF 165.20
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LAUNCH DATE SEP 17 1970 FLIGHT TIME 166.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 484.011

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RL  150.36 LAL   -.00 LOL 353.69 VL  26.531 GAL  -1.02 AZL  92.00 HCA 234.26 SMA 125.04 ECC .20326 INC 1.9955 V1  29.634
RP  108.29 LAP   1.62 LOP 227.94 VP  37.278 GAP   8.88 AZP  88.83 TAL 184.00 TAP  58.26 RCA  99.62 APO 150.45 V2  34.995
RC 145.816 GL  -16.50 GP   24.73 ZAL  90.00 ZAP 150.01 ETS  49.28 ZAE 125.65 ETE 161.88 ZAC 126.08 ETC 259.22 CLP-162.48
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PLANETOCENTRIC CONIC

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C3  10.584 VHL  3.253 DLA -39.77 RAL 262.13 RAD 6567.4 VEL 11.488 PTH   2.00 VHP  6.369 DPA   3.54 RAP 249.26 ECC 1.1742
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.83	7 48 42	1370.49	31.46	6.05	124.78	115.69	8 11 32	770.5	34.63	357.70
119.17	14 24 54	5420.37	31.47	249.81	124.79	115.68	15 55 14	4820.4	34.64	241.46
60.83	7 48 42	1370.49	31.46	6.05	124.78	115.69	8 11 32	770.5	34.63	357.70
119.17	14 24 54	5420.37	31.47	249.81	124.79	115.68	15 55 14	4820.4	34.64	241.46
60.83	7 48 42	1370.49	31.46	6.05	124.78	115.69	8 11 32	770.5	34.63	357.70
119.17	14 24 54	5420.37	31.47	249.81	124.79	115.68	15 55 14	4820.4	34.64	241.46

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

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TDE -.9291 TRA  .4959 TC3-7.1905 BAU 1.0208    SGT 5085.0 SGR  682.8 SG3  241.4    ST  1677.3 SR   473.4 SS   406.3
RDE  .2629 RRA -.1421 RC3  .5867 FAU .04291    RRT -.8392 RRF -.8543 RTF  .9390   CRT -.9982 CRS  .8979 CST -.8995
FDE -.3299 FRA  .6552 FC3-3.5099 BSP  16205    SGB 5130.7 R23  .1142 R13 -.9400   LSA 1780.9 MSA  173.7 SSA   27.2
BDE  .9656 BRA  .5159 BC3 7.2144 FSP   -798    SG1 5117.4 SG2  368.9 THA 173.54   EL1 1742.6 EL2   27.2 ALF 164.26
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LAUNCH DATE SEP 17 1970 FLIGHT TIME 168.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 489.815

```
RL  150.36 LAL   -.00 LOL 353.69 VL  26.486 GAL   -.64 AZL  91.72 HCA 237.45 SMA 124.75 ECC .20554 INC 1.7211 V1  29.634
RP  108.33 LAP   1.45 LOP 231.14 VP  37.234 GAP   9.16 AZP  89.07 TAL 182.49 TAP  59.94 RCA  99.11 APO 150.40 V2  34.982
RC 147.979 GL  -14.12 GP   23.32 ZAL  86.94 ZAP 151.69 ETS  49.50 ZAE 125.85 ETE 162.92 ZAC 124.91 ETC 259.88 CLP-163.46
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PLANETOCENTRIC CONIC

```
C3  10.637 VHL  3.261 DLA -37.52 RAL 266.15 RAD 6567.4 VEL 11.490 PTH   2.00 VHP  6.469 DPA   1.73 RAP 250.92 ECC 1.1751
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.29	8 21 32	1323.17	29.77	1.21	127.98	113.97	8 43 35	723.2	32.73	352.93
115.71	14 24 8	5469.71	29.78	252.99	127.98	113.96	15 55 18	4869.7	32.74	244.71
64.29	8 21 32	1323.17	29.77	1.21	127.98	113.97	8 43 35	723.2	32.73	352.93
115.71	14 24 8	5469.71	29.78	252.99	127.98	113.96	15 55 18	4869.7	32.74	244.71
64.29	8 21 32	1323.17	29.77	1.21	127.98	113.97	8 43 35	723.2	32.73	352.93
115.71	14 24 8	5469.71	29.78	252.99	127.98	113.96	15 55 18	4869.7	32.74	244.71

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE -.7929 TRA  .6617 TC3-7.2779 BAU 1.0378    SGT 5159.9 SGR  660.7 SG3  236.1    ST  1467.7 SR   451.1 SS   353.7
RDE  .2500 RRA -.1542 RC3  .5465 FAU .04098    RRT -.8226 RRF -.8315 RTF  .9392   CRT -.9944 CRS  .8000 CST -.8469
FDE -.2313 FRA  .7237 FC3-3.3352 BSP  16453    SGB 5202.0 R23  .0964 R13 -.9400   LSA 1563.9 MSA  189.8 SSA   29.4
BDE  .8314 BRA  .6795 BC3 7.2984 FSP   -783    SG1 5188.6 SG2  373.6 THA 173.96   EL1 1534.7 EL2   45.7 ALF 162.99
```

LAUNCH DATE SEP 17 1970 FLIGHT TIME 170.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 495.596

```
RL  150.36 LAL   -.00 LOL 353.69 VL  26.441 GAL   -.25 AZL  91.47 HCA 240.64 SMA 124.47 ECC .20800 INC 1.4657 V1  29.634
RP  108.37 LAP   1.28 LOP 234.33 VP  37.189 GAP   9.45 AZP  89.28 TAL 180.97 TAP  61.61 RCA  98.58 APO 150.36 V2  34.969
RC 150.132 GL  -11.87 GP   22.06 ZAL  83.82 ZAP 153.25 ETS  49.85 ZAE 126.00 ETE 163.85 ZAC 123.87 ETC 260.53 CLP-164.47
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PLANETOCENTRIC CONIC

```
C3  10.814 VHL  3.288 DLA -35.31 RAL 270.01 RAD 6567.4 VEL 11.498 PTH   2.00 VHP  6.582 DPA    .09 RAP 252.67 ECC 1.1780
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.96	8 56 42	1268.00	28.03	355.92	131.28	112.42	9 17 50	668.0	30.81	347.73
112.04	14 19 49	5531.61	28.04	257.12	131.29	112.40	15 52 1	4931.6	30.82	248.92
67.96	8 56 42	1268.00	28.03	355.92	131.28	112.42	9 17 50	668.0	30.81	347.73
112.04	14 19 49	5531.61	28.04	257.12	131.29	112.40	15 52 1	4931.6	30.82	248.92
67.96	8 56 42	1268.00	28.03	355.92	131.28	112.42	9 17 50	668.0	30.81	347.73
112.04	14 19 49	5531.61	28.04	257.12	131.29	112.40	15 52 1	4931.6	30.82	248.92

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE -.6610 TRA  .8260 TC3-7.2936 BAU 1.0570    SGT 5239.0 SGR  642.4 SG3  230.0    ST  1275.6 SR   434.3 SS   320.5
RDE  .2418 RRA -.1642 RC3  .5094 FAU .03917    RRT -.8054 RRF -.8080 RTF  .9409   CRT -.9788 CRS  .6556 CST -.7878
FDE -.1463 FRA  .7789 FC3-3.1359 BSP  16879    SGB 5278.3 R23  .0780 R13 -.9415   LSA 1368.1 MSA  213.8 SSA   30.5
BDE  .7038 BRA  .8421 BC3 7.3114 FSP   -781    SG1 5264.6 SG2  378.9 THA 174.33   EL1 1344.8 EL2   84.3 ALF 161.49
```

LAUNCH DATE SEP 17 1970 FLIGHT TIME 172.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 501.357

```
RL  150.36 LAL   -.00 LOL 353.69 VL  26.396 GAL    .15 AZL  91.23 HCA 243.83 SMA 124.20 ECC .21066 INC 1.2261 V1  29.634
RP  108.41 LAP   1.10 LOP 237.52 VP  37.145 GAP   9.75 AZP  89.46 TAL 179.44 TAP  63.26 RCA  98.03 APO 150.36 V2  34.956
RC 152.275 GL   -9.75 GP   20.93 ZAL  80.66 ZAP 154.69 ETS  50.34 ZAE 126.12 ETE 164.69 ZAC 122.95 ETC 261.16 CLP-165.44
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PLANETOCENTRIC CONIC

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C3  11.114 VHL  3.334 DLA -33.16 RAL 273.73 RAD 6567.4 VEL 11.511 PTH   2.01 VHP  6.707 DPA  -1.41 RAP 254.50 ECC 1.1829
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
71.98	9 35 39	1200.17	26.26	349.83	134.67	111.01	9 55 39	600.2	28.87	341.72
108.02	14 10 32	5610.69	26.27	262.51	134.68	110.99	15 44 2	5010.7	28.88	254.39
71.98	9 35 39	1200.17	26.26	349.83	134.67	111.01	9 55 39	600.2	28.87	341.72
108.02	14 10 32	5610.69	26.27	262.51	134.68	110.99	15 44 2	5010.7	28.88	254.39
110.00	13 19 24	5767.77	21.53	272.35	132.36	117.22	14 55 31	5167.8	25.00	264.92
110.00	15 25 58	5379.13	31.20	246.37	136.49	104.72	16 55 37	4779.1	32.91	237.57

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE -.5117 TRA 1.0187 TC3-7.1809 BAU 1.0693    SGT 5298.3 SGR  626.5 SG3  224.5    ST  1089.8 SR   416.0 SS   310.3
RDE  .2334 RRA -.1788 RC3  .4670 FAU .03700    RRT -.7866 RRF -.7844 RTF  .9395   CRT -.9333 CRS  .4299 CST -.7186
FDE -.0544 FRA  .8510 FC3-2.8820 BSP  16834    SGB 5335.2 R23  .0670 R13 -.9400   LSA 1178.3 MSA  260.3 SSA   30.3
BDE  .5624 BRA 1.0343 BC3 7.1961 FSP   -735    SG1 5321.3 SG2  385.2 THA 174.66   EL1 1158.0 EL2  140.6 ALF 160.08
```

LAUNCH DATE SEP 17 1970 FLIGHT TIME 174.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 507.094

RL 150.36 LAL -.00 LOL 353.69 VL 26.351 GAL .57 AZL 91.00 HCA 247.01 SHA 123.92 ECC .21355 INC .9994 V1 29.634
RP 108.45 LAP .92 LOP 240.70 VP 37.102 GAP 10.06 AZP 89.61 TAL 177.69 TAP 64.91 RCA 97.46 APO 150.39 V2 34.943
RC 154.408 GL -7.78 GP 19.91 ZAL 77.51 ZAP 156.04 ETS 50.96 ZAE 126.21 ETE 165.43 ZAC 122.11 ETC 261.79 CLP-166.38

PLANETOCENTRIC CONIC

C3 11.541 VHL 3.397 DLA -31.06 RAL 277.29 RAD 6567.4 VEL 11.529 PTH 2.01 VHP 6.844 DPA -2.77 RAP 256.40 ECC 1.1899

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
76.67	10 21 21	1109.64	24.49	342.21	138.13	109.73	10 39 51	509.6	26.95	334.18
103.33	13 53 13	5716.81	24.50	269.86	138.13	109.71	15 28 30	5116.8	26.96	261.82
76.67	10 21 21	1109.64	24.49	342.21	138.13	109.73	10 39 51	509.6	26.95	334.18
103.33	13 53 13	5716.81	24.50	269.86	138.13	109.71	15 28 30	5116.8	26.96	261.82
110.00	12 47 4	635.81	16.39	303.63	134.09	120.42	12 57 39	35.8	20.31	296.70
110.00	16 26 41	5230.64	33.16	235.89	140.64	90.81	17 54 0	4638.6	34.02	226.76

DIFFERENTIAL CORRECTIONS
TDE -.3680 TRA 1.2082 TC3-7.0014 BAU 1.0822
RDE .2295 RRA -.1900 RC3 .4257 FAU .03481
FDE .0805 FRA .9075 FC3-2.6116 BSP 17092
BDE .4337 BRA 1.2242 BC3 7.0144 FSP -725

MID-COURSE EXECUTION ACCURACY
SGT 5355.6 SGR 612.2 SG3 217.6
RRT -.7659 RRF -.7598 RTF .9306
SGB 5390.5 RZS .0565 R13 -.9400
SG1 5376.2 SG2 382.1 THA 174.97

ORBIT DETERMINATION ACCURACY
ST 956.9 SR 403.3 SS 319.2
CRT -.8345 CRS .2184 CST -.7145
LSA 1040.1 MSA 312.5 SSA 29.2
EL1 1017.2 EL2 209.1 ALF 159.73

LAUNCH DATE SEP 17 1970 FLIGHT TIME 176.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 512.805

RL 150.36 LAL -.00 LOL 353.69 VL 26.306 GAL 1.01 AZL 90.78 HCA 250.20 SHA 123.65 ECC .21667 INC .7831 V1 29.634
RP 109.49 LAP .74 LOP 243.09 VP 37.059 GAP 10.37 AZP 89.73 TAL 176.34 TAP 66.54 RCA 96.86 APO 150.44 V2 34.931
RC 156.830 GL -5.83 GP 18.99 ZAL 74.40 ZAP 157.29 ETS 51.74 ZAE 126.28 ETE 166.10 ZAC 121.36 ETC 262.42 CLP-167.31

PLANETOCENTRIC CONIC

C3 12.097 VHL 3.478 DLA -29.03 RAL 280.69 RAD 6567.5 VEL 11.554 PTH 2.02 VHP 6.993 DPA -4.00 RAP 258.36 ECC 1.1991

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.32	11 25 29	958.14	22.74	330.28	141.64	108.55	11 41 27	358.1	25.06	322.33
96.68	13 16 12	600.03	22.75	304.03	141.64	108.54	13 26 12	.0	25.07	296.07
100.00	12 41 56	710.16	18.54	310.41	139.90	113.88	12 53 46	110.2	21.61	302.98
100.00	14 42 26	5611.28	27.08	262.83	143.00	103.17	16 15 57	5011.3	28.62	254.36
110.00	12 30 1	747.64	12.44	309.88	136.54	122.10	12 42 29	147.6	16.59	303.23
110.00	17 18 80	5146.57	33.90	228.81	144.24	94.68	18 36 37	4546.6	34.18	219.58

DIFFERENTIAL CORRECTIONS
TDE -.2217 TRA 1.4086 TC3-6.7564 BAU 1.0945
RDE .2276 RRA -.2086 RC3 .3674 FAU .03274
FDE .0088 FRA .9025 FC3-2.3431 BSP 17287
BDE .3177 BRA 1.4242 BC3 6.7675 FSP -705

MID-COURSE EXECUTION ACCURACY
SGT 5410.7 SGR 600.3 SG3 211.0
RRT -.7458 RRF -.7362 RTF .9399
SGB 5443.9 RZS .0471 R13 -.9402
SG1 5429.3 SG2 398.5 THA 175.24

ORBIT DETERMINATION ACCURACY
ST 887.7 SR 392.2 SS 341.9
CRT -.6598 CRS .0340 CST -.7690
LSA 961.6 MSA 365.1 SSA 27.6
EL1 928.7 EL2 281.7 ALF 162.04

LAUNCH DATE SEP 17 1970 FLIGHT TIME 178.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 518.488

RL 150.36 LAL -.00 LOL 353.69 VL 26.262 GAL 1.47 AZL 90.58 HCA 253.38 SHA 123.38 ECC .22005 INC .5757 V1 29.634
RP 108.53 LAP .55 LOP 247.07 VP 37.016 GAP 10.69 AZP 89.84 TAL 174.78 TAP 68.16 RCA 96.23 APO 150.53 V2 34.919
RC 158.641 GL -4.23 GP 18.16 ZAL 71.34 ZAP 158.47 ETS 52.67 ZAE 126.33 ETE 166.70 ZAC 120.67 ETC 263.04 CLP-168.23

PLANETOCENTRIC CONIC

C3 12.792 VHL 3.577 DLA -27.08 RAL 283.92 RAD 6567.5 VEL 11.584 PTH 2.03 VHP 7.153 DPA -5.12 RAP 260.39 ECC 1.2105

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 20 14	1031.10	16.05	332.08	143.23	113.65	11 37 25	431.1	19.11	325.54
90.00	13 47 16	5638.88	26.16	279.34	146.63	101.25	15 24 34	5238.9	27.45	270.91
100.00	12 6 31	881.60	13.52	320.66	141.99	116.92	12 21 13	281.6	17.02	313.63
100.00	15 43 40	5463.62	28.92	252.25	147.15	97.90	17 14 44	4863.6	29.71	243.53
110.00	12 19 5	842.16	8.97	315.00	139.31	123.12	12 33 7	242.2	13.27	308.54
110.00	17 47 36	5075.82	34.16	223.30	147.65	91.43	19 12 12	4475.8	33.98	214.06

DIFFERENTIAL CORRECTIONS
TDE -.0726 TRA 1.6182 TC3-6.4597 BAU 1.1064
RDE .2274 RRA -.2163 RC3 .3513 FAU .03073
FDE .1934 FRA 1.0135 FC3-2.0801 BSP 17489
BDE .2387 BRA 1.6326 BC3 6.4692 FSP -688

MID-COURSE EXECUTION ACCURACY
SGT 5462.6 SGR 589.4 SG3 204.4
RRT -.7258 RRF -.7129 RTF .9404
SGB 5494.3 RZS .0586 R13 -.9406
SG1 5479.5 SG2 404.2 THA 175.50

ORBIT DETERMINATION ACCURACY
ST 891.9 SR 382.6 SS 371.6
CRT -.4261 CRS -.1099 CST -.8490
LSA 960.1 MSA 396.9 SSA 25.8
EL1 909.2 EL2 339.6 ALF 167.93

LAUNCH DATE SEP 17 1970 FLIGHT TIME 180.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 524.142

RL 150.36 LAL -.00 LOL 353.69 VL 26.218 GAL 1.95 AZL 90.38 HCA 256.55 SHA 123.12 ECC .22370 INC .3749 V1 29.634
RP 108.36 LAP .37 LOP 250.25 VP 36.973 GAP 11.03 AZP 89.91 TAL 173.22 TAP 69.77 RCA 95.58 APO 150.66 V2 34.907
RC 160.740 GL -2.66 GP 17.41 ZAL 68.36 ZAP 159.56 ETS 53.76 ZAE 126.37 ETE 167.23 ZAC 120.04 ETC 263.66 CLP-169.13

PLANETOCENTRIC CONIC

C3 13.635 VHL 3.693 DLA -25.21 RAL 287.00 RAD 6567.5 VEL 11.620 PTH 2.04 VHP 7.324 DPA -6.14 RAP 262.47 ECC 1.2244

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 49 49	1188.64	11.53	342.24	145.62	116.04	11 9 38	588.6	14.94	335.22
90.00	14 42 13	5700.96	27.55	270.09	150.61	96.81	16 17 22	5109.0	28.21	261.48
100.00	11 47 36	1002.10	9.70	327.58	144.66	118.41	12 4 18	402.1	13.42	320.77
100.00	16 27 8	5370.74	29.60	245.43	150.84	94.37	17 56 39	4770.7	29.89	236.64
110.00	12 11 35	926.83	5.79	319.90	142.28	123.75	12 27 2	326.8	10.19	313.16
110.00	18 19 38	5018.77	34.16	218.85	150.99	88.80	19 43 16	4418.8	33.62	209.65

DIFFERENTIAL CORRECTIONS
TDE .0798 TRA 1.8377 TC3-6.1199 BAU 1.1171
RDE .2298 RRA -.2298 RC3 .3171 FAU .02876
FDE .2118 FRA 1.0632 FC3-1.8275 BSP 17660
BDE .2421 BRA 1.8520 BC3 6.1282 FSP -668

MID-COURSE EXECUTION ACCURACY
SGT 5511.3 SGR 579.5 SG3 198.0
RRT -.7082 RRF -.6904 RTF .9409
SGB 5541.7 RZS .0515 R13 -.9411
SG1 5526.6 SG2 409.2 THA 175.73

ORBIT DETERMINATION ACCURACY
ST 963.0 SR 374.2 SS 404.6
CRT -.1914 CRS -.2165 CST -.9144
LSA 1034.8 MSA 399.8 SSA 24.0
EL1 966.1 EL2 366.1 ALF 175.03

LAUNCH DATE SEP 17 1970 FLIGHT TIME 182.00 ARRIVAL DATE MAR 18 1971

HELIOCENTRIC CONIC DISTANCE 529.762

RL	150.36	LAL	-.00	LOL	353.69	VL	26.174	GAL	2.44	AZL	90.18	HCA	259.73	SMA	122.86	ECC	.22766	INC	.1795
RP	108.60	LAP	.18	LOP	253.42	VP	36.932	GAP	11.37	AZP	89.97	TAL	171.65	TAP	71.38	RCA	94.69	APO	150.85
RC	162.826	GL	-1.23	GP	16.73	ZAL	65.48	ZAP	160.59	ETS	55.03	ZAE	126.39	ETE	167.72	ZAC	119.45	ETC	264.29

V1	29.634	V2	34.896	CLP	-170.01														

PLANETOCENTRIC CONIC

C3	14.638	VHL	3.826	DLA	-23.42	RAL	289.92	RAD	6567.6	VEL	11.663	PTH	2.05	VHP	7.508	DPA	-7.05	RAP	264.59
ECC	1.2409																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 32 6	1306.17	7.94	349.00	148.43	117.27	10 53 52	706.2	11.53	342.17
90.00	15 23 12	5622.73	28.09	263.84	154.27	93.72	16 56 55	5022.7	28.31	255.18
100.00	11 35 4	1102.96	6.39	333.23	147.59	119.26	11 53 27	503.0	10.24	326.56
100.00	17 2 56	5301.18	29.85	240.27	154.37	91.67	18 31 17	4701.2	29.76	231.47
110.00	12 6 19	1004.94	2.82	323.60	145.39	124.08	12 23 4	404.9	7.28	317.34
110.00	18 48 10	4971.96	34.04	215.20	154.30	86.64	20 11 2	4372.0	33.20	206.06

DIFFERENTIAL CORRECTIONS

TDE	.2210	TRA	2.0547	TC3	-5.7817	BAU	1.1329
RDE	.2332	RRA	-.2415	RC3	.2886	FAU	.02721
FDE	.2573	FRA	1.1035	FC3	-1.6093	BSP	18123
BDE	.3213	BRA	2.0688	BC3	5.7889	FSP	-665

MID-COURSE EXECUTION ACCURACY

SGT	5561.3	SGR	571.0	SG3	191.4		
RRT	-.6675	RRF	-.6697	RTF	.9427		
SGB	5590.5	RZS	.0248	R13	-.9428		
SG1	5575.2	SG2	413.6	THA	175.94		

ORBIT DETERMINATION ACCURACY

ST	1067.3	SR	368.7	SS	431.1
CRT	-.0108	CRS	-.2874	CST	-.9529
LSA	1144.7	MSA	387.5	SSA	22.3
EL1	1067.3	EL2	368.7	ALF	179.76

LAUNCH DATE SEP 17 1970 FLIGHT TIME 184.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 535.349

RL	150.36	LAL	-.00	LOL	353.69	VL	26.131	GAL	2.97	AZL	89.99	HCA	262.91	SMA	122.60	ECC	.23194	INC	.0000
RP	108.63	LAP	-.01	LOP	256.60	VP	36.891	GAP	11.73	AZP	90.00	TAL	170.07	TAP	72.98	RCA	94.16	APO	151.04
RC	164.900	GL	.07	GP	16.11	ZAL	62.70	ZAP	161.55	ETS	56.49	ZAE	126.41	ETE	168.16	ZAC	118.91	ETC	264.92

V1	29.634	V2	34.885	CLP	-170.89														

PLANETOCENTRIC CONIC

C3	15.819	VHL	3.977	DLA	-21.73	RAL	292.68	RAD	6567.6	VEL	11.713	PTH	2.06	VHP	7.704	DPA	-7.87	RAP	266.75
ECC	1.2603																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 19 59	1406.09	4.78	354.65	151.46	117.94	10 43 25	806.1	8.48	347.93
90.00	15 57 22	5557.64	28.29	259.08	157.82	91.35	17 30 0	4957.6	28.18	250.42
100.00	11 26 8	1192.63	3.38	338.19	150.69	119.72	11 46 0	592.6	7.31	331.61
100.00	17 33 55	5246.33	29.89	236.20	157.83	89.53	19 1 21	4646.3	29.50	227.41
110.00	12 2 36	1078.28	.02	327.42	148.59	124.18	12 20 35	478.3	4.50	321.21
110.00	19 13 56	4933.45	33.84	212.21	157.60	84.88	20 36 9	4333.4	32.76	203.13

DIFFERENTIAL CORRECTIONS

TDE	.3880	TRA	2.3054	TC3	-5.3628	BAU	1.1354
RDE	.2363	RRA	-.2562	RC3	.2546	FAU	.02503
FDE	.3123	FRA	1.1560	FC3	-1.3698	BSP	18039
BDE	.4543	BRA	2.3196	BC3	5.3689	FSP	-633

MID-COURSE EXECUTION ACCURACY

SGT	5594.0	SGR	561.0	SG3	185.4		
RRT	-.6673	RRF	-.6478	RTF	.9422		
SGB	5622.0	RZS	.0209	R13	-.9424		
SG1	5606.6	SG2	416.9	THA	176.15		

ORBIT DETERMINATION ACCURACY

ST	1216.2	SR	360.7	SS	467.2
CRT	.1405	CRS	-.3509	CST	-.9751
LSA	1300.8	MSA	367.6	SSA	21.0
EL1	1217.4	EL2	356.8	ALF	2.61

LAUNCH DATE SEP 17 1970 FLIGHT TIME 186.00 ARRIVAL DATE MAR 22 1971

HELIOCENTRIC CONIC DISTANCE 540.896

RL	150.36	LAL	-.00	LOL	353.69	VL	26.088	GAL	3.51	AZL	89.80	HCA	266.08	SMA	122.35	ECC	.23659	INC	.1989
RP	108.66	LAP	-.20	LOP	259.77	VP	36.850	GAP	12.11	AZP	90.01	TAL	168.50	TAP	74.58	RCA	93.40	APO	151.29
RC	166.961	GL	1.25	GP	15.55	ZAL	60.05	ZAP	162.45	ETS	58.15	ZAE	126.42	ETE	168.56	ZAC	118.39	ETC	265.55

V1	29.634	V2	34.874	CLP	-171.75														

PLANETOCENTRIC CONIC

C3	17.195	VHL	4.147	DLA	-20.14	RAL	295.29	RAD	6567.7	VEL	11.772	PTH	2.08	VHP	7.914	DPA	-8.60	RAP	268.95
ECC	1.2830																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 11 9	1495.45	1.91	359.65	154.62	118.26	10 36 4	895.5	5.68	352.99
90.00	16 27 4	5506.44	28.31	255.34	161.30	89.47	17 58 50	4906.4	27.94	246.69
100.00	11 19 31	1274.79	.60	342.70	153.89	119.89	11 40 46	674.8	4.57	336.17
100.00	18 1 22	5202.33	29.82	232.93	161.26	87.81	19 28 5	4602.3	29.20	224.18
110.00	12 0 1	1147.88	-2.64	331.06	151.86	124.09	12 19 9	547.9	1.85	324.85
110.00	19 37 22	4902.01	33.63	209.78	160.92	83.46	20 59 4	4302.0	32.36	200.77

DIFFERENTIAL CORRECTIONS

TDE	.5502	TRA	2.5596	TC3	-4.9569	BAU	1.1407
RDE	.2416	RRA	-.2700	RC3	.2255	FAU	.02315
FDE	.3585	FRA	1.2023	FC3	-1.1654	BSP	18131
BDE	.6009	BRA	2.5738	BC3	4.9621	FSP	-612

MID-COURSE EXECUTION ACCURACY

SGT	5627.3	SGR	551.6	SG3	179.4		
RRT	-.6481	RRF	-.6274	RTF	.9428		
SGB	5654.3	RZS	.0170	R13	-.9429		
SG1	5638.7	SG2	419.2	THA	176.34		

ORBIT DETERMINATION ACCURACY

ST	1367.5	SR	354.5	SS	496.9
CRT	.2441	CRS	-.3956	CST	-.9862
LSA	1456.1	MSA	349.5	SSA	19.7
EL1	1370.4	EL2	343.0	ALF	3.86

LAUNCH DATE SEP 17 1970 FLIGHT TIME 188.00 ARRIVAL DATE MAR 24 1971

HELIOCENTRIC CONIC DISTANCE 546.399

RL	150.36	LAL	-.00	LOL	353.69	VL	26.045	GAL	4.09	AZL	89.61	HCA	269.25	SMA	122.10	ECC	.24163	INC	.3862
RP	108.69	LAP	-.39	LOP	262.94	VP	36.811	GAP	12.51	AZP	90.01	TAL	166.93	TAP	76.18	RCA	92.60	APO	151.60
RC	169.007	GL	2.32	GP	15.03	ZAL	57.51	ZAP	163.29	ETS	60.03	ZAE	126.42	ETE	168.92	ZAC	117.91	ETC	266.18

V1	29.634	V2	34.864	CLP	-172.61														

PLANETOCENTRIC CONIC

C3	18.788	VHL	4.335	DLA	-18.63	RAL	297.76	RAD	6567.8	VEL	11.839	PTH	2.10	VHP	8.138	DPA	-9.25	RAP	271.18
ECC	1.3092																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 4 29	1577.56	-.74	4.23	157.87	118.31	10 30 46	977.6	3.05	357.60
90.00	16 53 25	5465.66	28.25	252.36	164.76	87.98	18 24 31	4865.7	27.67	243.74
100.00	11 14 35	1351.45	-2.00	346.91	157.17	119.83	11 37 4	751.5	1.98	340.39
100.00	18 26 2	5167.00	29.70	230.31	164.68	86.43	19 52 9	4567.0	28.89	221.60
110.00	11 58 16	1214.46	-5.17	334.55	155.19	123.84	12 18 31	614.5	-.69	328.32
110.00	19 58 48	4876.76	33.41	207.84	164.25	82.33	21 20 5	4276.8	31.99	198.89

DIFFERENTIAL CORRECTIONS

TDE	.7144	TRA	2.8241	TC3	-4.5538	BAU	1.1449
RDE	.2482	RRA	-.2836	RC3	.1988	FAU	.02136
FDE	.4006	FRA	1.2467	FC3	-.9840	BSP	18244
BDE	.7563	BRA	2.8383	BC3	4.5581	FSP	-592

MID-COURSE EXECUTION ACCURACY

SGT	5656.5	SGR	542.0	SG3	173.5		
RRT	-.6292	RRF	-.6075	RTF	.9437		
SGB	5682.5	RZS	.0135	R13	-.9437		
SG1	5666.9	SG2	420.5	THA	176.53		

ORBIT DETERMINATION ACCURACY

ST	1517.4	SR	348.9	SS	523.0
CRT	.3190	CRS	-.4303	CST	-.9920
LSA	1608.2	MSA	333.6	SSA	18.7
EL1	1521.7	EL2	329.7	ALF	4.40

LAUNCH DATE SEP 17 1970 FLIGHT TIME 190.00 ARRIVAL DATE MAR 26 1971

HELIOCENTRIC CONIC DISTANCE 551.853

RL 150.36 LAL -.00 LOL 353.69 VL 26.003 GAL 4.69 AZL 89.43 HCA 272.42 SMA 121.85 ECC .24710 INC .5728 V1 29.634
RP 108.72 LAP -.57 LOP 266.11 VP 36.772 GAP 12.93 AZP 89.98 TAL 165.36 TAP 77.78 RCA 91.74 APO 151.96 V2 34.855
RC 171.039 GL 3.27 GP 14.56 ZAL 55.10 ZAP 164.06 ETS 62.14 ZAE 126.41 ETE 169.26 ZAC 117.44 ETC 266.81 CLP-173.46

PLANETOCENTRIC CONIC

C3 20.627 VHL 4.542 DLA -17.23 RAL 300.09 RAD 6567.8 VEL 11.917 PTH 2.12 VHP 8.379 DPA -9.81 RAP 273.44 ECC 1.3395

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 59 22	1654.26	-3.21	8.51	161.19	118.15	10 26 56	1054.3	.58	1.88
90.00	17 17 7	5433.27	28.15	249.99	168.20	86.80	18 47 40	4833.3	27.41	241.41
100.00	11 10 47	1423.83	-4.45	350.89	160.51	119.59	11 34 30	823.8	-.47	344.36
100.00	18 48 23	5138.94	29.56	228.23	168.09	85.35	20 14 2	4538.9	28.60	219.56
110.00	11 57 10	1278.48	-7.59	337.93	158.57	123.43	12 18 29	678.5	-3.14	331.67
110.00	20 18 29	4857.05	33.22	206.33	167.59	81.45	21 39 26	4257.0	31.69	197.44

DIFFERENTIAL CORRECTIONS

TDE .8815 TRA 3.1015 TC3-4.1576 BAU 1.1475
RDE .2559 RRA -.2970 RC3 .1741 FAU .01962
FDE .4394 FRA 1.2806 FC3 -.8236 BSP 18362
BDE .9179 BRA 3.1157 BC3 4.1613 FSP -574

MID-COURSE EXECUTION ACCURACY

SGT 5681.6 SGR 532.1 SG3 167.8
RRT -.6104 RRF -.5884 RTF .9446
SG8 5706.4 RZS .0108 R13 -.9447
SG1 5690.9 SG2 420.8 THA 176.71

ORBIT DETERMINATION ACCURACY

ST 1661.3 SR 343.6 SS 546.2
CRT .3745 CRS -.4576 CST -.9952
LSA 1753.1 MSA 320.1 SSA 17.7
EL1 1666.4 EL2 317.6 ALF 4.60

LAUNCH DATE SEP 17 1970 FLIGHT TIME 192.00 ARRIVAL DATE MAR 28 1971

HELIOCENTRIC CONIC DISTANCE 557.253

RL 150.36 LAL -.00 LOL 353.69 VL 25.961 GAL 5.33 AZL 89.24 HCA 275.59 SMA 121.61 ECC .25304 INC .7602 V1 29.634
RP 108.75 LAP -.76 LOP 268.28 VP 36.734 GAP 13.37 AZP 89.93 TAL 163.80 TAP 79.38 RCA 90.84 APO 152.38 V2 34.846
RC 173.056 GL 4.12 GP 14.13 ZAL 52.81 ZAP 164.78 ETS 64.49 ZAE 126.39 ETE 169.56 ZAC 117.00 ETC 267.44 CLP-174.31

PLANETOCENTRIC CONIC

C3 22.742 VHL 4.768 DLA -15.91 RAL 302.29 RAD 6567.9 VEL 12.005 PTH 2.14 VHP 8.637 DPA -10.30 RAP 275.71 ECC 1.3743

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 55 24	1726.72	-5.52	12.58	164.56	117.82	10 24 10	1126.7	-1.76	5.92
90.00	17 58 36	5407.93	28.04	248.15	171.63	85.88	19 8 44	4807.9	27.17	239.59
100.00	11 7 55	1492.73	-6.75	354.71	163.89	119.19	11 32 47	892.7	-2.81	348.14
100.00	19 8 46	5117.15	29.43	226.63	171.50	84.51	20 34 3	4517.2	28.36	217.99
110.00	11 56 34	1340.32	-9.89	341.24	161.98	122.89	12 18 54	740.3	-5.49	334.91
110.00	20 36 36	4842.33	33.07	205.21	170.95	80.81	21 57 19	4242.3	31.45	196.36

DIFFERENTIAL CORRECTIONS

TDE 1.0589 TRA 3.3925 TC3-3.7728 BAU 1.1480
RDE .2646 RRA -.3101 RC3 .1514 FAU .01795
FDE .4759 FRA 1.3342 FC3 -.6834 BSP 18464
BDE 1.0856 BRA 3.4067 BC3 3.7759 FSP -556

MID-COURSE EXECUTION ACCURACY

SGT 5702.0 SGR 521.6 SG3 162.3
RRT -.5916 RRF -.5695 RTF .9459
SG8 5725.8 RZS .0085 R13 -.9459
SG1 5710.4 SG2 419.9 THA 176.89

ORBIT DETERMINATION ACCURACY

ST 1796.8 SR 338.6 SS 567.0
CRT .4175 CRS -.4804 CST -.9970
LSA 1889.3 MSA 308.2 SSA 16.9
EL1 1802.5 EL2 306.7 ALF 4.63

LAUNCH DATE SEP 17 1970 FLIGHT TIME 194.00 ARRIVAL DATE MAR 30 1971

HELIOCENTRIC CONIC DISTANCE 562.590

RL 150.36 LAL -.00 LOL 353.69 VL 25.920 GAL 6.00 AZL 89.05 HCA 278.75 SMA 121.37 ECC .25952 INC .9495 V1 29.634
RP 108.78 LAP -.94 LOP 272.45 VP 36.696 GAP 13.84 AZP 89.86 TAL 162.24 TAP 81.00 RCA 89.87 APO 152.87 V2 34.837
RC 175.059 GL 4.88 GP 13.74 ZAL 50.84 ZAP 165.44 ETS 67.11 ZAE 126.37 ETE 169.84 ZAC 116.56 ETC 268.07 CLP-175.15

PLANETOCENTRIC CONIC

C3 25.173 VHL 5.017 DLA -14.68 RAL 304.35 RAD 6568.0 VEL 12.106 PTH 2.17 VHP 8.914 DPA -10.71 RAP 278.01 ECC 1.4143

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 52 19	1795.69	-7.70	16.48	167.98	117.33	10 22 14	1195.7	-3.97	9.78
90.00	17 58 11	5388.69	27.94	246.75	175.06	85.18	19 28 0	4788.7	26.98	238.21
100.00	11 5 45	1558.72	-8.92	358.40	167.32	118.65	11 31 44	958.7	-5.03	351.78
100.00	19 27 25	5100.89	29.32	225.43	174.91	83.89	20 52 26	4500.9	28.16	216.82
110.00	11 56 21	1400.23	-12.09	344.49	165.43	122.22	12 19 41	800.2	-7.75	338.08
110.00	20 53 19	4832.14	32.96	204.43	174.32	80.36	22 13 51	4232.1	31.28	195.61

DIFFERENTIAL CORRECTIONS

TDE 1.2280 TRA 3.6977 TC3-3.4046 BAU 1.1466
RDE .2745 RRA -.3226 RC3 .1307 FAU .01634
FDE .5099 FRA 1.3776 FC3 -.5621 BSP 18570
BDE 1.2583 BRA 3.7117 BC3 3.4071 FSP -540

MID-COURSE EXECUTION ACCURACY

SGT 5717.8 SGR 510.4 SG3 157.0
RRT -.5726 RRF -.5508 RTF .9473
SG8 5740.5 RZS .0067 R13 -.9473
SG1 5725.3 SG2 417.9 THA 177.06

ORBIT DETERMINATION ACCURACY

ST 1921.5 SR 333.6 SS 585.2
CRT .4516 CRS -.4997 CST -.9931
LSA 2014.2 MSA 297.7 SSA 16.1
EL1 1927.5 EL2 296.7 ALF 4.59

LAUNCH DATE SEP 17 1970 FLIGHT TIME 196.00 ARRIVAL DATE APR 1 1971

HELIOCENTRIC CONIC DISTANCE 567.855

RL 150.36 LAL -.00 LOL 353.69 VL 25.879 GAL 6.71 AZL 88.86 HCA 281.92 SMA 121.14 ECC .26657 INC 1.1419 V1 29.634
RP 108.80 LAP -1.12 LOP 275.61 VP 36.660 GAP 14.34 AZP 89.76 TAL 160.70 TAP 82.62 RCA 88.85 APO 153.43 V2 34.829
RC 177.047 GL 5.56 GP 13.38 ZAL 48.60 ZAP 166.04 ETS 70.00 ZAE 126.33 ETE 170.10 ZAC 116.14 ETC 268.70 CLP-176.00

PLANETOCENTRIC CONIC

C3 27.963 VHL 5.288 DLA -13.54 RAL 306.30 RAD 6568.1 VEL 12.220 PTH 2.20 VHP 9.213 DPA -11.05 RAP 280.31 ECC 1.4602

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 49 55	1861.72	-9.74	20.26	171.43	116.72	10 20 57	1261.7	-6.08	13.49
90.00	18 16 6	5374.79	27.85	245.74	178.49	84.69	19 45 41	4774.8	26.83	237.23
100.00	11 4 9	1622.20	-10.97	2.00	170.78	117.98	11 31 11	1022.2	-7.14	355.30
100.00	19 44 33	5099.55	29.23	224.60	178.33	83.46	21 9 23	4489.6	28.02	216.00
110.00	11 56 26	1458.43	-14.18	347.70	168.91	121.43	12 20 45	858.4	-9.91	341.20
110.00	21 8 45	4826.09	32.89	203.98	177.71	80.10	22 29 11	4226.1	31.17	195.17

DIFFERENTIAL CORRECTIONS

TDE 1.4078 TRA 4.0178 TC3-3.0556 BAU 1.1431
RDE .2893 RRA -.3344 RC3 .1119 FAU .01481
FDE .5420 FRA 1.4212 FC3 -.4586 BSP 18695
BDE 1.4359 BRA 4.0316 BC3 3.0576 FSP -524

MID-COURSE EXECUTION ACCURACY

SGT 5728.7 SGR 498.5 SG3 151.8
RRT -.5533 RRF -.5321 RTF .9490
SG8 5750.4 RZS .0052 R13 -.9490
SG1 5735.4 SG2 414.8 THA 177.23

ORBIT DETERMINATION ACCURACY

ST 2034.4 SR 328.8 SS 601.4
CRT .4797 CRS -.5167 CST -.9987
LSA 2127.3 MSA 288.2 SSA 15.4
EL1 2040.6 EL2 287.6 ALF 4.52

LAUNCH DATE SEP 17 1970 FLIGHT TIME 198.00 ARRIVAL DATE APR 3 1971

HELIOCENTRIC CONIC DISTANCE 573.039
RL 150.36 LAL -.00 LOL 353.69 VL 25.839 GAL 7.47 AZL 88.66 HCA 285.08 SMA 120.91 ECC .27428 INC 1.3388 V1 29.634
RP 108.83 LAP -1.29 LOP 278.78 VP 36.625 GAP 14.88 AZP 89.65 TAL 159.18 TAP 84.26 RCA 87.75 APO 154.07 V2 34.822
RC 179.021 GL 6.16 GP 13.05 ZAL 46.68 ZAP 166.58 ETS 73.19 ZAE 126.29 ETE 170.35 ZAC 115.73 ETC 269.32 CLP-176.85
PLANETOCENTRIC CONIC
C3 31.169 VHL 5.583 DLA -12.48 RAL 308.13 RAD 6568.2 VEL 12.351 PTH 2.23 VHP 9.535 DPA -11.32 RAP 282.62 ECC 1.5130

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 48 4	1925.20	-11.66	23.93	174.91	115.99	10 20 9	1325.2	-8.07	17.09
90.00	18 32 33	5365.66	27.80	245.08	181.91	84.36	20 1 59	4765.7	26.72	236.58
100.00	11 3 0	1683.46	-12.90	5.52	174.27	117.20	11 31 3	1083.5	-9.16	358.74
100.00	20 0 18	5082.64	29.18	224.09	181.74	83.20	21 25 1	4482.6	27.93	215.51
110.00	11 56 46	1515.04	-16.16	350.89	172.42	120.54	12 22 1	915.0	-11.99	344.27
110.00	21 23 1	4823.82	32.86	203.80	181.10	80.00	22 43 25	4223.8	31.13	195.01

DIFFERENTIAL CORRECTIONS
TDE 1.5917 TRA 4.3545 TC3-2.7265 BAU 1.1368
RDE .2972 RRA -.3453 RC3 .0949 FAU .01333
FDE .5726 FRA 1.4656 FC3 -.3703 BSP 18826
BDE 1.6192 BRA 4.3682 BC3 2.7282 FSP -510

MID-COURSE EXECUTION ACCURACY
SGT 5734.7 SGR 485.8 SG3 146.9
RRT -.5333 RRF -.5131 RTF .9509
SGB 5755.2 R23 .0040 R13 -.9510
SG1 5740.5 SG2 410.5 THA 177.40

ORBIT DETERMINATION ACCURACY
ST 2135.9 SR 323.9 SS 616.0
CRT .5037 CRS -.5321 CST -.9991
LSA 2228.9 NSA 279.3 SSA 14.8
EL1 2142.2 EL2 279.0 ALF 4.44

LAUNCH DATE SEP 17 1970 FLIGHT TIME 200.00 ARRIVAL DATE APR 5 1971

HELIOCENTRIC CONIC DISTANCE 578.128
RL 150.36 LAL -.00 LOL 353.69 VL 25.799 GAL 8.27 AZL 88.46 HCA 288.24 SMA 120.68 ECC .28271 INC 1.5416 V1 29.634
RP 108.85 LAP -1.46 LOP 281.94 VP 36.590 GAP 15.45 AZP 89.52 TAL 157.68 TAP 85.92 RCA 86.56 APO 154.80 V2 34.815
RC 180.980 GL 6.68 GP 12.75 ZAL 44.88 ZAP 167.05 ETS 76.67 ZAE 126.23 ETE 170.58 ZAC 115.32 ETC 269.94 CLP-177.71
PLANETOCENTRIC CONIC
C3 34.856 VHL 5.904 DLA -11.50 RAL 309.85 RAD 6568.4 VEL 12.499 PTH 2.26 VHP 9.885 DPA -11.53 RAP 284.92 ECC 1.5736

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 46 40	1986.41	-13.46	27.53	178.41	115.15	10 19 46	1386.4	-9.96	20.60
90.00	18 47 39	5360.79	27.76	244.73	185.32	84.19	20 17 0	4760.8	26.67	236.23
100.00	11 2 12	1742.73	-14.72	8.98	177.78	116.31	11 31 14	1142.7	-11.07	2.10
100.00	20 14 49	5079.71	29.16	223.88	185.15	83.09	21 39 28	4479.7	27.89	215.30
110.00	11 57 17	1570.20	-18.04	354.06	175.95	119.54	12 23 27	970.2	-13.97	347.31
110.00	21 36 12	4825.00	32.87	203.89	184.51	80.05	22 56 37	4225.0	31.15	195.09

DIFFERENTIAL CORRECTIONS
TDE 1.7813 TRA 4.7088 TC3-2.4190 BAU 1.1279
RDE .3101 RRA -.3549 RC3 .0796 FAU .01192
FDE .6019 FRA 1.5106 FC3 -.2961 BSP 18984
BDE 1.8081 BRA 4.7222 BC3 2.4204 FSP -497

MID-COURSE EXECUTION ACCURACY
SGT 5735.4 SGR 472.2 SG3 142.0
RRT -.5124 RRF -.4935 RTF .9531
SGB 5754.9 R23 .0031 R13 -.9531
SG1 5740.6 SG2 405.2 THA 177.57

ORBIT DETERMINATION ACCURACY
ST 2225.6 SR 318.9 SS 629.2
CRT .5248 CRS -.5466 CST -.9994
LSA 2318.9 NSA 270.9 SSA 14.2
EL1 2232.0 EL2 270.7 ALF 4.36

LAUNCH DATE SEP 17 1970 FLIGHT TIME 202.00 ARRIVAL DATE APR 7 1971

HELIOCENTRIC CONIC DISTANCE 583.107
RL 150.36 LAL -.00 LOL 353.69 VL 25.760 GAL 9.13 AZL 88.25 HCA 291.40 SMA 120.46 ECC .29194 INC 1.7518 V1 29.634
RP 108.87 LAP -1.63 LOP 285.10 VP 36.557 GAP 16.08 AZP 89.36 TAL 156.21 TAP 87.61 RCA 85.29 APO 155.63 V2 34.809
RC 182.925 GL 7.14 GP 12.47 ZAL 43.19 ZAP 167.45 ETS 80.46 ZAE 126.15 ETE 170.79 ZAC 114.91 ETC 270.55 CLP-178.58
PLANETOCENTRIC CONIC
C3 39.103 VHL 6.253 DLA -10.60 RAL 311.46 RAD 6568.5 VEL 12.668 PTH 2.30 VHP 10.264 DPA -11.67 RAP 287.22 ECC 1.6435

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 45 37	2045.55	-15.14	31.05	181.92	114.22	10 19 43	1445.6	-11.74	24.02
90.00	19 1 33	5359.76	27.75	244.65	188.73	84.15	20 30 52	4759.8	26.65	236.16
100.00	11 1 41	1800.16	-16.43	12.40	181.30	115.33	11 31 41	1200.2	-12.88	5.40
100.00	20 28 10	5080.39	29.16	223.93	188.55	83.12	21 52 50	4480.4	27.90	215.35
110.00	11 57 57	1623.97	-19.82	357.22	179.50	118.44	12 25 1	1024.0	-15.87	350.35
110.00	21 48 24	4829.34	32.92	204.22	187.91	80.24	23 8 53	4229.3	31.23	195.41

DIFFERENTIAL CORRECTIONS
TDE 1.9782 TRA 5.0835 TC3-2.1316 BAU 1.1149
RDE .3240 RRA -.3632 RC3 .0659 FAU .01054
FDE .6308 FRA 1.5576 FC3 -.2334 BSP 19136
BDE 2.0046 BRA 5.0965 BC3 2.1326 FSP -484

MID-COURSE EXECUTION ACCURACY
SGT 5731.2 SGR 457.8 SG3 137.4
RRT -.4901 RRF -.4728 RTF .9555
SGB 5749.5 R23 .0025 R13 -.9555
SG1 5735.6 SG2 398.7 THA 177.75

ORBIT DETERMINATION ACCURACY
ST 2304.9 SR 313.8 SS 641.8
CRT .5441 CRS -.5606 CST -.9996
LSA 2398.7 NSA 262.6 SSA 13.6
EL1 2311.3 EL2 262.5 ALF 4.29

LAUNCH DATE SEP 17 1970 FLIGHT TIME 204.00 ARRIVAL DATE APR 9 1971

HELIOCENTRIC CONIC DISTANCE 587.957
RL 150.36 LAL -.00 LOL 353.69 VL 25.722 GAL 10.05 AZL 88.03 HCA 294.56 SMA 120.24 ECC .30210 INC 1.9712 V1 29.634
RP 108.88 LAP -1.79 LOP 288.27 VP 36.525 GAP 16.75 AZP 89.18 TAL 154.77 TAP 89.33 RCA 83.92 APO 156.57 V2 34.804
RC 184.854 GL 7.55 GP 12.21 ZAL 41.61 ZAP 167.78 ETS 84.55 ZAE 126.05 ETE 171.00 ZAC 114.51 ETC 271.15 CLP-179.46
PLANETOCENTRIC CONIC
C3 44.009 VHL 6.634 DLA -9.76 RAL 312.96 RAD 6568.7 VEL 12.860 PTH 2.34 VHP 10.677 DPA -11.76 RAP 289.52 ECC 1.7243

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 44 52	2102.75	-16.71	34.52	185.44	113.20	10 19 55	1502.7	-13.42	27.38
90.00	19 14 18	5362.19	27.77	244.83	192.11	84.24	20 43 41	4762.2	26.68	236.33
100.00	11 1 24	1855.84	-18.02	15.77	184.84	114.26	11 32 20	1255.8	-14.59	8.65
100.00	20 40 28	5084.33	29.19	224.22	191.94	83.27	22 5 12	4484.3	27.95	215.63
110.00	11 58 42	1676.39	-21.48	.37	183.06	117.25	12 26 39	1076.4	-17.66	353.33
110.00	21 59 38	4836.55	33.01	204.77	191.30	80.56	23 20 15	4236.6	31.35	195.94

DIFFERENTIAL CORRECTIONS
TDE 2.1842 TRA 5.4819 TC3-1.8650 BAU 1.0978
RDE .3389 RRA -.3698 RC3 .0536 FAU .00918
FDE .6598 FRA 1.6070 FC3 -.1806 BSP 19280
BDE 2.2103 BRA 5.4943 BC3 1.8658 FSP -472

MID-COURSE EXECUTION ACCURACY
SGT 5723.8 SGR 442.4 SG3 132.9
RRT -.4662 RRF -.4506 RTF .9580
SGB 5740.8 R23 .0021 R13 -.9580
SG1 5727.5 SG2 391.2 THA 177.93

ORBIT DETERMINATION ACCURACY
ST 2375.1 SR 308.4 SS 654.5
CRT .5623 CRS -.5745 CST -.9997
LSA 2469.8 NSA 254.4 SSA 13.1
EL1 2381.5 EL2 254.4 ALF 4.22

LAUNCH DATE SEP 17 1970 FLIGHT TIME 206.00 ARRIVAL DATE APR 11 1971

HELIOCENTRIC CONIC DISTANCE 592.654

RL	150.36	LAL	-.00	LOL	353.69	VL	25.684	GAL	11.04	AZL	87.80	HCA	297.72	SMA	120.03	ECC	.31328	INC	2.2019	V1	29.634
RP	108.90	LAP	-1.95	LOP	291.43	VP	36.493	GAP	17.49	AZP	88.98	TAL	153.37	TAP	91.08	RCA	82.43	APO	157.64	V2	34.799
RC	186.768	GL	7.90	GP	11.98	ZAL	40.14	ZAP	168.02	ETS	88.92	ZAE	125.93	ETE	171.19	ZAC	114.10	ETC	271.75	CLP	179.64

PLANETOCENTRIC CONIC

C3	49.694	VHL	7.049	DLA	-9.00	RAL	314.37	RAD	6568.8	VEL	13.079	PTH	2.39	VHP	11.130	DPA	-11.79	RAP	291.79	ECC	1.8178

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 44 21	2158.09	-18.16	37.94	188.95	112.11	10 20 19	1558.1	-15.00	30.68
90.00	19 26 1	5367.75	27.81	245.23	195.47	84.43	20 55 29	4767.8	26.75	236.73
100.00	11 1 18	1909.83	-19.49	19.10	188.37	113.12	11 33 8	1309.8	-16.20	11.85
100.00	20 51 45	5091.24	29.25	224.72	195.30	83.53	22 16 36	4491.2	28.04	216.13
110.00	11 59 33	1727.46	-23.04	3.52	186.65	115.98	12 28 20	1127.5	-19.36	356.31
110.00	22 10 0	4846.38	33.11	205.52	194.69	80.99	23 30 46	4246.4	31.51	196.65

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	2.3998	TRA	5.9076	TC3	-1.6152	BAU	1.0734	SGT	5711.7	SGR	426.2	SG3	128.6	ST	2436.4	SR	302.9	SS	667.6
RDE	.3549	RRA	-.3743	RC3	.0427	FAU	.00782	RRT	-.4403	RRF	-.4264	RTF	.9608	CRT	.5796	CRS	-.5887	CST	-.9997
FDE	.6895	FRA	1.6596	FC3	-.1363	BSP	19386	SGB	5727.6	RZS	.0016	RIS	-.9609	LSA	2532.3	MSA	246.2	SSA	12.5
BDE	2.4259	BRA	5.9194	BC3	1.6158	FSP	-459	SG1	5714.8	SG2	382.5	THA	178.11	EL1	2442.8	EL2	246.2	ALF	4.16

LAUNCH DATE SEP 17 1970 FLIGHT TIME 208.00 ARRIVAL DATE APR 13 1971

HELIOCENTRIC CONIC DISTANCE 597.170

RL	150.36	LAL	-.00	LOL	353.69	VL	25.647	GAL	12.10	AZL	87.55	HCA	300.87	SMA	119.83	ECC	.32563	INC	2.4463	V1	29.634
RP	108.91	LAP	-2.10	LOP	294.59	VP	36.464	GAP	18.30	AZP	88.74	TAL	152.02	TAP	92.89	RCA	80.81	APO	158.85	V2	34.795
RC	188.667	GL	8.20	GP	11.76	ZAL	38.78	ZAP	168.17	ETS	93.54	ZAE	125.79	ETE	171.39	ZAC	113.70	ETC	272.33	CLP	178.71

PLANETOCENTRIC CONIC

C3	56.305	VHL	7.504	DLA	-8.30	RAL	315.67	RAD	6569.0	VEL	13.329	PTH	2.44	VHP	11.626	DPA	-11.77	RAP	294.04	ECC	1.9266

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 44 2	2211.58	-19.50	41.29	192.45	110.95	10 20 54	1611.6	-16.47	33.92
90.00	19 36 44	5376.14	27.86	245.84	198.80	84.73	21 6 20	4776.1	26.84	237.32
100.00	11 1 21	1962.13	-20.86	22.38	191.88	111.91	11 34 4	1362.1	-17.70	15.01
100.00	21 2 6	5100.83	29.32	225.43	198.64	83.89	22 27 7	4500.8	28.16	216.81
110.00	12 0 26	1777.14	-24.49	6.65	190.19	114.63	12 30 3	1177.1	-20.96	359.28
110.00	22 19 30	4858.58	33.24	206.44	198.05	81.52	23 40 29	4258.6	31.71	197.55

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	2.6294	TRA	6.3604	TC3	-1.3838	BAU	1.0419	SGT	5695.0	SGR	409.3	SG3	124.6	ST	2490.6	SR	297.1	SS	681.9
RDE	.3720	RRA	-.3764	RC3	.0331	FAU	.00643	RRT	-.4113	RRF	-.3996	RTF	.9637	CRT	.5971	CRS	-.6033	CST	-.9998
FDE	.7208	FRA	1.7164	FC3	-.0989	BSP	19448	SGB	5709.6	RZS	.0016	RIS	-.9637	LSA	2588.3	MSA	237.7	SSA	12.0
BDE	2.6556	BRA	6.3715	BC3	1.3842	FSP	-445	SG1	5697.5	SG2	372.9	THA	178.30	EL1	2496.9	EL2	237.7	ALF	4.11

LAUNCH DATE SEP 17 1970 FLIGHT TIME 210.00 ARRIVAL DATE APR 15 1971

HELIOCENTRIC CONIC DISTANCE 601.467

RL	150.36	LAL	-.00	LOL	353.69	VL	25.611	GAL	13.26	AZL	87.29	HCA	304.03	SMA	119.83	ECC	.33930	INC	2.7073	V1	29.634
RP	108.92	LAP	-2.24	LOP	297.75	VP	36.435	GAP	19.18	AZP	88.48	TAL	150.73	TAP	94.76	RCA	79.04	APO	160.22	V2	34.791
RC	190.549	GL	8.46	GP	11.56	ZAL	37.53	ZAP	168.23	ETS	98.38	ZAE	125.61	ETE	171.58	ZAC	113.30	ETC	272.89	CLP	177.76

PLANETOCENTRIC CONIC

C3	64.028	VHL	8.002	DLA	-7.67	RAL	316.87	RAD	6569.2	VEL	13.616	PTH	2.49	VHP	12.174	DPA	-11.70	RAP	296.26	ECC	2.0537

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 43 52	2263.21	-20.72	44.58	195.92	109.75	10 21 36	1663.2	-17.84	37.09
90.00	19 46 29	5387.08	27.93	246.63	202.09	85.13	21 16 17	4787.1	26.96	238.10
100.00	11 1 32	2012.69	-22.11	25.62	195.37	110.65	11 35 4	1412.7	-19.10	18.11
100.00	21 11 31	5112.83	29.40	226.31	201.93	84.35	22 36 44	4512.8	28.31	217.68
110.00	12 1 21	1825.37	-25.82	9.77	193.74	113.22	12 31 46	1225.4	-22.45	2.23
110.00	22 28 11	4872.91	33.38	207.54	201.38	82.16	23 49 24	4272.9	31.93	198.61

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	2.8750	TRA	6.8500	TC3	-1.1691	BAU	1.0010	SGT	5677.3	SGR	391.6	SG3	120.8	ST	2538.8	SR	291.1	SS	697.8
RDE	.3903	RRA	-.3757	RC3	.0248	FAU	.00499	RRT	-.3789	RRF	-.3693	RTF	.9668	CRT	.6148	CRS	-.6188	CST	-.9998
FDE	.7540	FRA	1.7785	FC3	-.0675	BSP	19417	SGB	5690.8	RZS	.0016	RIS	-.9668	LSA	2639.0	MSA	229.0	SSA	11.5
BDE	2.9013	BRA	6.8803	BC3	1.1694	FSP	-430	SG1	5679.3	SG2	362.3	THA	178.50	EL1	2545.1	EL2	229.0	ALF	4.07

LAUNCH DATE SEP 17 1970 FLIGHT TIME 212.00 ARRIVAL DATE APR 17 1971

HELIOCENTRIC CONIC DISTANCE 605.500

RL	150.36	LAL	-.00	LOL	353.69	VL	25.576	GAL	14.52	AZL	87.01	HCA	307.18	SMA	119.43	ECC	.35449	INC	2.9884	V1	29.634
RP	108.93	LAP	-2.38	LOP	300.91	VP	36.408	GAP	20.17	AZP	88.19	TAL	149.52	TAP	96.70	RCA	77.10	APO	161.77	V2	34.789
RC	192.414	GL	8.68	GP	11.37	ZAL	36.39	ZAP	168.19	ETS	103.39	ZAE	125.39	ETE	171.76	ZAC	112.90	ETC	273.44	CLP	176.77

PLANETOCENTRIC CONIC

C3	73.097	VHL	8.550	DLA	-7.10	RAL	317.97	RAD	6569.4	VEL	13.944	PTH	2.55	VHP	12.780	DPA	-11.58	RAP	298.44	ECC	2.2030

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 43 50	2312.89	-21.03	47.81	199.34	108.50	10 22 23	1712.9	-19.10	40.20
90.00	19 55 19	5400.33	28.00	247.59	205.32	85.60	21 25 19	4800.3	27.10	239.05
100.00	11 1 47	2061.43	-23.24	28.79	198.82	109.35	11 36 9	1461.4	-20.39	21.16
100.00	21 20 3	5127.02	29.49	227.35	205.18	84.89	22 45 30	4527.0	28.47	218.70
110.00	12 2 16	1872.05	-27.04	12.85	197.25	111.76	12 33 28	1272.0	-23.84	5.14
110.00	22 36 3	4889.17	33.52	208.79	204.67	82.88	23 57 32	4289.2	32.17	199.82

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	3.1385	TRA	7.3789	TC3	-.9705	BAU	.9486	SGT	5657.7	SGR	373.4	SG3	117.2	ST	2580.9	SR	285.0	SS	715.8
RDE	.4102	RRA	-.3714	RC3	.0178	FAU	.00347	RRT	-.3419	RRF	-.3346	RTF	.9699	CRT	.6530	CRS	-.6352	CST	-.9999
FDE	.7899	FRA	1.8467	FC3	-.0410	BSP	19292	SGB	5670.0	RZS	.0018	RIS	-.9699	LSA	2684.4	MSA	220.1	SSA	11.0
BDE	3.1652	BRA	7.3882	BC3	.9707	FSP	-413	SG1	5659.1	SG2	350.8	THA	178.70	EL1	2587.3	EL2	220.1	ALF	4.03

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LAUNCH DATE  SEP 17 1970                          FLIGHT TIME 214.00                          ARRIVAL DATE  APR 19 1971

  HELIOCENTRIC CONIC                                  DISTANCE 609.210
   RL  150.36 LAL   -.00 LOL 353.69 VL  25.542 GAL  15.89 AZL  86.71 HCA 310.34 SHA 119.25 ECC .37142 INC 3.2941 V1  29.634
   RP  108.94 LAP  -2.51 LOP 304.08 VP  36.382 GAP  21.26 AZP  87.87 TAL 148.39 TAP  98.73 RCA  74.96 APO 163.54 V2  34.787
   RC 194.261 GL    8.87 GP   11.20 ZAL  35.35 ZAP 168.03 ETS 108.51 ZAE 125.12 ETE 171.95 ZAC 112.50 ETC 273.97 CLP 175.74
  PLANETOCENTRIC CONIC
   C3  83.808 VHL  9.155 DLA  -6.59 RAL 318.97 RAD 6569.6 VEL 14.323 PTH   2.61 VHP 13.455 DPA -11.43 RAP 300.57 ECC 2.3793
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      90.00     9 43 54   2360.50     -22.02      50.94     202.69      107.23   10 23 15     1760.5     -20.25      43.22
      90.00    20  3 12   5415.66      28.08     248.71     208.48       86.16   21 33 28     4815.7      27.25     240.14
     100.00    11  2  6   2108.22     -24.26      31.09     202.19      108.02   11 37 15     1508.2     -21.57      24.13
     100.00    21 27 41   5143.18      29.58     228.55     208.35       85.51   22 53 24     4543.2      28.65     219.87
     110.00    12  3 10   1917.02     -28.13      15.09     200.70      110.27   12 35  7     1317.0     -25.12       8.01
     110.00    22 43  6   4907.15      33.67     210.17     207.90       83.69   24  4 54     4307.1      32.43     201.16
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
   TDE 3.4228 TRA 7.9525 TC3 -.7875 BAU  .8824      SGT 5636.6 SGR  354.7 SG3  113.9       ST  2617.3 SR   278.8 SS   736.2
   RDE  .4318 RRA -.3629 RC3  .0119 FAU .00183      RRT -.2992 RRF -.2941 RTF  .9731       CRT  .6520 CRS -.6528 CST -.9999
   FDE  .8289 FRA 1.9222 FC3 -.0189 BSP  19051      SGB 5647.7 RZ3  .0020 RI3 -.9731       LSA 2725.0 MSA  210.9 SSA   10.5
   BDE 3.4499 BRA 7.9606 BC3  .7876 FSP   -395      SG1 5637.6 SG2  338.4 THA 178.92       EL1 2623.6 EL2  210.9 ALF   4.00

LAUNCH DATE  SEP 17 1970                          FLIGHT TIME 216.00                          ARRIVAL DATE  APR 21 1971

  HELIOCENTRIC CONIC                                  DISTANCE 612.522
   RL  150.36 LAL   -.00 LOL 353.69 VL  25.509 GAL  17.41 AZL  86.37 HCA 313.49 SHA 119.07 ECC .39036 INC 3.6296 V1  29.634
   RP  108.94 LAP  -2.63 LOP 307.24 VP  36.358 GAP  22.48 AZP  87.50 TAL 147.37 TAP 100.86 RCA  72.59 APO 165.55 V2  34.786
   RC 196.090 GL    9.02 GP   11.04 ZAL  34.44 ZAP 167.75 ETS 113.67 ZAE 124.80 ETE 172.15 ZAC 112.10 ETC 274.48 CLP 174.65
  PLANETOCENTRIC CONIC
   C3  96.540 VHL  9.825 DLA  -6.14 RAL 319.86 RAD 6569.9 VEL 14.761 PTH   2.67 VHP 14.209 DPA -11.25 RAP 302.64 ECC 2.5888
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      90.00     9 44  2   2405.86     -23.70      53.97     205.95      105.96   10 24  8     1805.9     -21.29      46.14
      90.00    20 10  9   5432.88      28.15     249.97     211.55       86.78   21 40 42     4832.9      27.41     241.38
     100.00    11  2 28   2152.06     -25.17      34.90     205.48      106.68   11 38 21     1552.9     -22.64      27.01
     100.00    21 34 25   5161.12      29.67     229.87     211.44       86.21   23  0 26     4561.1      28.83     221.17
     110.00    12  4  2   1960.09     -29.11      18.85     204.06      108.76   12 36 42     1360.1     -26.28      10.82
     110.00    22 40 20   4926.66      33.80     211.68     211.05       84.57   24 11 26     4326.7      32.68     202.62
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
   TDE 3.7316 TRA 8.5776 TC3 -.6193 BAU  .7994      SGT 5614.7 SGR  335.8 SG3  110.8       ST  2648.4 SR   272.7 SS   759.9
   RDE  .4556 RRA -.3493 RC3  .0072 FAU .00005      RRT -.2492 RRF -.2463 RTF  .9764       CRT  .6720 CRS -.6717 CST -.9999
   FDE  .8719 FRA 2.0063 FC3 -.0004 BSP  18671      SGB 5624.7 RZ3  .0022 RI3 -.9764       LSA 2761.4 MSA  201.5 SSA   10.0
   BDE 3.7593 BRA 8.5847 BC3  .6194 FSP   -375      SG1 5615.3 SG2  325.2 THA 179.14       EL1 2654.8 EL2  201.5 ALF   3.98

LAUNCH DATE  SEP 17 1970                          FLIGHT TIME 218.00                          ARRIVAL DATE  APR 23 1971

  HELIOCENTRIC CONIC                                  DISTANCE 615.339
   RL  150.36 LAL   -.00 LOL 353.69 VL  25.478 GAL  19.08 AZL  86.00 HCA 316.64 SHA 118.90 ECC .41160 INC 4.0021 V1  29.634
   RP  108.94 LAP  -2.75 LOP 310.40 VP  36.336 GAP  23.85 AZP  87.09 TAL 146.49 TAP 103.13 RCA  69.96 APO 167.84 V2  34.785
   RC 197.900 GL    9.15 GP   10.88 ZAL  33.64 ZAP 167.34 ETS 118.81 ZAE 124.41 ETE 172.35 ZAC 111.71 ETC 274.97 CLP 173.50
  PLANETOCENTRIC CONIC
   C3 111.785 VHL 10.573 DLA  -5.76 RAL 320.63 RAD 6570.1 VEL 15.268 PTH   2.74 VHP 15.058 DPA -11.04 RAP 304.64 ECC 2.8397
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      90.00     9 44 14   2448.74     -24.48      56.88     209.08      104.70   10 25  2     1848.7     -22.22      48.94
      90.00    20 16  7   5451.83      28.21     251.35     214.50       87.47   21 46 59     4851.8      27.56     242.74
     100.00    11  2 50   2195.13     -25.96      37.79     208.64      105.36   11 39 26     1595.1     -23.60      29.79
     100.00    21 40 12   5180.87      29.75     231.32     214.42       86.96   23  6 32     4580.7      29.01     222.59
     110.00    12  4 50   2001.03     -29.98      21.73     207.31      107.26   12 38 11     1401.0     -27.32      13.54
     110.00    22 54 41   4947.54      33.92     213.30     214.10       85.52   24 17  9     4347.5      32.93     204.20
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
   TDE 4.0675 TRA 9.2598 TC3 -.4658 BAU  .6962      SGT 5591.6 SGR  317.1 SG3  107.8       ST  2673.7 SR   266.8 SS   787.1
   RDE  .4822 RRA -.3294 RC3  .0037 FAU-.00194      RRT -.1899 RRF -.1891 RTF  .9796       CRT  .6933 CRS -.6921 CST -.9999
   FDE  .9193 FRA 2.1004 FC3  .0150 BSP  18152      SGB 5600.6 RZ3  .0025 RI3 -.9796       LSA 2793.3 MSA  191.9 SSA    9.5
   BDE 4.0960 BRA 9.2657 BC3  .4659 FSP   -353      SG1 5591.9 SG2  311.3 THA 179.38       EL1 2680.1 EL2  191.8 ALF   3.98

LAUNCH DATE  SEP 17 1970                          FLIGHT TIME 220.00                          ARRIVAL DATE  APR 25 1971

  HELIOCENTRIC CONIC                                  DISTANCE 617.530
   RL  150.36 LAL   -.00 LOL 353.69 VL  25.449 GAL  20.95 AZL  85.58 HCA 319.79 SHA 118.74 ECC .43553 INC 4.4208 V1  29.634
   RP  108.94 LAP  -2.85 LOP 313.56 VP  36.315 GAP  25.41 AZP  86.62 TAL 145.77 TAP 105.55 RCA  67.03 APO 170.46 V2  34.785
   RC 199.690 GL    9.24 GP   10.74 ZAL  32.98 ZAP 166.79 ETS 123.88 ZAE 123.94 ETE 172.56 ZAC 111.32 ETC 275.43 CLP 172.26
  PLANETOCENTRIC CONIC
   C3 130.184 VHL 11.410 DLA  -5.45 RAL 321.28 RAD 6570.4 VEL 15.859 PTH   2.81 VHP 16.017 DPA -10.81 RAP 306.56 ECC 3.1425
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      90.00     9 44 26   2488.81     -25.14      59.63     212.05      103.48   10 25 55     1888.8     -23.04      51.59
      90.00    20 21  3   5472.38      28.27     252.85     217.33       88.22   21 52 15     4872.4      27.72     244.23
     100.00    11  3 12   2254.72     -26.65      40.53     211.64      104.07   11 40 27     1634.7     -24.45      32.42
     100.00    21 44 58   5201.71      29.82     232.88     217.26       87.78   23 11 40     4601.7      29.19     224.13
     110.00    12  5 33   2039.53     -30.72      24.48     210.40      105.78   12 39 33     1439.5     -28.25      16.15
     110.00    22 59  7   4969.66      34.03     215.02     217.02       86.53   24 21 57     4369.7      33.17     205.88
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
   TDE 4.3857 TRA 9.9887 TC3 -.3413 BAU  .5940      SGT 5540.2 SGR  299.0 SG3  104.4       ST  2668.7 SR   261.5 SS   810.4
   RDE  .5129 RRA -.3012 RC3  .0015 FAU-.00366      RRT -.1199 RRF -.1211 RTF  .9826       CRT  .7142 CRS -.7122 CST -.9999
   FDE  .9605 FRA 2.1945 FC3  .0243 BSP  18628      SGB 5548.2 RZ3  .0030 RI3 -.9826       LSA 2795.3 MSA  182.7 SSA    9.0
   BDE 4.4155 BRA 9.9632 BC3  .3413 FSP   -354      SG1 5540.3 SG2  296.9 THA 179.63       EL1 2675.3 EL2  182.6 ALF   4.02
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LAUNCH DATE SEP 18 1970 FLIGHT TIME 70.00 ARRIVAL DATE NOV 27 1970

HELIOCENTRIC CONIC DISTANCE 181.382

RL	150.32	LAL	-.00	LOL	354.67	VL	26.104	GAL	-7.68	AZL	90.13	HCA	79.61	SHA	122.39	ECC	.26270	INC	.1276
RP	107.81	LAP	-.13	LOP	74.28	VP	37.118	GAP	-13.64	AZP	90.02	TAL	202.91	TAP	282.52	RCA	90.24	APO	154.54
RC	45.436	GL	-.69	GP	-14.04	ZAL	128.66	ZAP	15.13	ETS	64.11	ZAE	149.60	ETE	336.42	ZAC	87.82	ETC	261.44

V1 29.642 V2 35.152 CLP -5.72

PLANETOCENTRIC CONIC

C3 23.296 VHL 4.827 DLA -17.29 RAL 223.33 RAD 6567.9 VEL 12.028 PTH 2.15 VHP 8.861 DPA -34.95 RAP 243.30 ECC 1.3834

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 49 51	1601.30	-4.07	10.03	86.21	118.05	5 17 52	1081.3	-.29	3.39
90.00	12 6 21	5465.07	28.25	252.31	93.73	87.96	13 37 26	4865.1	27.67	243.70
100.00	6 1 12	1451.04	-5.36	352.30	85.50	119.45	6 25 23	851.0	-1.40	345.85
100.00	13 37 41	5170.56	29.71	230.57	93.65	86.57	15 3 51	4570.6	28.92	221.86
110.00	6 47 29	1306.05	-8.62	339.40	83.50	123.21	7 9 15	706.1	-4.19	333.11
110.00	15 7 53	4800.32	33.51	208.72	93.24	82.84	16 29 21	4288.3	32.16	199.75

DIFFERENTIAL CORRECTIONS

TDE	.1285	TRA	-.3915	TC3	.4770	BAU	.1632
RDE	-.3224	RRA	-.0986	RC3	-.2170	FAU	.03228
FDE	.0953	FRA	.0074	FC3	-1.1996	BSP	1853
BDE	.3471	BRA	.4032	BC3	.5240	FSP	-243

MID-COURSE EXECUTION ACCURACY

SGT	687.1	SGR	452.5	SGS	100.5
RRT	-.3086	RRF	.3763	RTF	-.6509
SGB	822.7	RZS	-.0592	RIS	.6737
SGI	709.4	SGZ	416.8	THA	162.11

ORBIT DETERMINATION ACCURACY

ST	211.6	SR	384.5	SS	90.6
CRT	-.6540	CRS	.9487	CST	-.6537
LSA	421.6	NSA	149.4	SSA	27.7
EL1	412.8	EL2	149.1	ALF	112.96

LAUNCH DATE SEP 18 1970 FLIGHT TIME 72.00 ARRIVAL DATE NOV 29 1970

HELIOCENTRIC CONIC DISTANCE 188.198

RL	150.32	LAL	-.00	LOL	354.67	VL	28.308	GAL	-7.66	AZL	89.93	HCA	82.84	SHA	123.61	ECC	.25220	INC	.0637
RP	107.77	LAP	.06	LOP	77.51	VP	37.273	GAP	-12.65	AZP	89.99	TAL	204.23	TAP	287.07	RCA	92.44	APO	154.78
RC	46.738	GL	.36	GP	-14.93	ZAL	130.37	ZAP	16.97	ETS	57.46	ZAE	148.13	ETE	335.12	ZAC	86.99	ETC	261.58

V1 29.642 V2 35.163 CLP -8.15

PLANETOCENTRIC CONIC

C3 21.888 VHL 4.679 DLA -15.78 RAL 221.95 RAD 6567.9 VEL 11.968 PTH 2.13 VHP 8.335 DPA -36.01 RAP 243.95 ECC 1.3602

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 29 48	1722.04	-5.37	12.32	83.65	117.84	4 58 30	1122.0	-1.61	5.66
90.00	12 15 25	5384.05	27.97	247.14	90.53	85.38	13 45 17	4794.1	27.03	238.60
100.00	5 42 25	1487.74	-6.58	354.43	82.99	119.22	6 7 13	887.7	-2.64	347.86
100.00	13 45 27	5103.59	29.34	225.63	90.38	84.00	15 10 31	4503.6	28.20	217.01
110.00	6 31 17	1334.68	-9.68	340.95	81.10	122.94	6 53 31	734.7	-5.28	334.61
110.00	15 13 5	4829.41	32.92	204.23	89.80	80.24	16 33 35	4229.4	31.23	195.41

DIFFERENTIAL CORRECTIONS

TDE	.1170	TRA	-.3744	TC3	.5336	BAU	.1737
RDE	-.3051	RRA	-.1018	RC3	-.2802	FAU	.03505
FDE	.1354	FRA	-.0172	FC3	-1.3865	BSP	1950
BDE	.3268	BRA	.3880	BC3	.5937	FSP	-279

MID-COURSE EXECUTION ACCURACY

SGT	704.9	SGR	464.4	SGS	113.0
RRT	-.3463	RRF	.4228	RTF	-.6654
SGB	844.1	RZS	-.0801	RIS	.6928
SGI	732.7	SGZ	419.1	THA	160.56

ORBIT DETERMINATION ACCURACY

ST	202.9	SR	375.8	SS	122.8
CRT	-.6306	CRS	.9590	CST	-.6970
LSA	418.0	NSA	147.7	SSA	30.3
EL1	400.7	EL2	147.7	ALF	111.94

LAUNCH DATE SEP 18 1970 FLIGHT TIME 74.00 ARRIVAL DATE DEC 1 1970

HELIOCENTRIC CONIC DISTANCE 195.010

RL	150.32	LAL	-.00	LOL	354.67	VL	26.492	GAL	-7.64	AZL	89.74	HCA	86.06	SHA	124.74	ECC	.24289	INC	.2561
RP	107.74	LAP	.26	LOP	80.73	VP	37.412	GAP	-11.71	AZP	89.98	TAL	205.55	TAP	291.61	RCA	94.44	APO	155.03
RC	48.150	GL	1.48	GP	-15.93	ZAL	132.01	ZAP	19.10	ETS	52.00	ZAE	146.85	ETE	333.63	ZAC	86.06	ETC	261.70

V1 29.642 V2 35.174 CLP -10.68

PLANETOCENTRIC CONIC

C3 20.740 VHL 4.554 DLA -14.23 RAL 220.66 RAD 6567.8 VEL 11.921 PTH 2.12 VHP 7.842 DPA -37.13 RAP 244.48 ECC 1.3413

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 10 24	1764.73	-6.72	14.72	81.37	117.57	4 39 48	1164.7	-2.98	8.05
90.00	12 24 30	5325.42	27.49	242.17	87.56	82.93	13 53 16	4725.4	26.23	233.73
100.00	5 24 10	1526.71	-7.87	356.00	80.75	118.93	5 49 37	926.7	-3.95	350.01
100.00	13 53 25	5038.67	28.78	220.88	87.36	81.56	15 17 24	4438.7	27.32	212.39
110.00	6 15 27	1366.06	-10.84	342.63	78.95	122.62	6 38 13	766.1	-6.46	336.27
110.00	15 18 37	4772.08	32.18	199.92	86.64	77.80	16 38 9	4172.1	30.17	191.29

DIFFERENTIAL CORRECTIONS

TDE	.1043	TRA	-.3581	TC3	.5872	BAU	.1840
RDE	-.2873	RRA	-.1075	RC3	-.3089	FAU	.03816
FDE	.1836	FRA	-.0491	FC3	-1.5930	BSP	2049
BDE	.3096	BRA	.3739	BC3	.6635	FSP	-321

MID-COURSE EXECUTION ACCURACY

SGT	720.6	SGR	478.8	SGS	127.0
RRT	-.3857	RRF	.4729	RTF	-.6781
SGB	865.2	RZS	-.0801	RIS	.7113
SGI	755.7	SGZ	421.2	THA	158.73

ORBIT DETERMINATION ACCURACY

ST	192.2	SR	363.9	SS	159.7
CRT	-.5968	CRS	.9604	CST	-.7080
LSA	415.3	NSA	145.9	SSA	32.9
EL1	384.8	EL2	145.8	ALF	110.58

LAUNCH DATE SEP 18 1970 FLIGHT TIME 76.00 ARRIVAL DATE DEC 3 1970

HELIOCENTRIC CONIC DISTANCE 201.812

RL	150.32	LAL	-.00	LOL	354.67	VL	26.656	GAL	-7.63	AZL	89.55	HCA	89.29	SHA	125.77	ECC	.23469	INC	.4461
RP	107.71	LAP	.45	LOP	83.96	VP	37.538	GAP	-10.81	AZP	89.99	TAL	206.84	TAP	296.13	RCA	96.25	APO	155.28
RC	49.661	GL	2.65	GP	-17.02	ZAL	133.55	ZAP	21.49	ETS	47.52	ZAE	145.75	ETE	331.92	ZAC	85.01	ETC	261.80

V1 29.642 V2 35.184 CLP -13.31

PLANETOCENTRIC CONIC

C3 19.808 VHL 4.451 DLA -12.63 RAL 219.48 RAD 6567.8 VEL 11.882 PTH 2.11 VHP 7.380 DPA -38.33 RAP 244.85 ECC 1.3260

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 51 44	1809.96	-8.11	17.24	79.58	117.22	4 21 53	1209.0	-4.40	10.52
90.00	12 33 44	5259.26	26.85	237.44	84.86	80.64	14 1 24	4659.3	25.28	229.12
100.00	5 6 34	1567.51	-9.21	358.80	78.80	118.56	5 32 41	967.5	-5.32	352.26
100.00	14 1 35	4975.94	28.07	216.36	84.62	79.28	15 24 31	4375.9	26.30	208.00
110.00	6 0 8	1399.72	-12.07	344.46	77.09	122.23	6 23 28	799.7	-7.73	338.05
110.00	15 24 30	4716.50	31.31	195.82	83.79	75.52	16 43 7	4116.5	29.00	187.38

DIFFERENTIAL CORRECTIONS

TDE	.0808	TRA	-.3432	TC3	.6349	BAU	.1937
RDE	-.2682	RRA	-.1138	RC3	-.3634	FAU	.04162
FDE	.2418	FRA	-.0758	FC3	-1.8190	BSP	2139
BDE	.2830	BRA	.3616	BC3	.7315	FSP	-367

MID-COURSE EXECUTION ACCURACY

SGT	733.4	SGR	498.3	SGS	142.7
RRT	-.4259	RRF	.5260	RTF	-.6880
SGB	885.6	RZS	-.0931	RIS	.7287
SGI	777.8	SGZ	423.4	THA	156.62

ORBIT DETERMINATION ACCURACY

ST	179.7	SR	348.3	SS	201.8
CRT	-.5473	CRS	.9584	CST	-.6946
LSA	415.0	NSA	144.3	SSA	35.4
EL1	364.6	EL2	143.7	ALF	108.80

LAUNCH DATE SEP 18 1970 FLIGHT TIME 78.00 ARRIVAL DATE DEC 5 1970

HELIOCENTRIC CONIC DISTANCE 208.603

RL	150.32	LAL	-.00	LOL	354.67	VL	26.803	GAL	-7.63	AZL	89.36	HCA	92.52	SMA	126.71	ECC	.22748	INC	.6358
RP	107.68	LAP	.64	LOP	87.19	VP	37.651	GAP	-9.95	AZP	90.03	TAL	20^.09	TAP	300.61	RCA	97.88	APO	155.53
RC	51.263	GL	3.87	GP	-18.24	ZAL	134.97	ZAP	24.13	ETS	43.81	ZAE	144.81	ETE	329.97	ZAC	83.84	ETC	261.86

V1	29.642	V2	35.193	CLP	-16.08														

PLANETOCENTRIC CONIC

C3	19.060	VHL	4.366	DLA	-11.01	RAL	218.42	RAD	6567.8	VEL	11.851	PTH	2.10	VHP	6.950	DPA	-39.62	RAP	245.04
ECC	1.3137																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 33 53	1854.40	-9.52	19.83	77.70	116.80	4 4 48	1254.4	-5.84	13.08
90.00	12 43 8	5195.58	26.06	232.94	82.46	78.52	14 9 44	4595.6	24.22	224.76
100.00	4 49 43	1609.83	-10.57	1.29	77.14	118.12	5 16 33	1009.8	-6.73	354.61
100.00	14 10 0	4915.44	27.23	212.06	82.17	77.16	15 31 55	4315.4	25.19	203.85
110.00	5 45 27	1435.21	-13.35	346.41	75.51	121.76	6 9 23	835.2	-9.05	339.95
110.00	15 30 45	4662.77	30.35	191.94	81.25	73.42	16 48 27	4062.8	27.76	183.69

DIFFERENTIAL CORRECTIONS

TDE	.0761	TRA	-.3296	TC3	.6751	BAU	.2031
RDE	-.2475	RRA	-.1207	RC3	-.4239	FAU	.04545
FDE	.3105	FRA	-.1094	FC3	-2.0644	BSP	2233
BDE	.2589	BRA	.3510	BC3	.7971	FSP	-420

MID-COURSE EXECUTION ACCURACY

SGT	742.7	SGR	518.2	SG3	160.2		
RRT	-.4664	RRF	.5813	RTF	-.6953		
SGB	905.6	R23	-.1073	R13	.7459		
SG1	799.2	SG2	426.0	THA	154.13		

ORBIT DETERMINATION ACCURACY

ST	166.6	SR	328.6	SS	248.2
CRT	-.4792	CRS	.9543	CST	-.6611
LSA	418.9	MSA	143.1	SSA	37.4
EL1	340.3	EL2	141.2	ALF	106.60

LAUNCH DATE SEP 18 1970 FLIGHT TIME 80.00 ARRIVAL DATE DEC 7 1970

HELIOCENTRIC CONIC DISTANCE 215.379

RL	150.32	LAL	-.00	LOL	354.67	VL	26.933	GAL	-7.63	AZL	89.17	HCA	95.75	SMA	127.56	ECC	.22118	INC	.8265
RP	107.65	LAP	.82	LOP	90.42	VP	37.752	GAP	-9.13	AZP	90.08	TAL	209.28	TAP	305.03	RCA	99.35	APO	155.77
RC	52.948	GL	5.14	GP	-19.58	ZAL	136.24	ZAP	27.01	ETS	40.67	ZAE	144.03	ETE	327.73	ZAC	82.53	ETC	261.89

V1	29.642	V2	35.202	CLP	-18.98														

PLANETOCENTRIC CONIC

C3	18.465	VHL	4.297	DLA	-9.37	RAL	217.50	RAD	6567.7	VEL	11.826	PTH	2.09	VHP	6.550	DPA	-41.00	RAP	245.02
ECC	1.3039																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 16 55	1900.77	-10.93	22.51	76.32	116.29	3 48 36	1300.8	-7.31	15.70
90.00	12 52 44	5134.29	25.16	228.68	80.34	76.57	14 18 19	4534.3	23.07	220.64
100.00	4 33 40	1653.16	-11.96	3.77	75.78	117.60	5 1 14	1053.2	-8.17	357.03
100.00	14 18 40	4857.14	26.28	207.98	80.03	75.22	15 39 37	4257.1	23.99	199.93
110.00	5 31 28	1472.18	-14.66	348.47	74.21	121.23	5 56 0	872.2	-10.42	341.94
110.00	15 37 82	4610.88	29.26	188.28	79.03	71.49	16 54 13	4010.9	26.45	180.22

DIFFERENTIAL CORRECTIONS

TDE	.0816	TRA	-.3178	TC3	.7056	BAU	.2122
RDE	-.2246	RRA	-.1281	RC3	-.4910	FAU	.04967
FDE	.3914	FRA	-.1456	FC3	-2.3287	BSP	2320
BDE	.2329	BRA	.3427	BC3	.8597	FSP	-479

MID-COURSE EXECUTION ACCURACY

SGT	747.7	SGR	545.7	SG3	179.5		
RRT	-.5053	RRF	.6372	RTF	-.6993		
SGB	925.6	R23	-.1225	R13	.7630		
SG1	820.0	SG2	429.3	THA	151.18		

ORBIT DETERMINATION ACCURACY

ST	153.9	SR	304.2	SS	299.2
CRT	-.3877	CRS	.9481	CST	-.6073
LSA	428.9	MSA	142.5	SSA	38.7
EL1	311.5	EL2	138.6	ALF	103.90

LAUNCH DATE SEP 18 1970 FLIGHT TIME 82.00 ARRIVAL DATE DEC 9 1970

HELIOCENTRIC CONIC DISTANCE 222.136

RL	150.32	LAL	-.00	LOL	354.67	VL	27.048	GAL	-7.64	AZL	88.98	HCA	98.98	SMA	128.32	ECC	.21568	INC	1.0195
RP	107.63	LAP	1.01	LOP	93.65	VP	37.842	GAP	-8.34	AZP	90.16	TAL	210.40	TAP	309.38	RCA	100.65	APO	156.00
RC	54.707	GL	6.46	GP	-21.06	ZAL	137.34	ZAP	30.13	ETS	37.96	ZAE	143.37	ETE	325.15	ZAC	81.06	ETC	261.87

V1	29.642	V2	35.210	CLP	-22.05														

PLANETOCENTRIC CONIC

C3	17.999	VHL	4.242	DLA	-7.72	RAL	216.72	RAD	6567.7	VEL	11.806	PTH	2.09	VHP	6.181	DPA	-42.48	RAP	244.75
ECC	1.2962																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 0 50	1947.87	-12.33	25.26	75.23	115.69	3 33 18	1347.9	-8.77	18.38
90.00	13 2 36	5075.24	24.17	224.64	78.53	74.78	14 27 12	4475.2	21.84	216.74
100.00	4 18 28	1697.44	-13.34	6.33	74.72	117.00	4 46 45	1097.4	-9.61	359.52
100.00	14 27 40	4800.90	25.25	204.13	78.19	73.44	15 47 41	4200.9	22.74	196.23
110.00	5 18 14	1510.32	-16.00	350.62	73.20	120.62	5 43 24	910.3	-11.82	344.01
110.00	15 44 24	4560.78	28.13	184.82	77.12	69.72	17 0 24	3960.8	25.11	176.95

DIFFERENTIAL CORRECTIONS

TDE	.0477	TRA	-.3081	TC3	.7244	BAU	.2211
RDE	-.1988	RRA	-.1361	RC3	-.5651	FAU	.05425
FDE	.4857	FRA	-.1839	FC3	-2.6095	BSP	2407
BDE	.2045	BRA	.3369	BC3	.9187	FSP	-544

MID-COURSE EXECUTION ACCURACY

SGT	747.2	SGR	580.0	SG3	200.7		
RRT	-.5402	RRF	.6917	RTF	-.6992		
SGB	945.9	R23	-.1377	R13	.7805		
SG1	840.5	SG2	433.9	THA	147.68		

ORBIT DETERMINATION ACCURACY

ST	142.7	SR	274.6	SS	354.3
CRT	-.2694	CRS	.9384	CST	-.5335
LSA	446.7	MSA	142.5	SSA	39.0
EL1	278.2	EL2	135.7	ALF	100.49

LAUNCH DATE SEP 18 1970 FLIGHT TIME 84.00 ARRIVAL DATE DEC 11 1970

HELIOCENTRIC CONIC DISTANCE 228.874

RL	150.32	LAL	-.00	LOL	354.67	VL	27.148	GAL	-7.64	AZL	88.78	HCA	102.22	SMA	129.00	ECC	.21091	INC	1.2160
RP	107.60	LAP	1.19	LOP	96.89	VP	37.921	GAP	-7.59	AZP	90.26	TAL	211.43	TAP	313.65	RCA	101.80	APO	156.21
RC	56.533	GL	7.81	GP	-22.69	ZAL	138.27	ZAP	33.47	ETS	35.56	ZAE	142.81	ETE	322.20	ZAC	79.44	ETC	261.81

V1	29.642	V2	35.218	CLP	-25.30														

PLANETOCENTRIC CONIC

C3	17.642	VHL	4.200	DLA	-6.07	RAL	216.09	RAD	6567.7	VEL	11.791	PTH	2.08	VHP	5.843	DPA	-44.05	RAP	244.19
ECC	1.2903																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 45 36	1995.59	-13.72	28.07	74.43	115.01	3 18 53	1395.6	-10.24	21.12
90.00	13 12 48	5018.20	23.09	220.81	77.02	73.14	14 36 27	4418.2	20.57	213.04
100.00	4 4 5	1742.47	-14.71	8.97	73.94	116.32	4 33 8	1142.5	-11.06	2.08
100.00	14 37 2	4746.55	24.14	200.47	76.65	71.82	15 56 8	4146.5	21.43	192.72
110.00	5 5 44	1549.45	-17.34	352.86	72.48	119.93	5 31 34	949.5	-13.23	346.16
110.00	15 51 52	4512.33	28.94	181.55	75.52	68.12	17 7 4	3912.3	23.73	173.86

DIFFERENTIAL CORRECTIONS

TDE	.0351	TRA	-.3009	TC3	.7292	BAU	.2298
RDE	-.1695	RRA	-.1446	RC3	-.6464	FAU	.05917
FDE	.5945	FRA	-.2253	FC3	-2.9038	BSP	2492
BDE	.1731	BRA	.3339	BC3	.9745	FSP	-616

MID-COURSE EXECUTION ACCURACY

SGT	740.3	SGR	622.6	SG3	223.7		
RRT	-.5680	RRF	.7432	RTF	-.6935		
SGB	967.3	R23	-.1515	R13	.7988		
SG1	861.2	SG2	440.5	THA	143.51		

ORBIT DETERMINATION ACCURACY

ST	134.1	SR	239.3	SS	413.5
CRT	-.1250	CRS	.9222	CST	-.4452
LSA	473.7	MSA	142.9	SSA	38.4
EL1	240.2	EL2	132.5	ALF	95.77

LAUNCH DATE SEP 18 1970 FLIGHT TIME 86.00 ARRIVAL DATE DEC 13 1970

HELIOCENTRIC CONIC DISTANCE 235.589

RL	150.32	LAL	-.00	LOL	354.67	VL	27.236	GAL	-7.64	AZL	88.58	HCA	105.45	SMA	129.61	ECC	.20678	INC	1.4175	V1	29.642
RP	107.58	LAP	1.37	LOP	100.13	VP	37.991	GAP	-6.87	AZP	90.38	TAL	212.36	TAP	317.82	RCA	102.81	APO	156.41	V2	35.225
RC	58.419	GL	9.22	GP	-24.47	ZAL	139.00	ZAP	37.05	ETS	33.35	ZAE	142.30	ETE	318.84	ZAC	77.66	ETC	261.69	CLP	-28.74

PLANETOCENTRIC CONIC

C3	17.377	VHL	4.169	DLA	-4.42	RAL	215.62	RAD	6567.7	VEL	11.780	PTH	2.08	VHP	5.537	DPA	-45.72	RAP	243.30	ECC	1.2860

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 31 15	2043.89	-15.09	30.05	73.91	114.25	3 5 19	1443.9	-11.69	23.93
90.00	13 23 24	4962.90	21.96	217.15	75.79	71.65	14 46 7	4362.9	19.25	209.53
100.00	3 50 31	1788.19	-16.08	11.60	73.44	115.55	4 20 19	1188.2	-12.51	4.71
100.00	14 46 50	4893.83	22.98	196.90	75.41	70.34	16 5 3	4093.8	20.09	189.38
110.00	4 54 0	1589.45	-18.69	355.18	72.02	119.16	5 20 29	989.4	-14.66	348.38
110.00	15 59 50	4465.34	25.71	178.45	74.23	66.66	17 14 15	3865.3	22.33	170.93

DIFFERENTIAL CORRECTIONS

TDE	.0196	TRA	-.3016	TC3	.7069	BAU	.2364
RDE	-.1342	RRA	-.1520	RC3	-.7319	FAU	.06403
FDE	.7258	FRA	-.2550	FC3	-3.1899	BSP	2465
BDE	.1356	BRA	.3377	BC3	1.0175	FSP	-678

MID-COURSE EXECUTION ACCURACY

SGT	721.8	SGR	671.0	SG3	247.3		
RRT	-.5730	RRF	.7875	RTF	-.6750		
SGB	985.5	RZ3	-.1644	R13	.8171		
SG1	874.8	SG2	453.7	THA	138.63		

ORBIT DETERMINATION ACCURACY

ST	128.8	SR	195.7	SS	481.5
CRT	.1005	CRS	.8932	CST	-.2983
LSA	514.2	MSA	145.0	SSA	36.3
EL1	196.4	EL2	127.7	ALF	83.42

LAUNCH DATE SEP 18 1970 FLIGHT TIME 88.00 ARRIVAL DATE DEC 15 1970

HELIOCENTRIC CONIC DISTANCE 242.280

RL	150.32	LAL	-.00	LOL	354.67	VL	27.312	GAL	-7.64	AZL	88.37	HCA	108.69	SMA	130.13	ECC	.20321	INC	1.6255	V1	29.642
RP	107.56	LAP	1.54	LOP	103.36	VP	38.051	GAP	-6.17	AZP	90.52	TAL	213.20	TAP	321.88	RCA	103.69	APO	156.57	V2	35.232
RC	60.358	GL	10.67	GP	-26.40	ZAL	139.53	ZAP	40.87	ETS	31.25	ZAE	141.80	ETE	315.02	ZAC	75.70	ETC	261.50	CLP	-32.40

PLANETOCENTRIC CONIC

C3	17.195	VHL	4.147	DLA	-2.77	RAL	215.29	RAD	6567.7	VEL	11.772	PTH	2.08	VHP	5.263	DPA	-47.49	RAP	242.02	ECC	1.2830

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 17 37	2092.92	-16.44	33.92	73.66	113.38	2 52 29	1492.9	-13.14	26.80
90.00	13 34 29	4908.98	20.76	213.65	74.84	70.30	14 56 18	4309.0	17.88	206.15
100.00	3 37 40	1834.70	-17.42	14.48	73.21	114.68	4 8 14	1234.7	-13.95	7.41
100.00	14 57 7	4842.43	21.76	193.65	74.44	68.98	16 14 30	4042.4	18.71	186.18
110.00	4 42 56	1630.35	-20.02	357.60	71.84	118.30	5 10 6	1030.4	-16.09	350.69
110.00	16 8 20	4419.55	24.44	175.50	73.21	65.32	17 21 59	3819.5	20.91	168.14

DIFFERENTIAL CORRECTIONS

TDE	.0166	TRA	-.2965	TC3	.6878	BAU	.2479
RDE	-.0963	RRA	-.1820	RC3	-.8308	FAU	.06963
FDE	.8594	FRA	-.2977	FC3	-3.5056	BSP	2657
BDE	.0977	BRA	.3379	BC3	1.0786	FSP	-772

MID-COURSE EXECUTION ACCURACY

SGT	703.0	SGR	736.7	SG3	273.7		
RRT	-.5873	RRF	.8303	RTF	-.6567		
SGB	1018.3	RZ3	-.1642	R13	.8403		
SG1	907.5	SG2	461.9	THA	132.72		

ORBIT DETERMINATION ACCURACY

ST	126.4	SR	150.5	SS	544.4
CRT	.2560	CRS	.8209	CST	-.2708
LSA	559.5	MSA	144.2	SSA	34.8
EL1	158.8	EL2	115.8	ALF	62.25

LAUNCH DATE SEP 18 1970 FLIGHT TIME 90.00 ARRIVAL DATE DEC 17 1970

HELIOCENTRIC CONIC DISTANCE 248.945

RL	150.32	LAL	-.00	LOL	354.67	VL	27.376	GAL	-7.63	AZL	88.16	HCA	111.93	SMA	130.58	ECC	.20014	INC	1.8417	V1	29.642
RP	107.54	LAP	1.71	LOP	106.60	VP	38.103	GAP	-5.51	AZP	90.69	TAL	213.92	TAP	325.84	RCA	104.45	APO	156.72	V2	35.238
RC	62.346	GL	12.18	GP	-28.49	ZAL	139.85	ZAP	44.90	ETS	29.17	ZAE	141.25	ETE	310.74	ZAC	73.57	ETC	261.25	CLP	-36.30

PLANETOCENTRIC CONIC

C3	17.083	VHL	4.133	DLA	-1.12	RAL	215.13	RAD	6567.7	VEL	11.767	PTH	2.08	VHP	5.023	DPA	-49.35	RAP	240.30	ECC	1.2811

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 4 39	2142.82	-17.76	36.99	73.69	112.42	2 40 22	1542.8	-14.57	29.77
90.00	13 46 8	4856.07	19.51	210.27	74.16	69.06	15 7 4	4256.1	16.49	202.90
100.00	3 25 29	1882.10	-18.74	17.38	73.25	113.72	3 56 51	1282.1	-15.38	10.20
100.00	15 8 0	4592.02	20.50	190.44	73.75	67.75	16 24 32	3992.0	17.30	183.10
110.00	4 32 32	1672.21	-21.35	.12	71.92	117.35	5 0 24	1072.2	-17.52	353.09
110.00	16 17 26	4374.60	23.14	172.67	72.47	64.11	17 30 21	3774.7	19.47	165.46

DIFFERENTIAL CORRECTIONS

TDE	.0151	TRA	-.2980	TC3	.6424	BAU	.2591
RDE	-.0516	RRA	-.1711	RC3	-.9349	FAU	.07503
FDE	1.0111	FRA	-.3321	FC3	-3.8024	BSP	2792
BDE	.0537	BRA	.3436	BC3	1.1343	FSP	-860

MID-COURSE EXECUTION ACCURACY

SGT	673.2	SGR	811.5	SG3	300.0		
RRT	-.5745	RRF	.8652	RTF	-.6201		
SGB	1054.4	RZ3	-.1561	R13	.8642		
SG1	941.3	SG2	475.0	THA	125.94		

ORBIT DETERMINATION ACCURACY

ST	126.7	SR	103.5	SS	612.6
CRT	.5306	CRS	.8035	CST	-.2511
LSA	616.6	MSA	144.1	SSA	32.6
EL1	144.4	EL2	77.0	ALF	34.48

LAUNCH DATE SEP 18 1970 FLIGHT TIME 92.00 ARRIVAL DATE DEC 19 1970

HELIOCENTRIC CONIC DISTANCE 255.584

RL	150.32	LAL	-.00	LOL	354.67	VL	27.431	GAL	-7.61	AZL	87.93	HCA	115.16	SMA	130.97	ECC	.19749	INC	2.0680	V1	29.642
RP	107.53	LAP	1.87	LOP	109.85	VP	38.147	GAP	-4.87	AZP	90.88	TAL	214.52	TAP	329.68	RCA	105.10	APO	156.83	V2	35.243
RC	64.375	GL	13.75	GP	-30.72	ZAL	139.96	ZAP	49.14	ETS	27.03	ZAE	140.58	ETE	306.01	ZAC	71.27	ETC	260.91	CLP	-40.45

PLANETOCENTRIC CONIC

C3	17.035	VHL	4.127	DLA	.55	RAL	215.13	RAD	6567.7	VEL	11.765	PTH	2.08	VHP	4.817	DPA	-51.23	RAP	238.08	ECC	1.2804

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 52 17	2193.84	-19.06	40.17	73.99	111.35	2 28 51	1593.8	-15.99	32.84
90.00	13 58 28	4803.75	18.20	206.99	73.75	67.93	15 18 32	4203.8	15.05	199.73
100.00	3 13 53	1930.64	-20.04	20.39	73.56	112.65	3 46 4	1330.6	-16.80	13.10
100.00	15 19 34	4542.19	19.18	187.32	73.32	66.62	16 35 16	3942.2	15.85	180.11
110.00	4 22 43	1715.18	-22.67	2.75	72.28	116.29	4 51 18	1115.2	-18.96	355.59
110.00	16 27 13	4330.41	21.80	169.93	72.01	62.99	17 39 24	3730.4	18.00	162.86

DIFFERENTIAL CORRECTIONS

TDE	.0120	TRA	-.3113	TC3	.5575	BAU	.2679
RDE	.0041	RRA	-.1753	RC3	-1.0356	FAU	.07941
FDE	1.1920	FRA	-.3421	FC3	-4.0355	BSP	2770
BDE	.0126	BRA	.3573	BC3	1.1761	FSP	-911

MID-COURSE EXECUTION ACCURACY

SGT	631.5	SGR	880.8	SG3	324.0		
RRT	-.5133	RRF	.8919	RTF	-.5491		
SGB	1090.4	RZ3	-.1304	R13	.8887		
SG1	970.9	SG2	496.2	THA	117.91		

ORBIT DETERMINATION ACCURACY

ST	131.4	SR	77.6	SS	692.5
CRT	.9027	CRS	-.1727	CST	-.2040
LSA	693.2	MSA	146.6	SSA	29.3
EL1	149.8	EL2	29.3	ALF	29.28

LAUNCH DATE SEP 18 1970 FLIGHT TIME 94.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 262.195

RL	150.32	LAL	-.00	LOL	354.67	VL	27.476	GAL	-7.59	AZL	87.69	HCA	118.40	SMA	131.29	ECC	.19523	INC	2.3067	V1	29.642
RP	107.51	LAP	2.03	LOP	113.09	VP	38.183	GAP	-4.25	AZP	91.10	TAL	215.01	TAP	333.41	RCA	105.66	APO	156.92	V2	35.247
RC	66.441	GL	15.39	GP	-35.09	ZAL	139.86	ZAP	53.57	ETS	24.76	ZAE	139.73	ETE	300.85	ZAC	68.82	ETC	260.49	CLP	-44.87

PLANETOCENTRIC CONIC

C3	17.051	VHL	4.129	DLA	2.24	RAL	215.28	RAD	6567.7	VEL	11.766	PTH	2.08	VHP	4.646	DPA	-63.15	RAP	235.31	ECC	1.2806

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 40 20	2246.49	-20.33	43.51	74.55	110.15	2 17 47	1646.5	-17.40	36.06
90.00	14 11 37	4751.55	16.83	203.77	73.61	66.89	15 30 48	4151.5	13.56	196.62
100.00	3 2 43	1980.75	-21.33	23.57	74.15	111.46	3 35 44	1380.7	-18.22	16.15
100.00	15 31 55	4492.52	17.81	184.27	73.16	65.59	16 46 47	3892.5	14.37	177.17
110.00	4 13 22	1759.65	-23.99	5.54	72.90	115.12	4 42 41	1159.6	-20.40	358.23
110.00	16 37 45	4286.38	20.41	167.27	71.80	61.96	17 49 12	3686.4	16.50	160.33

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0309	TRA	-.3144	TC3	.4836	BAU	.2857	SGT	593.3	SGR	992.5	SG3	349.8	ST	138.3	SR	116.9	SS	755.1
RDE	.0598	RRA	-.1853	RC3	-1.1563	FAU	.08471	RRT	-.4509	RRF	.9161	RTF	-.4629	CRT	.8239	CRS	-.7748	CST	-.3015
FDE	1.3488	FRA	-.3740	FC3	-4.3007	BSP	3110	SGB	1156.3	R23	-.1045	R13	.9118	LSA	762.5	HSA	144.0	SSA	27.8
BDE	.0673	BRA	.3650	BC3	1.2534	FSP	-1025	SG1	1040.0	SG2	505.4	THA	109.99	EL1	173.2	EL2	52.9	ALF	39.20

LAUNCH DATE SEP 18 1970 FLIGHT TIME 96.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 268.778

RL	150.32	LAL	-.00	LOL	354.67	VL	27.512	GAL	-7.57	AZL	87.44	HCA	121.64	SMA	131.54	ECC	.19328	INC	2.5606	V1	29.642
RP	107.50	LAP	2.18	LOP	116.34	VP	38.213	GAP	-3.66	AZP	91.34	TAL	215.38	TAP	337.02	RCA	106.12	APO	156.97	V2	35.251
RC	68.539	GL	17.12	GP	-35.57	ZAL	139.54	ZAP	58.14	ETS	22.30	ZAE	138.65	ETE	295.35	ZAC	66.24	ETC	259.97	CLP	-49.54

PLANETOCENTRIC CONIC

C3	17.128	VHL	4.139	DLA	3.97	RAL	215.59	RAD	6567.7	VEL	11.769	PTH	2.08	VHP	4.513	DPA	-55.06	RAP	231.94	ECC	1.2819

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 28 43	2301.18	-21.57	47.04	75.40	108.80	2 7 4	1701.2	-18.81	39.46
90.00	14 25 43	4698.93	15.40	200.57	73.72	65.94	15 44 2	4098.9	12.02	193.52
100.00	2 51 55	2032.82	-22.58	26.92	75.01	110.12	3 25 47	1432.8	-19.64	19.36
100.00	15 45 12	4442.52	16.38	181.25	73.26	64.64	16 59 15	3842.5	12.83	174.26
110.00	4 4 25	1805.90	-25.29	8.50	73.81	113.80	4 34 31	1205.9	-21.86	1.03
110.00	16 49 11	4242.21	18.97	164.65	71.86	61.02	17 59 53	3642.2	14.96	157.83

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0499	TRA	-.3315	TC3	.3633	BAU	.3011	SGT	553.9	SGR	1092.3	SG3	369.9	ST	154.6	SR	197.9	SS	830.7
RDE	.1295	RRA	-.1869	RC3	-1.2635	FAU	.08804	RRT	-.3022	RRF	.9333	RTF	-.3062	CRT	.7466	CRS	-.9386	CST	-.5065
FDE	1.5328	FRA	-.3679	FC3	-4.4498	BSP	3253	SGB	1224.8	R23	-.0812	R13	.9317	LSA	855.2	HSA	145.2	SSA	25.0
BDE	.1388	BRA	.3805	BC3	1.3147	FSP	-1077	SG1	1108.8	SG2	520.2	THA	101.21	EL1	235.8	EL2	86.3	ALF	54.23

LAUNCH DATE SEP 18 1970 FLIGHT TIME 98.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 275.332

RL	150.32	LAL	-.00	LOL	354.67	VL	27.540	GAL	-7.53	AZL	87.17	HCA	124.88	SMA	131.75	ECC	.19162	INC	2.8329	V1	29.642
RP	107.49	LAP	2.32	LOP	119.58	VP	38.236	GAP	-3.10	AZP	91.62	TAL	215.64	TAP	340.52	RCA	106.50	APO	156.99	V2	35.254
RC	70.666	GL	18.95	GP	-38.13	ZAL	139.00	ZAP	62.81	ETS	19.59	ZAE	137.28	ETE	289.59	ZAC	63.55	ETC	259.34	CLP	-54.48

PLANETOCENTRIC CONIC

C3	17.273	VHL	4.156	DLA	5.74	RAL	216.06	RAD	6567.7	VEL	11.775	PTH	2.08	VHP	4.417	DPA	-56.90	RAP	227.94	ECC	1.2843

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 17 12	2358.65	-22.78	50.82	76.53	107.28	1 56 31	1758.7	-20.20	43.10
90.00	14 40 57	4645.35	13.89	197.36	74.11	65.07	15 58 23	4045.3	10.41	190.41
100.00	2 41 16	2087.53	-23.82	30.52	76.16	108.61	3 16 3	1487.5	-21.06	22.81
100.00	15 59 35	4391.70	14.87	178.23	73.63	63.77	17 12 47	3791.7	11.23	171.33
110.00	3 55 44	1854.50	-26.59	11.68	75.02	112.32	4 26 38	1254.5	-23.33	4.04
110.00	17 1 37	4197.50	17.48	162.04	72.18	60.15	18 11 34	3597.5	13.38	155.33

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0884	TRA	-.3449	TC3	.2577	BAU	.3230	SGT	531.3	SGR	1208.0	SG3	387.6	ST	188.3	SR	291.1	SS	892.8
RDE	.2017	RRA	-.1902	RC3	-1.3783	FAU	.09117	RRT	-.1038	RRF	.9474	RTF	-.0936	CRT	.8215	CRS	-.9755	CST	-.6935
FDE	1.8913	FRA	-.3674	FC3	-4.5696	BSP	3621	SGB	1319.7	R23	-.0280	R13	.9470	LSA	946.7	HSA	143.4	SSA	23.2
BDE	.2202	BRA	.3938	BC3	1.3987	FSP	-1159	SG1	1209.6	SG2	527.7	THA	93.23	EL1	333.8	EL2	93.6	ALF	59.34

LAUNCH DATE SEP 18 1970 FLIGHT TIME 100.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 281.858

RL	150.32	LAL	-.00	LOL	354.67	VL	27.561	GAL	-7.49	AZL	86.87	HCA	128.12	SMA	131.90	ECC	.19019	INC	3.1275	V1	29.642
RP	107.48	LAP	2.46	LOP	122.83	VP	38.253	GAP	-2.55	AZP	91.93	TAL	215.79	TAP	343.91	RCA	106.81	APO	156.98	V2	35.256
RC	72.818	GL	20.88	GP	-40.74	ZAL	138.23	ZAP	67.50	ETS	16.59	ZAE	135.61	ETE	283.71	ZAC	60.78	ETC	258.62	CLP	-59.67

PLANETOCENTRIC CONIC

C3	17.493	VHL	4.182	DLA	7.57	RAL	216.69	RAD	6567.7	VEL	11.785	PTH	2.08	VHP	4.362	DPA	-58.63	RAP	223.32	ECC	1.2879

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 5 30	2419.71	-23.96	54.91	77.97	105.56	1 45 58	1819.7	-21.59	47.04
90.00	14 57 34	4590.14	12.28	194.11	74.79	64.28	16 14 4	3990.1	8.72	187.24
100.00	2 30 38	2145.62	-25.03	34.41	77.63	106.90	3 6 23	1545.6	-22.47	26.54
100.00	16 15 17	4339.46	13.28	175.17	74.29	62.97	17 27 36	3739.5	9.55	168.36
110.00	3 47 11	1906.06	-27.87	15.14	76.55	110.64	4 18 57	1306.1	-24.81	7.31
110.00	17 15 13	4151.78	15.91	159.43	72.79	59.34	18 24 25	3551.8	11.72	152.82

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1387	TRA	-.3643	TC3	.0841	BAU	.3461	SGT	542.7	SGR	1320.9	SG3	398.4	ST	242.7	SR	397.8	SS	955.5
RDE	.2836	RRA	-.1863	RC3	-1.4775	FAU	.09245	RRT	.1825	RRF	.9578	RTF	.1792	CRT	.8844	CRS	-.9891	CST	-.8150
FDE	1.8461	FRA	-.3412	FC3	-4.5756	BSP	3965	SGB	1428.0	R23	.0069	R13	.9581	LSA	1053.2	HSA	143.2	SSA	21.0
BDE	.3157	BRA	.4092	BC3	1.4799	FSP	-1204	SG1	1324.4	SG2	534.1	THA	85.44	EL1	455.4	EL2	99.0	ALF	60.09

LAUNCH DATE SEP 18 1970 FLIGHT TIME 102.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 288.354

RL	150.32	LAL	-.00	LOL	354.67	VL	27.575	GAL	-7.44	AZL	86.55	HCA	131.36	SMA	132.00	ECC	.18898	INC	3.4496
RP	107.48	LAP	2.59	LOP	126.08	VP	38.264	GAP	-2.03	AZP	92.28	TAL	215.83	TAP	347.18	RCA	107.05	APO	156.95
RC	74.992	GL	22.95	GP	-43.37	ZAL	137.23	ZAP	72.15	ETS	13.28	ZAE	133.62	ETE	277.82	ZAC	57.97	ETC	257.79

V1	29.642	V2	35.258	CLP	-65.06														

PLANETOCENTRIC CONIC

C3	17.801	VHL	4.219	DLA	9.49	RAL	217.49	RAD	6567.7	VEL	11.798	PTH	2.09	VHP	4.348	DPA	-60.20	RAP	218.13
ECC	1.2930																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 53 46	2485.43	-25.09	59.39	79.76	103.58	1 35 12	1885.4	-22.97	51.36
90.00	15 15 51	4532.54	10.56	190.75	75.78	63.57	16 31 23	3932.5	6.92	183.96
100.00	2 19 46	2208.07	-26.19	38.68	79.45	104.94	2 56 34	1608.1	-23.89	30.64
100.00	16 32 32	4285.13	11.57	172.03	75.25	62.25	17 43 57	3685.1	7.77	165.31
110.00	3 38 36	1961.38	-29.14	18.94	78.44	108.71	4 11 17	1361.4	-26.31	10.91
110.00	17 30 11	4104.59	14.25	156.77	73.69	58.60	18 38 36	3504.6	9.99	150.26

DIFFERENTIAL CORRECTIONS

TDE	.2067	TRA	-.3054	TC3	-.0861	BAU	.3716
RDE	.3723	RRA	-.1780	RC3	-1.5589	FAU	.08203
FDE	1.9814	FRA	-.2986	FC3	-4.4757	BSP	4354
BDE	.4258	BRA	.4237	BC3	1.5613	FSP	-1225

MID-COURSE EXECUTION ACCURACY

SGT	604.6	SGR	1430.0	SGS	402.2		
RRT	.4234	RRF	.9856	RTF	.4428		
SGB	1552.6	RZS	.0367	R13	.9656		
SG1	1456.4	SG2	537.8	THA	78.22		

ORBIT DETERMINATION ACCURACY

ST	322.7	SR	512.3	SS	1012.7
CRT	.9290	CRS	-.9947	CST	-.8909
LSA	1171.0	NSA	143.3	SSA	18.9
EL1	596.7	EL2	102.6	ALF	58.64

LAUNCH DATE SEP 18 1970 FLIGHT TIME 104.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 294.821

RL	150.32	LAL	-.00	LOL	354.67	VL	27.583	GAL	-7.38	AZL	86.19	HCA	134.59	SMA	132.06	ECC	.18795	INC	3.8055
RP	107.48	LAP	2.71	LOP	129.33	VP	38.271	GAP	-1.52	AZP	92.67	TAL	215.76	TAP	350.35	RCA	107.24	APO	156.88
RC	77.186	GL	25.17	GP	-45.99	ZAL	136.00	ZAP	76.67	ETS	9.63	ZAE	131.34	ETE	272.03	ZAC	55.13	ETC	256.86
V1	29.642	V2	35.259	CLP	-70.62														

PLANETOCENTRIC CONIC

C3	18.222	VHL	4.268	DLA	11.49	RAL	218.47	RAD	6567.7	VEL	11.815	PTH	2.09	VHP	4.377	DPA	-61.60	RAP	212.45
ECC	1.2999																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 41 16	2597.19	-26.14	64.38	81.92	101.30	1 23 54	1957.2	-24.32	56.19
90.00	15 36 9	4471.66	8.60	187.25	77.12	62.94	16 50 41	3871.7	4.99	180.53
100.00	2 8 25	2278.13	-27.30	43.44	81.64	102.67	2 46 21	1676.1	-25.28	35.22
100.00	16 51 41	4227.96	9.74	168.78	76.56	61.60	18 2 9	3628.0	5.87	162.13
110.00	3 29 48	2021.47	-30.38	23.19	80.73	106.48	4 3 30	1421.5	-27.82	14.92
110.00	17 46 48	4055.38	12.49	154.05	74.92	57.92	18 54 23	3455.4	8.16	147.63

DIFFERENTIAL CORRECTIONS

TDE	.2998	TRA	-.4068	TC3	-.2671	BAU	.3988
RDE	.4670	RRA	-.1577	RC3	-1.6192	FAU	.08979
FDE	2.0913	FRA	-.2345	FC3	-4.2080	BSP	4778
BDE	.5525	BRA	.4360	BC3	1.6372	FSP	-1219

MID-COURSE EXECUTION ACCURACY

SGT	720.4	SGR	1530.1	SGS	398.3		
RRT	.6197	RRF	.9714	RTF	.6389		
SGB	1691.2	RZS	.0815	R13	.9706		
SG1	1602.7	SG2	539.8	THA	71.57		

ORBIT DETERMINATION ACCURACY

ST	430.1	SR	631.5	SS	1063.0
CRT	.9554	CRS	-.9973	CST	-.9341
LSA	1301.1	NSA	143.9	SSA	16.9
EL1	756.6	EL2	106.0	ALF	56.20

LAUNCH DATE SEP 18 1970 FLIGHT TIME 106.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 301.259

RL	150.32	LAL	-.00	LOL	354.67	VL	27.585	GAL	-7.32	AZL	85.80	HCA	137.83	SMA	132.07	ECC	.18707	INC	4.2034
RP	107.48	LAP	2.82	LOP	132.58	VP	38.272	GAP	-1.04	AZP	93.12	TAL	215.59	TAP	353.42	RCA	107.37	APO	156.78
RC	79.396	GL	27.56	GP	-48.60	ZAL	134.51	ZAP	80.98	ETS	5.66	ZAE	128.79	ETE	266.43	ZAC	52.30	ETC	255.83
V1	29.642	V2	35.259	CLP	-76.29														

PLANETOCENTRIC CONIC

C3	18.785	VHL	4.334	DLA	13.62	RAL	219.63	RAD	6567.8	VEL	11.839	PTH	2.10	VHP	4.453	DPA	-62.81	RAP	206.37
ECC	1.3092																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 27 44	2636.81	-27.08	70.02	84.49	98.62	1 11 41	2036.8	-25.61	61.66
90.00	15 58 59	4406.32	6.65	183.54	78.85	62.41	17 12 26	3806.3	2.90	176.86
100.00	1 56 14	2351.40	-28.31	48.80	84.26	100.02	2 35 25	1751.4	-26.63	40.40
100.00	17 13 11	4166.97	7.75	165.35	78.26	61.04	18 22 38	3567.0	3.83	158.75
110.00	3 20 33	2067.58	-31.56	27.97	83.47	103.87	3 55 20	1487.6	-29.33	19.48
110.00	18 5 21	4003.55	10.60	151.23	76.53	57.31	19 12 5	3405.6	6.22	144.88

DIFFERENTIAL CORRECTIONS

TDE	.4071	TRA	-.4283	TC3	-.4527	BAU	.4252
RDE	.5700	RRA	-.1265	RC3	-1.6315	FAU	.08529
FDE	2.1808	FRA	-.1482	FC3	-3.9308	BSP	5147
BDE	.7004	BRA	.4447	BC3	1.6931	FSP	-1164

MID-COURSE EXECUTION ACCURACY

SGT	883.1	SGR	1611.6	SGS	386.0		
RRT	.7449	RRF	.9757	RTF	.7617		
SGB	1837.7	RZS	.0850	R13	.9734		
SG1	1756.4	SG2	540.6	THA	65.30		

ORBIT DETERMINATION ACCURACY

ST	565.7	SR	756.4	SS	1110.2
CRT	.9697	CRS	-.9987	CST	-.9577
LSA	1450.2	NSA	146.3	SSA	14.7
EL1	938.0	EL2	111.4	ALF	53.45

LAUNCH DATE SEP 18 1970 FLIGHT TIME 108.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 307.667

RL	150.32	LAL	-.00	LOL	354.67	VL	27.582	GAL	-7.24	AZL	85.35	HCA	141.07	SMA	132.05	ECC	.18633	INC	4.6543
RP	107.48	LAP	2.92	LOP	135.83	VP	38.269	GAP	-.57	AZP	93.62	TAL	215.32	TAP	356.39	RCA	107.45	APO	156.66
RC	81.621	GL	30.15	GP	-51.16	ZAL	132.77	ZAP	85.01	ETS	1.37	ZAE	126.01	ETE	281.08	ZAC	49.48	ETC	254.70
V1	29.642	V2	35.258	CLP	-82.03														

PLANETOCENTRIC CONIC

C3	19.542	VHL	4.421	DLA	15.89	RAL	221.00	RAD	6567.8	VEL	11.871	PTH	2.11	VHP	4.580	DPA	-63.84	RAP	199.99
ECC	1.3216																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 12 32	2726.82	-27.83	76.50	87.54	95.46	0 57 59	2126.8	-26.78	67.99
90.00	16 25 3	4334.98	4.38	179.52	81.07	62.00	17 37 18	3735.0	.60	172.88
100.00	1 42 41	2436.08	-29.16	54.95	87.37	96.89	2 23 18	1836.1	-27.90	46.38
100.00	17 37 35	4100.94	5.56	161.67	80.43	60.58	18 45 56	3500.9	1.59	155.12
110.00	3 10 30	2161.35	-32.63	33.46	86.74	100.79	3 46 31	1561.3	-30.80	24.72
110.00	18 28 16	3948.44	8.56	148.26	78.59	56.78	19 32 5	3348.4	4.13	141.98

DIFFERENTIAL CORRECTIONS

TDE	.5488	TRA	-.4388	TC3	-.6240	BAU	.4579
RDE	.6686	RRA	-.0884	RC3	-1.6380	FAU	.08076
FDE	2.2029	FRA	-.0858	FC3	-3.5780	BSP	5802
BDE	.8601	BRA	.4497	BC3	1.7528	FSP	-1154

MID-COURSE EXECUTION ACCURACY

SGT	1076.7	SGR	1688.9	SGS	368.3		
RRT	.8182	RRF	.9790	RTF	.8373		
SGB	2002.9	RZS	.0957	R13	.9764		
SG1	1928.1	SG2	542.3	THA	59.82		

ORBIT DETERMINATION ACCURACY

ST	732.9	SR	860.8	SS	1130.5
CRT	.9801	CRS	-.9993	CST	-.9731
LSA	1592.2	NSA	144.7	SSA	13.3
EL1	1125.0	EL2	111.4	ALF	49.68

LAUNCH DATE SEP 18 1970 FLIGHT TIME 110.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 314.047

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RL  150.32 LAL   -.00 LOL 354.67 VL  27.574 GAL  -7.16 AZL  84.83 HCA 144.30 SMA 131.99 ECC .18570 INC 5.1728 V1  29.642
RP  107.48 LAP   3.02 LOP 139.08 VP  38.262 GAP   -.11 AZP  94.20 TAL 214.97 TAP 359.27 RCA 107.48 APO 156.51 V2  35.256
RC  83.861 GL   32.96 GP  -53.77 ZAL 130.75 ZAP  88.68 ETS 356.78 ZAE 123.03 ETE 256.00 ZAC  46.65 ETC 253.45 CLP -87.77
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PLANETOCENTRIC CONIC

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C3  20.561 VHL  4.534 DLA  18.33 RAL 222.58 RAD 6567.8 VEL 11.914 PTH   2.12 VHP  4.763 DPA -64.74 RAP 193.39 ECC 1.3384
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 50 51	2830.86	-28.27	84.08	91.10	91.68	24 38 2	2230.9	-27.74	75.45
90.00	16 55 27	4255.14	1.82	175.06	83.89	61.74	18 6 22	3655.1	-1.97	168.43
100.00	1 27 5	2533.20	-29.74	62.11	91.03	93.17	2 9 18	1933.2	-28.98	53.39
100.00	18 5 49	4028.03	3.10	157.65	83.18	60.25	19 12 57	3428.0	-.88	151.12
110.00	2 59 15	2244.87	-33.52	39.81	90.63	97.13	3 36 40	1644.9	-32.17	30.84
110.00	18 50 9	3889.12	6.33	145.11	81.18	56.34	19 54 59	3289.1	1.87	138.88

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .7208 TRA -.4456 TC3 -.7806 BAU  .4865   SGT 1297.1 SGR 1755.3 SG3  343.3     ST   928.3 SR   966.1 SS  1150.0
 RDE  .7636 RRA -.0529 RC3-1.5886 FAU .07401   RRT  .8621 RRF  .9813 RTF  .8817    CRT  .9852 CRS -.9997 CST -.9814
 FDE 2.2106 FRA  .0007 FC3-3.1161 BSP  6320    SGB 2166.5 R23  .1095 R13  .9777    LSA 1759.6 MSA  146.0 SSA   11.7
 BDE 1.0501 BRA  .4487 BC3 1.7700 FSP  -1084   SG1 2097.1 SG2  543.9 THA  54.45    EL1 1334.8 EL2  115.2 ALF  46.16
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LAUNCH DATE SEP 18 1970 FLIGHT TIME 112.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 320.397

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RL  150.32 LAL   -.00 LOL 354.67 VL  27.562 GAL  -7.06 AZL  84.22 HCA 147.53 SMA 131.91 ECC .18518 INC 5.7798 V1  29.642
RP  107.49 LAP   3.10 LOP 142.33 VP  38.252 GAP    .32 AZP  94.88 TAL 214.52 TAP   2.05 RCA 107.48 APO 156.33 V2  35.254
RC  86.111 GL   36.01 GP  -56.40 ZAL 128.45 ZAP  91.92 ETS 351.89 ZAE 119.87 ETE 251.20 ZAC  43.78 ETC 252.06 CLP -93.47
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PLANETOCENTRIC CONIC

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C3  21.952 VHL  4.685 DLA  20.94 RAL 224.41 RAD 6567.9 VEL 11.972 PTH   2.13 VHP  5.012 DPA -65.54 RAP 186.55 ECC 1.3613
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 28 55	2954.98	-28.18	93.15	95.19	87.14	24 18 10	2355.0	-28.28	84.49
90.00	17 31 58	4162.51	-1.17	169.89	87.49	61.71	18 41 20	3562.5	-4.95	163.24
100.00	1 8 13	2647.46	-29.87	70.60	95.26	88.71	1 52 21	2047.5	-29.73	61.80
100.00	18 39 17	3945.26	.30	153.10	86.67	60.11	19 45 2	3345.3	-3.68	146.58
110.00	2 46 9	2341.07	-34.09	47.27	95.20	92.76	3 25 10	1741.1	-33.33	38.11
110.00	19 17 50	3824.42	3.88	141.71	84.44	56.01	20 21 34	3224.4	-.61	135.50

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .9318 TRA -.4420 TC3 -.9074 BAU  .5134   SGT 1534.8 SGR 1755.5 SG3  313.3     ST  1152.6 SR  1058.2 SS  1158.5
 RDE  .8648 RRA  .0044 RC3-1.4954 FAU .06618   RRT  .8880 RRF  .9828 RTF  .9091    CRT  .9882 CRS -.9999 CST -.9865
 FDE 2.1866 FRA  .0886 FC3-2.6100 BSP  6839    SGB 2331.8 R23  .1222 R13  .9784    LSA 1941.3 MSA  148.1 SSA   10.2
 BDE 1.2710 BRA  .4420 BC3 1.7492 FSP  -996    SG1 2266.9 SG2  546.4 THA  49.31    EL1 1560.1 EL2  119.8 ALF  42.52
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LAUNCH DATE SEP 18 1970 FLIGHT TIME 114.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 326.718

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RL  150.32 LAL   -.00 LOL 354.67 VL  27.546 GAL  -6.96 AZL  83.50 HCA 150.75 SMA 131.79 ECC .18475 INC 6.5047 V1  29.642
RP  107.50 LAP   3.17 LOP 145.58 VP  38.237 GAP    .74 AZP  95.68 TAL 214.00 TAP   4.75 RCA 107.44 APO 156.14 V2  35.251
RC  88.372 GL   39.33 GP  -59.13 ZAL 125.83 ZAP  94.67 ETS 346.70 ZAE 116.55 ETE 246.62 ZAC  40.84 ETC 250.46 CLP -99.12
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PLANETOCENTRIC CONIC

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C3  23.888 VHL  4.887 DLA  23.76 RAL 226.51 RAD 6568.0 VEL 12.053 PTH   2.15 VHP  5.343 DPA -66.28 RAP 179.40 ECC 1.3931
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 59 22	3111.21	-27.13	104.45	99.74	81.57	23 51 13	2511.2	-28.02	95.90
90.00	18 18 18	4047.42	-4.87	163.45	92.19	62.07	19 25 46	3447.4	-8.57	156.73
100.00	0 43 48	2787.15	-29.20	80.92	100.05	83.32	1 30 15	2187.1	-29.82	72.17
100.00	19 20 29	3846.71	-3.04	147.69	91.18	60.25	20 24 36	3246.7	-6.98	141.12
110.00	2 30 14	2454.19	-34.10	56.10	100.51	87.53	3 11 8	1854.2	-34.07	46.85
110.00	19 50 33	3752.43	1.13	137.95	88.58	55.83	20 53 5	3152.4	-3.36	131.74

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.1903 TRA -.4242 TC3 -.9928 BAU  .5385   SGT 1784.4 SGR 1747.2 SG3  279.7     ST  1405.2 SR  1127.6 SS  1153.2
 RDE  .9610 RRA  .0719 RC3-1.3630 FAU .05785   RRT  .9029 RRF  .9835 RTF  .9271    CRT  .9900 CRS -.9999 CST -.9899
 FDE 2.1296 FRA  .1684 FC3-2.0965 BSP  7404    SGB 2497.4 R23  .1329 R13  .9787    LSA 2133.9 MSA  150.1 SSA    8.8
 BDE 1.5298 BRA  .4303 BC3 1.6863 FSP  -903    SG1 2436.0 SG2  550.2 THA  44.33    EL1 1797.4 EL2  124.3 ALF  38.69
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LAUNCH DATE SEP 18 1970 FLIGHT TIME 116.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 333.009

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RL  150.32 LAL   -.00 LOL 354.67 VL  27.526 GAL  -6.84 AZL  82.61 HCA 153.97 SMA 131.65 ECC .18440 INC 7.3916 V1  29.642
RP  107.51 LAP   3.24 LOP 148.83 VP  38.220 GAP   1.14 AZP  96.65 TAL 213.39 TAP   7.36 RCA 107.37 APO 155.93 V2  35.247
RC  90.641 GL   42.93 GP  -62.01 ZAL 122.90 ZAP  96.87 ETS 341.15 ZAE 113.03 ETE 242.16 ZAC  37.75 ETC 248.56 CLP-104.76
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PLANETOCENTRIC CONIC

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C3  26.650 VHL  5.162 DLA  26.77 RAL 228.94 RAD 6568.1 VEL 12.167 PTH   2.18 VHP  5.779 DPA -66.95 RAP 171.73 ECC 1.4386
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 10 30	3338.02	-23.88	120.25	104.23	74.32	23 6 8	2738.0	-25.81	112.10
90.00	19 26 33	3874.57	-10.27	153.62	98.75	63.47	20 31 7	3274.6	-13.75	146.68
100.00	0 8 1	2971.81	-27.01	94.19	105.12	76.68	0 57 33	2371.8	-28.57	85.74
100.00	20 15 38	3716.01	-7.41	140.46	97.22	60.96	21 17 34	3116.0	-11.23	133.75
110.00	2 9 40	2591.16	-33.20	66.68	106.51	81.34	2 52 51	1991.2	-34.04	57.54
110.00	20 30 28	3669.42	-2.04	133.62	93.91	55.87	21 31 38	3069.4	-6.51	127.38

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.5180 TRA -.3821 TC3-1.0203 BAU  .5538   SGT 2043.0 SGR 1700.5 SG3  244.0.    ST  1691.1 SR  1178.8 SS  1144.8
 RDE 1.0602 RRA  .1643 RC3-1.1725 FAU .04835   RRT  .9098 RRF  .9834 RTF  .9384    CRT  .9906 CRS -.9999 CST -.9920
 FDE 2.0634 FRA  .2575 FC3-1.5707 BSP  7711    SGB 2658.1 R23  .1465 R13  .9781    LSA 2352.8 MSA  155.3 SSA    7.4
 BDE 1.8516 BRA  .4159 BC3 1.5543 FSP  -767    SG1 2599.6 SG2  554.7 THA  39.27    EL1 2057.2 EL2  132.2 ALF  34.79
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LAUNCH DATE SEP 18 1970 FLIGHT TIME 118.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 339.267

RL	150.32	LAL	-.00	LOL	354.67	VL	27.504	GAL	-6.71	AZL	81.49	HCA	157.19	SMA	131.49	ECC	.18413	INC	8.5087	V1	29.642
RP	107.53	LAP	3.29	LOP	152.08	VP	38.199	GAP	1.53	AZP	97.85	TAL	212.71	TAP	9.89	RCA	107.28	APO	155.70	V2	35.243
RC	92.917	GL	46.80	GP	-65.14	ZAL	119.64	ZAP	98.48	ETS	335.08	ZAE	109.30	ETE	237.60	ZAC	34.43	ETC	246.14	CLP	-110.53

PLANETOCENTRIC CONIC

C3	30.735	VHL	5.544	DLA	29.98	RAL	231.74	RAD	6568.2	VEL	12.333	PTH	2.22	VHP	6.360	DPA	-67.51	RAP	163.26	ECC	1.5058

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
79.73	19 36 25	3910.49	-17.89	160.00	107.74	65.54	20 41 35	3310.5	-21.04	152.61
100.27	22 22 59	3373.33	-17.87	120.48	107.73	65.53	23 19 12	2773.3	-21.02	113.09
79.73	19 36 25	3910.49	-17.89	160.00	107.74	65.54	20 41 35	3310.5	-21.04	152.61
100.27	22 22 59	3373.33	-17.87	120.48	107.73	65.53	23 19 12	2773.3	-21.02	113.09
110.00	1 40 21	2766.11	-30.65	79.66	112.88	74.06	2 26 27	2166.1	-32.52	70.95
110.00	21 22 9	3565.71	-5.98	128.18	100.99	56.28	22 21 35	2965.7	-10.37	121.84

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.9269	TRA	-.3178	TC3	-.9066	BAU	.5721	SGT	2308.8	SGR	1613.5	SG3	207.4	ST	1995.0	SR	1165.1
RDE	1.1234	RRA	.2556	RC3	-.9723	FAU	.04001	RRT	.9084	RRF	.9813	RTF	.9483	CRT	.9908	CRS	-.9997
FDE	1.9507	FRA	.3084	FC3	-1.1271	BSP	8431	SGB	2816.7	RZS	.1541	R13	.9784	LSA	2558.1	MSA	157.1
BDE	2.2305	BRA	.4078	BC3	1.3823	FSP	-682	SG1	2760.2	SG2	561.3	THA	34.04	EL1	2306.2	EL2	136.8

SS	1109.7	CST	-.9937	MSA	6.3	ALF	30.17

LAUNCH DATE SEP 18 1970 FLIGHT TIME 120.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 345.491

RL	150.32	LAL	-.00	LOL	354.67	VL	27.478	GAL	-6.58	AZL	80.03	HCA	160.39	SMA	131.30	ECC	.18390	INC	9.9688	V1	29.642
RP	107.54	LAP	3.33	LOP	155.33	VP	38.176	GAP	1.91	AZP	99.40	TAL	211.95	TAP	12.34	RCA	107.16	APO	155.45	V2	35.238
RC	95.197	GL	50.92	GP	-68.60	ZAL	116.05	ZAP	99.44	ETS	328.18	ZAE	105.27	ETE	232.55	ZAC	30.78	ETC	242.82	CLP	-116.72

PLANETOCENTRIC CONIC

C3	37.059	VHL	6.088	DLA	33.32	RAL	235.00	RAD	6568.4	VEL	12.587	PTH	2.28	VHP	7.154	DPA	-67.83	RAP	153.68	ECC	1.6099

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
71.67	18 53 25	4133.53	-18.23	177.05	114.95	61.62	20 2 19	3533.5	-21.88	169.89
108.33	23 31 59	3244.64	-18.21	110.93	114.94	61.61	24 26 3	2644.6	-21.86	103.76
71.67	18 53 25	4133.53	-18.23	177.05	114.95	61.62	20 2 19	3533.5	-21.88	169.89
108.33	23 31 59	3244.64	-18.21	110.93	114.94	61.61	24 26 3	2644.6	-21.86	103.76
110.00	0 44 26	3034.55	-24.20	97.85	118.16	65.09	1 35 0	2434.5	-27.35	90.09
110.00	22 44 4	3391.61	-12.44	118.83	111.45	57.90	23 40 36	2791.6	-16.59	112.18

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.4730	TRA	-.2033	TC3	-.9025	BAU	.5751	SGT	2584.1	SGR	1459.8	SG3	171.6	ST	2328.8	SR	1085.7
RDE	1.1453	RRA	.3782	RC3	-.7299	FAU	.03125	RRT	.8982	RRF	.9747	RTF	.9559	CRT	.9892	CRS	-.9989
FDE	1.8363	FRA	.3653	FC3	-.7296	BSP	8916	SGB	2967.9	RZS	.1637	R13	.9781	LSA	2779.1	MSA	162.1
BDE	2.7253	BRA	.4276	BC3	1.1607	FSP	-570	SG1	2912.8	SG2	569.3	THA	28.07	EL1	2565.4	EL2	144.6

SS	1071.1	CST	-.9950	MSA	5.2	ALF	24.84

LAUNCH DATE SEP 18 1970 FLIGHT TIME 122.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 351.674

RL	150.32	LAL	-.00	LOL	354.67	VL	27.449	GAL	-6.43	AZL	78.03	HCA	163.57	SMA	131.10	ECC	.18373	INC	11.9702	V1	29.642
RP	107.56	LAP	3.36	LOP	158.58	VP	38.150	GAP	2.27	AZP	101.49	TAL	211.12	TAP	14.69	RCA	107.01	APO	155.19	V2	35.232
RC	97.481	GL	55.18	GP	-72.50	ZAL	112.16	ZAP	99.72	ETS	319.68	ZAE	100.83	ETE	226.13	ZAC	26.65	ETC	237.77	CLP	-124.16

PLANETOCENTRIC CONIC

C3	47.490	VHL	6.891	DLA	36.68	RAL	238.81	RAD	6568.8	VEL	12.994	PTH	2.37	VHP	8.282	DPA	-67.66	RAP	142.76	ECC	1.7816

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.65	18 33 49	4301.08	-17.63	189.89	123.57	57.30	19 45 30	3701.1	-21.81	183.06
114.35	0 25 53	3202.09	-17.61	107.20	123.56	57.29	1 19 15	2602.1	-21.79	100.37
65.65	18 33 49	4301.08	-17.63	189.89	123.57	57.30	19 45 30	3701.1	-21.81	183.06
114.35	0 25 53	3202.09	-17.61	107.20	123.56	57.29	1 19 15	2602.1	-21.79	100.37
65.65	18 33 49	4301.08	-17.63	189.89	123.57	57.30	19 45 30	3701.1	-21.81	183.06
114.35	0 25 53	3202.09	-17.61	107.20	123.56	57.29	1 19 15	2602.1	-21.79	100.37

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	3.2224	TRA	-.0087	TC3	-.7453	BAU	.5605	SGT	2869.3	SGR	1202.2	SG3	137.8	ST	2679.3	SR	871.6
RDE	1.0302	RRA	.5163	RC3	-.4732	FAU	.02290	RRT	.8580	RRF	.9505	RTF	.9636	CRT	.9826	CRS	-.9952
FDE	1.7165	FRA	.4061	FC3	-.4174	BSP	9395	SGB	3111.0	RZS	.1719	R13	.9782	LSA	2993.5	MSA	168.7
BDE	3.3830	BRA	.5163	BC3	.8828	FSP	-463	SG1	3056.5	SG2	579.7	THA	20.55	EL1	2813.3	EL2	154.0

SS	1025.3	CST	-.9960	MSA	4.2	ALF	17.78

LAUNCH DATE SEP 18 1970 FLIGHT TIME 124.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 357.806

RL	150.32	LAL	-.00	LOL	354.67	VL	27.419	GAL	-6.26	AZL	75.10	HCA	166.73	SMA	130.88	ECC	.18357	INC	14.8960	V1	29.642
RP	107.58	LAP	3.38	LOP	161.83	VP	38.122	GAP	2.60	AZP	104.52	TAL	210.21	TAP	16.93	RCA	106.86	APO	154.91	V2	35.226
RC	99.767	GL	59.36	GP	-76.87	ZAL	108.01	ZAP	99.29	ETS	307.47	ZAE	95.78	ETE	216.14	ZAC	21.83	ETC	228.93	CLP	-135.26

PLANETOCENTRIC CONIC

C3	66.312	VHL	8.143	DLA	39.81	RAL	243.27	RAD	6569.3	VEL	13.699	PTH	2.50	VHP	9.981	DPA	-66.57	RAP	130.63	ECC	2.0913

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.75	18 27 22	4453.25	-15.63	200.98	133.68	52.90	19 41 35	3853.3	-20.34	194.60
119.25	1 7 56	3213.85	-15.61	106.71	133.67	52.90	2 1 30	2613.9	-20.33	100.33
60.75	18 27 22	4453.25	-15.63	200.98	133.68	52.90	19 41 35	3853.3	-20.34	194.60
119.25	1 7 56	3213.85	-15.61	106.71	133.67	52.90	2 1 30	2613.9	-20.33	100.33
60.75	18 27 22	4453.25	-15.63	200.98	133.68	52.90	19 41 35	3853.3	-20.34	194.60
119.25	1 7 56	3213.85	-15.61	106.71	133.67	52.90	2 1 30	2613.9	-20.33	100.33

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	4.2762	TRA	.3482	TC3	-.5308	BAU	.5104	SGT	3146.7	SGR	782.5	SG3	107.6	ST	3010.4	SR	400.2
RDE	.5098	RRA	.6478	RC3	-.2229	FAU	.01508	RRT	.6421	RRF	.7834	RTF	.9734	CRT	.9091	CRS	-.9379
FDE	1.6105	FRA	.4440	FC3	-.1968	BSP	9836	SGB	3242.5	RZS	.1765	R13	.9793	LSA	3187.0	MSA	177.6
BDE	4.3064	BRA	.7355	BC3	.5757	FSP	-365	SG1	3188.0	SG2	592.1	THA	9.40	EL1	3032.3	EL2	165.5

SS	982.8	CST	-.9972	MSA	3.2	ALF	6.91

LAUNCH DATE SEP 18 1970 FLIGHT TIME 126.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 363.859

RL	150.32	LAL	-.00	LOL	354.67	VL	27.386	GAL	-6.08	AZL	70.42	HCA	169.83	SMA	130.65	ECC	.18338	INC	19.5827
RP	107.60	LAP	3.39	LOP	165.07	VP	38.092	GAP	2.92	AZP	109.30	TAL	209.20	TAP	19.03	RCA	106.69	APO	154.61
RC	102.053	GL	62.94	GP	-81.33	ZAL	103.69	ZAP	98.13	ETS	285.21	ZAE	89.70	ETE	196.08	ZAC	15.91	ETC	210.37

V1 29.642 V2 35.218 CLP -159.67

PLANETOCENTRIC CONIC

C3 105.046 VHL 10.249 DLA 42.21 RAL 248.47 RAD 6570.0 VEL 15.046 PTH 2.71 VHP 12.768 DPA -63.88 RAP 118.01 ECC 2.7288

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.28	18 32 50	4599.54	-11.86	210.42	145.10	49.18	19 49 29	3999.5	-17.01	204.51
122.72	1 43 57	3275.21	-11.84	108.85	145.09	49.18	2 38 33	2675.2	-16.99	102.94
57.28	18 32 50	4599.54	-11.86	210.42	145.10	49.18	19 49 29	3999.5	-17.01	204.51
122.72	1 43 57	3275.21	-11.84	108.85	145.09	49.18	2 38 33	2675.2	-16.99	102.94
57.28	18 32 50	4599.54	-11.86	210.42	145.10	49.18	19 49 29	3999.5	-17.01	204.51
122.72	1 43 57	3275.21	-11.84	108.85	145.09	49.18	2 38 33	2675.2	-16.99	102.94

DIFFERENTIAL CORRECTIONS

TDE	5.5454	TRA	1.0573	TC3	-.2686	BAU	.3791
RDE	-1.3219	RRA	.5485	RC3	-.0264	FAU	.00752
FDE	1.5575	FRA	.4940	FC3	-.0620	BSP	10181
BDE	5.7008	BRA	1.1911	BC3	.2699	FSP	-279

MID-COURSE EXECUTION ACCURACY

SGT	3248.1	SGR	848.8	SG3	82.6		
RRT	-.7003	RRF	-.5945	RTF	.9880		
SGB	3357.2	RZ3	-.1701	R13	-.9827		
SG1	3303.9	SG2	595.6	THA	169.28		

ORBIT DETERMINATION ACCURACY

ST	3109.3	SR	749.4	SS	968.5
CRT	-.9705	CRS	.9570	CST	-.9987
LSA	3336.6	NSA	185.6	SSA	2.2
EL1	3193.5	EL2	176.0	ALF	166.80

LAUNCH DATE SEP 18 1970 FLIGHT TIME 128.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 369.765

RL	150.32	LAL	-.00	LOL	354.67	VL	27.351	GAL	-5.86	AZL	61.81	HCA	172.80	SMA	130.40	ECC	.18304	INC	28.1922
RP	107.63	LAP	3.39	LOP	168.32	VP	38.060	GAP	3.18	AZP	118.00	TAL	208.05	TAP	20.85	RCA	106.53	APO	154.27
RC	104.339	GL	64.56	GP	-81.83	ZAL	99.37	ZAP	96.30	ETS	241.08	ZAE	81.56	ETE	154.05	ZAC	7.98	ETC	174.92

V1 29.642 V2 35.211 CLP 140.51

PLANETOCENTRIC CONIC

C3 202.612 VHL 14.234 DLA 42.61 RAL 254.30 RAD 6571.1 VEL 17.998 PTH 3.01 VHP 17.960 DPA -58.31 RAP 106.13 ECC 4.3345

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.72	18 53 45	4725.77	-6.52	216.73	157.19	47.79	20 12 31	4125.8	-11.85	211.10
123.28	2 9 34	3388.67	-6.50	114.03	157.17	47.79	3 6 3	2788.7	-11.83	108.41
56.72	18 53 45	4725.77	-6.52	216.73	157.19	47.79	20 12 31	4125.8	-11.85	211.10
123.28	2 9 34	3388.67	-6.50	114.03	157.17	47.79	3 6 3	2788.7	-11.83	108.41
56.72	18 53 45	4725.77	-6.52	216.73	157.19	47.79	20 12 31	4125.8	-11.85	211.10
123.28	2 9 34	3388.67	-6.50	114.03	157.17	47.79	3 6 3	2788.7	-11.83	108.41

DIFFERENTIAL CORRECTIONS

TDE	4.9917	TRA	1.9836	TC3	-.0283	BAU	.1041
RDE	-6.2608	RRA	-.8599	RC3	-.0260	FAU	-.00145
FDE	1.6483	FRA	.6078	FC3	.0062	BSP	10305
BDE	8.0072	BRA	2.1620	BC3	.0384	FSP	-212

MID-COURSE EXECUTION ACCURACY

SGT	2284.9	SGR	2564.7	SG3	64.1		
RRT	-.9501	RRF	-.9611	RTF	.9978		
SGB	3434.9	RZ3	-.1350	R13	-.9895		
SG1	3392.4	SG2	538.6	THA	131.53		

ORBIT DETERMINATION ACCURACY

ST	2035.4	SR	2524.1	SS	1041.1
CRT	-.9945	CRS	.9957	CST	-.9999
LSA	3401.1	NSA	173.6	SSA	1.7
EL1	3238.3	EL2	165.8	ALF	128.85

LAUNCH DATE SEP 18 1970 FLIGHT TIME 130.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 375.258

RL	150.32	LAL	-.00	LOL	354.67	VL	27.314	GAL	-5.55	AZL	42.52	HCA	175.41	SMA	130.15	ECC	.18211	INC	47.4774
RP	107.65	LAP	3.38	LOP	171.56	VP	38.026	GAP	3.34	AZP	137.39	TAL	206.55	TAP	21.97	RCA	106.45	APO	153.85
RC	106.624	GL	60.21	GP	-70.99	ZAL	95.39	ZAP	94.01	ETS	201.13	ZAE	68.19	ETE	116.15	ZAC	6.15	ETC	275.35

V1 29.642 V2 35.202 CLP 102.41

PLANETOCENTRIC CONIC

C3 533.038 VHL 23.088 DLA 37.33 RAL 259.94 RAD 6572.4 VEL 25.580 PTH 3.36 VHP 29.403 DPA -46.56 RAP 96.41 ECC 9.7725

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.59	19 52 33	4732.74	-1.33	212.99	168.22	52.69	21 11 25	4132.7	-6.16	207.02
115.41	1 55 44	3601.02	-1.31	127.65	168.20	52.69	2 55 45	3001.0	-6.14	121.67
64.59	19 52 33	4732.74	-1.33	212.99	168.22	52.69	21 11 25	4132.7	-6.16	207.02
115.41	1 55 44	3601.02	-1.31	127.65	168.20	52.69	2 55 45	3001.0	-6.14	121.67
64.59	19 52 33	4732.74	-1.33	212.99	168.22	52.69	21 11 25	4132.7	-6.16	207.02
115.41	1 55 44	3601.02	-1.31	127.65	168.20	52.69	2 55 45	3001.0	-6.14	121.67

DIFFERENTIAL CORRECTIONS

TDE	-.0258	TRA	1.7269	TC3	-.0230	BAU	1.2711
RD	-11.9016	RRA	-4.1534	RC3	-.1769	FAU	-.02069
FDE	2.0837	FRA	.9679	FC3	.0336	BSP	10187
BDE	11.9016	BRA	4.4981	BC3	.1784	FSP	-173

MID-COURSE EXECUTION ACCURACY

SGT	549.3	SGR	3327.3	SG3	53.5		
RRT	-.3244	RRF	-.9938	RTF	.4209		
SGB	3372.4	RZ3	-.0956	R13	-.9946		
SG1	3332.2	SG2	518.9	THA	93.14		

ORBIT DETERMINATION ACCURACY

ST	161.8	SR	2979.2	SS	1333.8
CRT	-.0910	CRS	.9991	CST	-.1333
LSA	3263.7	NSA	169.2	SSA	1.8
EL1	2979.2	EL2	161.2	ALF	90.28

LAUNCH DATE SEP 18 1970 FLIGHT TIME 132.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 386.309

RL	150.32	LAL	-.00	LOL	354.67	VL	27.276	GAL	-6.36	AZL	177.67	HCA	183.36	SMA	129.88	ECC	.19159	INC	87.6685
RP	107.68	LAP	3.36	LOP	174.81	VP	37.990	GAP	5.04	AZP	2.34	TAL	208.94	TAP	32.30	RCA	105.00	APO	154.77
RC	108.906	GL	-43.39	GP	47.94	ZAL	93.70	ZAP	93.57	ETS	181.03	ZAE	52.20	ETE	262.81	ZAC	125.07	ETC	275.51

V1 29.642 V2 35.193 CLP 95.33

PLANETOCENTRIC CONIC

C31554.404 VHL 39.426 DLA -66.15 RAL 251.02 RAD 6573.2 VEL 40.935 PTH 3.57 VHP 50.942 DPA 71.99 RAP 82.27 ECC26.5816

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.34	5 14 27	2440.65	-1.42	76.11	161.63	156.14	5 55 8	1840.7	5.90	73.28
152.66	15 22 38	714.28	-1.41	290.88	161.65	156.14	15 34 32	114.3	5.91	288.05
27.34	5 14 27	2440.65	-1.42	76.11	161.63	156.14	5 55 8	1840.7	5.90	73.28
152.66	15 22 38	714.28	-1.41	290.88	161.65	156.14	15 34 32	114.3	5.91	288.05
27.34	5 14 27	2440.65	-1.42	76.11	161.63	156.14	5 55 8	1840.7	5.90	73.28
152.66	15 22 38	714.28	-1.41	290.88	161.65	156.14	15 34 32	114.3	5.91	288.05

DIFFERENTIAL CORRECTIONS

TDE	6.5901	TRA	.6873	TC3	-.1034	BAU	4.4415
RD	-13.1768	RRA	1.9746	RC3	.1871	FAU	-.07540
FDE	-3.1937	FRA	.4727	FC3	.0420	BSP	8798
BDE	14.7329	BRA	2.0811	BC3	.2137	FSP	-167

MID-COURSE EXECUTION ACCURACY

SGT	1279.5	SGR	2519.3	SG3	51.4		
RRT	-.8899	RRF	.9994	RTF	-.8857		
SGB	2825.6	RZ3	-.0977	R13	.9946		
SG1	2775.5	SG2	529.9	THA	115.31		

ORBIT DETERMINATION ACCURACY

ST	960.6	SR	1927.2	SS	2055.6
CRT	-.9830	CRS	-1.0000	CST	.9833
LSA	2972.3	NSA	166.5	SSA	2.4
EL1	2147.6	EL2	158.2	ALF	116.26

LAUNCH DATE SEP 18 1970 FLIGHT TIME 134.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 390.497

```
RL  150.32 LAL   -.00 LOL 354.67 VL  27.237 GAL  -5.78 AZL 134.60 HCA 184.74 SMA 129.81 ECC .18814 INC44.6002 V1  29.642
RP  107.71 LAP   3.32 LOP 178.05 VP  37.953 GAP   4.81 AZP  45.50 TAL 206.56 TAP  31.30 RCA 105.23 APO 153.99 V2  35.184
RC 111.468 GL  -60.90 GP   71.37 ZAL  95.97 ZAP  96.11 ETS 171.42 ZAE  76.71 ETE 254.40 ZAC 148.77 ETC 273.35 CLP 109.45
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PLANETOCENTRIC CONIC

```
C3 474.164 VHL 21.775 DLA -80.40 RAL 207.65 RAD 6572.3 VEL 24.402 PTH   3.32 VHP 28.312 DPA  83.10 RAP 249.98 ECC 8.8035
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
10.92	1 47 21	2412.96	2.78	83.67	117.17	170.38	2 27 34	1813.0	10.67	82.74
169.08	13 3 44	613.70	2.78	281.65	117.19	170.38	13 13 58	13.7	10.67	280.71
10.92	1 47 21	2412.96	2.78	83.67	117.17	170.38	2 27 34	1813.0	10.67	82.74
169.08	13 3 44	613.70	2.78	281.65	117.19	170.38	13 13 58	13.7	10.67	280.71
10.92	1 47 21	2412.96	2.78	83.67	117.17	170.38	2 27 34	1813.0	10.67	82.74
169.08	13 3 44	613.70	2.78	281.65	117.19	170.38	13 13 58	13.7	10.67	280.71

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.4782 TRA  .4921 TC3 -.0520 BAU 1.1581   SGT  897.1 SGR 3480.0 SG3   59.1     ST   453.4 SR  2901.9 SS  1459.2
RD-10.8301 RRA-1.1573 RC3  .1751 FAU-.01543   RRT -.8668 RRF  .9972 RTF -.8506     CRT -.9595 CRS -.9997 CST  .9305
FDE-2.2365 FRA -.2085 FC3  .0282 BSP  11247   SGB 3583.1 RZS -.0056 R13  .9949     LSA 3275.7 NSA  159.6 SSA    1.5
BDE10.9305 BRA 1.2576 BC3  .1827 FSP   -190   SG1 3556.4 SG2  436.4 THA 102.83     EL1 2933.0 EL2  153.6 ALF  98.37
```

LAUNCH DATE SEP 18 1970 FLIGHT TIME 136.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 395.981

```
RL  150.32 LAL   -.00 LOL 354.67 VL  27.196 GAL  -5.45 AZL 116.45 HCA 187.38 SMA 129.33 ECC .18740 INC26.4542 V1  29.642
RP  107.74 LAP   3.28 LOP 181.28 VP  37.914 GAP   4.95 AZP  63.74 TAL 205.00 TAP  32.39 RCA 105.09 APO 153.57 V2  35.174
RC 113.462 GL  -64.33 GP   78.64 ZAL  99.07 ZAP 100.13 ETS 122.20 ZAE  89.64 ETE 205.57 ZAC 159.30 ETC 240.99 CLP 153.25
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PLANETOCENTRIC CONIC

```
C3 179.065 VHL 13.382 DLA -78.79 RAL 179.01 RAD 6570.9 VEL 17.332 PTH   2.95 VHP 17.572 DPA  69.50 RAP 249.78 ECC 3.9470
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
12.76	23 52 47	2290.79	10.76	81.59	86.84	168.58	24 30 58	1690.8	18.60	80.35
167.24	11 5 54	5784.36	10.77	259.26	86.86	168.58	12 42 18	5184.4	18.60	258.01
12.76	23 52 47	2290.79	10.76	81.59	86.84	168.58	24 30 58	1690.8	18.60	80.35
167.24	11 5 54	5784.36	10.77	259.26	86.86	168.58	12 42 18	5184.4	18.60	258.01
12.76	23 52 47	2290.79	10.76	81.59	86.84	168.58	24 30 58	1690.8	18.60	80.35
167.24	11 5 54	5784.36	10.77	259.26	86.86	168.58	12 42 18	5184.4	18.60	258.01

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-3.1801 TRA -.9023 TC3 -.0330 BAU  .0792   SGT 2410.2 SGR 2980.9 SG3   73.2     ST  1486.4 SR  1285.4 SS   749.2
RDE-2.2748 RRA-1.2889 RC3  .0028 FAU .00475   RRT  .9642 RRF  .9737 RTF  .9982     CRT  .9558 CRS -.9668 CST -.9992
FDE-1.0365 FRA -.3288 FC3 -.0230 BSP  11733   SGB 3017.9 RZS -.1193 R13  .9919     LSA 2082.2 NSA  295.3 SSA    1.5
BDE 3.9099 BRA 1.5578 BC3  .0331 FSP   -234   SG1 3785.0 SG2  500.1 THA  51.07     EL1 1943.7 EL2  289.0 ALF  40.66
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LAUNCH DATE SEP 18 1970 FLIGHT TIME 138.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 401.797

```
RL  150.32 LAL   -.00 LOL 354.67 VL  27.154 GAL  -5.19 AZL 108.24 HCA 190.36 SMA 129.05 ECC .18742 INC18.2363 V1  29.642
RP  107.77 LAP   3.23 LOP 184.52 VP  37.875 GAP   5.19 AZP  72.04 TAL 203.66 TAP  34.02 RCA 104.86 APO 153.23 V2  35.164
RC 115.736 GL  -62.41 GP   75.09 ZAL 101.97 ZAP 104.73 ETS  73.52 ZAE  97.66 ETE 157.70 ZAC 162.40 ETC 216.27 CLP-171.22
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PLANETOCENTRIC CONIC

```
C3  91.173 VHL  9.548 DLA -75.81 RAL 181.86 RAD 6569.8 VEL 14.578 PTH   2.64 VHP 12.716 DPA  60.30 RAP 246.90 ECC 2.5005
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.17	0 14 50	2154.62	19.24	77.56	86.78	164.95	0 50 45	1554.6	26.95	75.65
163.83	11 10 29	5659.15	19.25	258.58	86.80	164.95	12 44 48	5059.1	26.96	256.67
16.17	0 14 50	2154.62	19.24	77.56	86.78	164.95	0 50 45	1554.6	26.95	75.65
163.83	11 10 29	5659.15	19.25	258.58	86.80	164.95	12 44 48	5059.1	26.96	256.67
16.17	0 14 50	2154.62	19.24	77.56	86.78	164.95	0 50 45	1554.6	26.95	75.65
163.83	11 10 29	5659.15	19.25	258.58	86.80	164.95	12 44 48	5059.1	26.96	256.67

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.8057 TRA-1.4155 TC3 -.3601 BAU  .4397   SGT 3013.0 SGR  539.6 SG3   95.1     ST  1978.7 SR   461.7 SS   727.5
RDE  .7557 RRA -.1184 RC3  .0203 FAU .01535   RRT  .1014 RRF -.0562 RTF  .9853     CRT -.7367 CRS  .8273 CST -.9893
FDE-1.0133 FRA -.3589 FC3 -.1458 BSP  12197   SGB 3050.0 RZS -.1588 R13  .9850     LSA 2134.6 NSA  318.1 SSA    2.3
BDE 2.9057 BRA 1.4204 BC3  .3607 FSP   -307   SG1 3013.3 SG2  536.7 THA   .82     EL1 2008.4 EL2  307.6 ALF 170.01
```

LAUNCH DATE SEP 18 1970 FLIGHT TIME 140.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 407.716

```
RL  150.32 LAL   -.00 LOL 354.67 VL  27.112 GAL  -4.94 AZL 103.71 HCA 193.46 SMA 128.76 ECC .18775 INC13.7127 V1  29.642
RP  107.80 LAP   3.16 LOP 187.75 VP  37.834 GAP   5.45 AZP  76.65 TAL 202.36 TAP  35.81 RCA 104.58 APO 152.93 V2  35.153
RC 118.005 GL  -58.83 GP   69.04 ZAL 104.39 ZAP 109.52 ETS  60.55 ZAE 103.60 ETE 146.13 ZAC 161.10 ETC 224.86 CLP-159.07
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PLANETOCENTRIC CONIC

```
C3  56.000 VHL  7.483 DLA -72.87 RAL 190.39 RAD 6569.0 VEL 13.318 PTH   2.43 VHP 10.155 DPA  52.77 RAP 244.58 ECC 1.9216
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
19.54	0 55 45	2033.44	26.33	72.63	91.60	160.82	1 29 38	1433.4	33.85	69.89
160.46	11 37 39	5551.61	26.34	257.04	91.63	160.82	13 10 11	4951.6	33.86	254.31
19.54	0 55 45	2033.44	26.33	72.63	91.60	160.82	1 29 38	1433.4	33.85	69.89
160.46	11 37 39	5551.61	26.34	257.04	91.63	160.82	13 10 11	4951.6	33.86	254.31
19.54	0 55 45	2033.44	26.33	72.63	91.60	160.82	1 29 38	1433.4	33.85	69.89
160.46	11 37 39	5551.61	26.34	257.04	91.63	160.82	13 10 11	4951.6	33.86	254.31

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.5100 TRA-1.2459 TC3 -.7938 BAU  .6095   SGT 3949.5 SGR  940.6 SG3  121.4     ST  2153.8 SR   839.9 SS   823.9
RDE 1.0887 RRA  .1315 RC3  .1806 FAU .02376   RRT -.8157 RRF -.9188 RTF  .9721     CRT -.9408 CRS  .9838 CST -.9863
FDE-1.1706 FRA -.3583 FC3 -.3673 BSP  12630   SGB 4060.0 RZS  .1920 R13 -.9775     LSA 2437.8 NSA  283.3 SSA    3.0
BDE 2.7359 BRA 1.2528 BC3  .8141 FSP   -396   SG1 4024.7 SG2  535.9 THA 168.81     EL1 2296.3 EL2  267.0 ALF 159.57
```

LAUNCH DATE SEP 18 1970 FLIGHT TIME 142.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 413.669

```
RL  150.32 LAL   -.00 LOL 354.67 VL  27.068 GAL  -4.69 AZL 100.87 HCA 196.60 SMA 128.46 ECC .18825 INC10.8682 V1  29.642
RP  107.84 LAP   3.09 LOP 190.99 VP  37.793 GAP   5.72 AZP  79.57 TAL 201.06 TAP  37.66 RCA 104.28 APO 152.65 V2  35.141
RC 120.271 GL  -54.76 GP   63.01 ZAL 106.22 ZAP 114.28 ETS  56.16 ZAE 108.33 ETE 143.68 ZAC 157.70 ETC 234.71 CLP-154.93
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PLANETOCENTRIC CONIC

```
C3  38.788 VHL  6.228 DLA -69.88 RAL 199.09 RAD 6568.5 VEL 12.655 PTH   2.30 VHP  8.656 DPA  46.13 RAP 242.93 ECC 1.6384
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
23.00	1 37 46	1932.96	31.59	66.98	96.06	156.19	2 9 59	1333.0	38.85	63.26
157.00	12 5 4	5468.27	31.60	254.97	96.08	156.18	13 36 13	4868.3	38.85	251.25
23.00	1 37 46	1932.96	31.59	66.98	96.06	156.19	2 9 59	1333.0	38.85	63.26
157.00	12 5 4	5468.27	31.60	254.97	96.08	156.18	13 36 13	4868.3	38.85	251.25
23.00	1 37 46	1932.96	31.59	66.98	96.06	156.19	2 9 59	1333.0	38.85	63.26
157.00	12 5 4	5468.27	31.60	254.97	96.08	156.18	13 36 13	4868.3	38.85	251.25

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-2.3901 TRA-1.0892 TC3-1.3060 BAU  .7002   SGT 3996.2 SGR 1121.3 SG3  148.6    ST  2366.7 SR   968.5 SS   914.9
 RDE 1.0450 RRA  .1450 RC3  .3430 FAU .03100   RRT -.8791 RRF -.9648 RTF  .9627    CRT -.9669 CRS  .9950 CST -.9875
 FDE-1.2975 FRA -.3324 FC3 -.6919 BSP  12949   SGB 4150.5 RZ3  .2181 RI3 -.9701    LSA 2704.1 MSA  252.5 SSA    3.9
 BDE 2.6086 BRA 1.0968 BC3 1.3503 FSP   -487   SG1 4118.0 SG2  518.6 THA 165.92    EL1 2546.8 EL2  229.6 ALF 158.23
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LAUNCH DATE SEP 18 1970 FLIGHT TIME 144.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 419.633

```
RL  150.32 LAL   -.00 LOL 354.67 VL  27.024 GAL  -4.44 AZL  98.91 HCA 199.77 SMA 128.17 ECC .18690 INC 8.9126 V1  29.642
RP  107.87 LAP   3.00 LOP 194.21 VP  37.750 GAP   5.99 AZP  81.60 TAL 199.75 TAP  39.52 RCA 103.96 APO 152.38 V2  35.130
RC 122.531 GL  -50.62 GP   57.40 ZAL 107.43 ZAP 118.86 ETS  54.14 ZAE 112.16 ETE 143.99 ZAC 153.64 ETC 241.47 CLP-153.63
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PLANETOCENTRIC CONIC

```
C3  29.184 VHL  5.400 DLA -66.87 RAL 206.93 RAD 6568.2 VEL 12.269 PTH   2.21 VHP  7.721 DPA  40.14 RAP 241.87 ECC 1.4800
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.50	2 16 41	1850.71	35.19	60.89	99.39	151.28	2 47 32	1250.7	42.10	56.14
153.50	12 28 40	5406.80	35.20	252.64	99.41	151.27	13 58 47	4806.8	42.11	247.88
26.50	2 16 41	1850.71	35.19	60.89	99.39	151.28	2 47 32	1250.7	42.10	56.14
153.50	12 28 40	5406.80	35.20	252.64	99.41	151.27	13 58 47	4806.8	42.11	247.88
26.50	2 16 41	1850.71	35.19	60.89	99.39	151.28	2 47 32	1250.7	42.10	56.14
153.50	12 28 40	5406.80	35.20	252.64	99.41	151.27	13 58 47	4806.8	42.11	247.88

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-2.2711 TRA -.9502 TC3-1.8761 BAU  .7550   SGT 4062.0 SGR 1145.4 SG3  173.5    ST  2530.3 SR   982.6 SS   970.3
 RDE  .9223 RRA  .1066 RC3  .4797 FAU .03694   RRT -.8942 RRF -.9738 RTF  .9554    CRT -.9760 CRS  .9978 CST -.9883
 FDE-1.3538 FRA -.2787 FC3-1.0966 BSP  13103   SGB 4220.4 RZ3  .2379 RI3 -.9630    LSA 2873.4 MSA  230.3 SSA    4.8
 BDE 2.4512 BRA  .9563 BC3 1.9364 FSP   -564   SG1 4191.0 SG2  496.9 THA 165.64    EL1 2707.0 EL2  200.2 ALF 159.12
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LAUNCH DATE SEP 18 1970 FLIGHT TIME 146.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 425.593

```
RL  150.32 LAL   -.00 LOL 354.67 VL  26.980 GAL  -4.18 AZL  97.48 HCA 202.95 SMA 127.87 ECC .18966 INC 7.4809 V1  29.642
RP  107.91 LAP   2.91 LOP 197.44 VP  37.707 GAP   6.26 AZP  83.11 TAL 198.43 TAP  41.37 RCA 103.82 APO 152.12 V2  35.118
RC 124.786 GL  -46.58 GP   52.31 ZAL 108.03 ZAP 123.18 ETS  52.95 ZAE 115.26 ETE 145.40 ZAC 149.58 ETC 245.97 CLP-153.54
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PLANETOCENTRIC CONIC

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C3  23.260 VHL  4.823 DLA -63.90 RAL 213.88 RAD 6567.9 VEL 12.027 PTH   2.15 VHP  7.118 DPA  34.73 RAP 241.30 ECC 1.3828
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
29.98	2 52 22	1782.53	37.45	54.68	101.84	146.36	3 22 5	1182.5	43.95	48.95
150.02	12 48 25	5363.08	37.45	250.31	101.85	146.35	14 17 48	4763.1	43.96	244.58
29.98	2 52 22	1782.53	37.45	54.68	101.84	146.36	3 22 5	1182.5	43.95	48.95
150.02	12 48 25	5363.08	37.45	250.31	101.85	146.35	14 17 48	4763.1	43.96	244.58
29.98	2 52 22	1782.53	37.45	54.68	101.84	146.36	3 22 5	1182.5	43.95	48.95
150.02	12 48 25	5363.08	37.45	250.31	101.85	146.35	14 17 48	4763.1	43.96	244.58

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-2.1572 TRA -.8381 TC3-2.5121 BAU  .8030   SGT 4190.8 SGR 1129.3 SG3  198.2    ST  2652.2 SR   952.3 SS  1000.1
 RDE  .7999 RRA  .0733 RC3  .5983 FAU .04225   RRT -.9047 RRF -.9759 RTF  .9523    CRT -.9807 CRS  .9989 CST -.9888
 FDE-1.3601 FRA -.2187 FC3-1.5724 BSP  13669   SGB 4340.3 RZ3  .2430 RI3 -.9591    LSA 2982.6 MSA  212.6 SSA    5.9
 BDE 2.3008 BRA  .8413 BC3 2.5824 FSP   -657   SG1 4315.1 SG2  467.2 THA 166.13    EL1 2812.5 EL2  175.6 ALF 160.52
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LAUNCH DATE SEP 18 1970 FLIGHT TIME 148.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 431.548

```
RL  150.32 LAL   -.00 LOL 354.67 VL  26.935 GAL  -3.91 AZL  96.38 HCA 206.14 SMA 127.57 ECC .19054 INC 6.3825 V1  29.642
RP  107.95 LAP   2.81 LOP 200.66 VP  37.683 GAP   6.54 AZP  84.27 TAL 197.08 TAP  43.22 RCA 103.26 APO 151.88 V2  35.105
RC 127.036 GL  -42.72 GP   47.74 ZAL 108.05 ZAP 127.19 ETS  52.11 ZAE 117.75 ETE 147.28 ZAC 145.76 ETC 249.08 CLP-154.01
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PLANETOCENTRIC CONIC

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C3  19.389 VHL  4.403 DLA -61.02 RAL 220.12 RAD 6567.8 VEL 11.865 PTH   2.10 VHP  6.724 DPA  29.83 RAP 241.13 ECC 1.3191
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.39	3 25 29	1724.81	38.68	48.58	103.80	141.64	3 54 14	1124.8	44.75	42.01
146.61	13 5 8	5333.25	38.69	248.21	103.81	141.64	14 34 1	4733.3	44.76	241.64
33.39	3 25 29	1724.81	38.68	48.58	103.80	141.64	3 54 14	1124.8	44.75	42.01
146.61	13 5 8	5333.25	38.69	248.21	103.81	141.64	14 34 1	4733.3	44.76	241.64
33.39	3 25 29	1724.81	38.68	48.58	103.80	141.64	3 54 14	1124.8	44.75	42.01
146.61	13 5 8	5333.25	38.69	248.21	103.81	141.64	14 34 1	4733.3	44.76	241.64

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DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-2.0210 TRA -.7125 TC3-3.1404 BAU  .8323   SGT 4260.3 SGR 1086.4 SG3  214.8    ST  2693.0 SR   885.7 SS   985.1
 RDE  .6002 RRA  .0313 RC3  .6687 FAU .04550   RRT -.9043 RRF -.9730 RTF  .9473    CRT -.9826 CRS  .9994 CST -.9882
 FDE-1.3000 FRA -.1281 FC3-2.0316 BSP  13754   SGB 4400.4 RZ3  .2506 RI3 -.9534    LSA 2994.4 MSA  200.9 SSA    7.1
 BDE 2.1324 BRA  .7132 BC3 3.2108 FSP   -703   SG1 4378.0 SG2  444.0 THA 167.14    EL1 2830.5 EL2  156.4 ALF 162.03
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LAUNCH DATE SEP 18 1970 FLIGHT TIME 150.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 437.492

RL 150.32 LAL -.00 LOL 354.67 VL 26.889 GAL -3.64 AZL 95.51 HCA 209.33 SMA 127.27 ECC .19154 INC 5.5088 V1 29.642
RP 107.99 LAP 2.70 LOP 203.88 VP 37.619 GAP 6.81 AZP 85.19 TAL 195.71 TAP 45.04 RCA 102.89 APO 151.65 V2 35.093
RC 129.278 GL -39.04 GP 43.68 ZAL 107.54 ZAP 130.86 ETS 51.43 ZAE 119.73 ETE 149.32 ZAC 142.30 ETC 251.33 CLP-154.78

PLANETOCENTRIC CONIC

C3 16.725 VHL 4.090 DLA -58.25 RAL 225.85 RAD 6567.7 VEL 11.752 PTH 2.07 VHP 6.469 DPA 25.43 RAP 241.31 ECC 1.2753

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.71	3 56 47	1674.61	39.14	42.73	105.59	137.27	4 24 42	1074.6	44.78	35.50
143.29	13 19 31	5314.53	39.16	246.47	105.60	137.26	14 48 5	4714.5	44.79	239.24
36.71	3 56 47	1674.61	39.14	42.73	105.59	137.27	4 24 42	1074.6	44.78	35.50
143.29	13 19 31	5314.53	39.16	246.47	105.60	137.26	14 48 5	4714.5	44.79	239.24
36.71	3 56 47	1674.61	39.14	42.73	105.59	137.27	4 24 42	1074.6	44.78	35.50
143.29	13 19 31	5314.53	39.16	246.47	105.60	137.26	14 48 5	4714.5	44.79	239.24

DIFFERENTIAL CORRECTIONS
TDE-1.8916 TRA -.5944 TC3-3.7827 BAU .8608
RDE .5827 RRA -.0017 RC3 .7159 FAU .04783
FDE-1.2123 FRA -.0353 FC3-2.4759 BSP 14035
BDE 1.9793 BRA .5944 BC3 3.8499 FSP -748

MID-COURSE EXECUTION ACCURACY
SGT 4370.4 SGR 1004.7 SG3 228.5
RRT -.9038 RRF -.9680 RTF .9444
SGB 4484.4 RZS .2488 R13 -.9495
SG1 4484.6 SG2 421.0 THA 168.16

ORBIT DETERMINATION ACCURACY
ST 2693.9 SR 816.6 SS 950.1
CRT -.9840 CRS .9997 CST -.9871
LSA 2964.8 MSA 191.1 SSA 8.5
EL1 2811.5 EL2 139.5 ALF 163.35

LAUNCH DATE SEP 18 1970 FLIGHT TIME 152.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 443.423

RL 150.32 LAL -.00 LOL 354.67 VL 26.843 GAL -3.35 AZL 94.79 HCA 212.52 SMA 126.97 ECC .19265 INC 4.7936 V1 29.642
RP 108.03 LAP 2.58 LOP 207.10 VP 37.575 GAP 7.08 AZP 85.96 TAL 194.33 TAP 46.85 RCA 102.51 APO 151.43 V2 35.080
RC 131.513 GL -35.56 GP 40.08 ZAL 106.54 ZAP 134.21 ETS 50.86 ZAE 121.29 ETE 151.37 ZAC 139.21 ETC 253.05 CLP-155.70

PLANETOCENTRIC CONIC

C3 14.829 VHL 3.851 DLA -55.58 RAL 231.19 RAD 6567.6 VEL 11.671 PTH 2.05 VHP 6.310 DPA 21.47 RAP 241.77 ECC 1.2440

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.95	4 26 50	1629.82	39.04	37.21	107.41	133.29	4 54 0	1029.8	44.26	29.49
140.05	13 32 6	5304.86	39.06	245.18	107.42	133.28	15 0 31	4704.9	44.27	237.46
39.95	4 26 50	1629.82	39.04	37.21	107.41	133.29	4 54 0	1029.8	44.26	29.49
140.05	13 32 6	5304.86	39.06	245.18	107.42	133.28	15 0 31	4704.9	44.27	237.46
39.95	4 26 50	1629.82	39.04	37.21	107.41	133.29	4 54 0	1029.8	44.26	29.49
140.05	13 32 6	5304.86	39.06	245.18	107.42	133.28	15 0 31	4704.9	44.27	237.46

DIFFERENTIAL CORRECTIONS
TDE-1.7656 TRA -.4770 TC3-4.4161 BAU .8877
RDE .5039 RRA -.0284 RC3 .7409 FAU .04921
FDE-1.1052 FRA .0590 FC3-2.8728 BSP 14353
BDE 1.8361 BRA .4778 BC3 4.4778 FSP -783

MID-COURSE EXECUTION ACCURACY
SGT 4477.1 SGR 945.1 SG3 238.6
RRT -.9019 RRF -.9607 RTF .9424
SGB 4575.8 RZS .2403 R13 -.9466
SG1 4558.2 SG2 401.0 THA 169.14

ORBIT DETERMINATION ACCURACY
ST 2655.8 SR 750.2 SS 897.7
CRT -.9851 CRS .9998 CST -.9855
LSA 2896.3 MSA 182.9 SSA 10.0
EL1 2756.9 EL2 124.4 ALF 164.42

LAUNCH DATE SEP 18 1970 FLIGHT TIME 154.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 449.340

RL 150.32 LAL -.00 LOL 354.67 VL 26.797 GAL -3.06 AZL 94.19 HCA 215.72 SMA 126.67 ECC .19388 INC 4.1939 V1 29.642
RP 108.07 LAP 2.45 LOP 210.32 VP 37.530 GAP 7.35 AZP 86.59 TAL 192.92 TAP 48.64 RCA 102.11 APO 151.23 V2 35.067
RC 133.740 GL -32.25 GP 36.91 ZAL 105.11 ZAP 137.26 ETS 50.38 ZAE 122.51 ETE 153.34 ZAC 136.47 ETC 254.40 CLP-156.70

PLANETOCENTRIC CONIC

C3 13.451 VHL 3.668 DLA -53.00 RAL 236.26 RAD 6567.5 VEL 11.612 PTH 2.03 VHP 6.220 DPA 17.91 RAP 242.47 ECC 1.2214

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.13	4 56 10	1588.69	38.53	31.99	109.38	129.71	5 22 39	988.7	43.34	23.95
136.87	13 43 10	5302.98	38.53	244.38	109.39	129.70	15 11 33	4703.0	43.35	236.32
43.13	4 56 10	1588.69	38.53	31.99	109.38	129.71	5 22 39	988.7	43.34	23.95
136.87	13 43 10	5302.98	38.53	244.38	109.39	129.70	15 11 33	4703.0	43.35	236.32
43.13	4 56 10	1588.69	38.53	31.99	109.38	129.71	5 22 39	988.7	43.34	23.95
136.87	13 43 10	5302.98	38.53	244.38	109.39	129.70	15 11 33	4703.0	43.35	236.32

DIFFERENTIAL CORRECTIONS
TDE-1.6400 TRA -.3545 TC3-5.0150 BAU .9117
RDE .4400 RRA -.0513 RC3 .7449 FAU .04963
FDE -.9855 FRA .1550 FC3-3.1943 BSP 14643
BDE 1.6980 BRA .3582 BC3 5.0700 FSP -804

MID-COURSE EXECUTION ACCURACY
SGT 4576.2 SGR 888.2 SG3 244.7
RRT -.8976 RRF -.9509 RTF .9407
SGB 4661.6 RZS .2279 R13 -.9442
SG1 4645.7 SG2 385.6 THA 170.05

ORBIT DETERMINATION ACCURACY
ST 2579.2 SR 688.8 SS 830.8
CRT -.9862 CRS .9996 CST -.9829
LSA 2790.3 MSA 176.2 SSA 11.9
EL1 2667.4 EL2 110.3 ALF 165.22

LAUNCH DATE SEP 18 1970 FLIGHT TIME 156.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 455.242

RL 150.32 LAL -.00 LOL 354.67 VL 26.751 GAL -2.75 AZL 93.68 HCA 218.92 SMA 126.38 ECC .19524 INC 3.6811 V1 29.642
RP 108.11 LAP 2.31 LOP 213.53 VP 37.484 GAP 7.62 AZP 87.13 TAL 191.49 TAP 50.41 RCA 101.70 APO 151.05 V2 35.054
RC 135.957 GL -29.10 GP 34.10 ZAL 103.29 ZAP 140.02 ETS 49.99 ZAE 123.45 ETE 155.19 ZAC 134.06 ETC 255.53 CLP-157.74

PLANETOCENTRIC CONIC

C3 12.440 VHL 3.527 DLA -50.50 RAL 241.11 RAD 6567.5 VEL 11.568 PTH 2.02 VHP 6.180 DPA 14.72 RAP 243.38 ECC 1.2047

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.26	5 25 9	1549.95	37.69	27.08	111.55	126.51	5 50 59	950.0	42.14	18.80
133.74	13 52 55	5308.10	37.70	244.08	111.56	126.50	15 21 23	4708.1	42.15	235.82
46.26	5 25 9	1549.95	37.69	27.08	111.55	126.51	5 50 59	950.0	42.14	18.80
133.74	13 52 55	5308.10	37.70	244.08	111.56	126.50	15 21 23	4708.1	42.15	235.82
46.26	5 25 9	1549.95	37.69	27.08	111.55	126.51	5 50 59	950.0	42.14	18.80
133.74	13 52 55	5308.10	37.70	244.08	111.56	126.50	15 21 23	4708.1	42.15	235.82

DIFFERENTIAL CORRECTIONS
TDE-1.5188 TRA -.2880 TC3-5.5093 BAU .9343
RDE .3091 RRA -.0705 RC3 .7343 FAU .04936
FDE -.9614 FRA .2482 FC3-3.4348 BSP 14938
BDE 1.5646 BRA .2387 BC3 5.6175 FSP -816

MID-COURSE EXECUTION ACCURACY
SGT 4672.7 SGR 836.9 SG3 247.9
RRT -.8915 RRF -.9387 RTF .9395
SGB 4747.0 RZS .2113 R13 -.9423
SG1 4732.3 SG2 374.3 THA 170.87

ORBIT DETERMINATION ACCURACY
ST 2470.8 SR 634.6 SS 755.1
CRT -.9876 CRS .9984 CST -.9789
LSA 2654.9 MSA 170.6 SSA 14.0
EL1 2549.2 EL2 96.6 ALF 165.75

LAUNCH DATE SEP 18 1970 FLIGHT TIME 158.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 461.127
RL 150.32 LAL -.00 LOL 354.67 VL 26.705 GAL -2.44 AZL 93.24 HCA 222.11 SMA 126.08 ECC .19673 INC 3.2350 V1 29.642
RP 108.15 LAP 2.17 LOP 216.73 VP 37.439 GAP 7.89 AZP 87.60 TAL 190.05 TAP 52.16 RCA 101.28 APO 150.88 V2 35.041
RC 138.166 GL -26.11 GP 31.63 ZAL 101.15 ZAP 142.54 ETS 49.68 ZAE 124.17 ETE 156.89 ZAC 131.94 ETC 256.49 CLP-158.80
PLANETOCENTRIC CONIC
C3 11.704 VHL 3.421 DLA -48.07 RAL 245.79 RAD 6567.4 VEL 11.537 PTH 2.01 VHP 6.178 DPA 11.84 RAP 244.46 ECC 1.1926

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.38	5 54 5	1512.45	36.60	22.35	113.93	123.66	6 19 17	912.5	40.72	13.98
130.62	14 1 20	5319.86	36.62	244.31	113.94	123.64	15 30 0	4719.9	40.73	235.93
49.38	5 54 5	1512.45	36.60	22.35	113.93	123.66	6 19 17	912.5	40.72	13.98
130.62	14 1 20	5319.86	36.62	244.31	113.94	123.64	15 30 0	4719.9	40.73	235.93
49.38	5 54 5	1512.45	36.60	22.35	113.93	123.66	6 19 17	912.5	40.72	13.98
130.62	14 1 20	5319.86	36.62	244.31	113.94	123.64	15 30 0	4719.9	40.73	235.93

DIFFERENTIAL CORRECTIONS
TDE-1.3915 TRA -.0966 TC3-6.0683 BAU .9561
RDE .3489 RRA -.0870 RC3 .7140 FAU .04858
FDE -.7384 FRA .3572 FC3-3.5935 BSP 15236
BDE 1.4346 BRA .1300 BC3 6.1101 FSP -820

MID-COURSE EXECUTION ACCURACY
SGT 4767.5 SGR 792.3 SG3 248.8
RRT -.8836 RRF -.9242 RTF .9388
SGB 4832.9 R23 .1916 R13 -.9410
SG1 4818.9 SG2 367.0 THA 171.60

ORBIT DETERMINATION ACCURACY
ST 2334.9 SR 588.2 SS 675.0
CRT -.9895 CRS .9953 CST -.9730
LSA 2495.1 MSA 166.1 SSA 16.5
EL1 2406.4 EL2 82.6 ALF 165.99

LAUNCH DATE SEP 18 1970 FLIGHT TIME 160.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 466.996
RL 150.32 LAL -.00 LOL 354.67 VL 26.659 GAL -2.11 AZL 92.84 HCA 225.31 SMA 125.78 ECC .19836 INC 2.8410 V1 29.642
RP 108.19 LAP 2.02 LOP 219.94 VP 37.394 GAP 8.17 AZP 88.00 TAL 188.59 TAP 53.89 RCA 100.83 APO 150.73 V2 35.028
RC 140.364 GL -23.26 GP 29.44 ZAL 98.72 ZAP 144.84 ETS 49.48 ZAE 124.73 ETE 158.43 ZAC 130.08 ETC 257.35 CLP-159.85
PLANETOCENTRIC CONIC
C3 11.183 VHL 3.344 DLA -45.69 RAL 250.33 RAD 6567.4 VEL 11.514 PTH 2.01 VHP 6.206 DPA 9.24 RAP 245.70 ECC 1.1840

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.51	6 23 18	1474.98	35.33	17.78	116.53	121.11	6 47 53	875.0	39.15	9.36
127.49	14 8 17	5338.42	35.34	245.08	116.54	121.09	15 37 16	4738.4	39.16	236.66
52.51	6 23 18	1474.98	35.33	17.78	116.53	121.11	6 47 53	875.0	39.15	9.36
127.49	14 8 17	5338.42	35.34	245.08	116.54	121.09	15 37 16	4738.4	39.16	236.66
52.51	6 23 18	1474.98	35.33	17.78	116.53	121.11	6 47 53	875.0	39.15	9.36
127.49	14 8 17	5338.42	35.34	245.08	116.54	121.09	15 37 16	4738.4	39.16	236.66

DIFFERENTIAL CORRECTIONS
TDE-1.2866 TRA .0409 TC3-6.4973 BAU .9768
RDE .3171 RRA -.1016 RC3 .6863 FAU .04740
FDE -.6189 FRA .4221 FC3-3.6698 BSP 15534
BDE 1.3057 BRA .1096 BC3 6.5335 FSP -820

MID-COURSE EXECUTION ACCURACY
SGT 4858.3 SGR 753.7 SG3 247.7
RRT -.8736 RRF -.9074 RTF .9384
SGB 4916.5 R23 .1706 R13 -.9401
SG1 4903.0 SG2 363.5 THA 172.24

ORBIT DETERMINATION ACCURACY
ST 2174.2 SR 548.6 SS 593.8
CRT -.9919 CRS .9882 CST -.9636
LSA 2313.8 MSA 163.2 SSA 19.3
EL1 2241.3 EL2 67.8 ALF 165.94

LAUNCH DATE SEP 18 1970 FLIGHT TIME 162.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 472.848
RL 150.32 LAL -.00 LOL 354.67 VL 26.613 GAL -1.77 AZL 92.49 HCA 228.50 SMA 125.49 ECC .20013 INC 2.4886 V1 29.642
RP 108.23 LAP 1.86 LOP 223.14 VP 37.348 GAP 8.44 AZP 88.35 TAL 187.11 TAP 55.61 RCA 100.38 APO 150.61 V2 35.014
RC 142.552 GL -20.54 GP 27.51 ZAL 96.06 ZAP 146.94 ETS 49.38 ZAE 125.16 ETE 159.83 ZAC 128.45 ETC 258.12 CLP-160.89
PLANETOCENTRIC CONIC
C3 10.839 VHL 3.292 DLA -43.36 RAL 254.73 RAD 6567.4 VEL 11.499 PTH 2.00 VHP 6.257 DPA 6.90 RAP 247.08 ECC 1.1784

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.68	6 53 4	1436.50	35.91	13.27	119.32	118.83	7 17 1	836.5	37.45	4.85
124.32	14 13 38	5364.09	35.92	246.43	119.33	118.81	15 43 2	4764.1	37.46	238.01
55.68	6 53 4	1436.50	35.91	13.27	119.32	118.83	7 17 1	836.5	37.45	4.85
124.32	14 13 38	5364.09	35.92	246.43	119.33	118.81	15 43 2	4764.1	37.46	238.01
55.68	6 53 4	1436.50	35.91	13.27	119.32	118.83	7 17 1	836.5	37.45	4.85
124.32	14 13 38	5364.09	35.92	246.43	119.33	118.81	15 43 2	4764.1	37.46	238.01

DIFFERENTIAL CORRECTIONS
TDE-1.1393 TRA .1852 TC3-6.8442 BAU .9963
RDE .2920 RRA -.1151 RC3 .6532 FAU .04591
FDE -.5041 FRA .5025 FC3-3.6670 BSP 15807
BDE 1.1761 BRA .2181 BC3 6.8753 FSP -812

MID-COURSE EXECUTION ACCURACY
SGT 4943.5 SGR 720.5 SG3 245.1
RRT -.8614 RRF -.8884 RTF .9381
SGB 4995.7 R23 .1496 R13 -.9395
SG1 4982.5 SG2 363.1 THA 172.81

ORBIT DETERMINATION ACCURACY
ST 1991.8 SR 514.9 SS 514.3
CRT -.9947 CRS .9727 CST -.9485
LSA 2114.2 MSA 162.6 SSA 22.4
EL1 2056.6 EL2 51.5 ALF 165.57

LAUNCH DATE SEP 18 1970 FLIGHT TIME 164.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 478.682
RL 150.32 LAL -.00 LOL 354.67 VL 26.566 GAL -1.42 AZL 92.17 HCA 231.69 SMA 125.20 ECC .20207 INC 2.1695 V1 29.642
RP 108.27 LAP 1.70 LOP 226.34 VP 37.303 GAP 8.72 AZP 88.65 TAL 185.61 TAP 57.30 RCA 99.90 APO 150.50 V2 35.001
RC 144.730 GL -17.95 GP 25.79 ZAL 93.21 ZAP 148.86 ETS 49.39 ZAE 125.50 ETE 161.08 ZAC 127.01 ETC 258.85 CLP-161.91
PLANETOCENTRIC CONIC
C3 10.648 VHL 3.263 DLA -41.06 RAL 259.00 RAD 6567.4 VEL 11.491 PTH 2.00 VHP 6.328 DPA 4.77 RAP 248.58 ECC 1.1752

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.93	7 23 44	1395.67	32.37	8.72	122.29	116.78	7 47 0	795.7	35.67	.34
121.07	14 17 2	5397.64	32.38	248.40	122.29	116.76	15 46 59	4797.6	35.68	240.02
58.93	7 23 44	1395.67	32.37	8.72	122.29	116.78	7 47 0	795.7	35.67	.34
121.07	14 17 2	5397.64	32.38	248.40	122.29	116.76	15 46 59	4797.6	35.68	240.02
58.93	7 23 44	1395.67	32.37	8.72	122.29	116.78	7 47 0	795.7	35.67	.34
121.07	14 17 2	5397.64	32.38	248.40	122.29	116.76	15 46 59	4797.6	35.68	240.02

DIFFERENTIAL CORRECTIONS
TDE-1.0087 TRA .3383 TC3-7.0959 BAU 1.0139
RDE .2721 RRA -.1281 RC3 .6152 FAU .04413
FDE -.3948 FRA .5795 FC3-3.5880 BSP 16037
BDE 1.0448 BRA .3617 BC3 7.1225 FSP -799

MID-COURSE EXECUTION ACCURACY
SGT 5020.3 SGR 691.7 SG3 241.1
RRT -.8468 RRF -.8674 RTF .9377
SGB 5067.7 R23 .1298 R13 -.9388
SG1 5054.5 SG2 365.4 THA 173.31

ORBIT DETERMINATION ACCURACY
ST 1792.3 SR 486.2 SS 440.6
CRT -.9972 CRS .9399 CST -.9231
LSA 1901.2 MSA 165.8 SSA 25.7
EL1 1856.7 EL2 34.9 ALF 164.86

LAUNCH DATE SEP 18 1970 FLIGHT TIME 166.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 484.497

RL 150.32 LAL -.00 LOL 354.67 VL 26.520 GAL -1.05 AZL 91.88 HCA 234.88 SMA 124.91 ECC .20417 INC 1.8776 V1 29.642
RP 108.31 LAP 1.54 LOP 229.54 VP 37.258 GAP 9.00 AZP 88.92 TAL 184.10 TAP 58.99 RCA 99.41 APO 150.42 V2 34.988
RC 146.899 GL -15.48 GP 24.26 ZAL 90.21 ZAP 150.63 ETS 49.52 ZAE 125.75 ETE 162.20 ZAC 125.73 ETC 259.54 CLP-162.92

PLANETOCENTRIC CONIC

C3 10.593 VHL 3.255 DLA -38.79 RAL 263.13 RAD 6567.4 VEL 11.488 PTH 2.00 VHP 6.416 DPA 2.84 RAP 250.19 ECC 1.1743

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.30	7 55 42	1350.93	30.74	4.01	125.40	114.93	8 18 13	750.9	33.82	355.69
117.70	14 18 4	5440.29	30.75	251.08	125.41	114.92	15 48 44	4840.3	33.83	242.76
62.30	7 55 42	1350.93	30.74	4.01	125.40	114.93	8 18 13	750.9	33.82	355.69
117.70	14 18 4	5440.29	30.75	251.08	125.41	114.92	15 48 44	4840.3	33.83	242.76
62.30	7 55 42	1350.93	30.74	4.01	125.40	114.93	8 18 13	750.9	33.82	355.69
117.70	14 18 4	5440.29	30.75	251.08	125.41	114.92	15 48 44	4840.3	33.83	242.76

DIFFERENTIAL CORRECTIONS
TDE -.8731 TRA .5003 TC3-7.2494 BAU 1.0299
RDE .2563 RRA -.1409 RC3 .5745 FAU .04215
FDE -.2906 FRA .6535 FC3-3.4450 BSP 16210
BDE .9099 BRA .5198 BC3 7.2722 FSP -779

MID-COURSE EXECUTION ACCURACY
SGT 5090.0 SGR 666.9 SG3 236.1
RRT -.8302 RRF -.8446 RTF .9372
SGB 5133.5 RZS .1121 R13 -.9381
SG1 5120.2 SG2 369.6 THA 173.76

ORBIT DETERMINATION ACCURACY
ST 1580.3 SR 461.3 SS 376.9
CRT -.9978 CRS .8731 CST -.8804
LSA 1679.4 MSA 175.6 SSA 28.7
EL1 1645.9 EL2 29.2 ALF 163.76

LAUNCH DATE SEP 18 1970 FLIGHT TIME 168.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 490.291

RL 150.32 LAL -.00 LOL 354.67 VL 26.475 GAL -.67 AZL 91.61 HCA 238.07 SMA 124.63 ECC .20646 INC 1.6079 V1 29.642
RP 108.35 LAP 1.36 LOP 232.73 VP 37.213 GAP 9.28 AZP 89.15 TAL 182.58 TAP 60.65 RCA 98.90 APO 150.36 V2 34.975
RC 149.057 GL -13.15 GP 22.89 ZAL 87.11 ZAP 152.27 ETS 49.78 ZAE 125.94 ETE 163.20 ZAC 124.60 ETC 260.20 CLP-163.91

PLANETOCENTRIC CONIC

C3 10.666 VHL 3.266 DLA -36.57 RAL 267.13 RAD 6567.4 VEL 11.492 PTH 2.00 VHP 6.518 DPA 1.09 RAP 251.89 ECC 1.1755

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.83	8 29 35	1300.07	29.04	358.97	128.65	113.27	8 51 15	700.1	31.92	350.73
114.17	14 16 5	5493.94	29.05	254.59	128.65	113.25	15 47 39	4893.9	31.93	246.35
65.83	8 29 35	1300.07	29.04	358.97	128.65	113.27	8 51 15	700.1	31.92	350.73
114.17	14 16 5	5493.94	29.05	254.59	128.65	113.25	15 47 39	4893.9	31.93	246.35
65.83	8 29 35	1300.07	29.04	358.97	128.65	113.27	8 51 15	700.1	31.92	350.73
114.17	14 16 5	5493.94	29.05	254.59	128.65	113.25	15 47 39	4893.9	31.93	246.35

DIFFERENTIAL CORRECTIONS
TDE -.7306 TRA .6665 TC3-7.3156 BAU 1.0459
RDE .2450 RRA -.1528 RC3 .5344 FAU .04016
FDE -.1972 FRA .7195 FC3-3.2593 BSP 16459
BDE .7782 BRA .6838 BC3 7.3351 FSP -765

MID-COURSE EXECUTION ACCURACY
SGT 5160.6 SGR 646.5 SG3 230.6
RRT -.8126 RRF -.8210 RTF .9373
SGB 5200.9 RZS .0948 R13 -.9381
SG1 5187.4 SG2 374.9 THA 174.16

ORBIT DETERMINATION ACCURACY
ST 1374.9 SR 441.4 SS 331.3
CRT -.9921 CRS .7570 CST -.8202
LSA 1468.5 MSA 193.5 SSA 30.8
EL1 1443.1 EL2 52.6 ALF 162.31

LAUNCH DATE SEP 18 1970 FLIGHT TIME 170.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 496.064

RL 150.32 LAL -.00 LOL 354.67 VL 26.429 GAL -.28 AZL 91.36 HCA 241.26 SMA 124.35 ECC .20893 INC 1.3565 V1 29.642
RP 108.39 LAP 1.19 LOP 235.92 VP 37.169 GAP 9.57 AZP 89.35 TAL 181.04 TAP 62.30 RCA 98.37 APO 150.32 V2 34.962
RC 151.205 GL -10.94 GP 21.67 ZAL 83.95 ZAP 153.79 ETS 50.16 ZAE 126.09 ETE 164.10 ZAC 123.60 ETC 260.85 CLP-164.88

PLANETOCENTRIC CONIC

C3 10.863 VHL 3.296 DLA -34.38 RAL 270.98 RAD 6567.4 VEL 11.500 PTH 2.00 VHP 6.633 DPA -.50 RAP 253.68 ECC 1.1788

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.63	9 6 19	1239.68	27.30	353.36	132.00	111.76	9 26 59	639.7	30.01	345.20
110.37	14 10 5	5561.78	27.31	259.16	132.00	111.75	15 42 46	4961.8	30.01	250.99
69.63	9 6 19	1239.68	27.30	353.36	132.00	111.76	9 26 59	639.7	30.01	345.20
110.37	14 10 5	5561.78	27.31	259.16	132.00	111.75	15 42 46	4961.8	30.01	250.99
69.63	9 6 19	1239.68	27.30	353.36	132.00	111.76	9 26 59	639.7	30.01	345.20
110.37	14 10 5	5561.78	27.31	259.16	132.00	111.75	15 42 46	4961.8	30.01	250.99

DIFFERENTIAL CORRECTIONS
TDE -.6057 TRA .8348 TC3-7.3172 BAU 1.0651
RDE .2376 RRA -.1637 RC3 .4993 FAU .03840
FDE -.1149 FRA .7773 FC3-3.0607 BSP 16065
BDE .6507 BRA .8507 BC3 7.3342 FSP -762

MID-COURSE EXECUTION ACCURACY
SGT 5240.7 SGR 630.8 SG3 225.2
RRT -.7953 RRF -.7977 RTF .9387
SGB 5278.6 RZS .0779 R13 -.9393
SG1 5264.8 SG2 380.7 THA 174.50

ORBIT DETERMINATION ACCURACY
ST 1186.6 SR 425.9 SS 305.9
CRT -.9714 CRS .5892 CST -.7552
LSA 1277.8 MSA 221.9 SSA 31.7
EL1 1257.1 EL2 95.5 ALF 160.66

LAUNCH DATE SEP 18 1970 FLIGHT TIME 172.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 501.816

RL 150.32 LAL -.00 LOL 354.67 VL 26.383 GAL .13 AZL 91.12 HCA 244.45 SMA 124.07 ECC .21161 INC 1.1202 V1 29.642
RP 108.43 LAP 1.01 LOP 239.11 VP 37.124 GAP 9.87 AZP 89.52 TAL 179.50 TAP 63.94 RCA 97.81 APO 150.32 V2 34.949
RC 153.343 GL -8.87 GP 20.57 ZAL 80.77 ZAP 155.19 ETS 50.68 ZAE 126.21 ETE 164.90 ZAC 122.69 ETC 261.48 CLP-165.83

PLANETOCENTRIC CONIC

C3 11.183 VHL 3.344 DLA -32.25 RAL 274.69 RAD 6567.4 VEL 11.514 PTH 2.01 VHP 6.759 DPA -1.95 RAP 255.54 ECC 1.1840

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.88	9 47 49	1163.41	25.54	346.71	135.43	110.39	10 7 12	563.4	28.08	338.63
106.12	13 58 9	5649.98	25.56	265.22	135.43	110.37	15 32 19	5050.0	28.09	257.13
73.88	9 47 49	1163.41	25.54	346.71	135.43	110.39	10 7 12	563.4	28.08	338.63
106.12	13 58 9	5649.98	25.56	265.22	135.43	110.37	15 32 19	5050.0	28.09	257.13
110.00	12 55 57	5842.55	19.13	276.83	132.25	118.88	14 33 19	5242.6	22.84	269.65
110.00	15 49 11	5306.87	32.33	241.04	137.66	101.75	17 17 38	4706.9	33.61	232.04

DIFFERENTIAL CORRECTIONS
TDE -.4586 TRA 1.0882 TC3-7.1870 BAU 1.0766
RDE .2304 RRA -.1778 RC3 .4568 FAU .03617
FDE -.0279 FRA .8456 FC3-2.8000 BSP 16948
BDE .5133 BRA 1.0415 BC3 7.2015 FSP -733

MID-COURSE EXECUTION ACCURACY
SGT 5285.7 SGR 615.5 SG3 219.3
RRT -.7754 RRF -.7731 RTF .9373
SGB 5331.4 RZS .0871 R13 -.9378
SG1 5317.3 SG2 387.1 THA 174.82

ORBIT DETERMINATION ACCURACY
ST 1013.6 SR 409.3 SS 303.2
CRT -.9132 CRS .3525 CST -.6959
LSA 1100.9 MSA 271.8 SSA 31.3
EL1 1081.9 EL2 156.3 ALF 159.30

LAUNCH DATE SEP 18 1970 FLIGHT TIME 174.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 507.543

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RL  150.32 LAL   -.00 LOL 354.67 VL  26.338 GAL    .56 AZL  90.90 HCA 247.63 SMA 123.79 ECC .21452 INC  .8962 V1  29.642
RP  108.47 LAP    .83 LOP 242.30 VP  37.080 GAP  10.17 AZP  89.66 TAL 177.94 TAP  65.57 RCA  97.23 APO 150.34 V2  34.937
RC 155.470 GL   -6.94 GP   19.59 ZAL  77.59 ZAP 156.51 ETS  51.34 ZAE 126.30 ETE 165.62 ZAC 121.88 ETC 262.11 CLP-166.76
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PLANETOCENTRIC CONIC

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C3  11.629 VHL  3.410 DLA -30.18 RAL 278.24 RAD 6567.4 VEL 11.533 PTH   2.01 VHP  6.898 DPA  -3.26 RAP 257.48 ECC 1.1914
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
79.11	10 38 58	1054.93	23.79	337.84	138.93	109.14	10 56 33	454.9	26.18	329.84
100.89	13 35 18	5774.68	23.80	273.92	138.93	109.13	15 11 33	5174.7	26.19	265.91
79.11	10 38 58	1054.93	23.79	337.84	138.93	109.14	10 56 33	454.9	26.18	329.84
100.89	13 35 18	5774.68	23.80	273.92	138.93	109.13	15 11 33	5174.7	26.19	265.91
110.00	12 32 37	684.49	14.70	306.38	134.41	121.22	12 44 2	84.5	18.72	299.58
110.00	16 40 50	5193.12	33.58	232.41	141.50	96.79	18 7 23	4593.1	34.16	223.21

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.3144 TRA 1.2176 TC3-6.9951 BAU 1.0894   SGT 5351.6 SGR  602.3 SG3  212.6     ST   896.5 SR   397.4 SS   317.5
 RDE  .2271 RRA -.1099 RC3  .4173 FAU .03404   RRT -.7547 RRF -.7483 RTF  .9377     CRT -.7899 CRS  .1419 CST -.7132
 FDE  .0445 FRA  .9003 FC3-2.5345 BSP  17093   SGB 5385.4 RZS  .0561 RIS -.9380    LSA  977.0 MSA  327.2 SSA   29.9
 BDE  .3879 BRA 1.2323 BC3 7.0075 FSP   -709   SG1 5371.0 SG2  393.8 THA 175.12    EL1  953.5 EL2  229.2 ALF 159.46
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LAUNCH DATE SEP 18 1970 FLIGHT TIME 176.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 513.244

```
RL  150.32 LAL   -.00 LOL 354.67 VL  26.293 GAL   1.01 AZL  90.68 HCA 250.81 SMA 123.52 ECC .21767 INC  .6825 V1  29.642
RP  108.51 LAP    .64 LOP 245.48 VP  37.037 GAP  10.48 AZP  89.78 TAL 176.38 TAP  67.19 RCA  96.63 APO 150.40 V2  34.925
RC 157.587 GL   -5.14 GP   18.70 ZAL  74.45 ZAP 157.73 ETS  52.45 ZAE 126.37 ETE 166.26 ZAC 121.14 ETC 262.74 CLP-167.68
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PLANETOCENTRIC CONIC

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C3  12.206 VHL  3.494 DLA -28.17 RAL 281.63 RAD 6567.5 VEL 11.558 PTH   2.02 VHP  7.048 DPA  -4.46 RAP 259.48 ECC 1.2009
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 55 29	862.68	20.34	322.38	141.85	110.14	12 9 52	262.7	22.90	314.65
90.00	12 45 51	699.27	23.79	311.65	143.06	105.83	12 57 30	99.3	25.73	303.52
100.00	12 17 1	793.01	16.18	315.44	140.01	115.48	12 30 14	193.0	19.48	308.20
100.00	15 7 0	5532.22	28.18	257.21	144.20	100.41	16 39 12	4932.2	29.33	248.59
110.00	12 18 52	787.18	11.00	312.04	137.05	122.57	12 31 59	187.2	15.22	305.48
110.00	17 21 36	5110.81	34.06	226.03	145.01	93.05	18 46 49	4510.8	34.11	216.78

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.1685 TRA 1.4187 TC3-6.7462 BAU 1.1026   SGT 5409.5 SGR  591.8 SG3  206.5     ST   850.5 SR   387.4 SS   343.6
 RDE  .2259 RRA -.2025 RC3  .3815 FAU .03211   RRT -.7351 RRF -.7250 RTF  .9385     CRT -.5858 CRS -.0301 CST -.7879
 FDE  .1105 FRA  .9536 FC3-2.2773 BSP  17299   SGB 5441.7 RZS  .0462 RIS -.9388    LSA  921.1 MSA  377.0 SSA   28.0
 BDE  .2818 BRA 1.4331 BC3 6.7570 FSP   -692   SG1 5427.0 SG2  399.9 THA 175.38    EL1  884.4 EL2  301.9 ALF 163.02
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LAUNCH DATE SEP 18 1970 FLIGHT TIME 178.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 518.918

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RL  150.32 LAL   -.00 LOL 354.67 VL  26.248 GAL   1.47 AZL  90.48 HCA 253.99 SMA 123.25 ECC .22107 INC  .4768 V1  29.642
RP  108.54 LAP    .46 LOP 248.66 VP  36.994 GAP  10.80 AZP  89.87 TAL 174.80 TAP  68.79 RCA  96.00 APO 150.49 V2  34.913
RC 159.692 GL   -3.48 GP   17.89 ZAL  71.38 ZAP 158.87 ETS  53.13 ZAE 126.42 ETE 166.84 ZAC 120.47 ETC 263.37 CLP-168.58
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PLANETOCENTRIC CONIC

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C3  12.923 VHL  3.595 DLA -26.24 RAL 284.86 RAD 6567.5 VEL 11.589 PTH   2.03 VHP  7.209 DPA  -5.54 RAP 261.53 ECC 1.2127
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 58 35	1104.96	13.98	337.32	143.53	114.88	11 17 0	505.0	17.22	330.14
90.00	14 8 32	5769.40	26.99	274.42	147.74	98.91	15 44 41	5169.4	27.94	265.88
100.00	11 51 25	934.34	11.87	323.72	142.46	117.64	12 7 0	334.3	15.48	316.78
100.00	15 58 23	5415.25	29.32	248.71	148.08	96.08	17 28 38	4815.3	29.86	239.94
110.00	12 9 47	876.72	7.68	316.85	139.95	123.41	12 24 24	276.7	12.02	310.44
110.00	17 56 31	5045.63	34.18	220.94	148.39	90.04	19 20 36	4445.6	33.81	211.72

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.0189 TRA 1.6296 TC3-6.4373 BAU 1.1138   SGT 5459.6 SGR  581.7 SG3  200.2     ST   880.3 SR   378.3 SS   375.9
 RDE  .2261 RRA -.2155 RC3  .3459 FAU .03011   RRT -.7150 RRF -.7017 RTF  .9388     CRT -.3355 CRS -.1622 CST -.8718
 FDE  .1722 FRA 1.0049 FC3-2.0170 BSP  17470   SGB 5490.5 RZS  .0382 RIS -.9391    LSA  948.0 MSA  399.8 SSA   26.0
 BDE  .2269 BRA 1.6438 BC3 6.4466 FSP   -672   SG1 5475.5 SG2  405.5 THA 175.62    EL1  891.1 EL2  352.0 ALF 170.26
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LAUNCH DATE SEP 18 1970 FLIGHT TIME 180.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 524.562

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RL  150.32 LAL   -.00 LOL 354.67 VL  26.204 GAL   1.95 AZL  90.28 HCA 257.17 SMA 122.98 ECC .22476 INC  .2778 V1  29.642
RP  108.58 LAP    .27 LOP 251.84 VP  36.952 GAP  11.14 AZP  89.94 TAL 173.23 TAP  70.40 RCA  95.34 APO 150.62 V2  34.901
RC 161.784 GL   -1.96 GP   17.17 ZAL  68.39 ZAP 159.94 ETS  54.27 ZAE 126.46 ETE 167.36 ZAC 119.85 ETC 264.00 CLP-169.47
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PLANETOCENTRIC CONIC

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C3  13.790 VHL  3.714 DLA -24.40 RAL 287.94 RAD 6567.5 VEL 11.627 PTH   2.04 VHP  7.382 DPA  -6.51 RAP 263.63 ECC 1.2270
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 35 27	1239.93	9.98	345.21	146.19	116.64	10 56 7	639.9	13.48	338.28
90.00	14 56 11	5662.64	27.88	266.74	151.55	95.16	16 30 33	5062.6	28.30	258.10
100.00	11 35 56	1044.71	8.31	329.98	145.30	118.82	11 53 20	444.7	12.10	323.23
100.00	16 38 24	5333.09	29.76	242.64	151.70	92.92	18 7 17	4733.1	29.85	233.84
110.00	12 3 31	958.19	4.60	321.15	143.02	123.91	12 19 29	358.2	9.02	314.85
110.00	18 27 18	4992.37	34.11	216.79	151.73	87.58	19 50 30	4392.4	33.40	207.62

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .1329 TRA 1.6900 TC3-6.0887 BAU 1.1240   SGT 5505.9 SGR  572.3 SG3  193.9     ST   971.9 SR   370.4 SS   409.6
 RDE  .2279 RRA -.2287 RC3  .3122 FAU .02817   RRT -.6952 RRF -.6791 RTF  .9394     CRT -.1059 CRS -.2583 CST -.9309
 FDE  .2285 FRA 1.0535 FC3-1.7685 BSP  17652   SGB 5535.5 RZS  .0311 RIS -.9396    LSA 1045.7 MSA  394.4 SSA   24.1
 BDE  .2638 BRA 1.8641 BC3 6.0967 FSP   -654   SG1 5520.3 SG2  410.3 THA 175.84    EL1  972.8 EL2  368.0 ALF 177.30
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LAUNCH DATE SEP 18 1970 FLIGHT TIME 182.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 530.172

RL 150.32 LAL -.00 LOL 354.67 VL 26.160 GAL 2.46 AZL 90.08 HCA 260.34 SHA 122.72 ECC .22876 INC .0831 V1 29.642
RP 108.61 LAP .08 LOP 255.01 VP 36.910 GAP 11.48 AZP 89.99 TAL 171.65 TAP 71.99 RCA 94.65 APO 150.79 V2 34.890
RC 163.865 GL -.57 GP 16.51 ZAL 65.49 ZAP 160.94 ETS 55.59 ZAE 126.49 ETE 167.83 ZAC 119.27 ETC 264.63 CLP-170.34

PLANETOCENTRIC CONIC

C3 14.821 VHL 3.850 DLA -22.64 RAL 290.85 RAD 6567.6 VEL 11.671 PTH 2.05 VHP 7.567 DPA -7.39 RAP 265.78 ECC 1.2439

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 20 43	1348.54	6.61	351.41	149.14	117.60	10 43 11	748.5	10.25	344.62
90.00	15 34 10	5585.90	28.22	261.15	155.17	92.38	17 7 16	4985.9	28.26	252.48
100.00	11 25 17	1140.11	5.15	335.29	148.34	119.49	11 44 17	540.1	9.04	328.66
100.00	17 12 17	5260.55	29.00	237.02	155.22	90.44	18 40 7	4669.5	29.63	229.13
110.00	11 50 8	1034.03	1.71	325.12	146.21	124.15	12 16 22	434.0	6.18	318.88
110.00	18 54 56	4848.40	33.93	213.36	155.05	85.56	20 17 25	4348.4	32.94	204.27

DIFFERENTIAL CORRECTIONS

TDE .2775 TRA 2.0703 TC3-5.7303 BAU 1.1306
RDE .2323 RRA -.2400 RC3 .2835 FAU .02858
FDE .2739 FRA 1.0845 FC3-1.5526 BSP 18063
BDE .3620 BRA 2.0843 BC3 5.7463 FSP -649

MID-COURSE EXECUTION ACCURACY

SGT 5853.7 SGR 564.1 SG3 187.5
RRT -.6764 RRF -.6582 RTF .9411
SGB 5582.2 RZS .0245 R13 -.9412
SG1 5566.8 SG2 414.5 THA 176.05

ORBIT DETERMINATION ACCURACY

ST 1091.4 SR 365.0 SS 437.5
CRT .0633 CRS -.3235 CST -.9631
LSA 1171.3 NSA 370.5 SSA 22.4
EL1 1091.7 EL2 364.1 ALF 1.36

LAUNCH DATE SEP 18 1970 FLIGHT TIME 184.00 ARRIVAL DATE MAR 21 1971

HELIOCENTRIC CONIC DISTANCE 535.748

RL 150.32 LAL -.00 LOL 354.67 VL 26.116 GAL 2.90 AZL 89.80 HCA 263.52 SHA 122.46 ECC .23309 INC .1049 V1 29.642
RP 108.65 LAP -.11 LOP 258.19 VP 36.800 GAP 11.85 AZP 90.01 TAL 170.06 TAP 73.58 RCA 93.92 APO 151.00 V2 34.880
RC 165.932 GL .69 GP 15.91 ZAL 62.71 ZAP 161.88 ETS 57.10 ZAE 126.51 ETE 168.26 ZAC 118.73 ETC 265.26 CLP-171.21

PLANETOCENTRIC CONIC

C3 16.032 VHL 4.004 DLA -20.97 RAL 293.61 RAD 6567.6 VEL 11.722 PTH 2.07 VHP 7.764 DPA -8.17 RAP 267.97 ECC 1.2638

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 10 20	1443.40	3.59	356.74	152.27	118.11	10 34 23	843.4	7.32	350.05
90.00	16 6 36	5526.40	28.32	256.80	156.70	90.21	17 38 43	4926.4	28.04	248.14
100.00	11 17 36	1226.28	2.24	340.04	151.53	119.82	11 38 2	626.3	6.19	333.48
100.00	17 42 1	5218.76	29.06	234.15	156.68	88.45	19 9 0	4618.8	29.32	225.38
110.00	11 56 5	1105.66	-1.03	328.85	149.48	124.17	12 14 31	505.7	3.46	322.65
110.00	19 20 1	4912.14	33.70	210.56	156.38	83.91	20 41 53	4312.1	32.49	201.53

DIFFERENTIAL CORRECTIONS

TDE .4434 TRA 2.3213 TC3-5.3205 BAU 1.1416
RDE .2380 RRA -.2555 RC3 .2506 FAU .02448
FDE .3280 FRA 1.1459 FC3-1.3221 BSP 18001
BDE .5023 BRA 2.3353 BC3 5.3264 FSP -619

MID-COURSE EXECUTION ACCURACY

SGT 5506.6 SGR 554.7 SG3 181.7
RRT -.6563 RRF -.6366 RTF .9409
SGB 5614.1 RZS .0206 R13 -.9410
SG1 5590.5 SG2 417.6 THA 176.25

ORBIT DETERMINATION ACCURACY

ST 1248.1 SR 357.6 SS 472.5
CRT .1974 CRS -.3790 CST -.9606
LSA 1334.3 NSA 358.2 SSA 21.0
EL1 1250.3 EL2 350.0 ALF 3.51

LAUNCH DATE SEP 18 1970 FLIGHT TIME 186.00 ARRIVAL DATE MAR 23 1971

HELIOCENTRIC CONIC DISTANCE 541.284

RL 150.32 LAL -.00 LOL 354.67 VL 26.073 GAL 3.54 AZL 89.71 HCA 266.69 SHA 122.20 ECC .23778 INC .2032 V1 29.642
RP 108.68 LAP -.29 LOP 261.36 VP 36.828 GAP 12.23 AZP 90.02 TAL 168.48 TAP 75.17 RCA 93.15 APO 151.26 V2 34.869
RC 167.985 GL 1.83 GP 15.36 ZAL 60.04 ZAP 162.75 ETS 58.81 ZAE 126.52 ETE 168.65 ZAC 118.22 ETC 265.89 CLP-172.06

PLANETOCENTRIC CONIC

C3 17.442 VHL 4.176 DLA -19.40 RAL 296.23 RAD 6567.7 VEL 11.782 PTH 2.08 VHP 7.976 DPA -8.87 RAP 270.18 ECC 1.2871

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 2 30	1529.43	.82	1.55	155.51	118.31	10 28 8	929.4	4.60	354.90
90.00	16 35 8	5479.08	28.28	253.34	162.19	88.47	18 6 27	4879.1	27.77	244.71
100.00	11 11 54	1305.97	-.46	344.41	154.00	119.89	11 33 40	706.0	3.52	337.88
100.00	18 8 34	5177.77	29.74	231.11	162.12	86.85	19 34 52	4577.8	28.99	222.38
110.00	11 54 2	1173.93	-3.63	332.42	152.82	124.01	12 13 36	573.9	.86	326.21
110.00	19 42 55	4882.58	33.47	208.28	161.72	82.59	21 4 18	4282.6	32.08	199.33

DIFFERENTIAL CORRECTIONS

TDE .6058 TRA 2.5766 TC3-4.9120 BAU 1.1466
RDE .2416 RRA -.2003 RC3 .2219 FAU .02264
FDE .3707 FRA 1.1917 FC3-1.1236 BSP 18101
BDE .6522 BRA 2.5807 BC3 4.9170 FSP -599

MID-COURSE EXECUTION ACCURACY

SGT 5618.7 SGR 545.6 SG3 175.9
RRT -.6371 RRF -.6161 RTF .9416
SGB 5645.1 RZS .0168 R13 -.9417
SG1 5629.5 SG2 419.8 THA 176.44

ORBIT DETERMINATION ACCURACY

ST 1403.5 SR 351.8 SS 501.6
CRT .2891 CRS -.4192 CST -.9894
LSA 1492.9 NSA 340.6 SSA 19.7
EL1 1407.4 EL2 335.8 ALF 4.39

LAUNCH DATE SEP 18 1970 FLIGHT TIME 188.00 ARRIVAL DATE MAR 25 1971

HELIOCENTRIC CONIC DISTANCE 546.775

RL 150.32 LAL -.00 LOL 354.67 VL 26.030 GAL 4.13 AZL 89.52 HCA 269.86 SHA 121.95 ECC .24288 INC .4794 V1 29.642
RP 108.71 LAP -.48 LOP 264.53 VP 36.789 GAP 12.82 AZP 90.00 TAL 166.90 TAP 76.75 RCA 92.33 APO 151.57 V2 34.859
RC 170.025 GL 2.85 GP 14.86 ZAL 57.49 ZAP 163.57 ETS 60.75 ZAE 126.52 ETE 169.00 ZAC 117.74 ETC 266.52 CLP-172.91

PLANETOCENTRIC CONIC

C3 19.075 VHL 4.368 DLA -17.92 RAL 298.09 RAD 6567.8 VEL 11.851 PTH 2.10 VHP 8.202 DPA -9.48 RAP 272.43 ECC 1.3139

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 56 50	1609.31	-1.75	5.99	158.63	118.27	10 23 39	1009.3	2.04	359.37
90.00	17 0 38	5441.21	28.18	250.57	165.66	87.09	18 31 19	4841.2	27.48	241.98
100.00	11 7 37	1380.77	-2.99	348.52	158.15	119.76	11 30 37	780.8	.99	341.99
100.00	18 32 33	5144.82	29.59	228.67	165.56	85.58	19 58 17	4544.8	28.67	219.99
110.00	11 52 44	1239.42	-6.12	335.86	156.21	123.70	12 13 23	639.4	-1.65	329.63
110.00	20 3 55	4856.84	33.24	206.47	165.08	81.34	21 24 54	4258.9	31.72	197.58

DIFFERENTIAL CORRECTIONS

TDE .7708 TRA 2.8430 TC3-4.5075 BAU 1.1506
RDE .2408 RRA -.2829 RC3 .1955 FAU .02088
FDE .4117 FRA 1.2380 FC3 -.9476 BSP 18219
BDE .8098 BRA 2.8571 BC3 4.5117 FSP -581

MID-COURSE EXECUTION ACCURACY

SGT 5647.1 SGR 536.3 SG3 170.2
RRT -.6181 RRF -.5983 RTF .9425
SGB 5672.5 RZS .0134 R13 -.9426
SG1 5656.9 SG2 420.8 THA 176.62

ORBIT DETERMINATION ACCURACY

ST 1555.4 SR 346.4 SS 527.3
CRT .3553 CRS -.4505 CST -.9938
LSA 1646.5 NSA 325.7 SSA 18.6
EL1 1560.4 EL2 322.8 ALF 4.73

LAUNCH DATE SEP 18 1970 FLIGHT TIME 190.00 ARRIVAL DATE MAR 27 1971

HELIOCENTRIC CONIC DISTANCE 552.216

```
RL  150.32 LAL   -.00 LOL 354.67 VL  25.987 GAL   4.74 AZL  89.33 HCA 273.03 SMA 121.71 ECC .24842 INC  .6657 V1  29.642
RP  108.74 LAP   -.66 LOP 267.70 VP  36.750 GAP  13.04 AZP  89.96 TAL 165.32 TAP  78.34 RCA  91.47 APO 151.94 V2  34.850
RC 172.049 GL    3.77 GP   14.40 ZAL  55.08 ZAP 164.33 ETS  62.92 ZAE 126.52 ETE 169.33 ZAC 117.28 ETC 267.16 CLP-173.75
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PLANETOCENTRIC CONIC

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C3  20.959 VHL  4.578 DLA -16.53 RAL 301.02 RAD 6567.9 VEL 11.931 PTH   2.12 VHP  8.445 DPA -10.01 RAP 274.70 ECC 1.3449
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 52 22	1684.05	-4.16	10.18	162.22	118.03	10 20 26	1084.1	-.38	3.54
90.00	17 23 41	5411.13	28.06	248.38	169.12	85.99	18 53 52	4811.1	27.20	239.82
100.00	11 4 23	1451.70	-5.38	352.43	161.55	119.45	11 28 35	851.7	-1.42	345.88
100.00	18 54 21	5118.72	29.44	226.74	168.99	84.57	20 19 40	4518.7	28.38	218.10
110.00	11 51 59	1302.56	-8.49	339.21	159.64	123.24	12 13 42	702.6	-4.06	332.93
110.00	20 23 14	4840.63	33.05	205.08	168.45	80.73	21 43 55	4240.6	31.42	196.23

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE  .9390 TRA 3.1222 TC3-4.1106 BAU 1.1528   SGT 5671.1 SGR  526.5 SG3  164.7          ST  1699.7 SR   341.4 SS   550.0
 RDE  .2565 RRA -.2962 RC3  .1711 FAU .01918   RRT -.5991 RRF -.5771 RTF  .9436          CRT  .4048 CRS -.4754 CST -.9963
 FDE  .4495 FRA 1.2798 FC3 -.7923 BSP  18325   SGB 5695.5 RZS  .0108 RIS -.9437         LSA 1791.6 MSA  312.9 SSA   17.7
 BDE  .9734 BRA 3.1363 BC3 4.1142 FSP   -563   SG1 5679.9 SG2  420.9 THA 176.80         EL1 1705.5 EL2  311.1 ALF   4.81
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LAUNCH DATE SEP 18 1970 FLIGHT TIME 192.00 ARRIVAL DATE MAR 29 1971

HELIOCENTRIC CONIC DISTANCE 557.601

```
RL  150.32 LAL   -.00 LOL 354.67 VL  25.945 GAL   5.38 AZL  89.15 HCA 276.19 SMA 121.46 ECC .25444 INC  .8529 V1  29.642
RP  108.77 LAP   -.85 LOP 270.86 VP  36.712 GAP  13.49 AZP  89.91 TAL 163.75 TAP  79.94 RCA  90.56 APO 152.37 V2  34.841
RC 174.060 GL    4.59 GP   13.99 ZAL  52.78 ZAP 165.02 ETS  65.34 ZAE 126.51 ETE 169.62 ZAC 116.83 ETC 267.79 CLP-174.59
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PLANETOCENTRIC CONIC

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C3  23.126 VHL  4.809 DLA -15.24 RAL 303.22 RAD 6567.9 VEL 12.021 PTH   2.15 VHP  8.705 DPA -10.46 RAP 276.99 ECC 1.3806
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 48 55	1755.08	-6.42	14.18	165.65	117.64	10 18 11	1155.1	-2.67	7.51
90.00	17 44 39	5387.71	27.93	246.68	172.58	85.15	19 14 27	4787.7	26.97	238.15
100.00	11 1 58	1519.43	-7.63	356.20	164.99	118.99	11 27 17	919.4	-3.71	349.61
100.00	19 14 18	5098.60	29.50	225.26	172.43	83.81	20 39 16	4498.6	28.14	216.65
110.00	11 51 42	1363.64	-10.75	342.50	163.10	122.65	12 14 25	763.6	-6.37	336.14
110.00	20 41 3	4827.15	32.90	204.06	171.84	80.15	22 1 30	4227.2	31.19	195.25

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE 1.1109 TRA 3.4151 TC3-3.7287 BAU 1.1531   SGT 5690.7 SGR  516.1 SG3  159.4          ST  1834.1 SR   336.5 SS   570.2
 RDE  .2656 RRA -.3082 RC3  .1487 FAU .01754   RRT -.5802 RRF -.5582 RTF  .9449          CRT  .4430 CRS -.4963 CST -.9977
 FDE  .4850 FRA 1.3235 FC3 -.6566 BSP  18436   SGB 5714.0 RZS  .0085 RIS -.9450         LSA 1926.4 MSA  301.8 SSA   16.8
 BDE 1.1422 BRA 3.4290 BC3 3.7297 FSP   -546   SG1 5698.6 SG2  419.8 THA 176.97         EL1 1840.3 EL2  300.7 ALF   4.77
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LAUNCH DATE SEP 18 1970 FLIGHT TIME 194.00 ARRIVAL DATE MAR 31 1971

HELIOCENTRIC CONIC DISTANCE 562.923

```
RL  150.32 LAL   -.00 LOL 354.67 VL  25.904 GAL   6.07 AZL  88.96 HCA 279.36 SMA 121.22 ECC .26100 INC 1.0422 V1  29.642
RP  108.79 LAP  -1.03 LOP 274.03 VP  36.675 GAP  13.96 AZP  89.83 TAL 162.18 TAP  81.54 RCA  89.59 APO 152.86 V2  34.833
RC 176.055 GL    5.31 GP   13.61 ZAL  50.62 ZAP 165.66 ETS  68.03 ZAE 126.49 ETE 169.90 ZAC 116.40 ETC 268.42 CLP-175.43
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PLANETOCENTRIC CONIC

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C3  25.616 VHL  5.061 DLA -14.03 RAL 305.29 RAD 6568.0 VEL 12.124 PTH   2.17 VHP  8.985 DPA -10.84 RAP 279.30 ECC 1.4216
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 46 16	1822.89	-8.54	18.03	169.11	117.10	10 16 39	1222.9	-4.84	11.31
90.00	18 3 48	5370.10	27.82	245.40	176.03	84.52	19 33 19	4770.1	26.77	236.89
100.00	11 0 10	1584.44	-9.76	359.85	168.47	118.40	11 26 35	984.4	-5.89	353.20
100.00	19 32 35	5083.79	29.19	224.18	175.87	83.25	20 57 19	4483.8	27.95	215.59
110.00	11 51 45	1422.90	-12.91	345.73	166.60	121.93	12 15 28	822.9	-8.60	339.29
110.00	20 57 30	4816.09	32.79	203.37	175.24	79.75	22 17 48	4216.1	31.03	194.59

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE 1.2873 TRA 3.7223 TC3-3.3590 BAU 1.1512   SGT 5705.3 SGR  505.0 SG3  154.3          ST  1957.5 SR   331.8 SS   588.1
 RDE  .2757 RRA -.3216 RC3  .1281 FAU .01596   RRT -.5609 RRF -.5393 RTF  .9465          CRT  .4738 CRS -.5142 CST -.9985
 FDE  .5185 FRA 1.3671 FC3 -.5396 BSP  18539   SGB 5727.6 RZS  .0067 RIS -.9465         LSA 2050.0 MSA  291.9 SSA   16.0
 BDE 1.3165 BRA 3.7362 BC3 3.3614 FSP   -530   SG1 5712.3 SG2  417.5 THA 177.14         EL1 1964.0 EL2  291.2 ALF   4.69
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LAUNCH DATE SEP 18 1970 FLIGHT TIME 196.00 ARRIVAL DATE APR 2 1971

HELIOCENTRIC CONIC DISTANCE 568.172

```
RL  150.32 LAL   -.00 LOL 354.67 VL  25.863 GAL   6.79 AZL  88.77 HCA 282.52 SMA 120.99 ECC .26815 INC 1.2349 V1  29.642
RP  108.82 LAP  -1.21 LOP 277.19 VP  36.638 GAP  14.47 AZP  89.73 TAL 160.64 TAP  83.16 RCA  88.55 APO 153.43 V2  34.825
RC 178.036 GL    5.95 GP   13.26 ZAL  48.57 ZAP 166.24 ETS  70.99 ZAE 126.45 ETE 170.15 ZAC 115.97 ETC 269.05 CLP-176.27
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PLANETOCENTRIC CONIC

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C3  28.476 VHL  5.336 DLA -12.91 RAL 307.23 RAD 6568.1 VEL 12.241 PTH   2.20 VHP  9.287 DPA -11.15 RAP 281.61 ECC 1.4686
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 44 14	1867.95	-10.54	21.77	172.61	116.43	10 15 42	1288.0	-6.90	14.97
90.00	18 21 22	5357.63	27.74	244.50	179.48	84.07	19 50 40	4757.6	26.63	236.01
100.00	10 58 53	1647.09	-11.76	3.42	171.98	117.68	11 26 20	1047.1	-7.97	356.69
100.00	19 49 24	5073.72	29.11	223.44	179.30	82.87	21 13 58	4473.7	27.81	214.87
110.00	11 52 4	1480.53	-14.96	348.94	170.13	121.10	12 16 45	880.5	-10.73	342.39
110.00	21 12 43	4813.05	32.73	202.99	178.65	79.54	22 32 56	4213.1	30.94	194.23

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE 1.4680 TRA 4.0448 TC3-3.0110 BAU 1.1470   SGT 5715.2 SGR  493.1 SG3  149.2          ST  2068.9 SR   327.1 SS   603.9
 RDE  .2868 RRA -.3331 RC3  .1095 FAU .01445   RRT -.5412 RRF -.5203 RTF  .9483          CRT  .4994 CRS -.5303 CST -.9990
 FDE  .5501 FRA 1.4108 FC3 -.4395 BSP  18665   SGB 5736.4 RZS  .0052 RIS -.9484         LSA 2161.5 MSA  282.8 SSA   15.3
 BDE 1.4958 BRA 4.0585 BC3 3.0130 FSP   -515   SG1 5721.4 SG2  414.2 THA 177.31         EL1 2075.5 EL2  282.5 ALF   4.60
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LAUNCH DATE SEP 18 1970 FLIGHT TIME 198.00 ARRIVAL DATE APR 4 1971

HELIOCENTRIC CONIC DISTANCE 573.337

```
RL  150.32 LAL   -.00 LOL 354.67 VL  25.822 GAL   7.55 AZL  88.57 HCA 285.69 SMA 120.76 ECC .27597 INC 1.4323 V1  29.642
RP  108.84 LAP  -1.38 LOP 280.36 VP  36.603 GAP  15.01 AZP  89.61 TAL 159.11 TAP  84.79 RCA  87.43 APO 154.08 V2  34.818
RC 180.002 GL    6.52 GP   12.93 ZAL  46.65 ZAP 166.75 ETS  74.25 ZAE 126.41 ETE 170.39 ZAC 115.55 ETC 269.67 CLP-177.12
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PLANETOCENTRIC CONIC

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C3  31.783 VHL  5.636 DLA -11.87 RAL 309.06 RAD 6568.3 VEL 12.375 PTH   2.23 VHP  9.613 DPA -11.39 RAP 283.93 ECC 1.5227
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 42 42	1950.60	-12.41	25.42	176.14	115.66	10 15 12	1350.6	-8.86	18.54
90.00	18 37 31	5349.75	27.68	243.93	182.92	83.79	20 6 40	4749.8	26.53	235.45
100.00	10 58 0	1707.64	-13.65	6.93	175.51	116.85	11 26 28	1107.6	-9.94	.10
100.00	20 4 53	5067.94	29.06	223.02	182.74	82.65	21 29 21	4467.9	27.73	214.46
110.00	11 52 36	1536.64	-16.91	352.12	173.68	120.16	12 18 13	936.6	-12.77	345.45
110.00	21 26 47	4811.71	32.71	202.89	182.07	79.48	22 46 58	4211.7	30.92	194.13

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.6935 TRA 4.3837 TC3-2.6842 BAU 1.1405   SGT 5720.1 SGR  480.4 SG3  144.4     ST  2168.1 SR   322.3 SS   618.1
RDE  .2990 RRA -.3436 RC3  .0027 FAU .01301   RRT -.5207 RRF -.5009 RTF  .9504     CRT  .5215 CRS -.5449 CST -.9993
FDE  .5802 FRA 1.4552 FC3 -.3547 BSP  18804   SGB 5740.2 RZS  .0040 R13 -.9504     LSA 2260.8 MSA  274.4 SSA   14.7
BDE 1.6804 BRA 4.3972 BC3 2.6858 FSP   -501   SG1 5725.6 SG2  409.7 THA 177.48     EL1 2174.7 EL2  274.2 ALF   4.50
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LAUNCH DATE SEP 18 1970 FLIGHT TIME 200.00 ARRIVAL DATE APR 6 1971

HELIOCENTRIC CONIC DISTANCE 578.405

```
RL  150.32 LAL   -.00 LOL 354.67 VL  25.782 GAL   8.37 AZL  88.36 HCA 288.85 SMA 120.53 ECC .28452 INC 1.6358 V1  29.642
RP  108.86 LAP  -1.55 LOP 283.52 VP  36.569 GAP  15.59 AZP  89.47 TAL 157.60 TAP  86.45 RCA  86.24 APO 154.83 V2  34.812
RC 181.954 GL    7.02 GP   12.64 ZAL  44.85 ZAP 167.20 ETS  77.80 ZAE 126.35 ETE 170.61 ZAC 115.14 ETC 270.29 CLP-177.98
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PLANETOCENTRIC CONIC

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C3  35.544 VHL  5.962 DLA -10.91 RAL 310.78 RAD 6568.4 VEL 12.527 PTH   2.27 VHP  9.967 DPA -11.56 RAP 286.24 ECC 1.5850
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 41 33	2011.08	-14.17	28.99	179.68	114.78	10 15 4	1411.1	-10.71	22.02
90.00	18 52 21	5346.00	27.66	243.86	186.36	83.66	20 21 27	4746.0	26.49	235.19
100.00	10 57 26	1766.27	-15.43	10.37	179.06	115.92	11 26 52	1166.3	-11.82	3.45
100.00	20 19 9	5066.04	29.04	222.88	186.17	82.58	21 43 36	4466.0	27.71	214.33
110.00	11 53 18	1591.34	-18.75	355.29	177.25	119.12	12 19 49	991.3	-14.72	348.49
110.00	21 30 47	4813.74	32.74	203.04	185.49	79.57	23 0 1	4213.7	30.95	194.28

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.8451 TRA 4.7409 TC3-2.3780 BAU 1.1306   SGT 5719.6 SGR  486.8 SG3  139.7     ST  2255.9 SR   317.5 SS   631.2
RDE  .3122 RRA -.3529 RC3  .0775 FAU .01161   RRT -.4992 RRF -.4807 RTF  .9527     CRT  .5412 CRS -.5588 CST -.9995
FDE  .6094 FRA 1.5009 FC3 -.2828 BSP  18952   SGB 5738.7 RZS  .0032 R13 -.9527     LSA 2348.9 MSA  266.3 SSA   14.1
BDE 1.8713 BRA 4.7541 BC3 2.3782 FSP   -489   SG1 5724.4 SG2  404.1 THA 177.66     EL1 2262.5 EL2  266.2 ALF   4.42
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LAUNCH DATE SEP 18 1970 FLIGHT TIME 202.00 ARRIVAL DATE APR 8 1971

HELIOCENTRIC CONIC DISTANCE 583.360

```
RL  150.32 LAL   -.00 LOL 354.67 VL  25.743 GAL   9.24 AZL  88.15 HCA 292.01 SMA 120.31 ECC .29391 INC 1.8472 V1  29.642
RP  108.87 LAP  -1.71 LOP 286.68 VP  36.536 GAP  16.22 AZP  89.31 TAL 156.12 TAP  88.13 RCA  84.95 APO 155.67 V2  34.806
RC 183.891 GL    7.45 GP   12.37 ZAL  43.16 ZAP 167.58 ETS  81.66 ZAE 126.27 ETE 170.83 ZAC 114.73 ETC 270.90 CLP-178.84
```

PLANETOCENTRIC CONIC

```
C3  39.903 VHL  6.317 DLA -10.02 RAL 312.39 RAD 6568.5 VEL 12.699 PTH   2.31 VHP 10.351 DPA -11.68 RAP 288.55 ECC 1.6567
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 40 45	2060.57	-15.81	32.50	183.23	113.80	10 15 14	1469.6	-12.46	25.43
90.00	19 6 0	5345.98	27.66	243.66	188.78	83.66	20 35 6	4746.0	26.49	235.18
100.00	10 57 8	1823.13	-17.09	13.78	182.63	114.91	11 27 31	1223.1	-13.59	6.73
100.00	20 32 18	5067.65	29.05	222.98	188.59	82.64	21 56 46	4467.7	27.73	214.44
110.00	11 54 7	1644.68	-20.48	358.46	180.85	117.98	12 21 32	1044.7	-16.58	351.51
110.00	21 51 48	4818.86	32.80	203.43	188.91	79.79	23 12 7	4218.9	31.04	194.65

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 2.0440 TRA 5.1186 TC3-2.0830 BAU 1.1171   SGT 5714.7 SGR  452.4 SG3  135.2     ST  2333.2 SR   312.5 SS   643.8
RDE  .3265 RRA -.3607 RC3  .0640 FAU .01026   RRT -.4762 RRF -.4593 RTF  .9552     CRT  .5594 CRS -.5725 CST -.9996
FDE  .6382 FRA 1.5482 FC3 -.2225 BSP  19118   SGB 5732.5 RZS  .0025 R13 -.9552     LSA 2426.8 MSA  258.3 SSA   13.5
BDE 2.0699 BRA 5.1313 BC3 2.0840 FSP   -477   SG1 5718.7 SG2  397.5 THA 177.83     EL1 2339.9 EL2  258.3 ALF   4.34
```

LAUNCH DATE SEP 18 1970 FLIGHT TIME 204.00 ARRIVAL DATE APR 10 1971

HELIOCENTRIC CONIC DISTANCE 588.182

```
RL  150.32 LAL   -.00 LOL 354.67 VL  25.704 GAL  10.17 AZL  87.93 HCA 295.16 SMA 120.10 ECC .30422 INC 2.0680 V1  29.642
RP  108.89 LAP  -1.87 LOP 289.85 VP  36.504 GAP  16.91 AZP  89.12 TAL 154.68 TAP  89.84 RCA  83.56 APO 156.63 V2  34.801
RC 185.813 GL    7.83 GP   12.12 ZAL  41.58 ZAP 167.88 ETS  85.80 ZAE 126.18 ETE 171.03 ZAC 114.32 ETC 271.50 CLP-179.72
```

PLANETOCENTRIC CONIC

```
C3  44.942 VHL  6.704 DLA  -9.21 RAL 313.90 RAD 6568.7 VEL 12.896 PTH   2.35 VHP 10.770 DPA -11.74 RAP 290.84 ECC 1.7396
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 40 12	2126.17	-17.33	35.96	186.79	112.75	10 15 38	1526.2	-14.10	28.77
90.00	19 18 33	5349.33	27.68	243.90	193.18	83.78	20 47 43	4749.3	26.53	235.42
100.00	10 57 2	1878.28	-18.64	17.14	186.20	113.80	11 28 21	1278.3	-15.26	9.98
100.00	20 44 24	5072.45	29.09	223.35	192.99	82.82	22 8 57	4472.4	27.80	214.78
110.00	11 55 2	1696.69	-22.11	1.61	184.45	116.76	12 23 18	1096.7	-18.34	354.51
110.00	22 2 54	4826.80	32.89	204.03	192.33	80.13	23 23 21	4226.8	31.18	195.22

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 2.2514 TRA 5.5203 TC3-1.8294 BAU 1.0996   SGT 5706.5 SGR  437.0 SG3  130.8     ST  2400.8 SR   307.3 SS   656.5
RDE  .3418 RRA -.3667 RC3  .0518 FAU .00892   RRT -.4515 RRF -.4364 RTF  .9578     CRT  .5766 CRS -.5861 CST -.9997
FDE  .6674 FRA 1.5983 FC3 -.1718 BSP  19152   SGB 5723.2 RZS  .0021 R13 -.9578     LSA 2495.3 MSA  250.4 SSA   13.0
BDE 2.2772 BRA 5.5325 BC3 1.8302 FSP   -464   SG1 5709.9 SG2  389.7 THA 178.01     EL1 2407.4 EL2  250.3 ALF   4.27
```

LAUNCH DATE SEP 18 1970 FLIGHT TIME 206.00 ARRIVAL DATE APR 12 1971

HELIOCENTRIC CONIC DISTANCE 592.846

```
RL  150.32 LAL   -.00 LOL 354.67 VL  25.666 GAL  11.18 AZL  87.70 HCA 298.32 SMA 119.88 ECC .31560 INC 2.3006 V1  29.642
RP  108.90 LAP  -2.03 LOP 293.01 VP  36.473 GAP  17.66 AZP  88.91 TAL 153.28 TAP  91.60 RCA  82.05 APO 157.72 V2  34.797
RC 187.719 GL    8.15 GP   11.89 ZAL  40.11 ZAP 168.09 ETS  90.22 ZAE 126.06 ETE 171.22 ZAC 113.91 ETC 272.09 CLP 179.38
```

PLANETOCENTRIC CONIC

```
C3  50.784 VHL  7.126 DLA  -8.46 RAL 315.30 RAD 6568.9 VEL 13.120 PTH   2.40 VHP 11.230 DPA -11.74 RAP 293.11 ECC 1.8358
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 39 52	2180.94	-18.74	39.36	190.34	111.63	10 16 13	1580.9	-15.64	32.06
90.00	19 30 4	5355.72	27.73	244.36	196.56	84.00	20 59 20	4755.7	26.61	235.87
100.00	10 57 7	1931.75	-20.07	20.46	189.76	112.63	11 29 18	1331.8	-16.83	13.17
100.00	20 55 31	5080.14	29.16	223.91	196.37	83.11	22 20 11	4480.1	27.90	215.33
110.00	11 56 0	1747.36	-23.63	4.76	188.05	115.45	12 25 7	1147.4	-20.01	357.50
110.00	22 13 7	4837.30	33.01	204.82	195.73	80.59	23 33 44	4237.3	31.36	195.99

DIFFERENTIAL CORRECTIONS

```
TDE 2.4709 TRA 5.9490 TC3-1.5805 BAU 1.0734
RDE  .3582 RRA -.3706 RC3  .0411 FAU .00757
FDE  .6974 FRA 1.6517 FC3 -.1290 BSP  19353
BDE 2.4968 BRA 5.9605 BC3 1.5810 FSP   -452
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5692.4 SGR  420.9 SG3  126.7
RRT -.4244 RRF -.4112 RTF  .9607
SGB 5708.0 R23  .0018 R13 -.9607
SG1 5695.3 SG2  380.9 THA 178.19
```

ORBIT DETERMINATION ACCURACY

```
ST  2460.9 SR   301.8 SS   669.8
CRT  .5936 CRS -.6001 CST -.9998
LSA 2556.7 MSA  242.3 SSA   12.4
EL1 2467.4 EL2  242.3 ALF   4.20
```

LAUNCH DATE SEP 18 1970 FLIGHT TIME 208.00 ARRIVAL DATE APR 14 1971

HELIOCENTRIC CONIC DISTANCE 597.324

```
RL  150.32 LAL   -.00 LOL 354.67 VL  25.629 GAL  12.26 AZL  87.45 HCA 301.48 SMA 119.68 ECC .32816 INC 2.5473 V1  29.642
RP  108.92 LAP  -2.17 LOP 296.17 VP  36.443 GAP  18.47 AZP  88.67 TAL 151.93 TAP  93.41 RCA  80.40 APO 158.95 V2  34.793
RC 189.610 GL    8.43 GP   11.68 ZAL  38.76 ZAP 168.22 ETS  94.89 ZAE 125.91 ETE 171.41 ZAC 113.50 ETC 272.67 CLP 178.46
```

PLANETOCENTRIC CONIC

```
C3  57.586 VHL  7.589 DLA  -7.78 RAL 316.60 RAD 6569.0 VEL 13.377 PTH   2.44 VHP 11.734 DPA -11.69 RAP 295.36 ECC 1.9477
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 39 43	2233.89	-20.03	42.71	193.87	110.44	10 16 57	1633.9	-17.07	35.28
90.00	19 40 36	5364.87	27.79	245.02	199.90	84.33	21 10 1	4764.9	26.71	236.52
100.00	10 57 19	1983.56	-21.40	23.74	193.31	111.39	11 30 22	1383.6	-18.30	16.32
100.00	21 5 42	5090.44	29.24	224.66	199.72	83.50	22 30 32	4490.4	28.03	216.07
110.00	11 57 1	1796.64	-25.04	7.90	191.65	114.07	12 26 57	1196.6	-21.57	.47
110.00	22 22 29	4850.11	33.15	205.80	199.10	81.15	23 43 19	4250.1	31.58	196.93

DIFFERENTIAL CORRECTIONS

```
TDE 2.7038 TRA 6.4079 TC3-1.3511 BAU 1.0404
RDE  .3757 RRA -.3720 RC3  .0317 FAU .00619
FDE  .7290 FRA 1.7097 FC3 -.0930 BSP  19393
BDE 2.7298 BRA 6.4187 BC3 1.3514 FSP   -438
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5676.0 SGR  403.9 SG3  122.8
RRT -.3943 RRF -.3832 RTF  .9637
SGB 5690.4 R23  .0017 R13 -.9637
SG1 5678.2 SG2  371.1 THA 178.39
```

ORBIT DETERMINATION ACCURACY

```
ST  2513.4 SR   296.2 SS   684.4
CRT  .6105 CRS -.6147 CST -.9998
LSA 2611.2 MSA  234.0 SSA   11.9
EL1 2520.0 EL2  234.0 ALF   4.15
```

LAUNCH DATE SEP 18 1970 FLIGHT TIME 210.00 ARRIVAL DATE APR 16 1971

HELIOCENTRIC CONIC DISTANCE 601.575

```
RL  150.32 LAL   -.00 LOL 354.67 VL  25.593 GAL  13.44 AZL  87.19 HCA 304.63 SMA 119.48 ECC .34209 INC 2.8113 V1  29.642
RP  108.93 LAP  -2.31 LOP 299.33 VP  36.415 GAP  19.38 AZP  88.40 TAL 150.65 TAP  95.28 RCA  78.61 APO 160.35 V2  34.790
RC 191.483 GL    8.67 GP   11.48 ZAL  37.51 ZAP 168.25 ETS  99.75 ZAE 125.73 ETE 171.60 ZAC 113.10 ETC 273.23 CLP 177.50
```

PLANETOCENTRIC CONIC

```
C3  65.539 VHL  8.096 DLA  -7.16 RAL 317.80 RAD 6569.2 VEL 13.671 PTH   2.50 VHP 12.291 DPA -11.59 RAP 297.58 ECC 2.0786
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 39 43	2284.98	-21.21	45.99	197.36	109.21	10 17 47	1685.0	-18.40	38.45
90.00	19 50 11	5376.52	27.87	245.87	203.19	84.75	21 19 48	4776.5	26.85	237.35
100.00	10 57 37	2033.62	-22.60	26.97	196.83	110.10	11 31 31	1433.6	-19.66	19.41
100.00	21 14 57	5103.11	29.33	225.59	203.03	83.98	22 40 1	4503.1	28.19	216.98
110.00	11 58 2	1844.47	-26.33	11.02	195.22	112.63	12 28 47	1244.5	-23.03	3.41
110.00	22 31 2	4865.02	33.30	206.94	202.45	81.81	23 52 7	4265.0	31.81	198.03

DIFFERENTIAL CORRECTIONS

```
TDE 2.9529 TRA 6.9029 TC3-1.1385 BAU  .9978
RDE  .3946 RRA -.3704 RC3  .0236 FAU .00475
FDE  .7628 FRA 1.7729 FC3 -.0627 BSP  19355
BDE 2.9792 BRA 6.9128 BC3 1.1388 FSP   -423
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5657.7 SGR  386.3 SG3  119.1
RRT -.3604 RRF -.3515 RTF  .9669
SGB 5670.9 R23  .0018 R13 -.9669
SG1 5659.4 SG2  360.3 THA 178.58
```

ORBIT DETERMINATION ACCURACY

```
ST  2559.8 SR   290.3 SS   700.7
CRT  .6278 CRS -.6301 CST -.9999
LSA 2660.3 MSA  225.4 SSA   11.4
EL1 2566.3 EL2  225.4 ALF   4.10
```

LAUNCH DATE SEP 18 1970 FLIGHT TIME 212.00 ARRIVAL DATE APR 18 1971

HELIOCENTRIC CONIC DISTANCE 605.552

```
RL  150.32 LAL   -.00 LOL 354.67 VL  25.558 GAL  14.72 AZL  86.90 HCA 307.79 SMA 119.29 ECC .35757 INC 3.0960 V1  29.642
RP  108.93 LAP  -2.45 LOP 302.49 VP  36.388 GAP  20.38 AZP  88.10 TAL 149.44 TAP  97.22 RCA  76.63 APO 161.94 V2  34.788
RC 193.340 GL    8.87 GP   11.30 ZAL  36.37 ZAP 168.18 ETS 104.76 ZAE 125.50 ETE 171.79 ZAC 112.69 ETC 273.77 CLP 176.51
```

PLANETOCENTRIC CONIC

```
C3  74.888 VHL  8.654 DLA  -6.61 RAL 318.90 RAD 6569.5 VEL 14.009 PTH   2.56 VHP 12.908 DPA -11.46 RAP 299.75 ECC 2.2325
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 39 49	2334.11	-22.28	49.20	200.80	107.95	10 18 43	1734.1	-19.62	41.54
90.00	19 58 50	5390.42	27.95	246.87	206.43	85.25	21 28 41	4790.4	27.00	238.34
100.00	10 58 0	2081.85	-23.70	30.14	200.29	108.78	11 32 42	1481.9	-20.91	22.45
100.00	21 23 20	5117.91	29.44	226.68	206.27	84.54	22 48 38	4517.9	28.37	218.04
110.00	11 59 3	1890.72	-27.50	14.10	198.76	111.15	12 30 34	1290.7	-24.38	6.33
110.00	22 38 46	4881.81	33.46	208.22	205.74	82.55	24 0 8	4281.8	32.07	199.27

DIFFERENTIAL CORRECTIONS

```
TDE 3.2209 TRA 7.4383 TC3 -.9420 BAU  .9432
RDE  .4150 RRA -.3651 RC3  .0187 FAU .00322
FDE  .7994 FRA 1.8425 FC3 -.0572 BSP  19209
BDE 3.2475 BRA 7.4472 BC3  .9421 FSP   -407
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5637.8 SGR  368.2 SG3  115.7
RRT -.3216 RRF -.3150 RTF  .9701
SGB 5649.8 R23  .0019 R13 -.9701
SG1 5639.0 SG2  348.6 THA 178.79
```

ORBIT DETERMINATION ACCURACY

```
ST  2600.4 SR   284.3 SS   719.2
CRT  .6457 CRS -.6465 CST -.9999
LSA 2704.3 MSA  216.6 SSA   10.9
EL1 2606.9 EL2  216.6 ALF   4.07
```

LAUNCH DATE SEP 18 1970 FLIGHT TIME 214.00 ARRIVAL DATE APR 20 1971

HELIOCENTRIC CONIC DISTANCE 609.195

```
RL  150.32 LAL   -.00 LOL 354.67 VL  25.524 GAL  16.12 AZL  86.59 HCA 310.94 SMA 119.10 ECC .37485 INC 3.4062 V1  29.642
RP  108.94 LAP  -2.57 LOP 305.66 VP  36.363 GAP  21.49 AZP  87.77 TAL 148.32 TAP  99.26 RCA  74.46 APO 163.75 V2  34.786
RC 195.178 GL    9.04 GP   11.13 ZAL  35.34 ZAP 167.99 ETS 109.87 ZAE 125.23 ETE 171.98 ZAC 112.29 ETC 274.30 CLP 175.47
```

PLANETOCENTRIC CONIC

```
C3  85.944 VHL  9.271 DLA  -6.11 RAL 319.89 RAD 6569.7 VEL 14.398 PTH   2.62 VHP 13.596 DPA -11.28 RAP 301.88 ECC 2.4144
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 40 0	2381.15	-23.23	52.32	204.16	106.66	10 19 41	1781.1	-20.73	44.54
90.00	20 6 34	5406.35	28.03	248.03	209.59	85.82	21 36 40	4806.4	27.16	239.48
100.00	10 58 27	2128.10	-24.67	33.23	203.68	107.43	11 33 55	1528.1	-22.06	25.41
100.00	21 30 48	5134.63	29.54	227.91	209.45	85.18	22 56 23	4534.6	28.56	219.25
110.00	12 0 3	1935.23	-28.56	17.13	202.22	109.64	12 32 18	1335.2	-25.61	9.19
110.00	22 45 41	4900.27	33.61	209.64	208.97	83.38	24 7 22	4300.3	32.33	200.64

DIFFERENTIAL CORRECTIONS

```
TDE 3.5106 TRA 8.0192 TC3 -.7609 BAU  .8744
RDE  .4374 RRA -.3554 RC3  .0111 FAU .00158
FDE  .8394 FRA 1.9196 FC3 -.0159 BSP  18948
BDE 3.5378 BRA 8.0271 BC3  .7610 FSP   -388
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5616.4 SGR  349.7 SG3  112.4
RRT -.2768 RRF -.2723 RTF  .9734
SGB 5627.2 RZS  .0021 R13 -.9734
SG1 5617.2 SG2  336.0 THA 179.01
```

ORBIT DETERMINATION ACCURACY

```
ST  2635.4 SR   278.3 SS   740.4
CRT  .6645 CRS -.6642 CST -.9999
LSA 2743.7 MSA  207.5 SSA   10.5
EL1 2641.9 EL2  207.5 ALF   4.04
```

LAUNCH DATE SEP 18 1970 FLIGHT TIME 216.00 ARRIVAL DATE APR 22 1971

HELIOCENTRIC CONIC DISTANCE 612.424

```
RL  150.32 LAL   -.00 LOL 354.67 VL  25.492 GAL  17.67 AZL  86.25 HCA 314.09 SMA 118.92 ECC .39417 INC 3.7474 V1  29.642
RP  108.94 LAP  -2.69 LOP 308.82 VP  36.339 GAP  22.74 AZP  87.39 TAL 147.32 TAP 101.41 RCA  72.05 APO 165.80 V2  34.785
RC 196.997 GL    9.18 GP   10.97 ZAL  34.43 ZAP 167.69 ETS 115.00 ZAE 124.90 ETE 172.18 ZAC 111.88 ETC 274.80 CLP 174.38
```

PLANETOCENTRIC CONIC

```
C3  99.105 VHL  9.955 DLA  -5.69 RAL 320.77 RAD 6569.9 VEL 14.847 PTH   2.68 VHP 14.366 DPA -11.08 RAP 303.94 ECC 2.6310
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 40 16	2425.90	-24.07	55.33	207.43	105.38	10 20 42	1825.9	-21.73	47.44
90.00	20 13 20	5424.14	28.11	249.33	212.65	86.47	21 43 44	4824.1	27.35	240.75
100.00	10 58 55	2172.17	-25.54	36.22	206.97	106.08	11 35 7	1572.2	-23.09	28.27
100.00	21 37 22	5153.10	29.64	229.28	212.54	85.90	23 3 15	4553.1	28.75	220.59
110.00	12 1 0	1977.80	-29.50	20.09	205.60	108.12	12 33 58	1377.8	-26.74	11.99
110.00	22 51 46	4920.24	33.76	211.18	212.12	84.28	24 13 46	4320.2	32.60	202.14

DIFFERENTIAL CORRECTIONS

```
TDE 3.8248 TRA 8.6522 TC3 -.5949 BAU  .7883
RDE  .4621 RRA -.3403 RC3  .0066 FAU-.00022
FDE  .8833 FRA 2.0055 FC3  .0020 BSP  18555
BDE 3.8526 BRA 8.6588 BC3  .5950 FSP   -369
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5593.9 SGR  331.1 SG3  109.4
RRT -.2242 RRF -.2220 RTF  .9767
SGB 5603.7 RZS  .0023 R13 -.9767
SG1 5594.4 SG2  322.7 THA 179.24
```

ORBIT DETERMINATION ACCURACY

```
ST  2664.7 SR   272.4 SS   764.7
CRT  .6843 CRS -.6831 CST -.9999
LSA 2778.6 MSA  198.2 SSA   10.0
EL1 2671.3 EL2  198.2 ALF   4.02
```

LAUNCH DATE SEP 18 1970 FLIGHT TIME 218.00 ARRIVAL DATE APR 24 1971

HELIOCENTRIC CONIC DISTANCE 615.138

```
RL  150.32 LAL   -.00 LOL 354.67 VL  25.461 GAL  19.38 AZL  85.87 HCA 317.24 SMA 118.76 ECC .41588 INC 4.1270 V1  29.642
RP  108.94 LAP  -2.80 LOP 311.98 VP  36.317 GAP  24.14 AZP  86.97 TAL 146.45 TAP 103.69 RCA  69.37 APO 168.14 V2  34.785
RC 198.798 GL    9.28 GP   10.82 ZAL  33.65 ZAP 167.25 ETS 120.10 ZAE 124.50 ETE 172.38 ZAC 111.49 ETC 275.28 CLP 173.21
```

PLANETOCENTRIC CONIC

```
C3 114.888 VHL 10.719 DLA  -5.33 RAL 321.53 RAD 6570.2 VEL 15.370 PTH   2.75 VHP 15.233 DPA -10.85 RAP 305.93 ECC 2.8908
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 40 34	2468.12	-24.80	58.20	210.55	104.12	10 21 42	1868.1	-22.62	50.21
90.00	20 19 7	5443.63	28.19	250.75	215.61	87.17	21 49 50	4843.6	27.50	242.15
100.00	10 59 23	2213.82	-26.29	39.08	210.13	104.76	11 36 17	1613.8	-24.01	31.03
100.00	21 42 58	5173.15	29.72	230.76	215.51	86.67	23 9 11	4573.2	28.95	222.05
110.00	12 1 53	2018.19	-30.32	22.95	208.85	106.61	12 35 31	1418.2	-27.74	14.70
110.00	22 56 56	4941.55	33.89	212.83	215.16	85.25	24 19 20	4341.6	32.86	203.75

DIFFERENTIAL CORRECTIONS

```
TDE 4.1668 TRA 9.3435 TC3 -.4436 BAU  .6814
RDE  .4896 RRA -.3187 RC3  .0033 FAU-.00223
FDE  .9319 FRA 2.1016 FC3  .0168 BSP  18021
BDE 4.1954 BRA 9.3489 BC3  .4436 FSP   -347
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5570.2 SGR  312.8 SG3  106.6
RRT -.1619 RRF -.1617 RTF  .9799
SGB 5579.0 RZS  .0026 R13 -.9799
SG1 5570.4 SG2  308.6 THA 179.48
```

ORBIT DETERMINATION ACCURACY

```
ST  2688.2 SR   266.7 SS   792.6
CRT  .7053 CRS -.7035 CST -.9999
LSA 2808.9 MSA  188.7 SSA    9.5
EL1 2694.8 EL2  188.6 ALF   4.02
```

LAUNCH DATE SEP 18 1970 FLIGHT TIME 220.00 ARRIVAL DATE APR 26 1971

HELIOCENTRIC CONIC DISTANCE 617.198

```
RL  150.32 LAL   -.00 LOL 354.67 VL  25.431 GAL  21.29 AZL  85.45 HCA 320.39 SMA 118.60 ECC .44034 INC 4.5548 V1  29.642
RP  108.94 LAP  -2.90 LOP 315.15 VP  36.297 GAP  25.73 AZP  86.49 TAL 145.76 TAP 106.14 RCA  66.37 APO 170.82 V2  34.786
RC 200.578 GL    9.36 GP   10.68 ZAL  33.00 ZAP 166.66 ETS 125.12 ZAE 124.02 ETE 172.59 ZAC 111.09 ETC 275.73 CLP 171.97
```

PLANETOCENTRIC CONIC

```
C3 133.966 VHL 11.574 DLA  -5.03 RAL 322.16 RAD 6570.4 VEL 15.978 PTH   2.82 VHP 16.214 DPA -10.61 RAP 307.83 ECC 3.2047
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 40 53	2507.46	-25.43	60.92	213.51	102.90	10 22 40	1907.5	-23.40	52.83
90.00	20 23 50	5464.70	28.25	252.29	218.42	87.94	21 54 55	4864.7	27.66	243.67
100.00	10 59 51	2252.71	-26.94	41.79	213.12	103.47	11 37 24	1652.7	-24.82	33.63
100.00	21 47 33	5194.68	29.80	232.36	218.35	87.51	23 14 8	4594.7	29.13	223.62
110.00	12 2 40	2056.07	-31.02	25.68	211.93	105.13	12 36 56	1456.1	-28.63	17.29
110.00	23 1 14	4964.09	34.00	214.58	218.08	86.28	24 23 58	4364.1	33.12	205.46

DIFFERENTIAL CORRECTIONS

```
TDE 4.4885 TRA10.0401 TC3 -.3219 BAU  .5765
RDE  .5214 RRA -.2884 RC3  .0013 FAU-.00396
FDE  .9736 FRA 2.1973 FC3  .0256 BSP  18566
BDE 4.5187 BRA10.0532 BC3  .3219 FSP   -350
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5516.3 SGR  295.3 SG3  103.2
RRT -.0887 RRF -.0905 RTF  .9829
SGB 5524.2 RZS  .0031 R13 -.9829
SG1 5516.4 SG2  294.1 THA 179.73
```

ORBIT DETERMINATION ACCURACY

```
ST  2679.9 SR   261.7 SS   816.4
CRT  .7260 CRS -.7234 CST -.9999
LSA 2807.9 MSA  179.6 SSA    8.9
EL1 2686.7 EL2  179.5 ALF   4.07
```

LAUNCH DATE SEP 19 1970 FLIGHT TIME 70.00 ARRIVAL DATE NOV 28 1970

HELIOCENTRIC CONIC DISTANCE 182.373

RL	150.28	LAL	-.00	LOL	355.64	VL	26.245	GAL	-8.01	AZL	90.03	HCA	80.25	SMA	123.17	ECC	.25868	INC	.0280	V1	29.650
RP	107.79	LAP	-.03	LOP	75.89	VP	37.216	GAP	-13.20	AZP	90.01	TAL	204.59	TAP	284.84	RCA	91.31	APO	155.03	V2	35.158
RC	46.073	GL	-.17	GP	-14.41	ZAL	131.02	ZAP	15.97	ETS	60.42	ZAE	148.89	ETE	335.87	ZAC	87.48	ETC	261.51	CLP	-6.95

PLANETOCENTRIC CONIC

C3	23.500	VHL	4.848	DLA	-16.39	RAL	222.11	RAD	6568.0	VEL	12.037	PTH	2.15	VHP	8.635	DPA	-35.40	RAP	243.62	ECC	1.3867

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 32 16	1717.13	-5.22	12.04	84.95	117.87	5 0 53	1117.1	-1.45	5.39
90.00	12 6 22	5433.50	28.15	250.01	92.29	86.81	13 36 55	4833.5	27.41	241.42
100.00	5 44 24	1484.39	-6.47	354.24	84.27	119.25	6 9 8	884.4	-2.52	347.68
100.00	13 36 55	5141.47	29.58	228.42	92.18	85.45	15 2 37	4541.5	28.63	219.74
110.00	6 32 15	1334.47	-9.68	340.92	82.31	122.95	6 54 30	734.5	-5.27	334.60
110.00	15 5 33	4864.15	33.29	206.87	91.69	81.77	16 26 37	4264.1	31.80	197.96

DIFFERENTIAL CORRECTIONS

TDE	.1228	TRA	-.3792	TC3	.4840	BAU	.1680
RDE	-.3181	RRA	-.1049	RC3	-.2272	FAU	.03347
FDE	.1209	FRA	-.0218	FC3	-1.2328	BSP	1828
BDE	.3409	BRA	.3935	BC3	.5347	FSP	-253

MID-COURSE EXECUTION ACCURACY

SGT	677.9	SGR	454.5	SG3	104.0		
RRT	-.3166	RRF	.3894	RTF	-.6464		
SGB	816.2	R23	-.0628	R13	.6722		
SG1	702.0	SG2	416.3	THA	161.18		

ORBIT DETERMINATION ACCURACY

ST	202.2	SR	378.0	SS	110.1
CRT	-.6437	CRS	.9534	CST	-.7157
LSA	417.2	MSA	145.0	SSA	28.8
EL1	403.4	EL2	145.0	ALF	111.99

LAUNCH DATE SEP 19 1970 FLIGHT TIME 72.00 ARRIVAL DATE NOV 30 1970

HELIOCENTRIC CONIC DISTANCE 189.192

RL	150.28	LAL	-.00	LOL	355.64	VL	26.440	GAL	-7.98	AZL	89.84	HCA	83.47	SMA	124.36	ECC	.24873	INC	.1609	V1	29.650
RP	107.76	LAP	.16	LOP	79.12	VP	37.364	GAP	-12.23	AZP	89.98	TAL	205.95	TAP	289.42	RCA	93.43	APO	155.29	V2	35.168
RC	47.431	GL	.90	GP	-15.34	ZAL	132.68	ZAP	17.96	ETS	54.33	ZAE	147.54	ETE	334.47	ZAC	86.61	ETC	261.64	CLP	-9.45

PLANETOCENTRIC CONIC

C3	22.191	VHL	4.711	DLA	-14.87	RAL	220.79	RAD	6567.9	VEL	11.982	PTH	2.14	VHP	8.120	DPA	-36.47	RAP	244.19	ECC	1.3652

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 12 49	1758.10	-6.52	14.35	82.56	117.62	4 42 7	1158.1	-2.77	7.68
90.00	12 15 14	5364.64	27.79	245.01	89.22	84.32	13 44 38	4764.6	26.71	236.50
100.00	5 26 7	1521.57	-7.70	356.32	81.91	118.97	5 51 29	921.6	-3.78	349.73
100.00	13 44 36	5076.40	29.13	223.63	89.05	82.97	15 9 13	4476.4	27.85	215.06
110.00	6 16 26	1364.01	-10.77	342.52	80.06	122.64	6 39 10	764.0	-6.39	336.16
110.00	15 10 48	4806.73	32.65	202.51	88.40	79.27	16 30 54	4206.7	30.83	193.77

DIFFERENTIAL CORRECTIONS

TDE	.1107	TRA	-.3628	TC3	.5362	BAU	.1782
RDE	-.3007	RRA	-.1106	RC3	-.2708	FAU	.03640
FDE	.1654	FRA	-.0494	FC3	-1.4202	BSP	1922
BDE	.3204	BRA	.3795	BC3	.6007	FSP	-291

MID-COURSE EXECUTION ACCURACY

SGT	694.1	SGR	467.2	SG3	117.0		
RRT	-.3532	RRF	.4369	RTF	-.6599		
SGB	836.7	R23	-.0734	R13	.6911		
SG1	724.3	SG2	418.9	THA	159.50		

ORBIT DETERMINATION ACCURACY

ST	192.6	SR	368.2	SS	144.6
CRT	-.6150	CRS	.9558	CST	-.7314
LSA	414.7	MSA	143.6	SSA	31.3
EL1	390.0	EL2	143.4	ALF	110.77

LAUNCH DATE SEP 19 1970 FLIGHT TIME 74.00 ARRIVAL DATE DEC 2 1970

HELIOCENTRIC CONIC DISTANCE 196.004

RL	150.28	LAL	-.00	LOL	355.64	VL	26.615	GAL	-7.96	AZL	89.65	HCA	86.70	SMA	125.45	ECC	.23995	INC	.3515	V1	29.650
RP	107.72	LAP	.35	LOP	82.34	VP	37.498	GAP	-11.30	AZP	89.98	TAL	207.28	TAP	293.98	RCA	95.35	APO	155.55	V2	35.179
RC	48.893	GL	2.02	GP	-16.37	ZAL	134.26	ZAP	20.23	ETS	49.34	ZAE	146.38	ETE	332.87	ZAC	85.64	ETC	261.74	CLP	-12.05

PLANETOCENTRIC CONIC

C3	21.127	VHL	4.596	DLA	-13.32	RAL	219.56	RAD	6567.9	VEL	11.938	PTH	2.12	VHP	7.638	DPA	-37.62	RAP	244.62	ECC	1.3477

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 54 5	1900.71	-7.85	16.77	80.45	117.29	4 24 5	1200.7	-4.13	10.06
90.00	12 24 11	5298.31	27.25	240.23	86.40	81.99	13 52 29	4698.3	25.86	231.84
100.00	5 8 28	1560.70	-8.99	358.51	79.85	118.63	5 34 29	960.7	-5.10	351.89
100.00	13 52 29	5013.55	28.52	219.06	86.18	80.64	15 16 2	4413.5	26.93	210.62
110.00	6 1 5	1395.93	-11.93	344.25	78.09	122.27	6 24 20	795.9	-7.59	337.85
110.00	15 16 22	4751.08	31.87	198.36	85.42	76.92	16 35 33	4151.1	29.74	189.80

DIFFERENTIAL CORRECTIONS

TDE	.0976	TRA	-.3475	TC3	.5840	BAU	.1880
RDE	-.2825	RRA	-.1170	RC3	-.3197	FAU	.03969
FDE	.2189	FRA	-.0802	FC3	-1.6264	BSP	2016
BDE	.2989	BRA	.3666	BC3	.6658	FSP	-334

MID-COURSE EXECUTION ACCURACY

SGT	707.9	SGR	482.5	SG3	131.6		
RRT	-.3920	RRF	.4880	RTF	-.6712		
SGB	856.7	R23	-.0854	R13	.7092		
SG1	746.0	SG2	421.2	THA	157.53		

ORBIT DETERMINATION ACCURACY

ST	181.3	SR	355.1	SS	183.6
CRT	-.5741	CRS	.9545	CST	-.7251
LSA	413.9	MSA	142.2	SSA	33.8
EL1	372.8	EL2	141.4	ALF	109.21

LAUNCH DATE SEP 19 1970 FLIGHT TIME 76.00 ARRIVAL DATE DEC 4 1970

HELIOCENTRIC CONIC DISTANCE 202.805

RL	150.28	LAL	-.00	LOL	355.64	VL	26.772	GAL	-7.94	AZL	89.46	HCA	89.93	SMA	126.45	ECC	.23223	INC	.5409	V1	29.650
RP	107.69	LAP	.54	LOP	85.57	VP	37.618	GAP	-10.41	AZP	90.00	TAL	208.58	TAP	298.51	RCA	97.08	APO	155.82	V2	35.188
RC	50.451	GL	3.19	GP	-17.51	ZAL	135.72	ZAP	22.76	ETS	45.23	ZAE	145.39	ETE	331.04	ZAC	84.54	ETC	261.82	CLP	-14.77

PLANETOCENTRIC CONIC

C3	20.267	VHL	4.502	DLA	-11.74	RAL	218.45	RAD	6567.8	VEL	11.902	PTH	2.11	VHP	7.187	DPA	-38.84	RAP	244.89	ECC	1.3335

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 36 9	1844.58	-9.21	19.27	78.65	116.89	4 6 54	1244.6	-5.53	12.53
90.00	12 33 16	5234.54	26.56	235.69	83.87	79.81	14 0 30	4634.5	24.88	227.42
100.00	4 51 32	1601.34	-10.30	.81	78.07	118.22	5 18 14	1001.3	-6.45	354.14
100.00	14 0 33	4953.00	27.77	214.72	83.61	78.47	15 23 6	4353.0	25.90	206.42
110.00	5 46 19	1429.78	-13.15	346.11	76.39	121.84	6 10 9	829.8	-8.85	339.66
110.00	15 22 16	4697.33	30.97	194.43	82.74	74.76	16 40 33	4097.3	28.57	186.05

DIFFERENTIAL CORRECTIONS

TDE	.0838	TRA	-.3333	TC3	.6255	BAU	.1975
RDE	-.2630	RRA	-.1240	RC3	-.3741	FAU	.04334
FDE	.2823	FRA	-.1143	FC3	-1.8515	BSP	2105
BDE	.2760	BRA	.3556	BC3	.7289	FSP	-383

MID-COURSE EXECUTION ACCURACY

SGT	718.5	SGR	501.4	SG3	147.9		
RRT	-.4318	RRF	.5420	RTF	-.6799		
SGB	876.2	R23	-.0987	R13	.7269		
SG1	766.9	SG2	423.7	THA	155.20		

ORBIT DETERMINATION ACCURACY

ST	169.0	SR	338.3	SS	226.9
CRT	-.5175	CRS	.9510	CST	-.7007
LSA	416.3	MSA	141.2	SSA	35.9
EL1	351.6	EL2	139.1	ALF	107.28

LAUNCH DATE SEP 19 1970 FLIGHT TIME 78.00 ARRIVAL DATE DEC 6 1970

HELIOCENTRIC CONIC DISTANCE 209.593

RL	150.28	LAL	-.00	LOL	355.64	VL	26.911	GAL	-7.94	AZL	89.27	HCA	93.16	SMA	127.36	ECC	.22548	INC	.7301	V1	29.650
RP	107.67	LAP	.73	LOP	88.80	VP	37.726	GAP	-9.56	AZP	90.04	TAL	209.82	TAP	302.98	RCA	98.64	APO	156.07	V2	35.198
RC	52.096	GL	4.40	GP	-18.77	ZAL	137.05	ZAP	25.53	ETS	41.79	ZAE	144.56	ETE	328.94	ZAC	83.32	ETC	261.86	CLP	-17.63

PLANETOCENTRIC CONIC

C3	19.578	VHL	4.425	DLA	-10.14	RAL	217.47	RAD	6567.8	VEL	11.873	PTH	2.11	VHP	6.768	DPA	-40.15	RAP	244.95	ECC	1.3222

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 19 5	1889.40	-10.58	21.85	77.14	116.42	3 50 35	1289.4	-6.95	15.06
90.00	12 42 31	5173.27	25.75	231.38	81.63	77.80	14 8 44	4573.3	23.81	223.25
100.00	4 35 25	1643.16	-11.64	3.20	76.59	117.73	5 2 48	1043.2	-7.84	356.47
100.00	14 8 52	4894.74	26.91	210.60	81.34	76.46	15 30 27	4294.7	24.78	202.45
110.00	5 32 15	1465.16	-14.42	348.08	74.90	121.34	5 56 41	865.2	-10.16	341.56
110.00	15 28 31	4645.51	29.99	190.72	80.37	72.76	16 45 56	4045.5	27.34	182.53

DIFFERENTIAL CORRECTIONS

TDE	.0898	TRA	-.3209	TC3	.6588	BAU	.2066
RDE	-.2416	RRA	-.1316	RC3	-.4345	FAU	.04739
FDE	.3570	FRA	-.1514	FC3	-2.0954	BSP	2193
BDE	.2515	BRA	.3468	BC3	.7892	FSP	-437

MID-COURSE EXECUTION ACCURACY

SGT	725.5	SGR	525.0	SG3	166.0
RRT	-.4710	RRF	.5977	RTF	-.6853
SGB	895.5	RZ3	-.1135	R13	.7442
SG1	787.3	SG2	426.8	THA	152.47

ORBIT DETERMINATION ACCURACY

ST	156.6	SR	317.3	SS	274.5
CRT	-.4410	CRS	.9457	CST	-.6583
LSA	423.4	MSA	140.8	SSA	37.5
EL1	326.4	EL2	136.6	ALF	104.96

LAUNCH DATE SEP 19 1970 FLIGHT TIME 80.00 ARRIVAL DATE DEC 8 1970

HELIOCENTRIC CONIC DISTANCE 216.365

RL	150.28	LAL	-.00	LOL	355.64	VL	27.034	GAL	-7.93	AZL	89.08	HCA	96.39	SMA	128.17	ECC	.21959	INC	.9208	V1	29.650
RP	107.64	LAP	.92	LOP	92.04	VP	37.822	GAP	-8.75	AZP	90.10	TAL	211.00	TAP	307.39	RCA	100.03	APO	156.32	V2	35.206
RC	53.818	GL	5.66	GP	-20.16	ZAL	138.22	ZAP	28.54	ETS	38.86	ZAE	143.88	ETE	326.53	ZAC	81.95	ETC	261.86	CLP	-20.64

PLANETOCENTRIC CONIC

C3	19.033	VHL	4.363	DLA	-8.53	RAL	216.63	RAD	6567.8	VEL	11.850	PTH	2.10	VHP	6.380	DPA	-41.55	RAP	244.79	ECC	1.3132

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 2 55	1934.92	-11.95	24.50	75.92	115.86	3 35 10	1334.9	-8.37	17.64
90.00	12 51 59	5114.40	24.84	227.31	79.69	75.95	14 17 13	4514.4	22.67	219.32
100.00	4 20 7	1685.86	-12.98	5.66	75.40	117.17	4 48 13	1085.9	-9.24	358.87
100.00	14 17 28	4838.69	25.96	206.71	79.36	74.63	15 38 6	4238.7	23.59	198.71
110.00	5 18 56	1501.74	-15.70	350.13	73.84	120.76	5 43 57	901.7	-11.51	343.54
110.00	15 38 9	4595.58	28.93	187.21	78.33	70.94	16 51 44	3995.6	26.05	179.21

DIFFERENTIAL CORRECTIONS

TDE	.0560	TRA	-.3104	TC3	.6817	BAU	.2153
RDE	-.2176	RRA	-.1308	RC3	-.5013	FAU	.05181
FDE	.4445	FRA	-.1911	FC3	-2.3568	BSP	2277
BDE	.2247	BRA	.3405	BC3	.8462	FSP	-499

MID-COURSE EXECUTION ACCURACY

SGT	727.5	SGR	554.5	SG3	186.0
RRT	-.5074	RRF	.6532	RTF	-.6869
SGB	914.7	RZ3	-.1288	R13	.7617
SG1	806.9	SG2	430.8	THA	149.22

ORBIT DETERMINATION ACCURACY

ST	145.0	SR	291.5	SS	326.3
CRT	-.3402	CRS	.9378	CST	-.5973
LSA	437.1	MSA	141.1	SSA	38.2
EL1	296.8	EL2	134.0	ALF	102.11

LAUNCH DATE SEP 19 1970 FLIGHT TIME 82.00 ARRIVAL DATE DEC 10 1970

HELIOCENTRIC CONIC DISTANCE 223.116

RL	150.28	LAL	-.00	LOL	355.64	VL	27.142	GAL	-7.93	AZL	88.89	HCA	99.62	SMA	128.90	ECC	.21447	INC	1.1138	V1	29.650
RP	107.61	LAP	1.10	LOP	95.27	VP	37.907	GAP	-7.98	AZP	90.19	TAL	212.09	TAP	311.71	RCA	101.26	APO	156.55	V2	35.214
RC	55.612	GL	6.96	GP	-21.68	ZAL	139.22	ZAP	31.78	ETS	36.30	ZAE	143.31	ETE	323.75	ZAC	80.43	ETC	261.82	CLP	-23.82

PLANETOCENTRIC CONIC

C3	18.609	VHL	4.314	DLA	-6.93	RAL	215.94	RAD	6567.8	VEL	11.832	PTH	2.10	VHP	6.023	DPA	-43.04	RAP	244.36	ECC	1.3062

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 47 39	1981.00	-13.30	27.21	74.99	115.23	3 20 40	1381.0	-9.79	20.28
90.00	13 1 43	5057.70	23.85	223.45	78.04	74.26	14 26 1	4457.7	21.46	215.60
100.00	4 5 41	1729.26	-14.31	8.19	74.49	116.53	4 34 30	1129.3	-10.64	1.33
100.00	14 26 23	4784.67	24.93	203.03	77.69	72.95	15 46 7	4184.7	22.36	195.17
110.00	5 6 21	1539.27	-17.00	352.27	72.99	120.11	5 32 1	939.3	-12.87	345.60
110.00	15 42 11	4547.43	27.81	183.91	76.59	69.27	16 57 59	3947.4	24.74	176.09

DIFFERENTIAL CORRECTIONS

TDE	.0433	TRA	-.3025	TC3	.6923	BAU	.2239
RDE	-.1906	RRA	-.1486	RC3	-.5748	FAU	.05660
FDE	.5458	FRA	-.2324	FC3	-2.6353	BSP	2360
BDE	.1954	BRA	.3570	BC3	.8998	FSP	-566

MID-COURSE EXECUTION ACCURACY

SGT	723.8	SGR	591.2	SG3	207.8
RRT	-.5382	RRF	.7088	RTF	-.6834
SGB	934.6	RZ3	-.1438	R13	.7798
SG1	826.4	SG2	436.4	THA	145.37

ORBIT DETERMINATION ACCURACY

ST	135.5	SR	260.5	SS	382.0
CRT	-.2144	CRS	.9253	CST	-.5202
LSA	458.9	MSA	141.8	SSA	38.0
EL1	262.6	EL2	131.3	ALF	98.50

LAUNCH DATE SEP 19 1970 FLIGHT TIME 84.00 ARRIVAL DATE DEC 12 1970

HELIOCENTRIC CONIC DISTANCE 229.846

RL	150.28	LAL	-.00	LOL	355.64	VL	27.236	GAL	-7.92	AZL	88.69	HCA	102.86	SMA	129.55	ECC	.21004	INC	1.3108	V1	29.650
RP	107.59	LAP	1.28	LOP	98.51	VP	37.981	GAP	-7.23	AZP	90.29	TAL	213.09	TAP	315.95	RCA	102.34	APO	156.76	V2	35.222
RC	57.409	GL	8.30	GP	-23.36	ZAL	140.03	ZAP	35.25	ETS	33.99	ZAE	142.81	ETE	320.58	ZAC	78.76	ETC	261.72	CLP	-27.19

PLANETOCENTRIC CONIC

C3	18.286	VHL	4.276	DLA	-5.32	RAL	215.40	RAD	6567.7	VEL	11.818	PTH	2.09	VHP	[illegible]	DPA	-44.63	RAP	243.62	ECC	1.3009

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 33 14	2027.56	-14.64	29.98	74.34	114.51	3 [illegible]	1427.6	-11.21	22.98
90.00	13 11 49	5002.94	22.79	219.79	76.67	72.72	14 35[illegible]	4402.9	20.21	212.07
100.00	3 52 3	1773.26	-15.63	10.79	73.86	115.81	4 21 37	1173.3	-12.04	3.85
100.00	14 35 40	4732.47	23.84	199.53	76.30	71.41	15 54 32	4132.5	21.08	191.82
110.00	4 54 33	1577.62	-18.29	354.49	72.41	119.39	5 20 50	977.6	-14.24	347.72
110.00	15 49 40	4500.88	26.65	180.79	75.15	67.75	17 4 41	3900.9	23.40	173.14

DIFFERENTIAL CORRECTIONS

TDE	.0322	TRA	-.2973	TC3	.6889	BAU	.2325
RDE	-.1596	RRA	-.1579	RC3	-.6554	FAU	.06171
FDE	.6620	FRA	-.2748	FC3	-2.9218	BSP	2443
BDE	.1628	BRA	.3366	BC3	.9509	FSP	-640

MID-COURSE EXECUTION ACCURACY

SGT	713.5	SGR	636.4	SG3	231.3
RRT	-.5805	RRF	.7568	RTF	-.6734
SGB	956.1	RZ3	-.1561	R13	.7993
SG1	846.7	SG2	444.1	THA	140.77

ORBIT DETERMINATION ACCURACY

ST	128.7	SR	223.8	SS	441.6
CRT	-.0648	CRS	.9034	CST	-.4349
LSA	489.8	MSA	142.7	SSA	37.0
EL1	224.0	EL2	128.3	ALF	93.18

LAUNCH DATE SEP 19 1970 FLIGHT TIME 86.00 ARRIVAL DATE DEC 14 1970

HELIOCENTRIC CONIC DISTANCE 236.553

```
RL  150.28 LAL   -.00 LOL 355.64 VL  27.318 GAL  -7.91 AZL  88.49 HCA 106.09 SMA 130.11 ECC .20621 INC 1.5130 V1  29.650
RP  107.57 LAP   1.45 LOP 101.74 VP  38.046 GAP  -6.52 AZP  90.42 TAL 213.98 TAP 320.07 RCA 103.28 APO 156.94 V2  35.229
RC  59.382 GL    9.68 GP  -25.18 ZAL 140.64 ZAP  38.95 ETS  31.83 ZAE 142.35 ETE 316.98 ZAC  76.92 ETC 261.57 CLP -30.76
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PLANETOCENTRIC CONIC

```
C3  18.049 VHL  4.248 DLA  -3.72 RAL 215.01 RAD 6567.7 VEL 11.808 PTH   2.09 VHP  5.405 DPA -46.31 RAP 242.53 ECC 1.2970
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 19 38	2074.59	-15.94	32.81	73.96	113.71	2 54 12	1474.6	-12.60	25.72
90.00	13 22 19	4949.80	21.67	216.30	75.59	71.32	14 44 49	4349.8	18.92	208.70
100.00	3 39 14	1817.81	-16.94	13.46	73.50	115.01	4 9 32	1217.8	-13.43	6.43
100.00	14 45 24	4681.81	22.70	196.20	75.20	70.01	16 3 26	4081.8	19.77	188.63
110.00	4 43 29	1616.68	-19.58	356.79	72.09	118.60	5 10 25	1016.7	-15.61	349.91
110.00	15 57 38	4455.71	25.45	177.83	73.99	66.37	17 11 54	3855.7	22.04	170.34

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .0153 TRA -.3039 TC3  .6504 BAU  .2372   SGT  688.8 SGR  684.4 SG3  254.6     ST   126.0 SR   177.4 SS   512.8
 RDE -.1211 RRA -.1646 RC3 -.7371 FAU .06643   RRT -.5475 RRF  .7978 RTF -.6433     CRT  .2026 CRS  .8623 CST -.2622
 FDE  .8069 FRA -.3025 FC3-3.1863 BSP  2335    SGB  971.0 RZS -.1664 RIS  .8184     LSA  536.5 MSA  145.9 SSA   34.3
 BDE  .1221 BRA  .3456 BC3  .9830 FSP  -691    SG1  854.2 SG2  461.9 THA 135.34     EL1  180.8 EL2  121.1 ALF  74.92
```

LAUNCH DATE SEP 19 1970 FLIGHT TIME 88.00 ARRIVAL DATE DEC 16 1970

HELIOCENTRIC CONIC DISTANCE 243.234

```
RL  150.28 LAL   -.00 LOL 355.64 VL  27.388 GAL  -7.90 AZL  88.28 HCA 109.33 SMA 130.60 ECC .20291 INC 1.7219 V1  29.650
RP  107.55 LAP   1.62 LOP 104.98 VP  38.102 GAP  -5.84 AZP  90.57 TAL 214.76 TAP 324.09 RCA 104.10 APO 157.10 V2  35.235
RC  61.346 GL   11.11 GP  -27.15 ZAL 141.05 ZAP  42.89 ETS  29.73 ZAE 141.88 ETE 312.90 ZAC  74.91 ETC 261.35 CLP -34.57
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PLANETOCENTRIC CONIC

```
C3  17.889 VHL  4.230 DLA  -2.12 RAL 214.77 RAD 6567.7 VEL 11.801 PTH   2.09 VHP  5.145 DPA -48.08 RAP 241.02 ECC 1.2944
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 6 44	2122.33	-17.23	35.72	73.85	112.83	2 42 6	1522.3	-13.99	28.55
90.00	13 33 18	4897.92	20.50	212.94	74.77	70.03	14 54 56	4297.9	17.60	205.47
100.00	3 27 5	1863.13	-18.22	16.21	73.40	114.12	3 58 8	1263.1	-14.81	9.08
100.00	14 55 38	4632.36	21.51	193.00	74.36	68.73	16 12 50	4032.4	18.43	185.56
110.00	4 33 4	1656.59	-20.86	359.17	72.03	117.71	5 0 40	1056.6	-16.99	352.19
110.00	16 6 8	4411.66	24.22	175.00	73.11	65.10	17 19 40	3811.7	20.66	167.66

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .0179 TRA -.2987 TC3  .6285 BAU  .2502   SGT  668.7 SGR  755.1 SG3  281.6     ST   124.9 SR   134.0 SS   572.4
 RDE -.0821 RRA -.1763 RC3 -.8365 FAU .07233   RRT -.5587 RRF  .8399 RTF -.6196     CRT  .3395 CRS  .7524 CST -.2912
 FDE  .9424 FRA -.3513 FC3-3.5004 BSP  2585    SGB 1008.6 RZS -.1602 RIS  .8441     LSA  582.4 MSA  144.5 SSA   33.2
 BDE  .0840 BRA  .3468 BC3 1.0463 FSP  -794    SG1  892.9 SG2  469.0 THA 128.85     EL1  150.3 EL2  104.7 ALF  50.87
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LAUNCH DATE SEP 19 1970 FLIGHT TIME 90.00 ARRIVAL DATE DEC 18 1970

HELIOCENTRIC CONIC DISTANCE 249.889

```
RL  150.28 LAL   -.00 LOL 355.64 VL  27.447 GAL  -7.89 AZL  88.06 HCA 112.57 SMA 131.02 ECC .20007 INC 1.9394 V1  29.650
RP  107.53 LAP   1.79 LOP 108.23 VP  38.150 GAP  -5.18 AZP  90.74 TAL 215.43 TAP 328.00 RCA 104.81 APO 157.24 V2  35.240
RC  63.355 GL   12.60 GP  -29.27 ZAL 141.26 ZAP  47.04 ETS  27.62 ZAE 141.33 ETE 308.35 ZAC  72.73 ETC 261.05 CLP -38.62
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PLANETOCENTRIC CONIC

```
C3  17.795 VHL  4.218 DLA   -.52 RAL 214.68 RAD 6567.7 VEL 11.797 PTH   2.09 VHP  4.918 DPA -49.90 RAP 239.04 ECC 1.2929
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 54 29	2170.91	-18.49	38.73	73.99	111.84	2 30 40	1570.9	-15.36	31.45
90.00	13 44 52	4846.90	19.28	209.69	74.21	68.85	15 5 39	4246.9	16.24	202.34
100.00	3 15 35	1909.29	-19.48	19.06	73.55	113.13	3 47 24	1309.3	-16.18	11.82
100.00	15 6 27	4583.74	20.28	189.92	73.79	67.56	16 22 51	3983.7	17.06	182.60
110.00	4 23 17	1697.40	-22.13	1.66	72.23	116.74	4 51 34	1097.4	-18.37	354.55
110.00	16 15 15	4368.41	22.95	172.28	72.50	63.94	17 28 3	3768.4	19.26	165.09

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .0211 TRA -.3020 TC3  .5767 BAU  .2622   SGT  637.1 SGR  833.1 SG3  308.0     ST   127.2 SR    95.0 SS   638.4
 RDE -.0354 RRA -.1862 RC3 -.9392 FAU .07782   RRT -.5334 RRF  .8730 RTF -.5704     CRT  .6440 CRS  .4117 CST -.3178
 FDE 1.0977 FRA -.3880 FC3-3.7861 BSP  2753    SGB 1048.8 RZS -.1459 RIS  .8696     LSA  640.9 MSA  144.0 SSA   31.3
 BDE  .0412 BRA  .3548 BC3 1.1021 FSP  -886    SG1  931.5 SG2  482.0 THA 121.51     EL1  144.6 EL2   62.6 ALF  31.84
```

LAUNCH DATE SEP 19 1970 FLIGHT TIME 92.00 ARRIVAL DATE DEC 20 1970

HELIOCENTRIC CONIC DISTANCE 256.517

```
RL  150.28 LAL   -.00 LOL 355.64 VL  27.496 GAL  -7.87 AZL  87.83 HCA 115.81 SMA 131.37 ECC .19763 INC 2.1674 V1  29.650
RP  107.52 LAP   1.95 LOP 111.47 VP  38.190 GAP  -4.55 AZP  90.94 TAL 215.97 TAP 331.78 RCA 105.41 APO 157.34 V2  35.245
RC  65.403 GL   14.15 GP  -31.53 ZAL 141.26 ZAP  51.38 ETS  25.42 ZAE 140.63 ETE 303.36 ZAC  70.40 ETC 260.67 CLP -42.93
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PLANETOCENTRIC CONIC

```
C3  17.762 VHL  4.214 DLA   1.10 RAL 214.75 RAD 6567.7 VEL 11.796 PTH   2.09 VHP  4.727 DPA -51.76 RAP 236.56 ECC 1.2923
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 42 46	2220.64	-19.72	41.87	74.39	110.75	2 19 47	1620.6	-16.72	34.47
90.00	13 57 9	4796.30	18.01	206.53	73.91	67.77	15 17 5	4196.3	14.84	199.29
100.00	3 4 38	1956.61	-20.72	22.03	73.97	112.04	3 37 14	1356.6	-17.54	14.67
100.00	15 17 59	4535.57	19.00	186.91	73.47	66.48	16 33 34	3935.6	15.66	179.72
110.00	4 14 3	1739.31	-23.39	4.26	72.70	115.67	4 43 2	1139.3	-19.75	357.02
110.00	16 25 3	4325.62	21.65	169.64	72.14	62.88	17 37 9	3725.6	17.84	162.58

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .0260 TRA -.3148 TC3  .4921 BAU  .2733   SGT  597.1 SGR  915.8 SG3  332.1     ST   133.8 SR    87.5 SS   712.0
 RDE  .0207 RRA -.1925 RC3-1.0406 FAU .08243   RRT -.4586 RRF  .8987 RTF -.4827     CRT  .9189 CRS -.4223 CST -.3484
 FDE 1.2744 FRA -.4047 FC3-4.0176 BSP  2825    SGB 1093.3 RZS -.1146 RIS  .8949     LSA  714.6 MSA  145.1 SSA   28.6
 BDE  .0353 BRA  .3690 BC3 1.1511 FSP  -951    SG1  972.4 SG2  499.8 THA 113.06     EL1  157.1 EL2   29.4 ALF  32.26
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LAUNCH DATE SEP 19 1970 FLIGHT TIME 94.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 263.115

RL	150.28	LAL	-.00	LOL	355.64	VL	27.537	GAL	-7.84	AZL	87.59	HCA	119.05	SMA	131.66	ECC	.19553	INC	2.4082
RP	107.51	LAP	2.11	LOP	114.71	VP	38.223	GAP	-3.95	AZP	91.17	TAL	216.40	TAP	335.45	RCA	105.92	APO	157.41
RC	67.486	GL	15.77	GP	-35.90	ZAL	141.04	ZAP	55.89	ETS	23.06	ZAE	139.72	ETE	297.96	ZAC	67.93	ETC	260.20

V1	29.650	V2	35.249	CLP	-47.50														

PLANETOCENTRIC CONIC

C3	17.790	VHL	4.218	DLA	2.75	RAL	214.98	RAD	6567.7	VEL	11.797	PTH	2.09	VHP	4.571	DPA	-53.62	RAP	233.51
ECC	1.2928																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 31 27	2272.01	-20.92	45.15	75.06	109.53	2 9 19	1672.0	-18.07	37.64
90.00	14 10 15	4745.66	16.68	203.41	73.87	66.78	15 29 20	4145.7	13.39	196.27
100.00	2 54 4	2005.51	-21.93	25.15	74.65	110.83	3 27 30	1405.5	-18.90	17.67
100.00	15 30 19	4487.39	17.67	183.96	73.41	65.49	16 45 6	3887.4	14.21	176.87
110.00	4 5 15	1782.71	-24.65	7.01	73.42	114.47	4 34 58	1182.7	-21.13	359.62
110.00	16 35 37	4282.96	20.30	167.06	72.03	61.89	17 47 0	3683.0	16.38	160.13

DIFFERENTIAL CORRECTIONS

TDE	.0474	TRA	-.3242	TC3	.4034	BAU	.2907
RDE	.0798	RRA	-.2013	RC3	-1.1539	FAU	.08726
FDE	1.4375	FRA	-.4288	FC3	-4.2463	BSP	3110
BDE	.0928	BRA	.3816	BC3	1.2224	FSP	-1049

MID-COURSE EXECUTION ACCURACY

SGT	560.7	SGR	1017.0	SG3	356.1		
RRT	-.3571	RRF	.9205	RTF	-.3619		
SGB	1161.3	RZ3	-.0824	R13	.9175		
SG1	1043.0	SG2	510.6	THA	104.75		

ORBIT DETERMINATION ACCURACY

ST	147.5	SR	139.1	SS	775.5
CRT	.8554	CRS	-.8391	CST	-.5105
LSA	788.1	MSA	143.3	SSA	26.9
EL1	195.3	EL2	54.4	ALF	43.04

LAUNCH DATE SEP 19 1970 FLIGHT TIME 96.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 269.686

RL	150.28	LAL	-.00	LOL	355.64	VL	27.568	GAL	-7.81	AZL	87.34	HCA	122.29	SMA	131.89	ECC	.19374	INC	2.6648
RP	107.50	LAP	2.25	LOP	117.96	VP	38.248	GAP	-3.36	AZP	91.42	TAL	216.71	TAP	339.00	RCA	106.34	APO	157.44
RC	69.600	GL	17.48	GP	-36.36	ZAL	140.62	ZAP	60.52	ETS	20.48	ZAE	138.56	ETE	292.27	ZAC	65.35	ETC	259.64

V1	29.650	V2	35.253	CLP	-52.34														

PLANETOCENTRIC CONIC

C3	17.878	VHL	4.228	DLA	4.43	RAL	215.36	RAD	6567.7	VEL	11.801	PTH	2.09	VHP	4.453	DPA	-55.43	RAP	229.87
ECC	1.2942																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 20 24	2325.52	-22.10	48.63	75.99	108.17	1 59 9	1725.5	-19.41	40.99
90.00	14 24 20	4684.44	15.28	200.30	74.07	65.86	15 42 34	4094.4	11.89	193.26
100.00	2 43 49	2056.46	-23.13	28.47	75.61	109.48	3 18 5	1456.5	-20.26	20.84
100.00	15 43 36	4438.74	16.27	181.02	73.60	64.57	16 57 34	3838.7	12.71	174.04
110.00	3 56 49	1827.95	-25.09	9.93	74.42	113.14	4 27 17	1228.0	-22.53	2.39
110.00	16 47 4	4240.00	18.90	164.52	72.18	60.97	17 57 44	3640.0	14.89	157.70

DIFFERENTIAL CORRECTIONS

TDE	.0743	TRA	-.3431	TC3	.2800	BAU	.3078
RDE	.1502	RRA	-.2033	RC3	-1.2571	FAU	.09038
FDE	1.6155	FRA	-.4224	FC3	-4.3767	BSP	3307
BDE	.1676	BRA	.3988	BC3	1.2879	FSP	-1104

MID-COURSE EXECUTION ACCURACY

SGT	532.6	SGR	1117.1	SG3	374.8		
RRT	-.1721	RRF	.9366	RTF	-.1681		
SGB	1237.5	RZ3	-.0388	R13	.9358		
SG1	1121.9	SG2	522.4	THA	95.99		

ORBIT DETERMINATION ACCURACY

ST	172.5	SR	222.1	SS	845.9
CRT	.8316	CRS	-.9491	CST	-.6425
LSA	879.4	MSA	143.8	SSA	24.4
EL1	270.0	EL2	78.8	ALF	53.54

LAUNCH DATE SEP 19 1970 FLIGHT TIME 98.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 276.227

RL	150.28	LAL	-.00	LOL	355.64	VL	27.592	GAL	-7.77	AZL	87.06	HCA	125.52	SMA	132.06	ECC	.19220	INC	2.9405
RP	107.49	LAP	2.39	LOP	121.21	VP	38.268	GAP	-2.81	AZP	91.71	TAL	216.91	TAP	342.44	RCA	106.68	APO	157.44
RC	71.740	GL	19.29	GP	-38.88	ZAL	139.98	ZAP	65.22	ETS	17.65	ZAE	137.10	ETE	286.38	ZAC	62.68	ETC	258.98

V1	29.650	V2	35.255	CLP	-57.42														

PLANETOCENTRIC CONIC

C3	18.032	VHL	4.246	DLA	6.16	RAL	215.89	RAD	6567.7	VEL	11.807	PTH	2.09	VHP	4.373	DPA	-57.16	RAP	225.64
ECC	1.2968																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 9 25	2381.91	-23.25	52.37	77.21	106.64	1 49 7	1781.9	-20.75	44.59
90.00	14 39 34	4642.07	13.79	197.17	74.54	65.02	15 56 56	4042.1	10.31	190.22
100.00	2 33 41	2110.12	-24.30	32.02	76.85	107.96	3 8 51	1510.1	-21.62	24.25
100.00	15 58 0	4389.09	14.79	178.07	74.05	63.73	17 11 9	3789.1	11.14	171.18
110.00	3 48 37	1875.61	-27.13	13.09	75.72	111.64	4 19 52	1275.6	-23.94	5.37
110.00	16 59 33	4196.36	17.44	161.98	72.58	60.12	18 9 29	3596.4	13.34	155.27

DIFFERENTIAL CORRECTIONS

TDE	.1184	TRA	-.3614	TC3	.1453	BAU	.3301
RDE	.2243	RRA	-.2047	RC3	-1.3616	FAU	.09286
FDE	1.7713	FRA	-.4129	FC3	-4.4582	BSP	3659
BDE	.2536	BRA	.4153	BC3	1.3694	FSP	-1171

MID-COURSE EXECUTION ACCURACY

SGT	530.4	SGR	1227.2	SG3	389.9		
RRT	.0643	RRF	.9494	RTF	.0792		
SGB	1336.9	RZ3	-.0042	R13	.9495		
SG1	1227.8	SG2	529.0	THA	88.04		

ORBIT DETERMINATION ACCURACY

ST	217.2	SR	315.8	SS	906.2
CRT	.8817	CRS	-.9785	CST	-.7796
LSA	973.3	MSA	142.5	SSA	22.5
EL1	373.3	EL2	86.7	ALF	56.73

LAUNCH DATE SEP 19 1970 FLIGHT TIME 100.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 282.738

RL	150.28	LAL	-.00	LOL	355.64	VL	27.609	GAL	-7.72	AZL	86.76	HCA	128.76	SMA	132.18	ECC	.19088	INC	3.2394
RP	107.48	LAP	2.53	LOP	124.45	VP	38.282	GAP	-2.27	AZP	92.03	TAL	217.00	TAP	345.76	RCA	106.95	APO	157.41
RC	73.803	GL	21.21	GP	-41.44	ZAL	139.11	ZAP	69.91	ETS	14.52	ZAE	135.32	ETE	280.42	ZAC	59.95	ETC	258.22

V1	29.650	V2	35.257	CLP	-62.73														

PLANETOCENTRIC CONIC

C3	18.283	VHL	4.274	DLA	7.95	RAL	216.59	RAD	6567.7	VEL	11.817	PTH	2.09	VHP	4.333	DPA	-58.75	RAP	220.85
ECC	1.3006																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 58 19	2442.03	-24.36	56.42	78.73	104.90	1 39 1	1842.0	-22.08	48.49
90.00	14 56 13	4587.09	12.21	193.98	75.30	64.25	16 12 41	3987.9	8.65	187.11
100.00	2 23 29	2167.30	-25.45	35.88	78.39	106.24	2 59 37	1567.3	-22.98	27.95
100.00	16 13 44	4337.85	13.23	175.07	74.78	62.95	17 26 1	3737.8	9.49	168.27
110.00	3 40 29	1926.34	-28.35	16.52	77.33	109.95	4 12 36	1326.3	-25.37	8.62
110.00	17 13 13	4151.58	15.90	159.42	73.26	59.34	18 22 25	3551.6	11.72	152.81

DIFFERENTIAL CORRECTIONS

TDE	.1768	TRA	-.3697	TC3	-.0113	BAU	.3543
RDE	.3080	RRA	-.1995	RC3	-1.4510	FAU	.09356
FDE	1.9159	FRA	-.3808	FC3	-4.4349	BSP	4021
BDE	.3534	BRA	.4325	BC3	1.4511	FSP	-1208

MID-COURSE EXECUTION ACCURACY

SGT	571.1	SGR	1333.9	SG3	398.1		
RRT	.3275	RRF	.9589	RTF	.3470		
SGB	1451.0	RZ3	.0283	R13	.9591		
SG1	1349.4	SG2	533.3	THA	80.52		

ORBIT DETERMINATION ACCURACY

ST	283.7	SR	419.8	SS	964.3
CRT	.9228	CRS	-.9900	CST	-.8683
LSA	1079.8	MSA	142.1	SSA	20.5
EL1	498.2	EL2	92.2	ALF	56.78

LAUNCH DATE SEP 19 1970 FLIGHT TIME 102.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 289.221

RL	150.28	LAL	-.00	LOL	355.64	VL	27.619	GAL	-7.66	AZL	86.43	HCA	132.00	SMA	132.26	ECC	.18975	INC	3.5668	V1	29.650
RP	107.48	LAP	2.65	LOP	127.70	VP	38.290	GAP	-1.75	AZP	92.39	TAL	216.97	TAP	348.97	RCA	107.16	APO	157.35	V2	35.258
RC	76.087	GL	23.27	GP	-43.99	ZAL	138.02	ZAP	74.52	ETS	11.07	ZAE	133.24	ETE	274.53	ZAC	57.19	ETC	257.37	CLP	-68.22

PLANETOCENTRIC CONIC

C3 18.586 VHL 4.311 DLA 9.83 RAL 217.45 RAD 6567.8 VEL 11.831 PTH 2.10 VHP 4.334 DPA -60.18 RAP 215.57 ECC 1.3059

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 46 50	2506.99	-25.42	60.88	80.58	102.91	1 28 37	1907.0	-23.39	52.80
90.00	15 14 34	4531.14	10.51	190.67	76.36	63.56	16 30 5	3931.1	6.88	183.88
100.00	2 13 2	2229.00	-26.55	40.13	80.28	104.26	2 50 11	1629.0	-24.33	32.04
100.00	16 31 3	4284.35	11.55	171.99	75.82	62.24	17 42 28	3684.4	7.74	165.27
110.00	3 32 18	1980.96	-29.56	20.31	79.29	108.00	4 5 19	1381.0	-26.82	12.20
110.00	17 28 17	4105.16	14.27	156.81	74.23	58.61	18 36 42	3505.2	10.01	150.29

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2536	TRA	-.4071	TC3	-.1815	BAU	.3808	SGT	663.1	SGR	1434.9	SG3	399.2	ST	375.1	SR	529.5
RDE	.3932	RRA	-.1877	RC3	-1.5219	FAU	.09255	RRT	.5471	RRF	.9661	RTF	.5678	CRT	.9504	CRS	-.9950
FDE	2.0376	FRA	-.3309	FC3	-4.3111	BSP	4432	SGB	1580.7	RZ3	.0550	R13	.9657	LSA	1197.2	MSA	142.0
BDE	.4679	BRA	.4483	BC3	1.5327	FSP	-1221	SG1	1487.2	SG2	535.5	THA	73.63	EL1	641.8	EL2	96.2

SS	1016.2	CST	-.9186	ALF	55.15

LAUNCH DATE SEP 19 1970 FLIGHT TIME 104.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 295.673

RL	150.28	LAL	-.00	LOL	355.64	VL	27.623	GAL	-7.60	AZL	86.07	HCA	135.24	SMA	132.29	ECC	.18878	INC	3.9293	V1	29.650
RP	107.48	LAP	2.77	LOP	130.95	VP	38.294	GAP	-1.26	AZP	92.79	TAL	216.84	TAP	352.08	RCA	107.31	APO	157.26	V2	35.259
RC	78.289	GL	25.48	GP	-46.53	ZAL	136.70	ZAP	78.97	ETS	7.31	ZAE	130.88	ETE	268.79	ZAC	54.44	ETC	256.42	CLP	-73.85

PLANETOCENTRIC CONIC

C3 19.024 VHL 4.362 DLA 11.02 RAL 218.48 RAD 6567.8 VEL 11.849 PTH 2.10 VHP 4.379 DPA -61.43 RAP 209.89 ECC 1.3131

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 34 41	2578.21	-26.41	65.06	82.81	100.60	1 17 39	1978.2	-24.68	57.62
90.00	15 34 59	4470.68	8.67	187.21	77.76	62.94	16 49 30	3870.9	4.97	180.48
100.00	2 2 1	2296.52	-27.60	44.88	82.55	101.97	2 40 18	1696.5	-25.67	36.61
100.00	16 50 19	4227.81	9.74	168.77	77.19	61.60	18 0 47	3627.8	5.87	162.12
110.00	3 23 50	2040.51	-30.74	24.55	81.66	105.75	3 57 50	1440.5	-28.28	16.22
110.00	17 45 0	4056.58	12.53	154.12	75.53	57.93	18 52 37	3456.6	8.21	147.69

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.3513	TRA	-.4301	TC3	-.3593	BAU	.4087	SGT	802.7	SGR	1524.3	SG3	392.6	ST	492.9	SR	642.0
RDE	.4850	RRA	-.1679	RC3	-1.5664	FAU	.08970	RRT	.6963	RRF	.9715	RTF	.7162	CRT	.9671	CRS	-.9974
FDE	2.1322	FRA	-.2634	FC3	-4.0820	BSP	4867	SGB	1722.7	RZ3	.0771	R13	.9700	LSA	1326.9	MSA	142.5
BDE	.5988	BRA	.4615	BC3	1.6071	FSP	-1206	SG1	1637.1	SG2	536.4	THA	67.29	EL1	803.1	EL2	100.2

SS	1061.2	CST	-.9487
ALF	52.72		

LAUNCH DATE SEP 19 1970 FLIGHT TIME 106.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 302.097

RL	150.28	LAL	-.00	LOL	355.64	VL	27.622	GAL	-7.52	AZL	85.66	HCA	138.48	SMA	132.28	ECC	.18796	INC	4.3358	V1	29.650
RP	107.48	LAP	2.87	LOP	134.20	VP	38.292	GAP	-.78	AZP	93.25	TAL	216.62	TAP	355.09	RCA	107.42	APO	157.14	V2	35.258
RC	80.507	GL	27.87	GP	-49.04	ZAL	135.13	ZAP	83.17	ETS	3.24	ZAE	128.27	ETE	263.30	ZAC	51.69	ETC	255.39	CLP	-79.55

PLANETOCENTRIC CONIC

C3 19.613 VHL 4.429 DLA 13.93 RAL 219.70 RAD 6567.8 VEL 11.874 PTH 2.11 VHP 4.470 DPA -62.52 RAP 203.92 ECC 1.3228

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 21 23	2657.59	-27.28	71.51	85.46	97.90	1 5 41	2057.6	-25.91	63.11
90.00	15 58 1	4405.93	6.64	183.52	79.57	62.41	17 11 27	3805.9	2.89	176.84
100.00	1 50 6	2371.52	-28.54	50.25	85.25	99.29	2 29 37	1771.5	-26.96	41.81
100.00	17 11 59	4167.24	7.76	165.36	78.96	61.04	18 21 27	3567.2	3.84	158.77
110.00	3 14 51	2106.31	-31.86	29.35	84.49	103.11	3 49 57	1506.3	-29.73	20.79
110.00	18 3 43	4005.21	10.66	151.32	77.21	57.35	19 10 29	3405.2	6.28	144.97

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.4728	TRA	-.4506	TC3	-.5373	BAU	.4360	SGT	980.4	SGR	1594.8	SG3	378.3	ST	637.8	SR	757.0
RDE	.5827	RRA	-.1351	RC3	-1.5736	FAU	.08479	RRT	.7882	RRF	.9755	RTF	.8062	CRT	.9765	CRS	-.9987
FDE	2.2029	FRA	-.1747	FC3	-3.7427	BSP	5268	SGB	1872.1	RZ3	.0976	R13	.9725	LSA	1473.9	MSA	144.5
BDE	.7504	BRA	.4704	BC3	1.6628	FSP	-1150	SG1	1793.5	SG2	536.5	THA	61.35	EL1	984.2	EL2	105.8

SS	1101.7	CST	-.9658
ALF	50.00		

LAUNCH DATE SEP 19 1970 FLIGHT TIME 108.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 308.491

RL	150.28	LAL	-.00	LOL	355.64	VL	27.616	GAL	-7.44	AZL	85.20	HCA	141.71	SMA	132.23	ECC	.18726	INC	4.7975	V1	29.650
RP	107.48	LAP	2.97	LOP	137.45	VP	38.287	GAP	-.31	AZP	93.77	TAL	216.30	TAP	358.01	RCA	107.47	APO	157.00	V2	35.257
RC	82.739	GL	30.46	GP	-51.54	ZAL	133.30	ZAP	87.06	ETS	358.88	ZAE	125.44	ETE	258.09	ZAC	48.94	ETC	254.26	CLP	-85.27

PLANETOCENTRIC CONIC

C3 20.407 VHL 4.517 DLA 16.18 RAL 221.12 RAD 6567.8 VEL 11.907 PTH 2.12 VHP 4.612 DPA -63.46 RAP 197.74 ECC 1.3359

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 6 21	2747.76	-27.96	78.02	88.58	94.70	0 52 9	2147.8	-27.01	69.48
90.00	16 24 22	4334.66	4.37	179.50	81.87	61.99	17 36 37	3734.7	.59	172.86
100.00	1 36 44	2456.28	-29.31	56.43	88.43	96.13	2 17 40	1856.3	-28.16	47.82
100.00	17 36 40	4101.37	5.57	161.70	81.21	60.58	18 45 1	3501.4	1.61	155.15
110.00	3 5 1	2180.04	-32.86	34.87	87.84	99.99	3 41 21	1580.0	-31.14	26.07
110.00	18 24 52	3950.37	8.63	148.37	79.33	56.80	19 30 43	3350.4	4.20	142.08

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.6228	TRA	-.4642	TC3	-.7003	BAU	.4680	SGT	1183.3	SGR	1657.1	SG3	358.5	ST	811.3	SR	853.9
RDE	.6717	RRA	-.1034	RC3	-1.5659	FAU	.07963	RRT	.8424	RRF	.9786	RTF	.8622	CRT	.9834	CRS	-.9993
FDE	2.2144	FRA	-.1043	FC3	-3.3779	BSP	5891	SGB	2036.2	RZ3	.1081	R13	.9751	LSA	1618.8	MSA	143.4
BDE	.9160	BRA	.4756	BC3	1.7153	FSP	-1126	SG1	1963.8	SG2	538.0	THA	56.08	EL1	1173.0	EL2	107.2

SS	1119.8	CST	-.9772
ALF	46.49		

LAUNCH DATE SEP 19 1970 FLIGHT TIME 110.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 314.855

RL 150.28 LAL -.00 LOL 355.64 VL 27.605 GAL -7.35 AZL 84.67 HCA 144.94 SMA 132.15 ECC .18667 INC 5.3305 V1 29.650
RP 107.49 LAP 3.06 LOP 140.70 VP 30.277 GAP .13 AZP 94.37 TAL 215.88 TAP .83 RCA 107.49 APO 156.82 V2 35.255
RC 84.985 GL 33.28 GP -54.06 ZAL 151.19 ZAP 90.96 ETS 354.24 ZAE 122.44 ETE 253.18 ZAC 46.18 ETC 253.03 CLP -90.96

PLANETOCENTRIC CONIC

C3 21.482 VHL 4.635 DLA 18.61 RAL 222.76 RAD 6567.9 VEL 11.952 PTH 2.13 VHP 4.811 DPA -64.30 RAP 191.39 ECC 1.3535

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 44 40	2852.58	-28.30	85.67	92.21	90.89	24 32 12	2252.6	-27.88	77.03
90.00	16 55 12	4254.49	1.80	175.02	84.78	61.74	18 6 7	3654.5	-2.00	168.39
100.00	1 21 11	2554.00	-29.81	63.65	92.16	92.36	2 3 45	1954.0	-29.16	54.91
100.00	18 5 18	4028.28	3.11	157.66	84.05	60.26	19 12 26	3428.3	-.87	151.14
110.00	2 53 54	2263.91	-33.67	41.28	91.82	96.28	3 31 38	1663.9	-32.44	32.26
110.00	18 49 4	3891.13	6.41	145.22	82.00	56.35	19 53 55	3291.1	1.94	138.98

DIFFERENTIAL CORRECTIONS

TDE .8042 TRA -.4700 TC3 -.8446 BAU .4968
RDE .7658 RRA -.0564 RC3-1.5095 FAU .07262
FDE 2.2071 FRA -.0182 FC3-2.9266 BSP 6424
BDE 1.1105 BRA .4743 BC3 1.7297 FSP -1054

MID-COURSE EXECUTION ACCURACY

SGT 1406.7 SGR 1601.0 SG3 332.4
RRT .8752 RRF .9806 RTF .8960
SGB 2199.6 RZS .1206 R13 .9763
SG1 2132.4 SG2 539.6 THA 50.97

ORBIT DETERMINATION ACCURACY

ST 1011.4 SR 947.8 SS 1134.6
CRT .9870 CRS -.9997 CST -.9837
LSA 1785.3 NSA 144.7 SSA 11.5
EL1 1381.6 EL2 111.4 ALF 43.12

LAUNCH DATE SEP 19 1970 FLIGHT TIME 112.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 321.191

RL 150.28 LAL -.00 LOL 355.64 VL 27.580 GAL -7.24 AZL 84.04 HCA 148.17 SMA 132.05 ECC .18617 INC 5.9566 V1 29.650
RP 107.50 LAP 3.14 LOP 143.95 VP 30.284 GAP .56 AZP 95.07 TAL 215.39 TAP 3.56 RCA 107.46 APO 156.63 V2 35.253
RC 87.241 GL 36.36 GP -56.63 ZAL 128.80 ZAP 93.62 ETS 349.33 ZAE 119.26 ETE 248.56 ZAC 43.37 ETC 251.66 CLP -96.58

PLANETOCENTRIC CONIC

C3 22.957 VHL 4.791 DLA 21.23 RAL 224.65 RAD 6567.9 VEL 12.014 PTH 2.14 VHP 5.077 DPA -65.08 RAP 184.84 ECC 1.3778

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 22 28	2978.48	-28.09	94.86	96.37	86.28	24 12 7	2578.5	-28.31	86.21
90.00	17 32 27	4180.74	-1.23	189.79	88.49	61.71	18 41 48	3560.7	-5.00	163.14
100.00	1 2 11	2669.65	-29.82	72.25	96.47	87.84	1 46 41	2069.6	-29.80	63.44
100.00	18 30 22	3944.80	.28	153.08	87.65	60.11	19 45 6	3344.8	-3.69	146.55
110.00	2 40 51	2360.98	-34.14	48.82	96.49	91.84	3 20 12	1761.0	-33.51	38.63
110.00	19 17 11	3826.23	3.95	141.81	85.37	56.02	20 20 58	3226.2	-.54	135.60

DIFFERENTIAL CORRECTIONS

TDE 1.0849 TRA -.4663 TC3 -.9561 BAU .5231
RDE .8594 RRA .0027 RC3-1.4109 FAU .06459
FDE 2.1716 FRA .0732 FC3-2.4357 BSP 6943
BDE 1.3375 BRA .4663 BC3 1.7043 FSP -964

MID-COURSE EXECUTION ACCURACY

SGT 1642.9 SGR 1698.3 SG3 301.8
RRT .8946 RRF .9820 RTF .9174
SGB 2362.9 RZS .1324 R13 .9769
SG1 2299.9 SG2 542.0 THA 46.06

ORBIT DETERMINATION ACCURACY

ST 1239.0 SR 1028.5 SS 1139.7
CRT .9992 CRS -.9999 CST -.9978
LSA 1967.3 NSA 146.7 SSA 10.0
EL1 1606.0 EL2 116.5 ALF 39.64

LAUNCH DATE SEP 19 1970 FLIGHT TIME 114.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 327.497

RL 150.28 LAL -.00 LOL 355.64 VL 27.571 GAL -7.15 AZL 83.29 HCA 151.38 SMA 131.91 ECC .18575 INC 6.7076 V1 29.650
RP 107.51 LAP 3.21 LOP 147.20 VP 30.248 GAP .97 AZP 95.89 TAL 214.81 TAP 6.21 RCA 107.41 APO 156.41 V2 35.249
RC 89.506 GL 38.70 GP -59.33 ZAL 126.09 ZAP 96.16 ETS 344.12 ZAE 115.92 ETE 244.16 ZAC 40.46 ETC 250.07 CLP-102.15

PLANETOCENTRIC CONIC

C3 25.022 VHL 5.002 DLA 24.05 RAL 226.82 RAD 6568.0 VEL 12.100 PTH 2.17 VHP 5.428 DPA -65.83 RAP 177.94 ECC 1.4118

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 52 4	3138.63	-26.84	106.41	100.96	80.63	23 44 22	2538.6	-27.87	97.89
90.00	18 20 10	4042.78	-5.02	163.19	93.36	62.09	19 27 33	3442.8	-8.71	156.46
100.00	0 37 15	2812.16	-28.99	82.75	101.32	82.38	1 24 7	2212.2	-29.74	74.03
100.00	19 21 36	3844.48	-3.11	147.57	92.32	60.26	20 25 41	3244.5	-7.05	141.00
110.00	2 24 47	2475.74	-34.03	57.77	101.90	86.54	3 6 3	1875.7	-34.13	48.53
110.00	19 50 34	3753.67	1.18	138.01	89.64	55.83	20 53 7	3153.7	-3.31	131.81

DIFFERENTIAL CORRECTIONS

TDE 1.2948 TRA -.4467 TC3-1.0249 BAU .5473
RDE .9479 RRA .0723 RC3-1.2754 FAU .05613
FDE 2.1066 FRA .1547 FC3-1.9419 BSP 7492
BDE 1.6047 BRA .4525 BC3 1.6361 FSP -869

MID-COURSE EXECUTION ACCURACY

SGT 1888.1 SGR 1877.8 SG3 268.2
RRT .9053 RRF .9824 RTF .9320
SGB 2525.8 RZS .1428 R13 .9772
SG1 2466.2 SG2 545.7 THA 41.28

ORBIT DETERMINATION ACCURACY

ST 1492.9 SR 1086.7 SS 1132.2
CRT .9904 CRS -.9999 CST -.9906
LSA 2160.9 NSA 148.8 SSA 8.6
EL1 1842.6 EL2 121.7 ALF 35.97

LAUNCH DATE SEP 19 1970 FLIGHT TIME 116.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 333.773

RL 150.28 LAL -.00 LOL 355.64 VL 27.549 GAL -7.01 AZL 82.37 HCA 154.61 SMA 131.75 ECC .18541 INC 7.6313 V1 29.650
RP 107.52 LAP 3.28 LOP 150.46 VP 30.228 GAP 1.37 AZP 96.80 TAL 214.16 TAP 8.77 RCA 107.32 APO 156.18 V2 35.245
RC 91.778 GL 43.34 GP -62.22 ZAL 123.05 ZAP 98.15 ETS 338.54 ZAE 112.38 ETE 239.85 ZAC 37.38 ETC 248.15 CLP-107.70

PLANETOCENTRIC CONIC

C3 27.991 VHL 5.291 DLA 27.08 RAL 229.32 RAD 6568.1 VEL 12.222 PTH 2.20 VHP 5.889 DPA -66.54 RAP 170.46 ECC 1.4607

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	21 59 22	3379.14	-23.10	123.00	105.35	73.15	22 55 42	2779.1	-23.19	114.96
90.00	19 32 49	3857.87	-10.77	152.66	100.27	63.65	20 37 7	3257.9	-14.23	145.68
100.00	23 55 52	3003.61	-26.49	96.41	106.40	75.62	24 45 55	2403.6	-28.21	88.03
100.00	20 19 1	3708.63	-7.66	140.04	98.61	61.02	21 20 49	3108.6	-11.47	133.33
110.00	2 3 47	2615.62	-32.93	60.54	107.98	80.27	2 47 23	2015.6	-33.92	59.44
110.00	20 31 31	3669.38	-2.04	133.02	95.15	55.87	21 32 40	3069.4	-6.51	127.38

DIFFERENTIAL CORRECTIONS

TDE 1.6344 TRA -.4083 TC3-1.0373 BAU .5641
RDE 1.0380 RRA .1613 RC3-1.0837 FAU .04606
FDE 2.0286 FRA .2363 FC3-1.4532 BSP 7920
BDE 1.9330 BRA .4344 BC3 1.5074 FSP -751

MID-COURSE EXECUTION ACCURACY

SGT 2139.7 SGR 1820.8 SG3 232.9
RRT .9089 RRF .9818 RTF .9418
SGB 2684.3 RZS .1543 R13 .9768
SG1 2627.2 SG2 550.3 THA 36.40

ORBIT DETERMINATION ACCURACY

ST 1776.4 SR 1119.7 SS 1117.8
CRT .9908 CRS -.9999 CST -.9925
LSA 2375.9 NSA 152.8 SSA 7.3
EL1 2095.9 EL2 128.8 ALF 32.12

LAUNCH DATE SEP 19 1970 FLIGHT TIME 118.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 340.015

```
RL  150.28 LAL   -.00 LOL 355.64 VL  27.524 GAL  -6.88 AZL  81.20 HCA 157.82 SMA 131.57 ECC .18514 INC 8.8027 V1  29.650
RP  107.53 LAP   3.31 LOP 153.71 VP  38.205 GAP   1.75 AZP  98.16 TAL 213.43 TAP  11.25 RCA 107.21 APO 155.93 V2  35.240
RC  94.056 GL   47.26 GP  -65.38 ZAL 119.68 ZAP  99.53 ETS 332.41 ZAE 108.62 ETE 235.40 ZAC  34.04 ETC 245.68 CLP-113.41
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PLANETOCENTRIC CONIC

```
C3  32.420 VHL  5.694 DLA  30.31 RAL 232.21 RAD 6568.3 VEL 12.401 PTH   2.24 VHP  6.504 DPA -67.15 RAP 162.08 ECC 1.5335
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
78.72	19 26 43	3948.23	-17.69	162.71	109.17	64.98	20 32 31	3348.2	-20.91	155.37
101.28	22 28 33	3362.42	-17.67	119.57	109.16	64.97	23 24 36	2762.4	-20.90	112.23
78.72	19 26 43	3948.23	-17.69	162.71	109.17	64.98	20 32 31	3348.2	-20.91	155.37
101.28	22 28 33	3362.42	-17.67	119.57	109.16	64.97	23 24 36	2762.4	-20.90	112.23
110.00	1 33 14	2796.31	-30.06	81.82	114.37	72.90	2 19 51	2196.3	-32.10	73.21
110.00	21 25 0	3562.34	-6.11	128.00	102.53	56.30	22 24 30	2962.3	-10.50	121.66

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 2.0650 TRA -.3320 TC3 -.9938 BAU  .5779   SGT 2397.6 SGR 1520.3 SG3  197.1     ST  2081.5 SR  1097.2 SS  1086.5
 RDE 1.0862 RRA  .2605 RC3 -.8889 FAU .03833   RRT  .9051 RRF  .9788 RTF  .9501     CRT  .9903 CRS -.9995 CST -.9940
 FDE 1.9182 FRA  .2965 FC3-1.0235 BSP   8509   SGB 2839.0 RZS  .1631 R13  .9768     LSA 2587.0 MSA  156.0 SSA    6.2
 BDE 2.3333 BRA  .4221 BC3 1.3333 FSP   -651   SG1 2783.9 SG2  556.8 THA  31.24     EL1 2349.1 EL2  135.1 ALF  27.66
```

LAUNCH DATE SEP 19 1970 FLIGHT TIME 120.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 346.223

```
RL  150.28 LAL   -.00 LOL 355.64 VL  27.496 GAL  -6.74 AZL  79.65 HCA 161.02 SMA 131.37 ECC .18491 INC10.3466 V1  29.650
RP  107.55 LAP   3.35 LOP 156.95 VP  38.180 GAP   2.12 AZP  99.80 TAL 212.63 TAP  13.65 RCA 107.08 APO 155.66 V2  35.235
RC  96.339 GL   51.42 GP  -68.91 ZAL 115.98 ZAP 100.25 ETS 325.37 ZAE 104.53 ETE 230.33 ZAC  30.32 ETC 242.22 CLP-119.65
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PLANETOCENTRIC CONIC

```
C3  39.355 VHL  6.273 DLA  33.67 RAL 235.58 RAD 6568.5 VEL 12.678 PTH   2.30 VHP  7.349 DPA -67.50 RAP 152.47 ECC 1.6477
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
70.98	18 47 29	4161.91	-17.91	179.06	116.58	61.00	19 56 51	3561.9	-21.63	171.96
109.02	23 34 39	3246.64	-17.89	110.89	116.57	60.99	24 28 45	2646.6	-21.62	103.79
70.98	18 47 29	4161.91	-17.91	179.06	116.58	61.00	19 56 51	3561.9	-21.63	171.96
109.02	23 34 39	3246.64	-17.89	110.89	116.57	60.99	24 28 45	2646.6	-21.62	103.79
110.00	0 29 28	3091.02	-22.54	101.39	119.17	63.59	1 20 59	2491.0	-25.89	93.84
110.00	22 58 47	3565.53	-13.38	117.40	113.83	58.25	23 51 52	2765.5	-17.48	110.69

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 2.6398 TRA -.2089 TC3 -.8837 BAU  .5783   SGT 2663.6 SGR 1351.9 SG3  162.3     ST  2412.2 SR   997.3 SS  1048.1
 RDE 1.0829 RRA  .3835 RC3 -.6535 FAU .02967   RRT  .8879 RRF  .9693 RTF  .9571     CRT  .9879 CRS -.9983 CST -.9952
 FDE 1.8027 FRA  .3503 FC3 -.6527 BSP   8995   SGB 2987.0 RZS  .1719 R13  .9767     LSA 2808.2 MSA  161.1 SSA    5.1
 BDE 2.8532 BRA  .4367 BC3 1.0991 FSP   -543   SG1 2933.1 SG2  564.9 THA  25.26     EL1 2606.3 EL2  143.3 ALF  22.29
```

LAUNCH DATE SEP 19 1970 FLIGHT TIME 122.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 352.389

```
RL  150.28 LAL   -.00 LOL 355.64 VL  27.465 GAL  -6.58 AZL  77.51 HCA 164.20 SMA 131.15 ECC .18472 INC12.4868 V1  29.650
RP  107.57 LAP   3.37 LOP 160.20 VP  38.152 GAP   2.47 AZP 102.03 TAL 211.75 TAP  15.96 RCA 106.92 APO 155.37 V2  35.229
RC  98.624 GL   55.72 GP  -72.91 ZAL 111.96 ZAP 100.28 ETS 316.50 ZAE 100.00 ETE 223.64 ZAC  26.07 ETC 236.82 CLP-127.39
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PLANETOCENTRIC CONIC

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C3  50.974 VHL  7.140 DLA  37.03 RAL 239.53 RAD 6568.9 VEL 13.128 PTH   2.40 VHP  8.561 DPA -67.29 RAP 141.41 ECC 1.8389
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.07	18 29 41	4327.80	-17.12	191.70	125.45	56.65	19 41 48	3727.8	-21.38	184.95
114.93	0 27 53	3210.71	-17.10	107.55	125.44	56.64	1 21 24	2610.7	-21.37	100.80
65.07	18 29 41	4327.80	-17.12	191.70	125.45	56.65	19 41 48	3727.8	-21.38	184.95
114.93	0 27 53	3210.71	-17.10	107.55	125.44	56.64	1 21 24	2610.7	-21.37	100.80
65.07	18 29 41	4327.80	-17.12	191.70	125.45	56.65	19 41 48	3727.8	-21.38	184.95
114.93	0 27 53	3210.71	-17.10	107.55	125.44	56.64	1 21 24	2610.7	-21.37	100.80

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 3.4328 TRA  .0034 TC3 -.7119 BAU  .5586   SGT 2936.4 SGR 1073.6 SG3  129.8     ST  2755.0 SR   749.9 SS  1004.6
 RDE  .9151 RRA  .5255 RC3 -.4063 FAU .02146   RRT  .8280 RRF  .9313 RTF  .9649     CRT  .9774 CRS -.9921 CST -.9962
 FDE 1.6857 FRA  .3938 FC3 -.3645 BSP   9456   SGB 3128.5 RZS  .1790 R13  .9771     LSA 3022.1 MSA  167.9 SSA    4.0
 BDE 3.5522 BRA  .5256 BC3  .8197 FSP   -438   SG1 3073.1 SG2  575.3 THA  17.47     EL1 2851.1 EL2  153.2 ALF  14.94
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LAUNCH DATE SEP 19 1970 FLIGHT TIME 124.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 358.499

```
RL  150.28 LAL   -.00 LOL 355.64 VL  27.432 GAL  -6.41 AZL  74.34 HCA 167.35 SMA 130.91 ECC .18454 INC15.6646 V1  29.650
RP  107.59 LAP   3.39 LOP 163.45 VP  38.122 GAP   2.80 AZP 105.30 TAL 210.80 TAP  18.15 RCA 106.76 APO 155.07 V2  35.222
RC 100.910 GL   59.89 GP  -77.37 ZAL 107.68 ZAP  99.59 ETS 303.29 ZAE  94.79 ETE 212.71 ZAC  21.06 ETC 227.08 CLP-139.66
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PLANETOCENTRIC CONIC

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C3  72.404 VHL  8.509 DLA  40.12 RAL 244.17 RAD 6569.4 VEL 13.920 PTH   2.54 VHP 10.414 DPA -66.06 RAP 129.10 ECC 2.1916
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.30	18 24 58	4479.90	-14.87	202.63	135.83	52.30	19 39 37	3879.9	-19.65	196.33
119.70	1 9 40	3228.85	-14.85	107.38	135.82	52.29	2 3 29	2628.8	-19.64	101.08
60.30	18 24 58	4479.90	-14.87	202.63	135.83	52.30	19 39 37	3879.9	-19.65	196.33
119.70	1 9 40	3228.85	-14.85	107.38	135.82	52.29	2 3 29	2628.8	-19.64	101.08
60.30	18 24 58	4479.90	-14.87	202.63	135.83	52.30	19 39 37	3879.9	-19.65	196.33
119.70	1 9 40	3228.85	-14.85	107.38	135.82	52.29	2 3 29	2628.8	-19.64	101.08

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 4.5431 TRA  .4023 TC3 -.4841 BAU  .4968   SGT 3187.8 SGR  659.9 SG3  101.1     ST  3061.0 SR   237.1 SS   968.3
 RDE  .2430 RRA  .6470 RC3 -.1703 FAU .01371   RRT  .4481 RRF  .8147 RTF  .9754     CRT  .7171 CRS -.7655 CST -.9974
 FDE 1.5891 FRA  .4350 FC3 -.1639 BSP   9827   SGB 3255.4 RZS  .1814 R13  .9788     LSA 3214.4 MSA  176.9 SSA    3.0
 BDE 4.5496 BRA  .7618 BC3  .5132 FSP   -342   SG1 3202.0 SG2  587.3 THA   5.48     EL1 3065.8 EL2  165.0 ALF   3.19
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LAUNCH DATE SEP 19 1970 FLIGHT TIME 126.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 364.524

RL	150.28	LAL	-.00	LOL	355.64	VL	27.397	GAL	-6.21	AZL	69.13	HCA	170.43	SHA	130.67	ECC	.18431	INC20.8733	V1	29.650
RP	107.61	LAP	3.39	LOP	166.70	VP	38.090	GAP	3.10	AZP	110.61	TAL	209.74	TAP	20.18	RCA	106.58	APO 154.75	V2	35.215
RC	103.196	GL	63.31	GP	-81.65	ZAL	103.24	ZAP	98.18	ETS	278.18	ZAE	88.41	ETE	189.84	ZAC	14.83	ETC 206.24	CLP	-168.54

PLANETOCENTRIC CONIC

C3	117.986	VHL	10.862	DLA	42.32	RAL	249.60	RAD	6570.2	VEL	15.470	PTH	2.76	VHP	13.520	DPA	-63.01	RAP 116.41	ECC	2.9417

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.13	18 32 45	4625.13	-10.82	211.74	147.50	48.83	19 49 51	4025.1	-16.01	205.90
122.87	1 45 9	3297.35	-10.80	109.87	147.49	48.83	2 40 6	2697.4	-16.00	104.03
57.13	18 32 45	4625.13	-10.82	211.74	147.50	48.83	19 49 51	4025.1	-16.01	205.90
122.87	1 45 9	3297.35	-10.80	109.87	147.49	48.83	2 40 6	2697.4	-16.00	104.03
57.13	18 32 45	4625.13	-10.82	211.74	147.50	48.83	19 49 51	4025.1	-16.01	205.90
122.87	1 45 9	3297.35	-10.80	109.87	147.49	48.83	2 40 6	2697.4	-16.00	104.03

DIFFERENTIAL CORRECTIONS

TDE	5.7323	TRA	1.1882	TC3	-.2151	BAU	.3394
RDE	-2.0233	RRA	.4445	RC3	-.0039	FAU	.00612
FDE	1.5569	FRA	.4923	FC3	-.0449	BSP	10146
BDE	6.0790	BRA	1.2687	BC3	.2152	FSP	-261

MID-COURSE EXECUTION ACCURACY

SGT	3174.9	SGR	1113.4	SG3	77.6		
RRT	-.8358	RRF	-.7640	RTF	.9908		
SGB	3364.5	RZS	-.1697	R13	-.9832		
SG1	3313.1	SG2	585.9	THA	163.12		

ORBIT DETERMINATION ACCURACY

ST	3034.4	SR	1071.5	SS	967.2
CRT	-.9851	CRS	.9766	CST	-.9990
LSA	3355.3	NSA	183.4	SSA	2.0
EL1	3213.3	EL2	174.1	ALF	160.76

LAUNCH DATE SEP 19 1970 FLIGHT TIME 128.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 370.371

RL	150.28	LAL	-.00	LOL	355.64	VL	27.360	GAL	-5.98	AZL	59.22	HCA	173.37	SHA	130.41	ECC	.18387	INC30.7829	V1	29.650
RP	107.64	LAP	3.39	LOP	169.94	VP	38.056	GAP	3.35	AZP	120.61	TAL	208.53	TAP	21.90	RCA	106.43	APO 154.39	V2	35.207
RC	105.482	GL	64.30	GP	-80.54	ZAL	98.83	ZAP	96.12	ETS	251.79	ZAE	79.60	ETE	145.56	ZAC	6.36	ETC 174.25	CLP	130.40

PLANETOCENTRIC CONIC

C3	238.875	VHL	15.456	DLA	42.10	RAL	255.85	RAD	6571.4	VEL	18.979	PTH	3.08	VHP	19.494	DPA	-56.65	RAP 104.71	ECC	4.9313

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.44	18 58 12	4741.62	-5.36	217.08	159.70	48.18	20 17 14	4141.6	-10.66	211.44
122.56	2 7 50	3420.96	-5.35	115.83	159.69	48.18	3 5 0	2821.0	-10.64	110.19
57.44	18 58 12	4741.62	-5.36	217.08	159.70	48.18	20 17 14	4141.6	-10.66	211.44
122.56	2 7 50	3420.96	-5.35	115.83	159.69	48.18	3 5 0	2821.0	-10.64	110.19
57.44	18 58 12	4741.62	-5.36	217.08	159.70	48.18	20 17 14	4141.6	-10.66	211.44
122.56	2 7 50	3420.96	-5.35	115.83	159.69	48.18	3 5 0	2821.0	-10.64	110.19

DIFFERENTIAL CORRECTIONS

TDE	4.3782	TRA	2.0086	TC3	-.0082	BAU	.1784
RDE	-7.4619	RRA	-1.2882	RC3	-.0551	FAU	-.00364
FDE	1.6969	FRA	.6307	FC3	.0132	BSP	10319
BDE	8.6505	BRA	2.3867	BC3	.0559	FSP	-201

MID-COURSE EXECUTION ACCURACY

SGT	1907.9	SGR	2845.3	SG3	60.9		
RRT	-.9449	RRF	-.9725	RTF	.9934		
SGB	3425.7	RZS	-.1279	R13	-.9905		
SG1	3385.3	SG2	525.0	THA	125.26		

ORBIT DETERMINATION ACCURACY

ST	1650.0	SR	2773.0	SS	1071.4
CRT	-.9935	CRS	.9968	CST	-.9994
LSA	3395.8	NSA	168.9	SSA	1.7
EL1	3222.7	EL2	161.2	ALF	120.68

LAUNCH DATE SEP 19 1970 FLIGHT TIME 130.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 375.701

RL	150.28	LAL	-.00	LOL	355.64	VL	27.322	GAL	-5.64	AZL	36.08	HCA	175.83	SHA	130.14	ECC	.18264	INC53.9172	V1	29.650
RP	107.86	LAP	3.37	LOP	173.18	VP	38.021	GAP	3.46	AZP	143.84	TAL	206.90	TAP	22.73	RCA	106.37	APO 153.91	V2	35.198
RC	107.765	GL	57.85	GP	-67.27	ZAL	94.88	ZAP	93.70	ETS	196.94	ZAE	64.38	ETE	112.85	ZAC	9.85	ETC 277.08	CLP	99.61

PLANETOCENTRIC CONIC

C3	673.578	VHL	25.953	DLA	34.82	RAL	261.27	RAD	6572.7	VEL	28.193	PTH	3.42	VHP	33.054	DPA	-42.86	RAP 95.61	ECC	12.0854

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
68.84	20 17 9	4680.05	-.61	208.25	170.41	55.19	21 35 9	4080.0	-5.16	202.08
111.16	1 33 50	3686.82	-.59	133.99	170.40	55.19	2 35 17	3086.8	-5.14	127.82
68.84	20 17 9	4680.05	-.61	208.25	170.41	55.19	21 35 9	4080.0	-5.16	202.08
111.16	1 33 50	3686.82	-.59	133.99	170.40	55.19	2 35 17	3086.8	-5.14	127.82
68.84	20 17 9	4680.05	-.61	208.25	170.41	55.19	21 35 9	4080.0	-5.16	202.08
111.16	1 33 50	3686.82	-.59	133.99	170.40	55.19	2 35 17	3086.8	-5.14	127.82

DIFFERENTIAL CORRECTIONS

TDE	-1.1376	TRA	1.8054	TC3	-.0363	BAU	1.7643
RD	-12.7452	RRA	-4.8880	RC3	-.1925	FAU	-.02804
FDE	2.2294	FRA	1.0882	FC3	.0360	BSP	9796
BDE	12.7958	BRA	5.1487	BC3	.1959	FSP	-165

MID-COURSE EXECUTION ACCURACY

SGT	533.8	SGR	3282.8	SG3	52.1		
RRT	.1878	RRF	-.9955	RTF	-.1008		
SGB	3306.2	RZS	-.0928	R13	-.9951		
SG1	3264.4	SG2	524.1	THA	88.19		

ORBIT DETERMINATION ACCURACY

ST	282.6	SR	2841.4	SS	1427.9
CRT	.8165	CRS	.9993	CST	.7944
LSA	3187.9	NSA	171.2	SSA	1.8
EL1	2850.8	EL2	162.6	ALF	85.34

LAUNCH DATE SEP 19 1970 FLIGHT TIME 132.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 386.378

RL	150.28	LAL	-.00	LOL	355.64	VL	27.282	GAL	-6.36	AZL	166.86	HCA	183.43	SHA	129.87	ECC	.19150	INC76.8584	V1	29.650
RP	107.88	LAP	3.34	LOP	176.43	VP	37.984	GAP	5.05	AZP	13.16	TAL	208.98	TAP	32.42	RCA	105.00	APO 154.74	V2	35.189
RC	110.046	GL	-48.19	GP	53.69	ZAL	94.12	ZAP	93.97	ETS	180.19	ZAE	58.08	ETE	261.98	ZAC	150.81	ETC 275.29	CLP	96.72

PLANETOCENTRIC CONIC

C3	1255.059	VHL	35.427	DLA	-70.83	RAL	248.19	RAD	6573.1	VEL	37.099	PTH	3.54	VHP	45.827	DPA	77.96	RAP 86.05	ECC	21.6551

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.90	4 47 20	2449.53	-1.00	78.77	158.52	160.83	5 28 10	1849.5	6.56	76.56
158.10	15 19 21	690.98	-.99	287.71	158.55	160.83	15 30 52	91.0	6.56	285.49
21.90	4 47 20	2449.53	-1.00	78.77	158.52	160.83	5 28 10	1849.5	6.56	76.56
158.10	15 19 21	690.98	-.99	287.71	158.55	160.83	15 30 52	91.0	6.56	285.49
21.90	4 47 20	2449.53	-1.00	78.77	158.52	160.83	5 28 10	1849.5	6.56	76.56
158.10	15 19 21	690.98	-.99	287.71	158.55	160.83	15 30 52	91.0	6.56	285.49

DIFFERENTIAL CORRECTIONS

TDE	8.2888	TRA	.6858	TC3	-.0981	BAU	3.7040
RD	-14.1384	RRA	1.1836	RC3	.1978	FAU	-.05896
FDE	-3.1788	FRA	.2712	FC3	.0407	BSP	8986
BDE	15.4731	BRA	1.3531	BC3	.2208	FSP	-161

MID-COURSE EXECUTION ACCURACY

SGT	1273.2	SGR	2744.4	SG3	52.2		
RRT	-.8801	RRF	.9982	RTF	-.8836		
SGB	3025.4	RZS	-.0897	R13	.9953		
SG1	2977.8	SG2	534.7	THA	113.25		

ORBIT DETERMINATION ACCURACY

ST	1021.6	SR	2293.7	SS	2042.0
CRT	-.9854	CRS	-1.0000	CST	.9851
LSA	3232.2	NSA	166.1	SSA	2.4
EL1	2505.8	EL2	159.4	ALF	113.80

LAUNCH DATE SEP 19 1970 FLIGHT TIME 134.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 390.963

```
RL  150.28 LAL   -.00 LOL 355.64 VL  27.241 GAL  -5.86 AZL 129.47 HCA 185.20 SMA 129.58 ECC .18882 INC39.4669 V1  29.650
RP  107.72 LAP   3.30 LOP 179.67 VP  37.945 GAP   4.94 AZP  50.65 TAL 206.85 TAP  32.06 RCA 105.11 APO 154.05 V2  35.179
RC 112.324 GL  -62.35 GP   73.99 ZAL  96.80 ZAP  97.00 ETS 165.50 ZAE  80.06 ETE 248.19 ZAC 151.73 ETC 269.86 CLP 116.21
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PLANETOCENTRIC CONIC

```
C3 378.148 VHL 19.446 DLA -80.79 RAL 198.14 RAD 6572.0 VEL 22.348 PTH   3.25 VHP 25.348 DPA  79.50 RAP 249.22 ECC 7.2234
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
10.48	1 4 37	2392.39	4.20	83.76	107.45	170.76	1 44 30	1792.4	12.10	82.87
169.52	12 22 45	5880.14	4.20	259.22	107.47	170.76	14 0 45	5280.1	12.10	258.33
10.48	1 4 37	2392.39	4.20	83.76	107.45	170.76	1 44 30	1792.4	12.10	82.87
169.52	12 22 45	5880.14	4.20	259.22	107.47	170.76	14 0 45	5280.1	12.10	258.33
10.48	1 4 37	2392.39	4.20	83.76	107.45	170.76	1 44 30	1792.4	12.10	82.87
169.52	12 22 45	5880.14	4.20	259.22	107.47	170.76	14 0 45	5280.1	12.10	258.33

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.1216 TRA  .3064 TC3 -.0330 BAU  .7726   SGT  579.3 SGR 3598.3 SG3   60.9     ST   172.9 SR  2649.0 SS  1216.0
 RDE-0.6286 RRA-1.3474 RC3  .1492 FAU-.00928   RRT -.6626 RRF  .9958 RTF -.5956     CRT -.0760 CRS -.9992 CST  .0352
 FDE-1.0288 FRA -.2428 FC3  .0213 BSP  11417   SGB 3644.7 RZS -.0986 RIS  .9946     LSA 2914.4 HSA  178.3 SSA    1.6
 BDE 0.6294 BRA 1.3018 BC3  .1528 FSP   -197   SG1 3619.0 SG2  431.4 THA  96.18     EL1 2649.0 EL2  172.4 ALF  90.29
```

LAUNCH DATE SEP 19 1970 FLIGHT TIME 136.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 396.546

```
RL  150.28 LAL   -.00 LOL 355.64 VL  27.199 GAL  -5.55 AZL 114.24 HCA 187.95 SMA 129.29 ECC .18827 INC24.2355 V1  29.650
RP  107.75 LAP   3.26 LOP 182.90 VP  37.906 GAP   5.10 AZP  65.97 TAL 205.35 TAP  33.30 RCA 104.95 APO 153.63 V2  35.169
RC 114.599 GL  -64.05 GP   78.23 ZAL 100.03 ZAP 101.28 ETS 106.96 ZAE  91.61 ETE 190.14 ZAC 160.39 ETC 230.30 CLP 163.43
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PLANETOCENTRIC CONIC

```
C3 152.732 VHL 12.358 DLA -78.22 RAL 179.25 RAD 6570.7 VEL 16.555 PTH   2.88 VHP 16.293 DPA  67.14 RAP 248.64 ECC 3.5136
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
13.41	23 51 5	2262.55	12.56	80.09	86.57	167.92	24 28 47	1662.5	20.37	79.53
166.59	11 1 38	5757.98	12.56	259.19	86.59	167.92	12 37 36	5158.0	20.38	257.83
13.41	23 51 5	2262.55	12.56	80.09	86.57	167.92	24 28 47	1662.5	20.37	79.53
166.59	11 1 38	5757.98	12.56	259.19	86.59	167.92	12 37 36	5158.0	20.38	257.83
13.41	23 51 5	2262.55	12.56	80.09	86.57	167.92	24 28 47	1662.5	20.37	79.53
166.59	11 1 38	5757.98	12.56	259.19	86.59	167.92	12 37 36	5158.0	20.38	257.83

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-3.3004 TRA-1.1955 TC3 -.0840 BAU  .1785   SGT 3122.7 SGR 2228.9 SG3   76.5     ST  1733.3 SR   826.3 SS   714.2
 RDE-1.0985 RRA -.9554 RC3 -.0242 FAU .00747   RRT  .9596 RRF  .9479 RTF  .9982     CRT  .9140 CRS -.9026 CST -.9996
 FDE -.9797 FRA -.3318 FC3 -.0424 BSP  11817   SGB 3636.6 RZS -.1302 RIS  .9903     LSA 2024.6 HSA  313.7 SSA    1.7
 BDE 3.4784 BRA 1.5303 BC3  .0874 FSP   -245   SG1 3801.9 SG2  515.1 THA  35.15     EL1 1895.6 EL2  306.5 ALF  24.22
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LAUNCH DATE SEP 19 1970 FLIGHT TIME 138.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 402.386

```
RL  150.28 LAL   -.00 LOL 355.64 VL  27.156 GAL  -5.29 AZL 107.04 HCA 190.96 SMA 129.00 ECC .18833 INC17.0441 V1  29.650
RP  107.79 LAP   3.20 LOP 186.14 VP  37.865 GAP   5.34 AZP  73.25 TAL 204.00 TAP  34.97 RCA 104.70 APO 153.29 V2  35.158
RC 116.871 GL  -61.52 GP   73.61 ZAL 102.98 ZAP 106.01 ETS  69.69 ZAE  99.11 ETE 153.86 ZAC 162.33 ETC 217.53 CLP-167.82
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PLANETOCENTRIC CONIC

```
C3  81.310 VHL  9.017 DLA -75.13 RAL 184.36 RAD 6569.6 VEL 14.236 PTH   2.59 VHP 12.075 DPA  58.33 RAP 246.15 ECC 2.3382
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.95	0 22 27	2127.52	20.86	76.54	88.54	164.06	0 57 55	1527.5	28.53	74.46
163.05	11 14 58	5634.91	20.87	258.33	88.56	164.06	12 48 53	5034.9	28.54	256.25
16.95	0 22 27	2127.52	20.86	76.54	88.54	164.06	0 57 55	1527.5	28.53	74.46
163.05	11 14 58	5634.91	20.87	258.33	88.56	164.06	12 48 53	5034.9	28.54	256.25
16.95	0 22 27	2127.52	20.86	76.54	88.54	164.06	0 57 55	1527.5	28.53	74.46
163.05	11 14 58	5634.91	20.87	258.33	88.56	164.06	12 48 53	5034.9	28.54	256.25

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-2.6873 TRA-1.3861 TC3 -.4506 BAU  .4927   SGT 3918.4 SGR  567.6 SG3   99.1     ST  1994.1 SR   555.0 SS   736.6
 RDE  .8725 RRA -.0335 RC3  .0492 FAU .01733   RRT -.3299 RRF -.4904 RTF  .9817     CRT -.8323 CRS  .9095 CST -.9874
 FDE-1.0302 FRA -.3559 FC3 -.1846 BSP  12248   SGB 3959.3 RZS  .1699 RIS -.9828     LSA 2174.8 HSA  311.5 SSA    2.4
 BDE 2.8254 BRA 1.3865 BC3  .4532 FSP   -321   SG1 3923.0 SG2  535.2 THA 177.21     EL1 2048.1 EL2  299.5 ALF 166.67
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LAUNCH DATE SEP 19 1970 FLIGHT TIME 140.00 ARRIVAL DATE FEB 6 1971

HELIOCENTRIC CONIC DISTANCE 408.307

```
RL  150.28 LAL   -.00 LOL 355.64 VL  27.112 GAL  -5.04 AZL 102.96 HCA 194.07 SMA 128.70 ECC .18867 INC12.9625 V1  29.650
RP  107.82 LAP   3.13 LOP 189.37 VP  37.823 GAP   5.60 AZP  77.41 TAL 202.69 TAP  36.76 RCA 104.42 APO 152.98 V2  35.147
RC 119.158 GL  -57.68 GP   67.45 ZAL 105.39 ZAP 110.87 ETS  59.74 ZAE 104.78 ETE 145.48 ZAC 160.36 ETC 227.67 CLP-158.25
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PLANETOCENTRIC CONIC

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C3  51.389 VHL  7.169 DLA -72.07 RAL 193.11 RAD 6568.9 VEL 13.143 PTH   2.40 VHP  9.797 DPA  50.96 RAP 244.13 ECC 1.8457
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
20.47	1 4 38	2010.04	27.56	71.29	93.37	159.67	1 38 8	1410.0	35.02	68.32
159.53	11 42 38	5532.51	27.57	256.66	93.40	159.67	13 14 51	4932.5	35.03	253.69
20.47	1 4 38	2010.04	27.56	71.29	93.37	159.67	1 38 8	1410.0	35.02	68.32
159.53	11 42 38	5532.51	27.57	256.66	93.40	159.67	13 14 51	4932.5	35.03	253.69
20.47	1 4 38	2010.04	27.56	71.29	93.37	159.67	1 38 8	1410.0	35.02	68.32
159.53	11 42 38	5532.51	27.57	256.66	93.40	159.67	13 14 51	4932.5	35.03	253.69

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-2.4614 TRA-1.2207 TC3 -.9062 BAU  .6393   SGT 3949.4 SGR  961.4 SG3  125.3     ST  2185.2 SR   851.7 SS   832.2
 RDE 1.0577 RRA  .1322 RC3  .2114 FAU .02541   RRT -.8281 RRF -.9307 RTF  .9691     CRT -.9464 CRS  .9869 CST -.9860
 FDE-1.1810 FRA -.3522 FC3 -.4281 BSP  12649   SGB 4064.7 RZS  .2026 RIS -.9749     LSA 2473.2 HSA  276.1 SSA    3.2
 BDE 2.6790 BRA 1.2279 BC3  .9305 FSP   -409   SG1 4030.2 SG2  528.2 THA 168.40     EL1 2331.1 EL2  257.9 ALF 159.49
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LAUNCH DATE SEP 19 1970 FLIGHT TIME 142.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 414.257

RL	150.28	LAL	-.00	LOL	355.64	VL	27.068	GAL	-4.78	AZL	100.34	HCA	197.22	SMA	128.40	ECC	.18917	INC	10.3429
RP	107.86	LAP	3.05	LOP	192.60	VP	37.780	GAP	5.87	AZP	80.11	TAL	201.37	TAP	38.59	RCA	104.11	APO	152.69
RC	121.402	GL	-53.49	GP	61.46	ZAL	107.19	ZAP	115.64	ETS	56.06	ZAE	109.30	ETE	143.87	ZAC	156.69	ETC	236.80

V1	29.650	V2	35.136	CLP	-154.95														

PLANETOCENTRIC CONIC

C3	36.302	VHL	6.025	DLA	-68.96	RAL	201.58	RAD	6568.4	VEL	12.557	PTH	2.28	VHP	8.445	DPA	44.42	RAP	242.72
ECC	1.5974																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
24.07	1 46 4	1913.23	32.41	65.36	97.43	154.83	2 17 57	1313.2	39.58	61.38
155.93	12 8 45	5454.52	32.42	254.49	97.45	154.83	13 39 39	4854.5	39.59	250.50
24.07	1 46 4	1913.23	32.41	65.36	97.43	154.83	2 17 57	1313.2	39.58	61.38
155.93	12 8 45	5454.52	32.42	254.49	97.45	154.83	13 39 39	4854.5	39.59	250.50
24.07	1 46 4	1913.23	32.41	65.36	97.43	154.83	2 17 57	1313.2	39.58	61.38
155.93	12 8 45	5454.52	32.42	254.49	97.45	154.83	13 39 39	4854.5	39.59	250.50

DIFFERENTIAL CORRECTIONS

TDE	-2.3592	TRA	-1.0732	TC3	-1.4366	BAU	.7197
RDE	.9874	RRA	.1321	RC3	.3675	FAU	.03232
FDE	-1.2855	FRA	-.3214	FC3	-.7709	BSP	12924
BDE	2.5390	BRA	1.0813	BC3	1.4829	FSP	-496

MID-COURSE EXECUTION ACCURACY

SGT	4003.3	SGR	1095.6	SGS	151.7		
RRT	-.8778	RRF	-.9656	RTF	.9601		
SGB	4150.5	RZS	.2273	R13	-.9674		
SG1	4119.0	SG2	510.1	THA	166.28		

ORBIT DETERMINATION ACCURACY

ST	2382.9	SR	945.0	SS	911.4		
CRT	-.9677	CRS	.9955	CST	-.9872		
LSA	2709.3	NSA	247.3	SSA	4.1		
EL1	2553.7	EL2	222.3	ALF	158.84		

LAUNCH DATE SEP 19 1970 FLIGHT TIME 144.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 420.213

RL	150.28	LAL	-.00	LOL	355.64	VL	27.022	GAL	-4.53	AZL	98.52	HCA	200.39	SMA	128.10	ECC	.18981	INC	8.5166
RP	107.89	LAP	2.96	LOP	195.83	VP	37.737	GAP	6.14	AZP	82.01	TAL	200.04	TAP	40.43	RCA	103.78	APO	152.41
RC	123.660	GL	-49.30	GP	55.95	ZAL	108.34	ZAP	120.21	ETS	54.25	ZAE	112.97	ETE	144.50	ZAC	152.57	ETC	242.92

V1	29.650	V2	35.124	CLP	-153.97														

PLANETOCENTRIC CONIC

C3	27.690	VHL	5.262	DLA	-65.07	RAL	209.11	RAD	6568.1	VEL	12.209	PTH	2.19	VHP	7.595	DPA	38.53	RAP	241.85
ECC	1.4557																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.67	2 24 7	1833.85	35.64	59.09	100.36	149.80	2 54 41	1233.9	42.44	54.06
152.33	12 30 48	5397.76	35.65	252.13	100.38	149.79	14 0 46	4797.8	42.45	247.10
27.67	2 24 7	1833.85	35.64	59.09	100.36	149.80	2 54 41	1233.9	42.44	54.06
152.33	12 30 48	5397.76	35.65	252.13	100.38	149.79	14 0 46	4797.8	42.45	247.10
27.67	2 24 7	1833.85	35.64	59.09	100.36	149.80	2 54 41	1233.9	42.44	54.06
152.33	12 30 48	5397.76	35.65	252.13	100.38	149.79	14 0 46	4797.8	42.45	247.10

DIFFERENTIAL CORRECTIONS

TDE	-2.2195	TRA	-.9480	TC3	-2.0314	BAU	.7746
RDE	.8672	RRA	.0905	RC3	.5017	FAU	.03822
FDE	-1.3269	FRA	-.2704	FC3	-1.1949	BSP	13292
BDE	2.3830	BRA	.9531	BC3	2.0924	FSP	-582

MID-COURSE EXECUTION ACCURACY

SGT	4097.0	SGR	1113.7	SGS	176.8		
RRT	-.8830	RRF	-.9735	RTF	.9540		
SGB	4245.6	RZS	.2422	R13	-.9613		
SG1	4217.9	SG2	485.0	THA	166.16		

ORBIT DETERMINATION ACCURACY

ST	2533.4	SR	947.7	SS	959.0		
CRT	-.9759	CRS	.9979	CST	-.9880		
LSA	2860.9	NSA	226.2	SSA	5.0		
EL1	2697.9	EL2	194.2	ALF	159.84		

LAUNCH DATE SEP 19 1970 FLIGHT TIME 146.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 426.166

RL	150.28	LAL	-.00	LOL	355.64	VL	26.977	GAL	-4.26	AZL	97.17	HCA	203.57	SMA	127.79	ECC	.19057	INC	7.1658
RP	107.93	LAP	2.86	LOP	199.05	VP	37.693	GAP	6.41	AZP	83.43	TAL	198.70	TAP	42.27	RCA	103.44	APO	152.15
RC	125.912	GL	-45.25	GP	50.97	ZAL	108.88	ZAP	124.47	ETS	53.11	ZAE	115.93	ETE	146.04	ZAC	148.54	ETC	247.01

V1	29.650	V2	35.112	CLP	-154.01														

PLANETOCENTRIC CONIC

C3	22.327	VHL	4.725	DLA	-62.85	RAL	215.80	RAD	6567.9	VEL	11.988	PTH	2.14	VHP	7.046	DPA	33.22	RAP	241.44
ECC	1.3675																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.22	2 59 2	1767.74	37.60	52.77	102.52	144.84	3 28 30	1167.7	43.97	46.79
148.78	12 49 12	5357.97	37.61	249.84	102.54	144.83	14 18 30	4758.0	43.98	243.86
31.22	2 59 2	1767.74	37.60	52.77	102.52	144.84	3 28 30	1167.7	43.97	46.79
148.78	12 49 12	5357.97	37.61	249.84	102.54	144.83	14 18 30	4758.0	43.98	243.86
31.22	2 59 2	1767.74	37.60	52.77	102.52	144.84	3 28 30	1167.7	43.97	46.79
148.78	12 49 12	5357.97	37.61	249.84	102.54	144.83	14 18 30	4758.0	43.98	243.86

DIFFERENTIAL CORRECTIONS

TDE	-2.0956	TRA	-.8342	TC3	-2.6698	BAU	.8173
RDE	.7473	RRA	.0830	RC3	.6073	FAU	.04297
FDE	-1.3126	FRA	-.2040	FC3	-1.6660	BSP	13720
BDE	2.2249	BRA	.8366	BC3	2.7380	FSP	-662

MID-COURSE EXECUTION ACCURACY

SGT	4211.5	SGR	1085.7	SGS	199.0		
RRT	-.9016	RRF	-.9744	RTF	.9502		
SGB	4349.2	RZS	.2483	R13	-.9567		
SG1	4325.1	SG2	457.4	THA	166.77		

ORBIT DETERMINATION ACCURACY

ST	2627.7	SR	907.7	SS	974.4		
CRT	-.9799	CRS	.9989	CST	-.9882		
LSA	2938.4	NSA	210.4	SSA	6.1		
EL1	2774.8	EL2	171.4	ALF	161.22		

LAUNCH DATE SEP 19 1970 FLIGHT TIME 148.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 432.113

RL	150.28	LAL	-.00	LOL	355.64	VL	26.931	GAL	-3.99	AZL	96.12	HCA	206.76	SMA	127.49	ECC	.19145	INC	6.1212
RP	107.97	LAP	2.75	LOP	202.27	VP	37.648	GAP	6.68	AZP	84.53	TAL	197.33	TAP	44.09	RCA	103.08	APO	151.89
RC	128.158	GL	-41.39	GP	46.52	ZAL	108.83	ZAP	128.41	ETS	52.27	ZAE	118.30	ETE	147.95	ZAC	144.79	ETC	249.86

V1	29.650	V2	35.099	CLP	-154.54														

PLANETOCENTRIC CONIC

C3	18.771	VHL	4.333	DLA	-59.94	RAL	221.83	RAD	6567.8	VEL	11.839	PTH	2.10	VHP	6.688	DPA	28.43	RAP	241.41
ECC	1.3089																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.68	3 31 35	1711.33	38.59	46.64	104.31	140.15	4 0 6	1111.3	44.52	39.87
145.32	13 4 47	5331.46	38.60	247.83	104.33	140.14	14 33 38	4731.5	44.53	241.06
34.68	3 31 35	1711.33	38.59	46.64	104.31	140.15	4 0 6	1111.3	44.52	39.87
145.32	13 4 47	5331.46	38.60	247.83	104.33	140.14	14 33 38	4731.5	44.53	241.06
34.68	3 31 35	1711.33	38.59	46.64	104.31	140.15	4 0 6	1111.3	44.52	39.87
145.32	13 4 47	5331.46	38.60	247.83	104.33	140.14	14 33 38	4731.5	44.53	241.06

DIFFERENTIAL CORRECTIONS

TDE	-1.9562	TRA	-.7085	TC3	-3.2988	BAU	.8447
RDE	.6992	RRA	.0233	RC3	.6687	FAU	.04583
FDE	-1.2411	FRA	-.1117	FC3	-2.1136	BSP	13779
BDE	2.0567	BRA	.7099	BC3	3.3659	FSP	-701

MID-COURSE EXECUTION ACCURACY

SGT	4286.3	SGR	1022.3	SGS	214.0		
RRT	-.9002	RRF	-.9707	RTF	.9451		
SGB	4406.5	RZS	.2551	R13	-.9508		
SG1	4385.0	SG2	435.1	THA	167.76		

ORBIT DETERMINATION ACCURACY

ST	2648.6	SR	840.4	SS	950.2		
CRT	-.9816	CRS	.9994	CST	-.9872		
LSA	2930.0	NSA	199.5	SSA	7.4		
EL1	2774.5	EL2	153.3	ALF	162.65		

LAUNCH DATE SEP 19 1970 FLIGHT TIME 150.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 438.047

```
RL  150.28 LAL   -.00 LOL 355.64 VL  26.884 GAL  -3.71 AZL  95.29 HCA 209.95 SMA 127.18 ECC .19244 INC 5.2853 V1  29.650
RP  108.01 LAP   2.64 LOP 205.49 VP  37.603 GAP   6.95 AZP  85.42 TAL 195.95 TAP  45.90 RCA 102.71 APO 151.66 V2  35.086
RC 130.397 GL  -37.74 GP   42.58 ZAL 108.24 ZAP 132.00 ETS  51.59 ZAE 120.17 ETE 149.99 ZAC 141.42 ETC 251.95 CLP-155.33
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PLANETOCENTRIC CONIC

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C3  16.304 VHL  4.038 DLA -57.16 RAL 227.38 RAD 6567.7 VEL 11.734 PTH   2.07 VHP  6.457 DPA  24.13 RAP 241.70 ECC 1.2683
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.03	4 2 28	1661.93	38.87	40.80	106.01	135.84	4 30 9	1061.9	44.37	33.42
141.97	13 18 13	5315.55	38.89	246.23	106.03	135.83	14 46 49	4715.6	44.38	238.85
38.03	4 2 28	1661.93	38.87	40.80	106.01	135.84	4 30 9	1061.9	44.37	33.42
141.97	13 18 13	5315.55	38.89	246.23	106.03	135.83	14 46 49	4715.6	44.38	238.85
38.03	4 2 28	1661.93	38.87	40.80	106.01	135.84	4 30 9	1061.9	44.37	33.42
141.97	13 18 13	5315.55	38.89	246.23	106.03	135.83	14 46 49	4715.6	44.38	238.85

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.8275 TRA -.5939 TC3-3.9417 BAU  .8730   SGT 4389.9 SGR  964.1 SG3  226.6     ST  2636.5 SR   774.9 SS   910.3
 RDE  .5460 RRA -.0068 RC3  .7103 FAU .04790   RRT -.8996 RRF -.9650 RTF  .9423     CRT -.9829 CRS  .9997 CST -.9860
 FDE-1.1491 FRA -.0207 FC3-2.5434 BSP  14078   SGB 4494.6 RZ3  .2513 R13 -.9471     LSA 2888.6 MSA  190.2 SSA    8.9
 BDE 1.9073 BRA  .5939 BC3 4.0052 FSP   -743   SG1 4475.5 SG2  413.1 THA 168.73     EL1 2744.6 EL2  137.1 ALF 163.85
```

LAUNCH DATE SEP 19 1970 FLIGHT TIME 152.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 443.969

```
RL  150.28 LAL   -.00 LOL 355.64 VL  26.837 GAL  -3.42 AZL  94.60 HCA 213.15 SMA 126.88 ECC .19355 INC 4.5975 V1  29.650
RP  108.05 LAP   2.51 LOP 208.71 VP  37.558 GAP   7.22 AZP  86.15 TAL 194.54 TAP  47.69 RCA 102.32 APO 151.43 V2  35.074
RC 132.627 GL  -34.28 GP   39.09 ZAL 107.16 ZAP 135.27 ETS  51.02 ZAE 121.64 ETE 152.01 ZAC 138.41 ETC 253.56 CLP-156.25
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PLANETOCENTRIC CONIC

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C3  14.537 VHL  3.813 DLA -54.49 RAL 232.60 RAD 6567.6 VEL 11.659 PTH   2.05 VHP  6.315 DPA  20.27 RAP 242.26 ECC 1.2392
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.29	4 32 16	1617.45	38.63	35.30	107.80	131.96	4 59 14	1017.5	43.71	27.49
138.71	13 30 0	5308.37	38.65	245.10	107.82	131.94	14 58 28	4708.4	43.72	237.28
41.29	4 32 16	1617.45	38.63	35.30	107.80	131.96	4 59 14	1017.5	43.71	27.49
138.71	13 30 0	5308.37	38.65	245.10	107.82	131.94	14 58 28	4708.4	43.72	237.28
41.29	4 32 16	1617.45	38.63	35.30	107.80	131.96	4 59 14	1017.5	43.71	27.49
138.71	13 30 0	5308.37	38.65	245.10	107.82	131.94	14 58 28	4708.4	43.72	237.28

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.7003 TRA -.4749 TC3-4.5636 BAU  .8982   SGT 4488.7 SGR  906.5 SG3  235.2     ST  2583.6 SR   712.0 SS   853.2
 RDE  .4734 RRA -.0323 RC3  .7287 FAU .04894   RRT -.8967 RRF -.9568 RTF  .9400     CRT -.9840 CRS  .9998 CST -.9839
 FDE-1.0390 FRA  .0738 FC3-2.9144 BSP  14360   SGB 4579.3 RZ3  .2423 R13 -.9440     LSA 2806.6 MSA  182.4 SSA   10.5
 BDE 1.7650 BRA  .4760 BC3 4.6214 FSP   -772   SG1 4562.3 SG2  394.9 THA 169.66     EL1 2677.2 EL2  122.5 ALF 164.79
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LAUNCH DATE SEP 19 1970 FLIGHT TIME 154.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 449.877

```
RL  150.28 LAL   -.00 LOL 355.64 VL  26.791 GAL  -3.12 AZL  94.02 HCA 216.34 SMA 126.57 ECC .19477 INC 4.0184 V1  29.650
RP  108.09 LAP   2.38 LOP 211.92 VP  37.512 GAP   7.48 AZP  86.76 TAL 193.12 TAP  49.46 RCA 101.92 APO 151.23 V2  35.061
RC 134.850 GL  -31.00 GP   36.01 ZAL 105.66 ZAP 138.24 ETS  50.53 ZAE 122.78 ETE 153.94 ZAC 135.76 ETC 254.85 CLP-157.24
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PLANETOCENTRIC CONIC

```
C3  13.247 VHL  3.640 DLA -51.92 RAL 237.56 RAD 6567.5 VEL 11.603 PTH   2.03 VHP  6.237 DPA  16.80 RAP 243.05 ECC 1.2180
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.48	5 1 29	1576.29	38.01	30.13	109.77	128.48	5 27 45	976.3	42.69	22.02
135.52	13 40 22	5308.78	38.02	244.47	109.79	128.47	15 8 51	4708.8	42.70	236.36
44.48	5 1 29	1576.29	38.01	30.13	109.77	128.48	5 27 45	976.3	42.69	22.02
135.52	13 40 22	5308.78	38.02	244.47	109.79	128.47	15 8 51	4708.8	42.70	236.36
44.48	5 1 29	1576.29	38.01	30.13	109.77	128.48	5 27 45	976.3	42.69	22.02
135.52	13 40 22	5308.78	38.02	244.47	109.79	128.47	15 8 51	4708.8	42.70	236.36

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.5766 TRA -.3537 TC3-5.1559 BAU  .9223   SGT 4589.2 SGR  854.2 SG3  240.8     ST  2499.1 SR   655.9 SS   785.6
 RDE  .4157 RRA -.0533 RC3  .7307 FAU .04921   RRT -.8922 RRF -.9462 RTF  .9386     CRT -.9852 CRS  .9994 CST -.9808
 FDE -.9214 FRA  .1664 FC3-3.2162 BSP  14675   SGB 4668.0 RZ3  .2279 R13 -.9418     LSA 2694.8 MSA  175.7 SSA   12.5
 BDE 1.6305 BRA  .3577 BC3 5.2074 FSP   -792   SG1 4652.5 SG2  380.5 THA 170.51     EL1 2581.4 EL2  108.7 ALF 165.48
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LAUNCH DATE SEP 19 1970 FLIGHT TIME 156.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 455.769

```
RL  150.28 LAL   -.00 LOL 355.64 VL  26.744 GAL  -2.81 AZL  93.52 HCA 219.54 SMA 126.27 ECC .19613 INC 3.5214 V1  29.650
RP  108.13 LAP   2.24 LOP 215.13 VP  37.467 GAP   7.75 AZP  87.28 TAL 191.67 TAP  51.21 RCA 101.50 APO 151.04 V2  35.047
RC 137.063 GL  -27.89 GP   33.30 ZAL 103.77 ZAP 140.93 ETS  50.14 ZAE 123.67 ETE 155.73 ZAC 133.43 ETC 255.93 CLP-158.27
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PLANETOCENTRIC CONIC

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C3  12.300 VHL  3.507 DLA -49.43 RAL 242.33 RAD 6567.5 VEL 11.562 PTH   2.02 VHP  6.206 DPA  13.69 RAP 244.04 ECC 1.2024
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.62	5 30 28	1537.13	37.10	25.22	111.97	125.38	5 56 5	937.1	41.42	16.93
132.38	13 49 28	5316.11	37.11	244.36	111.98	125.37	15 18 2	4716.1	41.43	236.07
47.62	5 30 28	1537.13	37.10	25.22	111.97	125.38	5 56 5	937.1	41.42	16.93
132.38	13 49 28	5316.11	37.11	244.36	111.98	125.37	15 18 2	4716.1	41.43	236.07
47.62	5 30 28	1537.13	37.10	25.22	111.97	125.38	5 56 5	937.1	41.42	16.93
132.38	13 49 28	5316.11	37.11	244.36	111.98	125.37	15 18 2	4716.1	41.43	236.07

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.4538 TRA -.2273 TC3-5.7001 BAU  .9448   SGT 4685.4 SGR  807.2 SG3  243.4     ST  2384.3 SR   606.7 SS   710.3
 RDE  .3698 RRA -.0714 RC3  .7191 FAU .04882   RRT -.8856 RRF -.9531 RTF  .9374     CRT -.9868 CRS  .9979 CST -.9762
 FDE -.8010 FRA  .2572 FC3-3.4364 BSP  14972   SGB 4754.4 RZ3  .2102 R13 -.9400     LSA 2555.0 MSA  170.3 SSA   14.7
 BDE 1.5001 BRA  .2383 BC3 5.7452 FSP   -802   SG1 4739.9 SG2  370.6 THA 171.27     EL1 2458.4 EL2   95.3 ALF 165.88
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LAUNCH DATE SEP 19 1970 FLIGHT TIME 158.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 461.646

RL	150.28	LAL	-.00	LOL	355.64	VL	26.697	GAL	-2.49	AZL	93.09	HCA	222.73	SMA	125.97	ECC	.19762	INC	3.0877	V1	29.650
RP	108.17	LAP	2.09	LOP	218.34	VP	37.421	GAP	8.02	AZP	87.73	TAL	190.21	TAP	52.94	RCA	101.08	APO	150.86	V2	35.034
RC	139.266	GL	-24.94	GP	30.91	ZAL	101.56	ZAP	143.38	ETS	49.85	ZAE	124.36	ETE	157.38	ZAC	131.39	ETC	256.86	CLP	-159.30

PLANETOCENTRIC CONIC

C3	11.611	VHL	3.408	DLA	-47.02	RAL	246.94	RAD	6567.4	VEL	11.533	PTH	2.01	VHP	6.211	DPA	10.90	RAP	245.19	ECC	1.1911

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.75	5 59 32	1498.89	35.96	20.52	114.39	122.62	6 24 31	898.9	39.96	12.14
129.25	13 57 12	5330.10	35.97	244.77	114.40	122.61	15 26 2	4730.1	39.97	236.39
50.75	5 59 32	1498.89	35.96	20.52	114.39	122.62	6 24 31	898.9	39.96	12.14
129.25	13 57 12	5330.10	35.97	244.77	114.40	122.61	15 26 2	4730.1	39.97	236.39
50.75	5 59 32	1498.89	35.96	20.52	114.39	122.62	6 24 31	898.9	39.96	12.14
129.25	13 57 12	5330.10	35.97	244.77	114.40	122.61	15 26 2	4730.1	39.97	236.39

DIFFERENTIAL CORRECTIONS

TDE	-1.3315	TRA	-.0958	TC3	-6.1851	BAU	.9662
RDE	.3336	RRA	-.0870	RC3	.6981	FAU	.04794
FDE	-.6824	FRA	.3437	FC3	-3.5743	BSP	15274
BDE	1.3727	BRA	.1294	BC3	6.2243	FSP	-805

MID-COURSE EXECUTION ACCURACY

SGT	4778.7	SGR	766.1	SG3	243.9		
RRT	-.8768	RRF	-.9175	RTF	.9367		
SGB	4839.7	RZ3	.1900	R13	-.9388		
SG1	4826.0	SG2	364.7	THA	171.95		

ORBIT DETERMINATION ACCURACY

ST	2243.6	SR	564.7	SS	631.9
CRT	-.9889	CRS	.9940	CST	-.9691
LSA	2392.5	NSA	166.0	SSA	17.4
EL1	2312.2	EL2	81.4	ALF	166.00

LAUNCH DATE SEP 19 1970 FLIGHT TIME 160.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 467.506

RL	150.28	LAL	-.00	LOL	355.64	VL	26.650	GAL	-2.16	AZL	92.70	HCA	225.93	SMA	125.67	ECC	.19925	INC	2.7036	V1	29.650
RP	108.21	LAP	1.94	LOP	221.54	VP	37.375	GAP	8.29	AZP	88.12	TAL	188.73	TAP	54.66	RCA	100.63	APO	150.71	V2	35.021
RC	141.459	GL	-22.12	GP	28.80	ZAL	99.07	ZAP	145.61	ETS	49.86	ZAE	124.89	ETE	158.88	ZAC	129.59	ETC	257.70	CLP	-160.33

PLANETOCENTRIC CONIC

C3	11.127	VHL	3.336	DLA	-44.66	RAL	251.43	RAD	6567.4	VEL	11.512	PTH	2.01	VHP	6.244	DPA	8.37	RAP	246.50	ECC	1.1831

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.90	6 28 59	1460.35	34.65	15.93	117.03	120.16	6 53 20	860.4	38.35	7.52
126.10	14 3 31	5350.96	34.66	245.74	117.04	120.14	15 32 42	4751.0	38.36	237.33
53.90	6 28 59	1460.35	34.65	15.93	117.03	120.16	6 53 20	860.4	38.35	7.52
126.10	14 3 31	5350.96	34.66	245.74	117.04	120.14	15 32 42	4751.0	38.36	237.33
53.90	6 28 59	1460.35	34.65	15.93	117.03	120.16	6 53 20	860.4	38.35	7.52
126.10	14 3 31	5350.96	34.66	245.74	117.04	120.14	15 32 42	4751.0	38.36	237.33

DIFFERENTIAL CORRECTIONS

TDE	-1.2072	TRA	.0426	TC3	-6.5968	BAU	.9863
RDE	.3047	RRA	-.1012	RC3	.6703	FAU	.04668
FDE	-.5669	FRA	.4283	FC3	-3.6318	BSP	15554
BDE	1.2450	BRA	.1098	BC3	6.6307	FSP	-803

MID-COURSE EXECUTION ACCURACY

SGT	4866.0	SGR	730.5	SG3	242.5		
RRT	-.8660	RRF	-.8996	RTF	.9363		
SGB	4920.5	RZ3	.1685	R13	-.9380		
SG1	4907.2	SG2	362.2	THA	172.55		

ORBIT DETERMINATION ACCURACY

ST	2077.9	SR	528.7	SS	552.5
CRT	-.9916	CRS	.9849	CST	-.9578
LSA	2208.1	NSA	163.1	SSA	20.4
EL1	2143.1	EL2	66.4	ALF	165.83

LAUNCH DATE SEP 19 1970 FLIGHT TIME 162.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 473.348

RL	150.28	LAL	-.00	LOL	355.64	VL	26.603	GAL	-1.81	AZL	92.36	HCA	229.12	SMA	125.37	ECC	.20103	INC	2.3592	V1	29.650
RP	108.25	LAP	1.78	LOP	224.74	VP	37.329	GAP	8.56	AZP	88.46	TAL	187.23	TAP	56.36	RCA	100.17	APO	150.58	V2	35.008
RC	143.643	GL	-19.44	GP	26.93	ZAL	96.36	ZAP	147.65	ETS	49.58	ZAE	125.30	ETE	160.22	ZAC	128.01	ETC	258.46	CLP	-161.36

PLANETOCENTRIC CONIC

C3	10.812	VHL	3.288	DLA	-42.34	RAL	255.79	RAD	6567.4	VEL	11.498	PTH	2.00	VHP	6.299	DPA	6.10	RAP	247.93	ECC	1.1779

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.10	6 59 10	1420.29	33.20	11.37	119.87	117.95	7 22 51	820.3	36.64	2.98
122.90	14 8 7	5379.26	33.21	247.31	119.88	117.94	15 37 46	4779.3	36.65	238.91
57.10	6 59 10	1420.29	33.20	11.37	119.87	117.95	7 22 51	820.3	36.64	2.98
122.90	14 8 7	5379.26	33.21	247.31	119.88	117.94	15 37 46	4779.3	36.65	238.91
57.10	6 59 10	1420.29	33.20	11.37	119.87	117.95	7 22 51	820.3	36.64	2.98
122.90	14 8 7	5379.26	33.21	247.31	119.88	117.94	15 37 46	4779.3	36.65	238.91

DIFFERENTIAL CORRECTIONS

TDE	-1.0812	TRA	.1880	TC3	-6.9269	BAU	1.0055
RDE	.2822	RRA	-.1144	RC3	.6380	FAU	.04515
FDE	-.4572	FRA	.5048	FC3	-3.6150	BSP	15819
BDE	1.1175	BRA	.2201	BC3	6.9562	FSP	-795

MID-COURSE EXECUTION ACCURACY

SGT	4949.5	SGR	700.3	SG3	239.8		
RRT	-.8531	RRF	-.8797	RTF	.9361		
SGB	4998.8	RZ3	.1473	R13	-.9374		
SG1	4985.6	SG2	362.7	THA	173.08		

ORBIT DETERMINATION ACCURACY

ST	1893.7	SR	498.5	SS	476.7
CRT	-.9946	CRS	.9654	CST	-.9394
LSA	2008.6	NSA	162.7	SSA	23.7
EL1	1957.5	EL2	49.9	ALF	165.32

LAUNCH DATE SEP 19 1970 FLIGHT TIME 164.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 479.173

RL	150.28	LAL	-.00	LOL	355.64	VL	26.556	GAL	-1.45	AZL	92.05	HCA	232.31	SMA	125.08	ECC	.20298	INC	2.0468	V1	29.650
RP	108.29	LAP	1.62	LOP	227.94	VP	37.283	GAP	8.84	AZP	88.75	TAL	185.72	TAP	58.04	RCA	99.69	APO	150.47	V2	34.995
RC	145.816	GL	-16.89	GP	25.27	ZAL	93.45	ZAP	149.52	ETS	49.62	ZAE	125.61	ETE	161.43	ZAC	126.62	ETC	259.18	CLP	-162.36

PLANETOCENTRIC CONIC

C3	10.645	VHL	3.263	DLA	-40.06	RAL	260.02	RAD	6567.4	VEL	11.491	PTH	2.00	VHP	6.373	DPA	4.03	RAP	249.40	ECC	1.1752

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.39	7 30 24	1377.40	31.64	6.74	122.89	115.97	7 53 22	777.4	34.85	358.38
119.61	14 10 41	5415.79	31.66	249.53	122.89	115.96	15 40 57	4815.8	34.86	241.17
60.39	7 30 24	1377.40	31.64	6.74	122.89	115.97	7 53 22	777.4	34.85	358.38
119.61	14 10 41	5415.79	31.66	249.53	122.89	115.96	15 40 57	4815.8	34.86	241.17
60.39	7 30 24	1377.40	31.64	6.74	122.89	115.97	7 53 22	777.4	34.85	358.38
119.61	14 10 41	5415.79	31.66	249.53	122.89	115.96	15 40 57	4815.8	34.86	241.17

DIFFERENTIAL CORRECTIONS

TDE	-.9501	TRA	.3427	TC3	-7.1563	BAU	1.0220
RDE	.2640	RRA	-.1273	RC3	.5998	FAU	.04327
FDE	-.3512	FRA	.5807	FC3	-3.5190	BSP	16012
BDE	.9861	BRA	.3656	BC3	7.1814	FSP	-778

MID-COURSE EXECUTION ACCURACY

SGT	5020.8	SGR	673.4	SG3	235.5		
RRT	-.8373	RRF	-.8575	RTF	.9354		
SGB	5065.7	RZ3	.1284	R13	-.9364		
SG1	5052.5	SG2	365.9	THA	173.56		

ORBIT DETERMINATION ACCURACY

ST	1690.8	SR	472.0	SS	406.4
CRT	-.9972	CRS	.9236	CST	-.9077
LSA	1793.9	NSA	166.9	SSA	27.2
EL1	1755.1	EL2	33.7	ALF	164.44

LAUNCH DATE SEP 19 1970 FLIGHT TIME 166.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 484.979

RL	150.28	LAL	-.00	LOL	355.64	VL	26.509	GAL	-1.08	AZL	91.76	HCA	235.50	SMA	124.79	ECC	.20509	INC	1.7604
RP	108.33	LAP	1.45	LOP	231.14	VP	37.238	GAP	9.12	AZP	89.00	TAL	184.20	TAP	59.70	RCA	99.20	APO	150.38
RC	147.979	GL	-14.47	GP	23.79	ZAL	90.41	ZAP	151.25	ETS	49.77	ZAE	125.85	ETE	162.51	ZAC	125.39	ETC	259.86

V1	29.650	V2	34.982	CLP	-163.35														

PLANETOCENTRIC CONIC

C3	10.612	VHL	3.258	DLA	-37.82	RAL	264.13	RAD	6567.4	VEL	11.489	PTH	2.00	VHP	6.463	DPA	2.16	RAP	251.13
ECC	1.1746																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.81	8 3 13	1329.74	30.01	1.87	126.05	114.19	8 25 23	729.7	33.00	353.58
116.19	14 10 40	5462.19	30.02	252.50	126.05	114.18	15 41 42	4862.2	33.01	244.21
63.81	8 3 13	1329.74	30.01	1.87	126.05	114.19	8 25 23	729.7	33.00	353.58
116.19	14 10 40	5462.19	30.02	252.50	126.05	114.18	15 41 42	4862.2	33.01	244.21
63.81	8 3 13	1329.74	30.01	1.87	126.05	114.19	8 25 23	729.7	33.00	353.58
116.19	14 10 40	5462.19	30.02	252.50	126.05	114.18	15 41 42	4862.2	33.01	244.21

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.8175	TRA	.5039	TC3	-7.2994	BAU	1.0386	SGT	5093.3	SGR	651.6	SGS	230.8	ST	1483.6	SR	450.0	SS	349.6
RDE	.2502	RRA	-.1397	RC3	.5622	FAU	.04138	RRT	-.8206	RRF	-.8344	RTF	.9353	CRT	-.9972	CRS	.8425	CST	-.8574
FDE	-.2533	FRA	.6511	FC3	-3.3758	BSP	16222	SGB	5134.8	RZS	.1098	RIS	-.9361	LSA	1579.0	HSA	177.6	SSA	30.3
BDE	.8549	BRA	.5229	BC3	7.3210	FSP	-762	SGI	5121.5	SGZ	370.3	THA	173.98	EL1	1550.0	EL2	32.2	ALF	163.16

LAUNCH DATE SEP 19 1970 FLIGHT TIME 168.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 490.764

RL	150.28	LAL	-.00	LOL	355.64	VL	26.463	GAL	-.70	AZL	91.50	HCA	238.69	SMA	124.50	ECC	.20738	INC	1.4952
RP	108.37	LAP	1.28	LOP	234.33	VP	37.193	GAP	9.40	AZP	89.22	TAL	182.66	TAP	61.35	RCA	98.68	APO	150.32
RC	150.132	GL	-12.18	GP	22.47	ZAL	87.28	ZAP	152.84	ETS	50.05	ZAE	126.04	ETE	163.48	ZAC	124.30	ETC	260.52

V1	29.650	V2	34.969	CLP	-164.33														

PLANETOCENTRIC CONIC

C3	10.704	VHL	3.272	DLA	-35.62	RAL	268.11	RAD	6567.4	VEL	11.493	PTH	2.00	VHP	6.567	DPA	.47	RAP	252.88
ECC	1.1762																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.43	8 38 17	1274.82	28.31	356.60	129.34	112.58	8 59 32	674.8	31.11	348.38
112.57	14 7 20	5520.64	28.32	256.38	129.34	112.56	15 39 21	4920.6	31.12	248.16
67.43	8 38 17	1274.82	28.31	356.60	129.34	112.58	8 59 32	674.8	31.11	348.38
112.57	14 7 20	5520.64	28.32	256.38	129.34	112.56	15 39 21	4920.6	31.12	248.16
67.43	8 38 17	1274.82	28.31	356.60	129.34	112.58	8 59 32	674.8	31.11	348.38
112.57	14 7 20	5520.64	28.32	256.38	129.34	112.56	15 39 21	4920.6	31.12	248.16

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.6026	TRA	.6720	TC3	-7.3529	BAU	1.0549	SGT	5164.6	SGR	633.5	SGS	225.7	ST	1280.0	SR	431.7	SS	310.8
RDE	.2400	RRA	-.1518	RC3	.5246	FAU	.03945	RRT	-.8029	RRF	-.8105	RTF	.9355	CRT	-.9890	CRS	.7023	CST	-.7866
FDE	-.1630	FRA	.7169	FC3	-3.1908	BSP	16483	SGB	5203.4	RZS	.0929	RIS	-.9362	LSA	1371.5	HSA	198.6	SSA	32.4
BDE	.7236	BRA	.6889	BC3	7.3715	FSP	-750	SGI	5189.8	SGZ	375.8	THA	174.35	EL1	1349.5	EL2	60.6	ALF	161.51

LAUNCH DATE SEP 19 1970 FLIGHT TIME 170.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 496.528

RL	150.28	LAL	-.00	LOL	355.64	VL	26.417	GAL	-.30	AZL	91.25	HCA	241.88	SMA	124.22	ECC	.20987	INC	1.2477
RP	108.41	LAP	1.10	LOP	237.52	VP	37.148	GAP	9.69	AZP	89.41	TAL	181.11	TAP	62.99	RCA	98.15	APO	150.29
RC	152.275	GL	-10.02	GP	21.29	ZAL	84.08	ZAP	154.32	ETS	50.47	ZAE	126.19	ETE	164.34	ZAC	123.32	ETC	261.17

V1	29.650	V2	34.956	CLP	-165.28														

PLANETOCENTRIC CONIC

C3	10.920	VHL	3.305	DLA	-33.46	RAL	271.95	RAD	6567.4	VEL	11.503	PTH	2.00	VHP	6.683	DPA	-1.08	RAP	254.70
ECC	1.1797																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
71.39	9 16 57	1208.05	26.58	350.58	132.73	111.11	9 37 5	608.0	29.20	342.44
108.61	13 59 18	5595.56	26.59	261.47	132.73	111.10	15 32 33	4995.6	29.21	253.33
71.39	9 16 57	1208.05	26.58	350.58	132.73	111.11	9 37 5	608.0	29.20	342.44
108.61	13 59 18	5595.56	26.59	261.47	132.73	111.10	15 32 33	4995.6	29.21	253.33
110.00	13 14 26	5735.04	22.60	270.22	130.81	116.36	14 49 59	5133.0	25.95	262.66
110.00	15 0 59	5406.60	30.71	248.36	134.30	105.80	16 31 6	4806.6	32.57	239.64

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5904	TRA	.8432	TC3	-7.3393	BAU	1.0739	SGT	5244.9	SGR	620.1	SGS	220.7	ST	1099.3	SR	418.1	SS	293.6
RDE	.2338	RRA	-.1630	RC3	.4914	FAU	.03776	RRT	-.7858	RRF	-.7875	RTF	.9372	CRT	-.9613	CRS	.5153	CST	-.7218
FDE	-.0652	FRA	.7744	FC3	-2.9938	BSP	16808	SGB	5281.5	RZS	.0762	RIS	-.9378	LSA	1189.5	HSA	230.8	SSA	33.0
BDE	.5980	BRA	.8588	BC3	7.3557	FSP	-740	SGI	5267.7	SGZ	381.9	THA	174.66	EL1	1171.1	EL2	108.2	ALF	159.74

LAUNCH DATE SEP 19 1970 FLIGHT TIME 172.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 502.270

RL	150.28	LAL	-.00	LOL	355.64	VL	26.371	GAL	.12	AZL	91.01	HCA	245.06	SMA	123.93	ECC	.21257	INC	1.0146
RP	108.45	LAP	.92	LOP	240.70	VP	37.103	GAP	9.98	AZP	89.57	TAL	179.55	TAP	64.61	RCA	97.59	APO	150.28
RC	154.408	GL	-8.00	GP	20.22	ZAL	80.87	ZAP	155.88	ETS	51.02	ZAE	126.30	ETE	165.11	ZAC	122.44	ETC	261.81

V1	29.650	V2	34.943	CLP	-166.22														

PLANETOCENTRIC CONIC

C3	11.259	VHL	3.355	DLA	-31.35	RAL	275.64	RAD	6567.4	VEL	11.517	PTH	2.01	VHP	6.812	DPA	-2.48	RAP	256.61
ECC	1.1853																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
75.96	10 1 53	1120.40	24.83	343.16	136.21	109.78	10 20 33	520.4	27.29	335.10
104.04	13 43 50	5095.78	24.84	260.41	136.21	109.77	15 18 46	5095.8	27.30	260.35
75.96	10 1 53	1120.40	24.83	343.16	136.21	109.78	10 20 33	520.4	27.29	335.10
104.04	13 43 50	5095.78	24.84	260.41	136.21	109.77	15 18 46	5095.8	27.30	260.35
110.00	12 37 45	814.00	17.14	302.38	132.39	120.04	12 47 59	14.0	21.00	295.38
110.00	16 7 8	5250.18	33.04	236.77	138.84	99.32	17 34 38	4850.2	33.97	227.66

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4010	TRA	1.0381	TC3	-7.1880	BAU	1.0842	SGT	5294.9	SGR	605.2	SGS	214.9	ST	935.9	SR	401.7	SS	299.6
RDE	.2280	RRA	-.1775	RC3	.4479	FAU	.03541	RRT	-.7848	RRF	-.7819	RTF	.9347	CRT	-.8847	CRS	.2596	CST	-.6720
FDE	.0020	FRA	.8437	FC3	-2.7231	BSP	16865	SGB	5329.3	RZS	.0670	RIS	-.9352	LSA	1021.5	HSA	287.4	SSA	32.2
BDE	.4606	BRA	1.0512	BC3	7.2029	FSP	-708	SGI	5315.2	SGZ	388.5	THA	174.98	EL1	1003.4	EL2	174.7	ALF	158.53

LAUNCH DATE SEP 19 1970 FLIGHT TIME 174.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 507.988

RL 150.28 LAL -.00 LOL 355.64 VL 26.325 GAL .55 AZL 90.79 HCA 248.24 SMA 123.66 ECC .21550 INC .7934 V1 29.650
RP 108.49 LAP .74 LOP 243.89 VP 37.059 GAP 10.28 AZP 89.71 TAL 177.98 TAP 66.23 RCA 97.01 APO 150.30 V2 34.931
RC 156.530 GL -6.11 GP 19.27 ZAL 77.67 ZAP 156.97 ETS 51.72 ZAE 126.39 ETE 165.81 ZAC 121.65 ETC 262.44 CLP-167.14

PLANETOCENTRIC CONIC

C3 11.724 VHL 3.424 DLA -29.30 RAL 279.18 RAD 6567.4 VEL 11.537 PTH 2.01 VHP 6.952 DPA -3.75 RAP 258.57 ECC 1.1929

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.15	11 2 13	981.76	23.08	332.15	139.75	108.56	11 18 35	381.8	25.40	324.17
97.85	13 11 44	5851.27	23.09	279.34	139.75	108.55	14 49 15	5251.3	25.41	271.36
100.00	12 38 19	670.40	19.62	307.95	138.33	113.02	12 49 29	70.4	22.56	300.40
100.00	14 18 20	5637.87	26.65	264.69	140.90	104.06	15 52 18	5037.9	28.32	256.28
110.00	12 19 47	728.72	13.12	308.84	134.82	121.85	12 31 56	128.7	17.24	302.15
110.00	16 53 20	5152.31	35.87	229.26	142.30	94.94	18 19 13	4552.3	34.18	220.02

DIFFERENTIAL CORRECTIONS
TDE -.2605 TRA 1.2265 TC3-6.9095 BAU 1.0974
RDE .2250 RRA -.1889 RC3 .4108 FAU .03340
FDE .0674 FRA .8935 FC3-2.4663 BSP 17077
BDE .3442 BRA 1.2410 BC3 7.0015 FSP -692

MID-COURSE EXECUTION ACCURACY
SGT 5351.5 SGR 593.5 SG3 208.2
RRT -.7441 RRF -.7372 RTF .9361
SGB 5384.3 RZS .0550 R13 -.9365
SG1 5369.8 SG2 395.1 THA 175.26

ORBIT DETERMINATION ACCURACY
ST 842.1 SR 392.0 SS 317.7
CRT -.7335 CRS .0671 CST -.7212
LSA 919.5 MSA 342.6 SSA 30.4
EL1 894.3 EL2 250.8 ALF 159.46

LAUNCH DATE SEP 19 1970 FLIGHT TIME 176.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 513.680

RL 150.28 LAL -.00 LOL 355.64 VL 26.279 GAL 1.00 AZL 90.58 HCA 251.42 SMA 123.38 ECC .21867 INC .5819 V1 29.650
RP 108.53 LAP .55 LOP 247.07 VP 37.015 GAP 10.60 AZP 89.81 TAL 176.41 TAP 67.83 RCA 96.40 APO 150.36 V2 34.919
RC 158.641 GL -4.36 GP 18.41 ZAL 74.51 ZAP 158.16 ETS 52.58 ZAE 126.46 ETE 166.43 ZAC 120.93 ETC 263.07 CLP-168.04

PLANETOCENTRIC CONIC

C3 12.322 VHL 3.510 DLA -27.32 RAL 282.57 RAD 6567.5 VEL 11.563 PTH 2.02 VHP 7.103 DPA -4.90 RAP 260.60 ECC 1.2028

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 14 30	998.21	16.94	330.87	141.61	113.04	11 31 8	398.2	19.91	323.46
90.00	13 26 28	5855.80	25.93	280.52	144.64	101.80	15 4 4	5255.8	27.30	272.12
100.00	11 57 59	857.72	14.25	319.27	140.32	116.56	12 12 16	257.7	17.70	312.18
100.00	15 25 40	5471.52	28.85	252.82	145.22	98.19	16 56 52	4871.5	29.68	244.12
110.00	12 8 33	824.51	9.62	314.06	137.62	122.96	12 22 18	224.5	13.90	307.56
110.00	17 31 36	5077.50	34.15	223.43	145.75	91.51	18 56 12	4477.5	33.99	214.19

DIFFERENTIAL CORRECTIONS
TDE -.1139 TRA 1.4282 TC3-6.7249 BAU 1.1096
RDE .2240 RRA -.2015 RC3 .3747 FAU .03141
FDE .1322 FRA .9452 FC3-2.2068 BSP 17282
BDE .2513 BRA 1.4424 BC3 6.7353 FSP -676

MID-COURSE EXECUTION ACCURACY
SGT 5404.5 SGR 583.1 SG3 201.9
RRT -.7240 RRF -.7130 RTF .9366
SGB 5435.9 RZS .0451 R13 -.9369
SG1 5421.1 SG2 401.0 THA 175.51

ORBIT DETERMINATION ACCURACY
ST 821.1 SR 382.2 SS 347.2
CRT -.4987 CRS -.0955 CST -.8105
LSA 888.8 MSA 387.4 SSA 28.3
EL1 846.8 EL2 321.2 ALF 164.67

LAUNCH DATE SEP 19 1970 FLIGHT TIME 178.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 519.344

RL 150.28 LAL -.00 LOL 355.64 VL 26.234 GAL 1.47 AZL 90.38 HCA 254.60 SMA 123.11 ECC .22211 INC .3783 V1 29.650
RP 108.56 LAP .37 LOP 250.25 VP 36.972 GAP 10.92 AZP 89.90 TAL 174.82 TAP 68.43 RCA 95.77 APO 150.45 V2 34.907
RC 160.740 GL -2.75 GP 17.63 ZAL 71.42 ZAP 159.27 ETS 53.59 ZAE 126.52 ETE 166.99 ZAC 120.27 ETC 263.70 CLP-168.93

PLANETOCENTRIC CONIC

C3 13.062 VHL 3.614 DLA -25.41 RAL 285.80 RAD 6567.5 VEL 11.595 PTH 2.03 VHP 7.265 DPA -5.94 RAP 262.68 ECC 1.2150

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 41 5	1165.90	12.21	340.91	143.98	115.75	11 0 31	565.9	15.58	333.85
90.00	14 25 38	5713.06	27.52	270.38	148.74	96.96	16 0 51	5113.1	28.20	261.78
100.00	11 38 2	982.01	10.35	326.44	143.01	118.20	11 54 24	382.0	14.04	319.59
100.00	16 11 22	5372.19	29.59	245.54	148.97	94.43	17 40 54	4772.2	29.89	236.74
110.00	12 1 0	909.94	6.43	318.61	140.64	123.65	12 16 10	309.9	10.81	312.25
110.00	18 4 53	5017.02	34.16	218.71	149.12	88.72	19 28 30	4417.0	33.61	209.51

DIFFERENTIAL CORRECTIONS
TDE .0347 TRA 1.6404 TC3-6.4106 BAU 1.1210
RDE .2250 RRA -.2147 RC3 .3405 FAU .02949
FDE .1902 FRA .9980 FC3-1.9546 BSP 17470
BDE .2276 BRA 1.6544 BC3 6.4196 FSP -659

MID-COURSE EXECUTION ACCURACY
SGT 5455.6 SGR 574.2 SG3 195.9
RRT -.7040 RRF -.6902 RTF .9373
SGB 5485.7 RZS .0375 R13 -.9375
SG1 5470.6 SG2 406.7 THA 175.74

ORBIT DETERMINATION ACCURACY
ST 876.6 SR 374.2 SS 380.6
CRT -.2410 CRS -.2113 CST -.8944
LSA 945.2 MSA 399.1 SSA 26.1
EL1 882.1 EL2 360.9 ALF 172.94

LAUNCH DATE SEP 19 1970 FLIGHT TIME 180.00 ARRIVAL DATE MAR 18 1971

HELIOCENTRIC CONIC DISTANCE 524.978

RL 150.28 LAL -.00 LOL 355.64 VL 26.189 GAL 1.96 AZL 90.18 HCA 257.78 SMA 122.84 ECC .22583 INC .1806 V1 29.650
RP 108.60 LAP .18 LOP 253.42 VP 36.930 GAP 11.25 AZP 89.96 TAL 173.23 TAP 71.01 RCA 95.10 APO 150.58 V2 34.896
RC 162.826 GL -1.27 GP 16.93 ZAL 68.41 ZAP 160.32 ETS 54.78 ZAE 126.56 ETE 167.49 ZAC 119.66 ETC 264.34 CLP-169.80

PLANETOCENTRIC CONIC

C3 13.954 VHL 3.735 DLA -23.59 RAL 288.87 RAD 6567.5 VEL 11.634 PTH 2.04 VHP 7.439 DPA -6.88 RAP 264.81 ECC 1.2296

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 22 34	1286.77	8.54	347.90	146.83	117.10	10 44 1	686.8	12.11	341.03
90.00	15 8 39	5820.96	28.10	263.71	152.46	93.66	16 42 20	5021.0	28.31	255.05
100.00	11 25 8	1084.79	6.99	332.22	145.99	119.14	11 43 13	484.8	10.82	325.53
100.00	16 48 46	5298.17	29.86	240.05	152.55	91.55	18 17 4	4698.2	29.75	231.25
110.00	11 55 48	988.63	3.44	322.74	143.80	124.03	12 12 17	388.6	7.89	316.48
110.00	18 34 35	4967.09	34.02	214.82	152.46	86.42	19 57 22	4367.1	33.15	205.69

DIFFERENTIAL CORRECTIONS
TDE .1071 TRA 1.8824 TC3-6.0547 BAU 1.1309
RDE .2272 RRA -.2280 RC3 .3074 FAU .02759
FDE .2445 FRA 1.0443 FC3-1.7115 BSP 17629
BDE .2943 BRA 1.8763 BC3 6.0625 FSP -640

MID-COURSE EXECUTION ACCURACY
SGT 5500.9 SGR 585.5 SG3 189.9
RRT -.6842 RRF -.6677 RTF .9379
SGB 5529.9 RZS .0307 R13 -.9381
SG1 5514.6 SG2 411.4 THA 175.95

ORBIT DETERMINATION ACCURACY
ST 987.5 SR 366.9 SS 415.1
CRT -.0220 CRS -.2971 CST -.9458
LSA 1063.9 MSA 386.8 SSA 24.2
EL1 987.6 EL2 366.8 ALF 179.46

LAUNCH DATE SEP 19 1970 FLIGHT TIME 182.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 530.578

RL 150.28 LAL -.00 LOL 355.64 VL 26.145 GAL 2.48 AZL 89.99 HCA 260.95 SMA 122.58 ECC .22987 INC .0000 V1 29.650
RP 108.63 LAP -.01 LOP 256.60 VP 36.888 GAP 11.60 AZP 90.00 TAL 171.64 TAP 72.60 RCA 94.40 APO 150.75 V2 34.885
RC 164.900 GL .08 GP 16.28 ZAL 65.50 ZAP 161.29 ETS 56.15 ZAE 126.59 ETE 167.95 ZAC 119.09 ETC 264.97 CLP-170.67

PLANETOCENTRIC CONIC

C3 15.012 VHL 3.875 DLA -21.86 RAL 291.78 RAD 6567.6 VEL 11.679 PTH 2.05 VHP 7.625 DPA -7.71 RAP 266.98 ECC 1.2471

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 10 8	1388.54	5.34	353.66	149.90	117.85	10 33 16	788.5	9.03	346.92
90.00	15 44 19	5551.61	28.30	258.64	156.05	91.13	17 16 51	4951.6	28.15	249.98
100.00	11 16 4	1175.72	3.95	337.26	149.13	119.65	11 35 40	575.7	7.87	330.66
100.00	17 21 4	5239.66	29.88	235.70	156.06	89.27	18 48 24	4639.7	29.46	226.92
110.00	11 52 12	1062.46	.62	326.60	147.06	124.18	12 9 55	462.5	5.10	320.38
110.00	19 1 25	4925.69	33.79	211.60	155.81	84.53	20 23 31	4325.7	32.67	202.55

DIFFERENTIAL CORRECTIONS
TDE .3330 TRA 2.0859 TC3-5.6959 BAU 1.1445
RDE .2318 RRA -.2405 RC3 .2787 FAU .02598
FDE .2809 FRA 1.0862 FC3-1.4983 BSP 18008
BDE .4057 BRA 2.0997 BC3 5.7027 FSP -633

MID-COURSE EXECUTION ACCURACY
SGT 5547.0 SGR 557.7 SG3 183.8
RRT -.6653 RRF -.6470 RTF .9395
SGB 5575.0 R23 .0246 R13 -.9396
SG1 5559.5 SG2 415.5 THA 176.15

ORBIT DETERMINATION ACCURACY
ST 1119.9 SR 361.6 SS 443.6
CRT .1316 CRS -.3554 CST -.9717
LSA 1202.1 MSA 368.9 SSA 22.4
EL1 1121.0 EL2 358.1 ALF 2.71

LAUNCH DATE SEP 19 1970 FLIGHT TIME 184.00 ARRIVAL DATE MAR 22 1971

HELIOCENTRIC CONIC DISTANCE 536.143

RL 150.28 LAL -.00 LOL 355.64 VL 26.101 GAL 3.01 AZL 89.80 HCA 264.13 SMA 122.32 ECC .23425 INC .1998 V1 29.650
RP 108.66 LAP -.20 LOP 259.77 VP 36.847 GAP 11.96 AZP 90.02 TAL 170.05 TAP 74.17 RCA 93.67 APO 150.97 V2 34.874
RC 166.961 GL 1.29 GP 15.70 ZAL 62.70 ZAP 162.20 ETS 57.71 ZAE 126.61 ETE 168.36 ZAC 118.55 ETC 265.60 CLP-171.52

PLANETOCENTRIC CONIC

C3 16.254 VHL 4.032 DLA -20.21 RAL 294.54 RAD 6567.7 VEL 11.732 PTH 2.07 VHP 7.825 DPA -8.46 RAP 269.19 ECC 1.2675

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 1 11	1479.22	2.44	358.75	153.12	118.22	10 25 50	879.2	6.19	352.08
90.00	16 15 18	5496.85	28.30	254.64	159.58	89.12	17 46 55	4896.8	27.88	246.00
100.00	11 9 28	1258.87	1.14	341.83	152.40	119.87	11 30 27	658.9	5.10	335.29
100.00	17 49 43	5192.43	29.79	232.19	159.53	87.42	19 16 15	4592.4	29.12	223.45
110.00	11 49 47	1132.53	-2.05	330.25	150.40	124.13	12 8 39	532.5	2.44	324.05
110.00	19 28 53	4891.53	33.54	208.97	159.16	82.99	20 47 25	4291.5	32.21	199.99

DIFFERENTIAL CORRECTIONS
TDE .4985 TRA 2.3366 TC3-5.2760 BAU 1.1477
RDE .2360 RRA -.2349 RC3 .2468 FAU .02396
FDE .3589 FRA 1.1357 FC3-1.2761 BSP 17977
BDE .5515 BRA 2.3505 BC3 5.2818 FSP -607

MID-COURSE EXECUTION ACCURACY
SGT 5578.8 SGR 548.7 SG3 178.1
RRT -.6452 RRF -.6252 RTF .9396
SGB 5605.7 R23 .0204 R13 -.9397
SG1 5590.0 SG2 418.3 THA 176.35

ORBIT DETERMINATION ACCURACY
ST 1282.6 SR 354.8 SS 477.6
CRT .2502 CRS -.4052 CST -.9853
LSA 1370.1 MSA 348.7 SSA 21.0
EL1 1285.9 EL2 342.6 ALF 4.26

LAUNCH DATE SEP 19 1970 FLIGHT TIME 186.00 ARRIVAL DATE MAR 24 1971

HELIOCENTRIC CONIC DISTANCE 541.667

RL 150.28 LAL -.00 LOL 355.64 VL 26.057 GAL 3.58 AZL 89.61 HCA 267.30 SMA 122.06 ECC .23899 INC .3868 V1 29.650
RP 108.69 LAP -.39 LOP 262.94 VP 36.806 GAP 12.34 AZP 90.02 TAL 168.45 TAP 75.75 RCA 92.89 APO 151.23 V2 34.864
RC 169.007 GL 2.39 GP 15.17 ZAL 60.03 ZAP 163.06 ETS 59.49 ZAE 126.63 ETE 168.74 ZAC 118.05 ETC 266.24 CLP-172.37

PLANETOCENTRIC CONIC

C3 17.699 VHL 4.207 DLA -18.67 RAL 297.16 RAD 6567.7 VEL 11.793 PTH 2.09 VHP 8.038 DPA -9.12 RAP 271.43 ECC 1.2913

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 54 31	1562.38	-.25	3.38	156.44	118.32	10 20 34	962.4	3.54	356.75
90.00	16 42 49	5452.92	28.22	251.43	163.08	87.51	18 13 42	4852.9	27.57	242.82
100.00	11 4 34	1336.37	-1.49	346.08	155.74	119.86	11 26 50	736.4	2.49	339.56
100.00	18 15 28	5154.16	29.64	229.36	162.99	85.94	19 41 22	4554.2	28.76	220.66
110.00	11 48 13	1199.57	-4.61	333.76	153.80	123.91	12 8 13	599.6	-.13	327.55
110.00	19 48 17	4863.72	33.29	206.84	162.53	81.75	21 9 21	4263.7	31.79	197.93

DIFFERENTIAL CORRECTIONS
TDE .6612 TRA 2.5934 TC3-4.8664 BAU 1.1527
RDE .2419 RRA -.2686 RC3 .2185 FAU .02215
FDE .3822 FRA 1.1812 FC3-1.0836 BSP 18082
BDE .7041 BRA 2.6073 BC3 4.8713 FSP -588

MID-COURSE EXECUTION ACCURACY
SGT 5610.3 SGR 539.8 SG3 172.5
RRT -.6259 RRF -.6048 RTF .9404
SGB 5636.2 R23 .0166 R13 -.9405
SG1 5620.5 SG2 420.3 THA 176.53

ORBIT DETERMINATION ACCURACY
ST 1441.1 SR 349.2 SS 506.2
CRT .3306 CRS -.4413 CST -.9919
LSA 1531.2 MSA 332.0 SSA 19.7
EL1 1446.0 EL2 328.5 ALF 4.83

LAUNCH DATE SEP 19 1970 FLIGHT TIME 188.00 ARRIVAL DATE MAR 26 1971

HELIOCENTRIC CONIC DISTANCE 547.143

RL 150.28 LAL -.00 LOL 355.64 VL 26.014 GAL 4.16 AZL 89.43 HCA 270.47 SMA 121.81 ECC .24415 INC .5724 V1 29.650
RP 108.72 LAP -.57 LOP 266.11 VP 36.767 GAP 12.74 AZP 90.00 TAL 166.86 TAP 77.33 RCA 92.07 APO 151.55 V2 34.855
RC 171.039 GL 3.38 GP 14.69 ZAL 57.48 ZAP 163.85 ETS 61.49 ZAE 126.63 ETE 169.08 ZAC 117.57 ETC 266.87 CLP-173.21

PLANETOCENTRIC CONIC

C3 19.372 VHL 4.401 DLA -17.21 RAL 299.62 RAD 6567.8 VEL 11.864 PTH 2.10 VHP 8.266 DPA -9.70 RAP 273.69 ECC 1.3188

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 49 28	1639.96	-2.75	7.71	159.82	118.19	10 16 48	1040.0	1.04	1.08
90.00	17 7 33	5417.69	28.09	248.86	166.57	86.23	18 37 51	4817.7	27.27	240.29
100.00	11 0 53	1409.48	-3.96	350.10	159.15	119.65	11 24 23	809.5	.01	343.57
100.00	18 38 48	5123.41	29.47	227.09	166.45	84.75	20 4 12	4523.4	28.43	218.44
110.00	11 47 19	1264.04	-7.05	337.16	157.24	123.54	12 8 23	664.0	-2.59	330.91
110.00	20 8 52	4841.61	33.06	205.15	165.91	80.78	21 29 34	4241.6	31.44	196.31

DIFFERENTIAL CORRECTIONS
TDE .8013 TRA 2.8359 TC3-4.5124 BAU 1.1698
RDE .2513 RRA -.2799 RC3 .1971 FAU .02102
FDE .4092 FRA 1.2129 FC3 -.9394 BSP 18800
BDE .8398 BRA 2.8497 BC3 4.5167 FSP -596

MID-COURSE EXECUTION ACCURACY
SGT 5639.4 SGR 531.7 SG3 166.2
RRT -.6078 RRF -.5865 RTF .9430
SGB 5664.4 R23 .0128 R13 -.9430
SG1 5648.7 SG2 421.5 THA 176.70

ORBIT DETERMINATION ACCURACY
ST 1564.2 SR 346.7 SS 520.1
CRT .3835 CRS -.4651 CST -.9952
LSA 1653.5 MSA 320.9 SSA 18.4
EL1 1570.0 EL2 318.9 ALF 5.07

LAUNCH DATE SEP 19 1970 FLIGHT TIME 190.00 ARRIVAL DATE MAR 28 1971

HELIOCENTRIC CONIC DISTANCE 552.574

RL	150.28	LAL	-.00	LOL	355.64	VL	25.971	GAL	4.79	AZL	89.24	HCA	273.64	SMA	121.56	ECC	.24975	INC	.7582
RP	108.75	LAP	-.76	LOP	269.28	VP	36.728	GAP	13.16	AZP	89.95	TAL	165.27	TAP	78.91	RCA	91.20	APO	151.92
RC	173.056	GL	4.26	GP	14.24	ZAL	55.06	ZAP	164.58	ETS	63.72	ZAE	126.63	ETE	169.40	ZAC	117.10	ETC	267.51

V1	29.650	V2	34.846	CLP	-174.04														

PLANETOCENTRIC CONIC

C3	21.302	VHL	4.615	DLA	-15.85	RAL	301.95	RAD	6567.9	VEL	11.945	PTH	2.13	VHP	8.511	DPA	-10.19	RAP	275.98
ECC	1.3506																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 45 36	1713.24	-5.09	11.82	163.26	117.89	10 14 9	1113.2	-1.32	5.17
90.00	17 30 1	5389.74	27.94	246.83	170.05	85.22	18 59 51	4789.7	26.99	238.29
100.00	10 58 10	1479.09	-6.29	353.95	162.61	119.28	11 22 49	879.1	-2.35	347.39
100.00	19 0 8	5099.13	29.31	225.30	169.91	83.83	20 25 7	4499.1	28.14	216.69
110.00	11 46 55	1326.35	-9.37	340.49	160.73	123.02	12 9 2	726.3	-4.96	334.18
110.00	20 27 52	4824.63	32.87	203.87	169.32	80.04	21 48 17	4224.6	31.15	195.07

DIFFERENTIAL CORRECTIONS

TDE	.9956	TRA	3.1422	TC3	-4.0634	BAU	1.1582
RDE	.2573	RRA	-.2954	RC3	.1681	FAU	.01875
FDE	.4589	FRA	1.2091	FC3	-.7621	BSP	18307
BDE	1.0283	BRA	3.1561	BC3	4.0669	FSP	-553

MID-COURSE EXECUTION ACCURACY

SGT	5660.2	SGR	521.0	SG3	161.7		
RRT	-.5876	RRF	-.5657	RTF	.9426		
SGB	5684.2	R23	.0107	R13	-.9426		
SG1	5668.5	SG2	420.9	THA	176.89		

ORBIT DETERMINATION ACCURACY

ST	1737.8	SR	339.3	SS	553.4
CRT	.4327	CRS	-.4922	CST	-.9972
LSA	1829.6	MSA	306.1	SSA	17.6
EL1	1744.2	EL2	304.8	ALF	4.98

LAUNCH DATE SEP 19 1970 FLIGHT TIME 192.00 ARRIVAL DATE MAR 30 1971

HELIOCENTRIC CONIC DISTANCE 557.946

RL	150.28	LAL	-.00	LOL	355.64	VL	25.929	GAL	5.44	AZL	89.05	HCA	276.80	SMA	121.32	ECC	.25585	INC	.9451
RP	108.78	LAP	-.94	LOP	272.45	VP	36.690	GAP	13.61	AZP	89.89	TAL	163.69	TAP	80.49	RCA	90.28	APO	152.36
RC	175.059	GL	5.04	GP	13.84	ZAL	52.76	ZAP	165.26	ETS	66.21	ZAE	126.62	ETE	169.69	ZAC	116.66	ETC	268.14

V1	29.650	V2	34.837	CLP	-174.88														

PLANETOCENTRIC CONIC

C3	23.522	VHL	4.850	DLA	-14.57	RAL	304.15	RAD	6568.0	VEL	12.037	PTH	2.15	VHP	8.774	DPA	-10.61	RAP	278.28
ECC	1.3871																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 42 38	1782.96	-7.30	15.76	166.75	117.44	10 12 21	1183.0	-3.57	9.07
90.00	17 50 31	5368.12	27.81	245.26	173.53	84.45	19 19 59	4768.1	26.75	236.75
100.00	10 56 9	1545.73	-8.50	357.67	166.10	118.77	11 21 55	945.7	-4.59	351.06
100.00	19 19 40	5080.58	29.16	223.94	173.36	83.12	20 44 21	4480.6	27.90	215.36
110.00	11 46 55	1386.72	-11.60	343.75	164.24	122.38	12 10 2	786.7	-7.24	337.36
110.00	20 45 24	4812.35	32.72	202.94	172.73	79.51	22 5 36	4212.4	30.93	194.18

DIFFERENTIAL CORRECTIONS

TDE	1.1080	TRA	3.4573	TC3	-3.6795	BAU	1.1580
RDE	.2867	RRA	-.3082	RC3	.1459	FAU	.01715
FDE	.4937	FRA	1.3128	FC3	-.6311	BSP	18403
BDE	1.1980	BRA	3.4511	BC3	3.6824	FSP	-536

MID-COURSE EXECUTION ACCURACY

SGT	5678.8	SGR	510.7	SG3	156.5		
RRT	-.5684	RRF	-.5465	RTF	.9441		
SGB	5701.7	R23	.0084	R13	-.9441		
SG1	5686.3	SG2	419.6	THA	177.06		

ORBIT DETERMINATION ACCURACY

ST	1871.6	SR	334.7	SS	573.1
CRT	.4671	CRS	-.5115	CST	-.9982
LSA	1963.6	MSA	295.6	SSA	16.7
EL1	1878.3	EL2	294.9	ALF	4.89

LAUNCH DATE SEP 19 1970 FLIGHT TIME 194.00 ARRIVAL DATE APR 1 1971

HELIOCENTRIC CONIC DISTANCE 563.252

RL	150.28	LAL	-.00	LOL	355.64	VL	25.887	GAL	6.13	AZL	88.87	HCA	279.97	SMA	121.08	ECC	.26250	INC	1.1345
RP	108.80	LAP	-1.12	LOP	275.61	VP	36.653	GAP	14.09	AZP	89.60	TAL	162.12	TAP	82.09	RCA	89.29	APO	152.86
RC	177.047	GL	5.73	GP	13.47	ZAL	50.59	ZAP	165.88	ETS	68.96	ZAE	126.60	ETE	169.95	ZAC	116.22	ETC	268.77

V1	29.650	V2	34.829	CLP	-175.71														

PLANETOCENTRIC CONIC

C3	26.073	VHL	5.106	DLA	-13.39	RAL	306.22	RAD	6568.1	VEL	12.143	PTH	2.18	VHP	9.057	DPA	-10.96	RAP	280.60
ECC	1.4291																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 40 23	1849.69	-9.37	19.56	170.27	116.84	10 11 12	1249.7	-5.70	12.81
90.00	18 9 17	5352.04	27.70	244.09	177.01	83.87	19 38 29	4752.0	26.56	235.81
100.00	10 54 43	1609.87	-10.58	1.29	169.63	118.12	11 21 33	1009.9	-6.73	354.61
100.00	19 37 37	5067.14	29.05	222.96	176.82	82.62	21 2 4	4467.1	27.72	214.40
110.00	11 47 14	1445.36	-13.71	346.97	167.79	121.62	12 11 19	845.4	-9.43	340.49
110.00	21 1 36	4804.36	32.62	202.34	176.16	79.16	22 21 40	4204.4	30.78	193.60

DIFFERENTIAL CORRECTIONS

TDE	1.3462	TRA	3.7464	TC3	-3.3132	BAU	1.1557
RDE	.2771	RRA	-.3204	RC3	.1256	FAU	.01559
FDE	.5266	FRA	1.3563	FC3	-.5178	BSP	18515
BDE	1.3744	BRA	3.7601	BC3	3.3156	FSP	-521

MID-COURSE EXECUTION ACCURACY

SGT	5692.4	SGR	499.6	SG3	151.5		
RRT	-.5489	RRF	-.5274	RTF	.9457		
SGB	5714.3	R23	.0067	R13	-.9457		
SG1	5699.0	SG2	417.2	THA	177.23		

ORBIT DETERMINATION ACCURACY

ST	1993.2	SR	350.1	SS	590.6
CRT	.4948	CRS	-.5283	CST	-.9988
LSA	2085.3	MSA	286.3	SSA	16.0
EL1	2000.0	EL2	285.9	ALF	4.78

LAUNCH DATE SEP 19 1970 FLIGHT TIME 196.00 ARRIVAL DATE APR 3 1971

HELIOCENTRIC CONIC DISTANCE 568.484

RL	150.28	LAL	-.00	LOL	355.64	VL	25.846	GAL	6.86	AZL	88.67	HCA	283.13	SMA	120.84	ECC	.26975	INC	1.3274
RP	108.83	LAP	-1.29	LOP	278.78	VP	36.617	GAP	14.60	AZP	89.70	TAL	160.57	TAP	83.70	RCA	88.24	APO	153.44
RC	179.021	GL	6.34	GP	13.13	ZAL	48.55	ZAP	166.43	ETS	72.00	ZAE	126.58	ETE	170.20	ZAC	115.79	ETC	269.40

V1	29.650	V2	34.822	CLP	-176.55														

PLANETOCENTRIC CONIC

C3	29.004	VHL	5.386	DLA	-12.29	RAL	308.17	RAD	6568.2	VEL	12.263	PTH	2.21	VHP	9.362	DPA	-11.23	RAP	282.92
ECC	1.4773																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 38 41	1913.84	-11.32	23.27	173.82	116.13	10 10 34	1313.8	-7.72	16.44
90.00	18 26 31	5340.92	27.62	243.29	180.48	83.48	19 55 32	4740.9	26.43	234.83
100.00	10 53 44	1671.70	-12.54	4.84	173.19	117.36	11 21 35	1071.7	-8.77	358.07
100.00	19 54 9	5058.29	28.97	222.31	180.28	82.29	21 18 27	4458.3	27.66	213.78
110.00	11 47 46	1502.44	-15.73	350.17	171.36	120.75	12 12 49	902.4	-11.53	343.58
110.00	21 16 35	4800.31	32.57	202.03	179.59	78.99	22 36 36	4200.3	30.71	193.31

DIFFERENTIAL CORRECTIONS

TDE	1.5286	TRA	4.0716	TC3	-2.9661	BAU	1.1509
RDE	.2885	RRA	-.3317	RC3	.1071	FAU	.01410
FDE	.5578	FRA	1.4005	FC3	-.4210	BSP	18628
BDE	1.5555	BRA	4.0850	BC3	2.9680	FSP	-506

MID-COURSE EXECUTION ACCURACY

SGT	5701.3	SGR	487.8	SG3	146.7		
RRT	-.5287	RRF	-.5081	RTF	.9477		
SGB	5722.1	R23	.0052	R13	-.9477		
SG1	5707.2	SG2	413.6	THA	177.40		

ORBIT DETERMINATION ACCURACY

ST	2103.0	SR	325.5	SS	606.2
CRT	.5182	CRS	-.5435	CST	-.9992
LSA	2195.1	MSA	277.7	SSA	15.3
EL1	2109.9	EL2	277.5	ALF	4.67

LAUNCH DATE SEP 19 1970 FLIGHT TIME 198.00 ARRIVAL DATE APR 5 1971

HELIOCENTRIC CONIC DISTANCE 573.630
RL 150.28 LAL -.00 LOL 355.64 VL 25.805 GAL 7.64 AZL 88.47 HCA 286.29 SMA 120.61 ECC .27768 INC 1.5254 V1 29.650
RP 108.85 LAP -1.46 LOP 281.94 VP 36.581 GAP 15.14 AZP 89.57 TAL 159.03 TAP 85.32 RCA 87.12 APO 154.10 V2 34.815
RC 180.980 GL 6.87 GP 12.82 ZAL 46.62 ZAP 166.92 ETS 75.33 ZAE 126.53 ETE 170.44 ZAC 115.37 ETC 270.03 CLP-177.39
PLANETOCENTRIC CONIC
C3 32.373 VHL 5.690 DLA -11.27 RAL 310.00 RAD 6568.3 VEL 12.399 PTH 2.24 VHP 9.692 DPA -11.44 RAP 285.24 ECC 1.5328

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 37 26	1975.70	-13.15	26.89	177.39	115.31	10 10 21	1375.7	-9.63	19.98
90.00	18 42 22	5334.24	27.56	242.81	183.94	83.24	20 11 16	4734.2	26.34	234.36
100.00	10 53 6	1731.57	-14.38	8.33	176.77	116.49	11 21 58	1131.6	-10.71	1.46
100.00	20 9 23	5053.60	28.93	221.97	183.74	82.11	21 33 36	4453.6	27.53	213.44
110.00	11 48 30	1558.07	-17.63	353.36	174.96	119.77	12 14 28	958.1	-13.54	346.63
110.00	21 30 28	4799.87	32.56	202.00	183.04	78.97	22 50 28	4199.9	30.70	193.27

DIFFERENTIAL CORRECTIONS
TDE 1.7153 TRA 4.4129 TC3-2.6416 BAU 1.1440
RDE .3010 RRA -.3419 RC3 .0904 FAU .01269
FDE .5876 FRA 1.4452 FC3 -.3394 BSP 18775
BDE 1.7416 BRA 4.4261 BC3 2.6431 FSP -493

MID-COURSE EXECUTION ACCURACY
SGT 5705.3 SGR 475.1 SG3 142.0
RRT -.5078 RRF -.4883 RTF .9498
SGB 5725.1 RZ3 .0041 R13 -.9499
SG1 5710.5 SG2 408.9 THA 177.57

ORBIT DETERMINATION ACCURACY
ST 2199.9 SR 320.9 SS 620.1
CRT .5385 CRS -.5573 CST -.9994
LSA 2292.2 MSA 269.7 SSA 14.6
EL1 2206.8 EL2 269.6 ALF 4.56

LAUNCH DATE SEP 19 1970 FLIGHT TIME 200.00 ARRIVAL DATE APR 7 1971

HELIOCENTRIC CONIC DISTANCE 578.676
RL 150.28 LAL -.00 LOL 355.64 VL 25.765 GAL 8.47 AZL 88.27 HCA 289.45 SMA 120.39 ECC .28637 INC 1.7297 V1 29.650
RP 108.87 LAP -1.63 LOP 285.10 VP 36.547 GAP 15.73 AZP 89.42 TAL 157.52 TAP 86.97 RCA 85.91 APO 154.86 V2 34.809
RC 182.925 GL 7.34 GP 12.53 ZAL 44.82 ZAP 167.35 ETS 78.95 ZAE 126.48 ETE 170.65 ZAC 114.95 ETC 270.64 CLP-178.24
PLANETOCENTRIC CONIC
C3 36.252 VHL 6.021 DLA -10.32 RAL 311.72 RAD 6568.4 VEL 12.555 PTH 2.28 VHP 10.050 DPA -11.59 RAP 287.56 ECC 1.5966

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 36 33	2035.49	-14.86	30.45	180.97	114.38	10 10 28	1435.5	-11.44	23.44
90.00	18 56 57	5331.56	27.54	242.62	187.39	83.15	20 25 49	4731.6	26.31	234.17
100.00	10 52 46	1789.59	-16.12	11.76	180.36	115.52	11 22 35	1189.6	-12.55	4.79
100.00	20 23 25	5052.69	28.92	221.90	187.19	82.08	21 47 38	4452.7	27.52	213.38
110.00	11 49 22	1612.32	-19.44	356.53	178.58	118.69	12 16 15	1012.3	-15.46	349.67
110.00	21 43 18	4802.73	32.60	202.21	186.48	79.09	23 3 21	4202.7	30.75	193.48

DIFFERENTIAL CORRECTIONS
TDE 1.9066 TRA 4.7728 TC3-2.3375 BAU 1.1335
RDE .3146 RRA -.3508 RC3 .0755 FAU .01132
FDE .6167 FRA 1.4912 FC3 -.2702 BSP 18931
BDE 1.9344 BRA 4.7857 BC3 2.3387 FSP -481

MID-COURSE EXECUTION ACCURACY
SGT 5703.9 SGR 461.5 SG3 137.4
RRT -.4857 RRF -.4676 RTF .9523
SGB 5722.5 RZ3 .0032 R13 -.9523
SG1 5708.3 SG2 403.1 THA 177.74

ORBIT DETERMINATION ACCURACY
ST 2285.6 SR 316.2 SS 633.1
CRT .5569 CRS -.5708 CST -.9996
LSA 2378.3 MSA 261.9 SSA 14.0
EL1 2292.5 EL2 261.8 ALF 4.46

LAUNCH DATE SEP 19 1970 FLIGHT TIME 202.00 ARRIVAL DATE APR 9 1971

HELIOCENTRIC CONIC DISTANCE 583.606
RL 150.28 LAL -.00 LOL 355.64 VL 25.726 GAL 9.35 AZL 88.06 HCA 292.61 SMA 120.16 ECC .29590 INC 1.9421 V1 29.650
RP 108.88 LAP -1.79 LOP 288.27 VP 36.514 GAP 16.37 AZP 89.25 TAL 156.04 TAP 88.65 RCA 84.61 APO 155.72 V2 34.804
RC 184.854 GL 7.75 GP 12.27 ZAL 43.13 ZAP 167.70 ETS 82.87 ZAE 126.40 ETE 170.86 ZAC 114.54 ETC 271.25 CLP-179.10
PLANETOCENTRIC CONIC
C3 40.727 VHL 6.382 DLA -9.45 RAL 313.33 RAD 6568.6 VEL 12.732 PTH 2.31 VHP 10.439 DPA -11.67 RAP 289.87 ECC 1.6703

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 35 57	2093.35	-16.45	33.95	184.56	113.37	10 10 51	1493.3	-13.15	26.83
90.00	19 10 23	5332.51	27.55	242.68	190.83	83.18	20 39 16	4732.5	26.32	234.23
100.00	10 52 39	1845.89	-17.74	15.16	183.97	114.46	11 23 25	1245.9	-14.29	8.07
100.00	20 36 22	5055.20	28.94	222.09	190.63	82.17	22 0 37	4455.2	27.56	213.56
110.00	11 50 21	1665.24	-21.14	359.70	182.21	117.51	12 18 6	1065.2	-17.28	352.69
110.00	21 55 10	4808.61	32.67	202.66	189.92	79.35	23 15 18	4208.6	30.86	193.91

DIFFERENTIAL CORRECTIONS
TDE 2.1096 TRA 5.1537 TC3-2.0546 BAU 1.1192
RDE .3292 RRA -.3581 RC3 .0621 FAU .00998
FDE .6455 FRA 1.5302 FC3 -.2122 BSP 19091
BDE 2.1351 BRA 5.1661 BC3 2.0555 FSP -470

MID-COURSE EXECUTION ACCURACY
SGT 5698.0 SGR 447.0 SG3 133.1
RRT -.4620 RRF -.4456 RTF .9549
SGB 5715.5 RZ3 .0026 R13 -.9549
SG1 5701.7 SG2 396.2 THA 177.91

ORBIT DETERMINATION ACCURACY
ST 2360.9 SR 311.3 SS 645.7
CRT .5742 CRS -.5840 CST -.9997
LSA 2454.1 MSA 254.2 SSA 13.4
EL1 2367.7 EL2 254.1 ALF 4.38

LAUNCH DATE SEP 19 1970 FLIGHT TIME 204.00 ARRIVAL DATE APR 11 1971

HELIOCENTRIC CONIC DISTANCE 588.399
RL 150.28 LAL -.00 LOL 355.64 VL 25.687 GAL 10.30 AZL 87.84 HCA 295.77 SMA 119.95 ECC .30639 INC 2.1645 V1 29.650
RP 108.90 LAP -1.95 LOP 291.43 VP 36.483 GAP 17.07 AZP 89.06 TAL 154.59 TAP 90.36 RCA 83.20 APO 156.70 V2 34.799
RC 186.768 GL 8.10 GP 12.02 ZAL 41.55 ZAP 167.97 ETS 87.07 ZAE 126.30 ETE 171.06 ZAC 114.12 ETC 271.85 CLP-179.98
PLANETOCENTRIC CONIC
C3 45.902 VHL 6.775 DLA -8.65 RAL 314.83 RAD 6568.7 VEL 12.933 PTH 2.36 VHP 10.865 DPA -11.70 RAP 292.17 ECC 1.7554

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 35 36	2149.37	-17.93	37.39	188.16	112.29	10 11 26	1549.4	-14.76	30.16
90.00	19 22 44	5336.74	27.58	242.99	194.25	83.33	20 51 41	4736.7	26.37	234.53
100.00	10 52 44	1900.52	-19.24	18.52	187.57	113.33	11 24 25	1300.5	-15.92	11.30
100.00	20 48 17	5060.82	28.99	222.50	194.05	82.38	22 12 38	4460.8	27.64	213.96
110.00	11 51 24	1716.85	-22.72	2.86	185.85	116.25	12 20 1	1116.9	-19.01	355.69
110.00	22 6 7	4817.25	32.78	203.31	193.36	79.72	23 26 24	4217.3	31.02	194.53

DIFFERENTIAL CORRECTIONS
TDE 2.3208 TRA 5.5586 TC3-1.7910 BAU 1.0995
RDE .3449 RRA -.3635 RC3 .0501 FAU .00865
FDE .6748 FRA 1.5899 FC3 -.1632 BSP 19201
BDE 2.3460 BRA 5.5705 BC3 1.7917 FSP -458

MID-COURSE EXECUTION ACCURACY
SGT 5687.8 SGR 431.7 SG3 128.9
RRT -.4362 RRF -.4217 RTF .9577
SGB 5704.1 RZ3 .0023 R13 -.9577
SG1 5690.9 SG2 388.3 THA 178.09

ORBIT DETERMINATION ACCURACY
ST 2427.2 SR 306.2 SS 658.5
CRT .5908 CRS -.5975 CST -.9998
LSA 2521.5 MSA 246.4 SSA 12.9
EL1 2434.0 EL2 246.4 ALF 4.31

LAUNCH DATE SEP 19 1970 FLIGHT TIME 206.00 ARRIVAL DATE APR 13 1971

HELIOCENTRIC CONIC DISTANCE 593.031

RL 150.28 LAL -.00 LOL 355.64 VL 25.649 GAL 11.32 AZL 87.60 HCA 298.92 SMA 119.74 ECC .31795 INC 2.3989 V1 29.650
RP 108.91 LAP -2.10 LOP 294.59 VP 36.452 GAP 17.82 AZP 88.84 TAL 153.19 TAP 92.12 RCA 81.67 APO 157.81 V2 34.795
RC 188.667 GL 8.40 GP 11.80 ZAL 40.09 ZAP 168.17 ETS 91.54 ZAE 126.18 ETE 171.26 ZAC 113.71 ETC 272.43 CLP 179.12

PLANETOCENTRIC CONIC

C3 51.907 VHL 7.205 DLA -7.92 RAL 316.23 RAD 6568.9 VEL 13.163 PTH 2.40 VHP 11.331 DPA -11.68 RAP 294.44 ECC 1.8543

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 35 27	2203.59	-19.30	40.79	191.74	111.13	10 12 11	1603.6	-16.26	33.43
90.00	19 34 4	5343.94	27.64	243.51	197.64	83.59	21 3 8	4743.9	26.46	235.04
100.00	10 52 58	1953.50	-20.64	21.83	191.17	112.12	11 25 32	1353.5	-17.46	14.48
100.00	20 59 13	5060.26	29.07	223.11	197.45	82.70	22 23 43	4469.3	27.75	214.56
110.00	11 52 30	1767.13	-24.20	6.01	189.49	114.91	12 21 57	1167.1	-20.64	358.68
110.00	22 16 11	4828.40	32.91	204.15	196.77	80.20	23 36 40	4228.4	31.21	195.34

DIFFERENTIAL CORRECTIONS

TDE 2.5422 TRA 5.9916 TC3-1.5460 BAU 1.0732
RDE .3617 RRA -.3668 RC3 .0395 FAU .00751
FDE .7051 FRA 1.6443 FC3 -.1220 BSP 19303
BDE 2.5678 BRA 6.0028 BC3 1.5465 FSP -445

MID-COURSE EXECUTION ACCURACY

SGT 5674.0 SGR 415.6 SG3 124.9
RRT -.4081 RRF -.3956 RTF .9606
SGB 5689.2 R23 .0020 R13 -.9606
SG1 5676.5 SG2 379.2 THA 178.28

ORBIT DETERMINATION ACCURACY

ST 2484.9 SR 300.9 SS 672.1
CRT .6070 CRS -.6113 CST -.9998
LSA 2580.7 MSA 238.5 SSA 12.4
EL1 2491.7 EL2 238.5 ALF 4.24

LAUNCH DATE SEP 19 1970 FLIGHT TIME 208.00 ARRIVAL DATE APR 15 1971

HELIOCENTRIC CONIC DISTANCE 597.468

RL 150.28 LAL -.00 LOL 355.64 VL 25.612 GAL 12.42 AZL 87.35 HCA 302.08 SMA 119.53 ECC .33074 INC 2.6480 V1 29.650
RP 108.92 LAP -2.24 LOP 297.75 VP 36.423 GAP 18.66 AZP 88.59 TAL 151.85 TAP 93.93 RCA 80.00 APO 159.06 V2 34.791
RC 190.549 GL 8.66 GP 11.60 ZAL 38.73 ZAP 168.27 ETS 96.24 ZAE 126.03 ETE 171.45 ZAC 113.30 ETC 273.01 CLP 178.20

PLANETOCENTRIC CONIC

C3 58.905 VHL 7.675 DLA -7.26 RAL 317.53 RAD 6569.1 VEL 13.426 PTH 2.45 VHP 11.843 DPA -11.60 RAP 296.69 ECC 1.9694

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 35 28	2256.01	-20.55	44.12	195.29	109.92	10 13 4	1656.0	-17.65	36.65
90.00	19 44 25	5353.83	27.71	244.22	200.99	83.94	21 13 39	4753.8	26.58	235.74
100.00	10 53 20	2004.82	-21.92	25.11	194.75	110.85	11 26 44	1404.8	-18.88	17.63
100.00	21 9 14	5060.26	29.16	223.92	200.81	83.11	22 33 54	4480.3	27.90	215.34
110.00	11 53 37	1816.02	-25.57	9.16	193.12	113.50	12 23 53	1216.0	-22.17	1.65
110.00	22 29 06	4841.82	33.06	205.17	200.16	80.79	23 46 7	4241.8	31.44	196.32

DIFFERENTIAL CORRECTIONS

TDE 2.7782 TRA 6.4557 TC3-1.3186 BAU 1.0387
RDE .3797 RRA -.3674 RC3 .0303 FAU .00594
FDE .7371 FRA 1.7032 FC3 -.0873 BSP 19342
BDE 2.8040 BRA 6.4662 BC3 1.3190 FSP -432

MID-COURSE EXECUTION ACCURACY

SGT 5657.0 SGR 398.7 SG3 121.1
RRT -.3767 RRF -.3663 RTF .9637
SGB 5671.0 R23 .0018 R13 -.9637
SG1 5659.0 SG2 369.2 THA 178.47

ORBIT DETERMINATION ACCURACY

ST 2535.6 SR 295.3 SS 686.9
CRT .6235 CRS -.6258 CST -.9998
LSA 2633.5 MSA 230.3 SSA 11.9
EL1 2542.4 EL2 230.3 ALF 4.19

LAUNCH DATE SEP 19 1970 FLIGHT TIME 210.00 ARRIVAL DATE APR 17 1971

HELIOCENTRIC CONIC DISTANCE 601.672

RL 150.28 LAL -.00 LOL 355.64 VL 25.576 GAL 13.62 AZL 87.09 HCA 305.23 SMA 119.33 ECC .34493 INC 2.9148 V1 29.650
RP 108.93 LAP -2.38 LOP 300.91 VP 36.395 GAP 19.57 AZP 88.32 TAL 150.56 TAP 95.80 RCA 78.17 APO 160.49 V2 34.789
RC 192.414 GL 8.88 GP 11.40 ZAL 37.49 ZAP 168.27 ETS 101.12 ZAE 125.85 ETE 171.63 ZAC 112.88 ETC 273.56 CLP 177.24

PLANETOCENTRIC CONIC

C3 67.096 VHL 8.191 DLA -6.66 RAL 318.73 RAD 6569.3 VEL 13.728 PTH 2.51 VHP 12.410 DPA -11.48 RAP 298.90 ECC 2.1042

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 35 36	2306.56	-21.69	47.39	198.81	108.66	10 14 2	1706.6	-18.94	39.80
90.00	19 53 50	5366.16	27.80	245.12	204.30	84.38	21 23 16	4766.2	26.73	236.61
100.00	10 53 46	2054.39	-23.08	28.33	198.29	109.54	11 28 0	1454.4	-20.21	20.71
100.00	21 18 21	5093.57	29.26	224.09	204.12	83.62	22 43 14	4493.6	28.07	216.29
110.00	11 54 45	1863.44	-26.82	12.27	196.72	112.04	12 25 49	1263.4	-23.59	4.60
110.00	22 33 51	4857.28	33.23	206.35	203.51	81.46	23 54 48	4257.3	31.69	197.46

DIFFERENTIAL CORRECTIONS

TDE 3.0310 TRA 6.9564 TC3-1.1081 BAU .9941
RDE .3991 RRA -.3648 RC3 .0224 FAU .00450
FDE .7715 FRA 1.7676 FC3 -.0581 BSP 19288
BDE 3.0572 BRA 6.9659 BC3 1.1083 FSP -417

MID-COURSE EXECUTION ACCURACY

SGT 5638.2 SGR 381.2 SG3 117.5
RRT -.3412 RRF -.3331 RTF .9670
SGB 5651.0 R23 .0019 R13 -.9670
SG1 5639.7 SG2 350.2 THA 178.67

ORBIT DETERMINATION ACCURACY

ST 2580.3 SR 289.6 SS 703.6
CRT .6404 CRS -.6412 CST -.9999
LSA 2680.9 MSA 221.9 SSA 11.4
EL1 2587.0 EL2 221.9 ALF 4.14

LAUNCH DATE SEP 19 1970 FLIGHT TIME 212.00 ARRIVAL DATE APR 19 1971

HELIOCENTRIC CONIC DISTANCE 605.593

RL 150.28 LAL -.00 LOL 355.64 VL 25.541 GAL 14.93 AZL 86.80 HCA 308.39 SMA 119.14 ECC .36072 INC 3.2033 V1 29.650
RP 108.94 LAP -2.51 LOP 304.08 VP 36.368 GAP 20.59 AZP 88.01 TAL 149.36 TAP 97.75 RCA 76.16 APO 162.11 V2 34.787
RC 194.281 GL 9.06 GP 11.23 ZAL 36.35 ZAP 168.17 ETS 106.14 ZAE 125.62 ETE 171.82 ZAC 112.47 ETC 274.10 CLP 176.25

PLANETOCENTRIC CONIC

C3 76.737 VHL 8.760 DLA -6.12 RAL 319.82 RAD 6569.5 VEL 14.074 PTH 2.57 VHP 13.038 DPA -11.32 RAP 301.07 ECC 2.2629

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 35 50	2355.15	-22.71	50.59	202.27	107.38	10 15 5	1755.2	-20.12	42.87
90.00	20 2 19	5380.69	27.89	246.17	207.54	84.90	21 31 59	4780.7	26.89	237.64
100.00	10 54 17	2102.11	-24.13	31.49	201.77	108.20	11 29 19	1502.1	-21.42	23.74
100.00	21 26 33	5108.96	29.38	226.02	207.37	84.20	22 51 42	4509.0	28.26	217.40
110.00	11 55 52	1909.26	-27.95	15.36	200.28	110.53	12 27 42	1309.3	-24.90	7.51
110.00	22 41 27	4874.58	33.39	207.67	206.81	82.23	24 2 41	4274.6	31.96	198.73

DIFFERENTIAL CORRECTIONS

TDE 3.3034 TRA 7.4982 TC3 -.9135 BAU .9373
RDE .4208 RRA -.3585 RC3 .0157 FAU .00297
FDE .8088 FRA 1.8386 FC3 -.0335 BSP 19124
BDE 3.3300 BRA 7.5068 BC3 .9137 FSP -400

MID-COURSE EXECUTION ACCURACY

SGT 5617.7 SGR 363.2 SG3 114.2
RRT -.3006 RRF -.2947 RTF .9703
SGB 5629.4 R23 .0020 R13 -.9703
SG1 5618.8 SG2 346.3 THA 178.88

ORBIT DETERMINATION ACCURACY

ST 2619.2 SR 283.8 SS 722.6
CRT .6580 CRS -.6576 CST -.9999
LSA 2723.5 MSA 213.2 SSA 10.9
EL1 2625.9 EL2 213.2 ALF 4.11

LAUNCH DATE SEP 19 1970 FLIGHT TIME 214.00 ARRIVAL DATE APR 21 1971

HELIOCENTRIC CONIC DISTANCE 609.166

RL 150.28 LAL -.00 LOL 355.64 VL 25.507 GAL 16.36 AZL 86.48 HCA 311.54 SMA 118.95 ECC .37834 INC 3.5181 V1 29.650
RP 108.94 LAP -2.63 LOP 307.24 VP 36.343 GAP 21.73 AZP 87.67 TAL 148.26 TAP 99.79 RCA 73.95 APO 163.96 V2 34.786
RC 196.090 GL 9.20 GP 11.06 ZAL 35.33 ZAP 167.95 ETS 111.23 ZAE 125.34 ETE 172.01 ZAC 112.06 ETC 274.62 CLP 175.20

PLANETOCENTRIC CONIC

C3 88.151 VHL 9.389 DLA -5.64 RAL 320.81 RAD 6569.7 VEL 14.474 PTH 2.63 VHP 13.739 DPA -11.12 RAP 303.18 ECC 2.4507

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 36 9	2401.62	-23.62	53.69	205.64	106.08	10 16 11	1801.6	-21.19	45.86
90.00	20 9 52	5397.22	27.99	247.37	210.70	85.49	21 39 49	4797.2	27.07	238.82
100.00	10 54 50	2147.83	-25.07	34.56	205.17	106.84	11 30 37	1547.8	-22.53	26.68
100.00	21 33 52	5126.24	29.49	227.30	210.55	84.86	22 59 19	4526.2	28.46	218.64
110.00	11 56 57	1953.30	-28.97	18.38	205.76	109.00	12 29 31	1353.3	-26.10	10.37
110.00	22 48 14	4893.53	33.56	209.12	210.05	83.08	24 9 47	4293.5	32.24	200.14

DIFFERENTIAL CORRECTIONS
TDE 3.5981 TRA 8.0865 TC3 -.7346 BAU .8658
RDE .4433 RRA -.3475 RC3 .0103 FAU .00132
FDE .8497 FRA 1.9173 FC3 -.0130 BSP 18845
BDE 3.6253 BRA 8.0939 BC3 .7346 FSP -382

MID-COURSE EXECUTION ACCURACY
SGT 5595.9 SGR 344.9 SG3 111.0
RRT -.2536 RRF -.2499 RTF .9736
SGB 5606.5 RZS .0022 RI3 -.9736
SG1 5596.6 SG2 333.6 THA 179.10

ORBIT DETERMINATION ACCURACY
ST 2652.6 SR 278.0 SS 744.4
CRT .6766 CRS -.6753 CST -.9999
LSA 2761.5 MSA 204.2 SSA 10.4
EL1 2659.3 EL2 204.2 ALF 4.08

LAUNCH DATE SEP 19 1970 FLIGHT TIME 216.00 ARRIVAL DATE APR 23 1971

HELIOCENTRIC CONIC DISTANCE 612.309

RL 150.28 LAL -.00 LOL 355.64 VL 25.474 GAL 17.93 AZL 86.13 HCA 314.69 SMA 118.78 ECC .39807 INC 3.8651 V1 29.650
RP 108.94 LAP -2.75 LOP 310.40 VP 36.320 GAP 23.00 AZP 87.28 TAL 147.27 TAP 101.96 RCA 71.50 APO 166.06 V2 34.785
RC 197.900 GL 9.32 GP 10.91 ZAL 34.43 ZAP 167.62 ETS 116.33 ZAE 125.00 ETE 172.21 ZAC 111.66 ETC 275.12 CLP 174.10

PLANETOCENTRIC CONIC

C3 101.758 VHL 10.088 DLA -5.23 RAL 321.68 RAD 6570.0 VEL 14.937 PTH 2.69 VHP 14.525 DPA -10.90 RAP 305.24 ECC 2.6747

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 36 32	2445.76	-24.42	56.68	208.91	104.79	10 17 17	1845.8	-22.15	48.74
90.00	20 16 27	5415.56	28.08	248.70	213.78	86.15	21 46 43	4815.6	27.25	240.13
100.00	10 55 24	2191.32	-25.89	37.53	208.47	105.48	11 31 55	1591.3	-23.52	29.53
100.00	21 40 16	5145.23	29.60	228.70	213.64	85.59	23 6 1	4545.2	28.67	220.02
110.00	11 57 59	1995.37	-29.86	21.35	207.14	107.47	12 31 15	1395.4	-27.18	13.16
110.00	22 54 10	4913.94	33.71	210.70	213.20	84.00	24 16 4	4313.9	32.52	201.67

DIFFERENTIAL CORRECTIONS
TDE 3.9183 TRA 8.7278 TC3 -.5706 BAU .7763
RDE .4688 RRA -.3310 RC3 .0060 FAU-.00050
FDE .8947 FRA 2.0050 FC3 .0043 BSP 18429
BDE 3.9463 BRA 8.7341 BC3 .5707 FSP -363

MID-COURSE EXECUTION ACCURACY
SGT 5573.1 SGR 326.6 SG3 108.1
RRT -.1984 RRF -.1968 RTF .9770
SGB 5582.6 RZS .0025 RI3 -.9770
SG1 5573.5 SG2 320.1 THA 179.33

ORBIT DETERMINATION ACCURACY
ST 2680.4 SR 272.2 SS 769.5
CRT .6962 CRS -.6943 CST -.9999
LSA 2795.1 MSA 195.0 SSA 9.9
EL1 2687.1 EL2 194.9 ALF 4.07

LAUNCH DATE SEP 19 1970 FLIGHT TIME 218.00 ARRIVAL DATE APR 25 1971

HELIOCENTRIC CONIC DISTANCE 614.914

RL 150.28 LAL -.00 LOL 355.64 VL 25.443 GAL 19.68 AZL 85.75 HCA 317.84 SMA 118.61 ECC .42025 INC 4.2521 V1 29.650
RP 108.94 LAP -2.85 LOP 313.56 VP 36.298 GAP 24.43 AZP 86.85 TAL 146.42 TAP 104.26 RCA 68.76 APO 168.46 V2 34.785
RC 199.690 GL 9.41 GP 10.76 ZAL 33.86 ZAP 167.15 ETS 121.39 ZAE 124.59 ETE 172.41 ZAC 111.25 ETC 275.59 CLP 172.93

PLANETOCENTRIC CONIC

C3 118.101 VHL 10.867 DLA -4.89 RAL 322.43 RAD 6570.2 VEL 15.474 PTH 2.76 VHP 15.411 DPA -10.65 RAP 307.21 ECC 2.9436

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 36 56	2487.31	-25.12	59.52	212.03	103.53	10 18 23	1887.3	-23.01	51.49
90.00	20 22 3	5435.57	28.16	250.16	216.71	86.88	21 52 39	4835.6	27.43	241.57
100.00	10 55 58	2232.33	-26.61	40.37	211.62	104.15	11 33 11	1632.3	-24.40	32.26
100.00	21 45 42	5165.78	29.69	230.22	216.60	86.39	23 11 48	4565.8	28.88	221.51
110.00	11 58 56	2035.20	-30.64	24.17	210.39	105.95	12 32 52	1435.2	-28.15	15.86
110.00	22 59 13	4935.68	33.86	212.38	216.23	84.98	24 21 29	4335.7	32.79	203.30

DIFFERENTIAL CORRECTIONS
TDE 4.2666 TRA 9.4283 TC3 -.4216 BAU .6656
RDE .4974 RRA -.3076 RC3 .0029 FAU-.00254
FDE .9444 FRA 2.1031 FC3 .0186 BSP 17881
BDE 4.2955 BRA 9.4333 BC3 .4216 FSP -342

MID-COURSE EXECUTION ACCURACY
SGT 5546.8 SGR 308.7 SG3 105.4
RRT -.1330 RRF -.1335 RTF .9803
SGB 5557.4 RZS .0028 RI3 -.9803
SG1 5549.0 SG2 306.0 THA 179.57

ORBIT DETERMINATION ACCURACY
ST 2702.0 SR 266.7 SS 798.2
CRT .7171 CRS -.7146 CST -.9999
LSA 2823.9 MSA 185.6 SSA 9.4
EL1 2708.8 EL2 185.5 ALF 4.07

LAUNCH DATE SEP 19 1970 FLIGHT TIME 220.00 ARRIVAL DATE APR 27 1971

HELIOCENTRIC CONIC DISTANCE 616.837

RL 150.28 LAL -.00 LOL 355.64 VL 25.414 GAL 21.63 AZL 85.31 HCA 320.99 SMA 118.45 ECC .44527 INC 4.6892 V1 29.650
RP 108.94 LAP -2.95 LOP 316.73 VP 36.279 GAP 26.06 AZP 86.35 TAL 145.75 TAP 106.74 RCA 65.71 APO 171.20 V2 34.786
RC 201.461 GL 9.47 GP 10.62 ZAL 33.02 ZAP 166.53 ETS 126.35 ZAE 124.10 ETE 172.63 ZAC 110.86 ETC 276.03 CLP 171.67

PLANETOCENTRIC CONIC

C3 137.891 VHL 11.743 DLA -4.62 RAL 323.05 RAD 6570.5 VEL 16.100 PTH 2.83 VHP 16.415 DPA -10.39 RAP 309.10 ECC 3.2693

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 37 21	2525.91	-25.70	62.20	214.97	102.31	10 19 27	1925.9	-23.75	54.07
90.00	20 26 34	5457.16	28.23	251.74	219.50	87.67	21 57 31	4857.2	27.61	243.13
100.00	10 56 32	2270.51	-27.22	43.04	214.59	102.87	11 34 22	1670.5	-25.1[illegible]	34.84
100.00	21 50 5	5187.79	29.78	231.85	219.43	87.24	23 16 33	4587.8	29.08	223.11
110.00	11 59 48	2072.44	-31.31	26.87	213.45	104.48	12 34 20	1472.4	-29.00	18.42
110.00	23 3 18	4958.62	33.98	214.16	219.14	86.03	24 25 57	4358.6	33.06	205.04

DIFFERENTIAL CORRECTIONS
TDE 4.5916 TRA10.1405 TC3 -.3026 BAU .5579
RDE .5303 RRA -.2753 RC3 .0011 FAU-.00427
FDE .9868 FRA 2.2005 FC3 .0268 BSP 18495
BDE 4.6222 BRA10.1442 BC3 .3026 FSP -346

MID-COURSE EXECUTION ACCURACY
SGT 5492.3 SGR 291.8 SG3 102.1
RRT -.0568 RRF -.0592 RTF .9833
SGB 5500.0 RZS .0032 RI3 -.9833
SG1 5492.3 SG2 291.3 THA 179.83

ORBIT DETERMINATION ACCURACY
ST 2690.3 SR 261.9 SS 822.4
CRT .7374 CRS -.7344 CST -.9999
LSA 2819.8 MSA 176.6 SSA 8.8
EL1 2697.2 EL2 176.5 ALF 4.12

LAUNCH DATE SEP 20 1970 FLIGHT TIME 70.00 ARRIVAL DATE NOV 29 1970

HELIOCENTRIC CONIC DISTANCE 183.370

RL	150.24	LAL	-.00	LOL	356.62	VL	26.385	GAL	-8.34	AZL	89.93	HCA	80.88	SMA	123.96	ECC	.25498	INC	.0633
RP	107.77	LAP	.06	LOP	77.51	VP	37.314	GAP	-12.76	AZP	89.99	TAL	206.33	TAP	287.22	RCA	92.36	APO	155.57
RC	46.738	GL	.35	GP	-14.79	ZAL	133.33	ZAP	16.89	ETS	56.95	ZAE	148.27	ETE	335.25	ZAC	87.13	ETC	261.57

V1 29.658 V2 35.163 CLP -8.24

PLANETOCENTRIC CONIC

C3 23.803 VHL 4.879 DLA -15.50 RAL 220.94 RAD 6568.0 VEL 12.049 PTH 2.15 VHP 8.413 DPA -35.85 RAP 243.88 ECC 1.3917

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	4 15 14	1752.92	-6.35	14.06	83.83	117.65	4 44 26	1152.9	-2.60	7.39
90.00	12 6 13	5403.96	28.02	247.86	90.96	85.74	13 36 17	4804.0	27.13	239.30
100.00	5 28 4	1517.89	-7.58	356.11	83.17	119.00	5 53 22	917.9	-3.66	349.52
100.00	13 36 4	5114.22	29.41	226.41	90.82	84.40	15 1 18	4514.2	28.32	217.78
110.00	6 17 24	1363.37	-10.74	342.48	81.26	122.65	6 40 7	763.4	-6.36	336.13
110.00	15 3 13	4841.50	33.06	205.14	90.27	80.77	16 23 55	4241.5	31.43	196.30

DIFFERENTIAL CORRECTIONS

TDE	.1165	TRA	-.3682	TC3	.4872	BAU	.1724	SGT	667.8	SGR	456.5	SG3	107.7	ST	192.4	SR	371.1	SS	130.8
RDE	-.3140	RRA	-.1135	RC3	-.2367	FAU	.03472	RRT	-.3220	RRF	.4023	RTF	-.6407	CRT	-.6294	CRS	.9509	CST	-.7506
FDE	.1491	FRA	-.0523	FC3	-1.2628	BSP	1794	SGB	809.0	RZ3	-.0672	R13	.6699	LSA	413.5	MSA	141.3	SSA	29.8
BDE	.3349	BRA	.3853	BC3	.5416	FSP	-263	SG1	693.8	SG2	416.1	THA	160.21	EL1	393.5	EL2	141.0	ALF	110.88

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE SEP 20 1970 FLIGHT TIME 72.00 ARRIVAL DATE DEC 1 1970

HELIOCENTRIC CONIC DISTANCE 190.191

RL	150.24	LAL	-.00	LOL	356.62	VL	26.571	GAL	-8.30	AZL	89.74	HCA	84.11	SMA	125.12	ECC	.24558	INC	.2566
RP	107.74	LAP	.26	LOP	80.73	VP	37.456	GAP	-11.80	AZP	89.97	TAL	207.71	TAP	291.82	RCA	94.39	APO	155.84
RC	48.150	GL	1.42	GP	-15.76	ZAL	134.94	ZAP	19.03	ETS	51.38	ZAE	147.04	ETE	333.76	ZAC	86.22	ETC	261.68

V1 29.658 V2 35.174 CLP -10.81

PLANETOCENTRIC CONIC

C3 22.585 VHL 4.752 DLA -13.98 RAL 219.68 RAD 6567.9 VEL 11.999 PTH 2.14 VHP 7.909 DPA -36.94 RAP 244.37 ECC 1.3717

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 56 25	1793.90	-7.64	16.38	81.61	117.35	4 26 19	1193.9	-3.92	9.68
90.00	12 14 55	5337.38	27.59	243.04	88.04	83.35	13 43 52	4737.4	26.38	234.58
100.00	5 10 22	1555.33	-8.81	358.21	80.98	118.68	5 36 17	955.3	-4.92	351.59
100.00	13 43 39	5051.18	28.90	221.79	87.85	82.02	15 7 50	4451.2	27.50	213.27
110.00	6 2 1	1393.55	-11.85	344.12	79.17	122.30	6 25 15	793.6	-7.50	337.73
110.00	15 8 29	4785.73	32.37	200.94	87.15	78.37	16 28 15	4185.7	30.43	192.26

DIFFERENTIAL CORRECTIONS

TDE	.1044	TRA	-.3522	TC3	.5349	BAU	.1824	SGT	682.5	SGR	470.2	SG3	121.2	ST	182.5	SR	360.3	SS	166.9
RDE	-.2965	RRA	-.1199	RC3	-.2806	FAU	.03784	RRT	-.3595	RRF	.4513	RTF	-.6535	CRT	-.5967	CRS	.9501	CST	-.7510
FDE	.1960	FRA	-.0631	FC3	-1.4506	BSP	1894	SGB	828.8	RZ3	-.0779	R13	.6890	LSA	412.7	MSA	140.1	SSA	32.2
BDE	.3143	BRA	.3721	BC3	.6040	FSP	-303	SG1	715.3	SG2	418.7	THA	158.34	EL1	379.2	EL2	139.2	ALF	109.55

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE SEP 20 1970 FLIGHT TIME 74.00 ARRIVAL DATE DEC 3 1970

HELIOCENTRIC CONIC DISTANCE 197.004

RL	150.24	LAL	-.00	LOL	356.62	VL	26.738	GAL	-8.27	AZL	89.55	HCA	87.34	SMA	126.18	ECC	.23731	INC	.4464
RP	107.71	LAP	.45	LOP	83.96	VP	37.583	GAP	-10.89	AZP	89.98	TAL	209.05	TAP	296.39	RCA	96.23	APO	156.12
RC	49.661	GL	2.54	GP	-16.83	ZAL	136.45	ZAP	21.45	ETS	48.82	ZAE	145.99	ETE	332.04	ZAC	85.20	ETC	261.76

V1 29.658 V2 35.184 CLP -13.49

PLANETOCENTRIC CONIC

C3 21.599 VHL 4.647 DLA -12.44 RAL 218.52 RAD 6567.9 VEL 11.957 PTH 2.13 VHP 7.438 DPA -38.10 RAP 244.69 ECC 1.3555

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 38 24	1836.23	-8.96	18.79	79.69	116.98	4 9 0	1236.2	-5.27	12.06
90.00	12 23 42	5273.43	27.00	238.45	85.39	81.13	13 51 36	4673.4	25.50	230.10
100.00	4 53 22	1594.39	-10.08	.42	79.09	118.29	5 19 56	994.4	-6.22	353.75
100.00	13 51 26	4990.50	28.25	217.40	85.15	79.80	15 14 36	4390.5	26.55	209.01
110.00	5 47 12	1425.77	-13.01	345.89	77.36	121.89	6 10 58	825.8	-8.70	339.44
110.00	15 14 5	4731.88	31.56	196.95	84.34	76.14	16 32 57	4131.9	29.34	188.45

DIFFERENTIAL CORRECTIONS

TDE	.0912	TRA	-.3378	TC3	.5769	BAU	.1918	SGT	694.3	SGR	486.6	SG3	136.4	ST	171.0	SR	346.1	SS	207.5
RDE	-.2779	RRA	-.1269	RC3	-.3294	FAU	.04131	RRT	-.3977	RRF	.5032	RTF	-.6632	CRT	-.5491	CRS	.9474	CST	-.7334
FDE	.2567	FRA	-.1171	FC3	-1.6560	BSP	1978	SGB	847.8	RZ3	-.0906	R13	.7069	LSA	414.1	MSA	139.4	SSA	34.4
BDE	.2925	BRA	.3608	BC3	.6643	FSP	-348	SG1	735.8	SG2	421.3	THA	156.19	EL1	360.9	EL2	137.1	ALF	107.84

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE SEP 20 1970 FLIGHT TIME 76.00 ARRIVAL DATE DEC 5 1970

HELIOCENTRIC CONIC DISTANCE 203.804

RL	150.24	LAL	-.00	LOL	356.62	VL	26.886	GAL	-8.25	AZL	89.36	HCA	90.57	SMA	127.14	ECC	.23008	INC	.6351
RP	107.68	LAP	.64	LOP	87.19	VP	37.698	GAP	-10.01	AZP	90.01	TAL	210.35	TAP	300.92	RCA	97.89	APO	156.39
RC	51.263	GL	3.71	GP	-18.01	ZAL	137.83	ZAP	24.11	ETS	43.04	ZAE	145.11	ETE	330.07	ZAC	84.05	ETC	261.82

V1 29.658 V2 35.193 CLP -16.30

PLANETOCENTRIC CONIC

C3 20.804 VHL 4.561 DLA -10.87 RAL 217.49 RAD 6567.8 VEL 11.924 PTH 2.12 VHP 6.999 DPA -39.34 RAP 244.84 ECC 1.3424

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 21 15	1879.55	-10.28	21.28	78.06	116.53	3 52 34	1279.5	-6.64	14.50
90.00	12 32 38	5212.08	26.28	234.10	85.02	79.06	13 59 30	4612.1	24.51	225.88
100.00	4 37 9	1634.67	-11.37	2.71	77.49	117.83	5 4 23	1034.7	-7.56	356.00
100.00	13 59 25	4932.19	27.48	213.24	82.75	77.74	15 21 37	4332.2	25.51	204.99
110.00	5 33 3	1459.59	-14.22	347.77	75.83	121.42	5 57 23	859.6	-9.96	341.26
110.00	15 20 0	4680.03	30.66	193.18	81.83	74.08	16 38 0	4080.0	28.17	184.87

DIFFERENTIAL CORRECTIONS

TDE	.0777	TRA	-.3247	TC3	.6122	BAU	.2010	SGT	702.8	SGR	507.0	SG3	153.3	ST	159.2	SR	328.1	SS	251.9
RDE	-.2578	RRA	-.1346	RC3	-.3838	FAU	.04519	RRT	-.4367	RRF	.5581	RTF	-.6702	CRT	-.4855	CRS	.9429	CST	-.7009
FDE	.3257	FRA	-.1547	FC3	-1.8804	BSP	2068	SGB	866.6	RZ3	-.1046	R13	.7247	LSA	419.2	MSA	139.2	SSA	36.1
BDE	.2693	BRA	.3515	BC3	.7226	FSP	-399	SG1	755.7	SG2	424.2	THA	153.64	EL1	338.9	EL2	134.7	ALF	105.82

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE SEP 20 1970 FLIGHT TIME 78.00 ARRIVAL DATE DEC 7 1970

HELIOCENTRIC CONIC DISTANCE 210.588

RL	150.24	LAL	-.00	LOL	356.62	VL	27.018	GAL	-8.24	AZL	89.18	HCA	93.80	SMA	128.01	ECC	.22376	INC	.8241	V1	29.658
RP	107.65	LAP	.82	LOP	90.42	VP	37.800	GAP	-9.17	AZP	90.05	TAL	211.58	TAP	305.38	RCA	99.36	APO	156.65	V2	35.202
RC	52.948	GL	4.91	GP	-19.31	ZAL	139.06	ZAP	27.01	ETS	39.85	ZAE	144.39	ETE	327.81	ZAC	82.78	ETC	261.84	CLP	-19.26

PLANETOCENTRIC CONIC

C3	20.170	VHL	4.491	DLA	-9.31	RAL	216.59	RAD	6567.8	VEL	11.897	PTH	2.11	VHP	6.591	DPA	-40.67	RAP	244.77	ECC	1.3319

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 4 59	1923.57	-11.61	23.84	76.72	116.01	3 37 2	1323.6	-8.02	17.00
90.00	12 41 44	5153.25	25.46	229.99	80.95	77.16	14 7 38	4553.3	23.44	221.90
100.00	4 21 46	1675.86	-12.67	5.08	76.17	117.30	4 49 42	1075.9	-8.91	358.31
100.00	14 7 38	4876.20	26.61	209.31	80.64	75.85	15 28 55	4276.2	24.40	201.20
110.00	5 19 38	1494.65	-15.45	349.73	74.58	120.88	5 44 33	894.7	-11.25	345.16
110.00	15 26 16	4630.17	29.67	189.63	79.65	72.19	16 43 26	4030.2	26.95	181.50

DIFFERENTIAL CORRECTIONS

TDE	.0641	TRA	-.3137	TC3	.6385	BAU	.2097
RDE	-.2355	RRA	-.1429	RC3	-.4439	FAU	.04944
FDE	.4068	FRA	-.1954	FC3	-2.1220	BSP	2151
BDE	.2441	BRA	.3447	BC3	.7777	FSP	-456

MID-COURSE EXECUTION ACCURACY

SGT	707.2	SGR	532.3	SG3	172.1		
RRT	-.4737	RRF	.6138	RTF	-.6734		
SGB	885.1	R23	-.1199	R13	.7423		
SG1	774.8	SG2	427.9	THA	150.64		

ORBIT DETERMINATION ACCURACY

ST	147.6	SR	305.8	SS	300.4
CRT	-.3998	CRS	.9363	CST	-.6510
LSA	429.7	MSA	139.7	SSA	37.2
EL1	312.7	EL2	132.3	ALF	103.36

LAUNCH DATE SEP 20 1970 FLIGHT TIME 80.00 ARRIVAL DATE DEC 9 1970

HELIOCENTRIC CONIC DISTANCE 217.354

RL	150.24	LAL	-.00	LOL	356.62	VL	27.134	GAL	-8.23	AZL	88.99	HCA	97.03	SMA	128.79	ECC	.21827	INC	1.0146	V1	29.658
RP	107.63	LAP	1.01	LOP	93.65	VP	37.891	GAP	-8.38	AZP	90.12	TAL	212.73	TAP	309.77	RCA	100.68	APO	156.90	V2	35.210
RC	54.707	GL	6.16	GP	-20.74	ZAL	140.12	ZAP	30.14	ETS	37.10	ZAE	143.80	ETE	325.21	ZAC	81.36	ETC	261.82	CLP	-22.37

PLANETOCENTRIC CONIC

C3	19.669	VHL	4.435	DLA	-7.74	RAL	215.84	RAD	6567.8	VEL	11.876	PTH	2.11	VHP	6.215	DPA	-42.09	RAP	244.46	ECC	1.3237

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 49 37	1968.12	-12.93	26.45	75.66	115.41	3 22 25	1368.1	-9.40	19.54
90.00	12 51 5	5096.76	24.54	226.11	79.17	75.42	14 16 1	4496.8	22.30	218.15
100.00	4 7 14	1717.72	-13.96	7.51	75.14	116.70	4 35 52	1117.7	-10.27	.67
100.00	14 16 9	4822.39	25.66	205.59	78.83	74.11	15 36 31	4222.4	23.23	197.63
110.00	5 6 59	1530.68	-16.70	351.78	73.60	120.27	5 32 29	930.7	-12.56	345.12
110.00	15 32 54	4582.20	28.63	186.29	77.77	70.47	16 49 16	3982.2	25.69	178.34

DIFFERENTIAL CORRECTIONS

TDE	.0513	TRA	-.3048	TC3	.6538	BAU	.2181
RDE	-.2105	RRA	-.1519	RC3	-.5102	FAU	.05408
FDE	.5011	FRA	-.2384	FC3	-2.3801	BSP	2231
BDE	.2166	BRA	.3406	BC3	.8293	FSP	-519

MID-COURSE EXECUTION ACCURACY

SGT	706.2	SGR	563.9	SG3	192.7		
RRT	-.5067	RRF	.6688	RTF	-.6718		
SGB	903.7	R23	-.1353	R13	.7603		
SG1	793.4	SG2	432.7	THA	147.06		

ORBIT DETERMINATION ACCURACY

ST	137.5	SR	278.6	SS	352.8
CRT	-.2917	CRS	.9264	CST	-.5857
LSA	447.1	MSA	140.7	SSA	37.4
EL1	282.3	EL2	129.8	ALF	100.42

LAUNCH DATE SEP 20 1970 FLIGHT TIME 82.00 ARRIVAL DATE DEC 11 1970

HELIOCENTRIC CONIC DISTANCE 224.099

RL	150.24	LAL	-.00	LOL	356.62	VL	27.235	GAL	-8.22	AZL	88.79	HCA	100.27	SMA	129.48	ECC	.21352	INC	1.2078	V1	29.658
RP	107.60	LAP	1.19	LOP	96.89	VP	37.971	GAP	-7.61	AZP	90.22	TAL	213.79	TAP	314.06	RCA	101.83	APO	157.13	V2	35.218
RC	56.533	GL	7.44	GP	-22.31	ZAL	141.00	ZAP	33.51	ETS	34.66	ZAE	143.31	ETE	322.22	ZAC	79.79	ETC	261.74	CLP	-25.67

PLANETOCENTRIC CONIC

C3	19.282	VHL	4.391	DLA	-6.18	RAL	215.23	RAD	6567.8	VEL	11.860	PTH	2.10	VHP	5.871	DPA	-43.60	RAP	243.86	ECC	1.3173

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 35 9	2013.06	-14.22	29.11	74.88	114.75	3 8 42	1413.1	-10.77	22.13
90.00	13 0 42	5042.39	23.56	222.42	77.67	73.82	14 24 45	4442.4	21.12	214.60
100.00	3 53 33	1760.11	-15.24	10.01	74.38	116.03	4 22 54	1160.1	-11.62	3.09
100.00	14 24 59	4770.56	24.64	202.07	77.31	72.52	15 44 29	4170.6	22.02	194.26
110.00	4 55 5	1567.47	-17.95	353.90	72.89	119.59	5 21 13	967.5	-13.88	347.16
110.00	15 39 56	4535.97	27.53	183.14	76.19	68.89	16 55 32	3936.0	24.41	175.36

DIFFERENTIAL CORRECTIONS

TDE	.0400	TRA	-.2987	TC3	.6568	BAU	.2264
RDE	-.1820	RRA	-.1615	RC3	-.5832	FAU	.05908
FDE	.6093	FRA	-.2832	FC3	-2.6526	BSP	2310
BDE	.1864	BRA	.3396	BC3	.8783	FSP	-589

MID-COURSE EXECUTION ACCURACY

SGT	699.3	SGR	603.0	SG3	215.1		
RRT	-.5328	RRF	.7215	RTF	-.6643		
SGB	923.4	R23	-.1494	R13	.7795		
SG1	812.2	SG2	439.4	THA	142.80		

ORBIT DETERMINATION ACCURACY

ST	129.8	SR	246.4	SS	408.8
CRT	-.1616	CRS	.9100	CST	-.5100
LSA	472.4	MSA	141.9	SSA	36.8
EL1	247.6	EL2	127.5	ALF	96.63

LAUNCH DATE SEP 20 1970 FLIGHT TIME 84.00 ARRIVAL DATE DEC 13 1970

HELIOCENTRIC CONIC DISTANCE 230.821

RL	150.24	LAL	-.00	LOL	356.62	VL	27.324	GAL	-8.20	AZL	88.59	HCA	103.50	SMA	130.09	ECC	.20941	INC	1.4051	V1	29.658
RP	107.58	LAP	1.37	LOP	100.13	VP	38.041	GAP	-6.88	AZP	90.33	TAL	214.75	TAP	318.25	RCA	102.85	APO	157.33	V2	35.225
RC	58.419	GL	8.75	GP	-24.03	ZAL	141.69	ZAP	37.11	ETS	32.42	ZAE	142.88	ETE	318.82	ZAC	78.06	ETC	261.62	CLP	-29.17

PLANETOCENTRIC CONIC

C3	18.988	VHL	4.358	DLA	-4.62	RAL	214.77	RAD	6567.8	VEL	11.848	PTH	2.10	VHP	5.558	DPA	-45.20	RAP	242.92	ECC	1.3125

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 21 31	2058.37	-15.50	31.83	74.37	114.00	2 55 49	1458.4	-12.13	24.77
90.00	13 10 41	4989.83	22.52	218.92	76.45	72.37	14 33 51	4389.8	19.90	211.23
100.00	3 40 41	1802.98	-16.51	12.57	73.89	115.28	4 10 44	1203.0	-12.97	5.56
100.00	14 34 12	4720.46	23.58	198.73	76.08	71.07	15 52 52	4120.5	20.78	191.06
110.00	4 43 57	1604.92	-19.20	356.09	72.45	118.84	5 10 42	1004.9	-15.20	349.25
110.00	15 47 25	4491.28	26.40	180.16	74.90	67.45	17 2 17	3891.3	23.11	172.54

DIFFERENTIAL CORRECTIONS

TDE	.0310	TRA	-.2956	TC3	.6454	BAU	.2349
RDE	-.1494	RRA	-.1716	RC3	-.6630	FAU	.06437
FDE	.7325	FRA	-.3283	FC3	-2.9347	BSP	2393
BDE	.1526	BRA	.3418	BC3	.9252	FSP	-665

MID-COURSE EXECUTION ACCURACY

SGT	685.6	SGR	650.9	SG3	239.1		
RRT	-.5485	RRF	.7699	RTF	-.6486		
SGB	945.4	R23	-.1594	R13	.8004		
SG1	832.3	SG2	448.3	THA	137.71		

ORBIT DETERMINATION ACCURACY

ST	125.0	SR	208.6	SS	468.2
CRT	-.0139	CRS	.8806	CST	-.4364
LSA	506.6	MSA	142.9	SSA	35.6
EL1	208.6	EL2	125.0	ALF	90.75

LAUNCH DATE SEP 20 1970 FLIGHT TIME 86.00 ARRIVAL DATE DEC 15 1970

HELIOCENTRIC CONIC DISTANCE 237.518

RL 150.24 LAL -.00 LOL 356.62 VL 27.399 GAL -8.19 AZL 86.39 HCA 106.74 SMA 130.62 ECC .20586 INC 1.6079 V1 29.658
RP 107.56 LAP 1.54 LOP 103.36 VP 38.101 GAP -6.17 AZP 90.46 TAL 215.59 TAP 322.33 RCA 103.73 APO 157.51 V2 35.232
RC 60.358 GL 10.12 GP -25.89 ZAL 142.19 ZAP 40.94 ETS 30.29 ZAE 142.46 ETE 314.95 ZAC 76.16 ETC 261.43 CLP -32.89

PLANETOCENTRIC CONIC

C3 18.776 VHL 4.333 DLA -3.07 RAL 214.46 RAD 6567.8 VEL 11.839 PTH 2.10 VHP 5.279 DPA -46.88 RAP 241.60 ECC 1.3090

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 8 40	2104.13	-16.74	34.61	74.12	113.17	2 43 44	1504.1	-13.46	27.47
90.00	13 21 5	4938.77	21.43	215.58	75.50	71.04	14 43 24	4338.8	18.65	208.01
100.00	3 28 34	1846.36	-17.75	15.19	73.66	114.45	3 59 21	1246.4	-14.30	8.09
100.00	14 43 51	4671.78	22.47	195.54	75.10	69.74	16 1 43	4071.8	19.50	188.00
110.00	4 33 32	1643.02	-20.43	358.36	72.26	118.02	5 0 55	1043.0	-16.52	351.41
110.00	15 55 24	4447.88	25.24	177.32	73.88	66.14	17 9 31	3847.9	21.79	169.86

DIFFERENTIAL CORRECTIONS

TDE .0255 TRA -.2959 TC3 .6180 BAU .2439
RDE -.1119 RRA -.1819 RC3 -.7496 FAU .06984
FDE .8703 FRA -.3720 FC3-3.2204 BSP 2485
BDE .1148 BRA .3474 BC3 .9716 FSP -745

MID-COURSE EXECUTION ACCURACY

SGT 684.5 SGR 708.5 SG3 264.3
RRT -.5492 RRF .8128 RTF -.6214
SGB 971.4 RZS -.1619 R13 .8236
SG1 855.6 SG2 459.8 THA 131.67

ORBIT DETERMINATION ACCURACY

ST 123.4 SR 165.8 SS 530.5
CRT .1561 CRS .8189 CST -.3823
LSA 549.9 MSA 143.7 SSA 34.0
EL1 168.1 EL2 120.1 ALF 76.26

LAUNCH DATE SEP 20 1970 FLIGHT TIME 88.00 ARRIVAL DATE DEC 17 1970

HELIOCENTRIC CONIC DISTANCE 244.190

RL 150.24 LAL -.00 LOL 356.62 VL 27.464 GAL -8.17 AZL 88.18 HCA 109.97 SMA 131.08 ECC .20281 INC 1.8178 V1 29.658
RP 107.54 LAP 1.71 LOP 106.60 VP 38.153 GAP -5.50 AZP 90.62 TAL 216.32 TAP 326.29 RCA 104.49 APO 157.66 V2 35.238
RC 62.346 GL 11.52 GP -27.90 ZAL 142.49 ZAP 44.99 ETS 28.18 ZAE 142.00 ETE 310.60 ZAC 74.11 ETC 261.17 CLP -36.85

PLANETOCENTRIC CONIC

C3 18.633 VHL 4.317 DLA -1.52 RAL 214.31 RAD 6567.8 VEL 11.833 PTH 2.10 VHP 5.032 DPA -48.63 RAP 239.86 ECC 1.3066

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 56 31	2150.48	-17.96	37.46	74.13	112.26	2 32 21	1550.5	-14.79	30.23
90.00	13 31 59	4888.83	20.29	212.36	74.81	69.81	14 53 28	4288.8	17.36	204.91
100.00	3 17 9	1890.37	-18.97	17.89	73.68	113.55	3 48 39	1290.4	-15.62	10.69
100.00	14 54 2	4624.17	21.31	192.48	74.39	68.53	16 11 6	4024.2	18.21	185.06
110.00	4 23 46	1681.83	-21.65	.70	72.32	117.12	4 51 48	1081.8	-17.85	353.64
110.00	16 3 54	4405.48	24.04	174.61	73.12	64.93	17 17 20	3805.5	20.46	167.29

DIFFERENTIAL CORRECTIONS

TDE .0808 TRA -.3041 TC3 .5649 BAU .2520
RDE -.0870 RRA -.1905 RC3 -.8393 FAU .07499
FDE 1.0297 FRA -.4040 FC3-3.4842 BSP 2503
BDE .0702 BRA .3588 BC3 1.0117 FSP -813

MID-COURSE EXECUTION ACCURACY

SGT 633.7 SGR 772.6 SG3 289.2
RRT -.5181 RRF .8483 RTF -.5716
SGB 999.3 RZS -.1517 R13 .8488
SG1 878.1 SG2 476.9 THA 124.48

ORBIT DETERMINATION ACCURACY

ST 125.1 SR 118.9 SS 599.7
CRT .4317 CRS .6548 CST -.3237
LSA 606.1 MSA 145.1 SSA 31.6
EL1 146.2 EL2 91.8 ALF 41.65

LAUNCH DATE SEP 20 1970 FLIGHT TIME 90.00 ARRIVAL DATE DEC 19 1970

HELIOCENTRIC CONIC DISTANCE 250.833

RL 150.24 LAL -.00 LOL 356.62 VL 27.518 GAL -8.15 AZL 87.96 HCA 113.21 SMA 131.46 ECC .20019 INC 2.0366 V1 29.658
RP 107.53 LAP 1.87 LOP 109.85 VP 38.197 GAP -4.85 AZP 90.80 TAL 216.92 TAP 330.14 RCA 105.14 APO 157.78 V2 35.243
RC 64.375 GL 12.99 GP -30.05 ZAL 142.58 ZAP 49.25 ETS 26.02 ZAE 141.43 ETE 305.78 ZAC 71.90 ETC 260.83 CLP -41.05

PLANETOCENTRIC CONIC

C3 18.554 VHL 4.307 DLA .03 RAL 214.30 RAD 6567.8 VEL 11.829 PTH 2.10 VHP 4.820 DPA -50.42 RAP 237.63 ECC 1.3053

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 44 57	2197.72	-19.16	40.42	74.38	111.26	2 21 34	1597.7	-16.10	33.08
90.00	13 43 29	4839.60	19.10	209.23	74.36	68.69	15 4 9	4239.6	16.04	201.90
100.00	3 6 18	1935.28	-20.17	20.69	73.95	112.55	3 38 33	1335.3	-16.94	13.38
100.00	15 4 49	4577.27	20.11	189.51	73.93	67.41	16 21 6	3977.3	16.88	182.21
110.00	4 14 35	1721.55	-22.87	3.15	72.63	116.13	4 43 17	1121.6	-19.17	355.97
110.00	16 13 1	4363.76	22.81	171.99	72.62	63.82	17 25 45	3763.8	19.11	164.81

DIFFERENTIAL CORRECTIONS

TDE .0296 TRA -.3090 TC3 .5083 BAU .2652
RDE -.0190 RRA -.2015 RC3 -.9408 FAU .08059
FDE 1.1859 FRA -.4439 FC3-3.7606 BSP 2710
BDE .0352 BRA .3689 BC3 1.0693 FSP -910

MID-COURSE EXECUTION ACCURACY

SGT 601.9 SGR 854.0 SG3 315.5
RRT -.4780 RRF .8800 RTF -.5068
SGB 1044.8 RZS -.1309 R13 .8757
SG1 923.3 SG2 489.0 THA 116.62

ORBIT DETERMINATION ACCURACY

ST 130.1 SR 87.7 SS 662.3
CRT .7535 CRS .1665 CST -.3999
LSA 664.6 MSA 144.0 SSA 30.0
EL1 148.6 EL2 50.5 ALF 30.89

LAUNCH DATE SEP 20 1970 FLIGHT TIME 92.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 257.449

RL 150.24 LAL -.00 LOL 356.62 VL 27.562 GAL -8.12 AZL 87.73 HCA 116.45 SMA 131.78 ECC .19794 INC 2.2663 V1 29.658
RP 107.51 LAP 2.03 LOP 113.09 VP 38.233 GAP -4.23 AZP 91.01 TAL 217.41 TAP 333.86 RCA 105.70 APO 157.86 V2 35.247
RC 66.441 GL 14.52 GP -32.31 ZAL 142.47 ZAP 53.69 ETS 23.75 ZAE 140.69 ETE 300.53 ZAC 69.54 ETC 260.41 CLP -45.52

PLANETOCENTRIC CONIC

C3 18.533 VHL 4.305 DLA 1.61 RAL 214.44 RAD 6567.8 VEL 11.829 PTH 2.09 VHP 4.643 DPA -52.23 RAP 234.88 ECC 1.3050

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 33 52	2246.15	-20.32	43.49	74.88	110.15	2 11 18	1646.2	-17.39	36.04
90.00	13 55 42	4790.63	17.86	206.18	74.16	67.66	15 15 33	4190.6	14.68	198.95
100.00	2 55 57	1981.37	-21.34	23.60	74.46	111.44	3 28 59	1381.4	-18.24	16.18
100.00	15 16 18	4530.65	18.87	186.61	73.71	66.37	16 31 49	3930.6	15.51	179.42
110.00	4 5 55	1762.40	-24.07	5.71	73.19	115.04	4 35 17	1162.4	-20.49	358.39
110.00	16 22 30	4322.39	21.55	169.45	72.36	62.80	17 34 52	3722.4	17.73	162.40

DIFFERENTIAL CORRECTIONS

TDE .0438 TRA -.3207 TC3 .4281 BAU .2794
RDE .0367 RRA -.2104 RC3-1.0442 FAU .08555
FDE 1.3539 FRA -.4808 FC3-3.9963 BSP 2897
BDE .0571 BRA .3836 BC3 1.1278 FSP -996

MID-COURSE EXECUTION ACCURACY

SGT 566.0 SGR 942.9 SG3 339.9
RRT -.3885 RRF .9048 RTF -.3998
SGB 1099.8 RZS -.0979 R13 .9011
SG1 978.1 SG2 502.8 THA 108.05

ORBIT DETERMINATION ACCURACY

ST 141.2 SR 100.9 SS 728.0
CRT .9351 CRS -.5821 CST -.4995
LSA 734.0 MSA 143.4 SSA 28.0
EL1 171.0 EL2 29.5 ALF 34.94

LAUNCH DATE SEP 20 1970 FLIGHT TIME 94.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 264.035

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RL  150.24 LAL   -.00 LOL 356.62 VL  27.597 GAL  -8.09 AZL  87.49 HCA 119.69 SMA 132.03 ECC .19600 INC 2.5094 V1  29.658
RP  107.50 LAP   2.18 LOP 116.34 VP  38.262 GAP  -3.64 AZP  91.24 TAL 217.78 TAP 337.47 RCA 106.16 APO 157.91 V2  35.251
RC  68.539 GL   16.12 GP  -34.67 ZAL 142.15 ZAP  58.28 ETS  21.29 ZAE 139.71 ETE 294.91 ZAC  67.07 ETC 259.90 CLP -50.25
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PLANETOCENTRIC CONIC

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C3  18.569 VHL  4.309 DLA   3.20 RAL 214.74 RAD 6567.8 VEL 11.830 PTH   2.10 VHP  4.503 DPA -54.01 RAP 231.57 ECC 1.3056
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 23 9	2296.26	-21.46	46.72	75.65	108.93	2 1 25	1696.3	-18.68	39.15
90.00	14 8 46	4741.44	16.56	203.15	74.20	66.70	15 27 47	4141.4	13.27	196.02
100.00	2 45 59	2029.06	-22.50	26.68	75.23	110.22	3 19 48	1429.1	-19.54	19.13
100.00	15 28 37	4483.87	17.57	183.75	73.74	65.42	16 43 20	3883.9	14.10	176.67
110.00	3 57 40	1804.72	-25.26	8.42	74.01	113.84	4 27 44	1204.7	-21.82	.96
110.00	16 33 25	4280.98	20.24	166.95	72.34	61.84	17 44 46	3681.0	16.31	160.02

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .0672 TRA -.3374 TC3  .3217 BAU  .2958   SGT  535.5 SGR 1038.4 SG3  361.4    ST   161.9 SR   161.1 SS   793.9
 RDE  .0997 RRA -.2166 RC3-1.1472 FAU .09863   RRT -.2386 RRF  .9242 RTF -.2364   CRT  .8919 CRS -.8787 CST -.6243
 FDE 1.5257 FRA -.4806 FC3-4.1787 BSP  3110    SGB 1168.4 RZS -.0574 RIS  .9226   LSA  813.2 MSA  142.8 SSA   26.0
 BDE  .1203 BRA  .4009 BC3 1.1915 FSP  -1069   SG1 1048.8 SG2  514.9 THA  99.26   EL1  222.2 EL2   53.1 ALF  44.83
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LAUNCH DATE SEP 20 1970 FLIGHT TIME 96.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 270.592

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RL  150.24 LAL   -.00 LOL 356.62 VL  27.624 GAL  -8.05 AZL  87.23 HCA 122.93 SMA 132.23 ECC .19433 INC 2.7687 V1  29.658
RP  107.49 LAP   2.32 LOP 119.58 VP  38.284 GAP  -3.07 AZP  91.51 TAL 218.02 TAP 340.95 RCA 106.53 APO 157.93 V2  35.254
RC  70.666 GL   17.81 GP  -37.11 ZAL 141.62 ZAP  62.95 ETS  18.60 ZAE 138.46 ETE 289.05 ZAC  64.49 ETC 259.30 CLP -55.24
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PLANETOCENTRIC CONIC

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C3  18.665 VHL  4.320 DLA   4.84 RAL 215.18 RAD 6567.8 VEL 11.834 PTH   2.10 VHP  4.400 DPA -55.72 RAP 227.69 ECC 1.3072
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 12 38	2348.60	-22.58	50.15	76.64	107.56	1 51 46	1748.6	-19.97	42.46
90.00	14 22 49	4091.52	15.20	200.12	74.49	65.82	15 41 1	4091.5	11.80	193.09
100.00	2 36 15	2078.89	-23.63	29.94	76.27	108.86	3 10 54	1478.9	-20.84	22.26
100.00	15 41 53	4436.46	16.20	180.89	74.01	64.53	16 55 50	3836.5	12.64	173.91
110.00	3 49 43	1848.96	-26.44	11.31	75.10	112.49	4 20 32	1249.0	-23.16	3.69
110.00	16 44 54	4239.15	18.87	164.47	72.57	60.96	17 55 34	3639.2	14.86	157.65

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .1018 TRA -.3586 TC3  .1951 BAU  .5146   SGT  523.9 SGR 1137.7 SG3  378.6    ST   196.9 SR   244.5 SS   859.0
 RDE  .1705 RRA -.2188 RC3-1.2457 FAU .09250   RRT -.0201 RRF  .9392 RTF -.0090   CRT  .8905 CRS -.9566 CST -.7421
 FDE 1.0058 FRA -.4732 FC3-4.2903 BSP  3355    SGB 1252.6 RZS -.0149 RIS  .9392   LSA  903.0 MSA  142.7 SSA   23.8
 BDE  .1985 BRA  .4201 BC3 1.2609 FSP  -1125   SG1 1137.8 SG2  523.7 THA  90.67   EL1  305.6 EL2   71.6 ALF  51.89
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LAUNCH DATE SEP 20 1970 FLIGHT TIME 98.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 277.120

```
RL  150.24 LAL   -.00 LOL 356.62 VL  27.644 GAL  -8.00 AZL  86.95 HCA 126.17 SMA 132.37 ECC .19291 INC 3.0478 V1  29.658
RP  107.48 LAP   2.46 LOP 122.83 VP  38.300 GAP  -2.52 AZP  91.80 TAL 218.16 TAP 344.33 RCA 106.84 APO 157.91 V2  35.256
RC  72.818 GL   19.60 GP  -39.58 ZAL 140.89 ZAP  67.66 ETS  15.63 ZAE 136.89 ETE 283.05 ZAC  61.85 ETC 258.60 CLP -60.46
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PLANETOCENTRIC CONIC

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C3  18.827 VHL  4.339 DLA   6.53 RAL 215.78 RAD 6567.8 VEL 11.841 PTH   2.10 VHP  4.335 DPA -57.32 RAP 223.27 ECC 1.3099
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 2 8	2403.93	-23.67	53.84	77.94	106.02	1 42 12	1803.9	-21.24	46.01
90.00	14 38 4	4640.26	13.74	197.06	75.04	65.00	15 55 24	4040.3	10.26	190.12
100.00	2 26 36	2131.54	-24.74	33.46	77.58	107.33	3 2 7	1531.5	-22.14	25.63
100.00	15 56 18	4387.89	14.76	178.00	74.54	63.71	17 9 26	3787.9	11.10	171.12
110.00	3 41 57	1895.70	-27.62	14.44	76.47	110.99	4 13 33	1295.7	-24.52	6.64
110.00	16 57 26	4196.50	17.45	161.99	73.04	60.13	18 7 22	3596.5	13.34	155.28

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .1526 TRA -.3809 TC3  .0544 BAU  .3377   SGT  546.9 SGR 1242.0 SG3  391.0    ST   252.3 SR   337.1 SS   916.2
 RDE  .2452 RRA -.2105 RC3-1.3406 FAU .09435   RRT  .2317 RRF  .9510 RTF  .2505   CRT  .9220 CRS -.9808 CST -.8400
 FDE 1.8451 FRA -.4560 FC3-4.3386 BSP  3706    SGB 1357.1 RZS  .0190 RIS  .9513   LSA  998.0 MSA  141.6 SSA   22.0
 BDE  .2888 BRA  .4391 BC3 1.3417 FSP  -1180   SG1 1249.9 SG2  528.7 THA  82.90   EL1  413.4 EL2   79.7 ALF  53.83
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LAUNCH DATE SEP 20 1970 FLIGHT TIME 100.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 283.617

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RL  150.24 LAL   -.00 LOL 356.62 VL  27.656 GAL  -7.94 AZL  86.65 HCA 129.41 SMA 132.47 ECC .19168 INC 3.3511 V1  29.658
RP  107.48 LAP   2.59 LOP 126.08 VP  38.311 GAP  -1.99 AZP  92.13 TAL 218.18 TAP 347.59 RCA 107.08 APO 157.86 V2  35.258
RC  74.992 GL   21.51 GP  -42.06 ZAL 139.93 ZAP  72.34 ETS  12.38 ZAE 135.02 ETE 277.06 ZAC  59.18 ETC 257.82 CLP -65.87
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PLANETOCENTRIC CONIC

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C3  19.067 VHL  4.367 DLA   8.29 RAL 216.53 RAD 6567.8 VEL 11.851 PTH   2.10 VHP  4.311 DPA -58.77 RAP 218.35 ECC 1.3138
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 51 29	2463.14	-24.72	57.86	79.53	104.27	1 32 32	1863.1	-22.52	49.88
90.00	14 54 45	4587.02	12.19	193.92	75.06	64.24	16 11 12	3987.0	8.62	187.06
100.00	2 16 50	2187.83	-25.83	37.29	79.20	105.59	2 53 18	1587.8	-23.44	29.30
100.00	16 12 4	4337.56	13.22	175.06	75.34	62.94	17 24 22	3737.6	9.49	168.26
110.00	3 34 14	1945.61	-28.79	17.85	78.16	109.27	4 6 40	1345.6	-25.89	9.87
110.00	17 11 10	4152.55	15.94	159.47	73.79	59.35	18 20 22	3552.6	11.75	152.86

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .2190 TRA -.4082 TC3 -.1040 BAU  .3829   SGT  617.2 SGR 1341.4 SG3  396.6    ST   329.7 SR   437.6 SS   969.7
 RDE  .3261 RRA -.2117 RC3-1.4199 FAU .09444   RRT  .4871 RRF  .9598 RTF  .4886   CRT  .9471 CRS -.9907 CST -.9006
 FDE 1.9784 FRA -.4174 FC3-4.2879 BSP  4085    SGB 1476.6 RZS  .0486 RIS  .9596   LSA 1104.6 MSA  141.1 SSA   20.0
 BDE  .3928 BRA  .4580 BC3 1.4237 FSP  -1207   SG1 1377.7 SG2  531.3 THA  75.70   EL1  541.2 EL2   85.5 ALF  53.43
```

LAUNCH DATE SEP 20 1970 FLIGHT TIME 102.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 290.065

```
RL  150.24 LAL   -.00 LOL 356.62 VL  27.663 GAL  -7.88 AZL  86.32 HCA 132.65 SMA 132.51 ECC .19062 INC 3.6839 V1  29.658
RP  107.48 LAP   2.71 LOP 129.33 VP  30.316 GAP  -1.48 AZP  92.50 TAL 218.09 TAP 350.74 RCA 107.25 APO 157.77 V2  35.259
RC  77.106 GL   23.56 GP -44.53 ZAL 138.76 ZAP  76.00 ETS   8.82 ZAE 132.85 ETE 271.20 ZAC  56.49 ETC 256.95 CLP -71.44
```

PLANETOCENTRIC CONIC

```
C3  19.402 VHL  4.405 DLA  10.14 RAL 217.45 RAD 6567.8 VEL 11.865 PTH   2.10 VHP  4.327 DPA -60.06 RAP 213.04 ECC 1.3193
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 40 23	2527.36	-25.72	62.30	81.45	102.26	1 22 30	1927.4	-23.78	54.17
90.00	15 13 9	4531.02	10.51	190.67	76.98	63.55	16 28 40	3931.0	6.88	183.87
100.00	2 6 45	2248.82	-26.88	41.52	81.16	103.60	2 44 14	1648.8	-24.74	35.37
100.00	16 29 29	4284.80	11.56	172.01	76.43	62.24	17 40 53	3684.8	7.76	165.29
110.00	3 26 24	1999.55	-29.95	21.63	80.19	107.31	3 59 44	1399.6	-27.28	13.44
110.00	17 26 19	4106.83	14.33	156.90	74.82	58.63	18 34 45	3506.8	10.08	150.38

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE  .3042 TRA -.4319 TC3 -.2731 BAU  .3902   SGT  735.0 SGR 1432.7 SG3  394.9          ST   431.2 SR   541.9 SS  1016.8
RDE  .4111 RRA -.1978 RC3-1.4794 FAU .09279   RRT  .6403 RRF  .9664 RTF  .6618          CRT  .9642 CRS -.9952 CST -.9372
FDE 2.0062 FRA -.3610 FC3-4.1402 BSP   4510   SGB 1610.3 RZS  .0724 R13  .9653          LSA 1222.0 MSA  140.9 SSA   18.1
BDE  .5114 BRA  .4790 BC3 1.5044 FSP  -1211   SG1 1519.8 SG2  532.2 THA  69.14          EL1  686.6 EL2   90.2 ALF  51.72
```

LAUNCH DATE SEP 20 1970 FLIGHT TIME 104.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 296.523

```
RL  150.24 LAL   -.00 LOL 356.62 VL  27.663 GAL  -7.80 AZL  85.95 HCA 135.88 SMA 132.52 ECC .18971 INC 4.0533 V1  29.658
RP  107.48 LAP   2.82 LOP 132.58 VP  30.316 GAP   -.99 AZP  92.91 TAL 217.91 TAP 353.79 RCA 107.38 APO 157.66 V2  35.259
RC  79.396 GL   25.77 GP -46.98 ZAL 137.35 ZAP  81.25 ETS   4.96 ZAE 130.41 ETE 265.55 ZAC  53.81 ETC 256.00 CLP -77.11
```

PLANETOCENTRIC CONIC

```
C3  19.858 VHL  4.458 DLA  12.10 RAL 218.54 RAD 6567.8 VEL 11.884 PTH   2.11 VHP  4.387 DPA -61.17 RAP 207.43 ECC 1.3268
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 28 32	2590.09	-26.65	67.27	83.75	99.94	1 11 50	1996.1	-25.01	58.99
90.00	15 33 42	4471.32	8.68	187.24	78.45	62.94	16 48 13	3871.3	4.98	180.51
100.00	1 56 3	2315.82	-27.86	46.25	83.49	101.29	2 34 39	1715.8	-26.02	37.94
100.00	16 48 52	4228.81	9.77	168.83	77.87	61.61	17 59 20	3628.8	5.90	162.17
110.00	3 18 15	2058.81	-31.07	25.86	82.63	105.03	3 52 34	1458.6	-28.69	17.46
110.00	17 43 9	4050.79	12.61	154.24	76.18	57.96	18 50 48	3458.8	8.29	147.81

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE  .4108 TRA -.4864 TC3 -.4462 BAU  .4191   SGT  882.7 SGR 1512.0 SG3  386.1          ST   557.9 SR   646.3 SS  1056.0
RDE  .4988 RRA -.1781 RC3-1.5142 FAU .08946   RRT  .7514 RRF  .9714 RTF  .7720          CRT  .9749 CRS -.9975 CST -.9588
FDE 2.1636 FRA -.2900 FC3-3.9001 BSP   4972   SGB 1755.9 RZS  .0915 R13  .9692          LSA 1350.5 MSA  141.1 SSA   16.3
BDE  .6460 BRA  .4882 BC3 1.5786 FSP  -1193   SG1 1673.2 SG2  532.3 THA  63.14          EL1  848.5 EL2   94.6 ALF  49.31
```

LAUNCH DATE SEP 20 1970 FLIGHT TIME 106.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 302.932

```
RL  150.24 LAL   -.00 LOL 356.62 VL  27.659 GAL  -7.72 AZL  85.53 HCA 139.12 SMA 132.48 ECC .18893 INC 4.4685 V1  29.658
RP  107.48 LAP   2.92 LOP 135.83 VP  30.312 GAP   -.52 AZP  93.38 TAL 217.62 TAP 356.74 RCA 107.45 APO 157.51 V2  35.258
RC  81.621 GL   28.16 GP -49.40 ZAL 135.69 ZAP  85.33 ETS    .82 ZAE 127.74 ETE 260.20 ZAC  51.14 ETC 254.97 CLP -82.81
```

PLANETOCENTRIC CONIC

```
C3  20.473 VHL  4.525 DLA  14.20 RAL 219.81 RAD 6567.8 VEL 11.910 PTH   2.12 VHP  4.493 DPA -62.15 RAP 201.62 ECC 1.3369
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 15 29	2677.27	-27.46	72.92	86.46	97.21	1 0 6	2077.3	-26.17	64.49
90.00	15 56 55	4406.67	6.66	183.56	80.33	62.41	17 10 21	3806.7	2.91	176.88
100.00	1 44 22	2380.59	-28.74	51.64	86.26	98.59	2 24 13	1790.6	-27.25	43.15
100.00	17 10 42	4168.59	7.80	165.44	79.71	61.05	18 20 11	3568.6	3.88	158.84
110.00	3 9 32	2124.14	-32.12	30.68	85.53	102.37	3 44 56	1524.1	-30.09	22.05
110.00	18 2 2	4007.81	10.76	151.46	77.92	57.36	19 8 50	3407.8	6.38	145.10

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE  .5410 TRA -.4775 TC3 -.6156 BAU  .4469   SGT 1081.0 SGR 1570.8 SG3  389.7          ST   710.3 SR   751.6 SS  1090.7
RDE  .5910 RRA -.1421 RC3-1.5123 FAU .08412   RRT  .8191 RRF  .9751 RTF  .8383          CRT  .9811 CRS -.9987 CST -.9716
FDE 2.2168 FRA -.1983 FC3-3.5573 BSP   5389   SGB 1906.8 RZS  .1095 R13  .9714          LSA 1496.2 MSA  142.7 SSA   14.4
BDE  .6012 BRA  .4982 BC3 1.6328 FSP  -1133   SG1 1831.1 SG2  531.9 THA  57.51          EL1 1029.2 EL2  100.3 ALF  46.65
```

LAUNCH DATE SEP 20 1970 FLIGHT TIME 108.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 309.312

```
RL  150.24 LAL   -.00 LOL 356.62 VL  27.649 GAL  -7.63 AZL  85.06 HCA 142.35 SMA 132.41 ECC .18827 INC 4.9416 V1  29.658
RP  107.48 LAP   3.02 LOP 139.08 VP  30.304 GAP   -.06 AZP  93.92 TAL 217.24 TAP 359.60 RCA 107.48 APO 157.34 V2  35.256
RC  83.861 GL   30.76 GP -51.82 ZAL 133.78 ZAP  89.07 ETS 356.40 ZAE 124.88 ETE 255.16 ZAC  48.48 ETC 253.86 CLP -88.49
```

PLANETOCENTRIC CONIC

```
C3  21.308 VHL  4.616 DLA  16.44 RAL 221.28 RAD 6567.9 VEL 11.945 PTH   2.13 VHP  4.649 DPA -63.01 RAP 195.68 ECC 1.3506
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 0 34	2767.66	-28.06	79.47	89.64	93.99	0 46 42	2167.7	-27.21	70.90
90.00	16 23 34	4335.40	4.40	179.55	82.69	62.00	17 35 49	3735.4	.62	172.90
100.00	1 31 10	2475.49	-29.45	57.85	89.51	95.40	2 12 26	1875.5	-28.39	49.20
100.00	17 35 30	4102.80	5.62	161.78	82.02	60.59	18 44 2	3502.8	1.66	155.23
110.00	2 59 54	2197.99	-33.07	36.22	86.97	99.21	3 36 32	1597.9	-31.44	27.37
110.00	18 23 25	3953.17	8.74	148.52	80.11	56.82	19 29 18	3353.2	4.31	142.23

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE  .6080 TRA -.4918 TC3 -.7892 BAU  .4783   SGT 1290.3 SGR 1619.0 SG3  348.3          ST   888.7 SR   840.5 SS  1106.4
RDE  .6795 RRA -.1072 RC3-1.4927 FAU .07841   RRT  .8596 RRF  .9779 RTF  .8805          CRT  .9858 CRS -.9993 CST -.9801
FDE 2.2173 FRA -.1211 FC3-3.1062 BSP   5992   SGB 2069.6 RZS  .1197 R13  .9737          LSA 1643.1 MSA  142.1 SSA   12.9
BDE  .9720 BRA  .5034 BC3 1.6793 FSP  -1098   SG1 1999.7 SG2  533.3 THA  52.48          EL1 1218.9 EL2  103.0 ALF  43.38
```

LAUNCH DATE SEP 20 1970 FLIGHT TIME 110.00 ARRIVAL DATE JAN 8 1971

DISTANCE 315.661

HELIOCENTRIC CONIC

```
RL  150.24 LAL   -.00 LOL 356.62 VL  27.635 GAL  -7.53 AZL  84.51 HCA 145.58 SMA 132.31 ECC .18770 INC 5.4895 V1  29.658
RP  107.49 LAP   3.10 LOP 142.33 VP  38.292 GAP    .37 AZP  94.53 TAL 216.78 TAP   2.36 RCA 107.48 APO 157.15 V2  35.254
RC  86.111 GL   33.59 GP -54.27 ZAL 131.59 ZAP  92.40 ETS 351.74 ZAE 121.85 ETE 250.44 ZAC  45.79 ETC 252.65 CLP -94.11
```

PLANETOCENTRIC CONIC

```
C3  22.437 VHL  4.737 DLA  18.87 RAL 222.98 RAD 6567.9 VEL 11.992 PTH   2.14 VHP  4.864 DPA -63.82 RAP 189.61 ECC 1.3693
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 38 52	2873.31	-28.32	87.18	93.35	90.13	24 26 45	2273.3	-28.00	78.53
90.00	16 54 51	4254.79	1.81	175.04	85.69	61.74	18 5 46	3654.8	-1.99	168.41
100.00	1 15 39	2573.87	-29.85	65.13	93.32	91.59	1 58 33	1973.9	-29.32	56.37
100.00	18 4 41	4029.45	3.15	157.73	84.95	60.26	19 11 50	3429.4	-.83	151.20
110.00	2 48 54	2282.16	-33.80	42.69	93.03	95.45	3 26 56	1682.2	-32.67	33.63
110.00	18 47 56	3893.92	6.51	145.37	82.86	56.37	19 52 50	3293.9	2.05	139.13

DIFFERENTIAL CORRECTIONS

```
TDE  .8891 TRA -.4979 TC3 -.9000 BAU  .5065
RDE  .7633 RRA -.0578 RC3-1.4288 FAU .07109
FDE 2.1981 FRA -.0298 FC3-2.7429 BSP   6515
BDE 1.1718 BRA  .5013 BC3 1.6886 FSP  -1022
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1512.8 SGR 1640.1 SG3  321.2
RRT  .8843 RRF  .9798 RTF  .9066
SGB 2231.3 R23  .1315 R13  .9748
SG1 2166.2 SG2  534.9 THA  47.61
```

ORBIT DETERMINATION ACCURACY

```
ST  1092.5 SR   924.4 SS  1117.8
CRT  .9883 CRS -.9997 CST -.9853
LSA 1810.2 MSA  143.3 SSA   11.3
EL1 1427.1 EL2  107.9 ALF  40.18
```

LAUNCH DATE SEP 20 1970 FLIGHT TIME 112.00 ARRIVAL DATE JAN 10 1971

DISTANCE 321.982

HELIOCENTRIC CONIC

```
RL  150.24 LAL   -.00 LOL 356.62 VL  27.617 GAL  -7.43 AZL  83.86 HCA 148.81 SMA 132.18 ECC .18722 INC 6.1356 V1  29.658
RP  107.50 LAP   3.17 LOP 145.58 VP  38.276 GAP    .79 AZP  95.25 TAL-216.23 TAP   5.04 RCA 107.44 APO 156.93 V2  35.251
RC  88.372 GL   36.69 GP -56.80 ZAL 129.11 ZAP  95.26 ETS 346.81 ZAE 118.66 ETE 246.02 ZAC  43.03 ETC 251.29 CLP -99.64
```

PLANETOCENTRIC CONIC

```
C3  24.000 VHL  4.899 DLA  21.49 RAL 224.92 RAD 6568.0 VEL 12.057 PTH   2.16 VHP  5.147 DPA -64.60 RAP 183.32 ECC 1.3950
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 16 24	3001.08	-27.98	96.51	97.57	85.47	24 6 25	2401.1	-28.32	87.86
90.00	17 32 51	4159.86	-1.26	169.74	89.52	61.71	18 42 10	3559.9	-5.03	163.09
100.00	0 56 29	2690.99	-29.76	73.83	97.71	87.01	1 41 20	2091.0	-29.85	65.03
100.00	18 39 22	3945.17	.30	153.10	88.66	60.11	19 45 7	3345.2	-3.68	146.57
110.00	2 35 50	2380.18	-34.17	50.32	97.80	90.95	3 15 30	1780.2	-33.66	41.11
110.00	19 16 30	3828.75	4.05	141.94	86.32	56.03	20 20 19	3228.8	-.44	135.73

DIFFERENTIAL CORRECTIONS

```
TDE 1.1189 TRA -.4920 TC3 -.9966 BAU  .5325
RDE  .8496 RRA  .0028 RC3-1.3269 FAU .06294
FDE 2.1523 FRA  .0605 FC3-2.2702 BSP   7033
BDE 1.4049 BRA  .4920 BC3 1.6595 FSP   -931
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1746.0 SGR 1636.4 SG3  290.3
RRT  .8987 RRF  .9809 RTF  .9237
SGB 2392.9 R23  .1426 R13  .9753
SG1 2331.8 SG2  537.3 THA  42.94
```

ORBIT DETERMINATION ACCURACY

```
ST  1322.0 SR   994.4 SS  1119.9
CRT  .9898 CRS -.9999 CST -.9888
LSA 1992.4 MSA  145.3 SSA    9.8
EL1 1650.4 EL2  113.4 ALF  36.87
```

LAUNCH DATE SEP 20 1970 FLIGHT TIME 114.00 ARRIVAL DATE JAN 12 1971

DISTANCE 328.272

HELIOCENTRIC CONIC

```
RL  150.24 LAL   -.00 LOL 356.62 VL  27.596 GAL  -7.31 AZL  83.09 HCA 152.04 SMA 132.03 ECC .18681 INC 6.9141 V1  29.658
RP  107.51 LAP   3.24 LOP 148.83 VP  38.257 GAP   1.20 AZP  96.11 TAL 215.61 TAP   7.64 RCA 107.36 APO 156.69 V2  35.247
RC  90.641 GL   40.07 GP -59.48 ZAL 126.31 ZAP  97.60 ETS 341.59 ZAE 115.31 ETE 241.80 ZAC  40.14 ETC 249.72 CLP-105.09
```

PLANETOCENTRIC CONIC

```
C3  26.204 VHL  5.119 DLA  24.32 RAL 227.15 RAD 6568.1 VEL 12.148 PTH   2.18 VHP  5.518 DPA -65.38 RAP 176.65 ECC 1.4312
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 45 4	3165.39	-26.53	108.31	102.20	79.73	23 37 49	2565.4	-27.68	99.83
90.00	18 22 0	4038.83	-5.14	162.97	94.57	62.12	19 29 19	3438.8	-8.83	156.24
100.00	0 31 0	2836.50	-28.76	84.52	102.62	81.47	1 18 17	2236.5	-29.64	75.83
100.00	19 22 40	3842.95	-3.17	147.49	93.48	60.26	20 26 43	3243.0	-7.10	140.91
110.00	2 19 37	2496.69	-33.93	59.40	103.30	85.58	3 1 14	1896.7	-34.17	50.17
110.00	19 50 33	3755.52	1.25	138.11	90.72	55.84	20 53 8	3155.5	-3.24	131.90

DIFFERENTIAL CORRECTIONS

```
TDE 1.3999 TRA -.4701 TC3-1.0488 BAU  .5556
RDE  .9301 RRA  .0745 RC3-1.1898 FAU .05438
FDE 2.0803 FRA  .1433 FC3-1.7967 BSP   7578
BDE 1.6807 BRA  .4760 BC3 1.5860 FSP   -836
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1985.3 SGR 1605.0 SG3  256.8
RRT  .9058 RRF  .9811 RTF  .9357
SGB 2552.9 R23  .1525 R13  .9755
SG1 2494.9 SG2  541.1 THA  38.35
```

ORBIT DETERMINATION ACCURACY

```
ST  1576.8 SR  1042.1 SS  1110.7
CRT  .9906 CRS -.9999 CST -.9912
LSA 2187.2 MSA  147.5 SSA    8.5
EL1 1886.3 EL2  119.1 ALF  33.36
```

LAUNCH DATE SEP 20 1970 FLIGHT TIME 116.00 ARRIVAL DATE JAN 14 1971

DISTANCE 334.532

HELIOCENTRIC CONIC

```
RL  150.24 LAL   -.00 LOL 356.62 VL  27.571 GAL  -7.18 AZL  82.12 HCA 155.25 SMA 131.85 ECC .18647 INC 7.8771 V1  29.658
RP  107.53 LAP   3.29 LOP 152.08 VP  38.235 GAP   1.59 AZP  97.16 TAL 214.91 TAP  10.16 RCA 107.26 APO 156.43 V2  35.243
RC  92.917 GL   43.75 GP -62.39 ZAL 123.17 ZAP  99.37 ETS 335.99 ZAE 111.75 ETE 237.64 ZAC  37.05 ETC 247.78 CLP-110.56
```

PLANETOCENTRIC CONIC

```
C3  29.397 VHL  5.422 DLA  27.38 RAL 229.73 RAD 6568.2 VEL 12.279 PTH   2.21 VHP  6.005 DPA -66.15 RAP 169.33 ECC 1.4838
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	21 47 45	3422.22	-22.22	125.86	106.46	71.98	22 44 47	2822.2	-24.48	117.91
90.00	19 39 51	3839.28	-11.33	151.58	101.86	63.88	20 43 50	3239.3	-14.76	144.57
100.00	23 47 46	3035.34	-25.93	98.61	107.68	74.59	24 38 21	2435.3	-27.80	90.30
100.00	20 22 31	3701.39	-7.90	139.64	100.04	61.08	21 24 12	3101.4	-11.70	132.91
110.00	1 58 8	2639.67	-32.64	70.35	109.47	79.23	2 42 8	2039.7	-33.78	61.30
110.00	20 32 34	3669.82	-2.03	133.64	96.43	55.87	21 33 44	3069.8	-6.49	127.40

DIFFERENTIAL CORRECTIONS

```
TDE 1.7531 TRA -.4239 TC3-1.0454 BAU  .5719
RDE 1.0028 RRA  .1641 RC3-1.0123 FAU .04536
FDE 1.9935 FRA  .2229 FC3-1.3359 BSP   8025
BDE 2.0196 BRA  .4546 BC3 1.4552 FSP   -722
```

MID-COURSE EXECUTION ACCURACY

```
SGT 2229.7 SGR 1538.3 SG3  222.1
RRT  .9065 RRF  .9799 RTF  .9441
SGB 2708.8 R23  .1631 R13  .9753
SG1 2653.3 SG2  545.8 THA  33.63
```

ORBIT DETERMINATION ACCURACY

```
ST  1859.0 SR  1061.9 SS  1093.9
CRT  .9906 CRS -.9998 CST -.9929
LSA 2399.4 MSA  151.3 SSA    7.1
EL1 2137.2 EL2  126.4 ALF  29.62
```

LAUNCH DATE SEP 20 1970 FLIGHT TIME 118.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 340.759

RL 150.24 LAL -.00 LOL 356.62 VL 27.543 GAL -7.04 AZL 80.89 HCA 158.46 SHA 131.65 ECC .18619 INC 9.1068 V1 29.658
RP 107.54 LAP 3.33 LOP 155.33 VP 38.211 GAP 1.87 AZP 98.48 TAL 214.13 TAP 12.59 RCA 107.14 APO 156.16 V2 35.238
RC 95.197 GL 47.71 GP -65.60 ZAL 119.69 ZAP 100.51 ETS 329.80 ZAE 107.95 ETE 233.27 ZAC 33.67 ETC 245.25 CLP-116.22

PLANETOCENTRIC CONIC

C3 34.205 VHL 5.848 DLA 30.63 RAL 232.71 RAD 6568.3 VEL 12.473 PTH 2.26 VHP 6.656 DPA -66.81 RAP 161.01 ECC 1.5629

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
77.81	19 18 6	3082.92	-17.47	165.20	110.63	64.43	20 24 29	3382.9	-20.76	157.90
102.19	22 33 17	3354.76	-17.45	118.88	110.62	64.42	23 29 12	2754.8	-20.75	111.59
77.81	19 18 6	3082.92	-17.47	165.20	110.63	64.43	20 24 29	3382.9	-20.76	157.90
102.19	22 33 17	3354.76	-17.45	118.88	110.62	64.42	23 29 12	2754.8	-20.75	111.59
110.00	1 26 14	2826.57	-29.44	83.96	115.86	71.78	2 13 21	2226.6	-31.64	75.44
110.00	21 28 15	3559.11	-6.23	127.83	104.12	56.32	22 27 35	2959.1	-10.62	121.48

DIFFERENTIAL CORRECTIONS

TDE 2.2046 TRA -.3468 TCS -.9847 BAU .5829
RDE 1.0435 RRA .2672 RCS -.8096 FAU .03667
FDE 1.8848 FRA .2892 FCS -.9281 BSP 8567
BDE 2.4391 BRA .4376 BCS 1.2740 FSP -620

MID-COURSE EXECUTION ACCURACY

SGT 2479.3 SGR 1426.5 SGS 187.2
RRT .9989 RRF .9755 RTF .9514
SGB 2960.3 RZS .1718 RIS .9752
SGI 2806.5 SGZ 552.1 THA 28.55

ORBIT DETERMINATION ACCURACY

ST 2163.3 SR 1026.8 SS 1063.5
CRT .9996 CRS -.9993 CST -.9942
LSA 2615.6 NSA 154.9 SSA 6.0
EL1 2390.9 EL2 133.5 ALF 25.24

LAUNCH DATE SEP 20 1970 FLIGHT TIME 120.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 346.950

RL 150.24 LAL -.00 LOL 356.62 VL 27.513 GAL -6.89 AZL 79.26 HCA 161.66 SHA 131.43 ECC .18595 INC10.7420 V1 29.658
RP 107.56 LAP 3.36 LOP 158.58 VP 38.183 GAP 2.33 AZP 100.21 TAL 213.29 TAP 14.95 RCA 106.99 APO 155.87 V2 35.232
RC 97.481 GL 51.92 GP -69.22 ZAL 115.87 ZAP 101.00 ETS 322.59 ZAE 103.80 ETE 228.17 ZAC 29.87 ETC 241.63 CLP-122.53

PLANETOCENTRIC CONIC

C3 41.828 VHL 6.467 DLA 34.01 RAL 236.19 RAD 6568.6 VEL 12.775 PTH 2.32 VHP 7.556 DPA -67.18 RAP 151.32 ECC 1.6883

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
70.32	18 42 1	4189.49	-17.56	181.00	118.25	60.39	19 51 51	3589.5	-21.36	173.96
109.68	23 37 9	3249.81	-17.54	110.85	118.24	60.38	24 31 19	2649.8	-21.35	103.89
70.32	18 42 1	4189.49	-17.56	181.00	118.25	60.39	19 51 51	3589.5	-21.36	173.96
109.68	23 37 9	3249.81	-17.54	110.85	118.24	60.38	24 31 19	2649.8	-21.35	103.89
110.00	0 9 5	3164.38	-20.24	105.85	119.82	61.85	1 1 50	2564.4	-23.85	98.55
110.00	23 13 11	3322.91	-14.89	115.02	116.63	58.87	24 8 34	2722.9	-18.91	108.20

DIFFERENTIAL CORRECTIONS

TDE 2.8008 TRA -.2137 TCS -.8596 BAU .5803
RDE 1.0128 RRA .3832 RCS -.5814 FAU .02813
FDE 1.7894 FRA .3380 FCS -.5822 BSP 9043
BDE 2.9046 BRA .4475 BCS 1.0378 FSP -514

MID-COURSE EXECUTION ACCURACY

SGT 2735.7 SGR 1243.9 SGS 153.5
RRT .8738 RRF .9617 RTF .9582
SGB 3005.2 RZS .1800 RIS .9753
SGI 2952.5 SGZ 560.4 THA 22.52

ORBIT DETERMINATION ACCURACY

ST 2490.3 SR 906.4 SS 1026.0
CRT .9960 CRS -.9975 CST -.9953
LSA 2837.2 NSA 160.2 SSA 4.9
EL1 2646.3 EL2 142.2 ALF 19.80

LAUNCH DATE SEP 20 1970 FLIGHT TIME 122.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 353.098

RL 150.24 LAL -.00 LOL 356.62 VL 27.480 GAL -6.73 AZL 76.96 HCA 164.83 SHA 131.19 ECC .18575 INC13.0360 V1 29.658
RP 107.58 LAP 3.38 LOP 161.83 VP 38.154 GAP 2.67 AZP 102.60 TAL 212.37 TAP 17.20 RCA 106.83 APO 155.56 V2 35.226
RC 99.767 GL 56.28 GP -73.32 ZAL 111.72 ZAP 100.78 ETS 313.29 ZAE 99.16 ETE 221.14 ZAC 25.49 ETC 235.83 CLP-130.85

PLANETOCENTRIC CONIC

C3 54.806 VHL 7.403 DLA 37.38 RAL 240.29 RAD 6569.0 VEL 13.273 PTH 2.43 VHP 8.861 DPA -66.94 RAP 140.07 ECC 1.9020

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.51	18 25 55	4354.15	-16.58	193.47	127.37	56.01	19 38 30	3754.2	-20.92	186.79
115.49	0 29 51	3220.28	-16.56	107.95	127.36	56.00	1 23 31	2620.3	-20.91	101.27
64.51	18 25 55	4354.15	-16.58	193.47	127.37	56.01	19 38 30	3754.2	-20.92	186.79
115.49	0 29 51	3220.28	-16.56	107.95	127.36	56.00	1 23 31	2620.3	-20.91	101.27
64.51	18 25 55	4354.15	-16.58	193.47	127.37	56.01	19 38 30	3754.2	-20.92	186.79
115.49	0 29 51	3220.28	-16.56	107.95	127.36	56.00	1 23 31	2620.3	-20.91	101.27

DIFFERENTIAL CORRECTIONS

TDE 3.6490 TRA .0188 TCS -.6742 BAU .5547
RDE .7795 RRA .5306 RCS -.3443 FAU .02004
FDE 1.6563 FRA .3031 FCS -.3166 BSP 9490
BDE 3.7314 BRA .5360 BCS .7570 FSP -414

MID-COURSE EXECUTION ACCURACY

SGT 2995.4 SGR 947.1 SGS 122.3
RRT .7833 RRF .9009 RTF .9662
SGB 3141.6 RZS .1857 RIS .9761
SGI 3089.3 SGZ 570.8 THA 14.41

ORBIT DETERMINATION ACCURACY

ST 2824.3 SR 623.5 SS 965.2
CRT .9683 CRS -.9860 CST -.9964
LSA 3050.9 NSA 167.2 SSA 3.8
EL1 2888.3 EL2 152.4 ALF 12.10

LAUNCH DATE SEP 20 1970 FLIGHT TIME 124.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 359.187

RL 150.24 LAL -.00 LOL 356.62 VL 27.445 GAL -6.55 AZL 73.50 HCA 167.97 SHA 130.95 ECC .18554 INC16.4997 V1 29.658
RP 107.60 LAP 3.39 LOP 165.07 VP 38.122 GAP 2.99 AZP 106.16 TAL 211.37 TAP 19.34 RCA 106.65 APO 155.24 V2 35.218
RC 102.053 GL 60.40 GP -77.87 ZAL 107.31 ZAP 99.83 ETS 298.89 ZAE 93.77 ETE 209.07 ZAC 20.27 ETC 225.07 CLP-144.34

PLANETOCENTRIC CONIC

C3 79.319 VHL 8.906 DLA 40.40 RAL 245.13 RAD 6569.6 VEL 14.166 PTH 2.58 VHP 10.888 DPA -65.53 RAP 127.56 ECC 2.3054

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.89	18 22 58	4506.36	-14.06	204.23	136.03	51.73	19 38 4	3906.4	-18.92	198.02
120.11	1 11 25	3244.74	-14.05	108.08	136.01	51.72	2 5 30	2644.7	-18.91	101.87
59.89	18 22 58	4506.36	-14.06	204.23	136.03	51.73	19 38 4	3906.4	-18.92	198.02
120.11	1 11 25	3244.74	-14.05	108.08	136.01	51.72	2 5 30	2644.7	-18.91	101.87
59.89	18 22 58	4506.36	-14.06	204.23	136.03	51.73	19 38 4	3906.4	-18.92	198.02
120.11	1 11 25	3244.74	-14.05	108.08	136.01	51.72	2 5 30	2644.7	-18.91	101.87

DIFFERENTIAL CORRECTIONS

TDE 4.8075 TRA .4820 TCS -.4364 BAU .4811
RDE -.0881 RRA .6423 RCS -.1241 FAU .01241
FDE 1.5697 FRA .4263 FCS -.1354 BSP 9874
BDE 4.8078 BRA .7912 BCS .4537 FSP -322

MID-COURSE EXECUTION ACCURACY

SGT 3212.8 SGR 587.5 SGS 94.9
RRT .1314 RRF .3166 RTF .9775
SGB 3265.9 RZS .1855 RIS .9784
SGI 3213.6 SGZ 582.2 THA 1.42

ORBIT DETERMINATION ACCURACY

ST 3095.0 SR 168.7 SS 955.4
CRT -.2229 CRS .1555 CST -.9976
LSA 3238.7 NSA 176.2 SSA 2.9
EL1 3095.2 EL2 164.5 ALF 179.30

LAUNCH DATE SEP 20 1970 FLIGHT TIME 126.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 365.179

```
RL  150.24 LAL   -.00 LOL 356.62 VL  27.408 GAL  -6.34 AZL  67.68 HCA 171.04 SMA 130.69 ECC .18526 INC22.3202 V1  29.658
RP  107.63 LAP   3.39 LOP 168.32 VP  38.088 GAP   3.29 AZP 112.07 TAL 210.27 TAP  21.31 RCA 106.48 APO 154.90 V2  35.211
RC 104.339 GL   63.61 GP  -81.84 ZAL 102.75 ZAP  98.16 ETS 270.56 ZAE  87.04 ETE 183.01 ZAC  13.68 ETC 201.87 CLP-178.43
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PLANETOCENTRIC CONIC

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C3 133.374 VHL 11.549 DLA  42.36 RAL 250.79 RAD 6570.4 VEL 15.960 PTH   2.82 VHP 14.367 DPA -62.07 RAP 114.81 ECC 3.1950
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.07	18 33 20	4649.81	-9.75	212.96	149.95	48.56	19 50 50	4049.8	-14.98	207.17
122.93	1 46 14	3320.66	-9.73	110.96	149.94	48.56	2 41 35	2720.7	-14.96	105.18
57.07	18 33 20	4649.81	-9.75	212.96	149.95	48.56	19 50 50	4049.8	-14.98	207.17
122.93	1 46 14	3320.66	-9.73	110.96	149.94	48.56	2 41 35	2720.7	-14.96	105.18
57.07	18 33 20	4649.81	-9.75	212.96	149.95	48.56	19 50 50	4049.8	-14.98	207.17
122.93	1 46 14	3320.66	-9.73	110.96	149.94	48.56	2 41 35	2720.7	-14.96	105.18

DIFFERENTIAL CORRECTIONS

```
TDE 5.8403 TRA 1.3282 TC3 -.1653 BAU  .2916
RDE-2.8388 RRA  .3034 RC3  .0077 FAU .00467
FDE 1.5628 FRA  .4933 FC3 -.0303 BSP  10102
BDE 6.4937 BRA 1.3605 BC3  .1635 FSP   -244
```

MID-COURSE EXECUTION ACCURACY

```
SGT 3054.6 SGR 1423.1 SG3   73.1
RRT -.8985 RRF -.8519 RTF  .9937
SGB 3369.9 RZS -.1674 RIS -.9839
SG1 3320.5 SG2  574.6 THA 156.54
```

ORBIT DETERMINATION ACCURACY

```
ST  2909.8 SR  1409.7 SS   970.3
CRT -.9909 CRS  .9854 CST -.9994
LSA 3370.9 MSA  180.6 SSA    1.9
EL1 3228.7 EL2  171.4 ALF 154.28
```

LAUNCH DATE SEP 20 1970 FLIGHT TIME 128.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 370.961

```
RL  150.24 LAL   -.00 LOL 356.62 VL  27.370 GAL  -6.09 AZL  56.18 HCA 173.92 SMA 130.41 ECC .18469 INC33.8231 V1  29.658
RP  107.65 LAP   3.38 LOP 171.56 VP  38.053 GAP   3.52 AZP 123.67 TAL 208.99 TAP  22.91 RCA 106.33 APO 154.50 V2  35.202
RC 106.624 GL   63.81 GP  -78.88 ZAL  98.26 ZAP  95.87 ETS 223.26 ZAE  77.41 ETE 137.82 ZAC   4.78 ETC 181.09 CLP 122.04
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PLANETOCENTRIC CONIC

```
C3 285.005 VHL 16.882 DLA  41.37 RAL 257.06 RAD 6571.7 VEL 20.157 PTH   3.15 VHP 21.292 DPA -54.74 RAP 103.37 ECC 5.6905
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.48	19 4 22	4752.55	-4.25	217.04	162.24	48.81	20 23 34	4152.5	-9.48	211.36
121.52	2 5 13	3456.42	-4.23	117.92	162.23	48.81	3 2 50	2856.4	-9.47	112.24
58.48	19 4 22	4752.55	-4.25	217.04	162.24	48.81	20 23 34	4152.5	-9.48	211.36
121.52	2 5 13	3456.42	-4.23	117.92	162.23	48.81	3 2 50	2856.4	-9.47	112.24
58.48	19 4 22	4752.55	-4.25	217.04	162.24	48.81	20 23 34	4152.5	-9.48	211.36
121.52	2 5 13	3456.42	-4.23	117.92	162.23	48.81	3 2 50	2856.4	-9.47	112.24

DIFFERENTIAL CORRECTIONS

```
TDE 3.5977 TRA 2.0007 TC3 -.0003 BAU  .3324
RDE-8.6511 RRA-1.7617 RC3 -.0872 FAU-.00630
FDE 1.7626 FRA  .6647 FC3  .0191 BSP  10202
BDE 9.3693 BRA 2.6658 BC3  .0872 FSP   -190
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1519.7 SGR 3056.5 SG3   58.1
RRT -.9289 RRF -.9801 RTF  .9806
SGB 3413.4 RZS -.1206 RIS -.9915
SG1 3374.1 SG2  516.6 THA 115.38
```

ORBIT DETERMINATION ACCURACY

```
ST  1250.8 SR  2945.8 SS  1112.9
CRT -.9906 CRS  .9977 CST -.9976
LSA 3384.3 MSA  165.8 SSA    1.8
EL1 3196.4 EL2  158.1 ALF 112.87
```

LAUNCH DATE SEP 20 1970 FLIGHT TIME 130.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 376.075

```
RL  150.24 LAL   -.00 LOL 356.62 VL  27.330 GAL  -5.70 AZL  28.37 HCA 176.18 SMA 130.13 ECC .18306 INC61.6315 V1  29.658
RP  107.68 LAP   3.36 LOP 174.81 VP  38.016 GAP   3.56 AZP 151.58 TAL 207.18 TAP  23.37 RCA 106.31 APO 153.96 V2  35.193
RC 108.906 GL   54.80 GP  -62.91 ZAL  94.38 ZAP  93.37 ETS 193.54 ZAE  59.97 ETE 110.46 ZAC  14.21 ETC 276.76 CLP  97.42
```

PLANETOCENTRIC CONIC

```
C3 857.586 VHL 29.285 DLA  31.64 RAL 262.58 RAD 6572.8 VEL 31.287 PTH   3.47 VHP 37.305 DPA -38.51 RAP  95.03 ECC15.1137
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
75.27	20 59 13	4568.34	-.06	199.28	172.50	58.36	22 15 22	3968.3	-4.24	192.87
104.73	0 54 24	3826.51	-.04	144.40	172.50	58.36	1 58 10	3226.5	-4.23	137.99
75.27	20 59 13	4568.34	-.06	199.28	172.50	58.36	22 15 22	3968.3	-4.24	192.87
104.73	0 54 24	3826.51	-.04	144.40	172.50	58.36	1 58 10	3226.5	-4.23	137.99
110.00	3 7 40	3412.95	-11.67	120.00	179.77	57.64	4 4 33	2813.0	-15.85	113.40
110.00	23 45 8	4029.90	11.57	152.66	165.22	57.61	24 52 18	3429.9	7.21	146.27

DIFFERENTIAL CORRECTIONS

```
TDE-2.2572 TRA 1.4717 TC3 -.0498 BAU 2.3749
RD-13.3546 RRA-5.6833 RC3 -.2011 FAU-.03754
FDE 2.3815 FRA 1.2423 FC3  .0379 BSP   9390
BDE13.5440 BRA 5.8708 BC3  .2071 FSP   -159
```

MID-COURSE EXECUTION ACCURACY

```
SGT  628.2 SGR 3149.5 SG3   51.0
RRT  .5337 RRF -.9968 RTF -.4697
SGB 3211.5 RZS -.0919 RIS -.9953
SG1 3167.8 SG2  528.2 THA  83.75
```

ORBIT DETERMINATION ACCURACY

```
ST   453.2 SR  2642.3 SS  1527.2
CRT  .9306 CRS  .9995 CST  .9181
LSA 3080.5 MSA  173.3 SSA    1.7
EL1 2675.9 EL2  163.8 ALF  80.90
```

LAUNCH DATE SEP 20 1970 FLIGHT TIME 132.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 386.561

```
RL  150.24 LAL   -.00 LOL 356.62 VL  27.288 GAL  -6.39 AZL 156.83 HCA 183.62 SMA 129.85 ECC .19166 INC66.8295 V1  29.658
RP  107.71 LAP   3.32 LOP 178.05 VP  37.977 GAP   5.10 AZP  23.21 TAL 209.09 TAP  32.71 RCA 104.96 APO 154.73 V2  35.184
RC 111.186 GL  -52.46 GP   59.07 ZAL  94.66 ZAP  94.51 ETS 178.83 ZAE  63.67 ETE 260.55 ZAC 136.22 ETC 274.85 CLP  98.79
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PLANETOCENTRIC CONIC

```
C3 988.504 VHL 31.440 DLA -74.89 RAL 243.40 RAD 6573.0 VEL 33.314 PTH   3.50 VHP 40.733 DPA  83.52 RAP  95.77 ECC17.2683
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.23	4 14 35	2450.16	-.37	80.95	153.48	164.89	4 55 25	1850.2	7.35	79.27
162.77	15 5 50	670.58	-.36	285.12	153.51	164.89	15 17 10	70.6	7.36	283.44
17.23	4 14 35	2450.16	-.37	80.95	153.48	164.89	4 55 25	1850.2	7.35	79.27
162.77	15 5 50	670.58	-.36	285.12	153.51	164.89	15 17 10	70.6	7.36	283.44
17.23	4 14 35	2450.16	-.37	80.95	153.48	164.89	4 55 25	1850.2	7.35	79.27
162.77	15 5 50	670.58	-.36	285.12	153.51	164.89	15 17 10	70.6	7.36	283.44

DIFFERENTIAL CORRECTIONS

```
TDE 5.5911 TRA  .6410 TC3 -.0898 BAU 2.9185
RD-14.4489 RRA  .4314 RC3  .2018 FAU-.04408
FDE-3.0818 FRA  .1059 FC3  .0386 BSP   9497
BDE15.4910 BRA  .7726 BC3  .2208 FSP   -163
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1248.0 SGR 2938.0 SG3   53.2
RRT -.8901 RRF  .9990 RTF -.8790
SGB 3192.1 RZS -.0879 RIS  .9954
SG1 3147.6 SG2  531.0 THA 111.35
```

ORBIT DETERMINATION ACCURACY

```
ST  1027.9 SR  2634.6 SS  1978.2
CRT -.9863 CRS-1.0000 CST  .9855
LSA 3447.3 MSA  163.8 SSA    2.3
EL1 2823.6 EL2  158.0 ALF 111.12
```

LAUNCH DATE SEP 20 1970 FLIGHT TIME 134.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 391.460

RL 150.24 LAL -.00 LOL 356.62 VL 27.246 GAL -5.94 AZL 125.19 HCA 185.70 SMA 129.55 ECC .18958 INC35.1890 V1 29.658
RP 107.74 LAP 3.28 LOP 181.28 VP 37.037 GAP 5.07 AZP 54.94 TAL 207.16 TAP 32.06 RCA 104.99 APO 154.11 V2 35.174
RC 113.462 GL -63.27 GP 75.91 ZAL 97.70 ZAP 97.97 ETS 156.98 ZAE 83.02 ETE 239.41 ZAC 154.22 ETC 264.26 CLP 124.74

PLANETOCENTRIC CONIC

C3 305.727 VHL 17.485 DLA -80.68 RAL 190.91 RAD 6571.7 VEL 20.665 PTH 3.17 VHP 22.860 DPA 76.24 RAP 248.55 ECC 6.0315

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
10.60	0 32 6	2368.96	5.76	83.54	99.95	170.63	1 11 35	1769.0	13.66	82.62
169.40	11 49 45	5856.98	5.77	259.11	99.98	170.63	13 27 22	5257.0	13.66	258.19
10.60	0 32 6	2368.96	5.76	83.54	99.95	170.63	1 11 35	1769.0	13.66	82.62
169.40	11 49 45	5856.98	5.77	259.11	99.98	170.63	13 27 22	5257.0	13.66	258.19
10.60	0 32 6	2368.96	5.76	83.54	99.95	170.63	1 11 35	1769.0	13.66	82.62
169.40	11 49 45	5856.98	5.77	259.11	99.98	170.63	13 27 22	5257.0	13.66	258.19

DIFFERENTIAL CORRECTIONS

TDE-1.4353 TRA .0519 TC3 -.0157 BAU .4830
RDE-6.5236 RRA-1.4338 RC3 .1171 FAU-.00450
FDE-1.4836 FRA -.2640 FC3 .0127 BSP 11113
BDE 6.6796 BRA 1.4348 BC3 .1182 FSP -197

MID-COURSE EXECUTION ACCURACY

SGT 485.0 SGR 3627.0 SG3 62.5
RRT .3856 RRF .9934 RTF .4847
SGB 3659.3 RZS -.1038 R13 .9941
SG1 3631.9 SG2 446.9 THA 87.00

ORBIT DETERMINATION ACCURACY

ST 471.4 SR 2308.1 SS 1011.0
CRT .8989 CRS -.9977 CST -.9267
LSA 2555.0 MSA 208.8 SSA 1.3
EL1 2347.0 EL2 203.1 ALF 79.52

LAUNCH DATE SEP 20 1970 FLIGHT TIME 136.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 397.117

RL 150.24 LAL -.00 LOL 356.62 VL 27.202 GAL -5.65 AZL 112.30 HCA 188.53 SMA 129.25 ECC .18917 INC22.3034 V1 29.658
RP 107.77 LAP 3.23 LOP 184.52 VP 37.096 GAP 5.26 AZP 67.92 TAL 205.69 TAP 34.22 RCA 104.80 APO 153.70 V2 35.164
RC 115.736 GL -63.57 GP 77.40 ZAL 101.04 ZAP 102.47 ETS 94.50 ZAE 93.45 ETE 177.54 ZAC 161.21 ETC 222.78 CLP 172.01

PLANETOCENTRIC CONIC

C3 131.818 VHL 11.472 DLA -77.59 RAL 180.36 RAD 6570.4 VEL 15.904 PTH 2.81 VHP 15.192 DPA 64.87 RAP 247.70 ECC 3.1661

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
14.13	23 53 0	2233.90	14.36	80.09	87.12	167.19	24 30 14	1633.9	22.15	78.60
165.87	11 0 44	5731.51	14.36	259.09	87.14	167.19	12 36 16	5131.5	22.16	257.60
14.13	23 53 0	2233.90	14.36	80.09	87.12	167.19	24 30 14	1633.9	22.15	78.60
165.87	11 0 44	5731.51	14.36	259.09	87.14	167.19	12 36 16	5131.5	22.16	257.60
14.13	23 53 0	2233.90	14.36	80.09	87.12	167.19	24 30 14	1633.9	22.15	78.60
165.87	11 0 44	5731.51	14.36	259.09	87.14	167.19	12 36 16	5131.5	22.16	257.60

DIFFERENTIAL CORRECTIONS

TDE-3.1748 TRA-1.3435 TC3 -.1509 BAU .2707
RDE -.2745 RRA -.6483 RC3 -.0301 FAU .00985
FDE -.9514 FRA -.3333 FC3 -.0648 BSP 11678
BDE 3.1863 BRA 1.4922 BC3 .1538 FSP -253

MID-COURSE EXECUTION ACCURACY

SGT 3519.3 SGR 1517.1 SG3 79.6
RRT .8280 RRF .8909 RTF .9948
SGB 3832.3 RZS -.1424 R13 .9884
SG1 3796.3 SG2 524.1 THA 22.25

ORBIT DETERMINATION ACCURACY

ST 1841.5 SR 473.1 SS 694.3
CRT .7364 CRS -.6809 CST -.9969
LSA 1998.3 MSA 322.5 SSA 1.8
EL1 1875.2 EL2 314.3 ALF 11.03

LAUNCH DATE SEP 20 1970 FLIGHT TIME 138.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 402.974

RL 150.24 LAL -.00 LOL 356.62 VL 27.158 GAL -5.38 AZL 105.97 HCA 191.57 SMA 128.95 ECC .18926 INC15.9664 V1 29.658
RP 107.80 LAP 3.16 LOP 187.75 VP 37.854 GAP 5.50 AZP 74.34 TAL 204.34 TAP 35.91 RCA 104.54 APO 153.35 V2 35.153
RC 118.005 GL -60.52 GP 72.06 ZAL 104.02 ZAP 107.33 ETS 66.96 ZAE 100.50 ETE 151.16 ZAC 162.07 ETC 219.71 CLP-165.25

PLANETOCENTRIC CONIC

C3 72.990 VHL 8.543 DLA -74.39 RAL 187.02 RAD 6569.4 VEL 13.941 PTH 2.54 VHP 11.508 DPA 56.38 RAP 245.52 ECC 2.2012

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.80	0 30 51	2100.90	22.41	75.41	90.39	163.08	1 5 52	1500.9	30.04	73.14
162.20	11 19 55	5611.63	22.42	258.05	90.41	163.08	12 53 27	5011.6	30.05	255.79
17.80	0 30 51	2100.90	22.41	75.41	90.39	163.08	1 5 52	1500.9	30.04	73.14
162.20	11 19 55	5611.63	22.42	258.05	90.41	163.08	12 53 27	5011.6	30.05	255.79
17.80	0 30 51	2100.90	22.41	75.41	90.39	163.08	1 5 52	1500.9	30.04	73.14
162.20	11 19 55	5611.63	22.42	258.05	90.41	163.08	12 53 27	5011.6	30.05	255.79

DIFFERENTIAL CORRECTIONS

TDE-2.5960 TRA-1.3547 TC3 -.5457 BAU .5381
RDE .9299 RRA .0198 RC3 .0795 FAU .01921
FDE-1.0476 FRA -.3536 FC3 -.2278 BSP 12255
BDE 2.7584 BRA 1.3548 BC3 .5515 FSP -334

MID-COURSE EXECUTION ACCURACY

SGT 3912.1 SGR 640.2 SG3 103.0
RRT -.5508 RRF -.7002 RTF .9781
SGB 3964.1 RZS .1813 R13 -.9804
SG1 3928.3 SG2 532.1 THA 174.75

ORBIT DETERMINATION ACCURACY

ST 2015.0 SR 623.8 SS 746.5
CRT -.8761 CRS .9440 CST -.9861
LSA 2216.8 MSA 303.7 SSA 2.6
EL1 2089.3 EL2 290.1 ALF 164.52

LAUNCH DATE SEP 20 1970 FLIGHT TIME 140.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 408.897

RL 150.24 LAL -.00 LOL 356.62 VL 27.112 GAL -5.13 AZL 102.27 HCA 194.69 SMA 128.64 ECC .18961 INC12.2666 V1 29.658
RP 107.84 LAP 3.09 LOP 190.99 VP 37.812 GAP 5.76 AZP 78.12 TAL 203.01 TAP 37.69 RCA 104.25 APO 153.03 V2 35.141
RC 120.271 GL -56.47 GP 65.84 ZAL 106.42 ZAP 112.24 ETS 59.14 ZAE 105.91 ETE 145.08 ZAC 159.52 ETC 230.36 CLP-157.68

PLANETOCENTRIC CONIC

C3 47.373 VHL 6.885 DLA -71.20 RAL 195.81 RAD 6568.8 VEL 12.990 PTH 2.37 VHP 9.477 DPA 49.15 RAP 243.76 ECC 1.7796

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.48	1 13 34	1987.28	28.70	69.84	95.06	158.44	1 46 41	1387.3	36.09	66.63
158.52	11 47 21	5514.65	28.71	256.24	95.08	158.44	13 19 16	4914.7	36.10	253.03
21.48	1 13 34	1987.28	28.70	69.84	95.06	158.44	1 46 41	1387.3	36.09	66.63
158.52	11 47 21	5514.65	28.71	256.24	95.08	158.44	13 19 16	4914.7	36.10	253.03
21.48	1 13 34	1987.28	28.70	69.84	95.06	158.44	1 46 41	1387.3	36.09	66.63
158.52	11 47 21	5514.65	28.71	256.24	95.08	158.44	13 19 16	4914.7	36.10	253.03

DIFFERENTIAL CORRECTIONS

TDE-2.4138 TRA-1.1983 TC3-1.0239 BAU .6662
RDE 1.0190 RRA .1291 RC3 .2413 FAU .02701
FDE-1.1864 FRA -.3455 FC3 -.4935 BSP 12668
BDE 2.6195 BRA 1.2063 BC3 1.0520 FSP -423

MID-COURSE EXECUTION ACCURACY

SGT 3951.9 SGR 970.1 SG3 129.1
RRT -.8360 RRF -.9388 RTF .9662
SGB 4069.3 RZS .2127 R13 -.9722
SG1 4035.7 SG2 521.2 THA 168.20

ORBIT DETERMINATION ACCURACY

ST 2213.8 SR 854.2 SS 838.0
CRT -.9505 CRS .9891 CST -.9858
LSA 2502.1 MSA 269.0 SSA 3.4
EL1 2359.8 EL2 249.0 ALF 159.62

LAUNCH DATE SEP 20 1970 FLIGHT TIME 142.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 414.842

RL	150.24	LAL	-.00	LOL	356.62	VL	27.067	GAL	-4.87	AZL	99.85	HCA	197.84	SMA	128.33	ECC	.19011	INC	9.8473
RP	107.87	LAP	3.00	LOP	194.21	VP	37.768	GAP	6.02	AZP	80.62	TAL	201.68	TAP	39.51	RCA	103.94	APO	152.73
RC	122.531	GL	-52.18	GP	59.93	ZAL	108.17	ZAP	117.02	ETS	56.01	ZAE	110.25	ETE	144.16	ZAC	155.64	ETC	238.73

V1	29.658	V2	35.130	CLP	-155.05														

PLANETOCENTRIC CONIC

C3	34.093	VHL	5.839	DLA	-67.99	RAL	204.00	RAD	6568.3	VEL	12.469	PTH	2.26	VHP	8.255	DPA	42.72	RAP	242.57
ECC	1.5611																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
25.20	1 54 16	1894.02	33.14	63.66	98.69	153.41	2 25 50	1294.0	40.21	59.40
154.80	12 12 0	5442.00	33.14	253.99	98.70	153.41	13 42 42	4842.0	40.21	249.73
25.20	1 54 16	1894.02	33.14	63.66	98.69	153.41	2 25 50	1294.0	40.21	59.40
154.80	12 12 0	5442.00	33.14	253.99	98.70	153.41	13 42 42	4842.0	40.21	249.73
25.20	1 54 16	1894.02	33.14	63.66	98.69	153.41	2 25 50	1294.0	40.21	59.40
154.80	12 12 0	5442.00	33.14	253.99	98.70	153.41	13 42 42	4842.0	40.21	249.73

DIFFERENTIAL CORRECTIONS

TDE	-2.2858	TRA	-1.0603	TC3	-1.5725	BAU	.7385
RDE	.9308	RRA	.1196	RC3	.3907	FAU	.03360
FDE	-1.2887	FRA	-.3102	FC3	-.8533	BSP	12932
BDE	2.4680	BRA	1.0671	BC3	1.6203	FSP	-506

MID-COURSE EXECUTION ACCURACY

SGT	4013.6	SGR	1087.9	SG3	154.6		
RRT	-.8762	RRF	-.9660	RTF	.9574		
SGB	4153.2	RZ3	.2360	R13	-.9646		
SG1	4122.9	SG2	501.0	THA	166.68		

ORBIT DETERMINATION ACCURACY

ST	2393.2	SR	918.3	SS	905.0		
CRT	-.9681	CRS	.9958	CST	-.9869		
LSA	2707.6	MSA	242.5	SSA	4.3		
EL1	2554.3	EL2	215.5	ALF	159.47		

LAUNCH DATE SEP 20 1970 FLIGHT TIME 144.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 420.792

RL	150.24	LAL	-.00	LOL	356.62	VL	27.020	GAL	-4.61	AZL	98.14	HCA	201.01	SMA	128.02	ECC	.19074	INC	8.1382
RP	107.91	LAP	2.91	LOP	197.44	VP	37.724	GAP	6.29	AZP	82.40	TAL	200.33	TAP	41.34	RCA	103.60	APO	152.44
RC	124.786	GL	-47.95	GP	54.52	ZAL	109.27	ZAP	121.55	ETS	54.35	ZAE	113.75	ETE	145.04	ZAC	151.49	ETC	244.26

V1	29.658	V2	35.118	CLP	-154.34														

PLANETOCENTRIC CONIC

C3	28.363	VHL	5.135	DLA	-64.83	RAL	211.23	RAD	6568.1	VEL	12.155	PTH	2.18	VHP	7.483	DPA	36.93	RAP	241.88
ECC	1.4339																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.89	2 31 27	1817.35	36.01	57.22	101.25	148.27	3 1 44	1217.3	42.69	51.92
151.11	12 32 32	5389.87	36.02	251.63	101.26	148.27	14 2 22	4789.9	42.69	246.33
28.89	2 31 27	1817.35	36.01	57.22	101.25	148.27	3 1 44	1217.3	42.69	51.92
151.11	12 32 32	5389.87	36.02	251.63	101.26	148.27	14 2 22	4789.9	42.69	246.33
28.89	2 31 27	1817.35	36.01	57.22	101.25	148.27	3 1 44	1217.3	42.69	51.92
151.11	12 32 32	5389.87	36.02	251.63	101.26	148.27	14 2 22	4789.9	42.69	246.33

DIFFERENTIAL CORRECTIONS

TDE	-2.1922	TRA	-.9335	TC3	-2.1696	BAU	.7856
RDE	.8073	RRA	.0834	RC3	.5104	FAU	.03887
FDE	-1.2842	FRA	-.2501	FC3	-1.2765	BSP	13117
BDE	2.2986	BRA	.9372	BC3	2.2289	FSP	-576

MID-COURSE EXECUTION ACCURACY

SGT	4090.0	SGR	1064.9	SG3	177.1		
RRT	-.8878	RRF	-.9718	RTF	.9504		
SGB	4226.3	RZ3	.2528	R13	-.9575		
SG1	4199.3	SG2	477.4	THA	166.81		

ORBIT DETERMINATION ACCURACY

ST	2512.3	SR	903.3	SS	935.5		
CRT	-.9750	CRS	.9979	CST	-.9872		
LSA	2820.1	MSA	223.8	SSA	5.3		
EL1	2663.1	EL2	189.5	ALF	160.58		

LAUNCH DATE SEP 20 1970 FLIGHT TIME 146.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 426.735

RL	150.24	LAL	-.00	LOL	356.62	VL	26.973	GAL	-4.35	AZL	96.86	HCA	204.20	SMA	127.71	ECC	.19150	INC	6.8617
RP	107.95	LAP	2.81	LOP	200.66	VP	37.679	GAP	6.56	AZP	83.74	TAL	198.96	TAP	43.16	RCA	103.26	APO	152.17
RC	127.036	GL	-43.89	GP	49.65	ZAL	109.73	ZAP	125.75	ETS	53.25	ZAE	116.57	ETE	146.68	ZAC	147.50	ETC	247.98

V1	29.658	V2	35.105	CLP	-154.49														

PLANETOCENTRIC CONIC

C3	21.482	VHL	4.635	DLA	-61.76	RAL	217.66	RAD	6567.9	VEL	11.952	PTH	2.13	VHP	6.982	DPA	31.72	RAP	241.62
ECC	1.3535																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.51	3 5 39	1753.08	37.67	50.82	103.15	143.29	3 34 52	1153.1	43.91	44.60
147.49	12 49 35	5353.97	37.68	249.40	103.17	143.29	14 18 49	4754.0	43.92	243.19
32.51	3 5 39	1753.08	37.67	50.82	103.15	143.29	3 34 52	1153.1	43.91	44.60
147.49	12 49 35	5353.97	37.68	249.40	103.17	143.29	14 18 49	4754.0	43.92	243.19
32.51	3 5 39	1753.08	37.67	50.82	103.15	143.29	3 34 52	1153.1	43.91	44.60
147.49	12 49 35	5353.97	37.68	249.40	103.17	143.29	14 18 49	4754.0	43.92	243.19

DIFFERENTIAL CORRECTIONS

TDE	-2.0319	TRA	-.8309	TC3	-2.8273	BAU	.8309
RDE	.6982	RRA	.0537	RC3	.6143	FAU	.04360
FDE	-1.2828	FRA	-.1892	FC3	-1.7571	BSP	13756
BDE	2.1485	BRA	.8326	BC3	2.8933	FSP	-666

MID-COURSE EXECUTION ACCURACY

SGT	4229.9	SGR	1043.5	SG3	199.6		
RRT	-.8863	RRF	-.9727	RTF	.9482		
SGB	4356.7	RZ3	.2532	R13	-.9543		
SG1	4333.6	SG2	447.5	THA	167.37		

ORBIT DETERMINATION ACCURACY

ST	2596.1	SR	864.3	SS	946.5		
CRT	-.9790	CRS	.9989	CST	-.9874		
LSA	2887.8	MSA	208.2	SSA	6.4		
EL1	2731.1	EL2	167.4	ALF	161.88		

LAUNCH DATE SEP 20 1970 FLIGHT TIME 148.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 432.673

RL	150.24	LAL	-.00	LOL	356.62	VL	26.926	GAL	-4.07	AZL	95.87	HCA	207.39	SMA	127.40	ECC	.19236	INC	5.8674
RP	107.99	LAP	2.70	LOP	203.88	VP	37.633	GAP	6.82	AZP	84.79	TAL	197.58	TAP	44.96	RCA	102.89	APO	151.91
RC	129.278	GL	-40.05	GP	45.32	ZAL	109.60	ZAP	129.61	ETS	52.42	ZAE	118.82	ETE	148.63	ZAC	143.84	ETC	250.60

V1	29.658	V2	35.093	CLP	-155.06														

PLANETOCENTRIC CONIC

C3	18.211	VHL	4.267	DLA	-58.84	RAL	223.49	RAD	6567.7	VEL	11.815	PTH	2.09	VHP	6.657	DPA	27.04	RAP	241.73
ECC	1.2997																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.00	3 37 40	1697.88	38.44	44.67	104.79	138.65	4 5 57	1097.9	44.22	37.71
144.00	13 4 6	5330.69	38.45	247.51	104.81	138.65	14 32 56	4730.7	44.23	240.55
36.00	3 37 40	1697.88	38.44	44.67	104.79	138.65	4 5 57	1097.9	44.22	37.71
144.00	13 4 6	5330.69	38.45	247.51	104.81	138.65	14 32 56	4730.7	44.23	240.55
36.00	3 37 40	1697.88	38.44	44.67	104.79	138.65	4 5 57	1097.9	44.22	37.71
144.00	13 4 6	5330.69	38.45	247.51	104.81	138.65	14 32 56	4730.7	44.23	240.55

DIFFERENTIAL CORRECTIONS

TDE	-1.8889	TRA	-.7086	TC3	-3.4514	BAU	.8558
RDE	.5930	RRA	.0155	RC3	.6653	FAU	.04600
FDE	-1.1802	FRA	-.0941	FC3	-2.1870	BSP	13760
BDE	1.9798	BRA	.7058	BC3	3.5150	FSP	-695

MID-COURSE EXECUTION ACCURACY

SGT	4296.7	SGR	978.7	SG3	212.6		
RRT	-.8954	RRF	-.9680	RTF	.9425		
SGB	4406.7	RZ3	.2599	R13	-.9479		
SG1	4386.0	SG2	426.9	THA	168.36		

ORBIT DETERMINATION ACCURACY

ST	2596.4	SR	796.4	SS	912.9		
CRT	-.9804	CRS	.9994	CST	-.9861		
LSA	2858.3	MSA	198.4	SSA	7.8		
EL1	2711.6	EL2	150.4	ALF	163.21		

LAUNCH DATE SEP 20 1970 FLIGHT TIME 150.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 438.590

RL 150.24 LAL -.00 LOL 356.62 VL 26.879 GAL -3.78 AZL 95.07 HCA 210.58 SMA 127.09 ECC .19335 INC 5.0660 V1 29.658
RP 108.03 LAP 2.58 LOP 207.10 VP 37.587 GAP 7.08 AZP 85.63 TAL 196.17 TAP 46.75 RCA 102.52 APO 151.66 V2 35.080
RC 131.513 GL -36.41 GP 41.49 ZAL 108.93 ZAP 133.12 ETS 51.74 ZAE 120.59 ETE 150.65 ZAC 140.55 ETC 252.55 CLP-155.86

PLANETOCENTRIC CONIC

C3 15.923 VHL 3.990 DLA -56.05 RAL 228.89 RAD 6567.6 VEL 11.718 PTH 2.06 VHP 6.449 DPA 22.84 RAP 242.13 ECC 1.2620

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.38	4 8 11	1649.10	38.55	38.85	106.43	134.43	4 35 40	1049.1	43.89	31.34
140.62	13 16 37	5317.60	38.56	248.05	106.44	134.42	14 45 14	4717.6	43.90	238.54
39.38	4 8 11	1649.10	38.55	38.85	106.43	134.43	4 35 40	1049.1	43.89	31.34
140.62	13 16 37	5317.60	38.56	248.05	106.44	134.42	14 45 14	4717.6	43.90	238.54
39.38	4 8 11	1649.10	38.55	38.85	106.43	134.43	4 35 40	1049.1	43.89	31.34
140.62	13 16 37	5317.60	38.56	248.05	106.44	134.42	14 45 14	4717.6	43.90	238.54

DIFFERENTIAL CORRECTIONS
TDE-1.7806 TRA -.5916 TC3-4.0017 BAU .8837
RDE .5115 RRA -.0121 RC3 .7018 FAU .04783
FDE-1.0640 FRA -.0046 FC3-2.8004 BSP 14081
BDE 1.8334 BRA .5917 BC3 4.1515 FSP -735

MID-COURSE EXECUTION ACCURACY
SGT 4400.8 SGR 984.1 SG3 224.2
RRT -.0046 RRF -.9616 RTF .8309
SGB 4496.8 RZS .2542 R13 -.9444
SG1 4478.5 SG2 405.7 THA 169.27

ORBIT DETERMINATION ACCURACY
ST 2570.8 SR 734.6 SS 868.5
CRT -.9817 CRS .9997 CST -.9845
LSA 2804.8 MSA 189.4 SSA 9.3
EL1 2670.3 EL2 134.8 ALF 164.29

LAUNCH DATE SEP 20 1970 FLIGHT TIME 152.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 444.511

RL 150.24 LAL -.00 LOL 356.62 VL 26.831 GAL -3.49 AZL 94.40 HCA 213.77 SMA 126.78 ECC .19445 INC 4.4049 V1 29.658
RP 108.07 LAP 2.45 LOP 210.32 VP 37.541 GAP 7.35 AZP 86.34 TAL 194.75 TAP 46.52 RCA 102.13 APO 151.43 V2 35.067
RC 133.740 GL -32.99 GP 38.11 ZAL 107.78 ZAP 136.31 ETS 51.16 ZAE 121.98 ETE 152.64 ZAC 137.63 ETC 254.06 CLP-156.78

PLANETOCENTRIC CONIC

C3 14.274 VHL 3.778 DLA -53.38 RAL 233.97 RAD 6567.6 VEL 11.647 PTH 2.04 VHP 6.323 DPA 19.08 RAP 242.79 ECC 1.2349

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.65	4 37 47	1604.83	36.18	33.30	108.20	130.64	5 4 32	1004.8	43.11	25.49
137.35	13 27 36	5312.91	36.19	245.09	108.21	130.63	14 56 9	4712.9	43.12	237.19
42.65	4 37 47	1604.83	36.18	33.30	108.20	130.64	5 4 32	1004.8	43.11	25.49
137.35	13 27 36	5312.91	36.19	245.09	108.21	130.63	14 56 9	4712.9	43.12	237.19
42.65	4 37 47	1604.83	36.18	33.30	108.20	130.64	5 4 32	1004.8	43.11	25.49
137.35	13 27 36	5312.91	36.19	245.09	108.21	130.63	14 56 9	4712.9	43.12	237.19

DIFFERENTIAL CORRECTIONS
TDE-1.8382 TRA -.4740 TC3-4.7086 BAU .9009
RDE .4456 RRA -.0355 RC3 .7186 FAU .04867
FDE -.9747 FRA .0075 FC3-2.9517 BSP 14375
BDE 1.6940 BRA .4753 BC3 4.7628 FSP -761

MID-COURSE EXECUTION ACCURACY
SGT 4501.2 SGR 870.6 SG3 232.0
RRT -.0014 RRF -.9525 RTF .9377
SGB 4584.8 RZS .2434 R13 -.9414
SG1 4560.1 SG2 300.8 THA 170.14

ORBIT DETERMINATION ACCURACY
ST 2508.2 SR 676.5 SS 809.1
CRT -.9828 CRS .9990 CST -.9821
LSA 2714.8 MSA 181.9 SSA 11.1
EL1 2595.1 EL2 120.7 ALF 165.12

LAUNCH DATE SEP 20 1970 FLIGHT TIME 154.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 450.410

RL 150.24 LAL -.00 LOL 356.62 VL 26.784 GAL -3.18 AZL 93.85 HCA 216.97 SMA 126.47 ECC .19568 INC 3.8454 V1 29.658
RP 108.11 LAP 2.31 LOP 213.53 VP 37.495 GAP 7.62 AZP 86.93 TAL 193.30 TAP 50.27 RCA 101.72 APO 151.22 V2 35.094
RC 135.957 GL -29.75 GP 35.14 ZAL 106.20 ZAP 139.20 ETS 50.68 ZAE 123.06 ETE 154.52 ZAC 135.07 ETC 255.28 CLP-157.77

PLANETOCENTRIC CONIC

C3 13.066 VHL 3.615 DLA -50.82 RAL 238.84 RAD 6567.5 VEL 11.595 PTH 2.03 VHP 6.256 DPA 15.71 RAP 243.66 ECC 1.2150

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.85	5 6 55	1563.52	37.46	28.25	110.19	127.27	5 32 58	963.5	42.00	20.09
134.15	13 37 17	5315.59	37.47	244.64	110.20	127.26	15 5 52	4715.6	42.01	236.48
45.85	5 6 55	1563.52	37.46	28.25	110.19	127.27	5 32 58	963.5	42.00	20.09
134.15	13 37 17	5315.59	37.47	244.64	110.20	127.26	15 5 52	4715.6	42.01	236.48
45.85	5 6 55	1563.52	37.46	28.25	110.19	127.27	5 32 58	963.5	42.00	20.09
134.15	13 37 17	5315.59	37.47	244.64	110.20	127.26	15 5 52	4715.6	42.01	236.48

DIFFERENTIAL CORRECTIONS
TDE-1.5123 TRA -.3525 TC3-5.2885 BAU .9322
RDE .3933 RRA -.0393 RC3 .7154 FAU .04874
FDE -.8587 FRA .1784 FC3-3.2291 BSP 14673
BDE 1.5626 BRA .3568 BC3 5.3367 FSP -777

MID-COURSE EXECUTION ACCURACY
SGT 4590.5 SGR 821.8 SG3 236.7
RRT -.0062 RRF -.9409 RTF .9362
SGB 4671.4 RZS .2281 R13 -.9392
SG1 4656.2 SG2 376.0 THA 170.94

ORBIT DETERMINATION ACCURACY
ST 2414.5 SR 624.9 SS 740.3
CRT -.9842 CRS .9992 CST -.9784
LSA 2595.7 MSA 175.5 SSA 13.1
EL1 2491.8 EL2 107.4 ALF 165.68

LAUNCH DATE SEP 20 1970 FLIGHT TIME 156.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 456.293

RL 150.24 LAL -.00 LOL 356.62 VL 26.736 GAL -2.87 AZL 93.36 HCA 220.16 SMA 126.16 ECC .19703 INC 3.3656 V1 29.658
RP 108.15 LAP 2.17 LOP 216.73 VP 37.449 GAP 7.88 AZP 87.43 TAL 191.84 TAP 52.00 RCA 101.31 APO 151.02 V2 35.041
RC 138.166 GL -26.68 GP 32.52 ZAL 104.24 ZAP 141.82 ETS 50.29 ZAE 123.89 ETE 156.27 ZAC 132.82 ETC 256.32 CLP-158.78

PLANETOCENTRIC CONIC

C3 12.178 VHL 3.490 DLA -48.36 RAL 243.53 RAD 6567.5 VEL 11.557 PTH 2.02 VHP 6.234 DPA 12.69 RAP 244.72 ECC 1.2004

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.01	5 35 57	1523.84	36.48	23.36	112.42	124.27	6 1 21	923.8	40.67	15.06
130.99	13 45 41	5325.18	36.48	244.72	112.42	124.26	15 14 26	4725.2	40.68	236.41
49.01	5 35 57	1523.84	36.48	23.36	112.42	124.27	6 1 21	923.8	40.67	15.06
130.99	13 45 41	5325.18	36.48	244.72	112.42	124.26	15 14 26	4725.2	40.68	236.41
49.01	5 35 57	1523.84	36.48	23.36	112.42	124.27	6 1 21	923.8	40.67	15.06
130.99	13 45 41	5325.18	36.48	244.72	112.42	124.26	15 14 26	4725.2	40.68	236.41

DIFFERENTIAL CORRECTIONS
TDE-1.3012 TRA -.2281 TC3-5.8207 BAU .9545
RDE .3518 RRA -.0724 RC3 .7026 FAU .04822
FDE -.7418 FRA .2667 FC3-3.4279 BSP 14900
BDE 1.4350 BRA .2373 BC3 5.8630 FSP -786

MID-COURSE EXECUTION ACCURACY
SGT 4604.0 SGR 778.5 SG3 236.8
RRT -.0789 RRF -.9268 RTF .9351
SGB 4758.1 RZS .2094 R13 -.9375
SG1 4743.9 SG2 367.5 THA 171.66

ORBIT DETERMINATION ACCURACY
ST 2295.5 SR 580.3 SS 665.7
CRT -.9859 CRS .9971 CST -.9728
LSA 2451.7 MSA 170.2 SSA 15.6
EL1 2363.9 EL2 94.1 ALF 165.97

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LAUNCH DATE  SEP 20 1970                          FLIGHT TIME 158.00                          ARRIVAL DATE  FEB 25 1971

 HELIOCENTRIC CONIC                                DISTANCE 462.160
  RL  150.24 LAL   -.00 LOL 356.62 VL  26.688 GAL  -2.54 AZL  92.94 HCA 223.36 SMA 125.86 ECC .19852 INC 2.9418 V1  29.658
  RP  108.19 LAP   2.02 LOP 219.94 VP  37.402 GAP   8.15 AZP  87.86 TAL 190.36 TAP  55.72 RCA 100.87 APO 150.84 V2  35.028
  RC 140.364 GL  -23.76 GP   30.21 ZAL 101.96 ZAP 144.20 ETS  50.01 ZAE 124.54 ETE 157.86 ZAC 130.84 ETC 257.23 CLP-159.80
 PLANETOCENTRIC CONIC
  C3  11.533 VHL  3.396 DLA -45.96 RAL 248.08 RAD 6567.4 VEL 11.529 PTH   2.01 VHP  6.245 DPA   9.97 RAP 245.94 ECC 1.1898
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     52.15      6  5 12   1484.68      35.29      18.66      114.88      121.61    6 29 56     884.7      39.17      10.28
    127.85     13 52 46   5341.48      35.30     245.33      114.89      121.60   15 21 48    4741.5      39.18     236.95
     52.15      6  5 12   1484.68      35.29      18.66      114.88      121.61    6 29 56     884.7      39.17      10.28
    127.85     13 52 46   5341.48      35.30     245.33      114.89      121.60   15 21 48    4741.5      39.18     236.95
     52.15      6  5 12   1484.68      35.29      18.66      114.88      121.61    6 29 56     884.7      39.17      10.28
    127.85     13 52 46   5341.48      35.30     245.33      114.89      121.60   15 21 48    4741.5      39.18     236.95
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE-1.2701 TRA -.0940 TC3-6.2910 BAU  .9757      SGT 4785.5 SGR  741.1 SG3  239.0            ST  2147.7 SR   542.4 SS   588.8
  RDE  .3192 RRA -.0872 RC3  .6816 FAU .04726      RRT -.8696 RRF -.9102 RTF  .9345            CRT -.9883 CRS  .9921 CST -.9642
  FDE -.6274 FRA  .3508 FC3-3.5476 BSP  15275      SGB 4842.6 RZS  .1882 R13 -.9364            LSA 2286.0 MSA  165.8 SSA   18.4
  BDE 1.3096 BRA  .1283 BC3 6.3278 FSP   -789      SG1 4829.0 SG2  362.6 THA 172.29            EL1 2213.7 EL2   80.2 ALF 165.97

LAUNCH DATE  SEP 20 1970                          FLIGHT TIME 160.00                          ARRIVAL DATE  FEB 27 1971

 HELIOCENTRIC CONIC                                DISTANCE 468.011
  RL  150.24 LAL   -.00 LOL 356.62 VL  26.641 GAL  -2.20 AZL  92.57 HCA 226.55 SMA 125.56 ECC .20016 INC 2.5674 V1  29.658
  RP  108.23 LAP   1.86 LOP 223.14 VP  37.356 GAP   8.42 AZP  88.23 TAL 188.87 TAP  55.42 RCA 100.42 APO 150.69 V2  35.014
  RC 142.552 GL  -20.99 GP   28.17 ZAL  99.41 ZAP 146.37 ETS  49.84 ZAE 125.04 ETE 159.31 ZAC 129.11 ETC 258.04 CLP-160.81
 PLANETOCENTRIC CONIC
  C3  11.083 VHL  3.329 DLA -43.62 RAL 252.52 RAD 6567.4 VEL 11.510 PTH   2.00 VHP  6.283 DPA   7.52 RAP 247.31 ECC 1.1824
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     55.32      6 34 57   1444.88      33.95      14.05      117.56      119.23    6 59  2     844.9      37.54       5.65
    124.68     13 58 23   5364.80      33.96     246.51      117.57      119.22   15 27 48    4764.8      37.55     238.12
     55.32      6 34 57   1444.88      33.95      14.05      117.56      119.23    6 59  2     844.9      37.54       5.65
    124.68     13 58 23   5364.80      33.96     246.51      117.57      119.22   15 27 48    4764.8      37.55     238.12
     55.32      6 34 57   1444.88      33.95      14.05      117.56      119.23    6 59  2     844.9      37.54       5.65
    124.68     13 58 23   5364.80      33.96     246.51      117.57      119.22   15 27 48    4764.8      37.55     238.12
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE-1.1472 TRA  .0447 TC3-6.6809 BAU  .9955      SGT 4871.6 SGR  708.5 SG3  237.4            ST  1979.2 SR   510.0 SS   512.1
  RDE  .2933 RRA -.1009 RC3  .6542 FAU .04593      RRT -.8579 RRF -.8913 RTF  .9340            CRT -.9913 CRS  .9805 CST -.9505
  FDE -.5165 FRA  .4310 FC3-3.5882 BSP  15553      SGB 4922.8 RZS  .1666 R13 -.9356            LSA 2100.6 MSA  163.2 SSA   21.6
  BDE 1.1841 BRA  .1104 BC3 6.7189 FSP   -785      SG1 4909.6 SG2  361.2 THA 172.85            EL1 2042.9 EL2   65.1 ALF 165.66

LAUNCH DATE  SEP 20 1970                          FLIGHT TIME 162.00                          ARRIVAL DATE  MAR  1 1971

 HELIOCENTRIC CONIC                                DISTANCE 473.845
  RL  150.24 LAL   -.00 LOL 356.62 VL  26.593 GAL  -1.85 AZL  92.23 HCA 229.74 SMA 125.26 ECC .20194 INC 2.2308 V1  29.658
  RP  108.27 LAP   1.70 LOP 226.34 VP  37.309 GAP   8.69 AZP  88.56 TAL 187.36 TAP  57.10 RCA  99.96 APO 150.55 V2  35.001
  RC 144.730 GL  -18.35 GP   26.36 ZAL  96.64 ZAP 148.35 ETS  49.78 ZAE 125.43 ETE 160.61 ZAC 127.59 ETC 258.80 CLP-161.82
 PLANETOCENTRIC CONIC
  C3  10.796 VHL  3.286 DLA -41.32 RAL 256.84 RAD 6567.4 VEL 11.497 PTH   2.00 VHP  6.342 DPA   5.31 RAP 248.80 ECC 1.1777
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     58.55      7  5 35   1403.13      32.48       9.43      120.45      117.10    7 28 58     803.1      35.82       1.06
    121.45     14  2 14   5395.80      32.49     248.30      120.45      117.09   15 32 10    4795.8      35.83     239.93
     58.55      7  5 35   1403.13      32.48       9.43      120.45      117.10    7 28 58     803.1      35.82       1.06
    121.45     14  2 14   5395.80      32.49     248.30      120.45      117.09   15 32 10    4795.8      35.83     239.93
     58.55      7  5 35   1403.13      32.48       9.43      120.45      117.10    7 28 58     803.1      35.82       1.06
    121.45     14  2 14   5395.80      32.49     248.30      120.45      117.09   15 32 10    4795.8      35.83     239.93
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE-1.0232 TRA  .1897 TC3-7.0034 BAU 1.0148      SGT 4955.6 SGR  681.3 SG3  234.6            ST  1794.5 SR   483.1 SS   440.3
  RDE  .2732 RRA -.1135 RC3  .6233 FAU .04440      RRT -.8445 RRF -.8706 RTF  .9340            CRT -.9946 CRS  .9560 CST -.9282
  FDE -.4121 FRA  .5063 FC3-3.5603 BSP  15840      SGB 5002.2 RZS  .1449 R13 -.9353            LSA 1902.7 MSA  162.9 SSA   25.2
  BDE 1.0591 BRA  .2211 BC3 7.0311 FSP   -778      SG1 4989.0 SG2  362.4 THA 173.34            EL1 1857.8 EL2   48.5 ALF 165.00

LAUNCH DATE  SEP 20 1970                          FLIGHT TIME 164.00                          ARRIVAL DATE  MAR  3 1971

 HELIOCENTRIC CONIC                                DISTANCE 479.860
  RL  150.24 LAL   -.00 LOL 356.62 VL  26.546 GAL  -1.49 AZL  91.92 HCA 232.93 SMA 124.96 ECC .20389 INC 1.9248 V1  29.658
  RP  108.31 LAP   1.54 LOP 229.54 VP  37.263 GAP   8.96 AZP  88.84 TAL 185.83 TAP  58.76 RCA  99.48 APO 150.44 V2  34.988
  RC 146.890 GL  -15.05 GP   24.75 ZAL  93.69 ZAP 150.17 ETS  49.84 ZAE 125.73 ETE 161.77 ZAC 126.24 ETC 259.51 CLP-162.81
 PLANETOCENTRIC CONIC
  C3  10.652 VHL  3.264 DLA -39.07 RAL 261.04 RAD 6567.4 VEL 11.491 PTH   2.00 VHP  6.419 DPA   3.31 RAP 250.40 ECC 1.1753
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     61.88      7 37 30   1357.80      30.91       4.67      123.51      115.19    8  0  8     757.8      34.02     356.35
    118.12     14  3 52   5435.66      30.92     250.79      123.51      115.18   15 34 28    4835.7      34.03     242.46
     61.88      7 37 30   1357.80      30.91       4.67      123.51      115.19    8  0  8     757.8      34.02     356.35
    118.12     14  3 52   5435.66      30.92     250.79      123.51      115.18   15 34 28    4835.7      34.03     242.46
     61.88      7 37 30   1357.80      30.91       4.67      123.51      115.19    8  0  8     757.8      34.02     356.35
    118.12     14  3 52   5435.66      30.92     250.79      123.51      115.18   15 34 28    4835.7      34.03     242.46
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE -.8925 TRA  .3464 TC3-7.2134 BAU 1.0306      SGT 5023.8 SGR  656.8 SG3  230.3            ST  1590.7 SR   459.0 SS   374.7
  RDE  .2568 RRA -.1265 RC3  .5861 FAU .04249      RRT -.8279 RRF -.8475 RTF  .9331            CRT -.9972 CRS  .9030 CST -.8888
  FDE -.3101 FRA  .5814 FC3-3.4533 BSP  16011      SGB 5066.5 RZS  .1264 R13 -.9342            LSA 1688.8 MSA  168.1 SSA   28.9
  BDE  .9287 BRA  .3687 BC3 7.2372 FSP   -761      SG1 5053.3 SG2  366.2 THA 173.79            EL1 1655.2 EL2   33.1 ALF 163.94
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LAUNCH DATE SEP 20 1970 FLIGHT TIME 166.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 485.457

RL	150.24	LAL	-.00	LOL	356.62	VL	26.498	GAL	-1.11	AZL	91.64	HCA	236.12	SMA	124.66	ECC	.20601	INC	1.6437
RP	108.35	LAP	1.36	LOP	232.73	VP	37.217	GAP	9.24	AZP	89.08	TAL	184.29	TAP	60.41	RCA	98.90	APO	150.35
RC	149.037	GL	-13.47	GP	23.33	ZAL	90.61	ZAP	151.85	ETS	50.02	ZAE	125.96	ETE	162.81	ZAC	125.05	ETC	260.19

V1 29.658 V2 34.975 CLP-163.78

PLANETOCENTRIC CONIC

C3	10.639	VHL	3.262	DLA	-36.85	RAL	265.13	RAD	6567.4	VEL	11.490	PTH	2.00	VHP	6.511	DPA	1.49	RAP	252.09

ECC 1.1751

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.37	8 11 17	1306.81	29.27	359.63	126.71	113.46	8 33 3	706.8	32.17	351.37
114.63	14 2 42	5486.17	29.28	254.08	126.72	113.45	15 34 8	4886.2	32.18	245.82
65.37	8 11 17	1306.81	29.27	359.63	126.71	113.46	8 33 3	706.8	32.17	351.37
114.63	14 2 42	5486.17	29.28	254.08	126.72	113.45	15 34 8	4886.2	32.18	245.82
65.37	8 11 17	1306.81	29.27	359.63	126.71	113.46	8 33 3	706.8	32.17	351.37
114.63	14 2 42	5486.17	29.28	254.08	126.72	113.45	15 34 8	4886.2	32.18	245.82

DIFFERENTIAL CORRECTIONS

TDE	-.7607	TRA	.5079	TC3	-7.3408	BAU	1.0470
RDE	.2443	RRA	-.1306	RC3	.5500	FAU	.04061
FDE	-.2167	FRA	.6493	FC3	-3.3042	BSP	16220
BDE	.7991	BRA	.5284	BC3	7.3613	FSP	-745

MID-COURSE EXECUTION ACCURACY

SGT	5095.2	SGR	637.0	SG3	225.7		
RRT	-.8107	RRF	-.8237	RTF	.9532		
SGB	5134.9	RZS	.1077	R13	-.9341		
SG1	5121.4	SG2	371.0	THA	174.18		

ORBIT DETERMINATION ACCURACY

ST	1384.9	SR	439.3	SS	324.1
CRT	-.9962	CRS	.8031	CST	-.8284
LSA	1477.3	MSA	180.3	SSA	32.1
EL1	1452.5	EL2	36.4	ALF	162.45

LAUNCH DATE SEP 20 1970 FLIGHT TIME 168.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 491.230

RL	150.24	LAL	-.00	LOL	356.62	VL	26.451	GAL	-.72	AZL	91.38	HCA	239.31	SMA	124.37	ECC	.20832	INC	1.3831
RP	108.39	LAP	1.19	LOP	235.92	VP	37.172	GAP	9.52	AZP	89.29	TAL	182.74	TAP	62.05	RCA	98.46	APO	150.28
RC	151.205	GL	-11.23	GP	22.05	ZAL	87.44	ZAP	153.40	ETS	50.33	ZAE	126.14	ETE	163.74	ZAC	123.99	ETC	260.85

V1 29.658 V2 34.962 CLP-164.74

PLANETOCENTRIC CONIC

C3	10.751	VHL	3.279	DLA	-34.67	RAL	269.09	RAD	6567.4	VEL	11.495	PTH	2.00	VHP	6.617	DPA	-.15	RAP	253.88

ECC 1.1769

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.11	8 47 50	1246.84	27.57	354.05	130.04	111.90	9 8 36	646.8	30.29	345.86
110.89	13 57 42	5550.41	27.58	258.39	130.05	111.89	15 30 12	4950.4	30.30	250.21
69.11	8 47 50	1246.84	27.57	354.05	130.04	111.90	9 8 36	646.8	30.29	345.86
110.89	13 57 42	5550.41	27.58	258.39	130.05	111.89	15 30 12	4950.4	30.30	250.21
69.11	8 47 50	1246.84	27.57	354.05	130.04	111.90	9 8 36	646.8	30.29	345.86
110.89	13 57 42	5550.41	27.58	258.39	130.05	111.89	15 30 12	4950.4	30.30	250.21

DIFFERENTIAL CORRECTIONS

TDE	-.6518	TRA	.6525	TC3	-7.4650	BAU	1.0757
RDE	.2400	RRA	-.1465	RC3	.5291	FAU	.03958
FDE	-.1515	FRA	.6838	FC3	-3.1875	BSP	17044
BDE	.6945	BRA	.6687	BC3	7.4837	FSP	-772

MID-COURSE EXECUTION ACCURACY

SGT	5213.8	SGR	627.0	SG3	222.2		
RRT	-.7976	RRF	-.8033	RTF	.9381		
SGB	5251.4	RZS	.0846	R13	-.9388		
SG1	5237.9	SG2	376.4	THA	174.49		

ORBIT DETERMINATION ACCURACY

ST	1221.3	SR	429.7	SS	296.8
CRT	-.9869	CRS	.6855	CST	-.7800
LSA	1313.5	MSA	194.4	SSA	34.1
EL1	1293.0	EL2	65.6	ALF	160.80

LAUNCH DATE SEP 20 1970 FLIGHT TIME 170.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 496.988

RL	150.24	LAL	-.00	LOL	356.62	VL	26.404	GAL	-.31	AZL	91.14	HCA	242.49	SMA	124.09	ECC	.21082	INC	1.1394
RP	108.43	LAP	1.01	LOP	239.11	VP	37.127	GAP	9.80	AZP	89.47	TAL	181.18	TAP	63.67	RCA	97.93	APO	150.25
RC	153.343	GL	-9.12	GP	20.91	ZAL	84.21	ZAP	154.84	ETS	50.78	ZAE	126.29	ETE	164.58	ZAC	123.04	ETC	261.50

V1 29.658 V2 34.949 CLP-165.67

PLANETOCENTRIC CONIC

C3	10.985	VHL	3.314	DLA	-32.53	RAL	272.91	RAD	6567.4	VEL	11.505	PTH	2.00	VHP	6.735	DPA	-1.64	RAP	255.74

ECC 1.1808

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.27	9 28 52	1172.15	25.85	347.51	133.48	110.48	9 48 24	572.2	28.39	339.40
106.73	13 47 11	5633.90	25.86	264.11	133.49	110.47	15 21 5	5033.9	28.40	256.01
73.27	9 28 52	1172.15	25.85	347.51	133.48	110.48	9 48 24	572.2	28.39	339.40
106.73	13 47 11	5633.90	25.86	264.11	133.49	110.47	15 21 5	5033.9	28.40	256.01
110.00	12 47 31	5018.21	19.93	275.38	130.57	118.37	14 24 29	5218.2	23.56	268.12
110.00	15 27 43	5323.88	32.09	242.31	135.59	102.47	16 56 27	4723.9	33.47	233.35

DIFFERENTIAL CORRECTIONS

TDE	-.4965	TRA	.8477	TC3	-7.3476	BAU	1.0814
RDE	.2306	RRA	-.1615	RC3	.4811	FAU	.03698
FDE	-.0578	FRA	.7676	FC3	-2.9143	BSP	18808
BDE	.5474	BRA	.8629	BC3	7.3633	FSP	-724

MID-COURSE EXECUTION ACCURACY

SGT	5242.2	SGR	608.6	SG3	215.5		
RRT	-.7746	RRF	-.7757	RTF	.9356		
SGB	5277.4	RZS	.0744	R13	-.9361		
SG1	5263.4	SG2	383.3	THA	174.83		

ORBIT DETERMINATION ACCURACY

ST	1014.8	SR	411.0	SS	282.8
CRT	-.9480	CRS	.4370	CST	-.6901
LSA	1104.5	MSA	259.9	SSA	34.2
EL1	1088.0	EL2	122.0	ALF	158.72

LAUNCH DATE SEP 20 1970 FLIGHT TIME 172.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 502.721

RL	150.24	LAL	-.00	LOL	356.62	VL	26.358	GAL	.11	AZL	90.91	HCA	245.68	SMA	123.80	ECC	.21354	INC	.9094
RP	108.47	LAP	.83	LOP	242.30	VP	37.082	GAP	10.10	AZP	89.63	TAL	179.60	TAP	65.28	RCA	97.36	APO	150.24
RC	155.470	GL	-7.14	GP	19.88	ZAL	80.97	ZAP	156.17	ETS	51.37	ZAE	126.40	ETE	165.32	ZAC	122.19	ETC	262.14

V1 29.658 V2 34.937 CLP-166.60

PLANETOCENTRIC CONIC

C3	11.343	VHL	3.368	DLA	-30.45	RAL	276.59	RAD	6567.4	VEL	11.521	PTH	2.01	VHP	6.864	DPA	-3.00	RAP	257.68

ECC 1.1867

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
78.31	10 18 39	1068.48	24.11	338.98	137.00	109.18	10 36 28	468.5	26.50	330.95
101.69	13 26 46	5750.78	24.12	272.26	137.00	109.17	15 2 37	5150.8	26.51	264.23
78.31	10 18 39	1068.48	24.11	338.98	137.00	109.18	10 36 28	468.5	26.50	330.95
101.69	13 26 46	5750.78	24.12	272.26	137.00	109.17	15 2 37	5150.8	26.51	264.23
110.00	12 22 24	665.36	15.37	305.31	132.67	120.92	12 33 30	65.4	19.35	298.45
110.00	16 22 12	5201.89	33.51	233.08	139.51	97.18	17 48 54	4601.9	34.14	223.90

DIFFERENTIAL CORRECTIONS

TDE	-.3493	TRA	1.0458	TC3	-7.1745	BAU	1.0900
RDE	.2249	RRA	-.1769	RC3	.4360	FAU	.03446
FDE	.0235	FRA	.8307	FC3	-2.6304	BSP	16744
BDE	.4154	BRA	1.0807	BC3	7.1878	FSP	-680

MID-COURSE EXECUTION ACCURACY

SGT	5288.3	SGR	595.4	SG3	209.6		
RRT	-.7518	RRF	-.7501	RTF	.9320		
SGB	5321.8	RZS	.0691	R13	-.9325		
SG1	5307.4	SG2	391.2	THA	175.14		

ORBIT DETERMINATION ACCURACY

ST	870.4	SR	396.7	SS	297.5
CRT	-.8499	CRS	.1871	CST	-.6682
LSA	954.9	MSA	300.9	SSA	33.2
EL1	936.6	EL2	194.3	ALF	157.82

LAUNCH DATE SEP 20 1970 FLIGHT TIME 174.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 508.429

RL	150.24	LAL	-.00	LOL	356.62	VL	26.312	GAL	.55	AZL	90.69	HCA	248.86	SMA	123.52	ECC	.21649	INC	.6909
RP	108.51	LAP	.64	LOP	245.48	VP	37.037	GAP	10.40	AZP	89.75	TAL	178.02	TAP	66.88	RCA	96.78	APO	150.26
RC	157.587	GL	-5.29	GP	18.96	ZAL	77.74	ZAP	157.42	ETS	52.11	ZAE	126.49	ETE	165.99	ZAC	121.41	ETC	262.77

V1	29.658	V2	34.925	CLP	-167.50														

PLANETOCENTRIC CONIC

C3	11.827	VHL	3.439	DLA	-28.42	RAL	280.13	RAD	6567.5	VEL	11.542	PTH	2.01	VHP	7.005	DPA	-4.22	RAP	259.68

ECC	1.1947	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
87.42	11 45 6	844.66	22.38	321.82	140.58	108.00	11 59 11	244.7	24.63	313.87									
92.58	12 28 30	704.02	22.39	311.53	140.59	107.98	12 40 14	104.0	24.64	303.58									
100.00	12 9 37	765.11	16.99	313.76	138.33	114.97	12 22 22	165.1	20.22	306.45									
100.00	14 46 41	5546.84	28.00	258.26	142.18	100.93	16 19 8	4946.8	29.22	249.67									
110.00	12 8 9	769.71	11.64	311.09	135.31	122.37	12 20 59	169.7	15.83	304.49									
110.00	17 4 38	5115.00	34.05	226.36	143.06	93.24	18 29 53	4515.0	34.12	217.11									

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.2071	TRA	1.2343	TC3	-6.9756	BAU	1.1048	SGT	5348.5	SGR	584.8	SG3	203.6	ST	794.9	SR	387.0	SS	319.1
RDE	.2232	RRA	-.1879	RC3	.4035	FAU	.03271	RRT	-.7328	RRF	-.7255	RTF	.9344	CRT	-.6646	CRS	-.0038	CST	-.7382
FDE	.0888	FRA	.8862	FC3	-2.3942	BSP	17072	SGB	5380.4	RZS	.0543	RIS	-.9347	LSA	868.7	MSA	357.6	SSA	30.9
BDE	.3045	BRA	1.2485	BC3	6.9873	FSP	-678	SG1	5365.8	SG2	396.6	THA	175.39	EL1	840.8	EL2	273.4	ALF	159.85

LAUNCH DATE SEP 20 1970 FLIGHT TIME 176.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 514.112

RL	150.24	LAL	-.00	LOL	356.62	VL	26.266	GAL	1.00	AZL	90.48	HCA	252.04	SMA	123.24	ECC	.21969	INC	.4817
RP	108.54	LAP	.46	LOP	248.66	VP	36.994	GAP	10.71	AZP	89.85	TAL	176.43	TAP	68.47	RCA	96.17	APO	150.32
RC	159.692	GL	-3.59	GP	18.12	ZAL	74.56	ZAP	158.58	ETS	53.00	ZAE	126.56	ETE	166.59	ZAC	120.71	ETC	263.41

V1	29.658	V2	34.913	CLP	-168.39														

PLANETOCENTRIC CONIC

C3	12.446	VHL	3.528	DLA	-26.47	RAL	283.51	RAD	6567.5	VEL	11.569	PTH	2.02	VHP	7.158	DPA	-5.33	RAP	261.74

ECC	1.2048	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
90.00	10 50 37	1079.11	14.72	335.77	141.85	114.47	11 8 36	479.1	17.90	328.54									
90.00	13 49 57	5779.17	26.88	275.11	145.79	99.25	15 26 16	5179.2	27.89	266.59									
100.00	11 42 0	913.16	12.54	322.50	140.76	117.36	11 57 13	313.2	16.10	315.52									
100.00	15 41 16	5420.34	29.29	249.08	146.16	96.27	17 11 36	4820.3	29.85	240.32									
110.00	11 58 56	860.04	8.30	315.96	138.25	123.28	12 13 16	260.0	12.62	309.53									
110.00	17 40 40	5046.23	34.18	220.99	146.48	90.07	19 4 56	4446.2	33.81	211.77									

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0807	TRA	1.4375	TC3	-6.7011	BAU	1.1167	SGT	5400.6	SGR	575.4	SG3	197.6	ST	801.2	SR	378.1	SS	351.1
RDE	.2228	RRA	-.2007	RC3	.3682	FAU	.03074	RRT	-.7124	RRF	-.7014	RTF	.9349	CRT	-.4035	CRS	-.1512	CST	-.8388
FDE	.1506	FRA	.9375	FC3	-2.1382	BSP	17268	SGB	5431.2	RZS	.0451	RIS	-.9351	LSA	867.2	MSA	394.0	SSA	28.5
BDE	.2309	BRA	1.4514	BC3	6.7112	FSP	-661	SG1	5416.2	SG2	402.6	THA	175.64	EL1	818.7	EL2	338.5	ALF	166.95

LAUNCH DATE SEP 20 1970 FLIGHT TIME 178.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 519.766

RL	150.24	LAL	-.00	LOL	356.62	VL	26.220	GAL	1.48	AZL	90.28	HCA	255.22	SMA	122.97	ECC	.22316	INC	.2799
RP	108.58	LAP	.27	LOP	251.84	VP	36.950	GAP	11.03	AZP	89.93	TAL	174.84	TAP	70.05	RCA	95.53	APO	150.41
RC	161.784	GL	-2.02	GP	17.37	ZAL	71.45	ZAP	159.67	ETS	54.06	ZAE	126.62	ETE	167.13	ZAC	120.06	ETC	264.04

V1	29.658	V2	34.901	CLP	-169.27														

PLANETOCENTRIC CONIC

C3	13.208	VHL	3.634	DLA	-24.59	RAL	286.73	RAD	6567.5	VEL	11.601	PTH	2.03	VHP	7.321	DPA	-6.33	RAP	263.84

ECC	1.2174	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
90.00	10 26 1	1219.36	10.61	344.02	144.52	116.41	10 46 20	619.4	14.07	337.06									
90.00	14 40 17	5664.42	27.87	266.87	149.68	95.23	16 14 42	5064.4	28.30	258.23									
100.00	11 25 54	1026.01	8.92	328.93	143.63	118.65	11 43 0	426.0	12.68	322.15									
100.00	16 23 5	5333.01	29.76	242.64	149.83	92.91	17 51 58	4733.0	29.85	233.83									
110.00	11 52 41	942.01	5.22	320.30	141.36	123.83	12 8 23	342.0	9.62	313.98									
110.00	18 12 47	4989.77	34.10	216.58	149.85	87.46	19 35 57	4389.8	33.37	207.42									

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0885	TRA	1.6506	TC3	-6.3795	BAU	1.1281	SGT	5450.7	SGR	567.1	SG3	191.8	ST	880.8	SR	370.4	SS	385.7
RDE	.2241	RRA	-.2138	RC3	.3353	FAU	.02889	RRT	-.6928	RRF	-.6785	RTF	.9359	CRT	-.1447	CRS	-.2568	CST	-.9159
FDE	.2071	FRA	.9867	FC3	-1.8938	BSP	17444	SGB	5480.1	RZS	.0368	RIS	-.9361	LSA	951.4	MSA	394.9	SSA	26.2
BDE	.2409	BRA	1.6643	BC3	6.3883	FSP	-644	SG1	5464.9	SG2	407.9	THA	175.85	EL1	882.8	EL2	365.7	ALF	175.79

LAUNCH DATE SEP 20 1970 FLIGHT TIME 180.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 525.390

RL	150.24	LAL	-.00	LOL	356.62	VL	26.175	GAL	1.98	AZL	90.08	HCA	258.39	SMA	122.70	ECC	.22692	INC	.0831
RP	108.61	LAP	.08	LOP	255.01	VP	36.908	GAP	11.36	AZP	89.98	TAL	173.23	TAP	71.63	RCA	94.86	APO	150.54
RC	163.865	GL	-.59	GP	16.69	ZAL	68.43	ZAP	160.69	ETS	55.30	ZAE	126.66	ETE	167.62	ZAC	119.46	ETC	264.68

V1	29.658	V2	34.890	CLP	-170.13														

PLANETOCENTRIC CONIC

C3	14.125	VHL	3.758	DLA	-22.79	RAL	289.80	RAD	6567.6	VEL	11.641	PTH	2.04	VHP	7.497	DPA	-7.23	RAP	266.00

ECC	1.2325	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
90.00	10 10 47	1330.31	7.18	350.37	147.52	117.46	10 32 57	730.3	10.81	343.57									
90.00	15 19 59	5582.79	28.23	260.92	153.35	92.27	16 53 2	4982.8	28.25	252.26									
100.00	11 15 4	1122.84	5.72	334.33	146.72	119.39	11 33 46	522.8	9.60	327.69									
100.00	16 58 24	5265.50	29.89	237.62	153.39	90.28	18 26 9	4665.5	29.61	228.83									
110.00	11 48 25	1018.27	2.31	324.29	144.61	124.11	12 5 23	418.3	6.77	318.05									
110.00	18 41 32	4942.83	33.90	212.93	153.21	85.31	20 3 55	4342.8	32.88	203.84									

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.2408	TRA	1.8743	TC3	-6.0178	BAU	1.1378	SGT	5495.6	SGR	559.0	SG3	186.0	ST	1008.8	SR	363.6	SS	420.5
RDE	.2267	RRA	-.2273	RC3	.3028	FAU	.02702	RRT	-.6729	RRF	-.6563	RTF	.9365	CRT	.0575	CRS	-.3327	CST	-.9584
FDE	.2594	FRA	1.0351	FC3	-1.6559	BSP	17617	SGB	5523.9	RZS	.0304	RIS	-.9366	LSA	1087.9	MSA	377.6	SSA	24.2
BDE	.3307	BRA	1.8880	BC3	6.0254	FSP	-627	SG1	5508.5	SG2	412.5	THA	176.06	EL1	1009.0	EL2	362.9	ALF	1.36

LAUNCH DATE SEP 20 1970 FLIGHT TIME 182.00 ARRIVAL DATE MAR 21 1971

HELIOCENTRIC CONIC DISTANCE 530.980

RL	150.24	LAL	-.00	LOL	356.62	VL	26.130	GAL	2.50	AZL	89.89	HCA	261.56	SMA	122.44	ECC	.23099	INC	.1049	V1	29.658
RP	108.65	LAP	-.11	LOP	250.19	VP	36.066	GAP	11.71	AZP	90.02	TAL	171.63	TAP	73.20	RCA	94.15	APO	150.72	V2	34.880
RC	165.932	GL	.71	GP	16.06	ZAL	65.51	ZAP	161.64	ETS	56.72	ZAE	126.69	ETE	168.06	ZAC	118.90	ETC	265.31	CLP	-170.99

PLANETOCENTRIC CONIC

C3	15.211	VHL	3.900	DLA	-21.08	RAL	292.71	RAD	6567.6	VEL	11.687	PTH	2.06	VHP	7.684	DPA	-8.03	RAP	268.19	ECC	1.2503

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 0 13	1426.63	4.13	355.80	150.70	118.04	10 23 59	826.6	7.85	349.10
90.00	15 53 48	5510.44	28.32	256.29	156.92	89.95	17 25 47	4919.4	28.01	247.64
100.00	11 7 20	1210.01	2.79	339.14	149.96	119.77	11 27 30	610.0	6.73	332.57
100.00	17 29 22	5211.29	29.84	233.59	156.89	88.16	18 56 13	4611.3	29.27	224.83
110.00	11 45 32	1080.27	-.44	328.05	147.94	124.18	12 3 42	490.3	4.05	321.84
110.00	19 7 30	4903.79	33.64	209.91	156.57	83.54	20 29 23	4303.8	32.38	200.91

DIFFERENTIAL CORRECTIONS

TDE	.3806	TRA	2.1008	TC3	-5.6484	BAU	1.1500
RDE	.2315	RRA	-.2400	RC3	.2738	FAU	.02538
FDE	.3033	FRA	1.0771	FC3	-1.4445	BSP	17955
BDE	.4523	BRA	2.1143	BC3	5.6551	FSP	-619

MID-COURSE EXECUTION ACCURACY

SGT	5538.6	SGR	551.4	SG3	180.1
RRT	-.6538	RRF	-.6352	RTF	.9379
SGB	5566.0	RZS	.0244	R13	-.9381
SG1	5550.4	SG2	416.3	THA	176.25

ORBIT DETERMINATION ACCURACY

ST	1152.3	SR	358.5	SS	449.5
CRT	.1956	CRS	-.3856	CST	-.9787
LSA	1236.6	NSA	358.6	SSA	22.4
EL1	1154.6	EL2	350.8	ALF	3.84

LAUNCH DATE SEP 20 1970 FLIGHT TIME 184.00 ARRIVAL DATE MAR 23 1971

HELIOCENTRIC CONIC DISTANCE 536.534

RL	150.24	LAL	-.00	LOL	356.62	VL	26.086	GAL	3.04	AZL	89.71	HCA	264.74	SMA	122.17	ECC	.23541	INC	.2936	V1	29.658
RP	108.68	LAP	-.29	LOP	261.36	VP	36.825	GAP	12.07	AZP	90.03	TAL	170.03	TAP	74.76	RCA	93.41	APO	150.94	V2	34.869
RC	167.985	GL	1.00	GP	15.50	ZAL	62.70	ZAP	162.53	ETS	58.34	ZAE	126.72	ETE	168.46	ZAC	118.37	ETC	265.95	CLP	-171.83

PLANETOCENTRIC CONIC

C3	16.485	VHL	4.080	DLA	-19.46	RAL	295.47	RAD	6567.7	VEL	11.742	PTH	2.07	VHP	7.885	DPA	-8.74	RAP	270.42	ECC	1.2713

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 52 30	1513.76	1.32	.67	154.00	118.29	10 17 44	913.8	5.10	354.02
90.00	16 23 32	5468.74	28.26	252.58	160.46	88.09	17 54 41	4868.7	27.69	243.96
100.00	11 1 40	1290.53	.06	343.56	153.30	119.89	11 23 11	690.5	4.04	337.03
100.00	17 57 3	5167.20	29.70	230.32	160.38	86.44	19 23 10	4567.2	28.89	221.61
110.00	11 43 40	1158.93	-3.06	331.63	151.35	124.06	12 2 59	558.9	1.43	325.43
110.00	19 31 38	4871.57	33.37	207.44	159.95	82.10	20 52 44	4271.6	31.91	198.51

DIFFERENTIAL CORRECTIONS

TDE	.5538	TRA	2.3980	TC3	-5.2291	BAU	1.1536
RDE	.2360	RRA	-.2543	RC3	.2427	FAU	.02343
FDE	.3514	FRA	1.1298	FC3	-1.2304	BSP	17937
BDE	.6020	BRA	2.3687	BC3	5.2347	FSP	-594

MID-COURSE EXECUTION ACCURACY

SGT	5570.7	SGR	542.7	SG3	174.6
RRT	-.6338	RRF	-.6136	RTF	.9382
SGB	5597.1	RZS	.0202	R13	-.9383
SG1	5581.4	SG2	419.0	THA	176.45

ORBIT DETERMINATION ACCURACY

ST	1320.0	SR	352.1	SS	482.9
CRT	.2989	CRS	-.4298	CST	-.9890
LSA	1408.5	NSA	339.2	SSA	20.9
EL1	1324.4	EL2	334.9	ALF	4.87

LAUNCH DATE SEP 20 1970 FLIGHT TIME 186.00 ARRIVAL DATE MAR 25 1971

HELIOCENTRIC CONIC DISTANCE 542.046

RL	150.24	LAL	-.00	LOL	356.62	VL	26.042	GAL	3.61	AZL	89.52	HCA	267.91	SMA	121.92	ECC	.24021	INC	.4797	V1	29.658
RP	108.71	LAP	-.48	LOP	264.53	VP	36.784	GAP	12.45	AZP	90.02	TAL	168.42	TAP	76.33	RCA	92.63	APO	151.20	V2	34.859
RC	170.025	GL	2.94	GP	14.98	ZAL	60.02	ZAP	163.35	ETS	60.17	ZAE	126.74	ETE	168.83	ZAC	117.87	ETC	266.59	CLP	-172.67

PLANETOCENTRIC CONIC

C3	17.966	VHL	4.239	DLA	-17.94	RAL	298.08	RAD	6567.7	VEL	11.805	PTH	2.09	VHP	8.100	DPA	-9.36	RAP	272.67	ECC	1.2957

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 46 44	1594.40	-1.28	5.17	157.39	118.29	10 13 18	994.4	2.51	358.54
90.00	16 50 9	5427.85	28.13	249.60	163.98	86.60	18 20 37	4827.9	27.36	241.02
100.00	10 57 29	1366.07	-2.50	347.71	156.71	119.80	11 20 15	766.1	1.49	341.19
100.00	18 22 5	5131.41	29.52	227.68	163.86	85.06	19 47 36	4531.4	28.52	219.01
110.00	11 42 34	1224.83	-5.57	335.09	154.80	123.78	12 2 59	624.8	-1.09	328.87
110.00	19 53 29	4845.42	33.10	205.44	163.35	80.94	21 14 15	4245.4	31.50	196.58

DIFFERENTIAL CORRECTIONS

TDE	.7169	TRA	2.6009	TC3	-4.8178	BAU	1.1583
RDE	.2422	RRA	-.2660	RC3	.2148	FAU	.02165
FDE	.3934	FRA	1.1709	FC3	-1.0434	BSP	18044
BDE	.7568	BRA	2.6237	BC3	4.8225	FSP	-576

MID-COURSE EXECUTION ACCURACY

SGT	5600.9	SGR	534.1	SG3	169.2
RRT	-.6144	RRF	-.5932	RTF	.9391
SGB	5626.4	RZS	.0164	R13	-.9391
SG1	5610.6	SG2	420.7	THA	176.63

ORBIT DETERMINATION ACCURACY

ST	1480.5	SR	346.8	SS	510.7
CRT	.3692	CRS	-.4621	CST	-.9939
LSA	1571.0	NSA	323.5	SSA	19.7
EL1	1486.3	EL2	321.1	ALF	5.19

LAUNCH DATE SEP 20 1970 FLIGHT TIME 188.00 ARRIVAL DATE MAR 27 1971

HELIOCENTRIC CONIC DISTANCE 547.512

RL	150.24	LAL	-.00	LOL	356.62	VL	25.990	GAL	4.21	AZL	89.33	HCA	271.08	SMA	121.66	ECC	.24543	INC	.6649	V1	29.658
RP	108.74	LAP	-.66	LOP	267.70	VP	36.745	GAP	12.86	AZP	89.99	TAL	166.82	TAP	77.89	RCA	91.80	APO	151.52	V2	34.850
RC	172.049	GL	3.89	GP	14.51	ZAL	57.46	ZAP	164.12	ETS	62.23	ZAE	126.75	ETE	169.16	ZAC	117.39	ETC	267.22	CLP	-173.50

PLANETOCENTRIC CONIC

C3	19.679	VHL	4.436	DLA	-16.50	RAL	300.55	RAD	6567.8	VEL	11.877	PTH	2.11	VHP	8.330	DPA	-9.90	RAP	274.95	ECC	1.3239

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 42 21	1670.10	-3.71	9.40	160.03	118.09	10 10 11	1070.1	.07	2.77
90.00	17 14 14	5395.01	27.97	247.21	167.48	85.41	18 44 9	4795.0	27.04	238.67
100.00	10 54 23	1437.67	-4.91	351.65	160.18	119.52	11 18 21	837.7	-.94	345.12
100.00	18 44 53	5102.68	29.33	225.56	167.34	83.96	20 9 55	4502.7	28.19	216.95
110.00	11 42 3	1288.37	-7.96	338.46	158.30	123.35	12 3 31	688.4	-3.52	332.18
110.00	20 13 42	4824.74	32.87	203.87	166.76	80.04	21 34 7	4224.7	31.15	195.07

DIFFERENTIAL CORRECTIONS

TDE	.8776	TRA	2.8747	TC3	-4.4216	BAU	1.1644
RDE	.2502	RRA	-.2810	RC3	.1899	FAU	.02008
FDE	.4293	FRA	1.2125	FC3	-.8834	BSP	18278
BDE	.9126	BRA	2.8884	BC3	4.4256	FSP	-564

MID-COURSE EXECUTION ACCURACY

SGT	5627.6	SGR	525.4	SG3	163.7
RRT	-.5954	RRF	-.5738	RTF	.9405
SGB	5652.1	RZS	.0132	R13	-.9406
SG1	5636.4	SG2	421.5	THA	176.80

ORBIT DETERMINATION ACCURACY

ST	1627.4	SR	342.5	SS	532.8
CRT	.4193	CRS	-.4866	CST	-.9965
LSA	1718.3	NSA	311.1	SSA	18.5
EL1	1633.9	EL2	309.7	ALF	5.23

LAUNCH DATE SEP 20 1970 FLIGHT TIME 190.00 ARRIVAL DATE MAR 29 1971

HELIOCENTRIC CONIC DISTANCE 552.928

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RL  150.24 LAL   -.00 LOL 356.62 VL  25.955 GAL   4.83 AZL  89.15 HCA 274.24 SMA 121.42 ECC .25110 INC  .8502 V1  29.658
RP  108.77 LAP   -.85 LOP 270.86 VP  36.706 GAP  13.28 AZP  89.94 TAL 165.22 TAP  79.46 RCA  90.93 APO 151.90 V2  34.841
RC 174.060 GL    4.73 GP   14.09 ZAL  55.03 ZAP 164.84 ETS  64.53 ZAE 126.75 ETE 169.47 ZAC 116.92 ETC 267.86 CLP-174.33
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PLANETOCENTRIC CONIC

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C3  21.655 VHL  4.654 DLA -15.16 RAL 302.88 RAD 6567.9 VEL 11.960 PTH   2.13 VHP  8.577 DPA -10.36 RAP 277.26 ECC 1.3564
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 39 1	1741.87	-6.00	13.43	164.33	117.73	10 8 3	1141.9	-2.24	6.77
90.00	17 36 9	5369.05	27.82	245.32	170.99	84.48	19 5 38	4769.1	26.76	236.82
100.00	10 52 7	1506.04	-7.19	355.45	163.69	119.09	11 17 13	906.0	-3.26	348.87
100.00	19 5 44	5080.12	29.16	223.91	170.82	83.11	20 30 25	4480.1	27.90	215.33
110.00	11 41 58	1349.88	-10.25	341.75	161.84	122.79	12 4 28	749.9	-5.85	335.42
110.00	20 32 23	4809.05	32.68	202.69	170.19	79.36	21 52 32	4209.0	30.87	193.94

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE 1.0529 TRA 3.1626 TC3-4.0141 BAU 1.1631   SGT 5649.3 SGR  515.7 SG3  158.7          ST  1777.1 SR   337.4 SS   556.8
RDE  .2583 RRA -.2945 RC3  .1651 FAU .01833   RRT -.5759 RRF -.5540 RTF  .9416          CRT  .4591 CRS -.5083 CST -.9979
FDE  .4680 FRA 1.2586 FC3 -.7327 BSP  18268   SGB 5672.8 RZS  .0107 RIS -.9417          LSA 1868.6 MSA  299.4 SSA   17.5
BDE 1.0841 BRA 3.1763 BC3 4.0175 FSP   -542   SG1 5657.1 SG2  421.0 THA 176.97          EL1 1784.0 EL2  298.6 ALF   5.13
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LAUNCH DATE SEP 20 1970 FLIGHT TIME 192.00 ARRIVAL DATE MAR 31 1971

HELIOCENTRIC CONIC DISTANCE 558.285

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RL  150.24 LAL   -.00 LOL 356.62 VL  25.913 GAL   5.50 AZL  88.96 HCA 277.41 SMA 121.17 ECC .25728 INC 1.0370 V1  29.658
RP  108.79 LAP  -1.03 LOP 274.03 VP  36.668 GAP  13.73 AZP  89.87 TAL 163.63 TAP  81.04 RCA  90.00 APO 152.35 V2  34.833
RC 176.055 GL    5.48 GP   13.69 ZAL  52.73 ZAP 165.49 ETS  67.09 ZAE 126.74 ETE 169.75 ZAC 116.47 ETC 268.50 CLP-175.16
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PLANETOCENTRIC CONIC

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C3  23.929 VHL  4.892 DLA -13.91 RAL 305.08 RAD 6568.0 VEL 12.054 PTH   2.15 VHP  8.843 DPA -10.75 RAP 279.57 ECC 1.3938
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 36 30	1810.38	-8.16	17.32	167.87	117.21	10 6 41	1210.4	-4.44	10.60
90.00	17 56 12	5349.10	27.68	243.88	174.49	83.77	19 25 21	4749.1	26.53	235.40
100.00	10 50 30	1571.66	-9.34	359.13	167.24	118.52	11 16 41	971.7	-5.46	352.49
100.00	19 24 54	5063.05	29.01	222.66	174.31	82.47	20 49 17	4463.1	27.67	214.11
110.00	11 42 15	1409.57	-12.43	345.00	165.40	122.10	12 5 44	809.6	-8.10	338.58
110.00	20 49 38	4797.91	32.54	201.85	173.63	78.89	22 9 36	4197.9	30.66	193.13

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE 1.2270 TRA 3.4594 TC3-3.6314 BAU 1.1626   SGT 5666.9 SGR  505.4 SG3  153.7          ST  1909.2 SR   332.9 SS   576.0
RDE  .2679 RRA -.3072 RC3  .1431 FAU .01675   RRT -.5564 RRF -.5347 RTF  .9432          CRT  .4896 CRS -.5260 CST -.9986
FDE  .5021 FRA 1.3022 FC3 -.6060 BSP  18374   SGB 5689.4 RZS  .0085 RIS -.9432          LSA 2000.8 MSA  289.7 SSA   16.7
BDE 1.2559 BRA 3.4731 BC3 3.6342 FSP   -527   SG1 5673.9 SG2  419.4 THA 177.14          EL1 1916.3 EL2  289.2 ALF   4.99
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LAUNCH DATE SEP 20 1970 FLIGHT TIME 194.00 ARRIVAL DATE APR 2 1971

HELIOCENTRIC CONIC DISTANCE 563.576

```
RL  150.24 LAL   -.00 LOL 356.62 VL  25.871 GAL   6.20 AZL  88.77 HCA 280.57 SMA 120.93 ECC .26402 INC 1.2263 V1  29.658
RP  108.82 LAP  -1.21 LOP 277.19 VP  36.631 GAP  14.21 AZP  89.78 TAL 162.06 TAP  82.63 RCA  89.00 APO 152.86 V2  34.825
RC 178.036 GL    6.13 GP   13.33 ZAL  50.56 ZAP 166.09 ETS  69.92 ZAE 126.73 ETE 170.01 ZAC 116.04 ETC 269.13 CLP-175.98
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PLANETOCENTRIC CONIC

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C3  26.543 VHL  5.152 DLA -12.75 RAL 307.15 RAD 6568.1 VEL 12.162 PTH   2.18 VHP  9.128 DPA -11.06 RAP 281.90 ECC 1.4368
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 34 37	1876.11	-10.18	21.08	171.44	116.57	10 5 53	1276.1	-6.53	14.30
90.00	18 14 36	5334.48	27.57	242.83	177.99	83.25	19 43 31	4734.5	26.34	234.37
100.00	10 49 23	1634.91	-11.38	2.72	170.82	117.83	11 16 38	1034.9	-7.56	356.01
100.00	19 42 32	5050.92	28.90	221.77	177.79	82.01	21 6 43	4450.9	27.49	213.25
110.00	11 42 48	1467.62	-14.50	348.21	169.00	121.30	12 7 15	867.6	-10.25	341.69
110.00	21 5 36	4790.96	32.44	201.33	177.09	78.59	22 25 27	4191.0	30.53	192.63

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE 1.4057 TRA 3.7710 TC3-3.2658 BAU 1.1597   SGT 5679.4 SGR  494.4 SG3  148.9          ST  2029.2 SR   328.5 SS   593.1
RDE  .2786 RRA -.3191 RC3  .1229 FAU .01522   RRT -.5365 RRF -.5154 RTF  .9449          CRT  .5147 CRS -.5417 CST -.9991
FDE  .5345 FRA 1.3462 FC3 -.4964 BSP  18479   SGB 5700.8 RZS  .0067 RIS -.9450          LSA 2120.9 MSA  280.9 SSA   15.9
BDE 1.4330 BRA 3.7845 BC3 3.2681 FSP   -512   SG1 5685.6 SG2  416.7 THA 177.31          EL1 2036.4 EL2  280.6 ALF   4.85
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LAUNCH DATE SEP 20 1970 FLIGHT TIME 196.00 ARRIVAL DATE APR 4 1971

HELIOCENTRIC CONIC DISTANCE 568.790

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RL  150.24 LAL   -.00 LOL 356.62 VL  25.829 GAL   6.94 AZL  88.58 HCA 283.73 SMA 120.69 ECC .27137 INC 1.4195 V1  29.658
RP  108.84 LAP  -1.38 LOP 280.36 VP  36.595 GAP  14.73 AZP  89.66 TAL 160.50 TAP  84.23 RCA  87.94 APO 153.45 V2  34.818
RC 180.002 GL    6.71 GP   13.00 ZAL  48.52 ZAP 166.62 ETS  73.02 ZAE 126.70 ETE 170.25 ZAC 115.60 ETC 269.76 CLP-176.81
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PLANETOCENTRIC CONIC

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C3  29.547 VHL  5.436 DLA -11.67 RAL 309.10 RAD 6568.2 VEL 12.285 PTH   2.21 VHP  9.437 DPA -11.31 RAP 284.23 ECC 1.4863
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 33 14	1939.40	-12.08	24.76	175.04	115.81	10 5 34	1339.4	-8.51	17.90
90.00	18 31 32	5324.64	27.49	242.12	181.48	82.91	20 0 16	4724.6	26.22	233.68
100.00	10 48 40	1696.04	-13.29	6.25	174.42	117.02	11 16 56	1096.0	-9.57	359.45
100.00	19 58 47	5043.23	28.83	221.22	181.27	81.73	21 22 50	4443.2	27.38	212.71
110.00	11 43 33	1524.18	-16.48	351.41	172.62	120.38	12 8 57	924.2	-12.32	344.77
110.00	21 20 24	4787.86	32.40	201.10	180.55	78.46	22 40 11	4187.9	30.47	192.41

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE 1.5887 TRA 4.0980 TC3-2.9216 BAU 1.1548   SGT 5687.4 SGR  482.6 SG3  144.2          ST  2136.4 SR   324.1 SS   608.3
RDE  .2903 RRA -.3301 RC3  .1047 FAU .01378   RRT -.5160 RRF -.4958 RTF  .9471          CRT  .5360 CRS -.5559 CST -.9994
FDE  .5651 FRA 1.3903 FC3 -.4036 BSP  18602   SGB 5707.8 RZS  .0052 RIS -.9471          LSA 2228.1 MSA  272.8 SSA   15.2
BDE 1.6150 BRA 4.1113 BC3 2.9234 FSP   -498   SG1 5692.9 SG2  412.9 THA 177.48          EL1 2143.6 EL2  272.7 ALF   4.72
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LAUNCH DATE SEP 20 1970 FLIGHT TIME 198.00 ARRIVAL DATE APR 6 1971

HELIOCENTRIC CONIC DISTANCE 573.917
RL 150.24 LAL -.00 LOL 356.62 VL 25.788 GAL 7.73 AZL 88.38 HCA 286.89 SMA 120.46 ECC .27942 INC 1.6179 V1 29.658
RP 108.06 LAP -1.55 LOP 283.52 VP 36.560 GAP 15.28 AZP 89.53 TAL 158.96 TAP 85.85 RCA 86.80 APO 154.12 V2 34.812
RC 181.954 GL 7.22 GP 12.70 ZAL 46.59 ZAP 167.09 ETS 76.42 ZAE 126.66 ETE 170.48 ZAC 115.18 ETC 270.38 CLP-177.65
PLANETOCENTRIC CONIC
C3 33.001 VHL 5.745 DLA -10.66 RAL 310.93 RAD 6568.3 VEL 12.425 PTH 2.25 VHP 9.771 DPA -11.49 RAP 286.56 ECC 1.5431

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 32 16	2000.52	-13.87	28.36	178.65	114.94	10 5 36	1400.5	-10.39	21.41
90.00	18 47 7	5319.10	27.44	241.72	184.96	82.71	20 15 46	4719.1	26.14	233.29
100.00	10 48 17	1755.26	-15.10	9.72	178.04	116.11	11 17 32	1155.3	-11.47	2.81
100.00	20 13 46	5039.60	28.79	220.95	184.75	81.59	21 37 46	4439.6	27.33	212.45
110.00	11 44 28	1579.33	-18.35	354.59	176.26	119.36	12 10 47	979.3	-14.30	347.02
110.00	21 34 5	4788.29	32.41	201.13	184.01	78.48	22 53 53	4188.3	30.48	192.44

DIFFERENTIAL CORRECTIONS
TDE 1.7775 TRA 4.4423 TC3-2.5983 BAU 1.1470
RDE .3031 RRA -.3400 RC3 .0082 FAU .01237
FDE .5949 FRA 1.4354 FC3 -.3245 BSP 18734
BDE 1.8032 BRA 4.4553 BC3 2.5907 FSP -485

MID-COURSE EXECUTION ACCURACY
SGT 5690.4 SGR 489.8 SG3 139.7
RRT -.4945 RRF -.4754 RTF .9493
SGB 5709.8 RZ3 .0041 R13 -.9493
SG1 5695.2 SG2 408.0 THA 177.65

ORBIT DETERMINATION ACCURACY
ST 2231.7 SR 319.6 SS 622.2
CRT .5548 CRS -.5693 CST -.9995
LSA 2323.6 MSA 265.1 SSA 14.6
EL1 2238.8 EL2 265.0 ALF 4.61

LAUNCH DATE SEP 20 1970 FLIGHT TIME 200.00 ARRIVAL DATE APR 8 1971

HELIOCENTRIC CONIC DISTANCE 578.941
RL 150.24 LAL -.00 LOL 356.62 VL 25.748 GAL 8.57 AZL 88.18 HCA 290.05 SMA 120.24 ECC .28823 INC 1.8231 V1 29.658
RP 108.87 LAP -1.71 LOP 286.68 VP 36.526 GAP 15.87 AZP 89.37 TAL 157.44 TAP 87.49 RCA 85.58 APO 154.89 V2 34.806
RC 183.891 GL 7.65 GP 12.42 ZAL 44.79 ZAP 167.49 ETS 80.12 ZAE 126.60 ETE 170.70 ZAC 114.76 ETC 270.99 CLP-178.50
PLANETOCENTRIC CONIC
C3 36.980 VHL 6.081 DLA -9.74 RAL 312.65 RAD 6568.4 VEL 12.584 PTH 2.28 VHP 10.133 DPA -11.60 RAP 288.88 ECC 1.6086

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 31 37	2059.65	-15.53	31.90	182.28	113.98	10 5 57	1459.7	-12.16	24.85
90.00	19 1 28	5317.45	27.42	241.60	188.44	82.65	20 30 5	4717.4	26.12	233.18
100.00	10 48 10	1812.70	-16.79	13.15	181.68	115.10	11 18 23	1212.7	-13.27	6.13
100.00	20 27 36	5039.63	28.79	220.95	188.22	81.59	21 51 36	4439.6	27.33	212.46
110.00	11 45 30	1633.15	-20.11	357.77	179.92	118.24	12 12 43	1033.1	-16.18	350.85
110.00	21 46 46	4791.95	32.46	201.40	187.48	78.63	23 6 37	4191.9	30.55	192.71

DIFFERENTIAL CORRECTIONS
TDE 1.9723 TRA 4.0049 TC3-2.2965 BAU 1.1360
RDE .3171 RRA -.3485 RC3 .0734 FAU .01103
FDE .6237 FRA 1.4818 FC3 -.2581 BSP 18886
BDE 1.9977 BRA 4.0175 BC3 2.2977 FSP -474

MID-COURSE EXECUTION ACCURACY
SGT 5688.0 SGR 456.3 SG3 135.2
RRT -.4717 RRF -.4542 RTF .9519
SGB 5706.2 RZ3 .0032 R13 -.9519
SG1 5692.1 SG2 402.0 THA 177.82

ORBIT DETERMINATION ACCURACY
ST 2315.0 SR 315.0 SS 635.0
CRT .5721 CRS -.5823 CST -.9997
LSA 2407.3 MSA 257.6 SSA 13.9
EL1 2322.1 EL2 257.6 ALF 4.51

LAUNCH DATE SEP 20 1970 FLIGHT TIME 202.00 ARRIVAL DATE APR 10 1971

HELIOCENTRIC CONIC DISTANCE 583.846
RL 150.24 LAL -.00 LOL 356.62 VL 25.708 GAL 9.47 AZL 87.96 HCA 293.21 SMA 120.01 ECC .29792 INC 2.0366 V1 29.658
RP 108.89 LAP -1.87 LOP 289.85 VP 36.493 GAP 16.52 AZP 89.20 TAL 155.95 TAP 89.17 RCA 84.26 APO 155.77 V2 34.801
RC 185.813 GL 8.03 GP 12.16 ZAL 43.10 ZAP 167.82 ETS 84.10 ZAE 126.53 ETE 170.90 ZAC 114.34 ETC 271.60 CLP-179.36
PLANETOCENTRIC CONIC
C3 41.573 VHL 6.448 DLA -8.89 RAL 314.26 RAD 6568.6 VEL 12.765 PTH 2.32 VHP 10.528 DPA -11.66 RAP 291.20 ECC 1.6842

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 31 14	2116.91	-17.08	35.39	185.91	112.93	10 6 31	1516.9	-13.83	28.22
90.00	19 14 41	5319.33	27.44	241.74	191.89	82.72	20 43 20	4719.3	26.15	233.31
100.00	10 48 15	1868.46	-18.37	16.54	185.32	114.01	11 19 24	1268.5	-14.97	9.39
100.00	20 40 21	5043.01	28.83	221.20	191.68	81.72	22 4 24	4443.0	27.38	212.69
110.00	11 46 38	1685.66	-21.77	.94	185.59	117.03	12 14 43	1085.7	-17.97	353.87
110.00	21 58 28	4798.57	32.55	201.90	190.94	78.92	23 18 27	4198.6	30.68	193.18

DIFFERENTIAL CORRECTIONS
TDE 2.1752 TRA 5.1893 TC3-2.0154 BAU 1.1206
RDE .3320 RRA -.3553 RC3 .0801 FAU .00970
FDE .6526 FRA 1.5304 FC3 -.2020 BSP 19027
BDE 2.2004 BRA 5.2014 BC3 2.0183 FSP -462

MID-COURSE EXECUTION ACCURACY
SGT 5681.1 SGR 441.8 SG3 131.0
RRT -.4473 RRF -.4314 RTF .9546
SGB 5698.2 RZ3 .0026 R13 -.9546
SG1 5684.5 SG2 394.9 THA 178.00

ORBIT DETERMINATION ACCURACY
ST 2388.1 SR 310.2 SS 647.6
CRT .5883 CRS -.5953 CST -.9997
LSA 2481.1 MSA 250.1 SSA 13.4
EL1 2395.1 EL2 250.1 ALF 4.42

LAUNCH DATE SEP 20 1970 FLIGHT TIME 204.00 ARRIVAL DATE APR 12 1971

HELIOCENTRIC CONIC DISTANCE 588.610
RL 150.24 LAL -.00 LOL 356.62 VL 25.670 GAL 10.43 AZL 87.74 HCA 296.37 SMA 119.80 ECC .30858 INC 2.2604 V1 29.658
RP 108.90 LAP -2.03 LOP 293.01 VP 36.462 GAP 17.22 AZP 89.00 TAL 154.51 TAP 90.88 RCA 82.83 APO 156.77 V2 34.797
RC 187.719 GL 8.36 GP 11.93 ZAL 41.52 ZAP 168.07 ETS 88.36 ZAE 126.43 ETE 171.10 ZAC 113.92 ETC 272.19 CLP 179.77
PLANETOCENTRIC CONIC
C3 46.880 VHL 6.848 DLA -8.11 RAL 315.76 RAD 6568.8 VEL 12.971 PTH 2.37 VHP 10.959 DPA -11.66 RAP 293.49 ECC 1.7717

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 31 5	2172.37	-18.52	38.83	189.53	111.81	10 7 17	1572.4	-15.40	31.54
90.00	19 26 50	5324.41	27.48	242.10	195.33	82.90	20 55 35	4724.4	26.21	233.66
100.00	10 48 30	1922.59	-19.83	19.89	188.97	112.84	11 20 33	1322.6	-16.57	12.62
100.00	20 52 6	5049.43	28.89	221.67	195.11	81.96	22 16 15	4449.4	27.47	213.15
110.00	11 47 49	1736.88	-23.32	4.11	187.27	115.73	12 16 46	1136.9	-19.67	356.87
110.00	22 9 16	4807.90	32.66	202.60	194.39	79.32	23 29 24	4207.9	30.85	193.85

DIFFERENTIAL CORRECTIONS
TDE 2.3880 TRA 5.5978 TC3-1.7542 BAU 1.1001
RDE .3481 RRA -.3602 RC3 .0483 FAU .00839
FDE .6819 FRA 1.5818 FC3 -.1550 BSP 19175
BDE 2.4132 BRA 5.6094 BC3 1.7549 FSP -451

MID-COURSE EXECUTION ACCURACY
SGT 5669.9 SGR 426.5 SG3 126.9
RRT -.4207 RRF -.4067 RTF .9575
SGB 5685.9 RZ3 .0023 R13 -.9575
SG1 5672.8 SG2 386.7 THA 178.18

ORBIT DETERMINATION ACCURACY
ST 2452.0 SR 305.3 SS 660.4
CRT .6042 CRS -.6085 CST -.9998
LSA 2546.1 MSA 242.6 SSA 12.8
EL1 2459.0 EL2 242.5 ALF 4.34

LAUNCH DATE SEP 20 1970 FLIGHT TIME 206.00 ARRIVAL DATE APR 14 1971

HELIOCENTRIC CONIC DISTANCE 593.207

RL	150.24	LAL	-.00	LOL	356.62	VL	25.631	GAL	11.47	AZL	87.50	HCA	299.53	SMA	119.59	ECC	.32035	INC	2.4967	V1	29.658
RP	108.92	LAP	-2.17	LOP	296.17	VP	36.431	GAP	17.99	AZP	88.77	TAL	153.10	TAP	92.63	RCA	81.28	APO	157.90	V2	34.793
RC	189.610	GL	8.64	GP	11.71	ZAL	40.06	ZAP	168.23	ETS	92.87	ZAE	126.31	ETE	171.29	ZAC	113.50	ETC	272.78	CLP	178.87

PLANETOCENTRIC CONIC

C3	53.063	VHL	7.284	DLA	-7.39	RAL	317.16	RAD	6568.9	VEL	13.207	PTH	2.41	VHP	11.433	DPA	-11.60	RAP	295.77	ECC	1.8733

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 31 6	2226.06	-19.85	42.21	193.15	110.62	10 8 12	1626.1	-16.86	34.80
90.00	19 37 59	5332.40	27.55	242.68	198.73	83.18	21 6 51	4732.4	26.32	234.23
100.00	10 48 54	1975.08	-21.18	23.20	192.60	111.60	11 21 49	1375.1	-18.06	15.80
100.00	21 2 52	5058.60	28.97	222.33	198.52	82.30	22 27 11	4458.6	27.60	213.80
110.00	11 49 2	1786.77	-24.76	7.27	190.95	114.36	12 18 49	1186.8	-21.26	359.87
110.00	22 19 13	4819.68	32.81	203.49	197.82	79.82	23 39 33	4219.7	31.06	194.71

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.6128	TRA	6.0351	TC3	-1.5114	BAU	1.0725	SGT	5655.5	SGR	410.4	SG3	123.1	ST	2508.0	SR	300.0	SS	674.3
RDE	.3653	RRA	-.3627	RC3	.0379	FAU	.00706	RRT	-.3914	RRF	-.3795	RTF	.9606	CRT	.6199	CRS	-.6222	CST	-.9998
FDE	.7127	FRA	1.6371	FC3	-.1153	BSP	19262	SGB	5670.3	R23	.0020	R13	-.9606	LSA	2603.7	HSA	234.8	SSA	12.3
BDE	2.6382	BRA	6.0460	BC3	1.5119	FSP	-439	SG1	5657.8	SG2	377.5	THA	178.37	EL1	2514.9	EL2	234.8	ALF	4.28

LAUNCH DATE SEP 20 1970 FLIGHT TIME 208.00 ARRIVAL DATE APR 16 1971

HELIOCENTRIC CONIC DISTANCE 597.604

RL	150.24	LAL	-.00	LOL	356.62	VL	25.594	GAL	12.59	AZL	87.25	HCA	302.68	SMA	119.38	ECC	.33337	INC	2.7482	V1	29.658
RP	108.93	LAP	-2.31	LOP	299.33	VP	36.402	GAP	18.84	AZP	88.52	TAL	151.76	TAP	94.44	RCA	79.58	APO	159.18	V2	34.790
RC	191.483	GL	8.87	GP	11.51	ZAL	38.71	ZAP	168.31	ETS	97.60	ZAE	126.16	ETE	171.48	ZAC	113.08	ETC	273.34	CLP	177.94

PLANETOCENTRIC CONIC

C3	60.263	VHL	7.763	DLA	-6.74	RAL	318.46	RAD	6569.1	VEL	13.477	PTH	2.46	VHP	11.954	DPA	-11.50	RAP	298.01	ECC	1.9918

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 31 16	2277.95	-21.05	45.54	196.73	109.38	10 9 14	1677.9	-18.22	38.01
90.00	19 48 10	5343.01	27.63	243.44	202.09	83.55	21 17 13	4743.0	26.45	234.97
100.00	10 49 23	2025.91	-22.42	26.47	196.20	110.30	11 23 9	1425.9	-19.45	18.93
100.00	21 12 44	5070.28	29.08	223.19	201.89	82.74	22 37 14	4470.3	27.77	214.63
110.00	11 50 17	1835.27	-26.08	10.41	194.61	112.92	12 20 52	1235.3	-22.75	2.84
110.00	22 28 20	4833.68	32.97	204.55	201.22	80.43	23 48 53	4233.7	31.30	195.73

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.8925	TRA	6.5041	TC3	-1.2862	BAU	1.0365	SGT	5638.0	SGR	393.6	SG3	119.4	ST	2557.2	SR	294.6	SS	689.5
RDE	.3839	RRA	-.3625	RC3	.0289	FAU	.00570	RRT	-.3586	RRF	-.3489	RTF	.9638	CRT	.6360	CRS	-.6367	CST	-.9998
FDE	.7452	FRA	1.6970	FC3	-.0818	BSP	19279	SGB	5651.7	R23	.0019	R13	-.9638	LSA	2655.1	HSA	226.8	SSA	11.8
BDE	2.8782	BRA	6.5142	BC3	1.2865	FSP	-425	SG1	5639.8	SG2	367.3	THA	178.56	EL1	2564.1	EL2	226.7	ALF	4.22

LAUNCH DATE SEP 20 1970 FLIGHT TIME 210.00 ARRIVAL DATE APR 18 1971

HELIOCENTRIC CONIC DISTANCE 601.759

RL	150.24	LAL	-.00	LOL	356.62	VL	25.558	GAL	13.81	AZL	86.98	HCA	305.84	SMA	119.18	ECC	.34782	INC	3.0180	V1	29.658
RP	108.93	LAP	-2.45	LOP	302.49	VP	36.375	GAP	19.77	AZP	88.23	TAL	150.48	TAP	96.32	RCA	77.73	APO	160.64	V2	34.788
RC	193.340	GL	9.07	GP	11.33	ZAL	37.46	ZAP	168.29	ETS	102.50	ZAE	125.97	ETE	171.66	ZAC	112.66	ETC	273.90	CLP	176.99

PLANETOCENTRIC CONIC

C3	68.701	VHL	8.289	DLA	-6.16	RAL	319.65	RAD	6569.3	VEL	13.786	PTH	2.52	VHP	12.530	DPA	-11.36	RAP	300.22	ECC	2.1307

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 31 33	2327.97	-22.15	48.80	200.27	108.11	10 10 20	1728.0	-19.47	41.15
90.00	19 57 25	5356.00	27.73	244.38	205.40	84.01	21 26 41	4756.0	26.61	235.89
100.00	10 49 58	2075.00	-23.54	29.69	199.76	108.97	11 24 33	1475.0	-20.74	22.01
100.00	21 21 41	5084.21	29.19	224.21	205.22	83.26	22 46 25	4484.2	27.95	215.62
110.00	11 51 31	1882.28	-27.29	13.53	198.23	111.43	12 22 53	1282.3	-24.14	5.79
110.00	22 36 37	4849.69	33.15	205.77	204.58	81.13	23 57 27	4249.7	31.57	196.90

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	3.1093	TRA	7.0103	TC3	-1.0778	BAU	.9901	SGT	5618.6	SGR	376.2	SG3	115.9	ST	2600.1	SR	289.1	SS	706.6
RDE	.4039	RRA	-.3590	RC3	.0212	FAU	.00426	RRT	-.3215	RRF	-.3140	RTF	.9671	CRT	.6526	CRS	-.6521	CST	-.9999
FDE	.7801	FRA	1.7626	FC3	-.0537	BSP	19213	SGB	5631.1	R23	.0020	R13	-.9671	LSA	2701.0	HSA	218.5	SSA	11.3
BDE	3.1355	BRA	7.0195	BC3	1.0780	FSP	-411	SG1	5619.9	SG2	356.1	THA	178.76	EL1	2607.0	EL2	218.4	ALF	4.18

LAUNCH DATE SEP 20 1970 FLIGHT TIME 212.00 ARRIVAL DATE APR 20 1971

HELIOCENTRIC CONIC DISTANCE 605.621

RL	150.24	LAL	-.00	LOL	356.62	VL	25.523	GAL	15.14	AZL	86.69	HCA	308.99	SMA	118.99	ECC	.36392	INC	3.3103	V1	29.658
RP	108.94	LAP	-2.57	LOP	305.66	VP	36.348	GAP	20.81	AZP	87.92	TAL	149.28	TAP	98.27	RCA	75.69	APO	162.29	V2	34.786
RC	195.178	GL	9.23	GP	11.15	ZAL	36.33	ZAP	168.16	ETS	107.52	ZAE	125.74	ETE	171.85	ZAC	112.25	ETC	274.43	CLP	175.99

PLANETOCENTRIC CONIC

C3	78.644	VHL	8.868	DLA	-5.64	RAL	320.74	RAD	6569.5	VEL	14.142	PTH	2.58	VHP	13.170	DPA	-11.17	RAP	302.38	ECC	2.2943

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 31 55	2376.02	-23.13	51.97	203.74	106.81	10 11 31	1776.0	-20.61	44.21
90.00	20 5 44	5371.15	27.83	245.48	208.65	84.56	21 35 15	4771.1	26.79	236.97
100.00	10 50 35	2122.21	-24.55	32.83	203.26	107.61	11 25 57	1522.2	-21.91	25.03
100.00	21 29 44	5100.19	29.31	225.38	208.48	83.87	22 54 45	4500.2	28.16	216.77
110.00	11 52 44	1927.67	-28.38	16.61	201.81	109.90	12 24 51	1327.7	-25.41	8.70
110.00	22 44 5	4867.50	33.33	207.13	207.89	81.92	24 5 13	4267.5	31.85	198.21

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	3.3862	TRA	7.5587	TC3	-.8853	BAU	.9310	SGT	5597.7	SGR	350.3	SG3	112.7	ST	2637.4	SR	283.4	SS	726.1
RDE	.4256	RRA	-.3516	RC3	.0147	FAU	.00273	RRT	-.2790	RRF	-.2738	RTF	.9705	CRT	.6700	CRS	-.6685	CST	-.9999
FDE	.8182	FRA	1.8350	FC3	-.0300	BSP	19034	SGB	5609.1	R23	.0021	R13	-.9705	LSA	2742.1	HSA	209.9	SSA	10.8
BDE	3.4129	BRA	7.5669	BC3	.8855	FSP	-394	SG1	5598.6	SG2	344.0	THA	178.97	EL1	2644.3	EL2	209.8	ALF	4.14

LAUNCH DATE SEP 20 1970 FLIGHT TIME 214.00 ARRIVAL DATE APR 22 1971

HELIOCENTRIC CONIC DISTANCE 609.121

```
RL  150.24 LAL   -.00 LOL 356.62 VL  25.489 GAL  16.60 AZL  86.37 HCA 312.14 SMA 118.81 ECC .38190 INC 3.6297 V1  29.658
RP  108.94 LAP  -2.89 LOP 308.82 VP  36.324 GAP  21.97 AZP  87.56 TAL 148.19 TAP 100.33 RCA  73.44 APO 164.18 V2  34.785
RC 196.997 GL    9.36 GP   10.99 ZAL  35.32 ZAP 167.91 ETS 112.59 ZAE 125.45 ETE 172.04 ZAC 111.83 ETC 274.94 CLP 174.94
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PLANETOCENTRIC CONIC

```
C3  90.431 VHL  9.510 DLA  -5.18 RAL 321.72 RAD 6569.8 VEL 14.553 PTH   2.64 VHP 13.885 DPA -10.96 RAP 304.49 ECC 2.4883
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 32 21	2421.91	-24.00	55.06	207.13	105.50	10 12 43	1821.9	-21.64	47.18
90.00	20 13 7	5388.25	27.94	246.72	211.81	85.17	21 42 55	4788.2	26.97	238.18
100.00	10 51 15	2167.39	-25.45	35.00	206.67	106.23	11 27 22	1567.4	-22.98	27.96
100.00	21 36 54	5118.01	29.44	226.69	211.66	84.55	23 2 12	4518.0	28.37	218.05
110.00	11 53 54	1971.25	-29.36	19.63	205.30	108.35	12 26 45	1371.2	-26.57	11.56
110.00	22 50 44	4886.91	33.50	208.61	211.13	82.78	24 12 11	4286.9	32.14	199.65

DIFFERENTIAL CORRECTIONS

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TDE 3.6859 TRA 8.1546 TC3 -.7086 BAU  .8567
RDE  .4494 RRA -.3383 RC3  .0095 FAU .00106
FDE  .8599 FRA 1.9153 FC3 -.0102 BSP  18735
BDE 3.7132 BRA 8.1616 BC3  .7086 FSP   -376
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MID-COURSE EXECUTION ACCURACY

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SGT 5575.5 SGR  340.3 SG3  109.7
RRT -.2296 RRF -.2267 RTF  .9739
SGB 5585.8 RZS  .0023 R13 -.9739
SG1 5576.0 SG2  331.2 THA 179.19
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ORBIT DETERMINATION ACCURACY

```
ST  2669.1 SR   277.7 SS   748.5
CRT  .6883 CRS -.6862 CST -.9999
LSA 2778.6 MSA  201.0 SSA   10.3
EL1 2676.0 EL2  200.9 ALF   4.12
```

LAUNCH DATE SEP 20 1970 FLIGHT TIME 216.00 ARRIVAL DATE APR 24 1971

HELIOCENTRIC CONIC DISTANCE 612.174

```
RL  150.24 LAL   -.00 LOL 356.62 VL  25.457 GAL  18.20 AZL  86.02 HCA 315.29 SMA 118.63 ECC .40205 INC 3.9827 V1  29.658
RP  108.94 LAP  -2.80 LOP 311.98 VP  36.301 GAP  23.26 AZP  87.17 TAL 147.21 TAP 102.51 RCA  70.94 APO 166.33 V2  34.785
RC 198.798 GL    9.46 GP   10.84 ZAL  34.43 ZAP 167.54 ETS 117.66 ZAE 125.11 ETE 172.24 ZAC 111.42 ETC 275.43 CLP 173.83
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PLANETOCENTRIC CONIC

```
C3 104.503 VHL 10.223 DLA  -4.79 RAL 322.59 RAD 6570.0 VEL 15.028 PTH   2.71 VHP 14.688 DPA -10.71 RAP 306.53 ECC 2.7199
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 32 50	2465.44	-24.76	58.02	210.39	104.20	10 13 55	1865.4	-22.57	50.04
90.00	20 19 32	5407.13	28.04	248.09	214.87	85.85	21 49 39	4807.1	27.17	239.53
100.00	10 51 55	2210.30	-26.23	38.84	209.97	104.87	11 28 46	1610.3	-23.93	30.79
100.00	21 43 8	5137.51	29.55	228.13	214.74	85.29	23 8 45	4537.5	28.59	219.46
110.00	11 55 0	2012.80	-30.21	22.57	208.69	106.81	12 28 33	1412.8	-27.61	14.34
110.00	22 56 32	4907.77	33.67	210.22	214.27	83.72	24 18 20	4307.8	32.43	201.20

DIFFERENTIAL CORRECTIONS

```
TDE 4.0119 TRA 8.8044 TC3 -.5467 BAU  .7639
RDE  .4759 RRA -.3212 RC3  .0055 FAU-.00078
FDE  .9080 FRA 2.0049 FC3  .0065 BSP  18301
BDE 4.0400 BRA 8.8102 BC3  .5468 FSP   -357
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MID-COURSE EXECUTION ACCURACY

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SGT 5552.2 SGR  322.3 SG3  106.9
RRT -.1718 RRF -.1709 RTF  .9773
SGB 5561.6 RZS  .0026 R13 -.9773
SG1 5552.5 SG2  317.5 THA 179.43
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ORBIT DETERMINATION ACCURACY

```
ST  2695.2 SR   272.2 SS   774.3
CRT  .7078 CRS -.7052 CST -.9999
LSA 2810.9 MSA  191.9 SSA    9.8
EL1 2702.1 EL2  191.8 ALF   4.11
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LAUNCH DATE SEP 20 1970 FLIGHT TIME 218.00 ARRIVAL DATE APR 26 1971

HELIOCENTRIC CONIC DISTANCE 614.667

```
RL  150.24 LAL   -.00 LOL 356.62 VL  25.426 GAL  19.99 AZL  85.62 HCA 318.44 SMA 118.47 ECC .42472 INC 4.3772 V1  29.658
RP  108.94 LAP  -2.90 LOP 315.15 VP  36.280 GAP  24.73 AZP  86.72 TAL 146.39 TAP 104.83 RCA  68.15 APO 168.78 V2  34.786
RC 200.578 GL    9.53 GP   10.70 ZAL  33.67 ZAP 167.04 ETS 122.67 ZAE 124.68 ETE 172.44 ZAC 111.02 ETC 275.89 CLP 172.65
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PLANETOCENTRIC CONIC

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C3 121.430 VHL 11.020 DLA  -4.46 RAL 323.33 RAD 6570.3 VEL 15.581 PTH   2.77 VHP 15.593 DPA -10.45 RAP 308.49 ECC 2.9984
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 33 21	2506.31	-25.41	60.84	213.51	102.93	10 15 7	1906.3	-23.38	52.76
90.00	20 24 57	5427.67	28.13	249.58	217.81	86.59	21 55 24	4827.7	27.36	241.00
100.00	10 52 36	2250.67	-26.91	41.65	213.12	103.54	11 30 6	1650.7	-24.78	33.49
100.00	21 48 23	5158.54	29.66	229.68	217.70	86.11	23 14 21	4558.5	28.81	220.98
110.00	11 56 2	2052.05	-30.95	25.39	211.93	105.29	12 30 14	1452.1	-28.54	17.01
110.00	23 1 26	4929.92	33.82	211.93	217.30	84.72	24 23 36	4329.9	32.72	202.87

DIFFERENTIAL CORRECTIONS

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TDE 4.3668 TRA 9.5145 TC3 -.3998 BAU  .6490
RDE  .5055 RRA -.2980 RC3  .0026 FAU-.00284
FDE  .9570 FRA 2.1053 FC3  .0203 BSP  17734
BDE 4.3959 BRA 9.5191 BC3  .3998 FSP   -336
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MID-COURSE EXECUTION ACCURACY

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SGT 5527.6 SGR  304.9 SG3  104.2
RRT -.1034 RRF -.1046 RTF  .9806
SGB 5536.0 RZS  .0029 R13 -.9806
SG1 5527.6 SG2  303.2 THA 179.67
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ORBIT DETERMINATION ACCURACY

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ST  2715.1 SR   266.9 SS   804.0
CRT  .7284 CRS -.7254 CST -.9999
LSA 2838.3 MSA  182.5 SSA    9.3
EL1 2722.1 EL2  182.4 ALF   4.11
```

LAUNCH DATE SEP 20 1970 FLIGHT TIME 220.00 ARRIVAL DATE APR 28 1971

HELIOCENTRIC CONIC DISTANCE 616.448

```
RL  150.24 LAL   -.00 LOL 356.62 VL  25.397 GAL  21.99 AZL  85.18 HCA 321.59 SMA 118.31 ECC .45031 INC 4.8240 V1  29.658
RP  108.93 LAP  -3.00 LOP 318.31 VP  36.261 GAP  26.40 AZP  86.22 TAL 145.74 TAP 107.33 RCA  65.03 APO 171.59 V2  34.787
RC 202.339 GL    9.57 GP   10.56 ZAL  33.04 ZAP 166.39 ETS 127.58 ZAE 124.17 ETE 172.66 ZAC 110.62 ETC 276.33 CLP 171.37
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PLANETOCENTRIC CONIC

```
C3 141.963 VHL 11.915 DLA  -4.21 RAL 323.94 RAD 6570.5 VEL 16.226 PTH   2.85 VHP 16.621 DPA -10.17 RAP 310.36 ECC 3.3364
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 33 52	2544.16	-25.96	63.47	216.43	101.72	10 16 16	1944.2	-24.09	55.30
90.00	20 29 15	5449.76	28.21	251.20	220.59	87.40	22 0 5	4849.8	27.55	242.59
100.00	10 53 14	2288.13	-27.48	44.28	216.07	102.26	11 31 22	1688.1	-25.51	36.04
100.00	21 52 34	5181.02	29.75	231.35	220.51	86.98	23 18 55	4581.0	29.02	222.62
110.00	11 56 57	2088.65	-31.58	28.05	214.98	103.83	12 31 46	1488.7	-29.35	19.55
110.00	23 5 21	4953.26	33.95	213.74	220.19	85.78	24 27 54	4353.3	33.00	204.63

DIFFERENTIAL CORRECTIONS

```
TDE 4.6954 TRA10.2336 TC3 -.2836 BAU  .5383
RDE  .5397 RRA -.2617 RC3  .0009 FAU-.00459
FDE 1.0001 FRA 2.2043 FC3  .0280 BSP  18422
BDE 4.7263 BRA10.2371 BC3  .2836 FSP   -342
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MID-COURSE EXECUTION ACCURACY

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SGT 5468.5 SGR  288.6 SG3  101.0
RRT -.0242 RRF -.0271 RTF  .9837
SGB 5476.1 RZS  .0033 R13 -.9837
SG1 5468.5 SG2  288.5 THA 179.93
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ORBIT DETERMINATION ACCURACY

```
ST  2700.0 SR   262.3 SS   828.7
CRT  .7484 CRS -.7450 CST -.9999
LSA 2831.1 MSA  173.7 SSA    8.7
EL1 2707.1 EL2  173.5 ALF   4.17
```

LAUNCH DATE SEP 21 1970 FLIGHT TIME 70.00 ARRIVAL DATE NOV 30 1970

HELIOCENTRIC CONIC DISTANCE 184.376

RL	150.20	LAL	-.00	LOL	357.60	VL	26.524	GAL	-8.67	AZL	89.84	HCA	81.52	SMA	124.77	ECC	.25160	INC	.1613
RP	107.76	LAP	.16	LOP	79.12	VP	37.411	GAP	-12.32	AZP	89.98	TAL	208.12	TAP	289.64	RCA	93.37	APO	156.16
RC	47.431	GL	.86	GP	-15.18	ZAL	135.60	ZAP	17.90	ETS	53.69	ZAE	147.73	ETE	334.58	ZAC	86.76	ETC	261.61

V1 29.666 V2 35.168 CLP -9.59

PLANETOCENTRIC CONIC

C3	24.203	VHL	4.920	DLA	-14.61	RAL	219.83	RAD	6568.0	VEL	12.066	PTH	2.16	VHP	8.195	DPA	-36.29	RAP	244.08

ECC 1.3983

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 58 46	1788.51	-7.47	16.07	82.86	117.39	4 28 34	1188.5	-3.74	9.38
90.00	12 5 54	5376.55	27.87	245.87	89.76	84.75	13 35 31	4776.5	26.85	237.35
100.00	5 12 16	1551.38	-8.68	357.99	82.21	118.72	5 38 7	951.4	-4.78	351.37
100.00	13 35 6	5088.92	29.23	224.55	89.60	83.44	14 59 55	4488.9	28.01	215.96
110.00	6 2 58	1392.56	-11.61	344.07	80.33	122.31	6 26 10	792.6	-7.46	337.67
110.00	15 0 53	4820.50	32.82	203.55	88.99	79.86	16 21 13	4220.5	31.07	194.77

DIFFERENTIAL CORRECTIONS

TDE	.1104	TRA	-.3581	TC3	.4868	BAU	.1764
RDE	-.3101	RRA	-.1225	RC3	-.2455	FAU	.03606
FDE	.1795	FRA	-.0844	FC3	-1.2900	BSP	1761
BDE	.3292	BRA	.3785	BC3	.5452	FSP	-274

MID-COURSE EXECUTION ACCURACY

SGT	657.1	SGR	458.9	SG3	111.5		
RRT	-.3270	RRF	.4156	RTF	-.6338		
SGB	801.4	R23	-.0720	R13	.6671		
SG1	685.0	SG2	415.9	THA	159.14		

ORBIT DETERMINATION ACCURACY

ST	182.9	SR	363.9	SS	152.0
CRT	-.6132	CRS	.9456	CST	-.7709
LSA	411.1	MSA	138.2	SSA	30.6
EL1	383.6	EL2	137.1	ALF	109.75

LAUNCH DATE SEP 21 1970 FLIGHT TIME 72.00 ARRIVAL DATE DEC 2 1970

HELIOCENTRIC CONIC DISTANCE 191.198

RL	150.20	LAL	-.00	LOL	357.60	VL	26.701	GAL	-8.62	AZL	89.65	HCA	84.75	SMA	125.89	ECC	.24275	INC	.3524
RP	107.72	LAP	.35	LOP	82.34	VP	37.547	GAP	-11.38	AZP	89.97	TAL	209.51	TAP	294.26	RCA	95.33	APO	156.44
RC	48.893	GL	1.94	GP	-16.19	ZAL	137.14	ZAP	20.19	ETS	48.61	ZAE	146.61	ETE	332.97	ZAC	85.81	ETC	261.71

V1 29.666 V2 35.179 CLP -12.24

PLANETOCENTRIC CONIC

C3	23.071	VHL	4.803	DLA	-13.11	RAL	218.63	RAD	6567.9	VEL	12.019	PTH	2.15	VHP	7.702	DPA	-37.40	RAP	244.46

ECC 1.3797

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 40 40	1829.30	-8.74	18.40	80.81	117.04	4 11 9	1229.3	-5.05	11.67
90.00	12 14 26	5312.33	27.38	241.23	87.00	82.47	13 42 59	4712.3	26.05	232.82
100.00	4 55 11	1588.84	-9.90	.10	80.20	118.35	5 21 40	988.8	-6.04	353.45
100.00	13 42 36	5028.02	28.67	220.11	86.79	81.17	15 6 24	4428.0	27.15	211.64
110.00	5 48 6	1423.13	-12.92	345.75	78.41	121.93	6 11 49	823.1	-8.60	339.30
110.00	15 6 11	4766.49	32.10	199.50	86.04	77.56	16 25 37	4166.5	30.06	190.89

DIFFERENTIAL CORRECTIONS

TDE	.0980	TRA	-.3431	TC3	.5294	BAU	.1861
RDE	-.2924	RRA	-.1295	RC3	-.2893	FAU	.03937
FDE	.2334	FRA	-.1183	FC3	-1.4773	BSP	1852
BDE	.3084	BRA	.3667	BC3	.6033	FSP	-315

MID-COURSE EXECUTION ACCURACY

SGT	670.0	SGR	473.4	SG3	125.6		
RRT	-.3642	RRF	.4656	RTF	-.6452		
SGB	820.3	R23	-.0833	R13	.6861		
SG1	705.4	SG2	418.7	THA	157.11		

ORBIT DETERMINATION ACCURACY

ST	172.6	SR	352.1	SS	189.6
CRT	-.5744	CRS	.9435	CST	-.7600
LSA	412.0	MSA	137.6	SSA	32.8
EL1	368.1	EL2	135.1	ALF	108.27

LAUNCH DATE SEP 21 1970 FLIGHT TIME 74.00 ARRIVAL DATE DEC 4 1970

HELIOCENTRIC CONIC DISTANCE 198.009

RL	150.20	LAL	-.00	LOL	357.60	VL	26.860	GAL	-8.59	AZL	89.46	HCA	87.97	SMA	126.91	ECC	.23499	INC	.5412
RP	107.69	LAP	.54	LOP	85.57	VP	37.669	GAP	-10.48	AZP	89.98	TAL	210.86	TAP	298.84	RCA	97.09	APO	156.73
RC	50.451	GL	3.06	GP	-17.29	ZAL	138.57	ZAP	22.74	ETS	44.43	ZAE	145.68	ETE	331.12	ZAC	84.74	ETC	261.77

V1 29.666 V2 35.188 CLP -15.00

PLANETOCENTRIC CONIC

C3	22.155	VHL	4.707	DLA	-11.58	RAL	217.55	RAD	6567.9	VEL	11.981	PTH	2.14	VHP	7.242	DPA	-38.58	RAP	244.68

ECC 1.3646

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 23 24	1871.15	-10.03	20.80	79.06	116.62	3 54 35	1271.1	-6.37	14.02
90.00	12 23 5	5250.80	26.75	236.84	84.51	80.36	13 50 35	4650.8	25.15	228.54
100.00	4 38 53	1627.62	-11.15	2.31	78.48	117.92	5 6 0	1027.6	-7.32	355.60
100.00	13 50 17	4969.56	27.99	215.90	84.26	79.05	15 13 6	4369.6	26.19	207.56
110.00	5 33 52	1455.41	-14.07	347.53	76.77	121.48	5 58 8	855.4	-9.80	341.03
110.00	15 11 47	4714.53	31.27	195.68	83.40	75.44	16 30 21	4114.5	28.96	187.24

DIFFERENTIAL CORRECTIONS

TDE	.0852	TRA	-.3294	TC3	.5661	BAU	.1953
RDE	-.2734	RRA	-.1372	RC3	-.3382	FAU	.04306
FDE	.2970	FRA	-.1561	FC3	-1.6825	BSP	1943
BDE	.2864	BRA	.3569	BC3	.6594	FSP	-363

MID-COURSE EXECUTION ACCURACY

SGT	679.9	SGR	491.1	SG3	141.4		
RRT	-.4023	RRF	.5189	RTF	-.6536		
SGB	838.7	R23	-.0965	R13	.7043		
SG1	725.1	SG2	421.6	THA	154.72		

ORBIT DETERMINATION ACCURACY

ST	161.5	SR	336.9	SS	231.1
CRT	-.5216	CRS	.9398	CST	-.7356
LSA	415.7	MSA	137.6	SSA	34.6
EL1	349.1	EL2	133.0	ALF	106.50

LAUNCH DATE SEP 21 1970 FLIGHT TIME 76.00 ARRIVAL DATE DEC 6 1970

HELIOCENTRIC CONIC DISTANCE 204.807

RL	150.20	LAL	-.00	LOL	357.60	VL	27.001	GAL	-8.56	AZL	89.27	HCA	91.21	SMA	127.83	ECC	.22822	INC	.7291
RP	107.67	LAP	.73	LOP	88.80	VP	37.778	GAP	-9.61	AZP	90.02	TAL	212.15	TAP	303.35	RCA	98.66	APO	157.01
RC	52.096	GL	4.21	GP	-18.52	ZAL	139.85	ZAP	25.54	ETS	40.94	ZAE	144.91	ETE	329.00	ZAC	83.55	ETC	261.81

V1 29.666 V2 35.198 CLP -17.91

PLANETOCENTRIC CONIC

C3	21.419	VHL	4.628	DLA	-10.05	RAL	216.60	RAD	6567.9	VEL	11.950	PTH	2.13	VHP	6.815	DPA	-39.84	RAP	244.70

ECC 1.3525

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 7 2	1913.73	-11.32	23.26	77.60	116.13	3 38 56	1313.7	-7.71	16.44
90.00	12 31 52	5191.90	26.01	232.68	82.31	78.40	13 58 23	4591.9	24.15	224.51
100.00	4 23 24	1667.34	-12.40	4.59	77.04	117.42	4 51 11	1067.3	-8.63	357.83
100.00	13 58 10	4913.53	27.20	211.92	82.02	77.10	15 20 4	4313.5	25.15	203.72
110.00	5 20 21	1489.00	-15.26	349.41	75.40	120.97	5 45 10	889.0	-11.04	342.85
110.00	15 17 42	4664.63	30.36	192.08	81.08	73.49	16 35 27	4064.6	27.80	183.82

DIFFERENTIAL CORRECTIONS

TDE	.0719	TRA	-.3178	TC3	.5946	BAU	.2040
RDE	-.2526	RRA	-.1456	RC3	-.3922	FAU	.04712
FDE	.3723	FRA	-.1969	FC3	-1.9046	BSP	2023
BDE	.2626	BRA	.3496	BC3	.7123	FSP	-415

MID-COURSE EXECUTION ACCURACY

SGT	685.9	SGR	512.9	SG3	158.9		
RRT	-.4391	RRF	.5738	RTF	-.6583		
SGB	856.4	R23	-.1113	R13	.7221		
SG1	743.5	SG2	425.1	THA	151.94		

ORBIT DETERMINATION ACCURACY

ST	150.2	SR	317.6	SS	276.6
CRT	-.4490	CRS	.9344	CST	-.6951
LSA	423.8	MSA	138.3	SSA	35.9
EL1	326.1	EL2	130.7	ALF	104.34

LAUNCH DATE SEP 21 1970 FLIGHT TIME 78.00 ARRIVAL DATE DEC 8 1970

HELIOCENTRIC CONIC DISTANCE 211.587

RL	150.20	LAL	-.00	LOL	357.60	VL	27.125	GAL	-8.54	AZL	89.08	HCA	94.44	SMA	128.67	ECC	.22253	INC	.9177	V1	29.666
RP	107.64	LAP	.92	LOP	92.04	VP	37.874	GAP	-8.79	AZP	90.07	TAL	213.36	TAP	307.80	RCA	100.06	APO	157.27	V2	35.206
RC	53.818	GL	5.40	GP	-19.86	ZAL	140.98	ZAP	28.57	ETS	37.97	ZAE	144.29	ETE	326.56	ZAC	82.22	ETC	261.80	CLP	-20.97

PLANETOCENTRIC CONIC

C3	20.834	VHL	4.564	DLA	-8.52	RAL	215.78	RAD	6567.8	VEL	11.925	PTH	2.12	VHP	6.419	DPA	-41.19	RAP	244.49	ECC	1.3429

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 51 34	1956.83	-12.60	25.78	76.43	115.57	3 24 11	1356.8	-9.05	18.90
90.00	12 40 50	5135.49	25.18	220.76	80.40	76.60	14 6 25	4535.5	23.09	220.72
100.00	4 8 47	1707.75	-13.66	6.93	75.89	116.85	4 37 15	1107.7	-9.95	.11
100.00	14 6 19	4859.80	26.33	208.17	80.09	75.31	15 27 18	4259.8	24.05	200.11
110.00	5 7 36	1523.57	-16.46	351.37	74.31	120.39	5 33 0	923.6	-12.30	344.73
110.00	15 23 59	4616.74	29.39	188.69	79.06	71.70	16 40 55	4016.7	26.61	180.61

DIFFERENTIAL CORRECTIONS

TDE	.0595	TRA	-.3081	TC3	.6143	BAU	.2124	SGT	687.7	SGR	540.2	SG3	178.3	ST	140.0	SR	294.2	SS	325.6
RDE	-.2294	RRA	-.1547	RC3	-.4521	FAU	.05161	RRT	-.4740	RRF	.6297	RTF	-.6589	CRT	-.3581	CRS	.9263	CST	-.6420
FDE	.4595	FRA	-.2412	FC3	-2.1446	BSP	2106	SGB	874.5	R23	-.1265	R13	.7403	LSA	437.4	MSA	139.4	SSA	36.5
BDE	.2369	BRA	.3447	BC3	.7627	FSP	-475	SG1	761.8	SG2	429.3	THA	148.61	EL1	299.4	EL2	128.4	ALF	101.89

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE SEP 21 1970 FLIGHT TIME 80.00 ARRIVAL DATE DEC 10 1970

HELIOCENTRIC CONIC DISTANCE 218.347

RL	150.20	LAL	-.00	LOL	357.60	VL	27.234	GAL	-8.52	AZL	88.89	HCA	97.67	SMA	129.41	ECC	.21723	INC	1.1080	V1	29.666
RP	107.61	LAP	1.10	LOP	95.27	VP	37.960	GAP	-8.00	AZP	90.15	TAL	214.48	TAP	312.15	RCA	101.30	APO	157.52	V2	35.214
RC	55.612	GL	6.63	GP	-21.34	ZAL	141.93	ZAP	31.83	ETS	35.38	ZAE	143.79	ETE	323.76	ZAC	80.75	ETC	261.75	CLP	-24.20

PLANETOCENTRIC CONIC

C3	20.373	VHL	4.514	DLA	-7.00	RAL	215.11	RAD	6567.8	VEL	11.906	PTH	2.12	VHP	6.055	DPA	-42.62	RAP	244.01	ECC	1.3353

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 37 2	2000.27	-13.86	28.35	75.53	114.94	3 10 22	1400.3	-10.38	21.39
90.00	12 50 3	5081.35	24.28	225.06	78.78	74.96	14 14 44	4481.3	21.98	217.14
100.00	3 55 1	1748.64	-14.90	9.33	75.01	116.22	4 24 10	1148.6	-11.26	2.44
100.00	14 14 44	4808.20	25.39	204.62	78.44	73.67	15 34 52	4208.2	22.91	196.70
110.00	4 55 38	1558.90	-17.66	353.40	73.48	119.75	5 21 36	958.9	-13.57	346.68
110.00	15 30 37	4570.71	28.36	185.50	77.35	70.07	16 46 48	3970.7	25.38	177.59

DIFFERENTIAL CORRECTIONS

TDE	.0478	TRA	-.3010	TC3	.6224	BAU	.2205	SGT	683.8	SGR	573.8	SG3	199.5	ST	131.5	SR	265.8	SS	378.3
RDE	-.2031	RRA	-.1645	RC3	-.5179	FAU	.05647	RRT	-.5029	RRF	.6841	RTF	-.6536	CRT	-.2455	CRS	.9137	CST	-.5763
FDE	.5607	FRA	-.2877	FC3	-2.3995	BSP	2183	SGB	892.7	R23	-.1416	R13	.7591	LSA	458.2	MSA	141.0	SSA	36.3
BDE	.2087	BRA	.3430	BC3	.8097	FSP	-541	SG1	779.5	SG2	435.1	THA	144.65	EL1	268.3	EL2	126.3	ALF	98.92

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE SEP 21 1970 FLIGHT TIME 82.00 ARRIVAL DATE DEC 12 1970

HELIOCENTRIC CONIC DISTANCE 225.085

RL	150.20	LAL	-.00	LOL	357.60	VL	27.328	GAL	-8.50	AZL	88.70	HCA	100.91	SMA	130.06	ECC	.21282	INC	1.3014	V1	29.666
RP	107.59	LAP	1.28	LOP	98.51	VP	38.035	GAP	-7.25	AZP	90.25	TAL	215.50	TAP	316.41	RCA	102.38	APO	157.74	V2	35.222
RC	57.489	GL	7.89	GP	-22.95	ZAL	142.69	ZAP	35.33	ETS	33.04	ZAE	143.37	ETE	320.55	ZAC	79.12	ETC	261.65	CLP	-27.62

PLANETOCENTRIC CONIC

C3	20.017	VHL	4.474	DLA	-5.48	RAL	214.59	RAD	6567.8	VEL	11.891	PTH	2.11	VHP	5.723	DPA	-44.14	RAP	243.22	ECC	1.3294

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 23 21	2043.98	-15.10	30.96	74.89	114.24	2 57 25	1444.0	-11.70	23.93
90.00	12 59 35	5029.22	23.31	221.54	77.43	73.45	14 23 23	4429.2	20.82	213.75
100.00	3 42 6	1789.93	-16.13	11.78	74.40	115.52	4 11 56	1189.9	-12.56	4.81
100.00	14 23 29	4758.51	24.39	201.27	77.07	72.17	15 42 48	4158.5	21.73	193.48
110.00	4 44 25	1594.83	-18.86	355.50	72.92	119.05	5 11 0	994.8	-14.85	348.68
110.00	15 37 40	4526.37	27.29	182.49	75.92	68.57	16 53 6	3926.4	24.14	174.75

DIFFERENTIAL CORRECTIONS

TDE	.0382	TRA	-.2970	TC3	.6177	BAU	.2286	SGT	673.7	SGR	615.3	SG3	222.5	ST	125.7	SR	232.4	SS	434.4
RDE	-.1732	RRA	-.1748	RC3	-.5901	FAU	.06166	RRT	-.5230	RRF	.7354	RTF	-.6408	CRT	-.1158	CRS	.8925	CST	-.5074
FDE	.6761	FRA	-.3355	FC3	-2.6668	BSP	2261	SGB	912.4	R23	-.1542	R13	.7794	LSA	486.7	MSA	142.4	SSA	35.5
BDE	.1773	BRA	.3446	BC3	.8543	FSP	-613	SG1	797.7	SG2	443.0	THA	139.92	EL1	233.0	EL2	124.5	ALF	95.03

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE SEP 21 1970 FLIGHT TIME 84.00 ARRIVAL DATE DEC 14 1970

HELIOCENTRIC CONIC DISTANCE 231.798

RL	150.20	LAL	-.00	LOL	357.60	VL	27.410	GAL	-8.48	AZL	88.50	HCA	104.14	SMA	130.64	ECC	.20901	INC	1.4991	V1	29.666
RP	107.57	LAP	1.45	LOP	101.74	VP	38.100	GAP	-6.52	AZP	90.37	TAL	216.41	TAP	320.55	RCA	103.33	APO	157.94	V2	35.229
RC	59.382	GL	9.18	GP	-24.71	ZAL	143.27	ZAP	39.05	ETS	30.85	ZAE	143.00	ETE	316.89	ZAC	77.34	ETC	261.49	CLP	-31.26

PLANETOCENTRIC CONIC

C3	19.749	VHL	4.444	DLA	-3.97	RAL	214.22	RAD	6567.8	VEL	11.880	PTH	2.11	VHP	5.424	DPA	-45.74	RAP	242.08	ECC	1.3250

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 10 29	2087.98	-16.31	33.62	74.51	113.47	2 45 17	1488.0	-13.00	26.51
90.00	13 9 26	4978.80	22.29	218.20	76.35	72.07	14 32 24	4378.8	19.63	210.53
100.00	3 29 58	1831.59	-17.33	14.29	74.04	114.74	4 0 30	1231.6	-13.85	7.23
100.00	14 32 38	4710.43	23.35	198.07	75.96	70.79	15 51 8	4110.4	20.52	190.42
110.00	4 33 57	1631.31	-20.05	357.66	72.60	118.28	5 1 8	1031.3	-16.12	350.74
110.00	15 45 9	4483.48	26.20	179.64	74.76	67.21	16 59 52	3883.5	22.88	172.05

DIFFERENTIAL CORRECTIONS

TDE	.0315	TRA	-.2963	TC3	.5987	BAU	.2370	SGT	656.9	SGR	665.6	SG3	246.9	ST	122.9	SR	193.7	SS	493.5
RDE	-.1388	RRA	-.1856	RC3	-.6689	FAU	.06711	RRT	-.5301	RRF	.7821	RTF	-.6179	CRT	.0296	CRS	.8527	CST	-.4489
FDE	.8063	FRA	-.3832	FC3	-2.9420	BSP	2344	SGB	935.2	R23	-.1609	R13	.8020	LSA	523.9	MSA	143.5	SSA	34.2
BDE	.1423	BRA	.3496	BC3	.8977	FSP	-690	SG1	818.0	SG2	453.2	THA	134.28	EL1	193.8	EL2	122.8	ALF	88.20

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

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LAUNCH DATE  SEP 21 1970                          FLIGHT TIME  86.00                          ARRIVAL DATE  DEC 16 1970

 HELIOCENTRIC CONIC                                DISTANCE 238.486
  RL  150.20 LAL   -.00 LOL 357.60 VL  27.480 GAL  -8.46 AZL  88.30 HCA 107.38 SMA 131.13 ECC .20574 INC 1.7025 V1  29.666
  RP  107.55 LAP   1.62 LOP 104.98 VP  38.156 GAP  -5.83 AZP  90.51 TAL 217.20 TAP 324.57 RCA 104.15 APO 158.11 V2  35.235
  RC  61.346 GL   10.52 GP  -26.61 ZAL 143.65 ZAP  43.01 ETS  28.73 ZAE 142.61 ETE 312.74 ZAC  75.40 ETC 261.26 CLP -35.12
 PLANETOCENTRIC CONIC
  C3  19.555 VHL  4.422 DLA  -2.47 RAL 213.99 RAD 6567.8 VEL 11.872 PTH   2.11 VHP  5.158 DPA -47.42 RAP 240.54 ECC 1.3218
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     90.00     1 58 22   2132.39     -17.49      36.34      74.38      112.63    2 33 55     1532.4     -14.28      29.14
     90.00    13 19 44   4929.73      21.23     214.99      75.52       70.81   14 41 53     4329.7      18.42     207.45
    100.00     3 18 34   1873.71     -18.51      16.86      73.92      113.90    3 49 48     1273.7     -15.13       9.70
    100.00    14 42 13   4663.64      22.27     195.02      75.12       69.53   15 59 57     4063.6      19.29     187.50
    110.00     4 24 10   1668.35     -21.23     359.88      72.53      117.44    4 51 58     1068.3     -17.39     352.86
    110.00    15 53  7   4441.77      25.07     176.93      73.87       65.96   17  7  8     3841.8      21.60     169.49
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE  .0290 TRA -.2993 TC3  .5638 BAU  .2462      SGT  635.0 SGR  725.6 SG3  272.2            ST   123.3 SR   151.1 SS   555.2
  RDE -.0994 RRA -.1966 RC3 -.7542 FAU .07269      RRT -.5191 RRF  .8231 RTF -.5802            CRT  .2026 CRS  .7656 CST -.4193
  FDE  .9505 FRA -.4284 FC3-3.2180 BSP   2438      SGB  962.9 R23 -.1579 R13  .8274            LSA  569.6 MSA  144.1 SSA   32.6
  BDE  .1035 BRA  .3581 BC3  .9416 FSP   -772      SG1  842.7 SG2  465.9 THA 127.61            EL1  156.1 EL2  116.8 ALF  67.65

LAUNCH DATE  SEP 21 1970                          FLIGHT TIME  88.00                          ARRIVAL DATE  DEC 18 1970

 HELIOCENTRIC CONIC                                DISTANCE 245.146
  RL  150.20 LAL   -.00 LOL 357.60 VL  27.539 GAL  -8.44 AZL  88.09 HCA 110.62 SMA 131.55 ECC .20292 INC 1.9133 V1  29.666
  RP  107.53 LAP   1.79 LOP 108.23 VP  38.203 GAP  -5.17 AZP  90.67 TAL 217.86 TAP 328.48 RCA 104.86 APO 158.24 V2  35.240
  RC  63.355 GL   11.91 GP  -28.64 ZAL 143.83 ZAP  47.17 ETS  26.60 ZAE 142.15 ETE 308.12 ZAC  73.31 ETC 260.97 CLP -39.23
 PLANETOCENTRIC CONIC
  C3  19.426 VHL  4.408 DLA   -.97 RAL 213.91 RAD 6567.8 VEL 11.866 PTH   2.11 VHP  4.926 DPA -49.14 RAP 238.55 ECC 1.3197
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     90.00     1 46 56   2177.35     -18.65      39.14      74.50      111.70    2 23 13     1577.4     -15.54      31.84
     90.00    13 30 33   4881.63      20.12     211.90      74.94       69.64   14 51 55     4281.6      17.17     204.47
    100.00     3  7 49   1916.42     -19.67      19.51      74.05      112.97    3 39 46     1316.4     -16.39      12.25
    100.00    14 52 21   4617.79      21.15     192.07      74.52       68.37   16  9 19     4017.8      18.03     184.67
    110.00     4 15  2   1706.04     -22.40       2.19      72.71      116.52    4 43 28     1106.0     -18.65     355.05
    110.00    16  1 38   4400.93      23.91     174.32      73.23       64.81   17 14 59     3800.9      20.32     167.02
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE  .0254 TRA -.3132 TC3  .4977 BAU  .2534      SGT  599.4 SGR  788.7 SG3  296.3            ST   127.2 SR   106.0 SS   626.3
  RDE -.0510 RRA -.2042 RC3 -.8391 FAU .07757      RRT -.4624 RRF  .8556 RTF -.5099            CRT  .5375 CRS  .5166 CST -.3661
  FDE 1.1215 FRA -.4544 FC3-3.4567 BSP   2403      SGB  990.6 R23 -.1365 R13  .8544            LSA  630.5 MSA  146.1 SSA   30.0
  BDE  .0570 BRA  .3739 BC3  .9756 FSP   -825      SG1  863.5 SG2  485.4 THA 119.50            EL1  146.2 EL2   77.8 ALF  35.59

LAUNCH DATE  SEP 21 1970                          FLIGHT TIME  90.00                          ARRIVAL DATE  DEC 20 1970

 HELIOCENTRIC CONIC                                DISTANCE 251.778
  RL  150.20 LAL   -.00 LOL 357.60 VL  27.587 GAL  -8.41 AZL  87.87 HCA 113.86 SMA 131.90 ECC .20049 INC 2.1334 V1  29.666
  RP  107.52 LAP   1.95 LOP 111.47 VP  38.243 GAP  -4.53 AZP  90.86 TAL 218.41 TAP 332.26 RCA 105.46 APO 158.35 V2  35.245
  RC  65.403 GL   13.35 GP  -30.80 ZAL 143.82 ZAP  51.54 ETS  24.38 ZAE 141.55 ETE 303.02 ZAC  71.07 ETC 260.59 CLP -43.60
 PLANETOCENTRIC CONIC
  C3  19.358 VHL  4.400 DLA    .54 RAL 213.98 RAD 6567.8 VEL 11.863 PTH   2.10 VHP  4.729 DPA -50.89 RAP 236.06 ECC 1.3186
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     90.00     1 36  1   2223.25     -19.78      42.03      74.85      110.69    2 13  4     1623.2     -16.79      34.63
     90.00    13 41 59   4834.08      18.97     208.89      74.60       68.57   15  2 33     4234.1      15.89     201.56
    100.00     2 57 36   1960.06     -20.80      22.25      74.42      111.96    3 30 17     1360.1     -17.64      14.88
    100.00    15  3  5   4572.50      19.99     189.21      74.16       67.30   16 19 17     3972.5      16.74     181.93
    110.00     4  6 25   1744.66     -23.55       4.59      73.11      115.52    4 35 30     1144.7     -19.92     357.33
    110.00    16 10 45   4360.66      22.72     171.80      72.83       63.74   17 23 26     3760.7      19.01     164.63
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE  .0409 TRA -.3192 TC3  .4378 BAU  .2683      SGT  569.2 SGR  873.7 SG3  322.5            ST   136.1 SR    88.2 SS   684.6
  RDE -.0022 RRA -.2166 RC3 -.9397 FAU .08331      RRT -.4050 RRF  .8861 RTF -.4258            CRT  .8424 CRS -.0960 CST -.4894
  FDE 1.2757 FRA -.4987 FC3-3.7257 BSP   2670      SGB 1042.8 R23 -.1107 R13  .8822            LSA  688.0 MSA  144.2 SSA   28.8
  BDE  .0409 BRA  .3858 BC3 1.0366 FSP   -932      SG1  917.4 SG2  495.6 THA 111.26            EL1  156.9 EL2   41.2 ALF  31.03

LAUNCH DATE  SEP 21 1970                          FLIGHT TIME  92.00                          ARRIVAL DATE  DEC 22 1970

 HELIOCENTRIC CONIC                                DISTANCE 258.381
  RL  150.20 LAL   -.00 LOL 357.60 VL  27.626 GAL  -8.37 AZL  87.64 HCA 117.09 SMA 132.18 ECC .19841 INC 2.3648 V1  29.666
  RP  107.51 LAP   2.11 LOP 114.71 VP  38.275 GAP  -3.92 AZP  91.08 TAL 218.83 TAP 335.92 RCA 105.96 APO 158.41 V2  35.249
  RC  67.486 GL   14.86 GP  -33.06 ZAL 143.60 ZAP  56.06 ETS  22.02 ZAE 140.75 ETE 297.52 ZAC  68.70 ETC 260.13 CLP -48.23
 PLANETOCENTRIC CONIC
  C3  19.346 VHL  4.398 DLA   2.06 RAL 214.19 RAD 6567.8 VEL 11.863 PTH   2.10 VHP  4.567 DPA -52.62 RAP 233.05 ECC 1.3184
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     90.00     1 25 33   2270.38     -20.88      45.05      75.44      109.57    2  3 23     1670.4     -18.02      37.54
     90.00    13 54  9   4786.63      17.76     205.93      74.49       67.58   15 13 55     4186.6      14.57     198.71
    100.00     2 47 51   2004.91     -21.92      25.11      75.03      110.85    3 21 16     1404.9     -18.89      17.63
    100.00    15 14 32   4527.34      18.78     186.41      74.04       66.30   16 29 59     3927.3      15.41     179.23
    110.00     3 58 18   1784.41     -24.69       7.12      73.77      114.42    4 28  2     1184.4     -21.19     359.72
    110.00    16 20 34   4320.60      21.49     169.34      72.66       62.75   17 32 35     3720.6      17.67     162.29
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE  .0610 TRA -.3338 TC3  .3498 BAU  .2837      SGT  538.8 SGR  963.2 SG3  345.9            ST   153.1 SR   116.8 SS   747.0
  RDE  .0548 RRA -.2257 RC3-1.0395 FAU .08812      RRT -.2846 RRF  .9094 RTF -.2880            CRT  .9474 CRS -.7017 CST -.6039
  FDE 1.4424 FRA -.5234 FC3-3.9433 BSP   2886      SGB 1103.7 R23 -.0729 R13  .9070            LSA  757.5 MSA  143.2 SSA   27.1
  BDE  .0820 BRA  .4029 BC3 1.0968 FSP   -1017     SG1  980.0 SG2  507.7 THA 102.43            EL1  190.2 EL2   30.1 ALF  36.94
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LAUNCH DATE SEP 21 1970 FLIGHT TIME 94.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 264.954

RL	150.20	LAL	-.00	LOL	357.60	VL	27.657	GAL	-8.33	AZL	87.39	HCA	120.33	SMA	132.41	ECC	.19662	INC	2.6101	V1	29.666
RP	107.50	LAP	2.25	LOP	117.96	VP	38.300	GAP	-3.33	AZP	91.32	TAL	219.13	TAP	339.46	RCA	106.37	APO	158.44	V2	35.253
RC	69.600	GL	16.44	GP	-35.40	ZAL	143.19	ZAP	60.71	ETS	19.45	ZAE	139.69	ETE	291.70	ZAC	66.23	ETC	259.58	CLP	-53.12

PLANETOCENTRIC CONIC

C3	19.388	VHL	4.403	DLA	3.62	RAL	214.55	RAD	6567.8	VEL	11.865	PTH	2.10	VHP	4.442	DPA	-54.31	RAP	229.50	ECC	1.3191

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 15 24	2319.24	-21.96	48.22	76.27	108.34	1 54 3	1719.2	-19.25	40.60
90.00	14 7 10	4738.81	16.49	202.99	74.62	66.65	15 26 8	4138.8	13.19	195.87
100.00	2 38 26	2051.42	-23.01	28.13	75.88	109.62	3 12 37	1451.4	-20.13	20.53
100.00	15 26 49	4481.86	17.51	183.62	74.14	65.38	16 41 31	3881.9	14.04	176.55
110.00	3 50 33	1825.68	-25.83	9.79	74.67	113.21	4 20 59	1225.7	-22.46	2.25
110.00	16 31 11	4280.36	20.22	166.91	72.72	61.83	17 42 31	3680.4	16.29	159.98

DIFFERENTIAL CORRECTIONS

TDE	.0907	TRA	-.3537	TC3	.2397	BAU	.3013
RDE	.1190	RRA	-.2316	RC3	-1.1373	FAU	.09189
FDE	1.6107	FRA	-.5313	FC3	-4.1031	BSP	3124
BDE	.1496	BRA	.4228	BC3	1.1623	FSP	-1087

MID-COURSE EXECUTION ACCURACY

SGT	520.8	SGR	1057.5	SG3	365.8		
RRT	-.0979	RRF	.9274	RTF	-.0889		
SGB	1178.8	R23	-.0306	R13	.9269		
SG1	1059.1	SG2	517.5	THA	93.63		

ORBIT DETERMINATION ACCURACY

ST	182.0	SR	181.9	SS	809.4
CRT	.9251	CRS	-.9036	CST	-.7178
LSA	836.9	MSA	142.4	SSA	25.2
EL1	252.4	EL2	49.8	ALF	44.98

LAUNCH DATE SEP 21 1970 FLIGHT TIME 96.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 271.498

RL	150.20	LAL	-.00	LOL	357.60	VL	27.679	GAL	-8.28	AZL	87.13	HCA	123.57	SMA	132.57	ECC	.19507	INC	2.8722	V1	29.666
RP	107.49	LAP	2.39	LOP	121.21	VP	38.319	GAP	-2.77	AZP	91.59	TAL	219.31	TAP	342.89	RCA	106.71	APO	158.43	V2	35.255
RC	71.740	GL	18.11	GP	-37.80	ZAL	142.56	ZAP	65.42	ETS	16.84	ZAE	138.34	ETE	285.70	ZAC	63.68	ETC	258.94	CLP	-58.24

PLANETOCENTRIC CONIC

C3	19.489	VHL	4.415	DLA	5.21	RAL	215.05	RAD	6567.8	VEL	11.869	PTH	2.11	VHP	4.354	DPA	-55.91	RAP	225.41	ECC	1.3207

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 5 24	2370.44	-23.02	51.60	77.36	106.96	1 44 54	1770.4	-20.48	43.85
90.00	14 21 12	4890.07	15.15	200.04	74.98	65.79	15 39 22	4090.1	11.76	193.01
100.00	2 29 12	2100.15	-24.09	31.35	76.99	108.25	3 4 12	1500.2	-21.37	23.61
100.00	15 40 5	4435.60	16.17	180.84	74.49	64.51	16 54 0	3835.6	12.61	173.86
110.00	3 43 4	1868.94	-26.96	12.64	75.83	111.86	4 14 13	1268.9	-23.75	4.95
110.00	16 42 42	4239.57	18.89	164.49	73.02	60.96	17 53 21	3639.6	14.87	157.68

DIFFERENTIAL CORRECTIONS

TDE	.1328	TRA	-.3778	TC3	.1099	BAU	.3217
RDE	.1895	RRA	-.2332	RC3	-1.2297	FAU	.09439
FDE	1.7717	FRA	-.5203	FC3	-4.1927	BSP	3402
BDE	.2314	BRA	.4440	BC3	1.2346	FSP	-1140

MID-COURSE EXECUTION ACCURACY

SGT	530.7	SGR	1154.0	SG3	381.1		
RRT	.1417	RRF	.9413	RTF	.1586		
SGB	1270.2	R23	.0094	R13	.9416		
SG1	1157.1	SG2	523.9	THA	85.31		

ORBIT DETERMINATION ACCURACY

ST	227.1	SR	264.3	SS	869.4
CRT	.9294	CRS	-.9621	CST	-.8121
LSA	925.6	MSA	141.8	SSA	23.2
EL1	342.4	EL2	64.7	ALF	49.66

LAUNCH DATE SEP 21 1970 FLIGHT TIME 98.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 278.012

RL	150.20	LAL	-.00	LOL	357.60	VL	27.695	GAL	-8.23	AZL	86.85	HCA	126.81	SMA	132.68	ECC	.19374	INC	3.1549	V1	29.666
RP	107.48	LAP	2.53	LOP	124.45	VP	38.331	GAP	-2.23	AZP	91.89	TAL	219.38	TAP	346.19	RCA	106.98	APO	158.39	V2	35.257
RC	73.903	GL	19.89	GP	-40.21	ZAL	141.73	ZAP	70.13	ETS	13.56	ZAE	136.67	ETE	279.64	ZAC	61.08	ETC	258.22	CLP	-63.57

PLANETOCENTRIC CONIC

C3	19.656	VHL	4.433	DLA	6.87	RAL	215.71	RAD	6567.8	VEL	11.876	PTH	2.11	VHP	4.305	DPA	-57.37	RAP	220.85	ECC	1.3235

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 55 23	2424.72	-24.05	55.25	78.72	105.41	1 35 48	1824.7	-21.70	47.36
90.00	14 36 27	4639.83	13.73	197.04	75.59	64.99	15 53 47	4039.8	10.25	190.09
100.00	2 20 0	2151.79	-25.15	34.83	78.37	106.72	2 55 52	1551.8	-22.62	26.94
100.00	15 54 31	4388.00	14.76	178.01	75.08	63.71	17 7 39	3788.0	11.11	171.12
110.00	3 35 45	1914.75	-28.08	15.73	77.27	110.34	4 7 39	1314.8	-25.05	7.87
110.00	16 55 16	4197.80	17.49	162.06	73.57	60.15	18 5 14	3597.8	13.39	155.35

DIFFERENTIAL CORRECTIONS

TDE	.1864	TRA	-.4082	TC3	-.0444	BAU	.3421
RDE	.2711	RRA	-.2243	RC3	-1.3012	FAU	.09448
FDE	1.9372	FRA	-.4711	FC3	-4.1614	BSP	3610
BDE	.3290	BRA	.4658	BC3	1.3019	FSP	-1134

MID-COURSE EXECUTION ACCURACY

SGT	584.8	SGR	1240.6	SG3	388.9		
RRT	.3927	RRF	.9515	RTF	.4081		
SGB	1371.5	R23	.0518	R13	.9509		
SG1	1266.3	SG2	526.9	THA	77.27		

ORBIT DETERMINATION ACCURACY

ST	288.9	SR	362.8	SS	934.6
CRT	.9390	CRS	-.9841	CST	-.8715
LSA	1033.2	MSA	143.6	SSA	20.7
EL1	457.0	EL2	78.9	ALF	51.87

LAUNCH DATE SEP 21 1970 FLIGHT TIME 100.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 284.494

RL	150.20	LAL	-.00	LOL	357.60	VL	27.703	GAL	-8.16	AZL	86.54	HCA	130.05	SMA	132.75	ECC	.19259	INC	3.4625	V1	29.666
RP	107.48	LAP	2.65	LOP	127.70	VP	38.339	GAP	-1.71	AZP	92.23	TAL	219.34	TAP	349.39	RCA	107.18	APO	158.31	V2	35.258
RC	76.087	GL	21.79	GP	-42.61	ZAL	140.70	ZAP	74.77	ETS	10.19	ZAE	134.70	ETE	273.65	ZAC	58.47	ETC	257.41	CLP	-69.08

PLANETOCENTRIC CONIC

C3	19.904	VHL	4.461	DLA	8.60	RAL	216.52	RAD	6567.8	VEL	11.886	PTH	2.11	VHP	4.295	DPA	-58.68	RAP	215.87	ECC	1.3276

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 45 7	2483.06	-25.05	59.23	80.37	103.66	1 26 30	1883.1	-22.92	51.20
90.00	14 53 9	4587.46	12.20	193.95	76.47	64.25	16 9 37	3987.5	8.64	187.08
100.00	2 10 39	2207.25	-26.18	38.62	80.05	104.97	2 47 26	1607.2	-23.87	30.59
100.00	16 10 19	4338.51	13.25	175.11	75.94	62.96	17 22 38	3738.5	9.52	168.31
110.00	3 28 24	1983.09	-29.20	19.12	79.02	108.62	4 1 8	1363.9	-26.38	11.07
110.00	17 9 3	4154.82	16.01	159.59	74.37	59.39	18 18 18	3554.6	11.83	152.98

DIFFERENTIAL CORRECTIONS

TDE	.2649	TRA	-.4317	TC3	-.1936	BAU	.3718
RDE	.3436	RRA	-.2223	RC3	-1.3837	FAU	.09504
FDE	2.0337	FRA	-.4500	FC3	-4.1339	BSP	4158
BDE	.4338	BRA	.4856	BC3	1.3972	FSP	-1202

MID-COURSE EXECUTION ACCURACY

SGT	678.2	SGR	1342.6	SG3	393.7		
RRT	.5770	RRF	.9803	RTF	.5997		
SGB	1504.1	R23	.0676	R13	.9595		
SG1	1408.4	SG2	528.0	THA	70.98		

ORBIT DETERMINATION ACCURACY

ST	379.5	SR	451.2	SS	972.3
CRT	.9628	CRS	-.9912	CST	-.9238
LSA	1128.3	MSA	140.1	SSA	19.6
EL1	584.2	EL2	79.2	ALF	50.11

LAUNCH DATE SEP 21 1970 FLIGHT TIME 102.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 290.947

RL	150.20	LAL	-.00	LOL	357.60	VL	27.706	GAL	-8.09	AZL	86.20	HCA	133.29	SMA	132.77	ECC	.19160	INC	3.8009	V1	29.666
RP	107.48	LAP	2.77	LOP	130.95	VP	38.341	GAP	-1.21	AZP	92.61	TAL	219.19	TAP	352.48	RCA	107.33	APO	158.20	V2	35.259
RC	78.289	GL	23.83	GP	-44.99	ZAL	139.44	ZAP	79.25	ETS	6.53	ZAE	132.44	ETE	267.86	ZAC	55.86	ETC	256.53	CLP	-74.71

PLANETOCENTRIC CONIC

C3	20.250	VHL	4.500	DLA	10.42	RAL	217.49	RAD	6567.8	VEL	11.901	PTH	2.11	VHP	4.327	DPA	-59.82	RAP	210.58	ECC	1.3333

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 34 23	2546.60	-26.00	63.64	82.36	101.64	1 16 50	1946.6	-24.13	55.47
90.00	15 11 38	4532.12	10.54	190.73	77.66	63.57	16 27 10	3932.1	6.91	183.94
100.00	2 0 54	2267.55	-27.17	42.83	82.07	102.97	2 38 42	1667.5	-25.11	34.63
100.00	16 27 48	4286.41	11.61	172.11	77.10	62.26	17 39 14	3686.4	7.81	165.38
110.00	3 20 55	2017.20	-30.30	22.88	81.13	106.64	3 54 32	1417.2	-27.72	14.63
110.00	17 24 17	4109.52	14.43	157.05	75.46	58.67	18 32 47	3509.5	10.18	150.53

DIFFERENTIAL CORRECTIONS

TDE	.3582	TRA	-.4594	TC3	-.3599	BAU	.4001
RDE	.4251	RRA	-.2068	RC3	-1.4335	FAU	.09286
FDE	2.1248	FRA	-.3889	FC3	-3.9699	BSP	4604
BDE	.5559	BRA	.5038	BC3	1.4780	FSP	-1201

MID-COURSE EXECUTION ACCURACY

SGT	816.5	SGR	1424.5	SG3	389.6		
RRT	.7084	RRF	.9665	RTF	.7307		
SGB	1641.9	RZ3	.0882	R13	.9646		
SG1	1554.7	SG2	528.0	THA	64.79		

ORBIT DETERMINATION ACCURACY

ST	489.9	SR	548.5	SS	1013.7
CRT	.9734	CRS	-.9953	CST	-.9500
LSA	1244.4	MSA	139.7	SSA	17.8
EL1	730.6	EL2	84.2	ALF	48.32

LAUNCH DATE SEP 21 1970 FLIGHT TIME 104.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 297.371

RL	150.20	LAL	-.00	LOL	357.60	VL	27.703	GAL	-8.01	AZL	85.82	HCA	136.53	SMA	132.74	ECC	.19074	INC	4.1775	V1	29.666
RP	107.48	LAP	2.87	LOP	134.20	VP	38.338	GAP	-.73	AZP	93.03	TAL	218.94	TAP	355.47	RCA	107.42	APO	158.06	V2	35.258
RC	80.507	GL	26.04	GP	-47.35	ZAL	137.95	ZAP	83.50	ETS	2.59	ZAE	129.94	ETE	262.34	ZAC	53.26	ETC	255.59	CLP	-80.39

PLANETOCENTRIC CONIC

C3	20.722	VHL	4.552	DLA	12.36	RAL	218.63	RAD	6567.8	VEL	11.921	PTH	2.12	VHP	4.401	DPA	-60.82	RAP	205.10	ECC	1.3410

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 22 49	2616.86	-26.87	68.60	84.71	99.30	1 6 26	2016.9	-25.31	60.28
90.00	15 32 18	4472.88	8.73	187.32	79.18	62.96	16 46 51	3872.9	5.03	180.59
100.00	1 50 30	2334.09	-28.10	47.56	84.47	100.64	2 29 24	1734.1	-26.34	39.20
100.00	16 47 18	4230.89	9.84	168.94	78.59	61.63	17 57 49	3630.9	5.97	162.29
110.00	3 13 3	2075.80	-31.36	27.11	83.64	104.35	3 47 39	1475.8	-29.07	18.66
110.00	17 41 15	4061.94	12.73	154.41	76.88	58.00	18 48 57	3461.9	8.41	147.98

DIFFERENTIAL CORRECTIONS

TDE	.4727	TRA	-.4852	TC3	-.5274	BAU	.4293
RDE	.5099	RRA	-.1824	RC3	-1.4570	FAU	.08893
FDE	2.1876	FRA	-.3113	FC3	-3.7152	BSP	5068
BDE	.6945	BRA	.5184	BC3	1.5496	FSP	-1173

MID-COURSE EXECUTION ACCURACY

SGT	987.6	SGR	1491.7	SG3	378.4		
RRT	.7907	RRF	.9711	RTF	.8121		
SGB	1789.0	RZ3	.1053	R13	.9681		
SG1	1709.5	SG2	527.6	THA	59.11		

ORBIT DETERMINATION ACCURACY

ST	623.9	SR	645.6	SS	1048.7
CRT	.9802	CRS	-.9975	CST	-.9659
LSA	1373.4	MSA	139.8	SSA	16.0
EL1	893.4	EL2	89.3	ALF	46.00

LAUNCH DATE SEP 21 1970 FLIGHT TIME 106.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 303.765

RL	150.20	LAL	-.00	LOL	357.60	VL	27.695	GAL	-7.92	AZL	85.40	HCA	139.76	SMA	132.68	ECC	.18999	INC	4.6016	V1	29.666
RP	107.48	LAP	2.97	LOP	137.45	VP	38.331	GAP	-.26	AZP	93.52	TAL	218.60	TAP	358.36	RCA	107.48	APO	157.89	V2	35.257
RC	82.739	GL	28.43	GP	-49.68	ZAL	136.22	ZAP	87.45	ETS	358.39	ZAE	127.22	ETE	257.14	ZAC	50.68	ETC	254.58	CLP	-86.06

PLANETOCENTRIC CONIC

C3	21.363	VHL	4.622	DLA	14.44	RAL	219.95	RAD	6567.9	VEL	11.947	PTH	2.13	VHP	4.521	DPA	-61.71	RAP	199.50	ECC	1.3516

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 9 59	2695.89	-27.61	74.27	87.49	96.56	0 54 55	2095.9	-26.41	65.80
90.00	15 55 42	4408.47	6.72	183.66	81.12	62.43	17 9 10	3808.5	2.97	176.98
100.00	1 39 3	2408.67	-28.92	52.95	87.30	97.92	2 19 11	1808.7	-27.52	44.43
100.00	17 9 19	4170.93	7.88	165.57	80.49	61.07	18 18 50	3570.9	3.96	158.97
110.00	3 4 34	2141.09	-32.36	31.94	86.61	101.65	3 40 15	1541.1	-30.42	23.26
110.00	18 0 18	4011.27	10.88	151.64	78.67	57.39	19 7 9	3411.3	6.51	145.29

DIFFERENTIAL CORRECTIONS

TDE	.6112	TRA	-.5067	TC3	-.6874	BAU	.4576
RDE	.5953	RRA	-.1471	RC3	-1.4474	FAU	.08323
FDE	2.2241	FRA	-.2177	FC3	-3.3730	BSP	5506
BDE	.8532	BRA	.5276	BC3	1.6023	FSP	-1112

MID-COURSE EXECUTION ACCURACY

SGT	1182.6	SGR	1539.5	SG3	360.4		
RRT	.8412	RRF	.9746	RTF	.8617		
SGB	1941.3	RZ3	.1210	R13	.9701		
SG1	1868.4	SG2	526.9	THA	53.80		

ORBIT DETERMINATION ACCURACY

ST	782.4	SR	741.2	SS	1078.1
CRT	.9843	CRS	-.9987	CST	-.9756
LSA	1517.8	MSA	141.1	SSA	14.2
EL1	1073.5	EL2	95.3	ALF	43.42

LAUNCH DATE SEP 21 1970 FLIGHT TIME 108.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 310.128

RL	150.20	LAL	-.00	LOL	357.60	VL	27.682	GAL	-7.83	AZL	84.91	HCA	143.00	SMA	132.59	ECC	.18935	INC	5.0866	V1	29.666
RP	107.49	LAP	3.06	LOP	140.70	VP	38.321	GAP	.19	AZP	94.07	TAL	218.17	TAP	1.16	RCA	107.48	APO	157.70	V2	35.255
RC	84.985	GL	31.04	GP	-52.02	ZAL	134.23	ZAP	91.03	ETS	353.95	ZAE	124.33	ETE	252.30	ZAC	48.09	ETC	253.49	CLP	-91.68

PLANETOCENTRIC CONIC

C3	22.234	VHL	4.715	DLA	16.67	RAL	221.48	RAD	6567.9	VEL	11.984	PTH	2.14	VHP	4.692	DPA	-62.52	RAP	193.82	ECC	1.3659

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 51 15	2786.55	-28.14	80.84	90.74	93.30	24 37 42	2186.5	-27.39	72.26
90.00	16 22 39	4337.13	4.45	179.64	83.55	62.01	17 34 56	3737.1	.67	173.00
100.00	1 25 59	2493.76	-29.56	59.19	90.62	94.70	2 7 32	1893.8	-28.59	50.52
100.00	17 34 32	4105.15	5.70	161.91	82.87	60.61	18 42 57	3505.2	1.74	155.36
110.00	2 55 6	2214.91	-33.24	37.52	90.12	98.46	3 32 1	1614.9	-31.72	28.62
110.00	18 21 54	3956.76	8.87	148.71	80.93	56.85	19 27 51	3356.8	4.44	142.42

DIFFERENTIAL CORRECTIONS

TDE	.7763	TRA	-.5215	TC3	-.8307	BAU	.4887
RDE	.6743	RRA	-.1084	RC3	-1.4187	FAU	.07710
FDE	2.2125	FRA	-.1356	FC3	-3.0022	BSP	6099
BDE	1.0282	BRA	.5329	BC3	1.6440	FSP	-1069

MID-COURSE EXECUTION ACCURACY

SGT	1393.2	SGR	1575.0	SG3	337.7		
RRT	.8717	RRF	.9771	RTF	.8940		
SGB	2102.8	RZ3	.1309	R13	.9722		
SG1	2035.3	SG2	528.3	THA	49.01		

ORBIT DETERMINATION ACCURACY

ST	964.2	SR	821.3	SS	1090.6
CRT	.9875	CRS	-.9994	CST	-.9823
LSA	1665.5	MSA	140.7	SSA	12.7
EL1	1262.7	EL2	98.9	ALF	40.37

LAUNCH DATE SEP 21 1970 FLIGHT TIME 110.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 316.463

RL	150.20	LAL	-.00	LOL	357.60	VL	27.665	GAL	-7.72	AZL	84.35	HCA	146.23	SMA	132.47	ECC	.18880	INC	5.6500
RP	107.50	LAP	3.14	LOP	143.95	VP	38.306	GAP	.62	AZP	94.70	TAL	217.65	TAP	3.88	RCA	107.46	APO	157.48
RC	87.241	GL	33.89	GP	-54.42	ZAL	131.96	ZAP	94.18	ETS	349.27	ZAE	121.28	ETE	247.79	ZAC	45.46	ETC	252.30

PLANETOCENTRIC CONIC

C3	23.427	VHL	4.840	DLA	19.10	RAL	223.22	RAD	6568.0	VEL	12.033	PTH	2.15	VHP	4.922	DPA	-63.31	RAP	188.02

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 33 27	2893.09	-28.31	88.63	94.50	89.40	24 21 40	2293.1	-28.09	79.97
90.00	16 54 23	4256.01	1.85	175.10	86.63	61.74	18 5 19	3656.0	-1.95	168.48
100.00	1 10 29	2592.86	-29.88	66.54	94.50	90.84	1 53 42	1992.9	-29.44	57.76
100.00	18 3 58	4031.47	3.22	157.84	85.87	60.27	19 11 10	3431.5	-.76	151.31
110.00	2 44 12	2299.66	-33.90	44.05	94.27	94.65	3 22 31	1699.7	-32.89	34.96
110.00	18 46 45	3897.43	6.65	145.55	83.75	56.39	19 51 42	3297.4	2.18	139.31

DIFFERENTIAL CORRECTIONS

TDE	.9742	TRA	-.5268	TC3	-.9482	BAU	.5165
RDE	.7558	RRA	-.0581	RC3	-1.3492	FAU	.06954
FDE	2.1827	FRA	-.0421	FC3	-2.5699	BSP	6618
BDE	1.2330	BRA	.5300	BC3	1.6491	FSP	-990

MID-COURSE EXECUTION ACCURACY

SGT	1614.9	SGR	1584.8	SG3	309.9		
RRT	.8903	RRF	.9789	RTF	.9145		
SGB	2262.7	R23	.1420	R13	.9731		
SG1	2199.8	SG2	529.7	THA	44.39		

ORBIT DETERMINATION ACCURACY

ST	1170.4	SR	895.9	SS	1099.2		
CRT	.9892	CRS	-.9997	CST	-.9866		
LSA	1833.2	MSA	142.0	SSA	11.1		
EL1	1470.2	EL2	104.4	ALF	37.35		

LAUNCH DATE SEP 21 1970 FLIGHT TIME 112.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 322.768

RL	150.20	LAL	-.00	LOL	357.60	VL	27.644	GAL	-7.61	AZL	83.68	HCA	149.45	SMA	132.31	ECC	.18833	INC	6.3170
RP	107.51	LAP	3.21	LOP	147.20	VP	38.288	GAP	1.03	AZP	95.45	TAL	217.05	TAP	6.51	RCA	107.40	APO	157.23
RC	89.506	GL	37.01	GP	-56.92	ZAL	129.39	ZAP	96.85	ETS	344.34	ZAE	118.08	ETE	243.56	ZAC	42.74	ETC	250.97

PLANETOCENTRIC CONIC

C3	25.084	VHL	5.008	DLA	21.73	RAL	225.23	RAD	6568.0	VEL	12.102	PTH	2.17	VHP	5.222	DPA	-64.12	RAP	181.99

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 10 40	3022.82	-27.85	98.09	98.79	84.69	24 1 2	2422.8	-28.30	89.45
90.00	17 33 8	4159.81	-1.26	169.74	90.58	61.71	18 42 28	3559.8	-5.03	163.09
100.00	0 51 8	2711.55	-29.67	75.35	98.96	86.21	1 36 19	2111.5	-29.88	66.55
100.00	18 39 17	3946.32	.34	153.16	89.69	60.11	19 45 4	3346.3	-3.64	146.64
110.00	2 31 7	2398.71	-34.18	51.76	99.13	90.10	3 11 6	1798.7	-33.79	42.54
110.00	19 15 47	3831.92	4.17	142.10	87.31	56.04	20 19 39	3231.9	-.32	135.89

DIFFERENTIAL CORRECTIONS

TDE	1.2128	TRA	-.5195	TC3	-1.0296	BAU	.5417
RDE	.8352	RRA	.0042	RC3	-1.2446	FAU	.06126
FDE	2.1284	FRA	.0493	FC3	-2.1144	BSP	7132
BDE	1.4725	BRA	.5195	BC3	1.6153	FSP	-899

MID-COURSE EXECUTION ACCURACY

SGT	1843.3	SGR	1570.7	SG3	278.9		
RRT	.9008	RRF	.9797	RTF	.9284		
SGB	2421.8	R23	.1525	R13	.9735		
SG1	2362.6	SG2	532.2	THA	39.94		

ORBIT DETERMINATION ACCURACY

ST	1401.0	SR	956.2	SS	1099.0		
CRT	.9902	CRS	-.9999	CST	-.9895		
LSA	2015.9	MSA	144.0	SSA	9.7		
EL1	1692.6	EL2	110.5	ALF	34.22		

LAUNCH DATE SEP 21 1970 FLIGHT TIME 114.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 329.045

RL	150.20	LAL	-.00	LOL	357.60	VL	27.620	GAL	-7.48	AZL	82.88	HCA	152.68	SMA	132.14	ECC	.18792	INC	7.1248
RP	107.52	LAP	3.26	LOP	150.46	VP	38.267	GAP	1.43	AZP	96.34	TAL	216.38	TAP	9.05	RCA	107.31	APO	156.97
RC	91.778	GL	40.43	GP	-59.60	ZAL	126.49	ZAP	98.97	ETS	339.12	ZAE	114.71	ETE	239.54	ZAC	39.87	ETC	249.40

PLANETOCENTRIC CONIC

C3	27.434	VHL	5.238	DLA	24.58	RAL	227.52	RAD	6568.1	VEL	12.199	PTH	2.19	VHP	5.613	DPA	-64.95	RAP	175.53

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 38 21	3191.55	-26.20	110.15	103.46	78.86	23 31 32	2591.6	-27.48	101.71
90.00	18 23 48	4035.45	-5.25	162.78	95.80	62.13	19 31 4	3435.4	-8.94	156.04
100.00	0 25 3	2860.22	-28.51	86.24	103.93	80.60	1 12 43	2260.2	-29.51	77.58
100.00	19 23 43	3842.02	-3.20	147.44	94.67	60.26	20 27 45	3242.0	-7.13	140.86
110.00	2 14 43	2517.08	-33.81	60.98	104.73	84.66	2 56 40	1917.1	-34.18	51.76
110.00	19 50 32	3757.91	1.34	138.23	91.84	55.84	20 53 10	3157.9	-3.15	132.03

DIFFERENTIAL CORRECTIONS

TDE	1.5110	TRA	-.4897	TC3	-1.0589	BAU	.5572
RDE	.9196	RRA	.0901	RC3	-1.0894	FAU	.05172
FDE	2.0705	FRA	.1532	FC3	-1.6322	BSP	7369
BDE	1.7688	BRA	.4979	BC3	1.5192	FSP	-760

MID-COURSE EXECUTION ACCURACY

SGT	2075.9	SGR	1525.1	SG3	245.7		
RRT	.9048	RRF	.9798	RTF	.9370		
SGB	2575.9	R23	.1664	R13	.9728		
SG1	2519.8	SG2	534.9	THA	35.45		

ORBIT DETERMINATION ACCURACY

ST	1662.6	SR	1007.0	SS	1099.0		
CRT	.9903	CRS	-.9999	CST	-.9914		
LSA	2227.9	MSA	149.5	SSA	8.1		
EL1	1940.1	EL2	120.0	ALF	31.09		

LAUNCH DATE SEP 21 1970 FLIGHT TIME 116.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 335.288

RL	150.20	LAL	-.00	LOL	357.60	VL	27.593	GAL	-7.35	AZL	81.87	HCA	155.89	SMA	131.94	ECC	.18758	INC	8.1296
RP	107.53	LAP	3.31	LOP	153.71	VP	38.242	GAP	1.81	AZP	97.43	TAL	215.63	TAP	11.52	RCA	107.19	APO	156.69
RC	94.056	GL	44.15	GP	-62.54	ZAL	123.26	ZAP	100.52	ETS	333.49	ZAE	111.13	ETE	235.52	ZAC	36.76	ETC	247.45

PLANETOCENTRIC CONIC

C3	30.873	VHL	5.556	DLA	27.66	RAL	230.17	RAD	6568.2	VEL	12.339	PTH	2.22	VHP	6.126	DPA	-65.78	RAP	168.33

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	21 35 14	3468.57	-21.21	128.88	107.52	70.79	22 33 2	2868.6	-23.64	121.05
90.00	19 48 2	3817.49	-11.98	150.31	103.53	64.15	20 51 39	3217.5	-15.37	143.26
100.00	23 39 45	3067.14	-25.34	100.79	108.97	73.59	24 30 52	2467.1	-27.35	92.56
100.00	20 26 11	3694.15	-8.13	139.23	101.51	61.14	21 27 46	3094.2	-11.92	132.50
110.00	1 52 43	2663.35	-32.32	72.13	110.97	78.22	2 37 6	2063.4	-33.61	63.13
110.00	20 33 39	3670.70	-1.99	133.69	97.74	55.87	21 34 50	3070.7	-6.46	127.45

DIFFERENTIAL CORRECTIONS

TDE	1.8709	TRA	-.4465	TC3	-1.0483	BAU	.5796
RDE	.9692	RRA	.1681	RC3	-.9346	FAU	.04377
FDE	1.9583	FRA	.2102	FC3	-1.2275	BSP	8140
BDE	2.1070	BRA	.4771	BC3	1.4044	FSP	-696

MID-COURSE EXECUTION ACCURACY

SGT	2312.8	SGR	1454.6	SG3	211.6		
RRT	.9025	RRF	.9776	RTF	.9458		
SGB	2732.2	R23	.1720	R13	.9736		
SG1	2678.1	SG2	540.9	THA	30.98		

ORBIT DETERMINATION ACCURACY

ST	1935.8	SR	1001.7	SS	1069.8		
CRT	.9902	CRS	-.9997	CST	-.9932		
LSA	2423.4	MSA	149.9	SSA	7.0		
EL1	2176.1	EL2	124.2	ALF	27.23		

LAUNCH DATE SEP 21 1970 FLIGHT TIME 118.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 341.499

RL	150.20	LAL	-.00	LOL	357.60	VL	27.562	GAL	-7.20	AZL	80.58	HCA	159.10	SMA	131.72	ECC	.18729	INC	9.4220	V1	29.666
RP	107.55	LAP	3.35	LOP	156.95	VP	38.216	GAP	2.18	AZP	98.81	TAL	214.82	TAP	13.91	RCA	107.05	APO	156.39	V2	35.235
RC	96.339	GL	48.16	GP	-65.81	ZAL	119.67	ZAP	101.44	ETS	327.24	ZAE	107.28	ETE	231.23	ZAC	33.32	ETC	244.84	CLP	-118.95

PLANETOCENTRIC CONIC

C3	36.099	VHL	6.008	DLA	30.94	RAL	233.25	RAD	6568.4	VEL	12.549	PTH	2.27	VHP	6.816	DPA	-66.49	RAP	160.02	ECC	1.5941

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
76.99	19 10 21	4015.34	-17.22	167.51	112.12	63.90	20 17 17	3415.3	-20.59	160.25
103.01	22 37 26	3349.56	-17.21	118.37	112.11	63.89	23 33 16	2749.6	-20.58	111.12
76.99	19 10 21	4015.34	-17.22	167.51	112.12	63.90	20 17 17	3415.3	-20.59	160.25
103.01	22 37 26	3349.56	-17.21	118.37	112.11	63.89	23 33 16	2749.6	-20.58	111.12
110.00	1 19 19	2857.00	-28.77	86.08	117.35	70.69	2 6 56	2257.0	-31.13	77.67
110.00	21 31 34	3555.90	-6.36	127.66	105.75	56.34	22 30 50	2955.9	-10.74	121.31

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.3445	TRA	-.3622	TC3	-.9712	BAU	.5878	SGT	2554.0	SGR	1332.3	SG3	177.7	ST	2239.3	SR	954.1	SS	1040.6
RDE	.9955	RRA	.2752	RC3	-.7350	FAU	.03507	RRT	.8905	RRF	.9714	RTF	.9524	CRT	.9886	CRS	-.9990	CST	-.9944
FDE	1.8503	FRA	.2746	FC3	-.8411	BSP	8635	SGB	2880.6	RZ3	.1805	R13	.9736	LSA	2642.7	MSA	153.9	SSA	5.8
BDE	2.5471	BRA	.4549	BC3	1.2180	FSP	-591	SG1	2828.1	SG2	547.4	THA	25.96	EL1	2430.5	EL2	132.1	ALF	22.91

LAUNCH DATE SEP 21 1970 FLIGHT TIME 120.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 347.674

RL	150.20	LAL	-.00	LOL	357.60	VL	27.530	GAL	-7.04	AZL	78.84	HCA	162.29	SMA	131.49	ECC	.18704	INC	11.1569	V1	29.666
RP	107.57	LAP	3.37	LOP	160.20	VP	38.186	GAP	2.54	AZP	100.64	TAL	213.93	TAP	16.22	RCA	106.89	APO	156.08	V2	35.229
RC	98.624	GL	52.43	GP	-69.52	ZAL	115.72	ZAP	101.68	ETS	319.84	ZAE	103.06	ETE	226.05	ZAC	29.43	ETC	241.04	CLP	-125.36

PLANETOCENTRIC CONIC

C3	44.491	VHL	6.670	DLA	34.34	RAL	236.84	RAD	6568.7	VEL	12.878	PTH	2.35	VHP	7.776	DPA	-66.89	RAP	150.20	ECC	1.7322

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.70	18 36 57	4216.43	-17.18	182.88	119.96	59.80	19 47 13	3616.4	-21.07	175.89
110.30	23 39 33	3253.99	-17.17	111.04	119.95	59.79	24 33 47	2654.0	-21.05	104.05
69.70	18 36 57	4216.43	-17.18	182.88	119.96	59.80	19 47 13	3616.4	-21.07	175.89
110.30	23 39 33	3253.99	-17.17	111.04	119.95	59.79	24 33 47	2654.0	-21.05	104.05
69.70	18 36 57	4216.43	-17.18	182.88	119.96	59.80	19 47 13	3616.4	-21.07	175.89
110.30	23 39 33	3253.99	-17.17	111.04	119.95	59.79	24 33 47	2654.0	-21.05	104.05

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.9017	TRA	-.2183	TC3	-.8317	BAU	.5816	SGT	2800.5	SGR	1136.3	SG3	145.1	ST	2562.4	SR	812.6	SS	1004.4
RDE	.9342	RRA	.4046	RC3	-.5140	FAU	.02663	RRT	.8549	RRF	.9511	RTF	.9590	CRT	.9833	CRS	-.9961	CST	-.9955
FDE	1.7361	FRA	.3284	FC3	-.5182	BSP	9098	SGB	3022.3	RZ3	.1878	R13	.9739	LSA	2865.2	MSA	159.4	SSA	4.7
BDE	3.1247	BRA	.4597	BC3	.9778	FSP	-488	SG1	2970.7	SG2	555.8	THA	19.85	EL1	2684.4	EL2	141.2	ALF	17.37

LAUNCH DATE SEP 21 1970 FLIGHT TIME 122.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 353.802

RL	150.20	LAL	-.00	LOL	357.60	VL	27.495	GAL	-6.87	AZL	76.38	HCA	165.46	SMA	131.24	ECC	.18681	INC	13.6219	V1	29.666
RP	107.59	LAP	3.39	LOP	163.45	VP	38.155	GAP	2.87	AZP	103.20	TAL	212.97	TAP	18.43	RCA	106.72	APO	155.75	V2	35.222
RC	100.910	GL	56.79	GP	-73.74	ZAL	111.45	ZAP	101.21	ETS	310.03	ZAE	98.31	ETE	218.61	ZAC	24.90	ETC	234.80	CLP	-133.95

PLANETOCENTRIC CONIC

C3	59.039	VHL	7.684	DLA	37.71	RAL	241.10	RAD	6569.1	VEL	13.431	PTH	2.46	VHP	9.184	DPA	-66.59	RAP	138.73	ECC	1.9716

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.98	18 22 30	4380.34	-16.00	195.20	129.34	55.39	19 35 30	3780.3	-20.42	188.60
116.02	0 31 51	3230.61	-15.99	108.39	129.33	55.38	1 25 42	2630.6	-20.41	101.79
63.98	18 22 30	4380.34	-16.00	195.20	129.34	55.39	19 35 30	3780.3	-20.42	188.60
116.02	0 31 51	3230.61	-15.99	108.39	129.33	55.38	1 25 42	2630.6	-20.41	101.79
63.98	18 22 30	4380.34	-16.00	195.20	129.34	55.39	19 35 30	3780.3	-20.42	188.60
116.02	0 31 51	3230.61	-15.99	108.39	129.33	55.38	1 25 42	2630.6	-20.41	101.79

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	3.8689	TRA	.0362	TC3	-.6343	BAU	.5496	SGT	3045.4	SGR	825.6	SG3	115.1	ST	2885.1	SR	493.0	SS	967.0
RDE	.6272	RRA	.5492	RC3	-.2872	FAU	.01867	RRT	.7148	RRF	.8507	RTF	.9674	CRT	.9500	CRS	-.9726	CST	-.9965
FDE	1.6281	FRA	.3731	FC3	-.2738	BSP	9540	SGB	3155.3	RZ3	.1920	R13	.9751	LSA	3078.0	MSA	166.6	SSA	3.6
BDE	3.9194	BRA	.5504	BC3	.6963	FSP	-391	SG1	3104.0	SG2	566.4	THA	11.35	EL1	2923.0	EL2	151.9	ALF	9.25

LAUNCH DATE SEP 21 1970 FLIGHT TIME 124.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 359.868

RL	150.20	LAL	-.00	LOL	357.60	VL	27.458	GAL	-6.69	AZL	72.59	HCA	168.59	SMA	130.97	ECC	.18656	INC	17.4117	V1	29.666
RP	107.61	LAP	3.39	LOP	166.70	VP	38.121	GAP	3.19	AZP	107.09	TAL	211.93	TAP	20.52	RCA	106.54	APO	155.41	V2	35.215
RC	103.196	GL	60.90	GP	-78.36	ZAL	106.90	ZAP	100.00	ETS	294.22	ZAE	92.71	ETE	205.18	ZAC	19.44	ETC	222.85	CLP	-149.41

PLANETOCENTRIC CONIC

C3	87.224	VHL	9.339	DLA	40.66	RAL	246.14	RAD	6569.7	VEL	14.442	PTH	2.62	VHP	11.408	DPA	-64.97	RAP	125.99	ECC	2.4355

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.51	18 21 23	4532.60	-13.22	205.78	140.28	51.19	19 36 55	3932.6	-18.14	199.65
120.49	1 13 14	3261.52	-13.21	108.83	140.27	51.19	2 7 35	2661.5	-18.13	102.69
59.51	18 21 23	4532.60	-13.22	205.78	140.28	51.19	19 36 55	3932.6	-18.14	199.65
120.49	1 13 14	3261.52	-13.21	108.83	140.27	51.19	2 7 35	2661.5	-18.13	102.69
59.51	18 21 23	4532.60	-13.22	205.78	140.28	51.19	19 36 55	3932.6	-18.14	199.65
120.49	1 13 14	3261.52	-13.21	108.83	140.27	51.19	2 7 35	2661.5	-18.13	102.69

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	5.0660	TRA	.5312	TC3	-.3871	BAU	.4619	SGT	3220.2	SGR	590.0	SG3	89.2	ST	3111.2	SR	307.8	SS	944.8
RDE	-.4348	RRA	.6326	RC3	-.0841	FAU	.01112	RRT	-.2575	RRF	-.0785	RTF	.9798	CRT	-.8451	CRS	.8088	CST	-.9979
FDE	1.5536	FRA	.4191	FC3	-.1104	BSP	9917	SGB	3275.3	RZ3	-.1885	R13	-.9782	LSA	3261.3	MSA	175.5	SSA	2.6
BDE	5.0855	BRA	.8260	BC3	.3961	FSP	-303	SG1	3224.0	SG2	577.1	THA	177.17	EL1	3122.1	EL2	163.9	ALF	175.21

LAUNCH DATE SEP 21 1970 FLIGHT TIME 126.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 365.824

RL 150.20 LAL -.00 LOL 357.60 VL 27.419 GAL -6.47 AZL 66.04 HCA 171.63 SMA 130.70 ECC .18622 INC25.9553 V1 29.666
RP 107.64 LAP 3.39 LOP 169.94 VP 38.086 GAP 3.47 AZP 113.73 TAL 210.78 TAP 22.41 RCA 106.36 APO 155.04 V2 35.207
RC 105.482 GL 63.84 GP -81.82 ZAL 102.22 ZAP 98.08 ETS 262.39 ZAE 85.58 ETE 175.64 ZAC 12.47 ETC 197.44 CLP 170.81

PLANETOCENTRIC CONIC

C3 151.878 VHL 12.324 DLA 42.33 RAL 252.06 RAD 6570.7 VEL 16.529 PTH 2.88 VHP 15.328 DPA -61.01 RAP 113.22 ECC 3.4995

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.12	18 34 41	4673.23	-8.66	214.04	152.45	48.40	19 52 34	4073.2	-13.91	208.30
122.88	1 47 8	3345.29	-8.64	112.15	152.44	48.40	2 42 53	2745.3	-13.89	106.41
57.12	18 34 41	4673.23	-8.66	214.04	152.45	48.40	19 52 34	4073.2	-13.91	208.30
122.88	1 47 8	3345.29	-8.64	112.15	152.44	48.40	2 42 53	2745.3	-13.89	106.41
57.12	18 34 41	4673.23	-8.66	214.04	152.45	48.40	19 52 34	4073.2	-13.91	208.30
122.88	1 47 8	3345.29	-8.64	112.15	152.44	48.40	2 42 53	2745.3	-13.89	106.41

DIFFERENTIAL CORRECTIONS
TDE 5.0389 TRA 1.4851 TC3 -.1156 BAU .2354
RDE-3.7685 RRA .1191 RC3 .0087 FAU .00315
FDE 1.5764 FRA .4977 FC3 -.0180 BSP 10081
BDE 6.9494 BRA 1.4689 BC3 .1159 FSP -230

MID-COURSE EXECUTION ACCURACY
SGT 2880.8 SGR 1753.8 SG3 69.0
RRT -.9289 RRF -.9013 RTF .9962
SGB 3372.6 RZ3 -.1633 R13 -.9848
SG1 3325.4 SG2 562.6 THA 149.55

ORBIT DETERMINATION ACCURACY
ST 2728.7 SR 1752.2 SS 978.5
CRT -.9935 CRS .9902 CST -.9997
LSA 3382.6 MSA 177.3 SSA 1.8
EL1 3238.4 EL2 168.4 ALF 147.37

LAUNCH DATE SEP 21 1970 FLIGHT TIME 128.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 371.526

RL 150.20 LAL -.00 LOL 357.60 VL 27.379 GAL -6.20 AZL 52.57 HCA 174.45 SMA 130.42 ECC .18550 INC37.4271 V1 29.666
RP 107.66 LAP 3.37 LOP 173.18 VP 38.049 GAP 3.67 AZP 127.30 TAL 209.42 TAP 23.87 RCA 106.22 APO 154.61 V2 35.198
RC 107.765 GL 63.02 GP -76.81 ZAL 97.67 ZAP 95.58 ETS 215.66 ZAE 74.96 ETE 131.03 ZAC 3.69 ETC 203.69 CLP 115.24

PLANETOCENTRIC CONIC

C3 344.536 VHL 18.562 DLA 40.36 RAL 258.54 RAD 6571.9 VEL 21.583 PTH 3.22 VHP 23.415 DPA -52.53 RAP 102.13 ECC 6.6702

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.95	19 12 48	4756.48	-3.19	216.47	164.79	49.75	20 32 5	4156.5	-8.33	210.72
120.05	2 0 41	3496.52	-3.18	120.46	164.77	49.75	2 58 57	2896.5	-8.32	114.71
50.95	19 12 48	4756.48	-3.19	216.47	164.79	49.75	20 32 5	4156.5	-8.33	210.72
120.05	2 0 41	3496.52	-3.18	120.46	164.77	49.75	2 58 57	2896.5	-8.32	114.71
50.95	19 12 48	4756.48	-3.19	216.47	164.79	49.75	20 32 5	4156.5	-8.33	210.72
120.05	2 0 41	3496.52	-3.18	120.46	164.77	49.75	2 58 57	2896.5	-8.32	114.71

DIFFERENTIAL CORRECTIONS
TDE 2.6771 TRA 1.9820 TC3 -.0008 BAU .5441
RDE-9.8006 RRA-2.2755 RC3 -.1181 FAU-.00953
FDE 1.8480 FRA .7107 FC3 .0240 BSP 10120
BDE10.1596 BRA 3.0045 BC3 .1181 FSP -181

MID-COURSE EXECUTION ACCURACY
SGT 1146.5 SGR 3192.8 SG3 55.7
RRT -.8827 RRF -.9855 RTF .9464
SGB 3392.4 RZ3 -.1136 R13 -.9924
SG1 3353.4 SG2 513.0 THA 108.02

ORBIT DETERMINATION ACCURACY
ST 860.1 SR 3037.9 SS 1165.9
CRT -.9820 CRS .9982 CST -.9915
LSA 3361.7 MSA 164.0 SSA 1.8
EL1 3153.4 EL2 156.3 ALF 105.58

LAUNCH DATE SEP 21 1970 FLIGHT TIME 130.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 376.365

RL 150.20 LAL -.00 LOL 357.60 VL 27.337 GAL -5.75 AZL 19.31 HCA 176.46 SMA 130.12 ECC .18334 INC70.6936 V1 29.666
RP 107.69 LAP 3.34 LOP 176.43 VP 38.010 GAP 3.63 AZP 160.66 TAL 207.40 TAP 23.86 RCA 106.27 APO 153.98 V2 35.189
RC 110.046 GL 50.99 GP -57.90 ZAL 93.92 ZAP 93.05 ETS 190.85 ZAE 54.95 ETE 108.93 ZAC 19.22 ETC 275.90 CLP 95.75

PLANETOCENTRIC CONIC

C31091.273 VHL 33.034 DLA 27.73 RAL 263.87 RAD 6573.0 VEL 34.822 PTH 3.51 VHP 42.098 DPA -33.51 RAP 94.71 ECC18.9596

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 46 32	4044.50	-4.96	163.29	177.25	62.09	24 53 56	3444.5	-8.66	156.56
90.00	22 5 34	4372.99	5.59	181.66	171.68	62.20	23 18 27	3773.0	1.83	175.00
100.00	1 56 29	3638.24	-9.96	136.08	179.94	61.67	2 57 7	3038.2	-13.67	129.26
100.00	22 42 14	4254.47	10.60	170.28	169.00	61.89	23 53 8	3654.5	6.76	163.60
110.00	4 6 15	3232.14	-18.02	109.84	184.53	60.45	5 0 7	2632.1	-21.81	102.76
110.00	22 48 57	4233.35	18.68	164.13	164.45	60.84	23 59 31	3633.4	14.65	157.33

DIFFERENTIAL CORRECTIONS
TDE-3.3103 TRA 1.3314 TC3 -.0621 BAU 3.0896
RD-13.5734 RRA-6.4719 RC3 -.2025 FAU-.04961
FDE 2.5207 FRA 1.4288 FC3 .0394 BSP 8860
BDE13.9712 BRA 6.6074 BC3 .2118 FSP -153

MID-COURSE EXECUTION ACCURACY
SGT 752.3 SGR 2990.0 SG3 50.2
RRT .6977 RRF -.9977 RTF -.6516
SGB 3083.2 RZ3 -.0938 R13 -.9953
SG1 3037.2 SG2 530.5 THA 79.73

ORBIT DETERMINATION ACCURACY
ST 579.6 SR 2385.1 SS 1619.5
CRT .9566 CRS .9996 CST .9476
LSA 2935.4 MSA 175.5 SSA 1.6
EL1 2449.0 EL2 164.5 ALF 76.85

LAUNCH DATE SEP 21 1970 FLIGHT TIME 132.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 386.840

RL 150.20 LAL -.00 LOL 357.60 VL 27.294 GAL -6.43 AZL 148.01 HCA 183.90 SMA 129.82 ECC .19201 INC58.0056 V1 29.666
RP 107.72 LAP 3.30 LOP 179.67 VP 37.970 GAP 5.17 AZP 32.05 TAL 209.27 TAP 33.16 RCA 104.90 APO 154.75 V2 35.179
RC 112.324 GL -56.01 GP 63.83 ZAL 95.33 ZAP 95.17 ETS 176.71 ZAE 68.73 ETE 258.29 ZAC 141.07 ETC 274.00 CLP 101.79

PLANETOCENTRIC CONIC

C3 769.587 VHL 27.741 DLA -78.04 RAL 236.00 RAD 6572.8 VEL 29.848 PTH 3.45 VHP 36.011 DPA 87.54 RAP 145.64 ECC13.6855

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
13.62	3 33 57	2443.49	.48	82.59	145.89	168.04	4 14 41	1843.5	8.31	81.34
166.38	14 39 46	651.50	.49	283.19	145.91	168.04	14 50 38	51.5	8.31	281.93
13.62	3 33 57	2443.49	.48	82.59	145.89	168.04	4 14 41	1843.5	8.31	81.34
166.38	14 39 46	651.50	.49	283.19	145.91	168.04	14 50 38	51.5	8.31	281.93
13.62	3 33 57	2443.49	.48	82.59	145.89	168.04	4 14 41	1843.5	8.31	81.34
166.38	14 39 46	651.50	.49	283.19	145.91	168.04	14 50 38	51.5	8.31	281.93

DIFFERENTIAL CORRECTIONS
TDE 4.4691 TRA .5982 TC3 -.0780 BAU 2.1863
RD-14.0980 RRA -.1980 RC3 .1977 FAU-.03154
FDE-2.9007 FRA -.0200 FC3 .0355 BSP 10283
BDE14.7443 BRA .6311 BC3 .2125 FSP -172

MID-COURSE EXECUTION ACCURACY
SGT 1180.7 SGR 3108.8 SG3 54.5
RRT -.8905 RRF .9985 RTF -.8719
SGB 3325.5 RZ3 -.0915 R13 .9951
SG1 3286.4 SG2 508.2 THA 109.16

ORBIT DETERMINATION ACCURACY
ST 939.5 SR 2903.0 SS 1864.1
CRT -.9853 CRS -.9999 CST .9835
LSA 3572.1 MSA 158.4 SSA 2.0
EL1 3047.4 EL2 152.7 ALF 107.73

LAUNCH DATE SEP 21 1970 FLIGHT TIME 134.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 391.979

```
RL  150.20 LAL   -.00 LOL 357.60 VL  27.250 GAL  -6.03 AZL 121.60 HCA 186.22 SMA 129.52 ECC .19041 INC31.6000 V1  29.666
RP  107.75 LAP   3.26 LOP 182.90 VP  37.929 GAP   5.21 AZP  58.55 TAL 207.48 TAP  33.70 RCA 104.86 APO 154.18 V2  35.169
RC 114.599 GL  -63.76 GP   77.14 ZAL  98.66 ZAP  99.03 ETS 145.34 ZAE  85.66 ETE 227.53 ZAC 156.30 ETC 256.05 CLP 134.81
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PLANETOCENTRIC CONIC

```
C3 250.621 VHL 15.831 DLA -80.28 RAL 186.28 RAD 6571.5 VEL 19.286 PTH   3.10 VHP 20.767 DPA  73.27 RAP 247.93 ECC 5.1246
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
11.06	0 10 35	2343.31	7.44	83.09	94.99	170.20	0 49 38	1743.3	15.32	82.10
168.94	11 26 26	5832.42	7.45	259.10	95.00	170.20	13 3 39	5232.4	15.33	258.11
11.06	0 10 35	2343.31	7.44	83.09	94.99	170.20	0 49 38	1743.3	15.32	82.10
168.94	11 26 26	5832.42	7.45	259.10	95.00	170.20	13 3 39	5232.4	15.33	258.11
11.06	0 10 35	2343.31	7.44	83.09	94.99	170.20	0 49 38	1743.3	15.32	82.10
168.94	11 26 26	5832.42	7.45	259.10	95.00	170.20	13 3 39	5232.4	15.33	258.11

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-2.4088 TRA -.2787 TC3 -.0073 BAU  .2498   SGT 1057.1 SGR 3549.1 SG3   65.1     ST   890.0 SR  1938.3 SS   868.3
 RDE-4.6956 RRA-1.4493 RC3  .0742 FAU-.00037   RRT  .8882 RRF  .9888 RTF  .9449     CRT  .9557 CRS -.9932 CST -.9835
 FDE-1.2393 FRA -.2825 FC3  .0013 BSP  11375   SGB 3703.2 R23 -.1109 R13  .9932     LSA 2289.7 MSA  245.6 SSA    1.3
 BDE 5.2774 BRA 1.4759 BC3  .0746 FSP   -208   SG1 3673.4 SG2  469.3 THA  74.93     EL1 2119.3 EL2  239.7 ALF  65.98
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LAUNCH DATE SEP 21 1970 FLIGHT TIME 136.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 397.692

```
RL  150.20 LAL   -.00 LOL 357.60 VL  27.205 GAL  -5.74 AZL 110.61 HCA 189.11 SMA 129.21 ECC .19009 INC20.6065 V1  29.666
RP  107.79 LAP   3.20 LOP 186.14 VP  37.887 GAP   5.41 AZP  69.63 TAL 206.03 TAP  35.14 RCA 104.65 APO 153.77 V2  35.158
RC 116.871 GL  -62.91 GP   76.27 ZAL 102.09 ZAP 103.72 ETS  85.27 ZAE  95.18 ETE 168.22 ZAC 161.75 ETC 218.78 CLP 178.87
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PLANETOCENTRIC CONIC

```
C3 114.496 VHL 10.700 DLA -76.91 RAL 182.11 RAD 6570.2 VEL 15.357 PTH   2.75 VHP 14.238 DPA  62.66 RAP 246.91 ECC 2.8843
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
14.90	0 1 31	2205.12	16.14	79.19	88.24	166.37	0 38 16	1605.1	23.90	77.55
165.10	11 2 14	5705.23	16.15	258.96	88.26	166.37	12 37 20	5105.2	23.91	257.32
14.90	0 1 31	2205.12	16.14	79.19	88.24	166.37	0 38 16	1605.1	23.90	77.55
165.10	11 2 14	5705.23	16.15	258.96	88.26	166.37	12 37 20	5105.2	23.91	257.32
14.90	0 1 31	2205.12	16.14	79.19	88.24	166.37	0 38 16	1605.1	23.90	77.55
165.10	11 2 14	5705.23	16.15	258.96	88.26	166.37	12 37 20	5105.2	23.91	257.32

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-2.9895 TRA-1.4025 TC3 -.2296 BAU  .3530   SGT 3715.7 SGR  993.0 SG3   83.1     ST  1884.9 SR   319.4 SS   688.2
 RDE  .2271 RRA -.4162 RC3 -.0215 FAU .01213   RRT  .8384 RRF  .7634 RTF  .9906     CRT  .1648 CRS -.0492 CST -.9932
 FDE -.9452 FRA -.3357 FC3 -.0917 BSP  11746   SGB 3846.1 R23 -.1544 R13  .9862     LSA 2005.8 MSA  324.4 SSA    2.0
 BDE 2.9982 BRA 1.4630 BC3  .2306 FSP   -265   SG1 3809.7 SG2  527.9 THA  12.88     EL1 1885.7 EL2  314.9 ALF   1.65
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LAUNCH DATE SEP 21 1970 FLIGHT TIME 138.00 ARRIVAL DATE FEB 6 1971

HELIOCENTRIC CONIC DISTANCE 403.561

```
RL  150.20 LAL   -.00 LOL 357.60 VL  27.159 GAL  -5.48 AZL 104.99 HCA 192.17 SMA 128.90 ECC .19021 INC14.9865 V1  29.666
RP  107.82 LAP   3.13 LOP 189.37 VP  37.844 GAP   5.65 AZP  75.34 TAL 204.67 TAP  36.84 RCA 104.38 APO 153.42 V2  35.147
RC 119.138 GL  -59.43 GP   70.46 ZAL 105.09 ZAP 108.69 ETS  64.96 ZAE 101.84 ETE 149.25 ZAC 161.62 ETC 222.36 CLP-163.31
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PLANETOCENTRIC CONIC

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C3  65.922 VHL  8.119 DLA -73.59 RAL 189.77 RAD 6569.3 VEL 13.685 PTH   2.50 VHP 11.006 DPA  54.44 RAP 244.99 ECC 2.0849
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.71	0 39 46	2074.86	23.88	74.17	92.27	162.01	1 14 21	1474.9	31.46	71.70
161.29	11 25 4	5589.43	23.88	257.74	92.29	162.01	12 58 13	4989.4	31.46	255.27
18.71	0 39 46	2074.86	23.88	74.17	92.27	162.01	1 14 21	1474.9	31.46	71.70
161.29	11 25 4	5589.43	23.88	257.74	92.29	162.01	12 58 13	4989.4	31.46	255.27
18.71	0 39 46	2074.86	23.88	74.17	92.27	162.01	1 14 21	1474.9	31.46	71.70
161.29	11 25 4	5589.43	23.88	257.74	92.29	162.01	12 58 13	4989.4	31.46	255.27

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-2.5268 TRA-1.3274 TC3 -.6476 BAU  .5790   SGT 3909.5 SGR  706.6 SG3  107.0     ST  2042.1 SR   672.0 SS   756.7
 RDE  .9507 RRA  .0524 RC3  .1103 FAU .02103   RRT -.6584 RRF -.7986 RTF  .9745     CRT -.9002 CRS  .9614 CST -.9852
 FDE-1.0640 FRA -.3510 FC3 -.2762 BSP  12296   SGB 3972.8 R23  .1927 R13 -.9778     LSA 2259.9 MSA  295.7 SSA    2.7
 BDE 2.6997 BRA 1.3285 BC3  .6570 FSP   -348   SG1 3937.6 SG2  528.0 THA 173.09     EL1 2131.5 EL2  280.3 ALF 163.20
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LAUNCH DATE SEP 21 1970 FLIGHT TIME 140.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 409.483

```
RL  150.20 LAL   -.00 LOL 357.60 VL  27.112 GAL  -5.22 AZL 101.62 HCA 195.30 SMA 128.58 ECC .19056 INC11.6190 V1  29.666
RP  107.86 LAP   3.05 LOP 192.60 VP  37.800 GAP   5.91 AZP  78.78 TAL 203.32 TAP  38.62 RCA 104.08 APO 153.09 V2  35.136
RC 121.402 GL  -55.19 GP   64.24 ZAL 107.46 ZAP 113.64 ETS  58.69 ZAE 107.01 ETE 144.88 ZAC 158.60 ETC 232.89 CLP-157.29
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PLANETOCENTRIC CONIC

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C3  43.861 VHL  6.623 DLA -70.27 RAL 198.46 RAD 6568.7 VEL 12.854 PTH   2.34 VHP  9.189 DPA  47.35 RAP 243.48 ECC 1.7218
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
22.55	1 22 29	1965.18	29.74	68.28	96.63	157.12	1 55 14	1365.2	37.05	64.81
157.45	11 51 43	5498.07	29.75	255.80	96.65	157.12	13 23 22	4898.1	37.06	252.33
22.55	1 22 29	1965.18	29.74	68.28	96.63	157.12	1 55 14	1365.2	37.05	64.81
157.45	11 51 43	5498.07	29.75	255.80	96.65	157.12	13 23 22	4898.1	37.06	252.33
22.55	1 22 29	1965.18	29.74	68.28	96.63	157.12	1 55 14	1365.2	37.05	64.81
157.45	11 51 43	5498.07	29.75	255.80	96.65	157.12	13 23 22	4898.1	37.06	252.33

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-2.3628 TRA-1.1807 TC3-1.1465 BAU  .6906   SGT 3954.9 SGR  968.6 SG3  132.7     ST  2237.1 SR   848.6 SS   840.3
 RDE  .9747 RRA  .1230 RC3  .2697 FAU .02852   RRT -.8407 RRF -.9443 RTF  .9632     CRT -.9535 CRS  .9907 CST -.9856
 FDE-1.1858 FRA -.3378 FC3 -.5629 BSP  12662   SGB 4071.8 R23  .2228 R13 -.9694     LSA 2522.3 MSA  262.4 SSA    3.5
 BDE 2.5560 BRA 1.1871 BC3 1.1778 FSP   -434   SG1 4039.3 SG2  513.6 THA 168.17     EL1 2360.6 EL2  240.5 ALF 159.90
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LAUNCH DATE SEP 21 1970 FLIGHT TIME 142.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 415.423

RL	150.20	LAL	-.00	LOL	357.60	VL	27.065	GAL	-4.96	AZL	99.38	HCA	198.46	SMA	128.27	ECC	.19106	INC	9.3784	V1	29.666
RP	107.89	LAP	2.96	LOP	195.83	VP	37.755	GAP	6.17	AZP	81.10	TAL	201.97	TAP	40.43	RCA	103.76	APO	152.77	V2	35.124
RC	123.660	GL	-50.02	GP	58.40	ZAL	109.17	ZAP	118.41	ETS	55.97	ZAE	111.16	ETE	144.51	ZAC	154.56	ETC	240.49	CLP	-155.21

PLANETOCENTRIC CONIC

C3	32.125	VHL	5.668	DLA	-66.97	RAL	206.35	RAD	6568.3	VEL	12.389	PTH	2.24	VHP	8.084	DPA	41.02	RAP	242.49	ECC	1.5287

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.39	2 2 20	1875.33	33.76	61.86	99.82	151.92	2 33 35	1275.3	40.73	57.32
153.61	12 14 48	5430.73	33.77	253.49	99.84	151.92	13 45 19	4830.7	40.73	248.95
26.39	2 2 20	1875.33	33.76	61.86	99.82	151.92	2 33 35	1275.3	40.73	57.32
153.61	12 14 48	5430.73	33.77	253.49	99.84	151.92	13 45 19	4830.7	40.73	248.95
26.39	2 2 20	1875.33	33.76	61.86	99.82	151.92	2 33 35	1275.3	40.73	57.32
153.61	12 14 48	5430.73	33.77	253.49	99.84	151.92	13 45 19	4830.7	40.73	248.95

DIFFERENTIAL CORRECTIONS

TDE	-2.2298	TRA	-1.0506	TC3	-1.7131	BAU	.7567
RDE	.8752	RRA	.1075	RC3	.4119	FAU	.03481
FDE	-1.2469	FRA	-.2987	FC3	-.9582	BSP	12959
BDE	2.3954	BRA	1.0561	BC3	1.7620	FSP	-515

MID-COURSE EXECUTION ACCURACY

SGT	4027.4	SGR	1038.2	SG3	157.3		
RRT	-.8741	RRF	-.9660	RTF	.9547		
SGB	4159.1	RZ3	.2445	R13	-.9618		
SG1	4129.9	SG2	491.8	THA	167.12		

ORBIT DETERMINATION ACCURACY

ST	2397.4	SR	888.8	SS	895.4
CRT	-.9682	CRS	.9961	CST	-.9864
LSA	2698.6	MSA	238.2	SSA	4.5
EL1	2548.2	EL2	209.2	ALF	160.12

LAUNCH DATE SEP 21 1970 FLIGHT TIME 144.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 421.366

RL	150.20	LAL	-.00	LOL	357.60	VL	27.018	GAL	-4.70	AZL	97.78	HCA	201.63	SMA	127.95	ECC	.19168	INC	7.7759	V1	29.666
RP	107.93	LAP	2.86	LOP	199.05	VP	37.710	GAP	6.44	AZP	82.77	TAL	200.60	TAP	42.24	RCA	103.42	APO	152.47	V2	35.112
RC	125.912	GL	-46.57	GP	53.10	ZAL	110.19	ZAP	122.88	ETS	54.44	ZAE	114.51	ETE	145.61	ZAC	150.41	ETC	245.49	CLP	-154.71

PLANETOCENTRIC CONIC

C3	25.109	VHL	5.017	DLA	-63.74	RAL	213.29	RAD	6568.0	VEL	12.106	PTH	2.17	VHP	7.382	DPA	35.34	RAP	241.98	ECC	1.4142

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.17	2 38 41	1801.16	36.29	55.28	102.04	146.71	3 8 42	1201.2	42.83	49.72
149.83	12 33 50	5383.15	36.30	251.14	102.06	146.71	14 3 33	4783.1	42.84	245.58
30.17	2 38 41	1801.16	36.29	55.28	102.04	146.71	3 8 42	1201.2	42.83	49.72
149.83	12 33 50	5383.15	36.30	251.14	102.06	146.71	14 3 33	4783.1	42.84	245.58
30.17	2 38 41	1801.16	36.29	55.28	102.04	146.71	3 8 42	1201.2	42.83	49.72
149.83	12 33 50	5383.15	36.30	251.14	102.06	146.71	14 3 33	4783.1	42.84	245.58

DIFFERENTIAL CORRECTIONS

TDE	-2.0799	TRA	-.9178	TC3	-2.3045	BAU	.7945
RDE	.7491	RRA	.0671	RC3	.5146	FAU	.03932
FDE	-1.2355	FRA	-.2269	FC3	-1.3526	BSP	12874
BDE	2.2107	BRA	.9203	BC3	2.3612	FSP	-563

MID-COURSE EXECUTION ACCURACY

SGT	4074.7	SGR	1014.2	SG3	176.6		
RRT	-.8800	RRF	-.9696	RTF	.9461		
SGB	4199.0	RZ3	.2647	R13	-.9530		
SG1	4172.6	SG2	470.4	THA	167.48		

ORBIT DETERMINATION ACCURACY

ST	2480.4	SR	857.3	SS	907.2
CRT	-.9736	CRS	.9979	CST	-.9861
LSA	2767.8	MSA	221.9	SSA	5.5
EL1	2617.8	EL2	185.4	ALF	161.30

LAUNCH DATE SEP 21 1970 FLIGHT TIME 146.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 427.300

RL	150.20	LAL	-.00	LOL	357.60	VL	26.970	GAL	-4.43	AZL	96.57	HCA	204.82	SMA	127.63	ECC	.19243	INC	6.5681	V1	29.666
RP	107.97	LAP	2.75	LOP	202.27	VP	37.664	GAP	6.70	AZP	84.03	TAL	199.22	TAP	44.04	RCA	103.07	APO	152.19	V2	35.099
RC	128.158	GL	-42.51	GP	48.35	ZAL	110.58	ZAP	127.02	ETS	53.38	ZAE	117.19	ETE	147.34	ZAC	146.47	ETC	248.88	CLP	-154.96

PLANETOCENTRIC CONIC

C3	20.718	VHL	4.552	DLA	-60.65	RAL	219.47	RAD	6567.8	VEL	11.920	PTH	2.12	VHP	6.927	DPA	30.23	RAP	241.86	ECC	1.3410

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.83	3 12 12	1738.60	37.67	48.82	103.73	141.74	3 41 11	1138.6	43.76	42.39
146.17	12 49 37	5351.04	37.68	249.00	103.74	141.73	14 18 48	4751.0	43.77	242.56
33.83	3 12 12	1738.60	37.67	48.82	103.73	141.74	3 41 11	1138.6	43.76	42.39
146.17	12 49 37	5351.04	37.68	249.00	103.74	141.73	14 18 48	4751.0	43.77	242.56
33.83	3 12 12	1738.60	37.67	48.82	103.73	141.74	3 41 11	1138.6	43.76	42.39
146.17	12 49 37	5351.04	37.68	249.00	103.74	141.73	14 18 48	4751.0	43.77	242.56

DIFFERENTIAL CORRECTIONS

TDE	-1.9691	TRA	-.8308	TC3	-2.9879	BAU	.8452
RDE	.6531	RRA	.0457	RC3	.6200	FAU	.04420
FDE	-1.2127	FRA	-.1757	FC3	-1.8470	BSP	13845
BDE	2.0745	BRA	.8320	BC3	3.0515	FSP	-671

MID-COURSE EXECUTION ACCURACY

SGT	4253.7	SGR	1004.1	SG3	200.0		
RRT	-.8951	RRF	-.9708	RTF	.9463		
SGB	4370.6	RZ3	.2572	R13	-.9520		
SG1	4348.6	SG2	437.8	THA	167.95		

ORBIT DETERMINATION ACCURACY

ST	2561.2	SR	823.0	SS	917.7
CRT	-.9780	CRS	.9989	CST	-.9866
LSA	2834.9	MSA	206.2	SSA	6.7
EL1	2685.2	EL2	163.8	ALF	162.49

LAUNCH DATE SEP 21 1970 FLIGHT TIME 148.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 433.230

RL	150.20	LAL	-.00	LOL	357.60	VL	26.922	GAL	-4.14	AZL	95.62	HCA	208.01	SMA	127.31	ECC	.19329	INC	5.6205	V1	29.666
RP	108.01	LAP	2.64	LOP	205.49	VP	37.618	GAP	6.97	AZP	85.03	TAL	197.81	TAP	45.82	RCA	102.70	APO	151.92	V2	35.086
RC	130.397	GL	-38.68	GP	44.14	ZAL	110.37	ZAP	130.80	ETS	52.55	ZAE	119.32	ETE	149.30	ZAC	142.89	ETC	251.30	CLP	-155.58

PLANETOCENTRIC CONIC

C3	17.703	VHL	4.207	DLA	-57.71	RAL	225.11	RAD	6567.7	VEL	11.793	PTH	2.09	VHP	6.631	DPA	25.66	RAP	242.09	ECC	1.2913

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.36	3 43 44	1684.43	38.22	42.67	105.25	137.16	4 11 48	1084.4	43.86	35.55
142.64	13 3 5	5330.96	38.23	247.23	105.27	137.15	14 31 56	4731.0	43.87	240.11
37.36	3 43 44	1684.43	38.22	42.67	105.25	137.16	4 11 48	1084.4	43.86	35.55
142.64	13 3 5	5330.96	38.23	247.23	105.27	137.15	14 31 56	4731.0	43.87	240.11
37.36	3 43 44	1684.43	38.22	42.67	105.25	137.16	4 11 48	1084.4	43.86	35.55
142.64	13 3 5	5330.96	38.23	247.23	105.27	137.15	14 31 56	4731.0	43.87	240.11

DIFFERENTIAL CORRECTIONS

TDE	-1.8239	TRA	-.7058	TC3	-3.6091	BAU	.8685
RDE	.5590	RRA	.0095	RC3	.6631	FAU	.04624
FDE	-1.1218	FRA	-.0795	FC3	-2.2615	BSP	13820
BDE	1.9064	BRA	.7059	BC3	3.6695	FSP	-694

MID-COURSE EXECUTION ACCURACY

SGT	4316.2	SGR	950.8	SG3	211.6		
RRT	-.8913	RRF	-.9653	RTF	.9403		
SGB	4417.3	RZ3	.2629	R13	-.9454		
SG1	4397.5	SG2	418.2	THA	168.92		

ORBIT DETERMINATION ACCURACY

ST	2543.3	SR	756.0	SS	876.5
CRT	-.9791	CRS	.9994	CST	-.9849
LSA	2787.3	MSA	197.2	SSA	8.2
EL1	2649.2	EL2	147.6	ALF	163.72

LAUNCH DATE SEP 21 1970 FLIGHT TIME 150.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 439.146
RL 150.20 LAL -.00 LOL 357.60 VL 26.874 GAL -3.85 AZL 94.85 HCA 211.20 SMA 127.00 ECC .19427 INC 4.8533 V1 29.666
RP 108.05 LAP 2.51 LOP 208.71 VP 37.571 GAP 7.23 AZP 85.85 TAL 196.39 TAP 47.59 RCA 102.32 APO 151.67 V2 35.074
RC 132.627 GL -35.08 GP 40.42 ZAL 109.61 ZAP 134.23 ETS 51.86 ZAE 120.99 ETE 151.31 ZAC 139.69 ETC 253.11 CLP-156.39
PLANETOCENTRIC CONIC
C3 15.578 VHL 3.947 DLA -54.92 RAL 230.36 RAD 6567.6 VEL 11.703 PTH 2.06 VHP 6.444 DPA 21.57 RAP 242.60 ECC 1.2564

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.75	4 13 57	1636.17	38.17	36.89	106.84	133.03	4 41 13	1036.2	43.36	29.26
139.25	13 14 44	5320.62	38.18	245.94	106.85	133.02	14 43 24	4720.6	43.37	238.31
40.75	4 13 57	1636.17	38.17	36.89	106.84	133.03	4 41 13	1036.2	43.36	29.26
139.25	13 14 44	5320.62	38.18	245.94	106.85	133.02	14 43 24	4720.6	43.37	238.31
40.75	4 13 57	1636.17	38.17	36.89	106.84	133.03	4 41 13	1036.2	43.36	29.26
139.25	13 14 44	5320.62	38.18	245.94	106.85	133.02	14 43 24	4720.6	43.37	238.31

DIFFERENTIAL CORRECTIONS
TDE-1.6947 TRA -.5912 TC3-4.2402 BAU .8948
RDE .4799 RRA -.0166 RC3 .6923 FAU .04771
FDE-1.0220 FRA .0104 FC3-2.6514 BSP 14094
BDE 1.7613 BRA .5914 BC3 4.2963 FSP -727

MID-COURSE EXECUTION ACCURACY
SGT 4414.2 SGR 886.4 SG3 221.7
RRT -.8895 RRF -.9579 RTF .9374
SGB 4502.3 R23 .2565 R13 -.9416
SG1 4484.6 SG2 398.8 THA 169.79

ORBIT DETERMINATION ACCURACY
ST 2502.6 SR 697.0 SS 826.7
CRT -.9803 CRS .9997 CST -.9829
LSA 2719.7 MSA 188.7 SSA 9.8
EL1 2594.5 EL2 132.8 ALF 164.69

LAUNCH DATE SEP 21 1970 FLIGHT TIME 152.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 445.049
RL 150.20 LAL -.00 LOL 357.60 VL 26.825 GAL -3.55 AZL 94.22 HCA 214.40 SMA 126.68 ECC .19537 INC 4.2159 V1 29.666
RP 108.09 LAP 2.38 LOP 211.92 VP 37.524 GAP 7.49 AZP 86.52 TAL 194.95 TAP 49.34 RCA 101.93 APO 151.43 V2 35.061
RC 134.850 GL -31.69 GP 37.15 ZAL 108.38 ZAP 137.33 ETS 51.29 ZAE 122.30 ETE 153.26 ZAC 136.87 ETC 254.54 CLP-157.31
PLANETOCENTRIC CONIC
C3 14.039 VHL 3.747 DLA -52.27 RAL 235.33 RAD 6567.6 VEL 11.637 PTH 2.04 VHP 6.333 DPA 17.91 RAP 243.35 ECC 1.2310

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.04	4 43 24	1591.95	37.68	31.46	108.61	129.35	5 9 56	991.9	42.46	23.49
135.96	13 24 56	5318.45	37.69	245.16	108.62	129.34	14 53 35	4718.4	42.47	237.19
44.04	4 43 24	1591.95	37.68	31.46	108.61	129.35	5 9 56	991.9	42.46	23.49
135.96	13 24 56	5318.45	37.69	245.16	108.62	129.34	14 53 35	4718.4	42.47	237.19
44.04	4 43 24	1591.95	37.68	31.46	108.61	129.35	5 9 56	991.9	42.46	23.49
135.96	13 24 56	5318.45	37.69	245.16	108.62	129.34	14 53 35	4718.4	42.47	237.19

DIFFERENTIAL CORRECTIONS
TDE-1.5700 TRA -.4737 TC3-4.8470 BAU .9192
RDE .4200 RRA -.0385 RC3 .7031 FAU .04832
FDE -.9119 FRA .1009 FC3-2.9798 BSP 14384
BDE 1.6253 BRA .4752 BC3 4.8977 FSP -749

MID-COURSE EXECUTION ACCURACY
SGT 4511.9 SGR 836.3 SG3 228.5
RRT -.8856 RRF -.9479 RTF .9353
SGB 4588.8 R23 .2445 R13 -.9387
SG1 4572.7 SG2 383.2 THA 170.61

ORBIT DETERMINATION ACCURACY
ST 2429.4 SR 643.2 SS 765.0
CRT -.9815 CRS .9997 CST -.9799
LSA 2620.7 MSA 181.5 SSA 11.7
EL1 2510.3 EL2 119.2 ALF 165.40

LAUNCH DATE SEP 21 1970 FLIGHT TIME 154.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 450.938
RL 150.20 LAL -.00 LOL 357.60 VL 26.777 GAL -3.24 AZL 93.68 HCA 217.59 SMA 126.37 ECC .19659 INC 3.6751 V1 29.666
RP 108.13 LAP 2.24 LOP 215.13 VP 37.477 GAP 7.75 AZP 87.09 TAL 193.48 TAP 51.07 RCA 101.52 APO 151.21 V2 35.047
RC 137.083 GL -28.49 GP 34.28 ZAL 106.72 ZAP 140.14 ETS 50.81 ZAE 123.32 ETE 155.10 ZAC 134.39 ETC 255.71 CLP-158.28
PLANETOCENTRIC CONIC
C3 12.907 VHL 3.593 DLA -49.72 RAL 240.10 RAD 6567.5 VEL 11.588 PTH 2.03 VHP 6.277 DPA 14.63 RAP 244.30 ECC 1.2124

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.25	5 12 29	1550.34	36.87	26.35	110.62	126.09	5 38 20	950.3	41.28	18.16
132.75	13 33 54	5323.47	36.88	244.90	110.63	126.07	15 2 38	4723.5	41.29	236.71
47.25	5 12 29	1550.34	36.87	26.35	110.62	126.09	5 38 20	950.3	41.28	18.16
132.75	13 33 54	5323.47	36.88	244.90	110.63	126.07	15 2 38	4723.5	41.29	236.71
47.25	5 12 29	1550.34	36.87	26.35	110.62	126.09	5 38 20	950.3	41.28	18.16
132.75	13 33 54	5323.47	36.88	244.90	110.63	126.07	15 2 38	4723.5	41.29	236.71

DIFFERENTIAL CORRECTIONS
TDE-1.4490 TRA -.3527 TC3-5.4165 BAU .9424
RDE .3729 RRA -.0569 RC3 .6999 FAU .04824
FDE -.7987 FRA .1891 FC3-3.2357 BSP 14697
BDE 1.4962 BRA .3573 BC3 5.4615 FSP -765

MID-COURSE EXECUTION ACCURACY
SGT 4609.2 SGR 791.3 SG3 232.6
RRT -.8799 RRF -.9352 RTF .9339
SGB 4676.6 R23 .2276 R13 -.9367
SG1 4661.8 SG2 371.7 THA 171.35

ORBIT DETERMINATION ACCURACY
ST 2328.6 SR 596.3 SS 696.0
CRT -.9830 CRS .9988 CST -.9755
LSA 2496.3 MSA 175.1 SSA 13.9
EL1 2401.4 EL2 106.2 ALF 165.84

LAUNCH DATE SEP 21 1970 FLIGHT TIME 156.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 456.812
RL 150.20 LAL -.00 LOL 357.60 VL 26.728 GAL -2.92 AZL 93.21 HCA 220.78 SMA 126.06 ECC .19794 INC 3.2078 V1 29.666
RP 108.17 LAP 2.09 LOP 218.34 VP 37.430 GAP 8.01 AZP 87.57 TAL 192.01 TAP 52.79 RCA 101.10 APO 151.01 V2 35.034
RC 139.266 GL -25.46 GP 31.75 ZAL 104.70 ZAP 142.69 ETS 50.43 ZAE 124.11 ETE 156.79 ZAC 132.21 ETC 256.71 CLP-159.28
PLANETOCENTRIC CONIC
C3 12.073 VHL 3.475 DLA -47.27 RAL 244.72 RAD 6567.5 VEL 11.552 PTH 2.02 VHP 6.263 DPA 11.70 RAP 245.43 ECC 1.1987

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.42	5 41 36	1510.04	35.83	21.48	112.88	123.19	6 6 46	910.0	39.90	13.17
129.58	13 41 39	5335.32	35.84	245.17	112.89	123.18	15 10 34	4735.3	39.91	236.85
50.42	5 41 36	1510.04	35.83	21.48	112.88	123.19	6 6 46	910.0	39.90	13.17
129.58	13 41 39	5335.32	35.84	245.17	112.89	123.18	15 10 34	4735.3	39.91	236.85
50.42	5 41 36	1510.04	35.83	21.48	112.88	123.19	6 6 46	910.0	39.90	13.17
129.58	13 41 39	5335.32	35.84	245.17	112.89	123.18	15 10 34	4735.3	39.91	236.85

DIFFERENTIAL CORRECTIONS
TDE-1.3293 TRA -.2282 TC3-5.9354 BAU .9644
RDE .3355 RRA -.0729 RC3 .6863 FAU .04761
FDE -.6853 FRA .2749 FC3-3.4142 BSP 14995
BDE 1.3710 BRA .2377 BC3 5.9749 FSP -771

MID-COURSE EXECUTION ACCURACY
SGT 4703.1 SGR 751.6 SG3 234.3
RRT -.8719 RRF -.9200 RTF .9328
SGB 4782.8 R23 .2079 R13 -.9351
SG1 4748.8 SG2 364.5 THA 172.02

ORBIT DETERMINATION ACCURACY
ST 2201.6 SR 556.0 SS 622.2
CRT -.9850 CRS .9962 CST -.9688
LSA 2348.3 MSA 169.9 SSA 16.4
EL1 2268.8 EL2 93.1 ALF 166.01

LAUNCH DATE SEP 21 1970 FLIGHT TIME 158.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 462.670

```
RL  150.20 LAL   -.00 LOL 357.60 VL  26.680 GAL  -2.59 AZL  92.80 HCA 223.98 SMA 125.75 ECC .19943 INC 2.7975 V1  29.666
RP  108.21 LAP   1.94 LOP 221.54 VP  37.383 GAP   8.28 AZP  87.99 TAL 190.51 TAP  54.49 RCA 100.67 APO 150.82 V2  35.021
RC 141.459 GL  -22.59 GP   29.52 ZAL 102.35 ZAP 145.00 ETS  50.17 ZAE 124.72 ETE 158.33 ZAC 130.31 ETC 257.59 CLP-160.28
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PLANETOCENTRIC CONIC

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C3  11.469 VHL  3.387 DLA -44.90 RAL 249.21 RAD 6567.4 VEL 11.526 PTH   2.01 VHP  6.280 DPA   9.06 RAP 246.72 ECC 1.1888
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.58	6 11 3	1469.87	34.60	16.77	115.39	120.62	6 35 33	869.9	38.36	8.40
126.42	13 48 4	5353.99	34.61	245.99	115.40	120.61	15 17 18	4754.0	38.37	237.62
53.58	6 11 3	1469.87	34.60	16.77	115.39	120.62	6 35 33	869.9	38.36	8.40
126.42	13 48 4	5353.99	34.61	245.99	115.40	120.61	15 17 18	4754.0	38.37	237.62
53.58	6 11 3	1469.87	34.60	16.77	115.39	120.62	6 35 33	869.9	38.36	8.40
126.42	13 48 4	5353.99	34.61	245.99	115.40	120.61	15 17 18	4754.0	38.37	237.62

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DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.2090 TRA -.0939 TC3-6.3918 BAU  .9854      SGT 4794.0 SGR  717.6 SG3  234.2       ST  2052.0 SR   522.0 SS   547.4
 RDE  .3062 RRA -.0872 RC3  .6655 FAU .04658      RRT -.8620 RRF -.9025 RTF  .9322       CRT -.9877 CRS  .9897 CST -.9585
 FDE -.5753 FRA  .3566 FC3-3.5163 BSP  15297      SGB 4847.4 RZS  .1861 RIS -.9341       LSA 2180.6 MSA  165.6 SSA   19.5
 BDE 1.2479 BRA  .1281 BC3 6.4263 FSP   -773      SG1 4833.9 SG2  360.8 THA 172.61       EL1 2115.9 EL2   79.2 ALF 165.88
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LAUNCH DATE SEP 21 1970 FLIGHT TIME 160.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 468.512

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RL  150.20 LAL   -.00 LOL 357.60 VL  26.631 GAL  -2.25 AZL  92.43 HCA 227.17 SMA 125.44 ECC .20107 INC 2.4323 V1  29.666
RP  108.25 LAP   1.78 LOP 224.74 VP  37.336 GAP   8.54 AZP  88.35 TAL 189.00 TAP  56.17 RCA 100.22 APO 150.66 V2  35.008
RC 143.643 GL  -19.86 GP   27.55 ZAL  99.75 ZAP 147.11 ETS  50.01 ZAE 125.19 ETE 159.73 ZAC 128.64 ETC 258.39 CLP-161.28
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PLANETOCENTRIC CONIC

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C3  11.051 VHL  3.324 DLA -42.58 RAL 253.60 RAD 6567.4 VEL 11.508 PTH   2.00 VHP  6.322 DPA   6.68 RAP 248.14 ECC 1.1819
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.76	6 41 11	1428.58	33.23	12.12	118.12	118.33	7 5 0	828.6	36.72	3.75
123.24	13 52 56	5379.92	33.24	247.39	118.12	118.31	15 22 36	4779.9	36.73	230.01
56.76	6 41 11	1428.58	33.23	12.12	118.12	118.33	7 5 0	828.6	36.72	3.75
123.24	13 52 56	5379.92	33.24	247.39	118.12	118.31	15 22 36	4779.9	36.73	230.01
56.76	6 41 11	1428.58	33.23	12.12	118.12	118.33	7 5 0	828.6	36.72	3.75
123.24	13 52 56	5379.92	33.24	247.39	118.12	118.31	15 22 36	4779.9	36.73	230.01

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DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.0005 TRA  .0453 TC3-6.7704 BAU 1.0047      SGT 4877.8 SGR  688.0 SG3  232.3       ST  1881.2 SR   493.2 SS   474.0
 RDE  .2831 RRA -.1003 RC3  .6384 FAU .04519      RRT -.8495 RRF -.8826 RTF  .9319       CRT -.9910 CRS  .9751 CST -.9419
 FDE -.4006 FRA  .4543 FC3-3.5403 BSP  15569      SGB 4926.1 RZS  .1641 RIS -.9334       LSA 1995.0 MSA  163.0 SSA   23.0
 BDE 1.1247 BRA  .1101 BC3 6.8004 FSP   -768      SG1 4912.9 SG2  360.4 THA 173.13       EL1 1943.8 EL2   63.9 ALF 165.42
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LAUNCH DATE SEP 21 1970 FLIGHT TIME 162.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 474.337

```
RL  150.20 LAL   -.00 LOL 357.60 VL  26.583 GAL  -1.89 AZL  92.10 HCA 230.36 SMA 125.14 ECC .20286 INC 2.1033 V1  29.666
RP  108.29 LAP   1.62 LOP 227.94 VP  37.290 GAP   8.81 AZP  88.66 TAL 187.47 TAP  57.83 RCA  99.75 APO 150.52 V2  34.995
RC 145.816 GL  -17.27 GP   25.80 ZAL  96.92 ZAP 149.04 ETS  49.97 ZAE 125.56 ETE 160.98 ZAC 127.16 ETC 259.13 CLP-162.26
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PLANETOCENTRIC CONIC

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C3  10.790 VHL  3.285 DLA -40.31 RAL 257.88 RAD 6567.4 VEL 11.497 PTH   2.00 VHP  6.385 DPA   4.54 RAP 249.88 ECC 1.1776
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.02	7 12 22	1384.78	31.74	7.42	121.05	116.27	7 35 27	784.8	34.98	359.07
119.98	13 55 55	5413.93	31.75	249.42	121.05	116.26	15 26 9	4813.9	34.99	241.08
60.02	7 12 22	1384.78	31.74	7.42	121.05	116.27	7 35 27	784.8	34.98	359.07
119.98	13 55 55	5413.93	31.75	249.42	121.05	116.26	15 26 9	4813.9	34.99	241.08
60.02	7 12 22	1384.78	31.74	7.42	121.05	116.27	7 35 27	784.8	34.98	359.07
119.98	13 55 55	5413.93	31.75	249.42	121.05	116.26	15 26 9	4813.9	34.99	241.08

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DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.9609 TRA  .1982 TC3-7.0521 BAU 1.0210      SGT 4947.2 SGR  661.5 SG3  228.9       ST  1687.2 SR   467.3 SS   403.1
 RDE  .2641 RRA -.1138 RC3  .6045 FAU .04341      RRT -.8338 RRF -.8602 RTF  .9306       CRT -.9945 CRS  .9418 CST -.9119
 FDE -.3651 FRA  .5125 FC3-3.4833 BSP  15731      SGB 4991.3 RZS  .1449 RIS -.9319       LSA 1788.8 MSA  164.3 SSA   26.9
 BDE  .9965 BRA  .2268 BC3 7.0780 FSP   -752      SG1 4978.1 SG2  363.0 THA 173.60       EL1 1750.1 EL2   47.0 ALF 164.59
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LAUNCH DATE SEP 21 1970 FLIGHT TIME 164.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 480.143

```
RL  150.20 LAL   -.00 LOL 357.60 VL  26.535 GAL  -1.52 AZL  91.80 HCA 233.55 SMA 124.84 ECC .20481 INC 1.8036 V1  29.666
RP  108.33 LAP   1.45 LOP 231.14 VP  37.243 GAP   9.08 AZP  88.93 TAL 185.93 TAP  59.48 RCA  99.27 APO 150.40 V2  34.982
RC 147.979 GL  -14.81 GP   24.25 ZAL  93.92 ZAP 150.81 ETS  50.05 ZAE 125.84 ETE 162.10 ZAC 125.86 ETC 259.84 CLP-163.24
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PLANETOCENTRIC CONIC

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C3  10.669 VHL  3.266 DLA -38.08 RAL 262.06 RAD 6567.4 VEL 11.492 PTH   2.00 VHP  6.464 DPA   2.60 RAP 251.33 ECC 1.1756
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.41	7 45 3	1336.71	30.16	2.53	124.15	114.43	8 7 20	736.7	33.18	354.24
116.59	13 56 33	5457.40	30.18	252.19	124.16	114.41	15 27 30	4857.4	33.20	243.90
63.41	7 45 3	1336.71	30.16	2.53	124.15	114.43	8 7 20	736.7	33.18	354.24
116.59	13 56 33	5457.40	30.18	252.19	124.16	114.41	15 27 30	4857.4	33.20	243.90
63.41	7 45 3	1336.71	30.16	2.53	124.15	114.43	8 7 20	736.7	33.18	354.24
116.59	13 56 33	5457.40	30.18	252.19	124.16	114.41	15 27 30	4857.4	33.20	243.90

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DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.8354 TRA  .3490 TC3-7.2633 BAU 1.0302      SGT 5026.5 SGR  641.1 SG3  225.2       ST  1490.7 SR   447.1 SS   345.2
 RDE  .2503 RRA -.1256 RC3  .5726 FAU .04171      RRT -.8180 RRF -.8370 RTF  .9310       CRT -.9970 CRS  .8771 CST -.8659
 FDE -.2714 FRA  .5811 FC3-3.3845 BSP  16009      SGB 5067.2 RZS  .1242 RIS -.9319       LSA 1584.8 MSA  169.3 SSA   30.8
 BDE  .8721 BRA  .3709 BC3 7.2859 FSP   -743      SG1 5053.9 SG2  366.7 THA 174.01       EL1 1555.9 EL2   33.0 ALF 163.34
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LAUNCH DATE SEP 21 1970 FLIGHT TIME 166.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 485.931

RL 150.20 LAL -.00 LOL 357.60 VL 26.487 GAL -1.14 AZL 91.53 HCA 236.74 SMA 124.54 ECC .20694 INC 1.5278 V1 29.666
RP 108.37 LAP 1.28 LOP 234.33 VP 37.197 GAP 9.35 AZP 89.16 TAL 184.38 TAP 61.11 RCA 98.77 APO 150.31 V2 34.969
RC 150.132 GL -12.48 GP 22.87 ZAL 90.80 ZAP 152.44 ETS 50.27 ZAE 126.07 ETE 163.11 ZAC 124.71 ETC 260.51 CLP-164.20

PLANETOCENTRIC CONIC

C3 10.676 VHL 3.267 DLA -35.88 RAL 266.12 RAD 6567.4 VEL 11.492 PTH 2.00 VHP 6.559 DPA .84 RAP 253.07 ECC 1.1757

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
66.98	8 20 0	1281.71	28.52	357.25	127.40	112.76	8 41 22	681.7	31.34	349.02
113.02	13 54 1	5512.66	28.53	255.84	127.41	112.74	15 25 54	4912.7	31.35	247.62
66.98	8 20 0	1281.71	28.52	357.25	127.40	112.76	8 41 22	681.7	31.34	349.02
113.02	13 54 1	5512.66	28.53	255.84	127.41	112.74	15 25 54	4912.7	31.35	247.62
66.98	8 20 0	1281.71	28.52	357.25	127.40	112.76	8 41 22	681.7	31.34	349.02
113.02	13 54 1	5512.66	28.53	255.84	127.41	112.74	15 25 54	4912.7	31.35	247.62

DIFFERENTIAL CORRECTIONS
TDE -.7055 TRA .5114 TC3-7.3748 BAU 1.0554
RDE .2397 RRA -.1376 RC3 .5379 FAU .03903
FDE -.1832 FRA .6476 FC3-3.2296 BSP 16225
BDE .7451 BRA .5296 BC3 7.3944 FSP -728

MID-COURSE EXECUTION ACCURACY
SGT 5097.2 SGR 623.6 SGS 220.6
RRT -.8008 RRF -.8127 RTF .9311
SGB 5135.2 RZS .1062 RIS -.9319
SGI 5121.7 SGZ 372.2 THA 174.38

ORBIT DETERMINATION ACCURACY
ST 1289.1 SR 429.8 SS 302.0
CRT -.9948 CRS .7564 CST -.7951
LSA 1379.5 HSA 183.3 SSA 34.1
EL1 1358.2 EL2 41.7 ALF 161.63

LAUNCH DATE SEP 21 1970 FLIGHT TIME 168.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 491.696

RL 150.20 LAL -.00 LOL 357.60 VL 26.439 GAL -.74 AZL 91.27 HCA 239.92 SMA 124.24 ECC .20926 INC 1.2716 V1 29.666
RP 108.41 LAP 1.10 LOP 237.52 VP 37.151 GAP 9.63 AZP 89.36 TAL 182.81 TAP 62.74 RCA 98.24 APO 150.24 V2 34.956
RC 152.275 GL -10.28 GP 21.64 ZAL 87.59 ZAP 153.95 ETS 50.61 ZAE 126.24 ETE 164.01 ZAC 123.68 ETC 261.17 CLP-165.14

PLANETOCENTRIC CONIC

C3 10.807 VHL 3.287 DLA -33.72 RAL 270.06 RAD 6567.4 VEL 11.498 PTH 2.00 VHP 6.666 DPA -.75 RAP 254.90 ECC 1.1778

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
70.87	8 58 20	1215.72	26.83	351.29	130.77	111.24	9 18 36	615.7	29.47	343.13
109.13	13 47 5	5583.61	26.84	260.66	130.78	111.23	15 20 9	4983.6	29.48	252.50
70.87	8 58 20	1215.72	26.83	351.29	130.77	111.24	9 18 36	615.7	29.47	343.13
109.13	13 47 5	5583.61	26.84	260.66	130.78	111.23	15 20 9	4983.6	29.48	252.50
110.00	13 9 55	5087.25	23.66	267.98	129.26	115.42	14 44 52	5097.2	26.88	260.30
110.00	14 34 41	5438.13	30.11	250.62	132.07	107.01	16 5 19	4838.1	32.14	242.00

DIFFERENTIAL CORRECTIONS
TDE -.5929 TRA .6602 TC3-7.4689 BAU 1.0816
RDE .2553 RRA -.1461 RC3 .5152 FAU .03865
FDE -.1174 FRA .6932 FC3-3.0964 BSP 16944
BDE .6378 BRA .6762 BC3 7.4867 FSP -747

MID-COURSE EXECUTION ACCURACY
SGT 5205.3 SGR 613.7 SGS 216.8
RRT -.7860 RRF -.7912 RTF .9354
SGB 5241.4 RZS .0842 RIS -.9360
SGI 5227.8 SGZ 377.8 THA 174.68

ORBIT DETERMINATION ACCURACY
ST 1123.3 SR 420.3 SS 279.5
CRT -.9813 CRS .6107 CST -.7363
LSA 1214.3 HSA 201.9 SSA 35.8
EL1 1197.0 EL2 75.8 ALF 159.75

LAUNCH DATE SEP 21 1970 FLIGHT TIME 170.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 497.444

RL 150.20 LAL -.00 LOL 357.60 VL 26.392 GAL -.33 AZL 91.03 HCA 243.11 SMA 125.95 ECC .21178 INC 1.0315 V1 29.666
RP 108.45 LAP .92 LOP 240.70 VP 37.105 GAP 9.92 AZP 89.53 TAL 181.23 TAP 64.34 RCA 97.70 APO 150.21 V2 34.943
RC 154.408 GL -8.21 GP 20.53 ZAL 84.33 ZAP 155.35 ETS 51.09 ZAE 126.39 ETE 164.81 ZAC 122.76 ETC 261.82 CLP-166.06

PLANETOCENTRIC CONIC

C3 11.059 VHL 3.325 DLA -31.61 RAL 273.87 RAD 6567.4 VEL 11.509 PTH 2.00 VHP 6.786 DPA -2.20 RAP 256.80 ECC 1.1820

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
75.32	9 42 32	1130.57	25.11	344.04	134.25	109.86	10 1 22	530.6	27.59	335.97
104.68	13 33 19	5678.21	25.13	267.19	134.26	109.85	15 7 57	5078.2	27.60	259.12
75.32	9 42 32	1130.57	25.11	344.04	134.25	109.86	10 1 22	530.6	27.59	335.97
104.68	13 33 19	5678.21	25.13	267.19	134.26	109.85	15 7 57	5078.2	27.60	259.12
110.00	12 27 46	5882.30	17.81	279.15	130.64	119.67	14 5 49	5282.3	21.62	272.09
110.00	15 47 15	5262.53	32.90	237.71	136.61	99.86	17 14 57	4662.5	33.91	228.62

DIFFERENTIAL CORRECTIONS
TDE -.4419 TRA .8550 TC3-7.3501 BAU 1.0889
RDE .2276 RRA -.1811 RC3 .4721 FAU .03627
FDE -.0309 FRA .7658 FC3-2.8392 BSP 16757
BDE .4970 BRA .8701 BC3 7.3653 FSP -704

MID-COURSE EXECUTION ACCURACY
SGT 5241.1 SGR 598.9 SGS 211.1
RRT -.7638 RRF -.7648 RTF .9334
SGB 5275.2 RZS .0743 RIS -.9339
SGI 5261.1 SGZ 385.0 THA 174.98

ORBIT DETERMINATION ACCURACY
ST 933.0 SR 404.2 SS 276.3
CRT -.9298 CRS .3510 CST -.6597
LSA 1022.5 HSA 251.9 SSA 35.5
EL1 1007.4 EL2 137.8 ALF 157.62

LAUNCH DATE SEP 21 1970 FLIGHT TIME 172.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 503.168

RL 150.20 LAL -.00 LOL 357.60 VL 26.345 GAL .10 AZL 90.80 HCA 246.29 SMA 123.67 ECC .21452 INC .8048 V1 29.666
RP 108.49 LAP .74 LOP 243.89 VP 37.060 GAP 10.21 AZP 89.68 TAL 179.65 TAP 65.94 RCA 97.14 APO 150.20 V2 34.931
RC 156.830 GL -6.28 GP 19.54 ZAL 81.06 ZAP 156.65 ETS 51.72 ZAE 126.50 ETE 165.53 ZAC 121.93 ETC 262.47 CLP-166.97

PLANETOCENTRIC CONIC

C3 11.434 VHL 3.381 DLA -29.55 RAL 277.54 RAD 6567.4 VEL 11.525 PTH 2.01 VHP 6.917 DPA -3.50 RAP 258.77 ECC 1.1882

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.16	10 40 6	1001.28	23.39	333.71	137.81	108.60	10 56 47	401.3	25.71	325.71
98.84	13 5 2	5821.32	23.40	277.24	137.82	108.58	14 42 3	5221.3	25.72	289.24
100.00	12 36 8	625.75	20.78	305.15	136.77	111.99	12 46 34	25.8	23.58	297.47
100.00	13 51 41	5672.08	26.06	267.06	138.70	105.18	15 26 13	5072.1	27.89	258.74
110.00	12 8 56	711.52	13.74	307.09	133.05	121.61	12 20 47	111.5	17.82	301.15
110.00	16 35 23	5159.08	33.83	229.78	140.32	95.25	18 1 22	4559.1	34.18	220.55

DIFFERENTIAL CORRECTIONS
TDE -.2991 TRA 1.0470 TC3-7.1797 BAU 1.0995
RDE .2238 RRA -.1749 RC3 .4305 FAU .03392
FDE .0415 FRA .8296 FC3-2.5684 BSP 16748
BDE .3735 BRA 1.0615 BC3 7.1926 FSP -666

MID-COURSE EXECUTION ACCURACY
SGT 5290.8 SGR 587.0 SGS 205.0
RRT -.7408 RRF -.7390 RTF .9314
SGB 5323.3 RZS .0672 RIS -.9319
SGI 5308.8 SGZ 393.0 THA 175.28

ORBIT DETERMINATION ACCURACY
ST 807.7 SR 392.8 SS 294.1
CRT -.8068 CRS .1205 CST -.6748
LSA 890.9 HSA 313.4 SSA 34.0
EL1 872.0 EL2 214.9 ALF 157.11

LAUNCH DATE SEP 21 1970 FLIGHT TIME 174.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 508.867

RL 150.20 LAL -.00 LOL 357.60 VL 26.298 GAL .54 AZL 90.59 HCA 249.47 SHA 123.39 ECC .21749 INC .5890 V1 29.666
RP 108.53 LAP .55 LOP 247.07 VP 37.016 GAP 10.51 AZP 89.79 TAL 178.05 TAP 67.52 RCA 96.55 APO 150.22 V2 34.919
RC 158.641 GL -4.49 GP 18.65 ZAL 77.81 ZAP 157.87 ETS 52.50 ZAE 126.59 ETE 166.17 ZAC 121.17 ETC 263.11 CLP-167.86

PLANETOCENTRIC CONIC

C3 11.939 VHL 3.455 DLA -27.55 RAL 281.07 RAD 6567.5 VEL 11.547 PTH 2.02 VHP 7.059 DPA -4.69 RAP 260.80 ECC 1.1965

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 8 50	964.03	17.84	328.77	139.95	112.36	11 25 3	364.0	20.71	321.27
90.00	13 4 16	5876.61	25.63	281.97	142.58	102.47	14 42 12	5276.6	27.09	273.61
100.00	11 40 50	834.75	14.94	317.92	138.59	116.19	12 2 54	234.8	18.34	310.77
100.00	15 6 57	5481.12	28.75	253.52	143.24	98.55	16 38 18	4881.1	29.64	244.83
110.00	11 57 27	808.20	10.23	313.18	135.86	122.80	12 10 55	208.2	14.48	306.66
110.00	17 14 50	5080.43	34.15	223.66	143.80	91.65	18 39 39	4480.4	34.00	214.42

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.1529 TRA 1.2417 TC3-6.9577 BAU 1.1123 SGT 5345.6 SGR 576.3 SGS 199.1 ST 755.4 SR 381.9 SS 322.1
RDE .2214 RRA -.1870 RC3 .3965 FAU .03203 RRT -.7214 RRF -.7133 RTF .9325 CRT -.5803 CRS -.0747 CST -.7622
FDE .1104 FRA .8787 FC3-2.3230 BSP 17065 SGB 5376.6 RZS .0531 R13 -.9329 LSA 825.1 MSA 372.1 SSA 31.3
BDE .2691 BRA 1.2557 BC3 6.9880 FSP -663 SGI 5361.9 SGZ 397.9 THA 175.53 EL1 792.8 EL2 296.3 ALF 160.88

LAUNCH DATE SEP 21 1970 FLIGHT TIME 176.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 514.540

RL 150.20 LAL -.00 LOL 357.60 VL 26.252 GAL 1.00 AZL 90.38 HCA 252.65 SHA 123.11 ECC .22071 INC .3820 V1 29.666
RP 108.96 LAP .37 LOP 250.25 VP 36.972 GAP 10.82 AZP 89.89 TAL 176.45 TAP 69.10 RCA 95.94 APO 150.28 V2 34.907
RC 160.740 GL -2.83 GP 17.84 ZAL 74.81 ZAP 159.00 ETS 53.44 ZAE 126.66 ETE 166.75 ZAC 120.48 ETC 263.74 CLP-168.74

PLANETOCENTRIC CONIC

C3 12.578 VHL 3.547 DLA -25.62 RAL 284.44 RAD 6567.5 VEL 11.574 PTH 2.02 VHP 7.213 DPA -5.75 RAP 262.88 ECC 1.2070

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 31 57	1143.69	12.86	330.61	142.26	115.45	10 51 1	543.7	16.18	332.51
90.00	14 8 13	5719.07	27.47	270.81	146.80	97.17	15 43 32	5119.1	28.18	262.22
100.00	11 28 0	962.73	10.97	325.34	141.29	117.98	11 44 2	362.7	14.63	318.46
100.00	15 54 52	5375.26	29.58	245.78	147.05	94.55	17 24 27	4775.3	29.89	236.97
110.00	11 49 52	894.08	7.03	317.77	138.91	123.54	12 4 46	294.1	11.39	311.39
110.00	17 40 88	5016.68	34.16	218.68	147.20	88.70	19 13 5	4416.7	33.60	209.48

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.0078 TRA 1.4463 TC3-6.6759 BAU 1.1243 SGT 5390.0 SGR 588.1 SGS 193.5 ST 790.4 SR 373.9 SS 356.0
RDE .2216 RRA -.1989 RC3 .3829 FAU .03016 RRT -.7015 RRF -.6897 RTF .9334 CRT -.3006 CRS -.2054 CST -.8670
FDE .1083 FRA .9895 FC3-2.0761 BSP 17269 SGB 5427.8 RZS .0438 R13 -.9337 LSA 856.2 MSA 396.6 SSA 28.7
BDE .2217 BRA 1.4800 BC3 6.8658 FSP -648 SGI 5412.8 SGZ 403.7 THA 175.75 EL1 800.3 EL2 352.2 ALF 169.94

LAUNCH DATE SEP 21 1970 FLIGHT TIME 178.00 ARRIVAL DATE MAR 18 1971

HELIOCENTRIC CONIC DISTANCE 520.185

RL 150.20 LAL -.00 LOL 357.60 VL 26.206 GAL 1.49 AZL 90.18 HCA 255.83 SHA 122.83 ECC .22421 INC .1818 V1 29.666
RP 108.60 LAP .18 LOP 253.42 VP 36.929 GAP 11.14 AZP 89.96 TAL 174.84 TAP 70.67 RCA 95.29 APO 150.37 V2 34.896
RC 162.826 GL -1.31 GP 17.11 ZAL 71.48 ZAP 160.06 ETS 54.54 ZAE 126.72 ETE 167.28 ZAC 119.85 ETC 264.38 CLP-169.81

PLANETOCENTRIC CONIC

C3 13.363 VHL 3.655 DLA -23.77 RAL 287.66 RAD 6567.5 VEL 11.608 PTH 2.03 VHP 7.378 DPA -6.71 RAP 265.02 ECC 1.2199

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 12 36	1267.80	9.13	346.81	145.13	116.92	10 33 44	667.8	12.67	339.92
90.00	14 53 16	5621.02	28.10	263.71	150.58	93.66	16 26 57	5021.0	28.31	255.05
100.00	11 14 45	1067.20	7.57	331.24	144.30	119.00	11 32 32	467.2	11.38	324.52
100.00	16 33 48	5296.85	29.86	239.95	150.67	91.50	18 2 5	4696.9	29.75	231.15
110.00	11 44 46	973.07	4.04	321.93	142.12	123.97	12 0 59	373.1	8.47	315.85
110.00	18 20 16	4963.75	34.00	214.56	150.57	86.26	19 43 0	4363.8	33.11	205.43

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .1420 TRA 1.6809 TC3-6.3452 BAU 1.1351 SGT 5446.2 SGR 560.3 SGS 187.9 ST 892.8 SR 366.8 SS 391.6
RDE .2233 RRA -.2131 RC3 .3299 FAU .02829 RRT -.6815 RRF -.6668 RTF .9341 CRT -.0506 CRS -.2991 CST -.9348
FDE .2238 FRA .9787 FC3-1.8329 BSP 17434 SGB 5475.0 RZS .0363 R13 -.9343 LSA 966.5 MSA 387.7 SSA 26.4
BDE .2646 BRA 1.6745 BC3 6.3538 FSP -630 SGI 5459.7 SGZ 409.0 THA 175.97 EL1 893.1 EL2 366.2 ALF 170.57

LAUNCH DATE SEP 21 1970 FLIGHT TIME 180.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 525.795

RL 150.20 LAL -.00 LOL 357.60 VL 26.160 GAL 1.99 AZL 89.99 HCA 259.00 SHA 122.56 ECC .22801 INC .0000 V1 29.666
RP 108.63 LAP -.01 LOP 256.60 VP 36.886 GAP 11.48 AZP 90.00 TAL 173.23 TAP 72.23 RCA 94.62 APO 150.51 V2 34.885
RC 164.900 GL .08 GP 16.45 ZAL 68.44 ZAP 161.05 ETS 55.83 ZAE 126.76 ETE 167.75 ZAC 119.25 ETC 265.02 CLP-170.46

PLANETOCENTRIC CONIC

C3 14.305 VHL 3.782 DLA -22.00 RAL 290.72 RAD 6567.6 VEL 11.649 PTH 2.04 VHP 7.554 DPA -7.57 RAP 267.19 ECC 1.2354

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 59 52	1371.28	5.09	352.00	148.25	117.75	10 22 43	771.3	9.56	345.93
90.00	15 30 25	5547.41	28.30	258.34	154.21	90.98	17 2 53	4947.4	28.14	249.67
100.00	11 5 35	1159.18	4.51	336.34	147.49	119.58	11 24 54	559.2	8.41	329.73
100.00	17 7 24	5234.72	29.88	235.33	154.21	89.07	18 34 39	4634.7	29.43	226.56
110.00	11 41 19	1047.16	1.21	325.80	145.44	124.16	11 58 46	447.2	5.68	319.57
110.00	18 48 9	4919.51	33.75	211.13	153.95	84.25	20 10 9	4319.5	32.59	202.09

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE .2600 TRA 1.8898 TC3-6.0479 BAU 1.1581 SGT 5506.9 SGR 554.7 SGS 181.8 ST 1007.8 SR 364.1 SS 413.1
RDE .2291 RRA -.2237 RC3 .3080 FAU .02716 RRT -.6640 RRF -.6472 RTF .9378 CRT .1104 CRS -.3538 CST -.9664
FDE .2589 FRA 1.0107 FC3-1.6439 BSP 18211 SGB 5534.8 RZS .0281 R13 -.9379 LSA 1086.2 MSA 372.2 SSA 24.1
BDE .3533 BRA 1.8730 BC3 6.0556 FSP -645 SGI 5519.3 SGZ 415.8 THA 176.15 EL1 1008.7 EL2 361.5 ALF 2.62

LAUNCH DATE SEP 21 1970 FLIGHT TIME 182.00 ARRIVAL DATE MAR 22 1971

HELIOCENTRIC CONIC DISTANCE 531.377

RL 150.20 LAL -.00 LOL 357.60 VL 26.115 GAL 2.52 AZL 89.80 HCA 262.17 SMA 122.29 ECC .23212 INC .2003 V1 29.666
RP 108.66 LAP -.20 LOP 259.77 VP 36.844 GAP 11.82 AZP 90.03 TAL 171.62 TAP 73.79 RCA 93.91 APO 150.68 V2 34.874
RC 166.961 GL 1.34 GP 15.85 ZAL 65.51 ZAP 161.98 ETS 57.30 ZAE 126.80 ETE 168.18 ZAC 118.70 ETC 265.66 CLP-171.30

PLANETOCENTRIC CONIC

C3 15.419 VHL 3.927 DLA -20.31 RAL 293.64 RAD 6567.6 VEL 11.696 PTH 2.06 VHP 7.743 DPA -8.33 RAP 269.41 ECC 1.2538

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 50 51	1463.11	2.96	357.84	151.53	118.17	10 15 14	863.1	6.70	351.17
90.00	16 2 42	5489.05	28.30	254.07	157.79	88.84	17 34 11	4889.1	27.83	245.43
100.00	10 59 0	1243.16	1.67	340.96	150.82	119.85	11 19 43	643.2	5.63	334.42
100.00	17 37 14	5184.23	29.76	231.58	157.73	87.10	19 3 38	4584.2	29.05	222.85
110.00	11 39 5	1117.53	-1.48	329.47	148.85	124.15	11 57 43	517.5	3.01	323.27
110.00	19 13 38	4882.62	33.47	208.29	157.34	82.59	20 35 1	4282.6	32.08	199.33

DIFFERENTIAL CORRECTIONS
TDE .4437 TRA 2.1145 TC3-5.6014 BAU 1.1560
RDE .2313 RRA -.2594 RC3 .2693 FAU .02482
FDE .3167 FRA 1.0680 FC3-1.3938 BSP 17907
BDE .5004 BRA 2.1280 BC3 5.6079 FSP -605

MID-COURSE EXECUTION ACCURACY
SGT 5531.2 SGR 545.3 SG3 176.5
RRT -.6423 RRF -.6235 RTF .9365
SGB 5558.0 RZ3 .0242 R13 -.9366
SG1 5542.3 SG2 417.1 THA 176.36

ORBIT DETERMINATION ACCURACY
ST 1187.7 SR 355.6 SS 455.3
CRT .2542 CRS -.4135 CST -.9842
LSA 1273.8 MSA 348.3 SSA 22.4
EL1 1191.5 EL2 342.8 ALF 4.75

LAUNCH DATE SEP 21 1970 FLIGHT TIME 184.00 ARRIVAL DATE MAR 24 1971

HELIOCENTRIC CONIC DISTANCE 536.921

RL 150.20 LAL -.00 LOL 357.60 VL 26.071 GAL 3.07 AZL 89.61 HCA 265.34 SMA 122.03 ECC .23659 INC .3875 V1 29.666
RP 108.69 LAP -.39 LOP 262.94 VP 36.803 GAP 12.19 AZP 90.03 TAL 170.00 TAP 75.35 RCA 93.16 APO 150.90 V2 34.864
RC 169.007 GL 2.47 GP 15.30 ZAL 62.70 ZAP 162.84 ETS 58.98 ZAE 126.83 ETE 168.56 ZAC 118.18 ETC 266.30 CLP-172.14

PLANETOCENTRIC CONIC

C3 16.724 VHL 4.089 DLA -18.72 RAL 296.40 RAD 6567.7 VEL 11.752 PTH 2.07 VHP 7.946 DPA -9.00 RAP 271.65 ECC 1.2752

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 44 12	1547.19	.25	2.54	154.91	118.32	10 9 59	947.2	4.03	355.90
90.00	16 31 22	5441.92	28.18	250.62	161.34	87.11	18 2 4	4841.9	27.48	242.03
100.00	10 54 11	1321.36	-.98	345.25	154.23	119.88	11 16 12	721.4	3.00	338.73
100.00	18 4 4	5142.99	29.58	228.53	161.24	85.51	19 29 47	4543.0	28.65	219.85
110.00	11 37 44	1184.89	-4.05	332.99	152.31	123.97	11 57 29	584.9	.44	326.78
110.00	19 37 1	4852.22	33.17	205.96	160.75	81.24	20 57 53	4252.2	31.61	197.08

DIFFERENTIAL CORRECTIONS
TDE .6083 TRA 2.3668 TC3-5.1812 BAU 1.1597
RDE .2362 RRA -.2536 RC3 .2388 FAU .02292
FDE .3629 FRA 1.1161 FC3-1.1864 BSP 17915
BDE .6526 BRA 2.3803 BC3 5.1867 FSP -582

MID-COURSE EXECUTION ACCURACY
SGT 5562.6 SGR 537.0 SG3 171.2
RRT -.6223 RRF -.6020 RTF .9369
SGB 5588.5 RZ3 .0200 R13 -.9370
SG1 5572.7 SG2 419.6 THA 176.54

ORBIT DETERMINATION ACCURACY
ST 1358.6 SR 349.6 SS 487.7
CRT .3434 CRS -.4524 CST -.9918
LSA 1448.0 MSA 330.0 SSA 20.9
EL1 1364.2 EL2 327.0 ALF 5.36

LAUNCH DATE SEP 21 1970 FLIGHT TIME 186.00 ARRIVAL DATE MAR 26 1971

HELIOCENTRIC CONIC DISTANCE 542.422

RL 150.20 LAL -.00 LOL 357.60 VL 26.026 GAL 3.64 AZL 89.43 HCA 268.51 SMA 121.77 ECC .24145 INC .5725 V1 29.666
RP 108.72 LAP -.57 LOP 266.11 VP 36.762 GAP 12.57 AZP 90.02 TAL 168.39 TAP 76.90 RCA 92.37 APO 151.18 V2 34.855
RC 171.039 GL 3.49 GP 14.80 ZAL 60.01 ZAP 163.65 ETS 60.87 ZAE 126.85 ETE 168.92 ZAC 117.68 ETC 266.94 CLP-172.97

PLANETOCENTRIC CONIC

C3 18.241 VHL 4.271 DLA -17.22 RAL 299.01 RAD 6567.7 VEL 11.816 PTH 2.09 VHP 8.162 DPA -9.59 RAP 273.93 ECC 1.3002

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 39 13	1625.60	-2.28	6.91	158.36	118.23	10 6 19	1025.6	1.51	.28
90.00	16 57 12	5403.76	28.02	247.84	164.87	85.73	18 27 16	4803.8	27.13	239.29
100.00	10 50 39	1395.13	-3.48	349.31	157.70	119.71	11 13 54	795.1	.50	342.78
100.00	18 28 28	5109.46	29.38	226.06	164.74	84.22	19 53 37	4509.5	28.27	217.43
110.00	11 37 3	1249.72	-6.51	336.41	155.82	123.63	11 57 53	649.7	-2.04	330.16
110.00	19 58 32	4827.63	32.90	204.09	164.17	80.17	21 19 0	4227.6	31.20	195.28

DIFFERENTIAL CORRECTIONS
TDE .7721 TRA 2.6265 TC3-4.7685 BAU 1.1640
RDE .2428 RRA -.2673 RC3 .2112 FAU .02119
FDE .4036 FRA 1.1609 FC3-1.0055 BSP 18022
BDE .8093 BRA 2.6400 BC3 4.7732 FSP -564

MID-COURSE EXECUTION ACCURACY
SGT 5592.0 SGR 528.7 SG3 165.9
RRT -.6028 RRF -.5816 RTF .9379
SGB 5617.0 RZ3 .0163 R13 -.9380
SG1 5601.1 SG2 421.2 THA 176.72

ORBIT DETERMINATION ACCURACY
ST 1520.6 SR 344.6 SS 514.9
CRT .4046 CRS -.4814 CST -.9955
LSA 1611.3 MSA 315.5 SSA 19.6
EL1 1527.3 EL2 313.8 ALF 5.47

LAUNCH DATE SEP 21 1970 FLIGHT TIME 188.00 ARRIVAL DATE MAR 28 1971

HELIOCENTRIC CONIC DISTANCE 547.876

RL 150.20 LAL -.00 LOL 357.60 VL 25.983 GAL 4.25 AZL 89.24 HCA 271.68 SMA 121.52 ECC .24673 INC .7569 V1 29.666
RP 108.75 LAP -.76 LOP 269.28 VP 36.723 GAP 12.97 AZP 89.98 TAL 166.77 TAP 78.46 RCA 91.54 APO 151.50 V2 34.846
RC 173.056 GL 4.39 GP 14.34 ZAL 57.44 ZAP 164.40 ETS 63.00 ZAE 126.86 ETE 169.24 ZAC 117.20 ETC 267.58 CLP-173.79

PLANETOCENTRIC CONIC

C3 19.996 VHL 4.472 DLA -15.81 RAL 301.48 RAD 6567.8 VEL 11.890 PTH 2.11 VHP 8.394 DPA -10.10 RAP 276.23 ECC 1.3291

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 35 28	1699.59	-4.66	11.05	161.87	117.96	10 3 48	1099.6	-.88	4.41
90.00	17 20 39	5373.12	27.84	245.62	168.40	84.63	18 50 13	4773.1	26.81	237.11
100.00	10 48 4	1465.34	-5.84	353.19	161.23	119.37	11 12 29	865.3	-1.88	346.63
100.00	18 50 44	5082.61	29.18	224.09	168.24	83.20	20 15 27	4482.6	27.93	215.51
110.00	11 36 54	1312.39	-8.86	339.74	159.38	123.15	11 58 46	712.4	-4.43	333.44
110.00	20 18 24	4808.32	32.67	202.63	167.82	79.33	21 38 33	4208.3	30.86	193.88

DIFFERENTIAL CORRECTIONS
TDE .9384 TRA 2.8972 TC3-4.3624 BAU 1.1673
RDE .2505 RRA -.2806 RC3 .1858 FAU .01953
FDE .4411 FRA 1.2043 FC3 -.8456 BSP 18143
BDE .9712 BRA 2.9107 BC3 4.3663 FSP -549

MID-COURSE EXECUTION ACCURACY
SGT 5617.0 SGR 519.9 SG3 160.8
RRT -.5834 RRF -.5617 RTF .9391
SGB 5641.0 RZ3 .0131 R13 -.9392
SG1 5625.2 SG2 421.6 THA 176.89

ORBIT DETERMINATION ACCURACY
ST 1673.0 SR 340.1 SS 538.6
CRT .4494 CRS -.5045 CST -.9974
LSA 1764.1 MSA 303.4 SSA 18.5
EL1 1680.2 EL2 302.5 ALF 5.39

LAUNCH DATE SEP 21 1970 FLIGHT TIME 190.00 ARRIVAL DATE MAR 30 1971

HELIOCENTRIC CONIC DISTANCE 553.278

```
RL  150.20 LAL   -.00 LOL 357.60 VL  25.939 GAL   4.09 AZL  89.06 HCA 274.85 SMA 121.27 ECC .25247 INC  .9418 V1  29.666
RP  108.78 LAP   -.94 LOP 272.45 VP  36.684 GAP  13.40 AZP  89.92 TAL 165.17 TAP  80.02 RCA  90.65 APO 151.89 V2  34.837
RC 175.059 GL    5.19 GP   13.93 ZAL  55.01 ZAP 165.09 ETS  65.36 ZAE 126.87 ETE 169.54 ZAC 116.74 ETC 268.21 CLP-174.61
```

PLANETOCENTRIC CONIC

```
C3  22.020 VHL  4.693 DLA -14.49 RAL 303.81 RAD 6567.9 VEL 11.975 PTH   2.13 VHP  8.644 DPA -10.52 RAP 278.54 ECC 1.3624
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 32 38	1770.00	-6.89	15.02	165.43	117.53	10 2 8	1170.0	-3.15	8.34
90.00	17 42 5	5349.00	27.68	243.87	171.93	83.77	19 11 14	4749.0	26.53	235.40
100.00	10 46 14	1532.57	-8.06	356.93	164.79	118.88	11 11 46	932.6	-4.15	350.33
100.00	19 11 11	5061.66	29.00	222.56	171.75	82.41	20 35 33	4461.7	27.65	214.02
110.00	11 37 7	1373.15	-11.10	343.01	162.96	122.54	12 0 1	773.1	-6.73	336.64
110.00	20 36 47	4793.85	32.48	201.55	171.07	78.72	21 56 40	4193.9	30.59	192.84

DIFFERENTIAL CORRECTIONS

```
TDE 1.1095 TRA 3.1825 TC3-3.9650 BAU 1.1682
RDE  .2593 RRA -.2936 RC3  .1620 FAU .01791
FDE  .4767 FRA 1.2483 FC3 -.7042 BSP  18238
BDE 1.1394 BRA 3.1980 BC3 3.9683 FSP   -532
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5638.2 SGR  510.4 SG3  155.8
RRT -.5639 RRF -.5421 RTF  .9406
SGB 5661.3 RZS  .0106 R13 -.9406
SG1 5645.6 SG2  420.9 THA 177.06
```

ORBIT DETERMINATION ACCURACY

```
ST  1815.9 SR   335.6 SS   559.9
CRT  .4836 CRS -.5236 CST -.9984
LSA 1907.2 MSA  293.1 SSA   17.5
EL1 1823.3 EL2  292.6 ALF   5.24
```

LAUNCH DATE SEP 21 1970 FLIGHT TIME 192.00 ARRIVAL DATE APR 1 1971

HELIOCENTRIC CONIC DISTANCE 558.620

```
RL  150.20 LAL   -.00 LOL 357.60 VL  25.896 GAL   5.56 AZL  88.87 HCA 278.01 SMA 121.02 ECC .25873 INC 1.1284 V1  29.666
RP  108.80 LAP  -1.12 LOP 275.61 VP  36.646 GAP  13.85 AZP  89.84 TAL 163.57 TAP  81.59 RCA  89.71 APO 152.34 V2  34.829
RC 177.047 GL    5.90 GP   13.54 ZAL  52.71 ZAP 165.72 ETS  67.99 ZAE 126.86 ETE 169.81 ZAC 116.28 ETC 268.85 CLP-175.43
```

PLANETOCENTRIC CONIC

```
C3  24.349 VHL  4.935 DLA -15.26 RAL 306.01 RAD 6568.0 VEL 12.072 PTH   2.16 VHP  8.912 DPA -10.88 RAP 280.87 ECC 1.4007
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 30 32	1837.39	-8.99	18.86	169.02	116.96	10 1 9	1237.4	-5.30	12.12
90.00	18 1 44	5330.63	27.53	242.55	175.45	83.12	19 30 35	4730.6	26.30	234.10
100.00	10 44 58	1597.24	-10.17	.58	168.39	118.26	11 11 35	997.2	-6.32	353.91
100.00	19 29 59	5046.00	28.85	221.42	175.25	81.83	20 54 5	4446.0	27.42	212.91
110.00	11 37 40	1432.19	-13.24	346.25	166.58	121.81	12 1 32	832.2	-8.94	339.79
110.00	20 53 47	4783.82	32.35	200.80	174.54	78.29	22 13 31	4183.6	30.40	192.12

DIFFERENTIAL CORRECTIONS

```
TDE 1.2848 TRA 3.4812 TC3-3.5830 BAU 1.1673
RDE  .2693 RRA -.3081 RC3  .1402 FAU .01636
FDE  .5100 FRA 1.2919 FC3 -.5817 BSP  18342
BDE 1.3124 BRA 3.4946 BC3 3.5857 FSP   -517
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5654.5 SGR  500.2 SG3  151.0
RRT -.5442 RRF -.5227 RTF  .9423
SGB 5676.6 RZS  .0084 R13 -.9423
SG1 5661.1 SG2  419.2 THA 177.23
```

ORBIT DETERMINATION ACCURACY

```
ST  1946.2 SR   331.3 SS   578.6
CRT  .5108 CRS -.5399 CST -.9990
LSA 2037.5 MSA  284.0 SSA   16.6
EL1 1953.7 EL2  283.7 ALF   5.08
```

LAUNCH DATE SEP 21 1970 FLIGHT TIME 194.00 ARRIVAL DATE APR 3 1971

HELIOCENTRIC CONIC DISTANCE 563.895

```
RL  150.20 LAL   -.00 LOL 357.60 VL  25.854 GAL   6.27 AZL  88.68 HCA 281.18 SMA 120.78 ECC .26555 INC 1.3177 V1  29.666
RP  108.83 LAP  -1.29 LOP 278.78 VP  36.609 GAP  14.34 AZP  89.74 TAL 161.99 TAP  83.17 RCA  88.71 APO 152.86 V2  34.822
RC 179.021 GL    6.53 GP   13.19 ZAL  50.53 ZAP 166.29 ETS  70.88 ZAE 126.85 ETE 170.07 ZAC 115.84 ETC 269.48 CLP-176.25
```

PLANETOCENTRIC CONIC

```
C3  27.027 VHL  5.199 DLA -12.11 RAL 308.08 RAD 6568.1 VEL 12.182 PTH   2.19 VHP  9.200 DPA -11.16 RAP 283.20 ECC 1.4448
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 29 0	1902.17	-10.97	22.50	172.63	116.27	10 0 42	1302.2	-7.35	15.78
90.00	18 19 48	5317.39	27.42	241.60	178.97	82.65	19 48 25	4717.4	26.12	233.17
100.00	10 44 9	1659.68	-12.16	4.15	172.02	117.52	11 11 49	1059.7	-8.38	357.40
100.00	19 47 19	5035.11	28.75	220.62	178.76	81.43	21 11 14	4435.1	27.26	212.14
110.00	11 38 26	1489.68	-15.28	349.45	170.22	120.96	12 3 16	889.7	-11.06	342.89
110.00	21 9 32	4777.87	32.26	200.35	178.02	78.04	22 29 10	4177.9	30.28	191.70

DIFFERENTIAL CORRECTIONS

```
TDE 1.4647 TRA 3.7952 TC3-3.2189 BAU 1.1639
RDE  .2802 RRA -.3178 RC3  .1202 FAU .01486
FDE  .5420 FRA 1.3360 FC3 -.4759 BSP  18443
BDE 1.4912 BRA 3.8085 BC3 3.2211 FSP   -503
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5666.3 SGR  489.2 SG3  146.4
RRT -.5239 RRF -.5030 RTF  .9442
SGB 5687.4 RZS  .0067 R13 -.9442
SG1 5672.2 SG2  416.3 THA 177.40
```

ORBIT DETERMINATION ACCURACY

```
ST  2064.7 SR   327.0 SS   595.5
CRT  .5335 CRS -.5546 CST -.9993
LSA 2156.0 MSA  275.7 SSA   15.9
EL1 2072.2 EL2  275.6 ALF   4.92
```

LAUNCH DATE SEP 21 1970 FLIGHT TIME 196.00 ARRIVAL DATE APR 5 1971

HELIOCENTRIC CONIC DISTANCE 569.092

```
RL  150.20 LAL   -.00 LOL 357.60 VL  25.812 GAL   7.02 AZL  88.49 HCA 284.34 SMA 120.55 ECC .27301 INC 1.5112 V1  29.666
RP  108.85 LAP  -1.46 LOP 281.94 VP  36.573 GAP  14.86 AZP  89.63 TAL 160.42 TAP  84.76 RCA  87.64 APO 153.46 V2  34.815
RC 180.980 GL    7.07 GP   12.87 ZAL  48.48 ZAP 166.80 ETS  74.07 ZAE 126.82 ETE 170.31 ZAC 115.41 ETC 270.11 CLP-177.08
```

PLANETOCENTRIC CONIC

```
C3  30.105 VHL  5.487 DLA -11.05 RAL 310.03 RAD 6568.2 VEL 12.308 PTH   2.22 VHP  9.512 DPA -11.37 RAP 285.54 ECC 1.4955
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 27 55	1964.66	-12.83	26.24	176.27	115.46	10 0 39	1364.7	-9.29	19.35
90.00	18 36 26	5308.76	27.35	240.98	182.49	82.35	20 4 55	4708.8	26.00	232.57
100.00	10 43 43	1720.12	-14.03	7.65	175.67	116.67	11 12 23	1120.1	-10.34	.81
100.00	20 3 19	5028.54	28.68	220.15	182.27	81.19	21 27 8	4428.5	27.16	211.67
110.00	11 39 24	1545.74	-17.22	352.64	173.89	120.00	12 5 9	945.7	-13.10	345.95
110.00	21 24 7	4775.69	32.23	200.19	181.51	77.95	22 43 43	4175.7	30.24	191.54

DIFFERENTIAL CORRECTIONS

```
TDE 1.6488 TRA 4.1843 TC3-2.8764 BAU 1.1584
RDE  .2923 RRA -.3285 RC3  .1022 FAU .01344
FDE  .5722 FRA 1.3803 FC3 -.3664 BSP  18571
BDE 1.6745 BRA 4.1373 BC3 2.8782 FSP   -490
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5673.0 SGR  477.4 SG3  141.8
RRT -.5030 RRF -.4830 RTF  .9464
SGB 5693.0 RZS  .0052 R13 -.9464
SG1 5678.1 SG2  412.2 THA 177.56
```

ORBIT DETERMINATION ACCURACY

```
ST  2169.4 SR   322.8 SS   610.3
CRT  .5529 CRS -.5681 CST -.9995
LSA 2260.7 MSA  268.1 SSA   15.1
EL1 2176.8 EL2  268.0 ALF   4.78
```

LAUNCH DATE SEP 21 1970 FLIGHT TIME 198.00 ARRIVAL DATE APR 7 1971

HELIOCENTRIC CONIC DISTANCE 574.199

```
RL  150.20 LAL   -.00 LOL 357.60 VL  25.771 GAL   7.82 AZL  88.29 HCA 287.50 SMA 120.32 ECC .28118 INC 1.7101 V1  29.666
RP  108.87 LAP  -1.63 LOP 285.10 VP  36.539 GAP  15.41 AZP  89.49 TAL 158.87 TAP  86.37 RCA  86.49 APO 154.14 V2  34.809
RC 182.925 GL    7.55 GP   12.58 ZAL  46.56 ZAP 167.25 ETS  77.54 ZAE 126.78 ETE 170.53 ZAC 114.98 ETC 270.73 CLP-177.91
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PLANETOCENTRIC CONIC

```
C3  33.647 VHL  5.801 DLA -10.07 RAL 311.86 RAD 6568.3 VEL 12.451 PTH   2.25 VHP  9.850 DPA -11.52 RAP 287.88 ECC 1.5538
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 27 12	2025.08	-14.57	29.83	179.93	114.55	10 0 57	1425.1	-11.13	22.83
90.00	18 51 46	5304.32	27.31	240.66	185.99	82.19	20 20 10	4704.3	25.94	232.26
100.00	10 43 34	1778.72	-15.80	11.11	179.33	115.71	11 13 12	1178.7	-12.21	4.16
100.00	20 18 5	5025.91	28.65	219.96	185.77	81.09	21 41 51	4425.9	27.12	211.49
110.00	11 40 29	1600.43	-19.05	355.83	177.57	118.94	12 7 10	1000.4	-15.04	349.00
110.00	21 37 38	4776.96	32.25	200.28	185.00	78.00	22 57 15	4177.0	30.26	191.63

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE 1.8390 TRA 4.4709 TC3-2.5552 BAU 1.1501   SGT 5674.8 SGR  464.7 SG3  137.4          ST  2262.3 SR   318.4 SS   623.9
 RDE  .3054 RRA -.3380 RC3  .0858 FAU .01206   RRT -.4809 RRF -.4623 RTF  .9488          CRT  .5704 CRS -.5810 CST -.9996
 FDE  .6017 FRA 1.4257 FC3 -.3103 BSP  18715   SGB 5693.8 R23  .0041 R13 -.9488          LSA 2353.8 MSA  260.7 SSA   14.5
 BDE 1.8642 BRA 4.4837 BC3 2.5566 FSP   -478   SG1 5679.2 SG2  407.1 THA 177.73          EL1 2269.6 EL2  260.7 ALF   4.65
```

LAUNCH DATE SEP 21 1970 FLIGHT TIME 200.00 ARRIVAL DATE APR 9 1971

HELIOCENTRIC CONIC DISTANCE 579.200

```
RL  150.20 LAL   -.00 LOL 357.60 VL  25.731 GAL   8.67 AZL  88.08 HCA 290.66 SMA 120.09 ECC .29013 INC 1.9160 V1  29.666
RP  108.88 LAP  -1.79 LOP 288.27 VP  36.505 GAP  16.02 AZP  89.32 TAL 157.35 TAP  88.01 RCA  85.25 APO 154.93 V2  34.804
RC 184.854 GL    7.96 GP   12.31 ZAL  44.75 ZAP 167.63 ETS  81.30 ZAE 126.73 ETE 170.74 ZAC 114.55 ETC 271.34 CLP-178.76
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PLANETOCENTRIC CONIC

```
C3  37.729 VHL  6.142 DLA  -9.16 RAL 313.58 RAD 6568.5 VEL 12.613 PTH   2.29 VHP 10.217 DPA -11.60 RAP 290.21 ECC 1.6209
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 26 47	2083.57	-16.19	33.35	183.60	113.55	10 1 30	1483.6	-12.87	26.25
90.00	19 5 53	5303.66	27.30	240.61	189.48	82.17	20 34 17	4703.7	25.93	232.21
100.00	10 43 38	1835.60	-17.44	14.53	183.01	114.67	11 14 14	1235.6	-13.97	7.46
100.00	20 31 43	5026.87	28.66	220.03	189.26	81.12	21 55 30	4426.9	27.14	211.56
110.00	11 41 41	1653.83	-20.78	359.01	181.28	117.78	12 9 15	1053.8	-16.89	352.03
110.00	21 50 9	4781.40	32.31	200.61	188.48	78.19	23 9 50	4181.4	30.35	191.95

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE 2.0396 TRA 4.8366 TC3-2.2556 BAU 1.1383   SGT 5671.5 SGR  451.1 SG3  133.1          ST  2343.4 SR   313.9 SS   636.7
 RDE  .3197 RRA -.3461 RC3  .0712 FAU .01074   RRT -.4575 RRF -.4404 RTF  .9515          CRT  .5866 CRS -.5936 CST -.9997
 FDE  .6304 FRA 1.4727 FC3 -.2463 BSP  18861   SGB 5689.4 R23  .0033 R13 -.9515          LSA 2435.4 MSA  253.5 SSA   13.9
 BDE 2.0606 BRA 4.8489 BC3 2.2567 FSP   -466   SG1 5675.3 SG2  400.9 THA 177.91          EL1 2350.8 EL2  253.5 ALF   4.55
```

LAUNCH DATE SEP 21 1970 FLIGHT TIME 202.00 ARRIVAL DATE APR 11 1971

HELIOCENTRIC CONIC DISTANCE 584.079

```
RL  150.20 LAL   -.00 LOL 357.60 VL  25.691 GAL   9.59 AZL  87.87 HCA 293.81 SMA 119.87 ECC .29997 INC 2.1306 V1  29.666
RP  108.90 LAP  -1.95 LOP 291.43 VP  36.472 GAP  16.67 AZP  89.14 TAL 155.86 TAP  89.68 RCA  83.91 APO 155.82 V2  34.799
RC 186.768 GL    8.31 GP   12.06 ZAL  43.06 ZAP 167.93 ETS  85.34 ZAE 126.65 ETE 170.95 ZAC 114.13 ETC 271.94 CLP-179.61
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PLANETOCENTRIC CONIC

```
C3  42.443 VHL  6.515 DLA  -8.33 RAL 315.19 RAD 6568.6 VEL 12.799 PTH   2.33 VHP 10.618 DPA -11.63 RAP 292.52 ECC 1.6985
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 26 36	2140.25	-17.70	36.83	187.27	112.47	10 2 16	1540.3	-14.50	29.61
90.00	19 18 54	5306.44	27.33	240.81	192.96	82.27	20 47 21	4706.4	25.97	232.40
100.00	10 43 55	1890.84	-18.98	17.92	186.69	113.54	11 15 26	1290.8	-15.64	10.72
100.00	20 44 17	5031.08	28.71	220.33	192.73	81.28	22 8 8	4431.1	27.20	211.85
110.00	11 42 58	1705.95	-22.40	2.18	184.99	116.53	12 11 24	1105.9	-18.65	355.05
110.00	22 1 43	4788.74	32.41	201.16	191.96	78.50	23 21 32	4188.7	30.49	192.48

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE 2.2411 TRA 5.2242 TC3-1.9758 BAU 1.1216   SGT 5663.4 SGR  436.6 SG3  129.0          ST  2414.8 SR   309.3 SS   649.3
 RDE  .3351 RRA -.3524 RC3  .0582 FAU .00943   RRT -.4321 RRF -.4169 RTF  .9544          CRT  .6021 CRS -.6063 CST -.9998
 FDE  .6594 FRA 1.5218 FC3 -.1924 BSP  19016   SGB 5680.2 R23  .0027 R13 -.9544          LSA 2507.6 MSA  246.2 SSA   13.3
 BDE 2.2661 BRA 5.2361 BC3 1.9767 FSP   -455   SG1 5666.6 SG2  393.6 THA 178.08          EL1 2422.1 EL2  246.2 ALF   4.46
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LAUNCH DATE SEP 21 1970 FLIGHT TIME 204.00 ARRIVAL DATE APR 13 1971

HELIOCENTRIC CONIC DISTANCE 588.813

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RL  150.20 LAL   -.00 LOL 357.60 VL  25.652 GAL  10.56 AZL  87.64 HCA 296.97 SMA 119.65 ECC .31081 INC 2.3559 V1  29.666
RP  108.91 LAP  -2.10 LOP 294.59 VP  36.441 GAP  17.38 AZP  88.93 TAL 154.42 TAP  91.39 RCA  82.46 APO 156.84 V2  34.795
RC 188.667 GL    8.61 GP   11.83 ZAL  41.49 ZAP 168.16 ETS  89.66 ZAE 126.56 ETE 171.14 ZAC 113.70 ETC 272.54 CLP 179.51
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PLANETOCENTRIC CONIC

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C3  47.904 VHL  6.921 DLA  -7.56 RAL 316.70 RAD 6568.8 VEL 13.010 PTH   2.37 VHP 11.055 DPA -11.60 RAP 294.82 ECC 1.7884
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 26 37	2195.17	-19.09	40.26	190.93	111.32	10 3 13	1595.2	-16.03	32.92
90.00	19 30 52	5312.35	27.38	241.23	196.41	82.47	20 59 25	4712.3	26.05	232.82
100.00	10 44 20	1944.48	-20.40	21.26	190.37	112.33	11 16 44	1344.5	-17.20	13.94
100.00	20 55 51	5038.27	28.78	220.85	196.18	81.54	22 19 49	4438.3	27.31	212.36
110.00	11 44 17	1756.78	-23.90	5.36	188.71	115.19	12 13 34	1156.8	-20.31	358.06
110.00	22 12 23	4798.73	32.55	201.91	195.43	78.92	23 32 22	4198.7	30.68	193.19

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE 2.4558 TRA 5.6369 TC3-1.7178 BAU 1.1005   SGT 5652.0 SGR  421.3 SG3  125.0          ST  2476.3 SR   304.4 SS   662.3
 RDE  .3515 RRA -.3566 RC3  .0466 FAU .00814   RRT -.4046 RRF -.3912 RTF  .9573          CRT  .6172 CRS -.6193 CST -.9998
 FDE  .6889 FRA 1.5739 FC3 -.1470 BSP  19142   SGB 5667.7 R23  .0023 R13 -.9574          LSA 2570.3 MSA  238.8 SSA   12.8
 BDE 2.4808 BRA 5.6481 BC3 1.7184 FSP   -444   SG1 5654.6 SG2  385.1 THA 178.26          EL1 2483.5 EL2  238.8 ALF   4.38
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LAUNCH DATE SEP 21 1970 FLIGHT TIME 206.00 ARRIVAL DATE APR 15 1971

HELIOCENTRIC CONIC DISTANCE 593.375

RL	150.20	LAL	-.00	LOL	357.60	VL	25.614	GAL	11.62	AZL	87.41	HCA	300.13	SHA	119.44	ECC	.32278	INC	2.5940
RP	108.92	LAP	-2.24	LOP	297.75	VP	36.411	GAP	18.16	AZP	88.70	TAL	153.01	TAP	93.14	RCA	80.89	APO	157.99
RC	190.549	GL	8.87	GP	11.62	ZAL	40.03	ZAP	168.30	ETS	94.21	ZAE	126.44	ETE	171.33	ZAC	113.28	ETC	273.11

V1	29.666	V2	34.791	CLP	178.61														

PLANETOCENTRIC CONIC

C3	54.252	VHL	7.366	DLA	-6.86	RAL	318.09	RAD	6569.0	VEL	13.252	PTH	2.42	VHP	11.536	DPA	-11.52	RAP	297.10

ECC	1.8929	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	9 26 40	2248.33	-20.37	43.63	194.57	110.10	10 4 17	1648.3	-17.45	36.17							
		90.00	19 41 51	5321.09	27.46	241.86	199.82	82.78	21 10 32	4721.1	26.17	233.43							
		100.00	10 44 52	1996.50	-21.71	24.57	194.03	111.06	11 18 9	1396.5	-18.66	17.11							
		100.00	21 6 28	5048.16	28.87	221.57	199.60	81.91	22 30 36	4448.2	27.45	213.06							
		110.00	11 45 37	1806.29	-25.30	8.52	192.42	113.79	12 15 44	1206.3	-21.87	1.05							
		110.00	22 22 12	4811.13	32.71	202.85	198.87	79.45	23 42 23	4211.1	30.91	194.09							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.6840	TRA	6.0706	TC3	-1.4771	BAU	1.0716	SGT	5637.0	SGR	405.3	SG3	121.3	ST	2530.8	SR	299.3	SS	676.4
RDE	.3692	RRA	-.3585	RC3	.0364	FAU	.00681	RRT	-.3741	RRF	-.3620	RTF	.9605	CRT	.6325	CRS	-.6330	CST	-.9998
FDE	.7201	FRA	1.6301	FC3	-.1087	BSP	19211	SGB	5651.5	RZS	.0021	R13	-.9605	LSA	2626.4	HSA	231.2	SSA	12.2
BDE	2.7093	BRA	6.0891	BC3	1.4775	FSP	-432	SG1	5639.0	SG2	375.7	THA	178.45	EL1	2537.9	EL2	231.2	ALF	4.31

LAUNCH DATE SEP 21 1970 FLIGHT TIME 208.00 ARRIVAL DATE APR 17 1971

HELIOCENTRIC CONIC DISTANCE 597.730

RL	150.20	LAL	-.00	LOL	357.60	VL	25.577	GAL	12.76	AZL	87.15	HCA	303.28	SHA	119.23	ECC	.33604	INC	2.8479
RP	108.93	LAP	-2.38	LOP	300.91	VP	36.382	GAP	19.02	AZP	88.44	TAL	151.67	TAP	94.95	RCA	79.17	APO	159.30
RC	192.414	GL	9.08	GP	11.42	ZAL	38.68	ZAP	168.35	ETS	98.97	ZAE	126.28	ETE	171.51	ZAC	112.86	ETC	273.68

V1	29.666	V2	34.789	CLP	177.69														

PLANETOCENTRIC CONIC

C3	61.663	VHL	7.853	DLA	-6.23	RAL	319.39	RAD	6569.2	VEL	13.528	PTH	2.47	VHP	12.066	DPA	-11.39	RAP	299.34

ECC	2.0148	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	9 27 7	2299.71	-21.54	46.95	196.18	108.84	10 5 27	1699.7	-18.77	39.37							
		90.00	19 51 52	5332.40	27.55	242.68	203.19	83.18	21 20 44	4732.4	26.32	234.23							
		100.00	10 45 30	2046.85	-22.91	27.84	197.66	109.75	11 19 37	1446.9	-20.01	20.24							
		100.00	21 16 10	5080.49	28.99	222.47	202.99	82.37	22 40 31	4460.5	27.63	213.93							
		110.00	11 46 58	1854.39	-26.59	11.67	196.11	112.32	12 17 53	1254.4	-23.32	4.03							
		110.00	22 31 11	4825.71	32.68	203.95	202.29	80.08	23 51 37	4225.7	31.16	195.14							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.9886	TRA	6.5530	TC3	-1.2540	BAU	1.0340	SGT	5619.0	SGR	388.5	SG3	117.7	ST	2578.0	SR	294.0	SS	691.9
RDE	.3683	RRA	-.3575	RC3	.0275	FAU	.00545	RRT	-.3509	RRF	-.3309	RTF	.9638	CRT	.6482	CRS	-.6474	CST	-.9998
FDE	.7530	FRA	1.6911	FC3	-.0706	BSP	19224	SGB	5632.4	RZS	.0020	R13	-.9638	LSA	2676.0	HSA	223.3	SSA	11.7
BDE	2.9924	BRA	6.5027	BC3	1.2543	FSP	-419	SG1	5620.6	SG2	365.3	THA	178.65	EL1	2585.1	EL2	223.3	ALF	4.26

LAUNCH DATE SEP 21 1970 FLIGHT TIME 210.00 ARRIVAL DATE APR 19 1971

HELIOCENTRIC CONIC DISTANCE 601.835

RL	150.20	LAL	-.00	LOL	357.60	VL	25.540	GAL	14.00	AZL	86.88	HCA	306.44	SHA	119.04	ECC	.35077	INC	3.1208
RP	108.94	LAP	-2.51	LOP	304.08	VP	36.355	GAP	19.97	AZP	88.15	TAL	150.40	TAP	96.83	RCA	77.28	APO	160.79
RC	194.261	GL	9.26	GP	11.24	ZAL	37.44	ZAP	168.30	ETS	103.88	ZAE	126.09	ETE	171.70	ZAC	112.44	ETC	274.22

V1	29.666	V2	34.787	CLP	176.73														

PLANETOCENTRIC CONIC

C3	70.356	VHL	8.388	DLA	-5.66	RAL	320.58	RAD	6569.4	VEL	13.846	PTH	2.53	VHP	12.652	DPA	-11.22	RAP	301.54

ECC	2.1579	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	9 27 32	2349.21	-22.59	50.19	201.74	107.54	10 6 41	1749.2	-19.98	42.50							
		90.00	20 0 57	5346.03	27.66	243.66	206.51	83.66	21 30 3	4746.0	26.49	235.19							
		100.00	10 46 12	2095.45	-23.99	31.04	201.25	108.39	11 21 7	1495.4	-21.26	23.31							
		100.00	21 24 58	5075.03	29.12	223.53	206.32	82.92	22 49 33	4475.0	27.83	214.97							
		110.00	11 48 19	1901.00	-27.75	14.80	199.76	110.81	12 20 0	1301.0	-24.67	6.98							
		110.00	22 39 21	4842.25	33.07	205.20	205.66	80.80	24 0 3	4242.2	31.45	196.35							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	3.1874	TRA	7.0849	TC3	-1.0477	BAU	.9857	SGT	5598.9	SGR	371.3	SG3	114.4	ST	2619.1	SR	288.6	SS	709.5
RDE	.4089	RRA	-.3550	RC3	.0200	FAU	.00402	RRT	-.3012	RRF	-.2944	RTF	.9673	CRT	.6645	CRS	-.6627	CST	-.9999
FDE	.7888	FRA	1.7579	FC3	-.0495	BSP	19142	SGB	5611.2	RZS	.0021	R13	-.9673	LSA	2720.3	HSA	215.2	SSA	11.2
BDE	3.2135	BRA	7.0737	BC3	1.0479	FSP	-405	SG1	5600.0	SG2	354.0	THA	178.85	EL1	2626.2	EL2	215.1	ALF	4.22

LAUNCH DATE SEP 21 1970 FLIGHT TIME 212.00 ARRIVAL DATE APR 21 1971

HELIOCENTRIC CONIC DISTANCE 605.635

RL	150.20	LAL	-.00	LOL	357.60	VL	25.505	GAL	15.35	AZL	86.58	HCA	309.59	SHA	118.84	ECC	.36718	INC	3.4169
RP	108.94	LAP	-2.63	LOP	307.24	VP	36.329	GAP	21.03	AZP	87.82	TAL	149.21	TAP	98.80	RCA	75.21	APO	162.48
RC	196.080	GL	9.40	GP	11.08	ZAL	36.32	ZAP	168.14	ETS	108.89	ZAE	125.85	ETE	171.89	ZAC	112.02	ETC	274.75

V1	29.666	V2	34.786	CLP	175.73														

PLANETOCENTRIC CONIC

C3	80.611	VHL	8.978	DLA	-5.16	RAL	321.86	RAD	6569.6	VEL	14.211	PTH	2.59	VHP	13.304	DPA	-11.02	RAP	303.69

ECC	2.3267	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	9 28 2	2396.71	-23.53	53.36	205.23	106.22	10 7 59	1796.7	-21.08	45.54							
		90.00	20 9 6	5361.78	27.77	244.80	209.76	84.22	21 38 28	4761.8	26.68	236.30							
		100.00	10 46 57	2142.16	-24.96	34.17	204.76	107.01	11 22 39	1542.2	-22.39	26.32							
		100.00	21 32 53	5091.57	29.25	224.75	209.58	83.54	22 57 44	4491.6	28.05	216.15							
		110.00	11 49 37	1945.95	-28.80	17.87	203.35	109.26	12 22 3	1345.9	-25.90	9.89							
		110.00	22 46 42	4860.54	33.26	206.59	208.97	81.61	24 7 42	4260.5	31.74	197.70							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	3.4887	TRA	7.6197	TC3	-.8576	BAU	.9243	SGT	5577.4	SGR	353.6	SG3	111.3	ST	2654.7	SR	283.1	SS	729.5
RDE	.4313	RRA	-.3444	RC3	.0130	FAU	.00248	RRT	-.2567	RRF	-.2522	RTF	.9707	CRT	.6816	CRS	-.6792	CST	-.9999
FDE	.8274	FRA	1.8317	FC3	-.0266	BSP	18949	SGB	5588.6	RZS	.0022	R13	-.9707	LSA	2759.9	HSA	206.7	SSA	10.7
BDE	3.4954	BRA	7.6275	BC3	.8577	FSP	-388	SG1	5578.2	SG2	341.7	THA	179.06	EL1	2661.7	EL2	206.6	ALF	4.18

LAUNCH DATE SEP 21 1970 FLIGHT TIME 214.00 ARRIVAL DATE APR 23 1971

HELIOCENTRIC CONIC DISTANCE 609.060

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RL  150.20 LAL   -.00 LOL 357.60 VL  25.471 GAL  16.84 AZL  86.26 HCA 312.74 SMA 118.66 ECC .38553 INC 3.7411 V1  29.666
RP  108.94 LAP  -2.75 LOP 310.40 VP  36.305 GAP  22.21 AZP  87.46 TAL 148.12 TAP 100.86 RCA  72.91 APO 164.41 V2  34.785
RC 197.900 GL    9.51 GP   10.92 ZAL  35.31 ZAP 167.86 ETS 113.94 ZAE 125.56 ETE 172.08 ZAC 111.60 ETC 275.26 CLP 174.67
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PLANETOCENTRIC CONIC

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C3  92.786 VHL  9.633 DLA  -4.72 RAL 322.64 RAD 6569.8 VEL 14.633 PTH   2.65 VHP 14.034 DPA -10.78 RAP 305.79 ECC 2.5270
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 28 35	2442.03	-24.36	56.42	208.62	104.90	10 9 17	1842.0	-22.08	48.50
90.00	20 16 19	5379.44	27.88	246.08	212.92	84.85	21 45 59	4779.4	26.88	237.56
100.00	10 47 43	2186.79	-25.81	37.22	208.18	105.62	11 24 9	1586.8	-23.42	29.24
100.00	21 39 53	5109.92	29.38	226.09	212.76	84.24	23 5 3	4509.9	28.27	217.47
110.00	11 50 52	1989.06	-29.73	20.88	206.85	107.70	12 24 1	1389.1	-27.02	12.74
110.00	22 53 13	4880.42	33.45	208.12	212.21	82.49	24 14 33	4280.4	32.05	199.17

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 3.7739 TRA 8.2235 TC3 -.6828 BAU  .8470   SGT 5555.1 SGR  335.9 SG3  108.4     ST  2684.9 SR   277.6 SS   752.6
 RDE  .4559 RRA -.3308 RC3  .0087 FAU .00080   RRT -.2050 RRF -.2027 RTF  .9742     CRT  .6998 CRS -.6968 CST -.9999
 FDE  .8701 FRA 1.9138 FC3 -.0075 BSP  18623   SGB 5565.2 RZ3  .0024 RI3 -.9742    LSA 2795.1 MSA  197.9 SSA   10.2
 BDE 3.8013 BRA 8.2302 BC3  .6828 FSP   -370   SG1 5555.5 SG2  328.7 THA 179.29    EL1 2691.9 EL2  197.8 ALF   4.16
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LAUNCH DATE SEP 21 1970 FLIGHT TIME 216.00 ARRIVAL DATE APR 25 1971

HELIOCENTRIC CONIC DISTANCE 612.020

```
RL  150.20 LAL   -.00 LOL 357.60 VL  25.439 GAL  18.48 AZL  85.90 HCA 315.89 SMA 118.49 ECC .40611 INC 4.1002 V1  29.666
RP  108.94 LAP  -2.85 LOP 313.56 VP  36.282 GAP  23.54 AZP  87.05 TAL 147.17 TAP 103.06 RCA  70.37 APO 166.61 V2  34.785
RC 199.690 GL    9.58 GP   10.77 ZAL  34.43 ZAP 167.47 ETS 118.97 ZAE 125.21 ETE 172.27 ZAC 111.18 ETC 275.74 CLP 173.56
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PLANETOCENTRIC CONIC

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C3 107.342 VHL 10.361 DLA  -4.34 RAL 323.50 RAD 6570.1 VEL 15.122 PTH   2.72 VHP 14.853 DPA -10.51 RAP 307.82 ECC 2.7666
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 29 11	2484.93	-25.08	59.36	211.88	103.60	10 10 36	1884.9	-22.96	51.33
90.00	20 22 34	5398.86	27.99	247.49	215.98	85.55	21 52 33	4798.9	27.08	238.94
100.00	10 48 29	2229.11	-26.55	40.14	211.48	104.26	11 25 38	1629.1	-24.33	32.05
100.00	21 45 57	5129.92	29.51	227.57	215.84	85.00	23 11 27	4529.9	28.50	218.91
110.00	11 52 4	2030.09	-30.54	23.80	210.24	106.15	12 25 54	1430.1	-28.03	15.51
110.00	22 58 38	4901.70	33.62	209.75	215.35	83.44	24 20 34	4301.7	32.35	200.75

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 4.1056 TRA 8.8816 TC3 -.5232 BAU  .7508   SGT 5531.2 SGR  318.3 SG3  105.6     ST  2709.2 SR   272.2 SS   779.2
 RDE  .4832 RRA -.3111 RC3  .0049 FAU-.00106   RRT -.1444 RRF -.1443 RTF  .9777     CRT  .7190 CRS -.7158 CST -.9999
 FDE  .9173 FRA 2.0092 FC3  .0085 BSP  18175   SGB 5540.4 RZ3  .0027 RI3 -.9777    LSA 2825.8 MSA  188.8 SSA    9.7
 BDE 4.1340 BRA 8.8871 BC3  .5232 FSP   -351   SG1 5531.4 SG2  314.9 THA 179.52    EL1 2716.3 EL2  188.7 ALF   4.15
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LAUNCH DATE SEP 21 1970 FLIGHT TIME 218.00 ARRIVAL DATE APR 27 1971

HELIOCENTRIC CONIC DISTANCE 614.392

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RL  150.20 LAL   -.00 LOL 357.60 VL  25.408 GAL  20.31 AZL  85.50 HCA 319.04 SMA 118.32 ECC .42928 INC 4.5024 V1  29.666
RP  108.94 LAP  -2.95 LOP 316.73 VP  36.262 GAP  25.04 AZP  86.60 TAL 146.36 TAP 105.40 RCA  67.53 APO 169.12 V2  34.786
RC 201.461 GL    9.64 GP   10.63 ZAL  33.67 ZAP 166.93 ETS 125.94 ZAE 124.77 ETE 172.48 ZAC 110.77 ETC 276.19 CLP 172.36
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PLANETOCENTRIC CONIC

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C3 124.879 VHL 11.175 DLA  -4.04 RAL 324.23 RAD 6570.3 VEL 15.691 PTH   2.79 VHP 15.779 DPA -10.23 RAP 309.77 ECC 3.0552
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 29 48	2525.11	-25.69	62.14	214.99	102.33	10 11 53	1925.1	-23.74	54.02
90.00	20 27 47	5419.91	28.10	249.02	218.91	86.31	21 58 7	4819.9	27.29	240.45
100.00	10 49 15	2268.81	-27.19	42.92	214.61	102.92	11 27 4	1668.8	-25.14	34.72
100.00	21 51 1	5151.44	29.63	229.16	218.79	85.83	23 16 52	4551.4	28.73	220.47
110.00	11 53 10	2068.75	-31.24	26.60	213.48	104.63	12 27 38	1468.7	-28.92	18.17
110.00	23 3 36	4924.27	33.79	211.49	218.37	84.46	24 25 40	4324.3	32.65	202.44

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 4.4318 TRA 9.5664 TC3 -.3896 BAU  .6505   SGT 5486.3 SGR  301.4 SG3  102.6     ST  2709.2 SR   267.3 SS   803.8
 RDE  .5144 RRA -.2836 RC3  .0024 FAU-.00277   RRT -.0739 RRF -.0758 RTF  .9809     CRT  .7383 CRS -.7347 CST -.9999
 FDE  .9612 FRA 2.0993 FC3  .0192 BSP  18428   SGB 5494.6 RZ3  .0030 RI3 -.9809    LSA 2832.9 MSA  180.0 SSA    9.2
 BDE 4.4616 BRA 9.5706 BC3  .3896 FSP   -347   SG1 5486.3 SG2  300.6 THA 179.77    EL1 2716.4 EL2  179.8 ALF   4.19
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LAUNCH DATE SEP 21 1970 FLIGHT TIME 220.00 ARRIVAL DATE APR 29 1971

HELIOCENTRIC CONIC DISTANCE 616.027

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RL  150.20 LAL   -.00 LOL 357.60 VL  25.380 GAL  22.35 AZL  85.04 HCA 322.19 SMA 118.17 ECC .45546 INC 4.9592 V1  29.666
RP  108.93 LAP  -3.04 LOP 319.89 VP  36.243 GAP  26.75 AZP  86.08 TAL 145.74 TAP 107.93 RCA  64.35 APO 171.99 V2  34.788
RC 203.212 GL    9.66 GP   10.50 ZAL  33.07 ZAP 166.25 ETS 128.79 ZAE 124.25 ETE 172.70 ZAC 110.37 ETC 276.62 CLP 171.07
```

PLANETOCENTRIC CONIC

```
C3 146.190 VHL 12.091 DLA  -3.81 RAL 324.82 RAD 6570.6 VEL 16.356 PTH   2.86 VHP 16.831 DPA  -9.95 RAP 311.62 ECC 3.4059
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 30 25	2562.21	-26.21	64.74	217.90	101.13	10 13 8	1962.2	-24.41	56.53
90.00	20 31 53	5442.50	28.18	250.67	221.68	87.13	22 2 36	4842.5	27.49	242.07
100.00	10 49 59	2305.56	-27.72	45.52	217.55	101.65	11 28 25	1705.6	-25.83	37.23
100.00	21 55 1	5174.39	29.73	230.85	221.58	86.72	23 21 15	4574.4	28.96	222.13
110.00	11 54 9	2104.70	-31.83	29.24	216.51	103.17	12 29 13	1504.7	-29.69	20.68
110.00	23 7 21	4948.01	33.93	213.33	221.25	85.54	24 29 49	4348.0	32.94	204.24

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 4.7986 TRA10.3275 TC3 -.2651 BAU  .5181   SGT 5444.1 SGR  285.7 SG3   99.8     ST  2708.6 SR   262.7 SS   834.9
 RDE  .5494 RRA -.2476 RC3  .0008 FAU-.00491   RRT  .0090 RRF  .0055 RTF  .9840     CRT  .7590 CRS -.7553 CST -.9999
 FDE 1.0133 FRA 2.2084 FC3  .0291 BSP  18358   SGB 5451.6 RZ3 -.0034 RI3  .9840    LSA 2841.3 MSA  170.8 SSA    8.6
 BDE 4.8300 BRA10.3304 BC3  .2651 FSP   -338   SG1 5444.1 SG2  285.6 THA    .03     EL1 2715.9 EL2  170.6 ALF   4.23
```

LAUNCH DATE SEP 22 1970 FLIGHT TIME 70.00 ARRIVAL DATE DEC 1 1970

HELIOCENTRIC CONIC DISTANCE 185.388

RL 150.16 LAL -.00 LOL 358.58 VL 26.662 GAL -8.99 AZL 89.74 HCA 82.15 SMA 125.58 ECC .24856 INC .2580 V1 29.674
RP 107.74 LAP .26 LOP 80.73 VP 37.507 GAP -11.89 AZP 89.96 TAL 209.96 TAP 292.11 RCA 94.36 APO 156.79 V2 35.174
RC 48.150 GL 1.37 GP -15.59 ZAL 137.81 ZAP 19.00 ETS 50.62 ZAE 147.27 ETE 333.84 ZAC 86.37 ETC 261.65 CLP -11.00

PLANETOCENTRIC CONIC

C3 24.701 VHL 4.970 DLA -13.75 RAL 218.77 RAD 6560.0 VEL 12.086 PTH 2.16 VHP 7.980 DPA -36.73 RAP 244.20 ECC 1.4065

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 42 55	1823.74	-8.57	18.08	82.02	117.09	4 13 19	1223.7	-4.87	11.35
90.00	12 5 27	5351.32	27.69	244.04	88.70	83.85	13 34 38	4751.3	26.55	235.56
100.00	4 57 1	1584.67	-9.77	359.87	81.39	118.39	5 23 26	984.7	-5.90	353.21
100.00	13 34 2	5065.62	29.04	222.85	88.52	82.56	14 58 27	4465.6	27.70	214.30
110.00	5 49 0	1421.84	-12.87	345.67	79.55	121.94	6 12 42	821.8	-8.56	339.23
110.00	14 58 32	4801.21	32.58	202.10	87.85	79.03	16 18 33	4201.2	30.72	193.37

DIFFERENTIAL CORRECTIONS

TDE .1043 TRA -.3492 TC3 .4830 BAU .1802
RDE -.3065 RRA -.1319 RC3 -.2535 FAU .03750
FDE .2122 FRA -.1181 FC3-1.3143 BSP 1722
BDE .3238 BRA .3733 BC3 .5455 FSP -285

MID-COURSE EXECUTION ACCURACY

SGT 645.6 SGR 461.4 SG3 115.5
RRT -.3310 RRF .4293 RTF -.6255
SGB 793.5 R23 -.0774 R13 .6639
SG1 675.8 SG2 415.9 THA 157.98

ORBIT DETERMINATION ACCURACY

ST 173.6 SR 356.6 SS 173.3
CRT -.5939 CRS .9394 CST -.7813
LSA 409.7 MSA 135.9 SSA 31.1
EL1 373.5 EL2 133.3 ALF 108.58

LAUNCH DATE SEP 22 1970 FLIGHT TIME 72.00 ARRIVAL DATE DEC 3 1970

HELIOCENTRIC CONIC DISTANCE 192.211

RL 150.16 LAL -.00 LOL 358.58 VL 26.831 GAL -8.94 AZL 89.55 HCA 85.38 SMA 126.66 ECC .24024 INC .4476 V1 29.674
RP 107.71 LAP .45 LOP 83.96 VP 37.637 GAP -10.96 AZP 89.96 TAL 211.36 TAP 296.74 RCA 96.23 APO 157.09 V2 35.184
RC 49.861 GL 2.44 GP -16.63 ZAL 139.27 ZAP 21.44 ETS 45.99 ZAE 146.27 ETE 332.11 ZAC 85.38 ETC 261.72 CLP -13.73

PLANETOCENTRIC CONIC

C3 23.646 VHL 4.863 DLA -12.26 RAL 217.64 RAD 6560.0 VEL 12.043 PTH 2.15 VHP 7.499 DPA -37.85 RAP 244.48 ECC 1.3892

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 25 34	1864.13	-9.81	20.39	80.16	116.69	3 56 38	1264.1	-6.15	13.63
90.00	12 13 49	5289.52	27.16	239.60	86.10	81.68	13 41 59	4689.5	25.73	231.22
100.00	4 40 38	1621.95	-10.96	1.98	79.55	117.98	5 7 40	1021.9	-7.14	355.29
100.00	13 41 26	5006.94	28.44	218.59	85.87	80.39	15 4 53	4406.9	26.82	210.16
110.00	5 34 42	1452.58	-13.97	347.38	77.79	121.52	5 58 55	852.6	-9.70	340.88
110.00	15 3 51	4749.07	31.84	198.21	85.08	76.84	16 23 0	4149.1	29.70	189.66

DIFFERENTIAL CORRECTIONS

TDE .0920 TRA -.3351 TC3 .5204 BAU .1895
RDE -.2885 RRA -.1395 RC3 -.2973 FAU .04100
FDE .2712 FRA -.1554 FC3-1.5010 BSP 1811
BDE .3020 BRA .3630 BC3 .5993 FSP -328

MID-COURSE EXECUTION ACCURACY

SGT 656.6 SGR 476.9 SG3 130.1
RRT -.3678 RRF .4803 RTF -.6355
SGB 811.6 R23 -.0893 R13 .6828
SG1 695.0 SG2 419.0 THA 155.75

ORBIT DETERMINATION ACCURACY

ST 163.3 SR 343.8 SS 212.1
CRT -.5495 CRS .9366 CST -.7626
LSA 412.6 MSA 136.0 SSA 33.0
EL1 357.2 EL2 131.3 ALF 106.99

LAUNCH DATE SEP 22 1970 FLIGHT TIME 74.00 ARRIVAL DATE DEC 5 1970

HELIOCENTRIC CONIC DISTANCE 199.021

RL 150.16 LAL -.00 LOL 358.58 VL 26.981 GAL -8.90 AZL 89.36 HCA 88.61 SMA 127.65 ECC .23298 INC .6353 V1 29.674
RP 107.68 LAP .64 LOP 87.19 VP 37.753 GAP -10.07 AZP 89.98 TAL 212.70 TAP 301.31 RCA 97.91 APO 157.38 V2 35.193
RC 51.263 GL 3.55 GP -17.77 ZAL 140.61 ZAP 24.13 ETS 42.16 ZAE 145.46 ETE 330.12 ZAC 84.27 ETC 261.77 CLP -16.59

PLANETOCENTRIC CONIC

C3 22.795 VHL 4.774 DLA -10.76 RAL 216.64 RAD 6567.9 VEL 12.007 PTH 2.14 VHP 7.051 DPA -39.05 RAP 244.58 ECC 1.3751

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 9 5	1905.32	-11.06	22.77	78.58	116.23	3 40 50	1305.3	-7.45	15.96
90.00	12 22 18	5230.44	26.51	235.40	83.78	79.67	13 49 29	4630.4	24.82	227.14
100.00	4 25 3	1660.24	-12.18	4.18	78.00	117.51	4 52 43	1060.2	-8.40	357.43
100.00	13 49 2	4950.76	27.74	214.56	83.51	78.39	15 11 32	4350.8	25.86	206.26
110.00	5 21 6	1484.71	-15.11	349.17	76.31	121.05	5 45 51	884.7	-10.88	342.62
110.00	15 9 28	4699.05	31.00	194.55	82.62	74.82	16 27 47	4099.1	28.61	186.17

DIFFERENTIAL CORRECTIONS

TDE .0794 TRA -.3227 TC3 .5511 BAU .1983
RDE -.2689 RRA -.1479 RC3 -.3459 FAU .04489
FDE .3408 FRA -.1965 FC3-1.7051 BSP 1898
BDE .2804 BRA .3550 BC3 .6507 FSP -378

MID-COURSE EXECUTION ACCURACY

SGT 664.4 SGR 495.9 SG3 146.5
RRT -.4047 RRF .5342 RTF -.6420
SGB 829.0 R23 -.1030 R13 .7011
SG1 713.4 SG2 422.3 THA 153.12

ORBIT DETERMINATION ACCURACY

ST 152.7 SR 327.4 SS 254.6
CRT -.4899 CRS .9320 CST -.7317
LSA 418.8 MSA 136.8 SSA 34.5
EL1 337.4 EL2 129.2 ALF 105.14

LAUNCH DATE SEP 22 1970 FLIGHT TIME 76.00 ARRIVAL DATE DEC 7 1970

HELIOCENTRIC CONIC DISTANCE 205.815

RL 150.16 LAL -.00 LOL 358.58 VL 27.114 GAL -8.86 AZL 89.18 HCA 91.84 SMA 128.53 ECC .22666 INC .8228 V1 29.674
RP 107.65 LAP .82 LOP 90.42 VP 37.856 GAP -9.22 AZP 90.03 TAL 213.97 TAP 305.81 RCA 99.40 APO 157.67 V2 35.202
RC 52.948 GL 4.69 GP -19.04 ZAL 141.79 ZAP 27.05 ETS 38.93 ZAE 144.80 ETE 327.83 ZAC 83.02 ETC 261.78 CLP -19.59

PLANETOCENTRIC CONIC

C3 22.112 VHL 4.702 DLA -9.27 RAL 215.77 RAD 6567.9 VEL 11.979 PTH 2.13 VHP 6.635 DPA -40.33 RAP 244.46 ECC 1.3639

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 53 31	1947.03	-12.31	25.21	77.28	115.70	3 25 58	1347.0	-8.75	18.34
90.00	12 30 57	5173.98	25.76	231.43	81.74	77.82	13 57 11	4574.0	23.83	223.30
100.00	4 10 20	1699.25	-13.39	6.44	76.73	116.98	4 38 39	1099.2	-9.67	359.63
100.00	13 56 30	4897.00	26.94	210.76	81.44	76.54	15 18 27	4297.0	24.82	202.60
110.00	5 8 15	1517.88	-16.26	351.05	75.11	120.49	5 33 33	917.9	-12.09	344.42
110.00	15 15 24	4651.13	30.10	191.11	80.47	72.97	16 32 55	4051.1	27.47	182.91

DIFFERENTIAL CORRECTIONS

TDE .0671 TRA -.3122 TC3 .5738 BAU .2067
RDE -.2473 RRA -.1571 RC3 -.3997 FAU .04920
FDE .4217 FRA -.2414 FC3-1.9262 BSP 1961
BDE .2563 BRA .3495 BC3 .6993 FSP -433

MID-COURSE EXECUTION ACCURACY

SGT 668.2 SGR 519.4 SG3 164.7
RRT -.4402 RRF .5898 RTF -.6443
SGB 846.3 R23 -.1179 R13 .7194
SG1 731.1 SG2 426.2 THA 150.02

ORBIT DETERMINATION ACCURACY

ST 142.5 SR 307.1 SS 300.6
CRT -.4133 CRS .9254 CST -.6886
LSA 429.7 MSA 138.1 SSA 35.3
EL1 313.9 EL2 127.0 ALF 103.03

LAUNCH DATE SEP 22 1970 FLIGHT TIME 78.00 ARRIVAL DATE DEC 9 1970

HELIOCENTRIC CONIC DISTANCE 212.590

```
RL  150.16 LAL   -.00 LOL 358.58 VL  27.231 GAL  -8.84 AZL  88.99 HCA  95.08 SMA 129.33 ECC .22119 INC 1.0109 V1  29.674
RP  107.63 LAP   1.01 LOP  93.65 VP  37.948 GAP  -8.41 AZP  90.09 TAL 215.15 TAP 310.23 RCA 100.72 APO 157.93 V2  35.210
RC  54.707 GL    5.87 GP  -20.42 ZAL 142.81 ZAP  30.21 ETS  36.15 ZAE 144.27 ETE 325.20 ZAC  81.65 ETC 261.75 CLP -22.76
```

PLANETOCENTRIC CONIC

```
C3  21.569 VHL  4.644 DLA  -7.78 RAL 215.05 RAD 6567.9 VEL 11.956 PTH   2.13 VHP  6.252 DPA -41.69 RAP 244.09 ECC 1.3550
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 38 53	1989.06	-13.54	27.68	76.26	115.11	3 12 2	1389.1	-10.04	20.75
90.00	12 39 47	5119.94	24.93	227.69	79.99	76.12	14 5 7	4519.9	22.78	219.68
100.00	3 56 28	1738.73	-14.60	8.75	75.73	116.38	4 25 27	1138.7	-10.94	1.87
100.00	14 4 55	4845.51	26.08	207.18	79.67	74.84	15 25 38	4245.5	23.74	199.16
110.00	4 56 10	1551.81	-17.42	352.99	74.17	119.89	5 22 2	951.8	-13.32	346.29
110.00	15 21 40	4605.19	29.14	187.88	78.61	71.28	16 38 25	4005.2	26.31	179.84

DIFFERENTIAL CORRECTIONS

```
TDE  .0554 TRA -.3044 TC3  .5864 BAU  .2147
RDE -.2230 RRA -.1669 RC3 -.4590 FAU .05389
FDE  .5159 FRA -.2889 FC3-2.1629 BSP  2055
BDE  .2298 BRA  .3471 BC3  .7446 FSP  -494
```

MID-COURSE EXECUTION ACCURACY

```
SGT  667.0 SGR  548.3 SG3  184.7
RRT -.4710 RRF  .6451 RTF -.6412
SGB  863.5 RZS -.1335 RIS  .7579
SG1  748.0 SG2  431.3 THA 146.36
```

ORBIT DETERMINATION ACCURACY

```
ST   133.7 SR   282.4 SS   350.2
CRT -.3163 CRS  .9155 CST -.6324
LSA  446.6 MSA  140.0 SSA   35.5
EL1  286.3 EL2  125.1 ALF 100.55
```

LAUNCH DATE SEP 22 1970 FLIGHT TIME 80.00 ARRIVAL DATE DEC 11 1970

HELIOCENTRIC CONIC DISTANCE 219.343

```
RL  150.16 LAL   -.00 LOL 358.58 VL  27.333 GAL  -8.81 AZL  88.80 HCA  98.31 SMA 130.03 ECC .21645 INC 1.2011 V1  29.674
RP  107.60 LAP   1.19 LOP  96.89 VP  38.028 GAP  -7.63 AZP  90.17 TAL 216.23 TAP 314.55 RCA 101.89 APO 158.18 V2  35.218
RC  56.533 GL    7.07 GP  -21.94 ZAL 143.64 ZAP  33.61 ETS  33.68 ZAE 143.86 ETE 322.17 ZAC  80.12 ETC 261.67 CLP -26.12
```

PLANETOCENTRIC CONIC

```
C3  21.143 VHL  4.598 DLA  -6.30 RAL 214.46 RAD 6567.9 VEL 11.938 PTH   2.12 VHP  5.901 DPA -43.14 RAP 243.44 ECC 1.3480
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 25 8	2031.30	-14.74	30.20	75.51	114.45	2 58 59	1431.3	-11.32	23.19
90.00	12 48 53	5088.09	24.04	224.16	78.52	74.57	14 13 21	4468.1	21.69	216.27
100.00	3 43 29	1778.55	-15.79	11.10	75.00	115.71	4 13 7	1178.5	-12.20	4.15
100.00	14 13 13	4796.07	25.15	203.80	78.17	73.29	15 33 9	4196.1	22.62	195.91
110.00	4 44 53	1586.32	-18.58	355.00	73.48	119.22	5 11 19	986.3	-14.55	348.21
110.00	15 28 19	4561.07	28.14	184.84	77.05	69.73	16 44 20	3961.1	25.12	176.97

DIFFERENTIAL CORRECTIONS

```
TDE  .0488 TRA -.2982 TC3  .5877 BAU  .2226
RDE -.1955 RRA -.1775 RC3 -.5243 FAU .05897
FDE  .6237 FRA -.3389 FC3-2.4146 BSP  2134
BDE  .2007 BRA  .3479 BC3  .7876 FSP  -563
```

MID-COURSE EXECUTION ACCURACY

```
SGT  680.4 SGR  584.3 SG3  206.6
RRT -.4951 RRF  .6987 RTF -.6314
SGB  881.7 RZS -.1475 RIS  .7579
SG1  765.2 SG2  438.1 THA 141.96
```

ORBIT DETERMINATION ACCURACY

```
ST   127.1 SR   253.0 SS   402.9
CRT -.2036 CRS  .8994 CST -.5711
LSA  470.3 MSA  141.8 SSA   35.0
EL1  254.7 EL2  123.6 ALF  97.65
```

LAUNCH DATE SEP 22 1970 FLIGHT TIME 82.00 ARRIVAL DATE DEC 13 1970

HELIOCENTRIC CONIC DISTANCE 226.073

```
RL  150.16 LAL   -.00 LOL 358.58 VL  27.421 GAL  -8.79 AZL  88.61 HCA 101.55 SMA 130.65 ECC .21237 INC 1.3945 V1  29.674
RP  107.58 LAP   1.37 LOP 100.13 VP  38.098 GAP  -6.88 AZP  90.28 TAL 217.21 TAP 318.75 RCA 102.90 APO 158.40 V2  35.225
RC  58.419 GL    8.31 GP  -23.60 ZAL 144.30 ZAP  37.23 ETS  31.42 ZAE 145.51 ETE 318.71 ZAC  78.45 ETC 261.53 CLP -29.67
```

PLANETOCENTRIC CONIC

```
C3  20.814 VHL  4.562 DLA  -4.83 RAL 214.03 RAD 6567.8 VEL 11.925 PTH   2.12 VHP  5.582 DPA -44.66 RAP 242.45 ECC 1.3425
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 12 14	2073.71	-15.92	32.76	75.01	113.73	2 46 48	1473.7	-12.58	25.67
90.00	12 58 17	5018.14	23.09	220.80	77.31	73.14	14 21 55	4418.1	20.57	213.04
100.00	3 31 18	1818.64	-16.96	13.51	74.52	114.99	4 1 37	1218.6	-13.45	6.47
100.00	14 21 54	4748.44	24.18	200.59	76.94	71.87	15 41 2	4148.4	21.48	192.84
110.00	4 34 20	1621.30	-19.73	357.06	73.05	118.50	5 1 22	1021.3	-15.77	350.18
110.00	15 35 21	4518.55	27.10	181.97	75.77	68.32	16 50 39	3918.6	23.91	174.25

DIFFERENTIAL CORRECTIONS

```
TDE  .0380 TRA -.2974 TC3  .5759 BAU  .2306
RDE -.1640 RRA -.1885 RC3 -.5958 FAU .06436
FDE  .7460 FRA -.3896 FC3-2.6769 BSP  2210
BDE  .1684 BRA  .3522 BC3  .8287 FSP  -637
```

MID-COURSE EXECUTION ACCURACY

```
SGT  647.3 SGR  628.0 SG3  230.0
RRT -.5078 RRF  .7486 RTF -.6122
SGB  901.9 RZS -.1575 RIS  .7799
SG1  783.3 SG2  447.1 THA 136.70
```

ORBIT DETERMINATION ACCURACY

```
ST   123.2 SR   218.6 SS   458.8
CRT -.0769 CRS  .8719 CST -.5131
LSA  501.8 MSA  143.3 SSA   34.1
EL1  218.9 EL2  122.7 ALF  93.62
```

LAUNCH DATE SEP 22 1970 FLIGHT TIME 84.00 ARRIVAL DATE DEC 15 1970

HELIOCENTRIC CONIC DISTANCE 232.777

```
RL  150.16 LAL   -.00 LOL 358.58 VL  27.496 GAL  -8.76 AZL  88.41 HCA 104.78 SMA 131.19 ECC .20885 INC 1.5925 V1  29.674
RP  107.56 LAP   1.54 LOP 103.36 VP  38.159 GAP  -6.17 AZP  90.41 TAL 218.06 TAP 322.84 RCA 103.79 APO 158.58 V2  35.232
RC  60.358 GL    9.59 GP  -25.39 ZAL 144.76 ZAP  41.08 ETS  29.26 ZAE 143.17 ETE 314.78 ZAC  76.62 ETC 261.34 CLP -33.45
```

PLANETOCENTRIC CONIC

```
C3  20.566 VHL  4.535 DLA  -3.37 RAL 213.73 RAD 6567.8 VEL 11.914 PTH   2.12 VHP  5.297 DPA -46.26 RAP 241.10 ECC 1.3385
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 0 8	2116.36	-17.07	35.36	74.76	112.94	2 35 24	1516.4	-13.82	28.19
90.00	13 8 3	4969.76	22.10	217.60	76.36	71.83	14 30 53	4369.8	19.41	209.96
100.00	3 19 54	1859.05	-18.11	15.96	74.28	114.20	3 50 53	1259.0	-14.69	8.84
100.00	14 30 58	4702.30	23.17	197.54	75.96	70.57	15 49 20	4102.3	20.31	189.91
110.00	4 24 31	1656.72	-20.87	359.18	72.86	117.71	4 52 8	1056.7	-16.99	352.20
110.00	15 42 50	4477.39	26.03	179.24	74.74	67.02	16 57 27	3877.4	22.69	171.68

DIFFERENTIAL CORRECTIONS

```
TDE  .0341 TRA -.2994 TC3  .5496 BAU  .2390
RDE -.1279 RRA -.2000 RC3 -.6734 FAU .06994
FDE  .8827 FRA -.4393 FC3-2.9443 BSP  2293
BDE  .1324 BRA  .3600 BC3  .8692 FSP  -715
```

MID-COURSE EXECUTION ACCURACY

```
SGT  627.6 SGR  680.6 SG3  254.6
RRT -.5045 RRF  .7935 RTF -.5799
SGB  925.8 RZS -.1596 RIS  .8046
SG1  804.3 SG2  458.6 THA 130.43
```

ORBIT DETERMINATION ACCURACY

```
ST   122.5 SR   179.5 SS   517.4
CRT  .0637 CRS  .8186 CST -.4750
LSA  541.3 MSA  144.3 SSA   32.8
EL1  179.8 EL2  122.0 ALF  85.38
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LAUNCH DATE SEP 22 1970 FLIGHT TIME 86.00 ARRIVAL DATE DEC 17 1970

HELIOCENTRIC CONIC DISTANCE 239.454

RL 150.16 LAL -.00 LOL 358.58 VL 27.560 GAL -8.73 AZL 88.20 HCA 108.02 SMA 131.64 ECC .20583 INC 1.7966 V1 29.674
RP 107.54 LAP 1.71 LOP 106.61 VP 38.210 GAP -5.49 AZP 90.56 TAL 218.79 TAP 326.81 RCA 104.55 APO 158.74 V2 35.238
RC 62.346 GL 10.90 GP -27.32 ZAL 145.03 ZAP 45.16 ETS 27.14 ZAE 142.80 ETE 310.35 ZAC 74.64 ETC 261.07 CLP -37.47

PLANETOCENTRIC CONIC

C3 20.388 VHL 4.515 DLA -1.92 RAL 213.58 RAD 6567.8 VEL 11.907 PTH 2.12 VHP 5.045 DPA -47.91 RAP 239.32 ECC 1.3355

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 48 44	2159.37	-18.19	38.02	74.74	112.08	2 24 43	1559.4	-15.04	30.76
90.00	13 18 16	4922.58	21.07	214.53	75.65	70.63	14 40 18	4322.6	18.23	207.00
100.00	3 9 11	1899.87	-19.23	18.48	74.28	113.34	3 40 51	1299.9	-15.90	11.26
100.00	14 40 30	4657.32	22.12	194.61	75.24	69.37	15 58 7	4057.3	19.12	187.10
110.00	4 15 22	1682.67	-21.99	1.37	72.90	116.86	4 43 35	1092.7	-18.21	354.27
110.00	15 50 48	4437.29	24.94	176.84	73.97	65.83	17 4 45	3837.3	21.47	169.21

DIFFERENTIAL CORRECTIONS
TDE .0348 TRA -.3055 TC3 .5072 BAU .2484
RDE -.0067 RRA -.2115 RC3 -.7570 FAU .07560
FDE 1.0324 FRA -.4856 FC3-3.2102 BSP 2592
BDE .0934 BRA .3716 BC3 .9112 FSP -797

MID-COURSE EXECUTION ACCURACY
SGT 601.8 SGR 742.7 SG3 280.0
RRT -.4784 RRF .8325 RTF -.5285
SG8 955.9 R23 -.1496 R13 .8322
SG1 831.1 SG2 472.3 THA 123.06

ORBIT DETERMINATION ACCURACY
ST 125.2 SR 137.8 SS 577.9
CRT .2453 CRS .6969 CST -.4711
LSA 588.9 MSA 144.7 SSA 31.3
EL1 147.9 EL2 113.1 ALF 55.70

LAUNCH DATE SEP 22 1970 FLIGHT TIME 88.00 ARRIVAL DATE DEC 19 1970

HELIOCENTRIC CONIC DISTANCE 246.103

RL 150.16 LAL -.00 LOL 358.58 VL 27.613 GAL -8.70 AZL 87.99 HCA 111.26 SMA 132.03 ECC .20322 INC 2.0084 V1 29.674
RP 107.53 LAP 1.87 LOP 109.85 VP 38.253 GAP -4.84 AZP 90.73 TAL 219.39 TAP 330.65 RCA 105.20 APO 158.86 V2 35.243
RC 64.375 GL 12.27 GP -29.37 ZAL 145.10 ZAP 49.44 ETS 24.96 ZAE 142.33 ETE 305.44 ZAC 72.52 ETC 260.74 CLP -41.74

PLANETOCENTRIC CONIC

C3 20.271 VHL 4.502 DLA -.47 RAL 213.58 RAD 6567.8 VEL 11.902 PTH 2.11 VHP 4.827 DPA -49.60 RAP 237.08 ECC 1.3336

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 37 57	2202.99	-19.29	40.75	74.95	111.14	2 14 40	1603.0	-16.24	33.40
90.00	13 29 0	4876.22	19.99	211.55	75.17	69.52	14 50 16	4276.2	17.03	204.13
100.00	2 59 4	1941.31	-20.32	21.07	74.51	112.41	3 31 26	1341.3	-17.11	13.75
100.00	14 50 34	4613.13	21.03	191.78	74.74	68.26	16 7 27	4013.1	17.90	184.39
110.00	4 6 49	1729.26	-23.10	3.63	73.17	115.93	4 35 38	1129.3	-19.42	356.42
110.00	15 59 18	4397.94	23.82	174.13	73.43	64.73	17 12 36	3797.9	20.22	166.84

DIFFERENTIAL CORRECTIONS
TDE .0480 TRA -.3159 TC3 .4476 BAU .2593
RDE -.0397 RRA -.2226 RC3 -.8458 FAU .08110
FDE 1.1928 FRA -.5261 FC3-3.4037 BSP 2519
BDE .0578 BRA .3864 BC3 .9569 FSP -881

MID-COURSE EXECUTION ACCURACY
SGT 571.8 SGR 814.1 SG3 305.2
RRT -.4206 RRF .8652 RTF -.4490
SG8 994.8 R23 -.1252 R13 .8612
SG1 867.6 SG2 486.7 THA 114.69

ORBIT DETERMINATION ACCURACY
ST 132.5 SR 101.5 SS 659.8
CRT .5414 CRS .3669 CST -.5128
LSA 644.5 MSA 144.5 SSA 29.6
EL1 148.5 EL2 76.1 ALF 31.75

LAUNCH DATE SEP 22 1970 FLIGHT TIME 90.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 252.723

RL 150.16 LAL -.00 LOL 358.58 VL 27.656 GAL -8.66 AZL 87.77 HCA 114.50 SMA 132.34 ECC .20098 INC 2.2298 V1 29.674
RP 107.51 LAP 2.03 LOP 113.09 VP 38.288 GAP -4.21 AZP 90.92 TAL 219.87 TAP 334.37 RCA 105.74 APO 158.94 V2 35.247
RC 66.441 GL 13.69 GP -31.53 ZAL 144.98 ZAP 53.89 ETS 22.68 ZAE 141.68 ETE 300.08 ZAC 70.26 ETC 260.32 CLP -46.26

PLANETOCENTRIC CONIC

C3 20.209 VHL 4.495 DLA .99 RAL 213.72 RAD 6567.8 VEL 11.899 PTH 2.11 VHP 4.645 DPA -51.28 RAP 234.34 ECC 1.3326

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 27 41	2247.50	-20.35	43.58	75.39	110.12	2 5 8	1647.5	-17.43	36.12
90.00	13 40 22	4830.24	18.87	208.65	74.92	68.49	15 0 52	4230.2	15.78	201.33
100.00	2 49 29	1983.64	-21.40	23.75	74.97	111.39	3 22 33	1383.6	-18.30	16.32
100.00	15 1 15	4569.34	19.90	189.01	74.48	67.23	16 17 24	3969.3	16.65	181.74
110.00	3 58 47	1766.73	-24.19	5.99	73.67	114.92	4 28 14	1166.7	-20.63	358.65
110.00	16 8 26	4359.01	22.67	171.70	73.12	63.70	17 21 5	3759.0	18.95	164.53

DIFFERENTIAL CORRECTIONS
TDE .0549 TRA -.3329 TC3 .3657 BAU .2714
RDE .0147 RRA -.2313 RC3 -.9357 FAU .08594
FDE 1.3660 FRA -.5513 FC3-3.6816 BSP 2629
BDE .0568 BRA .4053 BC3 1.0046 FSP -949

MID-COURSE EXECUTION ACCURACY
SGT 541.3 SGR 891.6 SG3 328.8
RRT -.3111 RRF .8914 RTF -.3244
SG8 1043.0 R23 -.0846 R13 .8887
SG1 914.6 SG2 501.5 THA 105.45

ORBIT DETERMINATION ACCURACY
ST 145.6 SR 93.9 SS 704.9
CRT .9018 CRS -.3267 CST -.5773
LSA 710.8 MSA 144.6 SSA 27.6
EL1 169.7 EL2 34.8 ALF 31.66

LAUNCH DATE SEP 22 1970 FLIGHT TIME 92.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 259.313

RL 150.16 LAL -.00 LOL 358.58 VL 27.690 GAL -8.62 AZL 87.54 HCA 117.74 SMA 132.59 ECC .19905 INC 2.4629 V1 29.674
RP 107.50 LAP 2.18 LOP 116.34 VP 38.316 GAP -3.61 AZP 91.15 TAL 220.23 TAP 337.96 RCA 106.20 APO 158.98 V2 35.251
RC 68.539 GL 15.18 GP -33.78 ZAL 144.66 ZAP 58.50 ETS 20.23 ZAE 140.81 ETE 294.34 ZAC 67.89 ETC 259.82 CLP -51.05

PLANETOCENTRIC CONIC

C3 20.201 VHL 4.495 DLA 2.47 RAL 213.99 RAD 6567.8 VEL 11.899 PTH 2.11 VHP 4.498 DPA -52.94 RAP 231.09 ECC 1.3325

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 17 48	2293.34	-21.40	46.53	76.06	109.00	1 56 1	1693.3	-18.61	38.97
90.00	13 52 28	4784.22	17.70	205.78	74.90	67.53	15 12 12	4184.2	14.50	198.56
100.00	2 40 17	2027.26	-22.45	26.56	75.65	110.27	3 14 5	1427.3	-19.49	19.02
100.00	15 12 40	4525.53	18.73	186.29	74.43	66.27	16 28 5	3925.5	15.36	179.12
110.00	3 51 11	1805.39	-25.28	8.47	74.40	113.82	4 21 16	1205.4	-21.84	1.00
110.00	16 18 16	4320.16	21.48	169.31	73.04	62.74	17 30 16	3720.2	17.65	162.27

DIFFERENTIAL CORRECTIONS
TDE .0818 TRA -.3803 TC3 .2729 BAU .2882
RDE .0728 RRA -.2405 RC3-1.0316 FAU .09057
FDE 1.5289 FRA -.5753 FC3-3.8815 BSP 2881
BDE .1091 BRA .4249 BC3 1.0671 FSP -1035

MID-COURSE EXECUTION ACCURACY
SGT 520.3 SGR 981.2 SG3 351.1
RRT -.1582 RRF .9132 RTF -.1540
SG8 1110.6 R23 -.0448 R13 .9122
SG1 985.9 SG2 511.3 THA 96.57

ORBIT DETERMINATION ACCURACY
ST 169.7 SR 133.4 SS 763.4
CRT .9600 CRS -.7761 CST -.6932
LSA 779.9 MSA 143.1 SSA 26.1
EL1 213.8 EL2 29.6 ALF 37.89

LAUNCH DATE SEP 22 1970 FLIGHT TIME 94.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 265.872

RL	150.16	LAL	-.00	LOL	358.58	VL	27.716	GAL	-0.57	AZL	87.29	HCA	120.98	SMA	132.70	ECC	.19738	INC	2.7104	V1	29.674
RP	107.49	LAP	2.32	LOP	119.58	VP	38.338	GAP	-3.03	AZP	91.40	TAL	220.46	TAP	341.44	RCA	106.57	APO	158.99	V2	35.254
RC	70.666	GL	16.74	GP	-36.09	ZAL	144.15	ZAP	63.19	ETS	17.55	ZAE	139.66	ETE	288.35	ZAC	65.43	ETC	259.23	CLP	-58.08

PLANETOCENTRIC CONIC

C3	20.246	VHL	4.500	DLA	3.98	RAL	214.42	RAD	6567.8	VEL	11.901	PTH	2.11	VHP	4.388	DPA	-54.52	RAP	227.32	ECC	1.3332

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 8 11	2340.99	-22.42	49.65	76.97	107.76	1 47 12	1741.0	-19.78	41.97
90.00	14 5 27	4737.65	16.46	202.92	75.10	66.63	15 24 24	4137.6	13.16	195.80
100.00	2 31 23	2072.60	-23.49	29.53	76.58	109.04	3 5 56	1472.6	-20.68	21.86
100.00	15 24 55	4481.27	17.49	183.59	74.62	65.37	16 39 37	3881.3	14.02	176.51
110.00	3 43 55	1845.62	-26.36	11.09	75.38	112.60	4 14 40	1245.6	-23.06	3.48
110.00	16 28 53	4281.01	20.24	166.95	73.18	61.85	17 40 14	3681.0	16.32	160.02

DIFFERENTIAL CORRECTIONS

TDE	.1178	TRA	-.3736	TC3	.1580	BAU	.3071
RDE	.1372	RRA	-.2457	RC3	-1.1237	FAU	.09397
FDE	1.6018	FRA	-.5788	FC3	-4.0181	BSP	3144
BDE	.1808	BRA	.4471	BC3	1.1347	FSP	-1101

MID-COURSE EXECUTION ACCURACY

SGT	519.7	SGR	1073.1	SG3	389.2		
RRT	.0574	RRF	.9300	RTF	.0726		
SG8	1192.3	RZ3	-.0030	R13	.9302		
SG1	1073.6	SG2	518.6	THA	87.92		

ORBIT DETERMINATION ACCURACY

ST	207.3	SR	200.8	SS	822.1
CRT	.9499	CRS	-.9202	CST	-.7882
LSA	859.3	NSA	142.0	SSA	24.4
EL1	285.0	EL2	45.6	ALF	44.04

LAUNCH DATE SEP 22 1970 FLIGHT TIME 96.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 272.402

RL	150.16	LAL	-.00	LOL	358.58	VL	27.734	GAL	-0.52	AZL	87.02	HCA	124.22	SMA	132.91	ECC	.19594	INC	2.9754	V1	29.674
RP	107.48	LAP	2.46	LOP	122.83	VP	38.353	GAP	-2.48	AZP	91.67	TAL	220.58	TAP	344.79	RCA	106.87	APO	158.95	V2	35.256
RC	72.818	GL	18.40	GP	-38.42	ZAL	143.44	ZAP	67.92	ETS	14.63	ZAE	138.20	ETE	282.24	ZAC	62.91	ETC	258.57	CLP	-61.33

PLANETOCENTRIC CONIC

C3	20.350	VHL	4.511	DLA	5.54	RAL	214.98	RAD	6567.8	VEL	11.905	PTH	2.12	VHP	4.316	DPA	-55.98	RAP	223.07	ECC	1.3349

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 58 40	2381.07	-23.42	52.98	78.12	106.38	1 38 31	1791.1	-20.95	45.18
90.00	14 19 28	4680.01	15.15	200.03	75.53	65.79	15 37 38	4090.0	11.76	193.00
100.00	2 22 38	2120.26	-24.51	32.70	77.76	107.66	2 57 58	1520.3	-21.87	24.90
100.00	15 38 11	4436.05	16.19	180.86	75.03	64.52	16 52 7	3836.1	12.63	173.88
110.00	3 36 52	1887.90	-27.43	13.91	76.61	111.24	4 8 20	1287.9	-24.30	6.15
110.00	16 40 86	4241.17	18.94	164.59	73.54	61.00	17 51 7	3641.2	14.93	157.77

DIFFERENTIAL CORRECTIONS

TDE	.1672	TRA	-.4007	TC3	.0251	BAU	.3290
RDE	.2073	RRA	-.2464	RC3	-1.2088	FAU	.09599
FDE	1.8431	FRA	-.5633	FC3	-4.0834	BSP	3453
BDE	.2663	BRA	.4704	BC3	1.2091	FSP	-1149

MID-COURSE EXECUTION ACCURACY

SGT	554.1	SGR	1165.2	SG3	382.2		
RRT	.2973	RRF	.9429	RTF	.3187		
SG8	1290.2	RZ3	.0337	R13	.9432		
SG1	1179.7	SG2	522.5	THA	79.96		

ORBIT DETERMINATION ACCURACY

ST	262.0	SR	281.6	SS	877.6
CRT	.9538	CRS	-.9662	CST	-.8599
LSA	947.5	NSA	141.0	SSA	22.6
EL1	380.1	EL2	58.3	ALF	47.17

LAUNCH DATE SEP 22 1970 FLIGHT TIME 98.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 278.901

RL	150.16	LAL	-.00	LOL	358.58	VL	27.745	GAL	-0.45	AZL	86.74	HCA	127.46	SMA	132.99	ECC	.19469	INC	3.2616	V1	29.674
RP	107.48	LAP	2.59	LOP	126.08	VP	38.362	GAP	-1.94	AZP	91.98	TAL	220.58	TAP	348.03	RCA	107.10	APO	158.88	V2	35.258
RC	74.992	GL	20.16	GP	-40.76	ZAL	142.52	ZAP	72.62	ETS	11.44	ZAE	136.42	ETE	276.15	ZAC	60.37	ETC	257.82	CLP	-66.77

PLANETOCENTRIC CONIC

C3	20.521	VHL	4.530	DLA	7.16	RAL	215.69	RAD	6567.8	VEL	11.912	PTH	2.12	VHP	4.282	DPA	-57.31	RAP	218.41	ECC	1.3377

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 49 6	2444.36	-24.40	56.58	79.54	104.83	1 29 50	1844.4	-22.13	48.65
90.00	14 34 43	4640.70	13.76	197.09	76.20	65.00	15 52 4	4040.7	10.27	190.14
100.00	2 13 52	2170.94	-25.52	36.13	79.20	106.12	2 50 3	1570.9	-23.06	28.19
100.00	15 52 36	4389.35	14.80	178.09	75.68	63.73	17 5 47	3789.4	11.15	171.20
110.00	3 29 57	1932.85	-28.50	16.97	78.12	109.72	4 2 10	1332.8	-25.55	9.04
110.00	16 53 3	4200.21	17.57	162.20	74.15	60.20	18 3 3	3600.2	13.47	155.48

DIFFERENTIAL CORRECTIONS

TDE	.2300	TRA	-.4323	TC3	-.1286	BAU	.3517
RDE	.2655	RRA	-.2378	RC3	-1.2758	FAU	.09585
FDE	1.9094	FRA	-.5150	FC3	-4.0436	BSP	3732
BDE	.3666	BRA	.4934	BC3	1.2821	FSP	-1151

MID-COURSE EXECUTION ACCURACY

SGT	633.6	SGR	1248.4	SG3	388.2		
RRT	.5116	RRF	.9525	RTF	.5319		
SG8	1400.0	RZ3	.0686	R13	.9515		
SG1	1298.4	SG2	523.4	THA	72.51		

ORBIT DETERMINATION ACCURACY

ST	334.6	SR	374.0	SS	934.7
CRT	.9605	CRS	-.9847	CST	-.9048
LSA	1051.1	NSA	141.7	SSA	20.5
EL1	496.9	EL2	70.1	ALF	48.31

LAUNCH DATE SEP 22 1970 FLIGHT TIME 100.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 285.360

RL	150.16	LAL	-.00	LOL	358.58	VL	27.750	GAL	-0.38	AZL	86.43	HCA	130.70	SMA	133.03	ECC	.19361	INC	3.5738	V1	29.674
RP	107.48	LAP	2.71	LOP	129.33	VP	38.366	GAP	-1.43	AZP	92.33	TAL	220.47	TAP	351.17	RCA	107.27	APO	158.78	V2	35.259
RC	77.186	GL	22.09	GP	-43.08	ZAL	141.41	ZAP	77.20	ETS	7.96	ZAE	134.35	ETE	270.21	ZAC	57.83	ETC	257.01	CLP	-72.34

PLANETOCENTRIC CONIC

C3	20.774	VHL	4.558	DLA	8.86	RAL	216.55	RAD	6567.8	VEL	11.923	PTH	2.12	VHP	4.287	DPA	-58.48	RAP	213.43	ECC	1.3419

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 39 14	2501.85	-25.34	60.53	81.26	103.07	1 20 56	1901.9	-23.29	52.46
90.00	14 51 27	4589.09	12.25	194.05	77.14	64.27	16 7 57	3989.1	8.69	187.18
100.00	2 4 53	2225.57	-26.50	39.90	80.94	104.37	2 41 59	1625.6	-24.26	31.81
100.00	16 8 29	4340.60	13.31	175.24	76.60	62.99	17 20 50	3740.6	9.58	168.43
110.00	3 22 56	1981.23	-29.57	20.33	79.93	107.99	3 55 59	1381.2	-26.83	12.22
110.00	17 6 53	4157.71	16.12	159.76	75.00	59.44	18 16 11	3557.7	11.94	153.15

DIFFERENTIAL CORRECTIONS

TDE	.3142	TRA	-.4601	TC3	-.2791	BAU	.3812
RDE	.3878	RRA	-.2316	RC3	-1.3437	FAU	.09543
FDE	2.0793	FRA	-.4798	FC3	-3.9771	BSP	4241
BDE	.4760	BRA	.5151	BC3	1.3724	FSP	-1195

MID-COURSE EXECUTION ACCURACY

SGT	750.6	SGR	1337.6	SG3	389.7		
RRT	.6590	RRF	.9605	RTF	.6828		
SG8	1533.9	RZ3	.0851	R13	.9590		
SG1	1441.6	SG2	523.9	THA	66.40		

ORBIT DETERMINATION ACCURACY

ST	432.3	SR	459.5	SS	971.4
CRT	.9731	CRS	-.9916	CST	-.9397
LSA	1149.8	NSA	139.1	SSA	19.2
EL1	626.7	EL2	73.0	ALF	46.79

LAUNCH DATE SEP 22 1970 FLIGHT TIME 102.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 291.807

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RL  150.16 LAL   -.00 LOL 358.58 VL  27.748 GAL  -8.31 AZL  86.08 HCA 133.93 SMA 133.02 ECC .19267 INC 3.9179 V1  29.674
RP  107.48 LAP   2.82 LOP 132.58 VP  38.365 GAP   -.94 AZP  92.72 TAL 220.26 TAP 354.20 RCA 107.39 APO 158.65 V2  35.259
RC  79.396 GL   24.09 GP  -45.37 ZAL 140.07 ZAP  81.60 ETS   4.22 ZAE 132.02 ETE 264.52 ZAC  55.30 ETC 256.13 CLP -77.99
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PLANETOCENTRIC CONIC

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C3  21.129 VHL  4.597 DLA  10.66 RAL 217.57 RAD 6567.9 VEL 11.938 PTH   2.12 VHP  4.333 DPA -59.50 RAP 208.24 ECC 1.3477
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 28 49	2564.72	-26.24	64.91	83.30	101.05	1 11 34	1964.7	-24.45	56.70
90.00	15 10 0	4534.35	10.61	190.86	78.37	63.59	16 25 35	3934.4	6.98	184.06
100.00	1 55 29	2285.23	-27.43	44.08	83.02	102.36	2 33 34	1685.2	-25.46	35.84
100.00	16 26 2	4289.08	11.70	172.26	77.80	62.30	17 37 31	3689.1	7.90	165.53
110.00	3 15 47	2033.93	-30.62	24.08	82.10	106.00	3 49 41	1433.9	-28.12	15.77
110.00	17 22 13	4113.14	14.56	157.25	76.15	58.72	18 30 46	3513.1	10.31	150.73

DIFFERENTIAL CORRECTIONS

```
TDE  .4151 TRA -.4097 TC3 -.4417 BAU  .4102
RDE  .4356 RRA -.2136 RC3-1.3833 FAU .09266
FDE 2.1556 FRA -.4119 FC3-3.7966 BSP   4699
BDE  .6017 BRA  .5343 BC3 1.4520 FSP  -1186
```

MID-COURSE EXECUTION ACCURACY

```
SGT  904.6 SGR 1409.0 SG3  383.2
RRT  .7575 RRF  .9662 RTF  .7805
SGB 1674.4 R23  .1031 R13  .9636
SG1 1590.6 SG2  523.1 THA  60.57
```

ORBIT DETERMINATION ACCURACY

```
ST   550.0 SR   550.3 SS  1008.3
CRT  .9796 CRS -.9955 CST -.9589
LSA 1265.9 MSA  138.6 SSA   17.5
EL1  774.1 EL2   78.6 ALF  45.01
```

LAUNCH DATE SEP 22 1970 FLIGHT TIME 104.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 298.215

```
RL  150.16 LAL   -.00 LOL 358.58 VL  27.742 GAL  -8.22 AZL  85.70 HCA 137.17 SMA 132.97 ECC .19185 INC 4.3017 V1  29.674
RP  107.48 LAP   2.92 LOP 135.83 VP  38.360 GAP   -.46 AZP  93.16 TAL 219.96 TAP 357.13 RCA 107.46 APO 158.48 V2  35.258
RC  81.621 GL   28.29 GP  -47.63 ZAL 138.50 ZAP  85.73 ETS    .22 ZAE 129.46 ETE 259.16 ZAC  52.79 ETC 255.20 CLP -83.66
```

PLANETOCENTRIC CONIC

```
C3  21.617 VHL  4.649 DLA  12.58 RAL 218.76 RAD 6567.9 VEL 11.958 PTH   2.13 VHP  4.421 DPA -60.39 RAP 202.93 ECC 1.3558
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 17 32	2634.57	-27.05	69.86	85.71	98.70	1 1 26	2034.6	-25.57	61.51
90.00	15 30 47	4475.50	8.81	187.47	79.95	62.98	16 45 23	3875.5	5.12	180.74
100.00	1 45 21	2351.34	-28.31	48.80	85.47	100.02	2 24 32	1751.3	-26.63	40.40
100.00	16 45 30	4233.96	9.94	169.12	79.35	61.66	17 56 13	3634.0	6.07	162.46
110.00	3 8 12	2082.10	-31.63	28.31	84.67	103.69	3 43 4	1492.1	-29.43	19.79
110.00	17 30 18	4085.96	12.87	154.63	77.61	58.06	18 47 3	3466.0	8.56	148.19

DIFFERENTIAL CORRECTIONS

```
TDE  .5368 TRA -.5165 TC3 -.6023 BAU  .4397
RDE  .5146 RRA -.1871 RC3-1.3973 FAU .08823
FDE 2.2027 FRA -.3297 FC3-3.5334 BSP   5170
BDE  .7437 BRA  .5494 BC3 1.5216 FSP  -1151
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1084.7 SGR 1465.0 SG3  370.0
RRT  .8189 RRF  .9706 RTF  .8412
SGB 1822.9 R23  .1182 R13  .9667
SG1 1746.5 SG2  522.3 THA  55.22
```

ORBIT DETERMINATION ACCURACY

```
ST   690.1 SR   639.3 SS  1038.7
CRT  .9839 CRS -.9976 CST -.9709
LSA 1394.4 MSA  138.6 SSA   15.8
EL1  936.9 EL2   84.2 ALF  42.78
```

LAUNCH DATE SEP 22 1970 FLIGHT TIME 106.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 304.594

```
RL  150.16 LAL   -.00 LOL 358.58 VL  27.730 GAL  -8.12 AZL  85.28 HCA 140.40 SMA 132.88 ECC .19113 INC 4.7352 V1  29.674
RP  107.48 LAP   3.02 LOP 139.08 VP  38.350 GAP   -.01 AZP  93.65 TAL 219.56 TAP 359.96 RCA 107.48 APO 158.28 V2  35.256
RC  83.861 GL   28.69 GP  -49.88 ZAL 136.70 ZAP  89.53 ETS 355.99 ZAE 126.70 ETE 254.16 ZAC  50.29 ETC 254.21 CLP -89.28
```

PLANETOCENTRIC CONIC

```
C3  22.283 VHL  4.721 DLA  14.65 RAL 220.14 RAD 6567.9 VEL 11.986 PTH   2.14 VHP  4.555 DPA -61.21 RAP 197.57 ECC 1.3667
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 4 53	2713.49	-27.74	75.54	88.54	95.93	0 50 6	2113.5	-26.63	67.05
90.00	15 54 23	4411.26	6.80	183.82	81.94	62.45	17 7 54	3811.3	3.06	177.14
100.00	1 34 6	2425.79	-29.07	54.20	88.36	97.28	2 14 31	1825.8	-27.76	45.64
100.00	17 7 51	4174.19	7.99	165.75	81.30	61.10	18 17 25	3574.2	4.07	159.15
110.00	2 59 56	2157.22	-32.58	33.15	87.71	100.97	3 35 53	1557.2	-30.72	24.42
110.00	17 58 30	4015.53	11.04	151.88	79.46	57.44	19 5 26	3415.5	6.67	145.51

DIFFERENTIAL CORRECTIONS

```
TDE  .6825 TRA -.5383 TC3 -.7528 BAU  .4685
RDE  .5949 RRA -.1504 RC3-1.3810 FAU .08222
FDE 2.2234 FRA -.2342 FC3-3.1945 BSP   5625
BDE  .9053 BRA  .5500 BC3 1.5728 FSP  -1089
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1283.4 SGR 1502.3 SG3  350.6
RRT  .8569 RRF  .9738 RTF  .8789
SGB 1975.8 R23  .1322 R13  .9686
SG1 1905.7 SG2  521.5 THA  50.23
```

ORBIT DETERMINATION ACCURACY

```
ST   852.8 SR   725.4 SS  1063.3
CRT  .9866 CRS -.9988 CST -.9786
LSA 1537.6 MSA  139.6 SSA   14.0
EL1 1115.9 EL2   90.6 ALF  40.32
```

LAUNCH DATE SEP 22 1970 FLIGHT TIME 108.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 310.942

```
RL  150.16 LAL   -.00 LOL 358.58 VL  27.714 GAL  -8.02 AZL  84.77 HCA 143.64 SMA 132.77 ECC .19051 INC 5.2324 V1  29.674
RP  107.49 LAP   3.10 LOP 142.33 VP  38.337 GAP    .43 AZP  94.22 TAL 219.07 TAP   2.71 RCA 107.47 APO 158.06 V2  35.254
RC  86.111 GL   31.31 GP  -52.15 ZAL 134.63 ZAP  92.95 ETS 351.53 ZAE 123.79 ETE 249.52 ZAC  47.77 ETC 253.16 CLP -94.81
```

PLANETOCENTRIC CONIC

```
C3  23.195 VHL  4.816 DLA  16.88 RAL 221.71 RAD 6567.9 VEL 12.024 PTH   2.15 VHP  4.740 DPA -62.00 RAP 192.16 ECC 1.3817
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 46 15	2804.46	-28.20	82.15	91.85	92.65	24 32 59	2204.5	-27.54	73.55
90.00	16 21 37	4339.78	4.54	179.79	84.44	62.02	17 33 57	3739.8	.76	173.15
100.00	1 21 9	2511.11	-29.64	60.48	91.75	94.03	2 3 0	1911.1	-28.77	51.78
100.00	17 33 20	4108.36	5.80	162.08	83.75	60.63	18 41 49	3508.4	1.85	155.53
110.00	2 50 37	2231.16	-33.40	38.76	91.30	97.74	3 27 48	1631.2	-31.97	29.82
110.00	18 20 21	3961.08	9.03	148.94	81.77	56.89	19 26 22	3361.1	4.61	142.64

DIFFERENTIAL CORRECTIONS

```
TDE  .8544 TRA -.5929 TC3 -.8846 BAU  .4989
RDE  .6680 RRA -.1099 RC3-1.3439 FAU .07568
FDE 2.2024 FRA -.1473 FC3-2.8247 BSP   6196
BDE 1.0852 BRA  .5637 BC3 1.6089 FSP  -1038
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1493.9 SGR 1525.7 SG3  326.7
RRT  .8801 RRF  .9762 RTF  .9041
SGB 2135.3 R23  .1418 R13  .9705
SG1 2070.4 SG2  522.7 THA  45.69
```

ORBIT DETERMINATION ACCURACY

```
ST  1037.5 SR   797.9 SS  1073.8
CRT  .9887 CRS -.9994 CST -.9840
LSA 1687.2 MSA  139.4 SSA   12.5
EL1 1305.4 EL2   95.1 ALF  37.48
```

LAUNCH DATE SEP 22 1970 FLIGHT TIME 110.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 317.262

```
RL  150.16 LAL   -.00 LOL 358.58 VL  27.694 GAL  -7.91 AZL  84.19 HCA 146.87 SMA 132.62 ECC .18996 INC 5.8120 V1  29.674
RP  107.50 LAP   3.17 LOP 145.58 VP  38.319 GAP    .86 AZP  94.87 TAL 218.50 TAP   5.37 RCA 107.43 APO 157.81 V2  35.251
RC  88.372 GL   34.18 GP  -54.50 ZAL 132.28 ZAP  95.91 ETS 346.86 ZAE 120.73 ETE 245.23 ZAC  45.19 ETC 252.00 CLP-100.22
```

PLANETOCENTRIC CONIC

```
C3  24.450 VHL  4.945 DLA  19.30 RAL 223.50 RAD 6568.0 VEL 12.076 PTH   2.16 VHP  4.984 DPA -62.79 RAP 186.63 ECC 1.4024
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 28 23	2911.97	-28.29	90.01	95.68	88.71	24 16 55	2312.0	-28.17	81.35
90.00	16 53 50	4258.08	1.91	175.22	87.60	61.74	18 4 48	3658.1	-1.88	168.59
100.00	1 5 38	2611.01	-29.89	67.89	95.70	90.13	1 49 9	2011.0	-29.55	59.10
100.00	18 3 11	4034.27	3.31	157.99	86.83	60.27	19 10 25	3434.3	-.67	151.47
110.00	2 39 47	2316.44	-33.99	45.35	95.53	93.89	3 18 24	1716.4	-33.08	36.23
110.00	18 45 31	3901.60	6.80	145.77	84.67	56.42	19 50 33	3301.6	2.34	139.53

DIFFERENTIAL CORRECTIONS

```
TDE 1.0590 TRA -.5577 TC3 -.9891 BAU  .5264
RDE  .7439 RRA -.0571 RC3-1.2710 FAU .06797
FDE 2.1618 FRA -.0529 FC3-2.4065 BSP   6725
BDE 1.2942 BRA  .5606 BC3 1.6105 FSP   -959
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1712.2 SGR 1525.7 SG3  298.6
RRT  .8940 RRF  .9777 RTF  .9205
SGB 2293.3 R23  .1523 R13  .9713
SG1 2232.6 SG2  524.3 THA  41.32
```

ORBIT DETERMINATION ACCURACY

```
ST  1244.6 SR   863.0 SS  1079.2
CRT  .9898 CRS -.9997 CST -.9875
LSA 1854.3 MSA  140.7 SSA   11.0
EL1 1511.1 EL2  101.1 ALF  34.64
```

LAUNCH DATE SEP 22 1970 FLIGHT TIME 112.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 323.552

```
RL  150.16 LAL   -.00 LOL 358.58 VL  27.671 GAL  -7.79 AZL  83.50 HCA 150.09 SMA 132.45 ECC .18949 INC 6.5011 V1  29.674
RP  107.51 LAP   3.24 LOP 148.83 VP  38.299 GAP   1.26 AZP  95.64 TAL 217.85 TAP   7.95 RCA 107.35 APO 157.54 V2  35.247
RC  90.641 GL   37.33 GP  -56.99 ZAL 129.63 ZAP  98.38 ETS 341.93 ZAE 117.51 ETE 241.21 ZAC  42.50 ETC 250.68 CLP-105.51
```

PLANETOCENTRIC CONIC

```
C3  26.207 VHL  5.119 DLA  21.95 RAL 225.56 RAD 6568.1 VEL 12.148 PTH   2.18 VHP  5.301 DPA -63.64 RAP 180.84 ECC 1.4313
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 5 15	3043.77	-27.71	99.60	100.03	83.94	23 55 59	2443.8	-28.26	90.98
90.00	17 33 21	4160.51	-1.24	169.78	91.66	61.71	18 42 42	3560.5	-5.01	163.13
100.00	0 46 5	2731.35	-29.58	76.82	100.22	85.45	1 31 36	2131.4	-29.89	68.03
100.00	18 39 9	3948.16	.40	153.26	90.75	60.11	19 44 57	3348.2	-3.58	146.74
110.00	2 26 41	2416.61	-34.18	53.16	100.47	89.27	3 6 58	1816.6	-33.90	43.93
110.00	19 18 2	3835.67	4.31	142.30	88.32	56.06	20 18 58	3235.7	-.18	136.09

DIFFERENTIAL CORRECTIONS

```
TDE 1.3068 TRA -.5484 TC3-1.0558 BAU  .5507
RDE  .8169 RRA  .0073 RC3-1.1645 FAU .05957
FDE 2.1013 FRA  .0401 FC3-1.9679 BSP   7225
BDE 1.5406 BRA  .5485 BC3 1.5719 FSP   -866
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1934.9 SGR 1502.6 SG3  267.6
RRT  .9011 RRF  .9784 RTF  .9318
SGB 2449.8 R23  .1625 R13  .9717
SG1 2392.5 SG2  526.9 THA  37.08
```

ORBIT DETERMINATION ACCURACY

```
ST  1475.7 SR   915.0 SS  1077.6
CRT  .9904 CRS -.9999 CST -.9901
LSA 2038.5 MSA  142.8 SSA    9.5
EL1 1733.0 EL2  107.8 ALF  31.69
```

LAUNCH DATE SEP 22 1970 FLIGHT TIME 114.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 329.812

```
RL  150.16 LAL   -.00 LOL 358.58 VL  27.644 GAL  -7.65 AZL  82.66 HCA 153.32 SMA 132.25 ECC .18908 INC 7.3396 V1  29.674
RP  107.53 LAP   3.29 LOP 152.08 VP  38.275 GAP   1.66 AZP  96.57 TAL 217.13 TAP  10.45 RCA 107.24 APO 157.25 V2  35.243
RC  92.917 GL   40.78 GP  -59.68 ZAL 126.64 ZAP 100.29 ETS 336.71 ZAE 114.13 ETE 237.37 ZAC  39.63 ETC 249.12 CLP-110.73
```

PLANETOCENTRIC CONIC

```
C3  28.718 VHL  5.359 DLA  24.82 RAL 227.92 RAD 6568.2 VEL 12.251 PTH   2.20 VHP  5.713 DPA -64.53 RAP 174.56 ECC 1.4726
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 31 53	3217.15	-25.85	111.94	104.72	78.03	23 25 30	2617.2	-27.25	103.55
90.00	18 25 34	4032.66	-5.34	162.62	97.06	62.15	19 32 47	3432.7	-9.02	155.88
100.00	0 19 21	2883.35	-28.24	87.91	105.25	79.76	1 7 24	2283.4	-29.36	79.29
100.00	19 24 43	3841.69	-3.21	147.42	95.89	60.26	20 28 45	3241.7	-7.14	140.84
110.00	2 10 4	2536.97	-33.68	62.52	106.17	83.76	2 52 21	1937.0	-34.17	53.31
110.00	19 50 30	3760.83	1.45	138.39	92.98	55.84	20 53 11	3160.8	-3.04	132.18

DIFFERENTIAL CORRECTIONS

```
TDE 1.6143 TRA -.5166 TC3-1.0708 BAU  .5663
RDE  .8913 RRA  .0926 RC3-1.0144 FAU .05020
FDE 2.0346 FRA  .1401 FC3-1.5135 BSP   7504
BDE 1.8440 BRA  .5248 BC3 1.4750 FSP   -737
```

MID-COURSE EXECUTION ACCURACY

```
SGT 2160.2 SGR 1449.8 SG3  234.9
RRT  .9024 RRF  .9780 RTF  .9392
SGB 2601.6 R23  .1751 R13  .9711
SG1 2547.1 SG2  529.9 THA  32.80
```

ORBIT DETERMINATION ACCURACY

```
ST  1735.9 SR   954.0 SS  1074.3
CRT  .9902 CRS -.9999 CST -.9918
LSA 2248.5 MSA  147.8 SSA    8.0
EL1 1977.3 EL2  117.2 ALF  28.66
```

LAUNCH DATE SEP 22 1970 FLIGHT TIME 116.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 336.040

```
RL  150.16 LAL   -.00 LOL 358.58 VL  27.614 GAL  -7.51 AZL  81.61 HCA 156.53 SMA 132.03 ECC .18873 INC 8.3891 V1  29.674
RP  107.54 LAP   3.33 LOP 155.33 VP  38.249 GAP   2.03 AZP  97.70 TAL 216.34 TAP  12.87 RCA 107.11 APO 156.95 V2  35.238
RC  95.197 GL   44.54 GP  -62.66 ZAL 123.31 ZAP 101.62 ETS 331.06 ZAE 110.52 ETE 233.50 ZAC  36.50 ETC 247.15 CLP-116.01
```

PLANETOCENTRIC CONIC

```
C3  32.422 VHL  5.694 DLA  27.93 RAL 230.64 RAD 6568.3 VEL 12.401 PTH   2.24 VHP  6.254 DPA -65.43 RAP 167.45 ECC 1.5336
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	21 20 56	3521.00	-20.00	132.25	108.51	69.53	22 19 37	2921.0	-22.61	124.55
90.00	19 58 14	3789.70	-12.80	148.68	105.33	64.53	21 1 24	3189.7	-16.13	141.58
100.00	23 31 46	3099.19	-24.71	102.96	110.26	72.61	24 23 25	2499.2	-26.85	94.81
100.00	20 30 5	3686.74	-8.38	138.82	103.03	61.20	21 31 32	3086.7	-12.16	132.07
110.00	1 47 29	2686.74	-31.99	73.87	112.48	77.25	2 32 16	2086.7	-33.41	64.93
110.00	20 34 47	3671.95	-1.94	133.75	99.08	55.87	21 35 59	3071.9	-6.41	127.51

DIFFERENTIAL CORRECTIONS

```
TDE 1.9889 TRA -.4895 TC3-1.0453 BAU  .5867
RDE  .9324 RRA  .1745 RC3 -.8597 FAU .04217
FDE 1.9228 FRA  .2001 FC3-1.1259 BSP   8237
BDE 2.1966 BRA  .5009 BC3 1.3534 FSP   -667
```

MID-COURSE EXECUTION ACCURACY

```
SGT 2389.2 SGR 1370.5 SG3  201.5
RRT  .8960 RRF  .9748 RTF  .9470
SGB 2754.3 R23  .1810 R13  .9719
SG1 2701.7 SG2  535.9 THA  28.45
```

ORBIT DETERMINATION ACCURACY

```
ST  2008.0 SR   940.5 SS  1046.3
CRT  .9896 CRS -.9995 CST -.9934
LSA 2447.3 MSA  148.8 SSA    6.8
EL1 2214.0 EL2  122.4 ALF  24.95
```

```
LAUNCH DATE  SEP 22 1970                          FLIGHT TIME 118.00                          ARRIVAL DATE  JAN 18 1971

 HELIOCENTRIC CONIC                                DISTANCE 342.235
  RL  150.16 LAL   -.00 LOL 358.58 VL  27.581 GAL  -7.36 AZL  80.25 HCA 159.73 SMA 131.80 ECC .18843 INC 9.7492 V1  29.674
  RP  107.56 LAP   3.36 LOP 158.58 VP  38.220 GAP   2.40 AZP  99.16 TAL 215.48 TAP  15.21 RCA 106.96 APO 156.63 V2  35.232
  RC  97.481 GL   48.62 GP  -66.01 ZAL 119.61 ZAP 102.30 ETS 324.72 ZAE 106.63 ETE 229.26 ZAC  32.99 ETC 244.46 CLP-121.61
 PLANETOCENTRIC CONIC
  C3  38.112 VHL  6.173 DLA  31.24 RAL 233.81 RAD 6568.5 VEL 12.629 PTH   2.29 VHP  6.984 DPA -66.21 RAP 159.10 ECC 1.6272
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     76.23    19  3 18   4046.01     -16.96     169.68     113.64      63.37   20 10 44    3446.0     -20.40     162.47
    103.77    22 41  8   3346.32     -16.95     117.99     113.63      63.36   23 36 55    2746.3     -20.39     110.78
     76.23    19  3 18   4046.01     -16.96     169.68     113.64      63.37   20 10 44    3446.0     -20.40     162.47
    103.77    22 41  8   3346.32     -16.95     117.99     113.63      63.36   23 36 55    2746.3     -20.39     110.78
    110.00     1 12 26   2887.74     -28.06      88.19     118.85      69.63    2  0 34    2287.7     -30.57      79.89
    110.00    21 35  7   3552.58      -6.48     127.49     107.44      56.36   22 34 20    2952.6     -10.86     121.13
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE 2.4853 TRA -.3783 TC3 -.9530 BAU  .5919      SGT 2821.7 SGR 1238.6 SG3  168.5            ST  2310.1 SR   880.1 SS  1018.2
  RDE  .9426 RRA  .2853 RC3 -.6644 FAU .03349      RRT  .8795 RRF  .9860 RTF  .9530            CRT  .9873 CRS -.9984 CST -.9945
  FDE 1.8155 FRA  .2653 FC3 -.7608 BSP   8696      SGB 2899.6 R23  .1891 R13  .9719            LSA 2669.2 MSA  153.1 SSA    5.6
  BDE 2.6580 BRA  .4738 BC3 1.1617 FSP   -563      SG1 2848.4 SG2  542.6 THA  23.47            EL1 2468.6 EL2  130.9 ALF  20.67

LAUNCH DATE  SEP 22 1970                          FLIGHT TIME 120.00                          ARRIVAL DATE  JAN 20 1971

 HELIOCENTRIC CONIC                                DISTANCE 348.392
  RL  150.16 LAL   -.00 LOL 358.58 VL  27.546 GAL  -7.20 AZL  78.41 HCA 162.92 SMA 131.54 ECC .18815 INC11.5935 V1  29.674
  RP  107.58 LAP   3.38 LOP 161.83 VP  38.189 GAP   2.74 AZP 101.10 TAL 214.55 TAP  17.47 RCA 106.79 APO 156.29 V2  35.226
  RC  99.767 GL   52.94 GP  -69.83 ZAL 115.54 ZAP 102.30 ETS 317.10 ZAE 102.33 ETE 223.97 ZAC  28.99 ETC 240.45 CLP-128.15
 PLANETOCENTRIC CONIC
  C3  47.374 VHL  6.883 DLA  34.67 RAL 237.53 RAD 6568.8 VEL 12.990 PTH   2.37 VHP  8.009 DPA -66.62 RAP 149.11 ECC 1.7796
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     69.10    18 32 15   4242.87     -16.78     184.71     121.70      59.21   19 42 58    3642.9     -20.74     177.78
    110.90    23 41 54   3259.07     -16.77     111.19     121.69      59.20   24 36 13    2659.1     -20.73     104.26
     69.10    18 32 15   4242.87     -16.78     184.71     121.70      59.21   19 42 58    3642.9     -20.74     177.78
    110.90    23 41 54   3259.07     -16.77     111.19     121.69      59.20   24 36 13    2659.1     -20.73     104.26
     69.10    18 32 15   4242.87     -16.78     184.71     121.70      59.21   19 42 58    3642.9     -20.74     177.78
    110.90    23 41 54   3259.07     -16.77     111.19     121.69      59.20   24 36 13    2659.1     -20.73     104.26
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE 3.1559 TRA -.2234 TC3 -.8012 BAU  .5824      SGT 2858.2 SGR 1030.3 SG3  137.0            ST  2628.2 SR   716.4 SS   983.4
  RDE  .8467 RRA  .4177 RC3 -.4514 FAU .02520      RRT  .8290 RRF  .9358 RTF  .9598            CRT  .9792 CRS -.9939 CST -.9956
  FDE 1.7030 FRA  .3182 FC3 -.4605 BSP   9171      SGB 3038.2 R23  .1954 R13  .9725            LSA 2891.8 MSA  158.6 SSA    4.5
  BDE 3.2675 BRA  .4737 BC3  .9196 FSP   -463      SG1 2987.8 SG2  551.2 THA  17.24            EL1 2720.4 EL2  140.4 ALF  14.99

LAUNCH DATE  SEP 22 1970                          FLIGHT TIME 122.00                          ARRIVAL DATE  JAN 22 1971

 HELIOCENTRIC CONIC                                DISTANCE 354.502
  RL  150.16 LAL   -.00 LOL 358.58 VL  27.509 GAL  -7.02 AZL  75.75 HCA 166.09 SMA 131.28 ECC .18789 INC14.2493 V1  29.674
  RP  107.60 LAP   3.39 LOP 165.07 VP  38.156 GAP   3.07 AZP 103.85 TAL 213.55 TAP  19.64 RCA 106.61 APO 155.94 V2  35.218
  RC 102.053 GL   57.33 GP  -74.17 ZAL 111.13 ZAP 101.57 ETS 306.71 ZAE  97.44 ETE 216.03 ZAC  24.29 ETC 233.70 CLP-137.32
 PLANETOCENTRIC CONIC
  C3  63.735 VHL  7.983 DLA  38.03 RAL 241.95 RAD 6569.2 VEL 13.605 PTH   2.49 VHP  9.532 DPA -66.24 RAP 137.36 ECC 2.0489
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     63.48    18 19 27   4406.25     -15.40     196.89     131.36      54.79   19 32 53    3806.2     -19.90     190.36
    116.52     0 33 52   3241.83     -15.38     108.87     131.34      54.78    1 27 53    2641.8     -19.88     102.34
     63.48    18 19 27   4406.25     -15.40     196.89     131.36      54.79   19 32 53    3806.2     -19.90     190.36
    116.52     0 33 52   3241.83     -15.38     108.87     131.34      54.78    1 27 53    2641.8     -19.88     102.34
     63.48    18 19 27   4406.25     -15.40     196.89     131.36      54.79   19 32 53    3806.2     -19.90     190.36
    116.52     0 33 52   3241.83     -15.38     108.87     131.34      54.78    1 27 53    2641.8     -19.88     102.34
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE 4.0928 TRA  .0566 TC3 -.5925 BAU  .5432      SGT 3086.3 SGR  714.1 SG3  108.3            ST  2937.5 SR   359.9 SS   950.1
  RDE  .4530 RRA  .5630 RC3 -.2352 FAU .01735      RRT  .6065 RRF  .7650 RTF  .9687            CRT  .9059 CRS -.9372 CST -.9967
  FDE 1.6013 FRA  .3637 FC3 -.2357 BSP   9600      SGB 3167.8 R23  .1978 R13  .9742            LSA 3103.8 MSA  166.0 SSA    3.4
  BDE 4.1177 BRA  .5659 BC3  .6374 FSP   -369      SG1 3117.6 SG2  562.1 THA   8.26            EL1 2955.6 EL2  151.5 ALF   6.35

LAUNCH DATE  SEP 22 1970                          FLIGHT TIME 124.00                          ARRIVAL DATE  JAN 24 1971

 HELIOCENTRIC CONIC                                DISTANCE 360.543
  RL  150.16 LAL   -.00 LOL 358.58 VL  27.470 GAL  -6.82 AZL  71.59 HCA 169.20 SMA 131.00 ECC .18761 INC18.4130 V1  29.674
  RP  107.63 LAP   3.39 LOP 168.32 VP  38.120 GAP   3.38 AZP 108.11 TAL 212.47 TAP  21.67 RCA 106.42 APO 155.58 V2  35.211
  RC 104.339 GL   61.38 GP  -78.84 ZAL 106.46 ZAP 100.10 ETS 289.22 ZAE  91.60 ETE 200.97 ZAC  18.57 ETC 220.42 CLP-154.95
 PLANETOCENTRIC CONIC
  C3  96.328 VHL  9.815 DLA  40.88 RAL 247.22 RAD 6569.9 VEL 14.754 PTH   2.67 VHP 11.984 DPA -64.36 RAP 124.41 ECC 2.5853
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     59.18    18 20 17   4558.51     -12.35     207.28     142.59      50.71   19 36 15    3958.5     -17.33     201.21
    120.82     1 15  3   3279.29     -12.33     109.62     142.58      50.71    2  9 42    2679.3     -17.31     103.56
     59.18    18 20 17   4558.51     -12.35     207.28     142.59      50.71   19 36 15    3958.5     -17.33     201.21
    120.82     1 15  3   3279.29     -12.33     109.62     142.58      50.71    2  9 42    2679.3     -17.31     103.56
     59.18    18 20 17   4558.51     -12.35     207.28     142.59      50.71   19 36 15    3958.5     -17.33     201.21
    120.82     1 15  3   3279.29     -12.33     109.62     142.58      50.71    2  9 42    2679.3     -17.31     103.56
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE 5.3168 TRA  .6122 TC3 -.3362 BAU  .4378      SGT 3208.2 SGR  701.0 SG3   83.9            ST  3107.1 SR   525.4 SS   937.3
  RDE -.8663 RRA  .6153 RC3 -.0505 FAU .00983      RRT -.5690 RRF -.4206 RTF  .9823            CRT -.9490 CRS  .9283 CST -.9982
  FDE 1.5419 FRA  .4137 FC3 -.0683 BSP   9939      SGB 3283.9 R23 -.1905 R13 -.9782            LSA 3283.0 MSA  174.7 SSA    2.4
  BDE 5.3869 BRA  .8680 BC3  .3400 FSP   -285      SG1 3233.7 SG2  571.9 THA 172.68            EL1 3147.0 EL2  163.5 ALF 170.86
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LAUNCH DATE  SEP 22 1970                          FLIGHT TIME 126.00                          ARRIVAL DATE  JAN 26 1971

  HELIOCENTRIC CONIC                                  DISTANCE 366.459
   RL  150.16 LAL   -.00 LOL 358.58 VL  27.429 GAL  -6.60 AZL  64.18 HCA 172.22 SMA 130.71 ECC .18718 INC25.8187 V1  29.674
   RP  107.65 LAP   3.38 LOP 171.56 VP  38.083 GAP   3.64 AZP 115.61 TAL 211.27 TAP  23.49 RCA 106.24 APO 155.18 V2  35.202
   RC 106.624 GL   63.98 GP  -81.54 ZAL 101.66 ZAP  97.93 ETS 253.77 ZAE  84.00 ETE 167.81 ZAC  11.17 ETC 193.38 CLP 159.59
  PLANETOCENTRIC CONIC
   C3 174.394 VHL 13.206 DLA  42.19 RAL 253.40 RAD 6570.9 VEL 17.196 PTH   2.94 VHP 16.426 DPA -59.82 RAP 111.67 ECC 3.8701
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      57.31    18 36 55   4694.98      -7.55     214.96     155.01      48.37   19 55 10    4095.0      -12.81     209.25
     122.69     1 47 46   3371.41      -7.54     113.45     154.99      48.37    2 43 57    2771.4      -12.80     107.75
      57.31    18 36 55   4694.98      -7.55     214.96     155.01      48.37   19 55 10    4095.0      -12.81     209.25
     122.69     1 47 46   3371.41      -7.54     113.45     154.99      48.37    2 43 57    2771.4      -12.80     107.75
      57.31    18 36 55   4694.98      -7.55     214.96     155.01      48.37   19 55 10    4095.0      -12.81     209.25
     122.69     1 47 46   3371.41      -7.54     113.45     154.99      48.37    2 43 57    2771.4      -12.80     107.75
  DIFFERENTIAL CORRECTIONS                        MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
   TDE 5.6947 TRA 1.5948 TC3 -.0745 BAU  .1737    SGT 2648.6 SGR 2085.4 SG3   65.2       ST  2486.6 SR  2084.5 SS   992.5
   RDE-4.0041 RRA -.1130 RC3 -.0005 FAU .00155    RRT -.9436 RRF -.9315 RTF  .9980       CRT -.9947 CRS  .9931 CST -.9999
   FDE 1.5988 FRA  .5055 FC3 -.0077 BSP  10126    SGB 3371.1 R23 -.1576 R13 -.9860       LSA 3388.6 MSA  173.6 SSA    1.7
   BDE 7.4504 BRA 1.5988 BC3  .0745 FSP   -218    SG1 3325.9 SG2  550.0 THA 142.17       EL1 3240.5 EL2  165.0 ALF 140.05

LAUNCH DATE  SEP 22 1970                          FLIGHT TIME 128.00                          ARRIVAL DATE  JAN 28 1971

  HELIOCENTRIC CONIC                                  DISTANCE 372.062
   RL  150.16 LAL   -.00 LOL 358.58 VL  27.387 GAL  -6.30 AZL  48.26 HCA 174.95 SMA 130.41 ECC .18627 INC41.7403 V1  29.674
   RP  107.68 LAP   3.36 LOP 174.81 VP  38.045 GAP   3.82 AZP 131.63 TAL 209.82 TAP  24.77 RCA 106.12 APO 154.71 V2  35.193
   RC 108.906 GL   61.86 GP  -74.31 ZAL  97.05 ZAP  95.24 ETS 209.04 ZAE  72.15 ETE 125.26 ZAC   4.16 ETC 238.25 CLP 109.75
  PLANETOCENTRIC CONIC
   C3 422.394 VHL 20.552 DLA  38.99 RAL 260.07 RAD 6572.2 VEL 23.317 PTH   3.29 VHP 25.939 DPA -49.94 RAP 101.02 ECC 7.9515
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      62.00    19 24 30   4750.06      -2.22     215.12     167.33      51.07   20 43 40    4150.1      -7.23      209.28
     118.00     1 53 21   3544.00      -2.21     123.66     167.32      51.07    2 52 25    2944.0      -7.21      117.81
      62.00    19 24 30   4750.06      -2.22     215.12     167.33      51.07   20 43 40    4150.1      -7.23      209.28
     118.00     1 53 21   3544.00      -2.21     123.66     167.32      51.07    2 52 25    2944.0      -7.21      117.81
      62.00    19 24 30   4750.06      -2.22     215.12     167.33      51.07   20 43 40    4150.1      -7.23      209.28
     118.00     1 53 21   3544.00      -2.21     123.66     167.32      51.07    2 52 25    2944.0      -7.21      117.81
  DIFFERENTIAL CORRECTIONS                        MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
   TDE 1.6450 TRA 1.9023 TC3 -.0078 BAU  .8207    SGT  822.7 SGR 3256.7 SG3   53.6       ST   502.2 SR  3051.0 SS  1231.9
   RD-10.8888 RRA-2.8371 RC3 -.1451 FAU-.01358    RRT -.7715 RRF -.9894 RTF  .8511       CRT -.9493 CRS  .9987 CST -.9643
   FDE 1.9491 FRA  .7724 FC3  .0278 BSP  10125    SGB 3359.0 R23 -.1072 R13 -.9932       LSA 3324.4 MSA  163.7 SSA    1.8
   BDE11.0124 BRA 3.4158 BC3  .1453 FSP   -175    SG1 3319.5 SG2  513.5 THA 101.30       EL1 3088.1 EL2  155.9 ALF  98.90

LAUNCH DATE  SEP 22 1970                          FLIGHT TIME 130.00                          ARRIVAL DATE  JAN 30 1971

  HELIOCENTRIC CONIC                                  DISTANCE 376.547
   RL  150.16 LAL   -.00 LOL 358.58 VL  27.344 GAL  -5.78 AZL   9.05 HCA 176.63 SMA 130.11 ECC .18343 INC80.9477 V1  29.674
   RP  107.71 LAP   3.32 LOP 178.05 VP  38.005 GAP   3.68 AZP 170.93 TAL 207.54 TAP  24.17 RCA 106.24 APO 153.98 V2  35.184
   RC 111.186 GL   46.50 GP  -52.34 ZAL  93.52 ZAP  92.75 ETS 188.79 ZAE  49.43 ETE 108.27 ZAC  24.78 ETC 274.95 CLP  94.51
  PLANETOCENTRIC CONIC
   C31371.588 VHL 37.035 DLA  23.17 RAL 265.11 RAD 6573.1 VEL 38.638 PTH   3.55 VHP 47.217 DPA -27.94 RAP  94.69 ECC23.5729
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      90.00     1 30 14   3718.74     -14.84     144.46     183.06      65.60    2 32 13    3118.7     -18.01      137.22
      90.00    20 27 51   4716.14      15.88     201.61     169.56      66.24   21 46 27    4116.1      12.53      194.53
     100.00     3  9 25   3398.96     -17.28     122.10     184.22      65.22    4  6  3    2799.0     -20.48      114.76
     100.00    21 31 22   4511.15      18.33     185.41     168.43      65.97   22 46 33    3911.2      14.93      178.27
     110.00     4 53 47   3072.43     -23.09     100.23     187.16      64.07    5 44 59    2472.4     -26.38       92.62
     110.00    22  3 29   4410.45      24.18     174.92     165.57      65.07   23 16 59    3810.5      20.62      167.59
  DIFFERENTIAL CORRECTIONS                        MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
   TDE-4.2015 TRA 1.1792 TC3 -.0726 BAU 3.8412    SGT  866.8 SGR 2781.7 SG3   49.5       ST   652.9 SR  2076.7 SS  1683.3
   RD-13.2171 RRA-7.1275 RC3 -.1965 FAU-.06393    RRT  .7773 RRF -.9983 RTF -.7424       CRT  .9650 CRS  .9996 CST  .9574
   FDE 2.6124 FRA 1.6565 FC3  .0403 BSP   8585    SGB 2913.6 R23 -.0995 R13 -.9948       LSA 2746.1 MSA  177.1 SSA    1.5
   BDE13.8688 BRA 7.2244 BC3  .2095 FSP   -155    SG1 2865.1 SG2  529.5 THA  75.89       EL1 2170.7 EL2  163.9 ALF  73.02

LAUNCH DATE  SEP 22 1970                          FLIGHT TIME 132.00                          ARRIVAL DATE  FEB  1 1971

  HELIOCENTRIC CONIC                                  DISTANCE 387.196
   RL  150.16 LAL   -.00 LOL 358.58 VL  27.299 GAL  -6.49 AZL 140.51 HCA 184.25 SMA 129.80 ECC .19253 INC50.5050 V1  29.674
   RP  107.74 LAP   3.28 LOP 181.28 VP  37.963 GAP   5.27 AZP  39.57 TAL 209.48 TAP  33.73 RCA 104.81 APO 154.79 V2  35.174
   RC 113.462 GL  -58.77 GP   67.87 ZAL  96.11 ZAP  95.95 ETS 173.47 ZAE  73.20 ETE 254.85 ZAC 145.28 ETC 272.42 CLP 105.97
  PLANETOCENTRIC CONIC
   C3 599.130 VHL 24.477 DLA -80.16 RAL 225.89 RAD 6572.5 VEL 26.841 PTH   3.39 VHP 31.849 DPA  85.45 RAP 223.06 ECC10.8602
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      11.19     2 44 56   2430.83       1.56      83.67     135.61     170.16    3 25 27    1830.8       9.44       82.70
     168.81    14  0 16    632.23       1.56     281.91     135.63     170.16   14 10 48      32.2       9.44      280.94
      11.19     2 44 56   2430.83       1.56      83.67     135.61     170.16    3 25 27    1830.8       9.44       82.70
     168.81    14  0 16    632.23       1.56     281.91     135.63     170.16   14 10 48      32.2       9.44      280.94
      11.19     2 44 56   2430.83       1.56      83.67     135.61     170.16    3 25 27    1830.8       9.44       82.70
     168.81    14  0 16    632.23       1.56     281.91     135.63     170.16   14 10 48      32.2       9.44      280.94
  DIFFERENTIAL CORRECTIONS                        MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
   TDE 2.8964 TRA  .5140 TC3 -.0629 BAU 1.5803    SGT 1024.7 SGR 3266.5 SG3   55.8       ST   710.2 SR  3019.3 SS  1684.9
   RD-12.8480 RRA -.6477 RC3  .1870 FAU-.02174    RRT -.8800 RRF  .9976 RTF -.8498       CRT -.9772 CRS -.9998 CST  .9733
   FDE-2.6093 FRA -.1048 FC3  .0314 BSP  10386    SGB 3423.4 R23 -.0978 R13  .9945       LSA 3526.5 MSA  152.8 SSA    1.6
   BDE13.1705 BRA  .8269 BC3  .1973 FSP   -173    SG1 3391.2 SG2  468.9 THA 105.74       EL1 3098.2 EL2  146.8 ALF 102.97
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LAUNCH DATE SEP 22 1970 FLIGHT TIME 134.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 392.515

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RL  150.16 LAL   -.00 LOL 358.58 VL  27.254 GAL  -6.13 AZL 118.56 HCA 186.76 SMA 129.49 ECC .19128 INC28.5623 V1  29.674
RP  107.77 LAP   3.23 LOP 184.52 VP  37.921 GAP   5.35 AZP  61.61 TAL 207.79 TAP  34.55 RCA 104.72 APO 154.25 V2  35.164
RC 115.736 GL  -63.88 GP   77.68 ZAL  99.68 ZAP 100.15 ETS 130.95 ZAE  88.05 ETE 212.94 ZAC 158.01 ETC 245.63 CLP 145.68
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PLANETOCENTRIC CONIC

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C3 208.201 VHL 14.429 DLA -79.71 RAL 183.88 RAD 6571.2 VEL 18.153 PTH   3.02 VHP 19.000 DPA  70.51 RAP 247.35 ECC 4.4265
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
11.70	23 54 24	2316.01	9.20	82.48	92.19	169.58	24 33 0	1716.0	17.07	81.39
168.30	11 11 42	5806.72	9.21	259.12	92.21	169.58	12 48 28	5206.7	17.07	258.03
11.70	23 54 24	2316.01	9.20	82.48	92.19	169.58	24 33 0	1716.0	17.07	81.39
168.30	11 11 42	5806.72	9.21	259.12	92.21	169.58	12 48 28	5206.7	17.07	258.03
11.70	23 54 24	2316.01	9.20	82.48	92.19	169.58	24 33 0	1716.0	17.07	81.39
168.30	11 11 42	5806.72	9.21	259.12	92.21	169.58	12 48 28	5206.7	17.07	258.03

DIFFERENTIAL CORRECTIONS

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TDE-3.0341 TRA -.6572 TC3 -.0180 BAU  .0944
RDE-3.0932 RRA-1.3376 RC3  .0288 FAU .00310
FDE-1.0813 FRA -.2954 FC3 -.0129 BSP  11539
BDE 4.3329 BRA 1.4803 BC3  .0339 FSP   -219
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MID-COURSE EXECUTION ACCURACY

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SGT 1894.7 SGR 3219.2 SG3   67.9
RRT  .9546 RRF  .9799 RTF  .9937
SGB 3735.3 RZ3 -.1207 R13  .9919
SG1 3703.0 SG2  490.7 THA  60.09
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ORBIT DETERMINATION ACCURACY

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ST  1282.1 SR  1518.2 SS   775.6
CRT  .9612 CRS -.9805 CST -.9967
LSA 2114.8 MSA  279.0 SSA    1.4
EL1 1968.3 EL2  272.6 ALF  50.01
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LAUNCH DATE SEP 22 1970 FLIGHT TIME 136.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 398.269

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RL  150.16 LAL   -.00 LOL 358.58 VL  27.207 GAL  -5.84 AZL 109.10 HCA 189.70 SMA 129.17 ECC .19104 INC19.1039 V1  29.674
RP  107.80 LAP   3.16 LOP 187.75 VP  37.877 GAP   5.56 AZP  71.15 TAL 206.36 TAP  36.06 RCA 104.49 APO 153.84 V2  35.153
RC 118.005 GL  -62.10 GP   74.94 ZAL 103.19 ZAP 105.02 ETS  78.67 ZAE  96.82 ETE 161.58 ZAC 162.04 ETC 217.58 CLP-175.81
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PLANETOCENTRIC CONIC

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C3 100.465 VHL 10.023 DLA -76.18 RAL 184.31 RAD 6589.9 VEL 14.893 PTH   2.69 VHP 13.406 DPA  60.51 RAP 246.25 ECC 2.6534
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
15.74	0 8 1	2176.44	17.89	78.19	89.74	165.46	0 44 18	1576.4	25.62	76.39
164.26	11 5 23	5679.43	17.89	258.79	89.76	165.46	12 40 3	5079.4	25.62	256.99
15.74	0 8 1	2176.44	17.89	78.19	89.74	165.46	0 44 18	1576.4	25.62	76.39
164.26	11 5 23	5679.43	17.89	258.79	89.76	165.46	12 40 3	5079.4	25.62	256.99
15.74	0 8 1	2176.44	17.89	78.19	89.74	165.46	0 44 18	1576.4	25.62	76.39
164.26	11 5 23	5679.43	17.89	258.79	89.76	165.46	12 40 3	5079.4	25.62	256.99

DIFFERENTIAL CORRECTIONS

```
TDE-2.8219 TRA-1.4118 TC3 -.3147 BAU  .4227
RDE  .5178 RRA -.2529 RC3 -.0028 FAU .01426
FDE -.9510 FRA -.3370 FC3 -.1229 BSP  11789
BDE 2.8690 BRA 1.4343 BC3  .3147 FSP   -277
```

MID-COURSE EXECUTION ACCURACY

```
SGT 3796.8 SGR  673.7 SG3   86.7
RRT  .6141 RRF  .4860 RTF  .9863
SGB 3856.1 RZ3 -.1668 R13  .9838
SG1 3819.7 SG2  528.5 THA   6.34
```

ORBIT DETERMINATION ACCURACY

```
ST  1905.2 SR   347.2 SS   689.3
CRT -.4435 CRS  .5861 CST -.9899
LSA 2030.3 MSA  321.1 SSA    2.1
EL1 1911.6 EL2  310.2 ALF 175.25
```

LAUNCH DATE SEP 22 1970 FLIGHT TIME 138.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 404.146

```
RL  150.16 LAL   -.00 LOL 358.58 VL  27.160 GAL  -5.58 AZL 104.09 HCA 192.78 SMA 128.84 ECC .19118 INC14.0906 V1  29.674
RP  107.84 LAP   3.09 LOP 190.99 VP  37.833 GAP   5.81 AZP  76.25 TAL 204.99 TAP  37.77 RCA 104.21 APO 153.48 V2  35.141
RC 120.271 GL  -58.26 GP   68.83 ZAL 106.19 ZAP 110.07 ETS  63.49 ZAE 103.13 ETE 147.91 ZAC 161.03 ETC 225.21 CLP-161.86
```

PLANETOCENTRIC CONIC

```
C3  59.881 VHL  7.738 DLA -72.73 RAL 192.55 RAD 6589.1 VEL 13.462 PTH   2.46 VHP 10.559 DPA  52.51 RAP 244.56 ECC 1.9855
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
19.71	0 48 59	2049.47	25.26	72.82	94.10	160.84	1 23 8	1449.5	32.78	70.12
160.29	11 30 12	5568.38	25.26	257.40	94.13	160.84	13 3 0	4968.4	32.79	254.70
19.71	0 48 59	2049.47	25.26	72.82	94.10	160.84	1 23 8	1449.5	32.78	70.12
160.29	11 30 12	5568.38	25.26	257.40	94.13	160.84	13 3 0	4968.4	32.79	254.70
19.71	0 48 59	2049.47	25.26	72.82	94.10	160.84	1 23 8	1449.5	32.78	70.12
160.29	11 30 12	5568.38	25.26	257.40	94.13	160.84	13 3 0	4968.4	32.79	254.70

DIFFERENTIAL CORRECTIONS

```
TDE-2.4663 TRA-1.3026 TC3 -.7549 BAU  .6148
RDE  .9479 RRA  .0712 RC3  .1408 FAU .02276
FDE-1.0771 FRA -.3471 FC3 -.3291 BSP  12324
BDE 2.6422 BRA 1.3046 BC3  .7679 FSP   -361
```

MID-COURSE EXECUTION ACCURACY

```
SGT 3906.1 SGR  756.0 SG3  110.8
RRT -.7158 RRF -.8502 RTF  .9710
SGB 3978.8 RZ3  .2043 R13 -.9750
SG1 3944.0 SG2  523.1 THA 171.97
```

ORBIT DETERMINATION ACCURACY

```
ST  2070.3 SR   703.9 SS   765.3
CRT -.9153 CRS  .9715 CST -.9846
LSA 2298.8 MSA  287.7 SSA    2.9
EL1 2169.9 EL2  270.5 ALF 162.43
```

LAUNCH DATE SEP 22 1970 FLIGHT TIME 140.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 410.066

```
RL  150.16 LAL   -.00 LOL 358.58 VL  27.112 GAL  -5.32 AZL 101.01 HCA 195.92 SMA 128.52 ECC .19153 INC11.0140 V1  29.674
RP  107.87 LAP   3.00 LOP 194.21 VP  37.788 GAP   6.06 AZP  79.40 TAL 203.62 TAP  39.54 RCA 103.91 APO 153.14 V2  35.130
RC 122.531 GL  -53.87 GP   62.63 ZAL 108.53 ZAP 115.05 ETS  58.36 ZAE 108.08 ETE 144.84 ZAC 157.61 ETC 235.24 CLP-157.05
```

PLANETOCENTRIC CONIC

```
C3  40.780 VHL  6.386 DLA -69.29 RAL 201.05 RAD 6568.6 VEL 12.734 PTH   2.31 VHP  8.930 DPA  45.54 RAP 243.28 ECC 1.6711
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
23.69	1 31 20	1943.70	30.67	66.62	90.08	155.72	2 3 44	1343.7	37.90	62.88
156.31	11 55 41	5482.82	30.68	255.34	90.10	155.72	13 27 3	4882.8	37.91	251.60
23.69	1 31 20	1943.70	30.67	66.62	90.08	155.72	2 3 44	1343.7	37.90	62.88
156.31	11 55 41	5482.82	30.68	255.34	90.10	155.72	13 27 3	4882.8	37.91	251.60
23.69	1 31 20	1943.70	30.67	66.62	90.08	155.72	2 3 44	1343.7	37.90	62.88
156.31	11 55 41	5482.82	30.68	255.34	90.10	155.72	13 27 3	4882.8	37.91	251.60

DIFFERENTIAL CORRECTIONS

```
TDE-2.3111 TRA-1.1880 TC3-1.2751 BAU  .7137
RDE  .9274 RRA  .1151 RC3  .2965 FAU .02997
FDE-1.1800 FRA -.3295 FC3 -.6362 BSP  12692
BDE 2.4902 BRA 1.1717 BC3 1.3091 FSP   -446
```

MID-COURSE EXECUTION ACCURACY

```
SGT 3982.8 SGR  959.7 SG3  136.1
RRT -.8430 RRF -.9480 RTF  .9801
SGB 4077.3 RZ3  .2327 R13 -.9665
SG1 4045.8 SG2  505.7 THA 168.28
```

ORBIT DETERMINATION ACCURACY

```
ST  2256.0 SR   836.8 SS   839.6
CRT -.9555 CRS  .9918 CST -.9853
LSA 2535.5 MSA  256.6 SSA    3.7
EL1 2394.9 EL2  232.6 ALF 160.29
```

LAUNCH DATE SEP 22 1970 FLIGHT TIME 142.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 416.000

```
RL  150.16 LAL   -.00 LOL 358.58 VL  27.064 GAL  -5.05 AZL  98.93 HCA 199.08 SMA 128.20 ECC .19202 INC 8.9336 V1  29.674
RP  107.91 LAP   2.91 LOP 197.44 VP  37.742 GAP   6.32 AZP  81.55 TAL 202.25 TAP  41.33 RCA 103.58 APO 152.81 V2  35.118
RC 124.786 GL  -49.43 GP   56.88 ZAL 110.17 ZAP 119.79 ETS  55.96 ZAE 112.05 ETE 144.91 ZAC 153.47 ETC 242.12 CLP-155.41
```

PLANETOCENTRIC CONIC

```
C3  30.371 VHL  5.511 DLA -65.90 RAL 208.62 RAD 6568.2 VEL 12.318 PTH   2.22 VHP  7.930 DPA  39.33 RAP 242.48 ECC 1.4998
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.64	2 10 17	1857.09	34.29	59.99	100.85	150.38	2 41 14	1257.1	41.14	55.17
152.36	12 17 8	5420.75	34.30	252.99	100.87	150.38	13 47 29	4820.7	41.15	248.17
27.64	2 10 17	1857.09	34.29	59.99	100.85	150.38	2 41 14	1257.1	41.14	55.17
152.36	12 17 8	5420.75	34.30	252.99	100.87	150.38	13 47 29	4820.7	41.15	248.17
27.64	2 10 17	1857.09	34.29	59.99	100.85	150.38	2 41 14	1257.1	41.14	55.17
152.36	12 17 8	5420.75	34.30	252.99	100.87	150.38	13 47 29	4820.7	41.15	248.17

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.1713 TRA-1.0432 TC3-1.8575 BAU  .7742   SGT 4042.4 SGR 1007.2 SG3  159.7      ST  2394.6 SR   857.1 SS   882.6
RDE  .8213 RRA  .0959 RC3  .4310 FAU .03594   RRT -.8716 RRF -.9657 RTF  .9520      CRT -.9679 CRS  .9963 CST -.9859
FDE-1.2205 FRA -.2868 FC3-1.0246 BSP  12995   SGB 4166.0 R23  .2527 R13 -.9588      LSA 2682.0 MSA  234.4 SSA    4.7
BDE 2.3214 BRA 1.0476 BC3 1.9068 FSP   -524   SG1 4138.0 SG2  482.4 THA 167.58      EL1 2535.3 EL2  203.3 ALF 160.76
```

LAUNCH DATE SEP 22 1970 FLIGHT TIME 144.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 421.935

```
RL  150.16 LAL   -.00 LOL 358.58 VL  27.015 GAL  -4.78 AZL  97.43 HCA 202.26 SMA 127.87 ECC .19264 INC 7.4285 V1  29.674
RP  107.95 LAP   2.81 LOP 200.86 VP  37.696 GAP   6.59 AZP  83.12 TAL 200.87 TAP  43.12 RCA 103.24 APO 152.51 V2  35.105
RC 127.036 GL  -45.16 GP   51.69 ZAL 111.12 ZAP 124.22 ETS  54.52 ZAE 115.24 ETE 146.20 ZAC 149.32 ETC 246.64 CLP-155.11
```

PLANETOCENTRIC CONIC

```
C3  24.095 VHL  4.909 DLA -62.63 RAL 215.28 RAD 6568.0 VEL 12.061 PTH   2.16 VHP  7.292 DPA  33.75 RAP 242.12 ECC 1.3965
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.49	2 45 49	1785.23	36.48	53.29	102.76	145.12	3 15 35	1185.2	42.88	47.47
148.51	12 34 42	5377.64	36.48	250.67	102.78	145.12	14 4 19	4777.6	42.89	244.86
31.49	2 45 49	1785.23	36.48	53.29	102.76	145.12	3 15 35	1185.2	42.88	47.47
148.51	12 34 42	5377.64	36.48	250.67	102.78	145.12	14 4 19	4777.6	42.89	244.86
31.49	2 45 49	1785.23	36.48	53.29	102.76	145.12	3 15 35	1185.2	42.88	47.47
148.51	12 34 42	5377.64	36.48	250.67	102.78	145.12	14 4 19	4777.6	42.89	244.86

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.0223 TRA -.9206 TC3-2.4666 BAU  .8127   SGT 4110.6 SGR  983.1 SG3  178.9      ST  2463.4 SR   821.6 SS   887.7
RDE  .7027 RRA  .0600 RC3  .5298 FAU .04034   RRT -.8789 RRF -.9686 RTF  .9446      CRT -.9729 CRS  .9980 CST -.9855
FDE-1.1980 FRA -.2177 FC3-1.4494 BSP  13077   SGB 4226.6 R23  .2681 R13 -.9511      LSA 2735.6 MSA  218.9 SSA    5.8
BDE 2.1409 BRA  .9225 BC3 2.5228 FSP   -579   SG1 4201.6 SG2  458.9 THA 167.98      EL1 2590.6 EL2  180.6 ALF 161.93
```

LAUNCH DATE SEP 22 1970 FLIGHT TIME 146.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 427.861

```
RL  150.16 LAL   -.00 LOL 358.58 VL  26.966 GAL  -4.51 AZL  96.28 HCA 205.44 SMA 127.55 ECC .19338 INC 6.2840 V1  29.674
RP  107.99 LAP   2.70 LOP 203.88 VP  37.649 GAP   6.85 AZP  84.32 TAL 199.46 TAP  44.91 RCA 102.88 APO 152.21 V2  35.093
RC 129.278 GL  -41.11 GP   47.06 ZAL 111.43 ZAP 128.28 ETS  53.49 ZAE 117.79 ETE 147.99 ZAC 145.45 ETC 249.73 CLP-155.44
```

PLANETOCENTRIC CONIC

```
C3  20.027 VHL  4.475 DLA -59.51 RAL 221.23 RAD 6567.8 VEL 11.891 PTH   2.11 VHP  6.879 DPA  28.76 RAP 242.15 ECC 1.3296
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.20	3 18 43	1724.22	37.59	46.80	104.26	140.18	3 47 27	1124.2	43.53	40.16
144.80	12 49 17	5349.22	37.60	248.64	104.28	140.17	14 18 26	4749.2	43.55	241.99
35.20	3 18 43	1724.22	37.59	46.80	104.26	140.18	3 47 27	1124.2	43.53	40.16
144.80	12 49 17	5349.22	37.60	248.64	104.28	140.17	14 18 26	4749.2	43.55	241.99
35.20	3 18 43	1724.22	37.59	46.80	104.26	140.18	3 47 27	1124.2	43.53	40.16
144.80	12 49 17	5349.22	37.60	248.64	104.28	140.17	14 18 26	4749.2	43.55	241.99

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.9062 TRA -.8327 TC3-3.1505 BAU  .8599   SGT 4280.4 SGR  967.4 SG3  200.5      ST  2522.0 SR   783.8 SS   888.1
RDE  .6117 RRA  .0389 RC3  .6251 FAU .04478   RRT -.8923 RRF -.9688 RTF  .9446      CRT -.9769 CRS  .9989 CST -.9856
FDE-1.1624 FRA -.1634 FC3-1.9358 BSP  13961   SGB 4388.4 R23  .2601 R13 -.9499      LSA 2778.8 MSA  204.4 SSA    7.1
BDE 2.0019 BRA  .8336 BC3 3.2119 FSP   -678   SG1 4367.4 SG2  428.0 THA 168.49      EL1 2636.1 EL2  160.3 ALF 163.05
```

LAUNCH DATE SEP 22 1970 FLIGHT TIME 148.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 433.782

```
RL  150.16 LAL   -.00 LOL 358.58 VL  26.917 GAL  -4.22 AZL  95.38 HCA 208.63 SMA 127.22 ECC .19423 INC 5.3801 V1  29.674
RP  108.03 LAP   2.58 LOP 207.10 VP  37.602 GAP   7.11 AZP  85.27 TAL 198.04 TAP  46.67 RCA 102.51 APO 151.93 V2  35.080
RC 131.513 GL  -37.31 GP   42.98 ZAL 111.13 ZAP 131.98 ETS  52.67 ZAE 119.80 ETE 149.96 ZAC 141.95 ETC 251.96 CLP-156.08
```

PLANETOCENTRIC CONIC

```
C3  17.244 VHL  4.153 DLA -56.57 RAL 226.69 RAD 6567.7 VEL 11.774 PTH   2.08 VHP  6.611 DPA  24.30 RAP 242.49 ECC 1.2838
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.75	3 49 50	1670.89	37.94	40.66	105.70	135.68	4 17 41	1070.9	43.42	33.38
141.25	13 1 43	5332.33	37.95	247.03	105.71	135.67	14 30 35	4732.3	43.43	239.75
38.75	3 49 50	1670.89	37.94	40.66	105.70	135.68	4 17 41	1070.9	43.42	33.38
141.25	13 1 43	5332.33	37.95	247.03	105.71	135.67	14 30 35	4732.3	43.43	239.75
38.75	3 49 50	1670.89	37.94	40.66	105.70	135.68	4 17 41	1070.9	43.42	33.38
141.25	13 1 43	5332.33	37.95	247.03	105.71	135.67	14 30 35	4732.3	43.43	239.75

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.7568 TRA -.7052 TC3-3.7590 BAU  .8797   SGT 4329.0 SGR  900.8 SG3  209.9      ST  2482.9 SR   716.7 SS   837.8
RDE  .5193 RRA  .0034 RC3  .6571 FAU .04631   RRT -.8862 RRF -.9621 RTF  .9377      CRT -.9776 CRS  .9994 CST -.9834
FDE-1.0617 FRA -.0835 FC3-2.3249 BSP  13828   SGB 4421.7 R23  .2666 R13 -.9425      LSA 2709.6 MSA  196.2 SSA    8.6
BDE 1.8319 BRA  .7052 BC3 3.8160 FSP   -688   SG1 4402.6 SG2  410.4 THA 169.46      EL1 2580.2 EL2  145.2 ALF 164.19
```

LAUNCH DATE SEP 22 1970 FLIGHT TIME 150.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 439.689

RL	150.16	LAL	-.00	LOL	358.58	VL	26.868	GAL	-3.92	AZL	94.64	HCA	211.82	SMA	126.90	ECC	.19520	INC	4.6443
RP	108.07	LAP	2.45	LOP	210.32	VP	37.555	GAP	7.37	AZP	86.05	TAL	196.60	TAP	48.42	RCA	102.13	APO	151.67
RC	133.740	GL	-33.74	GP	39.38	ZAL	110.29	ZAP	135.32	ETS	51.98	ZAE	121.38	ETE	151.95	ZAC	138.85	ETC	253.66

PLANETOCENTRIC CONIC

C3 15.268 VHL 3.907 DLA -53.78 RAL 231.80 RAD 6567.6 VEL 11.690 PTH 2.06 VHP 6.443 DPA 20.31 RAP 243.10 ECC 1.2513

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.16	4 19 48	1623.00	37.74	34.91	107.25	131.66	4 46 51	1023.0	42.78	27.18
137.84	13 12 31	5324.74	37.75	245.91	107.27	131.65	14 41 15	4724.7	42.79	238.18
42.16	4 19 48	1623.00	37.74	34.91	107.25	131.66	4 46 51	1023.0	42.78	27.18
137.84	13 12 31	5324.74	37.75	245.91	107.27	131.65	14 41 15	4724.7	42.79	238.18
42.16	4 19 48	1623.00	37.74	34.91	107.25	131.66	4 46 51	1023.0	42.78	27.18
137.84	13 12 31	5324.74	37.75	245.91	107.27	131.65	14 41 15	4724.7	42.79	238.18

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.6200	TRA	-.5917	TC3	-4.3853	BAU	.9059	SGT	4427.9	SGR	851.1	SG3	219.1	ST	2431.0	SR	661.8	SS	784.9
RDE	.4511	RRA	-.0207	RC3	.6822	FAU	.04756	RRT	-.8841	RRF	-.9538	RTF	.9349	CRT	-.9788	CRS	.9997	CST	-.9810
FDE	-.9605	FRA	.0247	FC3	-2.6970	BSP	14122	SGB	4509.0	RZS	.2583	R13	-.9389	LSA	2632.2	MSA	188.1	SSA	10.3
BDE	1.6902	BRA	.5921	BC3	4.4381	FSP	-719	SG1	4491.9	SG2	392.1	THA	170.28	EL1	2516.1	EL2	131.0	ALF	165.04

LAUNCH DATE SEP 22 1970 FLIGHT TIME 152.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 445.583

RL	150.16	LAL	-.00	LOL	358.58	VL	26.819	GAL	-3.62	AZL	94.03	HCA	215.02	SMA	126.58	ECC	.19629	INC	4.0303
RP	108.11	LAP	2.31	LOP	213.53	VP	37.507	GAP	7.62	AZP	86.70	TAL	195.14	TAP	50.15	RCA	101.73	APO	151.43
RC	135.957	GL	-30.39	GP	36.21	ZAL	108.97	ZAP	138.34	ETS	51.40	ZAE	122.61	ETE	153.87	ZAC	136.12	ETC	255.01

PLANETOCENTRIC CONIC

C3 13.829 VHL 3.719 DLA -51.14 RAL 236.66 RAD 6567.5 VEL 11.628 PTH 2.04 VHP 6.346 DPA 16.76 RAP 243.94 ECC 1.2276

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.46	4 49 7	1578.76	37.14	29.52	109.03	128.09	5 15 25	978.8	41.78	21.49
134.54	13 21 59	5325.03	37.15	245.31	109.05	128.08	14 50 44	4725.0	41.79	237.28
45.46	4 49 7	1578.76	37.14	29.52	109.03	128.09	5 15 25	978.8	41.78	21.49
134.54	13 21 59	5325.03	37.15	245.31	109.05	128.08	14 50 44	4725.0	41.79	237.28
45.46	4 49 7	1578.76	37.14	29.52	109.03	128.09	5 15 25	978.8	41.78	21.49
134.54	13 21 59	5325.03	37.15	245.31	109.05	128.08	14 50 44	4725.0	41.79	237.28

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.5080	TRA	-.4750	TC3	-4.9829	BAU	.9300	SGT	4525.4	SGR	804.5	SG3	225.1	ST	2349.2	SR	612.5	SS	721.9
RDE	.3960	RRA	-.0409	RC3	.6897	FAU	.04797	RRT	-.8797	RRF	-.9428	RTF	.9329	CRT	-.9801	CRS	.9996	CST	-.9774
FDE	-.8517	FRA	.1130	FC3	-3.0032	BSP	14421	SGB	4596.4	RZS	.2447	R13	-.9361	LSA	2526.3	MSA	181.1	SSA	12.3
BDE	1.5574	BRA	.4768	BC3	5.0304	FSP	-739	SG1	4580.8	SG2	377.9	THA	171.05	EL1	2424.9	EL2	117.9	ALF	165.63

LAUNCH DATE SEP 22 1970 FLIGHT TIME 154.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 451.463

RL	150.16	LAL	-.00	LOL	358.58	VL	26.769	GAL	-3.30	AZL	93.51	HCA	218.21	SMA	126.26	ECC	.19751	INC	3.5073
RP	108.15	LAP	2.17	LOP	216.74	VP	37.460	GAP	7.88	AZP	87.24	TAL	193.66	TAP	51.87	RCA	101.32	APO	151.20
RC	138.166	GL	-27.23	GP	33.44	ZAL	107.24	ZAP	141.07	ETS	50.93	ZAE	123.57	ETE	155.66	ZAC	133.72	ETC	256.13

PLANETOCENTRIC CONIC

C3 12.767 VHL 3.573 DLA -48.62 RAL 241.34 RAD 6567.5 VEL 11.582 PTH 2.03 VHP 6.300 DPA 13.57 RAP 244.97 ECC 1.2101

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.67	5 18 13	1536.69	36.26	24.44	111.07	124.93	5 43 50	936.7	40.53	16.22
131.33	13 30 14	5332.46	36.27	245.25	111.08	124.92	14 59 6	4732.5	40.54	237.03
48.67	5 18 13	1536.69	36.26	24.44	111.07	124.93	5 43 50	936.7	40.53	16.22
131.33	13 30 14	5332.46	36.27	245.25	111.08	124.92	14 59 6	4732.5	40.54	237.03
48.67	5 18 13	1536.69	36.26	24.44	111.07	124.93	5 43 50	936.7	40.53	16.22
131.33	13 30 14	5332.46	36.27	245.25	111.08	124.92	14 59 6	4732.5	40.54	237.03

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.3860	TRA	-.3532	TC3	-5.5392	BAU	.9526	SGT	4619.8	SGR	762.8	SG3	228.5	ST	2240.5	SR	569.7	SS	652.4
RDE	.3542	RRA	-.0584	RC3	.6844	FAU	.04773	RRT	-.8732	RRF	-.9291	RTF	.9313	CRT	-.9817	CRS	.9984	CST	-.9721
FDE	-.7406	FRA	.1999	FC3	-3.2366	BSP	14715	SGB	4682.4	RZS	.2271	R13	-.9340	LSA	2395.7	MSA	175.0	SSA	14.6
BDE	1.4306	BRA	.3580	BC3	5.5813	FSP	-751	SG1	4667.9	SG2	368.0	THA	171.74	EL1	2309.4	EL2	105.3	ALF	165.95

LAUNCH DATE SEP 22 1970 FLIGHT TIME 156.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 457.328

RL	150.16	LAL	-.00	LOL	358.58	VL	26.720	GAL	-2.98	AZL	93.05	HCA	221.40	SMA	125.95	ECC	.19886	INC	3.0539
RP	108.19	LAP	2.02	LOP	219.94	VP	37.412	GAP	8.14	AZP	87.71	TAL	192.16	TAP	53.57	RCA	100.90	APO	150.99
RC	140.364	GL	-24.25	GP	30.99	ZAL	105.14	ZAP	143.54	ETS	50.57	ZAE	124.31	ETE	157.30	ZAC	131.62	ETC	257.09

PLANETOCENTRIC CONIC

C3 11.984 VHL 3.462 DLA -46.19 RAL 245.89 RAD 6567.5 VEL 11.549 PTH 2.02 VHP 6.293 DPA 10.72 RAP 246.17 ECC 1.1972

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
51.85	5 47 28	1495.57	35.16	19.58	113.37	122.14	6 12 24	895.6	39.10	11.26
128.15	13 37 17	5346.68	35.17	245.72	113.38	122.13	15 6 23	4746.7	39.11	237.40
51.85	5 47 28	1495.57	35.16	19.58	113.37	122.14	6 12 24	895.6	39.10	11.26
128.15	13 37 17	5346.68	35.17	245.72	113.38	122.13	15 6 23	4746.7	39.11	237.40
51.85	5 47 28	1495.57	35.16	19.58	113.37	122.14	6 12 24	895.6	39.10	11.26
128.15	13 37 17	5346.68	35.17	245.72	113.38	122.13	15 6 23	4746.7	39.11	237.40

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.2601	TRA	-.2289	TC3	-6.0444	BAU	.9744	SGT	4713.1	SGR	726.6	SG3	229.8	ST	2108.8	SR	533.6	SS	580.1
RDE	.3207	RRA	-.0734	RC3	.6703	FAU	.04700	RRT	-.8646	RRF	-.9129	RTF	.9304	CRT	-.9840	CRS	.9949	CST	-.9641
FDE	-.6314	FRA	.2828	FC3	-3.3954	BSP	15024	SGB	4768.7	RZS	.2062	R13	-.9326	LSA	2244.8	MSA	169.7	SSA	17.4
BDE	1.3080	BRA	.2585	BC3	6.0814	FSP	-757	SG1	4755.0	SG2	361.8	THA	172.36	EL1	2173.3	EL2	92.3	ALF	165.99

LAUNCH DATE SEP 22 1970 FLIGHT TIME 158.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 463.177

RL 150.16 LAL -.00 LOL 358.58 VL 26.671 GAL -2.64 AZL 92.65 HCA 224.60 SMA 125.63 ECC .20035 INC 2.6547 V1 29.674
RP 108.23 LAP 1.86 LOP 223.14 VP 37.364 GAP 8.40 AZP 88.11 TAL 190.65 TAP 55.25 RCA 100.46 APO 150.80 V2 35.014
RC 142.552 GL -21.42 GP 28.84 ZAL 102.73 ZAP 145.79 ETS 50.31 ZAE 124.69 ETE 158.79 ZAC 129.78 ETC 257.95 CLP-160.75

PLANETOCENTRIC CONIC

C3 11.419 VHL 3.379 DLA -43.83 RAL 250.33 RAD 6567.4 VEL 11.524 PTH 2.01 VHP 6.316 DPA 8.16 RAP 247.52 ECC 1.1879

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.02	6 17 11	1454.22	33.89	14.85	115.92	119.66	6 41 25	854.2	37.54	6.49
124.98	13 42 59	5367.82	33.90	246.75	115.93	119.65	15 12 27	4767.8	37.55	238.39
55.02	6 17 11	1454.22	33.89	14.85	115.92	119.66	6 41 25	854.2	37.54	6.49
124.98	13 42 59	5367.82	33.90	246.75	115.93	119.65	15 12 27	4767.8	37.55	238.39
55.02	6 17 11	1454.22	33.89	14.85	115.92	119.66	6 41 25	854.2	37.54	6.49
124.98	13 42 59	5367.82	33.90	246.75	115.93	119.65	15 12 27	4767.8	37.55	238.39

DIFFERENTIAL CORRECTIONS
TDE-1.1496 TRA -.0936 TC3-6.4822 BAU .9945
RDE .2944 RRA -.0872 RC3 .6489 FAU .04587
FDE -.5255 FRA .3626 FC3-3.4775 BSP 15308
BDE 1.1867 BRA .1279 BC3 6.5146 FSP -757

MID-COURSE EXECUTION ACCURACY
SGT 4800.0 SGR 695.4 SG3 229.3
RRT -.8537 RRF -.8942 RTF .9298
SGB 4850.1 R23 .1842 R13 -.9315
SG1 4836.8 SG2 359.4 THA 172.91

ORBIT DETERMINATION ACCURACY
ST 1954.8 SR 503.1 SS 507.3
CRT -.9870 CRS .9865 CST -.9515
LSA 2074.8 MSA 165.6 SSA 20.7
EL1 2017.0 EL2 78.4 ALF 165.72

LAUNCH DATE SEP 22 1970 FLIGHT TIME 160.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 469.009

RL 150.16 LAL -.00 LOL 358.58 VL 26.622 GAL -2.29 AZL 92.30 HCA 227.79 SMA 125.32 ECC .20199 INC 2.2985 V1 29.674
RP 108.27 LAP 1.70 LOP 226.34 VP 37.317 GAP 8.67 AZP 88.46 TAL 189.12 TAP 56.91 RCA 100.01 APO 150.64 V2 35.001
RC 144.730 GL -18.74 GP 26.94 ZAL 100.06 ZAP 147.84 ETS 50.18 ZAE 125.34 ETE 160.14 ZAC 128.17 ETC 258.74 CLP-161.73

PLANETOCENTRIC CONIC

C3 11.031 VHL 3.321 DLA -41.54 RAL 254.67 RAD 6567.4 VEL 11.507 PTH 2.00 VHP 6.363 DPA 5.86 RAP 249.00 ECC 1.1815

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.24	6 47 45	1411.21	32.49	10.14	118.70	117.45	7 11 17	811.2	35.88	1.79
121.76	13 47 4	5396.55	32.50	248.38	118.70	117.44	15 17 0	4796.6	35.89	240.03
58.24	6 47 45	1411.21	32.49	10.14	118.70	117.45	7 11 17	811.2	35.88	1.79
121.76	13 47 4	5396.55	32.50	248.38	118.70	117.44	15 17 0	4796.6	35.89	240.03
58.24	6 47 45	1411.21	32.49	10.14	118.70	117.45	7 11 17	811.2	35.88	1.79
121.76	13 47 4	5396.55	32.50	248.38	118.70	117.44	15 17 0	4796.6	35.89	240.03

DIFFERENTIAL CORRECTIONS
TDE-1.0302 TRA .0458 TC3-6.8482 BAU 1.0141
RDE .2738 RRA -.0999 RC3 .6233 FAU .04447
FDE -.4245 FRA .4381 FC3-3.4902 BSP 15588
BDE 1.0659 BRA .1099 BC3 6.8766 FSP -752

MID-COURSE EXECUTION ACCURACY
SGT 4885.0 SGR 689.0 SG3 227.5
RRT -.8406 RRF -.8734 RTF .9296
SGB 4930.6 R23 .1619 R13 -.9310
SG1 4917.4 SG2 359.9 THA 173.40

ORBIT DETERMINATION ACCURACY
ST 1782.6 SR 477.5 SS 437.3
CRT -.9907 CRS .9679 CST -.9311
LSA 1889.4 MSA 163.0 SSA 24.5
EL1 1844.4 EL2 63.0 ALF 165.12

LAUNCH DATE SEP 22 1970 FLIGHT TIME 162.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 474.825

RL 150.16 LAL -.00 LOL 358.58 VL 26.573 GAL -1.93 AZL 91.98 HCA 230.98 SMA 125.02 ECC .20378 INC 1.9769 V1 29.674
RP 108.31 LAP 1.54 LOP 229.54 VP 37.270 GAP 8.93 AZP 88.76 TAL 187.58 TAP 58.56 RCA 99.54 APO 150.49 V2 34.988
RC 146.899 GL -16.19 GP 25.25 ZAL 97.19 ZAP 149.71 ETS 50.16 ZAE 125.69 ETE 161.35 ZAC 126.75 ETC 259.47 CLP-162.71

PLANETOCENTRIC CONIC

C3 10.795 VHL 3.286 DLA -39.29 RAL 258.92 RAD 6567.4 VEL 11.497 PTH 2.00 VHP 6.428 DPA 3.78 RAP 250.59 ECC 1.1777

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.54	7 19 33	1365.12	30.99	5.33	121.67	115.47	7 42 19	765.1	34.14	357.02
118.46	13 49 9	5433.78	31.01	250.68	121.68	115.45	15 19 43	4833.8	34.15	242.36
61.54	7 19 33	1365.12	30.99	5.33	121.67	115.47	7 42 19	765.1	34.14	357.02
118.46	13 49 9	5433.78	31.01	250.68	121.68	115.45	15 19 43	4833.8	34.15	242.36
61.54	7 19 33	1365.12	30.99	5.33	121.67	115.47	7 42 19	765.1	34.14	357.02
118.46	13 49 9	5433.78	31.01	250.68	121.68	115.45	15 19 43	4833.8	34.15	242.36

DIFFERENTIAL CORRECTIONS
TDE -.9033 TRA .1973 TC3-7.1117 BAU 1.0299
RDE .2567 RRA -.1129 RC3 .5903 FAU .04266
FDE -.3244 FRA .5134 FC3-3.4211 BSP 15738
BDE .9391 BRA .2273 BC3 7.1361 FSP -735

MID-COURSE EXECUTION ACCURACY
SGT 4951.5 SGR 644.7 SG3 223.8
RRT -.8242 RRF -.8499 RTF .9285
SGB 4993.3 R23 .1422 R13 -.9296
SG1 4980.1 SG2 362.9 THA 173.84

ORBIT DETERMINATION ACCURACY
ST 1587.1 SR 454.3 SS 370.5
CRT -.9945 CRS .9256 CST -.8943
LSA 1683.6 MSA 164.4 SSA 28.7
EL1 1650.2 EL2 45.8 ALF 164.10

LAUNCH DATE SEP 22 1970 FLIGHT TIME 164.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 480.623

RL 150.16 LAL -.00 LOL 358.58 VL 26.524 GAL -1.56 AZL 91.68 HCA 234.17 SMA 124.71 ECC .20574 INC 1.6833 V1 29.674
RP 108.35 LAP 1.36 LOP 232.73 VP 37.223 GAP 9.20 AZP 89.01 TAL 186.02 TAP 60.19 RCA 99.05 APO 150.37 V2 34.975
RC 149.057 GL -13.78 GP 23.76 ZAL 94.14 ZAP 151.44 ETS 50.27 ZAE 125.96 ETE 162.43 ZAC 125.49 ETC 260.17 CLP-163.66

PLANETOCENTRIC CONIC

C3 10.695 VHL 3.270 DLA -37.08 RAL 263.07 RAD 6567.4 VEL 11.493 PTH 2.00 VHP 6.511 DPA 1.90 RAP 252.28 ECC 1.1760

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.98	7 53 12	1313.73	29.41	.26	124.82	113.68	8 15 5	713.7	32.35	352.00
115.02	13 48 36	5481.38	29.42	253.76	124.82	113.67	15 19 57	4881.4	32.35	245.50
64.98	7 53 12	1313.73	29.41	.26	124.82	113.68	8 15 5	713.7	32.35	352.00
115.02	13 48 36	5481.38	29.42	253.76	124.82	113.67	15 19 57	4881.4	32.35	245.50
64.98	7 53 12	1313.73	29.41	.26	124.82	113.68	8 15 5	713.7	32.35	352.00
115.02	13 48 36	5481.38	29.42	253.76	124.82	113.67	15 19 57	4881.4	32.35	245.50

DIFFERENTIAL CORRECTIONS
TDE -.7788 TRA .3513 TC3-7.3070 BAU 1.0478
RDE .2445 RRA -.1247 RC3 .5599 FAU .04096
FDE -.2349 FRA .5808 FC3-3.3153 BSP 16010
BDE .8163 BRA .3728 BC3 7.3284 FSP -725

MID-COURSE EXECUTION ACCURACY
SGT 5029.7 SGR 626.5 SG3 220.3
RRT -.8079 RRF -.8262 RTF .9288
SGB 5068.6 R23 .1219 R13 -.9297
SG1 5055.3 SG2 367.4 THA 174.22

ORBIT DETERMINATION ACCURACY
ST 1391.4 SR 436.3 SS 318.2
CRT -.9967 CRS .8445 CST -.8378
LSA 1482.4 MSA 170.6 SSA 32.9
EL1 1457.8 EL2 33.7 ALF 162.64

LAUNCH DATE SEP 22 1970 FLIGHT TIME 166.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 486.401

RL 150.16 LAL -.00 LOL 358.58 VL 26.476 GAL -1.17 AZL 91.41 HCA 237.35 SMA 124.41 ECC .20788 INC 1.4126 V1 29.674
RP 108.39 LAP 1.19 LOP 235.92 VP 37.176 GAP 9.47 AZP 89.24 TAL 184.46 TAP 61.81 RCA 98.55 APO 150.27 V2 34.962
RC 151.205 GL -11.50 GP 22.42 ZAL 90.98 ZAP 153.03 ETS 50.51 ZAE 126.18 ETE 163.40 ZAC 124.37 ETC 260.84 CLP-164.60

PLANETOCENTRIC CONIC

C3 10.721 VHL 3.274 DLA -34.91 RAL 267.11 RAD 6567.4 VEL 11.494 PTH 2.00 VHP 6.607 DPA .20 RAP 254.07 ECC 1.1764

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
68.67	8 29 30	1254.08	27.77	354.71	128.11	112.06	8 50 24	654.1	30.51	346.51
111.33	13 44 32	5542.03	27.78	257.82	128.12	112.05	15 16 54	4942.0	30.52	249.63
68.67	8 29 30	1254.08	27.77	354.71	128.11	112.06	8 50 24	654.1	30.51	346.51
111.33	13 44 32	5542.03	27.78	257.82	128.12	112.05	15 16 54	4942.0	30.52	249.63
68.67	8 29 30	1254.08	27.77	354.71	128.11	112.06	8 50 24	654.1	30.51	346.51
111.33	13 44 32	5542.03	27.78	257.82	128.12	112.05	15 16 54	4942.0	30.52	249.63

DIFFERENTIAL CORRECTIONS
TDE -.6498 TRA .5142 TC3-7.4038 BAU 1.0639
RDE .2351 RRA -.1366 RC3 .5267 FAU .03909
FDE -.1506 FRA .6451 FC3-3.1568 BSP 16234
BDE .6910 BRA .5320 BC3 7.4225 FSP -712

MID-COURSE EXECUTION ACCURACY
SGT 5099.5 SGR 610.9 SG3 215.8
RRT -.7897 RRF -.8014 RTF .9291
SGB 5136.0 RZ3 .1039 R13 -.9298
SG1 5122.4 SG2 373.1 THA 174.57

ORBIT DETERMINATION ACCURACY
ST 1192.7 SR 420.7 SS 281.9
CRT -.9926 CRS .6987 CST -.7549
LSA 1281.7 MSA 186.8 SSA 36.2
EL1 1263.8 EL2 48.1 ALF 160.67

LAUNCH DATE SEP 22 1970 FLIGHT TIME 168.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 492.157

RL 150.16 LAL -.00 LOL 358.58 VL 26.428 GAL -.77 AZL 91.16 HCA 240.54 SMA 124.12 ECC .21021 INC 1.1607 V1 29.674
RP 108.43 LAP 1.01 LOP 239.11 VP 37.130 GAP 9.75 AZP 89.43 TAL 182.88 TAP 63.42 RCA 98.02 APO 150.21 V2 34.949
RC 153.343 GL -9.34 GP 21.23 ZAL 87.73 ZAP 154.50 ETS 50.89 ZAE 126.35 ETE 164.26 ZAC 123.38 ETC 261.50 CLP-165.53

PLANETOCENTRIC CONIC

C3 10.870 VHL 3.297 DLA -32.78 RAL 271.03 RAD 6567.4 VEL 11.500 PTH 2.00 VHP 6.716 DPA -1.34 RAP 255.93 ECC 1.1789

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
72.75	9 10 4	1180.59	26.09	348.25	131.52	110.60	9 29 45	580.6	28.65	340.13
107.25	13 35 13	5621.14	26.10	263.24	131.53	110.58	15 8 55	5021.1	28.66	255.12
72.75	9 10 4	1180.59	26.09	348.25	131.52	110.60	9 29 45	580.6	28.65	340.13
107.25	13 35 13	5621.14	26.10	263.24	131.53	110.58	15 8 55	5021.1	28.66	255.12
110.00	12 38 25	5796.20	20.63	274.07	128.85	117.88	14 15 1	5196.2	24.20	266.73
110.00	15 6 3	5341.57	31.82	243.62	133.51	103.20	16 35 4	4741.6	33.31	234.71

DIFFERENTIAL CORRECTIONS
TDE -.5348 TRA .6674 TC3-7.4761 BAU 1.0889
RDE .2310 RRA -.1458 RC3 .5044 FAU .03789
FDE -.0852 FRA .6927 FC3-3.0174 BSP 16866
BDE .5824 BRA .6832 BC3 7.4931 FSP -724

MID-COURSE EXECUTION ACCURACY
SGT 5202.8 SGR 602.2 SG3 212.2
RRT -.7751 RRF -.7795 RTF .9331
SGB 5237.5 RZ3 .0830 R13 -.9336
SG1 5223.8 SG2 379.0 THA 174.85

ORBIT DETERMINATION ACCURACY
ST 1027.8 SR 411.6 SS 265.9
CRT -.9735 CRS .5243 CST -.6884
LSA 1118.4 MSA 210.7 SSA 37.6
EL1 1103.7 EL2 87.6 ALF 158.56

LAUNCH DATE SEP 22 1970 FLIGHT TIME 170.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 497.896

RL 150.16 LAL -.00 LOL 358.58 VL 26.380 GAL -.35 AZL 90.92 HCA 243.72 SMA 123.82 ECC .21275 INC .9242 V1 29.674
RP 108.47 LAP .83 LOP 242.30 VP 37.084 GAP 10.03 AZP 89.59 TAL 181.29 TAP 65.01 RCA 97.48 APO 150.17 V2 34.937
RC 155.470 GL -7.33 GP 20.16 ZAL 84.44 ZAP 155.86 ETS 51.41 ZAE 126.49 ETE 165.04 ZAC 122.48 ETC 262.15 CLP-166.44

PLANETOCENTRIC CONIC

C3 11.140 VHL 3.338 DLA -30.70 RAL 274.83 RAD 6567.4 VEL 11.512 PTH 2.01 VHP 6.837 DPA -2.74 RAP 257.87 ECC 1.1833

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
77.62	9 58 40	1080.83	24.38	340.01	135.04	109.25	10 16 41	480.8	26.78	331.96
102.38	13 16 56	5730.98	24.39	270.88	135.05	109.24	14 52 27	5131.0	26.79	262.83
77.62	9 58 40	1080.83	24.38	340.01	135.04	109.25	10 16 41	480.8	26.78	331.96
102.38	13 16 56	5730.98	24.39	270.88	135.05	109.24	14 52 27	5131.0	26.79	262.83
110.00	12 11 30	648.41	15.96	304.35	130.87	120.64	12 22 18	48.4	19.90	297.45
110.00	16 3 17	5211.39	33.43	233.81	137.51	97.61	17 30 8	4611.4	34.12	224.64

DIFFERENTIAL CORRECTIONS
TDE -.3853 TRA .8612 TC3-7.3479 BAU 1.0965
RDE .2243 RRA -.1605 RC3 .4625 FAU .03551
FDE -.0028 FRA .7622 FC3-2.7597 BSP 16756
BDE .4458 BRA .8760 BC3 7.3624 FSP -688

MID-COURSE EXECUTION ACCURACY
SGT 5239.4 SGR 588.4 SG3 206.4
RRT -.7524 RRF -.7525 RTF .9310
SGB 5272.4 RZ3 .0731 R13 -.9314
SG1 5258.2 SG2 386.2 THA 175.14

ORBIT DETERMINATION ACCURACY
ST 851.5 SR 397.0 SS 271.7
CRT -.9040 CRS .2525 CST -.6296
LSA 940.3 MSA 266.5 SSA 36.7
EL1 926.5 EL2 156.0 ALF 156.44

LAUNCH DATE SEP 22 1970 FLIGHT TIME 172.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 503.610

RL 150.16 LAL -.00 LOL 358.58 VL 26.332 GAL .09 AZL 90.70 HCA 246.90 SMA 123.53 ECC .21550 INC .7006 V1 29.674
RP 108.51 LAP .64 LOP 245.48 VP 37.039 GAP 10.32 AZP 89.73 TAL 179.69 TAP 66.59 RCA 96.91 APO 150.16 V2 34.925
RC 157.587 GL -5.44 GP 19.20 ZAL 81.14 ZAP 157.13 ETS 52.07 ZAE 126.60 ETE 165.73 ZAC 121.67 ETC 262.80 CLP-167.34

PLANETOCENTRIC CONIC

C3 11.534 VHL 3.396 DLA -28.66 RAL 278.49 RAD 6567.4 VEL 11.529 PTH 2.01 VHP 6.970 DPA -4.00 RAP 259.87 ECC 1.1898

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
85.35	11 13 31	894.98	22.67	325.61	138.64	108.03	11 28 26	295.0	24.92	317.64
94.65	12 31 17	643.19	22.68	307.18	138.64	108.01	12 42 0	43.2	24.94	299.20
100.00	12 1 54	737.94	17.76	312.11	136.61	114.44	12 14 12	137.9	20.91	304.74
100.00	14 25 36	5563.50	27.77	259.45	140.13	101.52	15 58 19	4963.5	29.08	250.89
110.00	11 56 48	753.97	12.21	310.23	133.51	122.18	12 9 22	154.0	16.37	303.59
110.00	16 47 11	5120.24	34.03	226.76	141.08	93.48	16 12 31	4520.2	34.13	217.52

DIFFERENTIAL CORRECTIONS
TDE -.2378 TRA 1.0854 TC3-7.1464 BAU 1.1039
RDE .2198 RRA -.1745 RC3 .4175 FAU .03289
FDE .0749 FRA .8249 FC3-2.4684 BSP 16772
BDE .3237 BRA 1.0697 BC3 7.1586 FSP -654

MID-COURSE EXECUTION ACCURACY
SGT 5276.5 SGR 574.6 SG3 199.7
RRT -.7276 RRF -.7233 RTF .9270
SGB 5307.7 RZ3 .0657 R13 -.9275
SG1 5293.1 SG2 393.0 THA 175.44

ORBIT DETERMINATION ACCURACY
ST 743.5 SR 384.0 SS 298.0
CRT -.7396 CRS .0079 CST -.6694
LSA 821.6 MSA 335.9 SSA 34.8
EL1 801.7 EL2 239.7 ALF 156.91

LAUNCH DATE SEP 22 1970 FLIGHT TIME 174.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 509.300

RL 150.16 LAL -.00 LOL 358.58 VL 26.285 GAL .54 AZL 90.49 HCA 250.08 SMA 123.25 ECC .21850 INC .4875 V1 29.674
RP 108.54 LAP .46 LOP 248.66 VP 36.994 GAP 10.62 AZP 89.83 TAL 178.08 TAP 68.16 RCA 96.32 APO 150.18 V2 34.913
RC 159.692 GL -3.69 GP 18.34 ZAL 77.87 ZAP 158.31 ETS 52.89 ZAE 126.69 ETE 166.35 ZAC 120.93 ETC 263.44 CLP-168.22

PLANETOCENTRIC CONIC

C3 12.057 VHL 3.472 DLA -26.69 RAL 282.01 RAD 6567.5 VEL 11.552 PTH 2.02 VHP 7.113 DPA -5.14 RAP 261.93 ECC 1.1984

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 42 19	1053.79	15.43	334.25	140.12	114.04	10 59 53	453.8	18.55	326.97
90.00	13 30 33	5791.02	26.75	275.96	143.79	99.65	15 7 4	5191.0	27.81	267.45
100.00	11 32 4	893.10	13.16	321.33	139.00	117.08	11 46 57	293.1	16.69	314.32
100.00	15 23 29	5426.94	29.24	249.57	144.19	96.52	16 53 56	4826.9	29.83	240.81
110.00	11 47 29	844.70	8.87	315.14	136.47	123.15	12 1 34	244.7	13.18	308.68
110.00	17 24 33	5048.11	34.18	221.14	144.52	90.15	18 48 41	4448.1	33.83	211.91

DIFFERENTIAL CORRECTIONS
TDE -.0994 TRA 1.2488 TC3-6.9342 BAU 1.1195
RDE .2198 RRA -.1081 RC3 .3896 FAU .03138
FDE .1307 FRA .8716 FC3-2.2528 B8P 17074
BDE .2413 BRA 1.2826 BC3 6.9452 F8P -651

MID-COURSE EXECUTION ACCURACY
8GT 5342.0 8GR 568.3 8G3 194.8
RRT -.7100 RRF -.7010 RTF .9307
8G8 5372.1 R23 .0519 R13 -.9310
8G1 5357.3 8G2 399.0 THA 175.66

ORBIT DETERMINATION ACCURACY
ST 725.6 SR 377.2 SS 326.3
CRT -.4823 CRS -.1402 CST -.7930
LSA 791.8 HSA 383.9 SSA 31.7
EL1 753.3 EL2 318.3 ALF 162.75

LAUNCH DATE SEP 22 1970 FLIGHT TIME 176.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 514.964

RL 150.16 LAL -.00 LOL 358.58 VL 26.238 GAL 1.01 AZL 90.28 HCA 253.26 SMA 122.97 ECC .22175 INC .2829 V1 29.674
RP 108.58 LAP .27 LOP 251.84 VP 36.950 GAP 10.93 AZP 89.92 TAL 176.47 TAP 69.73 RCA 95.70 APO 150.24 V2 34.901
RC 161.784 GL -2.08 GP 17.56 ZAL 74.65 ZAP 159.41 ETS 53.88 ZAE 126.76 ETE 166.91 ZAC 120.26 ETC 264.08 CLP-169.08

PLANETOCENTRIC CONIC

C3 12.717 VHL 3.566 DLA -24.79 RAL 285.37 RAD 6567.5 VEL 11.580 PTH 2.03 VHP 7.268 DPA -6.16 RAP 264.04 ECC 1.2093

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 16 8	1199.50	11.21	342.87	142.78	116.18	10 36 7	599.5	14.64	335.87
90.00	14 23 37	5667.98	27.85	267.12	147.74	95.36	15 58 5	5068.0	28.30	258.49
100.00	11 15 23	1008.17	9.50	327.92	141.88	118.47	11 32 11	408.2	13.24	321.12
100.00	16 7 2	5334.54	29.76	242.75	147.90	92.97	17 35 57	4734.5	29.85	233.95
110.00	11 41 19	926.85	5.79	319.50	139.62	123.75	11 56 46	326.8	10.18	313.17
110.00	17 57 36	4988.63	34.10	216.49	147.92	87.41	19 20 45	4588.6	33.36	207.33

DIFFERENTIAL CORRECTIONS
TDE .0489 TRA 1.4546 TC3-6.6477 BAU 1.1319
RDE .2207 RRA -.1991 RC3 .3574 FAU .02957
FDE .1867 FRA .9217 FC3-2.0130 B8P 17245
BDE .2254 BRA 1.4682 BC3 6.6573 F8P -633

MID-COURSE EXECUTION ACCURACY
8GT 5395.6 8GR 561.1 8G3 189.5
RRT -.6902 RRF -.6779 RTF .9318
8G8 5424.7 R23 .0431 R13 -.9320
8G1 5409.5 8G2 405.0 THA 175.87

ORBIT DETERMINATION ACCURACY
ST 788.7 SR 370.0 SS 361.4
CRT -.1938 CRS -.2548 CST -.8947
LSA 856.2 HSA 394.6 SSA 28.9
EL1 792.8 EL2 361.1 ALF 173.44

LAUNCH DATE SEP 22 1970 FLIGHT TIME 178.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 520.599

RL 150.16 LAL -.00 LOL 358.58 VL 26.192 GAL 1.49 AZL 90.09 HCA 256.44 SMA 122.69 ECC .22528 INC .0839 V1 29.674
RP 108.61 LAP .08 LOP 255.01 VP 36.907 GAP 11.25 AZP 89.98 TAL 174.85 TAP 71.28 RCA 95.05 APO 150.33 V2 34.890
RC 163.865 GL -.61 GP 16.85 ZAL 71.51 ZAP 160.45 ETS 55.03 ZAE 126.82 ETE 167.42 ZAC 119.83 ETC 264.72 CLP-169.94

PLANETOCENTRIC CONIC

C3 13.525 VHL 3.678 DLA -22.96 RAL 288.59 RAD 6567.5 VEL 11.615 PTH 2.04 VHP 7.434 DPA -7.08 RAP 266.20 ECC 1.2226

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 0 25	1312.58	7.74	349.37	145.81	117.32	10 22 17	712.6	11.34	342.54
90.00	15 5 0	5581.49	28.24	260.83	151.46	92.22	16 38 1	4981.5	28.25	252.16
100.00	11 4 22	1106.16	6.28	333.41	145.02	119.29	11 22 48	506.2	10.14	326.74
100.00	16 43 44	5263.14	29.89	237.45	151.50	90.18	18 11 27	4663.1	29.60	228.65
110.00	11 37 11	1003.24	2.89	323.51	142.92	124.08	11 53 55	403.2	7.34	317.25
110.00	18 27 24	4938.82	33.88	212.62	151.31	85.12	19 49 42	4338.8	32.83	203.54

DIFFERENTIAL CORRECTIONS
TDE .1959 TRA 1.6707 TC3-6.3070 BAU 1.1419
RDE .2226 RRA -.2124 RC3 .3245 FAU .02769
FDE .2398 FRA .9702 FC3-1.7724 B8P 17422
BDE .2965 BRA 1.6842 BC3 6.3154 F8P -618

MID-COURSE EXECUTION ACCURACY
8GT 5440.9 8GR 553.5 8G3 184.0
RRT -.6698 RRF -.6546 RTF .9324
8G8 5469.0 R23 .0357 R13 -.9326
8G1 5453.6 8G2 410.1 THA 176.08

ORBIT DETERMINATION ACCURACY
ST 912.0 SR 363.3 SS 397.8
CRT .0405 CRS -.3386 CST -.9509
LSA 989.0 HSA 378.2 SSA 26.4
EL1 912.1 EL2 362.9 ALF 1.10

LAUNCH DATE SEP 22 1970 FLIGHT TIME 180.00 ARRIVAL DATE MAR 21 1971

HELIOCENTRIC CONIC DISTANCE 526.200

RL 150.16 LAL -.00 LOL 358.58 VL 26.146 GAL 2.00 AZL 89.89 HCA 259.61 SMA 122.42 ECC .22911 INC .1058 V1 29.674
RP 108.65 LAP -.11 LOP 258.19 VP 36.864 GAP 11.59 AZP 90.02 TAL 173.22 TAP 72.83 RCA 94.37 APO 150.47 V2 34.880
RC 165.932 GL .73 GP 16.21 ZAL 68.46 ZAP 161.41 ETS 56.37 ZAE 126.87 ETE 167.87 ZAC 119.05 ETC 265.36 CLP-170.78

PLANETOCENTRIC CONIC

C3 14.492 VHL 3.807 DLA -21.21 RAL 291.65 RAD 6567.6 VEL 11.657 PTH 2.05 VHP 7.612 DPA -7.90 RAP 268.40 ECC 1.2385

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 49 41	1410.15	4.65	354.88	149.04	117.96	10 13 11	810.1	8.36	348.16
90.00	15 40 9	5514.29	28.32	255.91	155.08	89.76	17 12 3	4914.3	27.98	247.26
100.00	10 56 37	1194.12	3.33	338.27	148.30	119.72	11 16 31	594.1	7.26	331.69
100.00	17 15 54	5205.55	29.83	233.17	155.04	87.93	18 42 40	4605.6	29.22	224.41
110.00	11 34 29	1075.41	.13	327.27	146.31	124.18	11 52 25	475.4	4.61	321.06
110.00	18 54 31	4997.03	33.59	209.39	154.70	83.23	20 16 8	4297.0	32.29	200.40

DIFFERENTIAL CORRECTIONS
TDE .3288 TRA 1.8737 TC3-5.9982 BAU 1.1632
RDE .2288 RRA -.2234 RC3 .3002 FAU .02652
FDE .2747 FRA 1.0036 FC3-1.5843 B8P 18119
BDE .3977 BRA 1.8870 BC3 6.0037 F8P -628

MID-COURSE EXECUTION ACCURACY
8GT 5498.4 8GR 548.3 8G3 178.1
RRT -.6522 RRF -.6351 RTF .9359
8G8 5525.7 R23 .0280 R13 -.9361
8G1 5510.1 8G2 414.8 THA 176.26

ORBIT DETERMINATION ACCURACY
ST 1040.4 SR 360.6 SS 420.3
CRT .1849 CRS -.3876 CST -.9755
LSA 1121.7 HSA 360.9 SSA 24.2
EL1 1042.8 EL2 353.6 ALF 4.14

LAUNCH DATE SEP 22 1970 FLIGHT TIME 182.00 ARRIVAL DATE MAR 23 1971

HELIOCENTRIC CONIC DISTANCE 531.771

RL	150.16	LAL	-.00	LOL	358.58	VL	26.100	GAL	2.54	AZL	89.70	HCA	262.78	SMA	122.15	ECC	.23527	INC	.2951
RP	108.68	LAP	-.29	LOP	261.36	VP	36.822	GAP	11.94	AZP	90.04	TAL	171.60	TAP	74.38	RCA	93.66	APO	150.65
RC	167.985	GL	1.95	GP	15.63	ZAL	65.51	ZAP	162.31	ETS	57.90	ZAE	126.91	ETE	168.29	ZAC	118.50	ETC	266.00

V1	29.674	V2	34.869	CLP	-171.61														

PLANETOCENTRIC CONIC

C3	15.635	VHL	3.954	DLA	-19.55	RAL	294.56	RAD	6567.6	VEL	11.706	PTH	2.06	VHP	7.802	DPA	-8.62	RAP	270.63
ECC	1.2573																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 41 58	1498.22	1.83	359.81	152.40	118.26	10 6 56	898.2	5.59	353.15
90.00	16 11 7	5460.22	28.24	251.96	158.66	87.78	17 42 7	4860.2	27.63	243.35
100.00	10 51 2	1275.31	.58	342.73	151.70	119.89	11 12 17	675.3	4.55	336.19
100.00	17 44 43	5150.36	29.66	229.67	158.57	86.10	19 10 42	4558.4	28.80	220.97
110.00	11 32 51	1144.28	-2.50	330.87	149.78	124.10	11 51 55	544.3	1.99	324.66
110.00	19 19 24	4862.15	33.28	206.72	158.12	81.68	20 40 26	4262.2	31.77	197.81

DIFFERENTIAL CORRECTIONS

TDE	.4906	TRA	2.1280	TC3	-5.5519	BAU	1.1618
RDE	.2312	RRA	-.2309	RC3	.2646	FAU	.02426
FDE	.3297	FRA	1.0982	FC3	-1.3436	BSP	17869
BDE	.5496	BRA	2.1414	BC3	5.5582	FSP	-592

MID-COURSE EXECUTION ACCURACY

SGT	5523.2	SGR	539.4	SG3	173.0		
RRT	-.6305	RRF	-.6115	RTF	.9349		
SGB	5549.5	RZS	.0240	R13	-.9350		
SG1	5533.8	SG2	417.9	THA	176.46		

ORBIT DETERMINATION ACCURACY

ST	1226.0	SR	352.8	SS	461.2
CRT	.3077	CRS	-.4393	CST	-.9885
LSA	1313.5	MSA	338.0	SSA	22.4
EL1	1231.1	EL2	334.3	ALF	5.46

LAUNCH DATE SEP 22 1970 FLIGHT TIME 184.00 ARRIVAL DATE MAR 25 1971

HELIOCENTRIC CONIC DISTANCE 537.304

RL	150.16	LAL	-.00	LOL	358.58	VL	26.055	GAL	3.09	AZL	89.52	HCA	265.95	SMA	121.89	ECC	.23778	INC	.4806
RP	108.71	LAP	-.48	LOP	264.53	VP	36.781	GAP	12.30	AZP	90.03	TAL	169.97	TAP	75.92	RCA	92.91	APO	150.87
RC	170.025	GL	3.04	GP	15.10	ZAL	62.60	ZAP	163.16	ETS	59.63	ZAE	126.94	ETE	168.67	ZAC	117.98	ETC	266.65

V1	29.674	V2	34.859	CLP	-172.44														

PLANETOCENTRIC CONIC

C3	16.972	VHL	4.120	DLA	-17.90	RAL	297.33	RAD	6567.7	VEL	11.762	PTH	2.08	VHP	8.006	DPA	-9.26	RAP	272.90
ECC	1.2793																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 36 15	1579.64	-.80	4.35	155.85	118.31	10 2 35	979.6	2.99	357.72
90.00	16 38 51	5416.25	28.08	248.75	162.22	86.18	18 9 7	4816.2	27.25	240.18
100.00	10 46 58	1351.44	-2.00	346.91	155.18	119.83	11 9 30	751.4	1.98	340.38
100.00	18 10 40	5119.68	29.45	226.81	162.10	84.61	19 36 8	4519.7	28.39	218.17
110.00	11 31 58	1210.44	-5.02	334.33	153.30	123.86	11 52 9	610.4	-.54	328.11
110.00	19 42 18	4883.45	32.97	204.53	161.55	80.42	21 2 51	4233.4	31.30	195.71

DIFFERENTIAL CORRECTIONS

TDE	.6830	TRA	2.3612	TC3	-5.1311	BAU	1.1655
RDE	.2366	RRA	-.2530	RC3	.2348	FAU	.02242
FDE	.3742	FRA	1.1065	FC3	-1.1435	BSP	17889
BDE	.7040	BRA	2.3046	BC3	5.1365	FSP	-570

MID-COURSE EXECUTION ACCURACY

SGT	5554.0	SGR	531.5	SG3	167.9		
RRT	-.6106	RRF	-.5901	RTF	.9355		
SGB	5579.3	RZS	.0198	R13	-.9356		
SG1	5563.5	SG2	420.2	THA	176.64		

ORBIT DETERMINATION ACCURACY

ST	1399.1	SR	347.3	SS	492.6
CRT	.3843	CRS	-.4738	CST	-.9940
LSA	1489.0	MSA	321.0	SSA	20.9
EL1	1405.8	EL2	319.0	ALF	5.75

LAUNCH DATE SEP 22 1970 FLIGHT TIME 186.00 ARRIVAL DATE MAR 27 1971

HELIOCENTRIC CONIC DISTANCE 542.793

RL	150.16	LAL	-.00	LOL	358.58	VL	26.011	GAL	3.68	AZL	89.34	HCA	269.12	SMA	121.63	ECC	.24269	INC	.6648
RP	108.74	LAP	-.66	LOP	267.70	VP	36.740	GAP	12.68	AZP	90.01	TAL	168.35	TAP	77.47	RCA	92.11	APO	151.15
RC	172.049	GL	4.01	GP	14.61	ZAL	59.99	ZAP	163.94	ETS	61.58	ZAE	126.96	ETE	169.01	ZAC	117.48	ETC	267.29

V1	29.674	V2	34.850	CLP	-173.26														

PLANETOCENTRIC CONIC

C3	18.526	VHL	4.304	DLA	-16.50	RAL	299.94	RAD	6567.8	VEL	11.828	PTH	2.09	VHP	8.225	DPA	-9.81	RAP	275.19
ECC	1.3049																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 31 50	1656.06	-3.26	8.61	159.36	118.14	9 59 35	1056.1	.52	1.98
90.00	17 3 58	5380.57	27.89	246.16	165.77	84.89	18 33 39	4780.6	26.89	237.64
100.00	10 44 1	1423.61	-4.44	350.88	158.71	119.59	11 7 45	823.6	-.46	344.34
100.00	18 34 37	5088.25	29.22	224.50	165.62	83.41	19 59 25	4488.2	28.00	215.91
110.00	11 31 41	1274.28	-7.43	337.71	156.87	123.46	11 52 56	674.3	-2.98	331.45
110.00	20 3 26	4810.34	32.70	202.79	165.01	79.42	21 23 36	4210.3	30.89	194.03

DIFFERENTIAL CORRECTIONS

TDE	.8267	TRA	2.8420	TC3	-4.7187	BAU	1.1699
RDE	.2435	RRA	-.2068	RC3	.2076	FAU	.02072
FDE	.4133	FRA	1.1906	FC3	-.9684	BSP	18002
BDE	.8618	BRA	2.6554	BC3	4.7233	FSP	-554

MID-COURSE EXECUTION ACCURACY

SGT	5582.6	SGR	523.4	SG3	162.8		
RRT	-.5910	RRF	-.5698	RTF	.9366		
SGB	5607.0	RZS	.0162	R13	-.9367		
SG1	5591.2	SG2	421.5	THA	176.81		

ORBIT DETERMINATION ACCURACY

ST	1561.0	SR	342.6	SS	518.8
CRT	.4373	CRS	-.4996	CST	-.9967
LSA	1651.7	MSA	307.7	SSA	19.5
EL1	1568.5	EL2	306.7	ALF	5.70

LAUNCH DATE SEP 22 197J FLIGHT TIME 188.00 ARRIVAL DATE MAR 29 1971

HELIOCENTRIC CONIC DISTANCE 548.233

RL	150.16	LAL	-.00	LOL	358.58	VL	25.967	GAL	4.29	AZL	89.15	HCA	272.29	SMA	121.37	ECC	.24803	INC	.8486
RP	108.77	LAP	-.85	LOP	270.86	VP	36.701	GAP	13.09	AZP	89.97	TAL	166.73	TAP	79.02	RCA	91.27	APO	151.48
RC	174.080	GL	4.88	GP	14.17	ZAL	57.42	ZAP	164.67	ETS	63.77	ZAE	126.98	ETE	169.32	ZAC	117.00	ETC	267.93

V1	29.674	V2	34.841	CLP	-174.08														

PLANETOCENTRIC CONIC

C3	20.324	VHL	4.508	DLA	-15.11	RAL	302.41	RAD	6567.8	VEL	11.904	PTH	2.12	VHP	8.459	DPA	-10.28	RAP	277.50
ECC	1.3345																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 28 47	1728.49	-5.58	12.68	162.93	117.81	9 57 36	1128.5	-1.81	6.02
90.00	17 26 52	5351.97	27.70	244.09	169.32	83.87	18 56 4	4752.0	26.56	235.61
100.00	10 41 55	1492.52	-6.74	354.70	162.29	119.19	11 6 48	892.5	-2.80	348.13
100.00	18 56 25	5063.16	29.01	222.67	169.15	82.47	20 20 48	4463.2	27.67	214.12
110.00	11 31 51	1336.11	-9.74	341.01	160.47	122.93	11 54 7	736.1	-5.33	334.69
110.00	20 22 58	4792.34	32.46	201.43	169.48	78.65	21 42 51	4192.3	30.56	192.73

DIFFERENTIAL CORRECTIONS

TDE	.9082	TRA	2.9082	TC3	-4.3354	BAU	1.1790
RDE	.2529	RRA	-.2788	RC3	.1844	FAU	.01936
FDE	.4444	FRA	1.1899	FC3	-.8249	BSP	18398
BDE	1.0141	BRA	2.9166	BC3	4.3394	FSP	-550

MID-COURSE EXECUTION ACCURACY

SGT	5607.6	SGR	515.1	SG3	157.5		
RRT	-.5720	RRF	-.5506	RTF	.9387		
SGB	5631.2	RZS	.0129	R13	-.9388		
SG1	5615.4	SG2	421.9	THA	176.97		

ORBIT DETERMINATION ACCURACY

ST	1699.0	SR	339.3	SS	537.1
CRT	.4748	CRS	-.5191	CST	-.9980
LSA	1789.2	MSA	297.7	SSA	18.4
EL1	1706.8	EL2	297.2	ALF	5.59

LAUNCH DATE SEP 22 1970 FLIGHT TIME 190.00 ARRIVAL DATE MAR 31 1971

HELIOCENTRIC CONIC DISTANCE 553.625

RL	150.16	LAL	-.00	LOL	358.58	VL	25.923	GAL	4.94	AZL	88.97	HCA	275.45	SMA	121.12	ECC	.25385	INC	1.0330
RP	108.79	LAP	-1.03	LOP	274.03	VP	36.662	GAP	13.52	AZP	89.90	TAL	165.11	TAP	80.57	RCA	90.38	APO	151.87
RC	176.055	GL	5.65	GP	13.77	ZAL	54.99	ZAP	165.33	ETS	66.21	ZAE	126.99	ETE	169.61	ZAC	116.54	ETC	268.57

PLANETOCENTRIC CONIC

C3	22.396	VHL	4.732	DLA	-13.81	RAL	304.74	RAD	6567.9	VEL	11.991	PTH	2.14	VHP	8.710	DPA	-10.67	RAP	279.83

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 26 26	1797.64	-7.76	16.59	166.54	117.32	9 56 23	1197.6	-4.04	9.89
90.00	17 47 51	5329.56	27.53	242.47	172.87	85.08	19 16 40	4729.6	26.28	234.03
100.00	10 40 29	1558.71	-8.92	358.40	165.91	118.65	11 6 28	958.7	-5.03	351.78
100.00	19 16 29	5043.73	28.83	221.25	172.68	81.75	20 40 32	4443.7	27.39	212.74
110.00	11 32 23	1396.17	-11.94	344.27	164.11	122.27	11 55 39	796.2	-7.60	337.87
110.00	20 41 4	4779.03	32.28	200.44	171.97	78.09	22 0 43	4179.0	30.30	191.78

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.1658	TRA	3.2018	TC3	-3.9153	BAU	1.1733	SGT	5626.8	SGR	505.3	SG3	153.0	ST	1854.4	SR	334.0
RDE	.2606	RRA	-.2927	RC3	.1589	FAU	.01751	RRT	-.5518	RRF	-.5301	RTF	.9396	CRT	.5065	CRS	-.5381
FDE	.4848	FRA	1.2379	FC3	-.6769	BSP	18214	SGB	5649.4	RZ3	.0105	R13	-.9396	LSA	1945.3	MSA	287.0
BDE	1.1946	BRA	3.2151	BC3	3.9185	FSP	-523	SG1	5633.7	SG2	420.9	THA	177.15	EL1	1862.2	EL2	286.7

SS	562.8	CST	-.9988	ALF	5.34												

LAUNCH DATE SEP 22 1970 FLIGHT TIME 192.00 ARRIVAL DATE APR 2 1971

HELIOCENTRIC CONIC DISTANCE 558.951

RL	150.16	LAL	-.00	LOL	358.58	VL	25.880	GAL	5.62	AZL	88.78	HCA	278.62	SMA	120.88	ECC	.26019	INC	1.2192
RP	108.82	LAP	-1.21	LOP	277.19	VP	36.624	GAP	13.97	AZP	89.82	TAL	163.51	TAP	82.13	RCA	89.43	APO	152.33
RC	178.036	GL	6.32	GP	13.40	ZAL	52.68	ZAP	165.94	ETS	68.90	ZAE	126.99	ETE	169.88	ZAC	116.09	ETC	269.20

PLANETOCENTRIC CONIC

C3	24.782	VHL	4.978	DLA	-12.60	RAL	306.94	RAD	6568.0	VEL	12.090	PTH	2.16	VHP	8.981	DPA	-10.99	RAP	282.17

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 24 42	1863.99	-9.81	20.39	170.18	116.70	9 55 46	1264.0	-6.15	13.62
90.00	18 7 7	5312.67	27.38	241.26	176.42	82.49	19 35 40	4712.7	26.06	232.84
100.00	10 39 33	1622.50	-10.98	2.02	169.56	117.98	11 6 36	1022.5	-7.15	355.32
100.00	19 34 57	5029.40	28.69	220.21	176.21	81.22	20 58 47	4429.4	27.18	211.73
110.00	11 33 10	1454.60	-14.04	347.49	167.77	121.49	11 57 24	854.6	-9.77	340.99
110.00	20 57 50	4770.06	32.15	199.77	175.46	77.71	22 17 20	4170.1	30.13	191.14

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.3424	TRA	3.5032	TC3	-3.5337	BAU	1.1716	SGT	5642.3	SGR	495.1	SG3	148.4	ST	1983.6	SR	329.8
RDE	.2707	RRA	-.3050	RC3	.1372	FAU	.01597	RRT	-.5317	RRF	-.5104	RTF	.9414	CRT	.5309	CRS	-.5533
FDE	.5178	FRA	1.2819	FC3	-.5581	BSP	18304	SGB	5664.0	RZ3	.0084	R13	-.9414	LSA	2074.5	MSA	278.5
BDE	1.3694	BRA	3.5165	BC3	3.5364	FSP	-508	SG1	5648.5	SG2	418.9	THA	177.31	EL1	1991.4	EL2	278.4

SS	581.3	CST	-.9992	ALF	5.14												

LAUNCH DATE SEP 22 1970 FLIGHT TIME 194.00 ARRIVAL DATE APR 4 1971

HELIOCENTRIC CONIC DISTANCE 564.210

RL	150.16	LAL	-.00	LOL	358.58	VL	25.837	GAL	6.34	AZL	88.59	HCA	281.78	SMA	120.64	ECC	.26711	INC	1.4086
RP	108.84	LAP	-1.38	LOP	280.36	VP	36.588	GAP	14.46	AZP	89.71	TAL	161.92	TAP	83.70	RCA	88.41	APO	152.86
RC	180.002	GL	6.91	GP	13.06	ZAL	50.50	ZAP	166.50	ETS	71.87	ZAE	126.97	ETE	170.13	ZAC	115.64	ETC	269.84

PLANETOCENTRIC CONIC

C3	27.525	VHL	5.246	DLA	-11.48	RAL	309.02	RAD	6568.1	VEL	12.202	PTH	2.19	VHP	9.273	DPA	-11.24	RAP	284.51

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 23 29	1927.90	-11.74	24.09	173.84	115.95	9 55 37	1327.9	-8.16	17.24
90.00	18 24 52	5300.74	27.27	240.40	179.96	82.07	19 53 13	4700.7	25.89	232.00
100.00	10 39 2	1684.18	-12.93	5.56	173.24	117.19	11 7 6	1084.2	-9.18	358.78
100.00	19 52 1	5019.70	28.58	219.51	179.74	80.86	21 15 40	4419.7	27.03	211.05
110.00	11 34 9	1511.55	-16.04	350.69	171.46	120.60	11 59 21	911.6	-11.86	344.08
110.00	21 13 23	4765.08	32.08	199.40	178.97	77.50	22 32 48	4165.1	30.03	190.79

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.5231	TRA	3.8187	TC3	-3.1722	BAU	1.1681	SGT	5653.0	SGR	484.2	SG3	143.9	ST	2099.2	SR	325.7
RDE	.2820	RRA	-.3164	RC3	.1176	FAU	.01452	RRT	-.5111	RRF	-.4905	RTF	.9434	CRT	.5513	CRS	-.5671
FDE	.5490	FRA	1.3259	FC3	-.4566	BSP	18419	SGB	5673.7	RZ3	.0067	R13	-.9435	LSA	2190.0	MSA	270.8
BDE	1.5490	BRA	3.8318	BC3	3.1744	FSP	-494	SG1	5658.4	SG2	415.8	THA	177.48	EL1	2107.0	EL2	270.7

SS	597.5	CST	-.9994	ALF	4.97												

LAUNCH DATE SEP 22 1970 FLIGHT TIME 196.00 ARRIVAL DATE APR 6 1971

HELIOCENTRIC CONIC DISTANCE 569.389

RL	150.16	LAL	-.00	LOL	358.58	VL	25.795	GAL	7.10	AZL	88.40	HCA	284.94	SMA	120.40	ECC	.27467	INC	1.6023
RP	108.86	LAP	-1.55	LOP	283.52	VP	36.552	GAP	14.99	AZP	89.59	TAL	160.34	TAP	85.28	RCA	87.33	APO	153.47
RC	181.954	GL	7.42	GP	12.74	ZAL	48.45	ZAP	166.99	ETS	75.12	ZAE	126.95	ETE	170.36	ZAC	115.21	ETC	270.46

PLANETOCENTRIC CONIC

C3	30.680	VHL	5.539	DLA	-10.44	RAL	310.97	RAD	6568.2	VEL	12.331	PTH	2.22	VHP	9.588	DPA	-11.42	RAP	286.86

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 22 41	1989.63	-13.55	27.72	177.53	115.10	9 55 51	1389.6	-10.06	20.78
90.00	18 41 14	5293.28	27.20	239.87	183.50	81.81	20 9 27	4693.3	25.79	231.48
100.00	10 38 51	1743.95	-14.76	9.05	176.93	116.29	11 7 54	1143.9	-11.11	2.17
100.00	20 7 46	5014.20	28.52	219.11	183.27	80.66	21 31 20	4414.2	26.94	210.67
110.00	11 35 19	1567.12	-17.94	353.88	175.17	119.60	12 1 26	967.1	-13.86	347.14
110.00	21 27 47	4763.78	32.06	199.30	182.48	77.45	22 47 11	4163.8	30.00	190.70

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.7088	TRA	4.1907	TC3	-2.8314	BAU	1.1620	SGT	5658.9	SGR	472.3	SG3	139.4	ST	2202.0	SR	321.6
RDE	.2944	RRA	-.3268	RC3	.0997	FAU	.01311	RRT	-.4896	RRF	-.4701	RTF	.9458	CRT	.5691	CRS	-.5799
FDE	.5790	FRA	1.3706	FC3	-.3700	BSP	18538	SGB	5678.6	RZ3	.0052	R13	-.9458	LSA	2292.9	MSA	263.5
BDE	1.7340	BRA	4.1635	BC3	2.8332	FSP	-482	SG1	5663.6	SG2	411.5	THA	177.65	EL1	2209.7	EL2	263.5

SS	612.1	CST	-.9996	ALF	4.82												

LAUNCH DATE SEP 22 1970 FLIGHT TIME 198.00 ARRIVAL DATE APR 8 1971

HELIOCENTRIC CONIC DISTANCE 574.475

RL 150.16 LAL -.00 LOL 358.58 VL 25.754 GAL 7.92 AZL 88.20 HCA 288.10 SMA 120.17 ECC .28296 INC 1.8018 V1 29.674
RP 108.87 LAP -1.71 LOP 286.68 VP 36.517 GAP 15.55 AZP 89.44 TAL 158.79 TAP 86.89 RCA 86.16 APO 154.17 V2 34.806
RC 183.891 GL 7.87 GP 12.46 ZAL 46.52 ZAP 167.41 ETS 78.66 ZAE 126.91 ETE 170.58 ZAC 114.77 ETC 271.08 CLP-178.17

PLANETOCENTRIC CONIC

C3 34.311 VHL 5.858 DLA -9.47 RAL 312.80 RAD 6568.4 VEL 12.477 PTH 2.26 VHP 9.930 DPA -11.54 RAP 289.20 ECC 1.5647

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 22 13	2049.37	-15.25	31.28	181.23	114.15	9 56 23	1449.4	-11.86	24.25
90.00	18 56 19	5289.88	27.17	239.62	187.02	81.69	20 24 29	4689.9	25.74	231.25
100.00	10 38 55	1801.95	-16.48	12.50	180.64	115.30	11 8 57	1202.0	-12.93	5.50
100.00	20 22 19	5012.54	28.51	218.99	186.79	80.60	21 45 51	4412.5	26.91	210.55
110.00	11 36 35	1621.38	-19.73	357.06	178.90	118.50	12 3 36	1021.4	-15.78	350.18
110.00	21 41 8	4765.87	32.09	199.46	185.99	77.54	23 0 34	4165.9	30.04	190.84

DIFFERENTIAL CORRECTIONS
TDE 1.9003 TRA 4.4996 TC3-2.5129 BAU 1.1553
RDE .3079 RRA -.3359 RC3 .0836 FAU .01176
FDE .6082 FRA 1.4163 FC3 -.2968 BSP 18690
BDE 1.9250 BRA 4.5121 BC3 2.5143 FSP -470

MID-COURSE EXECUTION ACCURACY
SGT 5659.7 SGR 459.6 SG3 135.2
RRT -.4670 RRF -.4488 RTF .9483
SGB 5678.3 RZS .0042 R13 -.9483
SG1 5663.8 SG2 406.1 THA 177.82

ORBIT DETERMINATION ACCURACY
ST 2292.3 SR 317.3 SS 625.5
CRT .5853 CRS -.5923 CST -.9997
LSA 2383.4 MSA 256.5 SSA 14.4
EL1 2299.9 EL2 256.5 ALF 4.69

LAUNCH DATE SEP 22 1970 FLIGHT TIME 200.00 ARRIVAL DATE APR 10 1971

HELIOCENTRIC CONIC DISTANCE 579.454

RL 150.16 LAL -.00 LOL 358.58 VL 25.714 GAL 8.78 AZL 87.99 HCA 291.26 SMA 119.94 ECC .29205 INC 2.0084 V1 29.674
RP 108.89 LAP -1.87 LOP 289.85 VP 36.484 GAP 16.16 AZP 89.27 TAL 157.27 TAP 88.53 RCA 84.91 APO 154.97 V2 34.801
RC 185.813 GL 8.25 GP 12.20 ZAL 44.72 ZAP 167.76 ETS 82.49 ZAE 126.86 ETE 170.79 ZAC 114.34 ETC 271.69 CLP-179.01

PLANETOCENTRIC CONIC

C3 38.499 VHL 6.205 DLA -8.59 RAL 314.52 RAD 6568.5 VEL 12.644 PTH 2.30 VHP 10.302 DPA -11.59 RAP 291.54 ECC 1.6336

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 22 1	2107.26	-16.83	34.80	184.94	113.11	9 57 8	1507.3	-13.56	27.65
90.00	19 10 14	5290.18	27.17	239.64	190.54	81.70	20 38 24	4690.2	25.74	231.27
100.00	10 39 11	1858.30	-18.08	15.92	184.36	114.21	11 10 10	1258.3	-14.66	8.80
100.00	20 35 45	5014.38	28.53	219.12	190.30	80.67	21 59 19	4414.4	26.94	210.68
110.00	11 37 56	1674.37	-21.42	.25	182.85	117.30	12 5 50	1074.4	-17.59	353.21
110.00	21 53 30	4771.07	32.17	199.84	189.49	77.75	23 13 1	4171.1	30.15	191.21

DIFFERENTIAL CORRECTIONS
TDE 2.0988 TRA 4.8683 TC3-2.2145 BAU 1.1403
RDE .3225 RRA -.3435 RC3 .0891 FAU .01045
FDE .6370 FRA 1.4636 FC3 -.2350 BSP 18828
BDE 2.1234 BRA 4.8804 BC3 2.2156 FSP -459

MID-COURSE EXECUTION ACCURACY
SGT 5654.9 SGR 446.0 SG3 131.0
RRT -.4428 RRF -.4262 RTF .9511
SGB 5672.5 RZS .0033 R13 -.9511
SG1 5658.4 SG2 399.7 THA 177.99

ORBIT DETERMINATION ACCURACY
ST 2371.3 SR 313.0 SS 638.3
CRT .6005 CRS -.6046 CST -.9997
LSA 2463.0 MSA 249.5 SSA 13.8
EL1 2378.9 EL2 249.5 ALF 4.58

LAUNCH DATE SEP 22 1970 FLIGHT TIME 202.00 ARRIVAL DATE APR 12 1971

HELIOCENTRIC CONIC DISTANCE 584.306

RL 150.16 LAL -.00 LOL 358.58 VL 25.674 GAL 9.71 AZL 87.78 HCA 294.42 SMA 119.72 ECC .30205 INC 2.2240 V1 29.674
RP 108.90 LAP -2.03 LOP 293.01 VP 36.451 GAP 16.82 AZP 89.08 TAL 155.77 TAP 90.19 RCA 83.56 APO 155.88 V2 34.797
RC 187.719 GL 8.58 GP 11.95 ZAL 43.03 ZAP 168.04 ETS 86.60 ZAE 126.78 ETE 170.99 ZAC 113.91 ETC 272.29 CLP-179.87

PLANETOCENTRIC CONIC

C3 43.339 VHL 6.583 DLA -7.77 RAL 316.13 RAD 6568.6 VEL 12.834 PTH 2.34 VHP 10.708 DPA -11.59 RAP 293.85 ECC 1.7132

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 22 2	2163.38	-18.29	38.27	188.64	112.00	9 58 6	1563.4	-15.15	31.00
90.00	19 23 3	5293.83	27.21	239.91	194.03	81.83	20 51 17	4693.8	25.80	231.52
100.00	10 39 38	1913.04	-19.58	19.29	188.08	113.05	11 11 31	1313.0	-16.29	12.05
100.00	20 48 8	5019.41	28.58	219.49	193.79	80.85	22 11 48	4419.4	27.02	211.03
110.00	11 39 21	1726.10	-23.00	3.43	186.40	116.01	12 8 7	1126.1	-19.32	356.23
110.00	22 4 55	4779.11	32.28	200.44	192.99	78.09	23 24 35	4179.1	30.30	191.79

DIFFERENTIAL CORRECTIONS
TDE 2.3068 TRA 5.2598 TC3-1.9384 BAU 1.1236
RDE .3383 RRA -.3493 RC3 .0562 FAU .00917
FDE .6660 FRA 1.5134 FC3 -.1832 BSP 18986
BDE 2.3315 BRA 5.2714 BC3 1.9392 FSP -449

MID-COURSE EXECUTION ACCURACY
SGT 5647.2 SGR 431.6 SG3 127.0
RRT -.4185 RRF -.4019 RTF .9541
SGB 5663.6 RZS .0029 R13 -.9541
SG1 5650.0 SG2 392.2 THA 178.17

ORBIT DETERMINATION ACCURACY
ST 2440.9 SR 308.5 SS 651.0
CRT .6154 CRS -.6171 CST -.9998
LSA 2533.3 MSA 242.4 SSA 13.2
EL1 2448.3 EL2 242.4 ALF 4.49

LAUNCH DATE SEP 22 1970 FLIGHT TIME 204.00 ARRIVAL DATE APR 14 1971

HELIOCENTRIC CONIC DISTANCE 589.009

RL 150.16 LAL -.00 LOL 358.58 VL 25.634 GAL 10.70 AZL 87.55 HCA 297.57 SMA 119.50 ECC .31307 INC 2.4508 V1 29.674
RP 108.92 LAP -2.17 LOP 296.17 VP 36.420 GAP 17.55 AZP 88.87 TAL 154.32 TAP 91.90 RCA 82.09 APO 156.91 V2 34.793
RC 189.610 GL 8.86 GP 11.73 ZAL 41.45 ZAP 168.24 ETS 90.96 ZAE 126.69 ETE 171.18 ZAC 113.48 ETC 272.88 CLP 179.26

PLANETOCENTRIC CONIC

C3 48.949 VHL 6.996 DLA -7.02 RAL 317.63 RAD 6568.8 VEL 13.050 PTH 2.38 VHP 11.152 DPA -11.53 RAP 296.15 ECC 1.8056

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 22 14	2217.77	-19.65	41.68	192.34	110.81	9 59 12	1617.8	-16.64	34.30
90.00	19 34 51	5300.53	27.27	240.39	197.49	82.06	21 3 11	4700.5	25.89	231.99
100.00	10 40 13	1966.19	-20.96	22.64	191.79	111.81	11 12 59	1366.2	-17.81	15.26
100.00	20 59 33	5027.34	28.67	220.06	197.26	81.14	22 23 20	4427.3	27.14	211.59
110.00	11 40 47	1776.55	-24.47	6.61	190.15	114.65	12 10 24	1176.5	-20.94	359.25
110.00	22 15 28	4789.7[illegible]	32.43	201.24	196.47	78.54	23 35 18	4189.8	30.51	192.55

DIFFERENTIAL CORRECTIONS
TDE 2.5236 TRA 5.6784 TC3-1.6817 BAU 1.1009
RDE .3552 RRA -.3529 RC3 .0448 FAU .00789
FDE .6958 FRA 1.5663 FC3 -.1395 BSP 19098
BDE 2.5485 BRA 5.6873 BC3 1.6823 FSP -438

MID-COURSE EXECUTION ACCURACY
SGT 5634.4 SGR 416.3 SG3 123.2
RRT -.3880 RRF -.3753 RTF .9572
SGB 5649.7 RZS .0024 R13 -.9572
SG1 5636.7 SG2 383.5 THA 178.35

ORBIT DETERMINATION ACCURACY
ST 2500.1 SR 303.7 SS 664.1
CRT .6299 CRS -.6300 CST -.9998
LSA 2593.9 MSA 235.2 SSA 12.7
EL1 2507.5 EL2 235.2 ALF 4.41

LAUNCH DATE SEP 22 1970 FLIGHT TIME 206.00 ARRIVAL DATE APR 16 1971

HELIOCENTRIC CONIC DISTANCE 593.535

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RL  150.16 LAL   -.00 LOL 358.58 VL  25.596 GAL  11.77 AZL  87.31 HCA 300.73 SMA 119.29 ECC .32526 INC 2.6909 V1  29.674
RP  108.93 LAP  -2.31 LOP 299.33 VP  36.390 GAP  18.34 AZP  88.62 TAL 152.92 TAP  93.65 RCA  80.49 APO 158.09 V2  34.790
RC 191.483 GL    9.09 GP   11.53 ZAL  39.99 ZAP 168.36 ETS  95.56 ZAE 126.56 ETE 171.37 ZAC 113.05 ETC 273.45 CLP 178.36
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PLANETOCENTRIC CONIC

```
C3  55.476 VHL  7.448 DLA  -6.34 RAL 319.03 RAD 6569.0 VEL 13.298 PTH   2.43 VHP 11.640 DPA -11.43 RAP 298.42 ECC 1.9130
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 22 34	2270.43	-20.88	45.05	196.01	109.57	10 0 25	1670.4	-18.03	37.54
90.00	19 45 39	5310.00	27.36	241.07	200.92	82.39	21 14 9	4710.0	26.02	232.65
100.00	10 40 54	2017.74	-22.23	25.94	195.48	110.52	11 14 32	1417.7	-19.24	18.43
100.00	21 10 1	5037.91	28.77	220.83	200.69	81.53	22 33 59	4437.9	27.30	212.33
110.00	11 42 15	1825.67	-25.83	9.78	193.90	113.21	12 12 41	1225.7	-22.46	2.25
110.00	22 25 9	4802.75	32.60	202.21	199.93	79.10	23 45 12	4202.8	30.75	193.48

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 2.7542 TRA 6.1218 TC3-1.4434 BAU 1.0708    SGT 5618.0 SGR  400.3 SG3  119.6     ST  2552.2 SR   298.7 SS   678.4
 RDE  .3734 RRA -.3540 RC3  .0348 FAU .00658    RRT -.3563 RRF -.3458 RTF  .9605     CRT  .6447 CRS -.6434 CST -.9998
 FDE  .7271 FRA 1.6233 FC3 -.1027 BSP  19170    SGB 5632.3 R23  .0022 R13 -.9605     LSA 2647.8 MSA  227.8 SSA   12.1
 BDE 2.7794 BRA 6.1320 BC3 1.4438 FSP   -426    SG1 5619.8 SG2  373.9 THA 178.54     EL1 2559.5 EL2  227.7 ALF   4.35
```

LAUNCH DATE SEP 22 1970 FLIGHT TIME 208.00 ARRIVAL DATE APR 18 1971

HELIOCENTRIC CONIC DISTANCE 597.846

```
RL  150.16 LAL   -.00 LOL 358.58 VL  25.559 GAL  12.93 AZL  87.05 HCA 303.88 SMA 119.09 ECC .33876 INC 2.9472 V1  29.674
RP  108.93 LAP  -2.45 LOP 302.49 VP  36.362 GAP  19.21 AZP  88.36 TAL 151.58 TAP  95.46 RCA  78.74 APO 159.43 V2  34.788
RC 193.340 GL    9.28 GP   11.34 ZAL  38.65 ZAP 168.38 ETS 100.34 ZAE 126.41 ETE 171.55 ZAC 112.63 ETC 274.01 CLP 177.44
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PLANETOCENTRIC CONIC

```
C3  63.104 VHL  7.944 DLA  -5.73 RAL 320.32 RAD 6569.2 VEL 13.582 PTH   2.48 VHP 12.179 DPA -11.27 RAP 300.66 ECC 2.0385
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 23 2	2321.29	-22.01	48.36	199.64	108.28	10 1 43	1721.3	-19.30	40.73
90.00	19 55 31	5321.99	27.46	241.93	204.30	82.81	21 24 13	4722.0	26.18	233.49
100.00	10 41 40	2067.63	-23.38	29.20	199.14	109.17	11 16 8	1467.6	-20.55	21.55
100.00	21 19 34	5050.88	28.90	221.77	204.08	82.01	22 43 45	4450.9	27.49	213.25
110.00	11 43 42	1873.39	-27.07	12.94	197.62	111.72	12 14 56	1273.4	-23.88	5.23
110.00	22 34 1	4817.89	32.79	203.36	203.36	79.75	23 54 18	4217.9	31.03	194.58

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 3.0007 TRA 6.6014 TC3-1.2223 BAU 1.0314    SGT 5599.5 SGR  383.7 SG3  116.1     ST  2597.8 SR   293.6 SS   694.3
 RDE  .3929 RRA -.3521 RC3  .0262 FAU .00522    RRT -.3207 RRF -.3124 RTF  .9639     CRT  .6600 CRS -.6578 CST -.9998
 FDE  .7607 FRA 1.6854 FC3 -.0716 BSP  19164    SGB 5612.6 R23  .0021 R13 -.9639     LSA 2696.0 MSA  220.0 SSA   11.6
 BDE 3.0263 BRA 6.6108 BC3 1.2226 FSP   -413    SG1 5600.8 SG2  363.3 THA 178.74     EL1 2605.1 EL2  219.9 ALF   4.30
```

LAUNCH DATE SEP 22 1970 FLIGHT TIME 210.00 ARRIVAL DATE APR 20 1971

HELIOCENTRIC CONIC DISTANCE 601.899

```
RL  150.16 LAL   -.00 LOL 358.58 VL  25.522 GAL  14.20 AZL  86.78 HCA 307.04 SMA 118.89 ECC .35377 INC 3.2232 V1  29.674
RP  108.94 LAP  -2.57 LOP 305.66 VP  36.335 GAP  20.18 AZP  88.06 TAL 150.31 TAP  97.35 RCA  76.83 APO 160.95 V2  34.786
RC 195.178 GL    9.43 GP   11.16 ZAL  37.41 ZAP 168.30 ETS 105.26 ZAE 126.21 ETE 171.74 ZAC 112.20 ETC 274.55 CLP 176.47
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PLANETOCENTRIC CONIC

```
C3  72.062 VHL  8.489 DLA  -5.17 RAL 321.51 RAD 6569.4 VEL 13.907 PTH   2.54 VHP 12.776 DPA -11.08 RAP 302.86 ECC 2.1860
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 23 35	2370.28	-23.02	51.59	203.22	106.96	10 3 5	1770.3	-20.48	43.84
90.00	20 4 26	5336.25	27.58	242.95	207.62	83.31	21 33 22	4736.3	26.37	234.50
100.00	10 42 29	2115.74	-24.42	32.40	202.74	107.80	11 17 45	1515.7	-21.76	24.61
100.00	21 28 13	5066.02	29.04	222.88	207.42	82.58	22 52 39	4466.0	27.71	214.33
110.00	11 45 8	1919.58	-28.20	16.06	201.29	110.18	12 17 8	1319.6	-25.19	8.18
110.00	22 42 3	4834.94	32.99	204.65	206.73	80.48	24 2 38	4234.9	31.32	195.82

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 3.2652 TRA 7.1195 TC3-1.0182 BAU  .9811    SGT 5579.0 SGR  366.5 SG3  112.9     ST  2637.2 SR   288.3 SS   712.3
 RDE  .4141 RRA -.3467 RC3  .0189 FAU .00378    RRT -.2802 RRF -.2742 RTF  .9674     CRT  .6760 CRS -.6731 CST -.9999
 FDE  .7969 FRA 1.7535 FC3 -.0455 BSP  19071    SGB 5591.0 R23  .0022 R13 -.9674     LSA 2738.6 MSA  211.9 SSA   11.1
 BDE 3.2913 BRA 7.1280 BC3 1.0183 FSP   -399    SG1 5580.0 SG2  351.8 THA 178.94     EL1 2644.4 EL2  211.8 ALF   4.25
```

LAUNCH DATE SEP 22 1970 FLIGHT TIME 212.00 ARRIVAL DATE APR 22 1971

HELIOCENTRIC CONIC DISTANCE 605.636

```
RL  150.16 LAL   -.00 LOL 358.58 VL  25.487 GAL  15.58 AZL  86.48 HCA 310.19 SMA 118.70 ECC .37050 INC 3.5231 V1  29.674
RP  108.94 LAP  -2.69 LOP 308.82 VP  36.309 GAP  21.25 AZP  87.72 TAL 149.13 TAP  99.32 RCA  74.72 APO 162.67 V2  34.785
RC 196.997 GL    9.55 GP   11.00 ZAL  36.30 ZAP 168.11 ETS 110.26 ZAE 125.97 ETE 171.92 ZAC 111.77 ETC 275.07 CLP 175.47
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PLANETOCENTRIC CONIC

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C3  82.642 VHL  9.091 DLA  -4.69 RAL 322.59 RAD 6569.6 VEL 14.282 PTH   2.60 VHP 13.441 DPA -10.85 RAP 305.01 ECC 2.3601
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 24 12	2417.24	-23.91	54.74	206.72	105.63	10 4 29	1817.2	-21.54	46.87
90.00	20 12 26	5352.58	27.70	244.13	210.88	83.89	21 41 38	4752.6	26.57	235.65
100.00	10 43 20	2161.94	-25.35	35.52	206.27	106.40	11 19 22	1561.9	-22.85	27.60
100.00	21 35 59	5083.14	29.18	224.13	210.69	83.22	23 0 42	4483.1	27.94	215.54
110.00	11 46 32	1964.10	-29.20	19.13	204.90	108.61	12 19 16	1364.1	-26.38	11.08
110.00	22 49 16	4853.72	33.19	206.07	210.05	81.31	24 10 10	4253.7	31.63	197.19

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 3.5514 TRA 7.6814 TC3 -.8300 BAU  .9172    SGT 5557.3 SGR  349.1 SG3  109.9     ST  2671.3 SR   282.9 SS   733.0
 RDE  .4372 RRA -.3369 RC3  .0128 FAU .00224    RRT -.2337 RRF -.2300 RTF  .9710     CRT  .6929 CRS -.6896 CST -.9999
 FDE  .8366 FRA 1.8288 FC3 -.0234 BSP  18659    SGB 5568.2 R23  .0023 R13 -.9710     LSA 2777.0 MSA  203.5 SSA   10.6
 BDE 3.5782 BRA 7.6888 BC3  .8301 FSP   -382    SG1 5557.9 SG2  339.4 THA 179.16     EL1 2678.5 EL2  203.4 ALF   4.22
```

LAUNCH DATE SEP 22 1970 FLIGHT TIME 214.00 ARRIVAL DATE APR 24 1971

HELIOCENTRIC CONIC DISTANCE 608.983

RL	150.16	LAL	-.00	LOL	358.58	VL	25.453	GAL	17.09	AZL	86.15	HCA	313.34	SMA	118.51	ECC	.38923	INC	3.8523
RP	108.94	LAP	-2.80	LOP	311.98	VP	36.286	GAP	22.46	AZP	87.35	TAL	148.06	TAP	101.40	RCA	72.38	APO	164.64
RC	198.798	GL	9.64	GP	10.85	ZAL	35.30	ZAP	167.81	ETS	115.29	ZAE	125.67	ETE	172.11	ZAC	111.35	ETC	275.57

V1	29.674	V2	34.785	CLP	174.41														

PLANETOCENTRIC CONIC

C3	95.220	VHL	9.758	DLA	-4.26	RAL	323.55	RAD	6569.9	VEL	14.716	PTH	2.66	VHP	14.185	DPA	-10.59	RAP	307.10
ECC	2.5671																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 24 52	2461.98	-24.70	57.78	210.12	104.30	10 5 54	1862.0	-22.49	49.81
90.00	20 19 29	5370.80	27.83	245.45	214.04	84.54	21 49 0	4770.8	26.78	236.94
100.00	10 44 13	2206.03	-26.16	38.54	209.69	105.01	11 20 59	1606.0	-23.84	30.51
100.00	21 42 49	5101.98	29.33	225.51	213.87	83.94	23 7 51	4502.0	28.18	216.90
110.00	11 47 53	2006.73	-30.09	22.13	208.41	107.04	12 21 19	1406.7	-27.46	13.93
110.00	22 55 39	4874.05	33.39	207.63	213.29	82.21	24 16 53	4274.0	31.95	198.69

DIFFERENTIAL CORRECTIONS

TDE	3.8615	TRA	8.2924	TC3	-.6576	BAU	.0372
RDE	.4626	RRA	-.3219	RC3	.0080	FAU	.00055
FDE	.8802	FRA	1.9124	FC3	-.0050	BSP	18527
BDE	3.8891	BRA	8.2906	BC3	.6577	FSP	-365

MID-COURSE EXECUTION ACCURACY

SGT	5534.1	SGR	331.6	SG3	107.0		
RRT	-.1796	RRF	-.1781	RTF	.9745		
SGB	5544.0	RZ3	.0025	R13	-.9745		
SG1	5534.4	SG2	326.2	THA	179.38		

ORBIT DETERMINATION ACCURACY

ST	2699.6	SR	277.5	SS	756.7		
CRT	.7109	CRS	-.7072	CST	-.9999		
LSA	2810.5	MSA	194.8	SSA	10.1		
EL1	2706.8	EL2	194.7	ALF	4.20		

LAUNCH DATE SEP 22 1970 FLIGHT TIME 216.00 ARRIVAL DATE APR 26 1971

HELIOCENTRIC CONIC DISTANCE 611.846

RL	150.16	LAL	-.00	LOL	358.58	VL	25.421	GAL	18.77	AZL	85.78	HCA	316.49	SMA	118.34	ECC	.41026	INC	4.2176
RP	108.94	LAP	-2.90	LOP	315.15	VP	36.264	GAP	23.81	AZP	86.94	TAL	147.12	TAP	103.61	RCA	69.79	APO	166.89
RC	200.578	GL	9.70	GP	10.70	ZAL	34.42	ZAP	167.38	ETS	120.28	ZAE	125.30	ETE	172.31	ZAC	110.93	ETC	276.04

V1	29.674	V2	34.786	CLP	173.28														

PLANETOCENTRIC CONIC

C3	110.280	VHL	10.501	DLA	-3.90	RAL	324.40	RAD	6570.1	VEL	15.219	PTH	2.73	VHP	15.021	DPA	-10.31	RAP	309.11
ECC	2.8149																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 25 35	2504.25	-25.38	60.69	213.38	103.00	10 7 19	1904.3	-23.34	52.62
90.00	20 25 33	5390.74	27.95	246.90	217.09	85.26	21 55 24	4790.7	27.00	238.36
100.00	10 45 5	2247.75	-26.86	41.44	212.99	103.64	11 22 33	1647.8	-24.72	33.30
100.00	21 48 43	5122.47	29.46	227.02	216.94	84.72	23 14 6	4522.5	28.42	218.37
110.00	11 49 8	2047.23	-30.86	25.04	211.80	105.48	12 23 16	1447.2	-28.43	16.68
110.00	23 1 10	4895.76	33.58	209.29	216.43	83.18	24 22 45	4295.8	32.27	200.31

DIFFERENTIAL CORRECTIONS

TDE	4.1990	TRA	8.9597	TC3	-.5001	BAU	.7373
RDE	.4910	RRA	-.3006	RC3	.0044	FAU	-.00134
FDE	.9285	FRA	2.0059	FC3	.0105	BSP	18050
BDE	4.2276	BRA	8.9647	BC3	.5001	FSP	-345

MID-COURSE EXECUTION ACCURACY

SGT	5510.0	SGR	314.4	SG3	104.4		
RRT	-.1164	RRF	-.1170	RTF	.9780		
SGB	5518.9	RZ3	.0028	R13	-.9780		
SG1	5510.1	SG2	312.3	THA	179.62		

ORBIT DETERMINATION ACCURACY

ST	2722.2	SR	272.4	SS	784.0		
CRT	.7299	CRS	-.7261	CST	-.9999		
LSA	2839.8	MSA	185.9	SSA	9.6		
EL1	2729.5	EL2	185.7	ALF	4.20		

LAUNCH DATE SEP 22 1970 FLIGHT TIME 218.00 ARRIVAL DATE APR 28 1971

HELIOCENTRIC CONIC DISTANCE 614.095

RL	150.16	LAL	-.00	LOL	358.58	VL	25.391	GAL	20.63	AZL	85.37	HCA	319.64	SMA	118.18	ECC	.43395	INC	4.6278
RP	108.93	LAP	-3.00	LOP	318.31	VP	36.243	GAP	25.35	AZP	86.47	TAL	146.34	TAP	105.98	RCA	66.89	APO	169.46
RC	202.339	GL	9.74	GP	10.57	ZAL	33.68	ZAP	166.82	ETS	125.20	ZAE	124.86	ETE	172.52	ZAC	110.52	ETC	276.49

V1	29.674	V2	34.787	CLP	172.07														

PLANETOCENTRIC CONIC

C3	120.454	VHL	11.334	DLA	-3.62	RAL	325.12	RAD	6570.4	VEL	15.805	PTH	2.80	VHP	15.968	DPA	-10.01	RAP	311.05
ECC	3.1140																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 26 18	2543.73	-25.96	63.44	216.47	101.73	10 8 41	1943.7	-24.08	55.28
90.00	20 30 35	5412.29	28.06	248.47	220.01	86.04	22 0 47	4812.3	27.22	239.90
100.00	10 45 57	2286.79	-27.46	44.19	216.12	102.31	11 24 4	1686.8	-25.49	35.94
100.00	21 53 37	5144.46	29.59	228.64	219.88	85.56	23 19 21	4544.5	28.66	219.96
110.00	11 50 19	2085.30	-31.52	27.81	215.03	103.96	12 25 4	1485.3	-29.28	19.82
110.00	23 5 44	4918.73	33.75	211.07	219.44	84.21	24 27 43	4318.7	32.58	202.03

DIFFERENTIAL CORRECTIONS

TDE	4.5285	TRA	9.6507	TC3	-.3694	BAU	.6345
RDE	.5232	RRA	-.2713	RC3	.0021	FAU	-.00305
FDE	.9730	FRA	2.1014	FC3	.0206	BSP	18367
BDE	4.5587	BRA	9.6545	BC3	.3695	FSP	-343

MID-COURSE EXECUTION ACCURACY

SGT	5462.6	SGR	298.1	SG3	101.4		
RRT	-.0432	RRF	-.0456	RTF	.9813		
SGB	5470.7	RZ3	.0031	R13	-.9813		
SG1	5462.6	SG2	297.8	THA	179.86		

ORBIT DETERMINATION ACCURACY

ST	2718.9	SR	267.7	SS	809.1		
CRT	.7489	CRS	-.7449	CST	-.9999		
LSA	2843.8	MSA	177.1	SSA	9.1		
EL1	2726.3	EL2	176.9	ALF	4.23		

LAUNCH DATE SEP 22 1970 FLIGHT TIME 220.00 ARRIVAL DATE APR 30 1971

HELIOCENTRIC CONIC DISTANCE 615.575

RL	150.16	LAL	-.00	LOL	358.58	VL	25.362	GAL	22.72	AZL	84.91	HCA	322.79	SMA	118.03	ECC	.46073	INC	5.0948
RP	108.93	LAP	-3.08	LOP	321.48	VP	36.225	GAP	27.10	AZP	85.94	TAL	145.75	TAP	108.54	RCA	63.85	APO	172.40
RC	204.080	GL	9.75	GP	10.43	ZAL	33.09	ZAP	166.10	ETS	129.99	ZAE	124.32	ETE	172.74	ZAC	110.11	ETC	276.90

V1	29.674	V2	34.789	CLP	170.77														

PLANETOCENTRIC CONIC

C3	150.579	VHL	12.271	DLA	-3.40	RAL	325.70	RAD	6570.6	VEL	16.490	PTH	2.87	VHP	17.046	DPA	-9.71	RAP	312.88
ECC	3.4781																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 27 1	2580.06	-26.43	65.99	219.36	100.54	10 10 1	1980.1	-24.71	57.75
90.00	20 34 28	5435.38	28.16	250.15	222.76	86.87	22 5 4	4835.4	27.43	241.56
100.00	10 46 46	2322.79	-27.95	46.75	219.03	101.05	11 25 29	1722.8	-26.14	38.42
100.00	21 57 24	5167.88	29.70	230.37	222.66	86.47	23 23 32	4567.9	28.90	221.66
110.00	11 51 22	2120.57	-32.07	30.41	218.04	102.52	12 26 42	1520.6	-30.02	21.80
110.00	23 9 18	4942.86	33.90	212.93	222.30	85.31	24 31 41	4342.9	32.88	203.85

DIFFERENTIAL CORRECTIONS

TDE	4.9024	TRA	10.4228	TC3	-.2468	BAU	.4968
RDE	.5984	RRA	-.2330	RC3	.0007	FAU	-.00524
FDE	1.0266	FRA	2.2131	FC3	.0302	BSP	18290
BDE	4.9342	BRA	10.4254	BC3	.2468	FSP	-334

MID-COURSE EXECUTION ACCURACY

SGT	5419.8	SGR	285.1	SG3	98.8		
RRT	.0427	RRF	.0386	RTF	.9844		
SGB	5427.1	RZ3	-.0035	R13	.9844		
SG1	5419.8	SG2	282.8	THA	.13		

ORBIT DETERMINATION ACCURACY

ST	2716.4	SR	263.3	SS	841.2		
CRT	.7692	CRS	-.7652	CST	-.9999		
LSA	2850.9	MSA	168.0	SSA	8.5		
EL1	2724.0	EL2	167.7	ALF	4.28		

LAUNCH DATE SEP 23 1970 FLIGHT TIME 70.00 ARRIVAL DATE DEC 2 1970

HELIOCENTRIC CONIC DISTANCE 186.408

RL	150.11	LAL	-.00	LOL	359.55	VL	26.800	GAL	-9.31	AZL	89.65	HCA	82.79	SMA	126.40	ECC	.24586	INC	.3538
RP	107.72	LAP	.35	LOP	82.34	VP	37.604	GAP	-11.46	AZP	89.96	TAL	211.84	TAP	294.63	RCA	95.32	APO	157.48
RC	48.893	GL	1.86	GP	-16.00	ZAL	139.95	ZAP	20.19	ETS	47.75	ZAE	146.90	ETE	333.03	ZAC	85.97	ETC	261.66

PLANETOCENTRIC CONIC

C3	25.295	VHL	5.029	DLA	-12.91	RAL	217.78	RAD	6568.0	VEL	12.111	PTH	2.17	VHP	7.770	DPA	-37.16	RAP	244.24

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 27 44	1858.46	-9.64	20.07	81.34	116.75	3 58 43	1258.5	-5.97	13.31
90.00	12 4 50	5328.30	27.52	242.38	87.78	83.03	13 33 38	4728.3	26.27	233.94
100.00	4 42 23	1617.61	-10.83	1.74	80.71	118.03	5 9 21	1017.6	-6.99	355.04
100.00	13 32 52	5044.39	28.84	221.30	87.58	81.77	14 56 56	4444.4	27.40	212.79
110.00	5 35 34	1451.05	-13.92	347.29	78.90	121.54	5 59 45	851.1	-9.64	340.80
110.00	14 56 11	4783.71	32.35	200.79	86.86	78.29	16 15 54	4183.7	30.39	192.12

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0982	TRA	-.3418	TC3	.4756	BAU	.1834	SGT	633.2	SGR	464.1	SG3	119.6	ST	164.6	SR	348.9	SS	194.7
RDE	-.3031	RRA	-.1416	RC3	-.2607	FAU	.03902	RRT	-.3533	RRF	.4428	RTF	-.6155	CRT	-.5709	CRS	.9332	CST	-.7840
FDE	.2477	FRA	-.1532	FC3	-1.3355	BSP	1678	SGB	785.1	R23	-.0836	R13	.6598	LSA	409.5	MSA	134.4	SSA	31.4
BDE	.3186	BRA	.3700	BC3	.5423	FSP	-296	SG1	665.6	SG2	416.2	THA	156.73	EL1	363.3	EL2	129.8	ALF	107.35

LAUNCH DATE SEP 23 1970 FLIGHT TIME 72.00 ARRIVAL DATE DEC 4 1970

HELIOCENTRIC CONIC DISTANCE 193.230

RL	150.11	LAL	-.00	LOL	359.55	VL	26.960	GAL	-9.25	AZL	89.46	HCA	86.02	SMA	127.45	ECC	.23807	INC	.5421
RP	107.69	LAP	.54	LOP	85.57	VP	37.727	GAP	-10.54	AZP	89.96	TAL	213.23	TAP	299.25	RCA	97.10	APO	157.79
RC	50.451	GL	2.93	GP	-17.08	ZAL	141.33	ZAP	22.77	ETS	43.52	ZAE	146.02	ETE	331.16	ZAC	84.93	ETC	261.72

PLANETOCENTRIC CONIC

C3	24.310	VHL	4.931	DLA	-11.45	RAL	216.73	RAD	6568.0	VEL	12.070	PTH	2.16	VHP	7.301	DPA	-38.30	RAP	244.41

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 11 9	1898.27	-10.85	22.37	79.64	116.32	3 42 47	1298.3	-7.23	15.56
90.00	12 13 3	5268.95	26.95	238.13	85.34	80.97	13 40 52	4669.0	25.43	229.79
100.00	4 26 42	1654.49	-12.00	3.85	79.05	117.59	4 54 17	1054.5	-8.21	357.11
100.00	13 40 11	4987.97	28.22	217.22	85.09	79.71	15 3 19	4368.0	26.51	208.84
110.00	5 21 52	1481.73	-15.00	349.01	77.31	121.08	5 46 34	881.7	-10.77	342.45
110.00	15 1 30	4733.49	31.59	197.07	84.27	76.20	16 20 24	4133.5	29.37	188.56

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0862	TRA	-.3287	TC3	.5079	BAU	.1924	SGT	642.5	SGR	480.7	SG3	134.9	ST	154.7	SR	335.2	SS	234.4
RDE	-.2847	RRA	-.1499	RC3	-.3043	FAU	.04273	RRT	-.3696	RRF	.4950	RTF	-.6238	CRT	-.5216	CRS	.9295	CST	-.7602
FDE	.3118	FRA	-.1941	FC3	-1.5218	BSP	1765	SGB	802.4	R23	-.0960	R13	.6789	LSA	414.5	MSA	135.3	SSA	33.0
BDE	.2974	BRA	.3613	BC3	.5920	FSP	-342	SG1	684.0	SG2	419.5	THA	154.26	EL1	346.4	EL2	127.8	ALF	105.73

LAUNCH DATE SEP 23 1970 FLIGHT TIME 74.00 ARRIVAL DATE DEC 6 1970

HELIOCENTRIC CONIC DISTANCE 200.038

RL	150.11	LAL	-.00	LOL	359.55	VL	27.102	GAL	-9.21	AZL	89.27	HCA	89.25	SMA	128.39	ECC	.23129	INC	.7291
RP	107.67	LAP	.73	LOP	88.80	VP	37.837	GAP	-9.66	AZP	89.99	TAL	214.56	TAP	303.81	RCA	98.70	APO	158.09
RC	52.096	GL	4.03	GP	-18.26	ZAL	142.57	ZAP	25.59	ETS	39.99	ZAE	145.32	ETE	329.01	ZAC	83.77	ETC	261.75

PLANETOCENTRIC CONIC

C3	23.517	VHL	4.849	DLA	-9.98	RAL	215.81	RAD	6568.0	VEL	12.037	PTH	2.15	VHP	6.864	DPA	-39.52	RAP	244.37

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 55 28	1938.65	-12.06	24.72	78.23	115.82	3 27 47	1338.6	-8.49	17.86
90.00	12 21 24	5212.33	26.29	234.12	83.18	79.07	13 48 16	4612.3	24.51	225.90
100.00	4 11 53	1692.14	-13.17	6.02	77.66	117.08	4 40 5	1092.1	-9.44	359.22
100.00	13 47 41	4934.07	27.50	213.37	82.90	77.81	15 9 55	4334.1	25.55	205.12
110.00	5 8 55	1513.52	-16.11	350.80	75.99	120.56	5 34 8	913.5	-11.93	344.18
110.00	15 7 8	4685.45	30.76	193.57	81.98	74.29	16 25 13	4085.4	28.30	185.24

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0744	TRA	-.3175	TC3	.5330	BAU	.2009	SGT	648.1	SGR	501.0	SG3	151.9	ST	145.0	SR	317.8	SS	277.5
RDE	-.2645	RRA	-.1590	RC3	-.3527	FAU	.04685	RRT	-.4053	RRF	.5496	RTF	-.6280	CRT	-.4573	CRS	.9240	CST	-.7256
FDE	.3870	FRA	-.2390	FC3	-1.7247	BSP	1851	SGB	819.2	R23	-.1099	R13	.6975	LSA	423.3	MSA	136.8	SSA	34.1
BDE	.2747	BRA	.3551	BC3	.6391	FSP	-394	SG1	701.4	SG2	423.2	THA	151.35	EL1	325.9	EL2	125.7	ALF	103.89

LAUNCH DATE SEP 23 1970 FLIGHT TIME 76.00 ARRIVAL DATE DEC 8 1970

HELIOCENTRIC CONIC DISTANCE 206.828

RL	150.11	LAL	-.00	LOL	359.55	VL	27.227	GAL	-9.17	AZL	89.08	HCA	92.48	SMA	129.24	ECC	.22541	INC	.9159
RP	107.64	LAP	.92	LOP	92.04	VP	37.935	GAP	-8.82	AZP	90.04	TAL	215.81	TAP	308.29	RCA	100.11	APO	158.37
RC	53.818	GL	5.15	GP	-19.56	ZAL	143.64	ZAP	28.65	ETS	36.99	ZAE	144.76	ETE	326.54	ZAC	82.49	ETC	261.73

PLANETOCENTRIC CONIC

C3	22.881	VHL	4.783	DLA	-8.52	RAL	215.02	RAD	6567.9	VEL	12.011	PTH	2.14	VHP	6.461	DPA	-40.81	RAP	244.11

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 40 43	1979.35	-13.25	27.11	77.10	115.25	3 13 42	1379.3	-9.74	20.19
90.00	12 29 55	5158.26	25.53	230.34	81.31	77.32	13 55 53	4558.3	23.53	222.24
100.00	3 57 55	1730.27	-14.34	8.25	76.55	116.51	4 26 46	1130.3	-10.67	1.39
100.00	13 55 23	4882.57	26.71	209.75	81.00	76.06	15 16 46	4282.6	24.53	201.63
110.00	4 56 44	1546.11	-17.23	352.67	74.94	119.99	5 22 30	946.1	-13.11	345.97
110.00	15 13 4	4639.49	29.86	190.29	79.99	72.54	16 30 23	4039.5	27.19	182.12

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0831	TRA	-.3086	TC3	.5493	BAU	.2090	SGT	649.3	SGR	526.1	SG3	170.7	ST	136.1	SR	296.5	SS	323.9
RDE	-.2420	RRA	-.1689	RC3	-.4061	FAU	.05138	RRT	-.4380	RRF	.6053	RTF	-.6271	CRT	-.3767	CRS	.9160	CST	-.6805
FDE	.4742	FRA	-.2874	FC3	-1.9440	BSP	1930	SGB	835.7	R23	-.1250	R13	.7162	LSA	436.9	MSA	138.8	SSA	34.5
BDE	.2501	BRA	.3518	BC3	.6831	FSP	-451	SG1	717.9	SG2	427.7	THA	147.91	EL1	301.8	EL2	123.9	ALF	101.83

LAUNCH DATE SEP 23 1970 FLIGHT TIME 78.00 ARRIVAL DATE DEC 10 1970

HELIOCENTRIC CONIC DISTANCE 213.597

RL	150.11	LAL	-.00	LOL	359.55	VL	27.336	GAL	-9.13	AZL	88.90	HCA	95.71	SMA	129.99	ECC	.22033	INC	1.1036	V1	29.682
RP	107.81	LAP	1.10	LOP	95.27	VP	38.021	GAP	-8.02	AZP	90.11	TAL	216.95	TAP	312.67	RCA	101.35	APO	158.64	V2	35.214
RC	55.612	GL	8.31	GP	-20.99	ZAL	144.55	ZAP	31.94	ETS	34.57	ZAE	144.33	ETE	323.70	ZAC	81.06	ETC	261.67	CLP	-24.65

PLANETOCENTRIC CONIC

C3	22.378	VHL	4.730	DLA	-7.08	RAL	214.38	RAD	6567.9	VEL	11.990	PTH	2.14	VHP	6.090	DPA	-42.18	RAP	243.58	ECC	1.3682

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 26 53	2020.21	-14.43	29.54	76.23	114.63	3 0 33	1420.2	-10.99	22.55
90.00	12 38 37	5106.55	24.71	226.77	79.71	75.71	14 3 44	4506.5	22.51	218.80
100.00	3 44 50	1768.72	-15.50	10.52	75.70	115.88	4 14 19	1168.7	-11.89	3.59
100.00	14 3 21	4833.27	25.86	206.34	79.38	74.45	15 23 54	4233.3	23.47	198.35
110.00	4 45 21	1579.28	-18.35	354.59	74.14	119.36	5 11 40	979.3	-14.30	347.81
110.00	15 19 20	4595.48	28.92	187.21	78.30	70.93	16 35 56	3995.5	26.05	179.21

DIFFERENTIAL CORRECTIONS

TDE	.0528	TRA	-.3028	TC3	.5555	BAU	.2167	SGT	645.5	SGR	557.0	SG3	191.3	ST	128.9	SR	270.7
RDE	-.2166	RRA	-.1794	RC3	-.4649	FAU	.05630	RRT	-.4646	RRF	.6601	RTF	-.6199	CRT	-.2782	CRS	.9037
FDE	.5751	FRA	-.3584	FC3	-2.1781	BSP	2004	SGB	852.6	RZS	-.1400	R13	.7357	LSA	456.6	MSA	140.9
BDE	.2229	BRA	.3518	BC3	.7244	FSP	-515	SG1	734.0	SG2	433.7	THA	143.84	EL1	273.7	EL2	122.5

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

SS	373.7	CST	-.6261	ALF	99.45
SSA	34.4				

LAUNCH DATE SEP 23 1970 FLIGHT TIME 80.00 ARRIVAL DATE DEC 12 1970

HELIOCENTRIC CONIC DISTANCE 220.343

RL	150.11	LAL	-.00	LOL	359.55	VL	27.431	GAL	-9.10	AZL	88.71	HCA	98.95	SMA	130.66	ECC	.21595	INC	1.2937	V1	29.682
RP	107.59	LAP	1.28	LOP	98.51	VP	38.096	GAP	-7.26	AZP	90.20	TAL	217.99	TAP	316.94	RCA	102.44	APO	158.87	V2	35.222
RC	57.489	GL	7.50	GP	-22.55	ZAL	145.27	ZAP	35.47	ETS	32.01	ZAE	143.99	ETE	320.44	ZAC	79.49	ETC	261.56	CLP	-28.13

PLANETOCENTRIC CONIC

C3	21.978	VHL	4.688	DLA	-5.65	RAL	213.88	RAD	6567.9	VEL	11.973	PTH	2.13	VHP	5.752	DPA	-43.63	RAP	242.74	ECC	1.3617

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 13 55	2061.17	-15.57	32.00	75.61	113.95	2 48 17	1461.2	-12.21	24.94
90.00	12 47 36	5056.91	23.83	223.40	78.38	74.24	14 11 53	4456.9	21.44	215.55
100.00	3 32 36	1807.38	-16.63	12.83	75.10	115.20	4 2 43	1207.4	-13.10	5.82
100.00	14 11 37	4785.93	24.95	203.11	78.02	72.98	15 31 23	4185.9	22.39	195.25
110.00	4 34 43	1612.87	-19.46	356.56	73.60	118.68	5 1 36	1012.9	-15.48	349.70
110.00	15 25 58	4553.21	27.95	184.30	76.88	69.47	16 41 51	3953.2	24.90	176.46

DIFFERENTIAL CORRECTIONS

TDE	.0448	TRA	-.2997	TC3	.5502	BAU	.2244	SGT	636.1	SGR	595.0	SG3	213.7	ST	124.2	SR	240.4
RDE	-.1877	RRA	-.1908	RC3	-.5296	FAU	.06159	RRT	-.4822	RRF	.7128	RTF	-.6042	CRT	-.1686	CRS	.8835
FDE	.6895	FRA	-.3916	FC3	-2.4259	BSP	2082	SGB	871.0	RZS	-.1525	R13	.7571	LSA	483.1	MSA	142.9
BDE	.1930	BRA	.3552	BC3	.7637	FSP	-585	SG1	750.7	SG2	441.7	THA	138.94	EL1	241.6	EL2	121.8

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

SS	426.3	CST	-.5728	ALF	96.69
SSA	33.8				

LAUNCH DATE SEP 23 1970 FLIGHT TIME 82.00 ARRIVAL DATE DEC 14 1970

HELIOCENTRIC CONIC DISTANCE 227.064

RL	150.11	LAL	-.00	LOL	359.55	VL	27.512	GAL	-9.07	AZL	88.51	HCA	102.19	SMA	131.24	ECC	.21217	INC	1.4872	V1	29.682
RP	107.57	LAP	1.45	LOP	101.74	VP	38.161	GAP	-6.52	AZP	90.31	TAL	218.91	TAP	321.09	RCA	103.39	APO	159.08	V2	35.229
RC	59.382	GL	8.71	GP	-24.24	ZAL	145.81	ZAP	39.22	ETS	29.80	ZAE	143.70	ETE	316.71	ZAC	77.77	ETC	261.39	CLP	-31.83

PLANETOCENTRIC CONIC

C3	21.671	VHL	4.655	DLA	-4.23	RAL	213.53	RAD	6567.9	VEL	11.960	PTH	2.13	VHP	5.447	DPA	-45.15	RAP	241.55	ECC	1.3566

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 1 48	2102.23	-16.69	34.49	75.23	113.21	2 36 50	1502.2	-13.41	27.35
90.00	12 56 53	5009.04	22.91	220.20	77.31	72.89	14 20 22	4409.0	20.35	212.46
100.00	3 21 9	1846.22	-17.75	15.18	74.75	114.46	3 51 55	1246.2	-14.30	8.09
100.00	14 20 13	4740.28	24.01	200.05	76.92	71.64	15 39 13	4140.3	21.28	192.32
110.00	4 24 51	1646.82	-20.55	358.58	73.29	117.94	4 52 18	1046.8	-16.65	351.63
110.00	15 33 0	4512.45	26.95	181.56	75.73	68.12	16 48 13	3912.4	23.73	173.87

DIFFERENTIAL CORRECTIONS

TDE	.0396	TRA	-.3005	TC3	.5313	BAU	.2322	SGT	620.2	SGR	640.8	SG3	237.4	ST	122.4	SR	205.2
RDE	-.1546	RRA	-.2025	RC3	-.6000	FAU	.06713	RRT	-.4854	RRF	.7610	RTF	-.5765	CRT	-.0469	CRS	.8480
FDE	.8189	FRA	-.4446	FC3	-2.6817	BSP	2156	SGB	891.8	RZS	-.1589	R13	.7810	LSA	517.1	MSA	144.3
BDE	.1596	BRA	.3623	BC3	.8014	FSP	-660	SG1	768.8	SG2	452.0	THA	133.07	EL1	205.3	EL2	122.1

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

SS	481.9	CST	-.5292	ALF	92.48
SSA	32.7				

LAUNCH DATE SEP 23 1970 FLIGHT TIME 84.00 ARRIVAL DATE DEC 16 1970

HELIOCENTRIC CONIC DISTANCE 233.758

RL	150.11	LAL	-.00	LOL	359.55	VL	27.582	GAL	-9.03	AZL	88.31	HCA	105.42	SMA	131.73	ECC	.20892	INC	1.6855	V1	29.682
RP	107.55	LAP	1.62	LOP	104.98	VP	38.217	GAP	-5.82	AZP	90.45	TAL	219.70	TAP	325.12	RCA	104.21	APO	159.26	V2	35.235
RC	61.346	GL	9.96	GP	-26.07	ZAL	146.16	ZAP	43.20	ETS	27.66	ZAE	143.40	ETE	312.49	ZAC	75.90	ETC	261.16	CLP	-35.76

PLANETOCENTRIC CONIC

C3	21.439	VHL	4.630	DLA	-2.82	RAL	213.31	RAD	6567.9	VEL	11.951	PTH	2.13	VHP	5.176	DPA	-46.73	RAP	239.97	ECC	1.3528

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 50 25	2143.48	-17.78	37.03	75.09	112.41	2 26 8	1543.5	-14.59	29.81
90.00	13 6 35	4982.60	21.95	217.13	76.47	71.65	14 29 16	4382.6	19.24	209.51
100.00	3 10 27	1885.33	-18.83	17.58	74.62	113.65	3 41 52	1285.3	-15.47	10.39
100.00	14 29 13	4695.98	23.03	197.12	76.07	70.39	15 47 29	4096.0	20.14	189.51
110.00	4 15 40	1681.15	-21.63	.66	73.21	117.14	4 43 41	1081.1	-17.82	353.60
110.00	15 40 29	4472.93	25.92	178.95	74.83	66.89	16 55 2	3872.9	22.56	171.40

DIFFERENTIAL CORRECTIONS

TDE	.0387	TRA	-.3053	TC3	.4981	BAU	.2407	SGT	590.4	SGR	695.5	SG3	262.2	ST	123.9	SR	166.1
RDE	-.1168	RRA	-.2145	RC3	-.6763	FAU	.07284	RRT	-.4691	RRF	.8040	RTF	-.5323	CRT	.0910	CRS	.7767
FDE	.9615	FRA	-.4980	FC3	-2.9414	BSP	2244	SGB	917.6	RZS	-.1547	R13	.8083	LSA	558.7	MSA	145.1
BDE	.1230	BRA	.3732	BC3	.8399	FSP	-740	SG1	791.2	SG2	464.6	THA	126.08	EL1	167.0	EL2	122.8

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

SS	539.7	CST	-.5130	ALF	81.49
SSA	31.5				

LAUNCH DATE SEP 23 1970 FLIGHT TIME 86.00 ARRIVAL DATE DEC 18 1970

HELIOCENTRIC CONIC DISTANCE 240.424

RL 150.11 LAL -.00 LOL 359.55 VL 27.639 GAL -9.00 AZL 88.11 HCA 108.66 SMA 132.15 ECC .20613 INC 1.8902 V1 29.682
RP 107.53 LAP 1.79 LOP 108.23 VP 38.263 GAP -5.15 AZP 90.60 TAL 220.37 TAP 329.03 RCA 104.91 APO 159.39 V2 35.240
RC 63.355 GL 11.26 GP -28.02 ZAL 146.32 ZAP 47.39 ETS 25.51 ZAE 143.03 ETE 307.77 ZAC 73.88 ETC 260.86 CLP -39.93

PLANETOCENTRIC CONIC

C3 21.272 VHL 4.612 DLA -1.42 RAL 213.24 RAD 6567.9 VEL 11.944 PTH 2.13 VHP 4.938 DPA -48.36 RAP 237.95 ECC 1.3501

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 39 43	2185.09	-18.84	39.62	75.18	111.54	2 16 8	1585.1	-15.75	32.31
90.00	13 16 41	4917.22	20.95	214.18	75.87	70.50	14 38 38	4317.2	18.10	206.67
100.00	3 0 23	1924.84	-19.89	20.03	74.72	112.78	3 32 28	1324.8	-16.63	12.75
100.00	14 38 41	4652.71	22.01	194.31	75.45	69.25	15 56 13	4052.7	18.99	186.82
110.00	4 7 7	1715.96	-22.70	2.80	73.35	116.27	4 35 43	1116.0	-18.98	355.64
110.00	15 48 26	4434.35	24.86	176.45	74.16	65.75	17 2 21	3834.3	21.37	169.03

DIFFERENTIAL CORRECTIONS
TDE .0434 TRA -.3144 TC3 .4490 BAU .2506
RDE -.0738 RRA -.2265 RC3 -.7581 FAU .07854
FDE 1.1156 FRA -.5433 FC3-3.1965 BSP 2353
BDE .0856 BRA .3875 BC3 .8811 FSP -823

MID-COURSE EXECUTION ACCURACY
SGT 571.9 SGR 759.4 SG3 287.5
RRT -.4250 RRF .8410 RTF -.4639
SGB 950.7 R23 -.1363 R13 .8382
SG1 821.4 SG2 478.6 THA 117.97

ORBIT DETERMINATION ACCURACY
ST 129.6 SR 126.4 SS 598.8
CRT .2864 CRS .6096 CST -.5353
LSA 607.7 MSA 145.3 SSA 30.1
EL1 145.3 EL2 108.1 ALF 42.51

LAUNCH DATE SEP 23 1970 FLIGHT TIME 88.00 ARRIVAL DATE DEC 20 1970

HELIOCENTRIC CONIC DISTANCE 247.061

RL 150.11 LAL -.00 LOL 359.55 VL 27.687 GAL -8.96 AZL 87.90 HCA 111.90 SMA 132.50 ECC .20372 INC 2.1029 V1 29.682
RP 107.52 LAP 1.95 LOP 111.47 VP 38.302 GAP -4.51 AZP 90.78 TAL 220.90 TAP 332.80 RCA 105.51 APO 159.49 V2 35.245
RC 65.403 GL 12.60 GP -30.08 ZAL 146.29 ZAP 51.78 ETS 23.29 ZAE 142.52 ETE 302.56 ZAC 71.73 ETC 260.48 CLP -44.36

PLANETOCENTRIC CONIC

C3 21.162 VHL 4.600 DLA -.02 RAL 213.31 RAD 6567.9 VEL 11.939 PTH 2.12 VHP 4.735 DPA -49.99 RAP 235.46 ECC 1.3483

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 29 35	2227.33	-19.88	42.29	75.48	110.59	2 6 42	1627.3	-16.90	34.88
90.00	13 27 20	4872.48	19.90	211.32	75.49	69.43	14 48 33	4272.5	16.93	203.91
100.00	2 50 55	1964.97	-20.93	22.56	75.04	111.84	3 23 40	1365.0	-17.78	15.18
100.00	14 48 41	4610.07	20.96	191.58	75.05	68.18	16 5 31	4010.1	17.81	184.20
110.00	3 59 8	1751.41	-23.75	5.02	73.71	115.34	4 28 19	1151.4	-20.14	357.74
110.00	15 56 57	4396.39	23.78	174.03	73.72	64.69	17 10 14	3796.4	20.17	166.75

DIFFERENTIAL CORRECTIONS
TDE .0549 TRA -.3282 TC3 .3828 BAU .2622
RDE -.0251 RRA -.2377 RC3 -.8441 FAU .08397
FDE 1.2789 FRA -.5826 FC3-3.4352 BSP 2489
BDE .0604 BRA .4053 BC3 .9268 FSP -904

MID-COURSE EXECUTION ACCURACY
SGT 543.9 SGR 831.7 SG3 312.2
RRT -.3418 RRF .8717 RTF -.3600
SGB 993.8 R23 -.1032 R13 .8681
SG1 863.1 SG2 492.6 THA 109.00

ORBIT DETERMINATION ACCURACY
ST 140.8 SR 97.0 SS 658.9
CRT .6227 CRS .1811 CST -.5938
LSA 664.6 MSA 144.8 SSA 28.5
EL1 156.8 EL2 68.2 ALF 29.25

LAUNCH DATE SEP 23 1970 FLIGHT TIME 90.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 253.668

RL 150.11 LAL -.00 LOL 359.55 VL 27.725 GAL -8.92 AZL 87.67 HCA 115.14 SMA 132.78 ECC .20164 INC 2.3256 V1 29.682
RP 107.51 LAP 2.11 LOP 114.71 VP 38.333 GAP -3.89 AZP 90.99 TAL 221.31 TAP 336.45 RCA 106.00 APO 159.55 V2 35.249
RC 67.486 GL 14.00 GP -32.23 ZAL 146.06 ZAP 56.32 ETS 20.93 ZAE 141.82 ETE 296.94 ZAC 69.46 ETC 260.03 CLP -49.04

PLANETOCENTRIC CONIC

C3 21.103 VHL 4.594 DLA 1.40 RAL 213.51 RAD 6567.9 VEL 11.937 PTH 2.12 VHP 4.568 DPA -51.60 RAP 232.48 ECC 1.3473

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 19 55	2270.49	-20.89	45.05	76.00	109.57	1 57 45	1670.5	-18.03	37.55
90.00	13 38 38	4827.98	18.81	208.50	75.32	68.44	14 59 6	4228.0	15.72	201.20
100.00	2 41 54	2006.02	-21.95	25.19	75.58	110.82	3 15 20	1406.0	-18.92	17.70
100.00	14 59 20	4567.69	19.86	188.91	74.87	67.19	16 15 28	3967.7	16.60	181.64
110.00	3 51 38	1787.75	-24.79	7.33	74.30	114.33	4 21 26	1187.8	-21.29	359.92
110.00	16 6 5	4358.72	22.66	171.68	73.50	63.69	17 18 44	3758.7	18.94	164.52

DIFFERENTIAL CORRECTIONS
TDE .0718 TRA -.3502 TC3 .2920 BAU .2745
RDE .0317 RRA -.2450 RC3 -.9281 FAU .08838
FDE 1.4566 FRA -.6006 FC3-3.6258 BSP 2587
BDE .0785 BRA .4275 BC3 .9730 FSP -960

MID-COURSE EXECUTION ACCURACY
SGT 520.5 SGR 906.7 SG3 334.2
RRT -.1942 RRF .8958 RTF -.2005
SGB 1045.5 R23 -.0529 R13 .8946
SG1 914.9 SG2 506.1 THA 99.20

ORBIT DETERMINATION ACCURACY
ST 158.9 SR 103.1 SS 723.6
CRT .9371 CRS -.5025 CST -.6565
LSA 733.3 MSA 145.1 SSA 26.5
EL1 187.0 EL2 30.6 ALF 32.26

LAUNCH DATE SEP 23 1970 FLIGHT TIME 92.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 260.244

RL 150.11 LAL -.00 LOL 359.55 VL 27.754 GAL -8.87 AZL 87.44 HCA 118.38 SMA 132.99 ECC .19985 INC 2.5605 V1 29.682
RP 107.50 LAP 2.25 LOP 117.96 VP 38.357 GAP -3.30 AZP 91.22 TAL 221.60 TAP 339.98 RCA 106.41 APO 159.57 V2 35.253
RC 69.600 GL 15.47 GP -34.45 ZAL 145.65 ZAP 60.99 ETS 18.38 ZAE 140.86 ETE 291.00 ZAC 67.10 ETC 259.49 CLP -53.98

PLANETOCENTRIC CONIC

C3 21.097 VHL 4.593 DLA 2.83 RAL 213.85 RAD 6567.9 VEL 11.936 PTH 2.12 VHP 4.437 DPA -53.16 RAP 229.00 ECC 1.3472

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 10 35	2315.06	-21.87	47.95	76.74	108.44	1 49 10	1715.1	-19.15	40.33
90.00	13 50 41	4783.28	17.67	205.72	75.37	67.51	15 10 25	4183.3	14.47	198.51
100.00	2 33 15	2048.43	-22.95	27.94	76.34	109.70	3 7 24	1448.4	-20.05	20.34
100.00	15 10 43	4525.14	18.72	186.27	74.91	66.26	16 26 8	3925.1	15.35	179.10
110.00	3 44 32	1825.34	-25.82	9.76	75.10	113.22	4 14 57	1225.3	-22.45	2.23
110.00	16 15 55	4321.00	21.50	169.36	73.49	62.76	17 27 56	3721.0	17.68	162.32

DIFFERENTIAL CORRECTIONS
TDE .1056 TRA -.3700 TC3 .1961 BAU .2931
RDE .0994 RRA -.2546 RC3-1.0206 FAU .09287
FDE 1.6122 FRA -.6245 FC3-3.8111 BSP 2888
BDE .1383 BRA .4491 BC3 1.0393 FSP -1051

MID-COURSE EXECUTION ACCURACY
SGT 513.2 SGR 996.3 SG3 355.3
RRT -.0142 RRF .9165 RTF -.0025
SGB 1120.7 R23 -.0151 R13 .9164
SG1 996.3 SG2 513.1 THA 90.57

ORBIT DETERMINATION ACCURACY
ST 191.3 SR 149.4 SS 777.2
CRT .9712 CRS -.8237 CST -.7651
LSA 801.2 MSA 143.0 SSA 25.3
EL1 241.1 EL2 28.3 ALF 37.80

LAUNCH DATE SEP 23 1970 FLIGHT TIME 94.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 266.790

RL	150.11	LAL	-.00	LOL	359.55	VL	27.775	GAL	-8.81	AZL	87.19	HCA	121.62	SMA	133.15	ECC	.19829	INC	2.8103
RP	107.49	LAP	2.39	LOP	121.21	VP	30.375	GAP	-2.73	AZP	91.47	TAL	221.76	TAP	343.38	RCA	106.75	APO	159.55
RC	71.740	GL	17.02	GP	-36.71	ZAL	145.05	ZAP	65.72	ETS	15.60	ZAE	139.60	ETE	284.87	ZAC	64.67	ETC	258.88

V1 29.682 V2 35.255 CLP -59.14

PLANETOCENTRIC CONIC

C3 21.143 VHL 4.598 DLA 4.31 RAL 214.33 RAD 6567.9 VEL 11.938 PTH 2.12 VHP 4.342 DPA -54.62 RAP 225.06 ECC 1.3480

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 1 29	2361.52	-22.84	51.01	77.72	107.21	1 40 50	1761.5	-20.27	43.28
90.00	14 3 38	4737.87	16.47	202.93	75.64	66.63	15 22 36	4137.9	13.17	195.81
100.00	2 24 51	2082.63	-23.93	30.85	77.34	108.47	2 59 43	1492.6	-21.18	23.13
100.00	15 22 57	4481.90	17.51	183.63	75.15	65.38	16 37 39	3882.0	14.05	176.55
110.00	3 37 43	1864.54	-26.85	12.35	76.15	112.00	4 8 48	1264.5	-23.62	4.67
110.00	16 26 34	4282.85	20.30	167.08	73.70	61.89	17 37 56	3682.8	16.38	160.13

DIFFERENTIAL CORRECTIONS

TDE	.1486	TRA	-.3066	TC3	.0775	BAU	.3135
RDE	.1539	RRA	-.2500	RC3	-1.1064	FAU	.09586
FDE	1.7669	FRA	-.6237	FC3	-3.9251	BSP	3180
BDE	.2139	BRA	.4737	BC3	1.1092	FSP	-1113

MID-COURSE EXECUTION ACCURACY

SGT	533.9	SGR	1084.8	SG3	371.5		
RRT	.2130	RRF	.9321	RTF	.2339		
SGB	1209.1	RZS	.0238	R13	.9325		
SG1	1092.5	SG2	518.0	THA	82.27		

ORBIT DETERMINATION ACCURACY

ST	237.5	SR	217.1	SS	831.6
CRT	.9675	CRS	-.9314	CST	-.8401
LSA	880.1	MSA	141.6	SSA	23.8
EL1	319.2	EL2	40.9	ALF	42.34

LAUNCH DATE SEP 23 1970 FLIGHT TIME 96.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 273.304

RL	150.11	LAL	-.00	LOL	359.55	VL	27.780	GAL	-8.75	AZL	86.92	HCA	124.86	SMA	133.25	ECC	.19694	INC	3.0781
RP	107.48	LAP	2.53	LOP	124.45	VP	30.387	GAP	-2.18	AZP	91.76	TAL	221.81	TAP	346.67	RCA	107.01	APO	159.49
RC	73.903	GL	18.66	GP	-38.98	ZAL	144.25	ZAP	70.45	ETS	12.57	ZAE	138.03	ETE	278.69	ZAC	62.20	ETC	258.19

V1 29.682 V2 35.257 CLP -64.50

PLANETOCENTRIC CONIC

C3 21.247 VHL 4.609 DLA 5.83 RAL 214.95 RAD 6567.9 VEL 11.943 PTH 2.13 VHP 4.285 DPA -55.95 RAP 220.69 ECC 1.3497

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 52 26	2410.52	-23.79	54.29	78.93	105.83	1 32 37	1810.5	-21.39	46.44
90.00	14 17 38	4691.24	15.19	200.11	76.13	65.81	15 35 49	4091.2	11.79	193.07
100.00	2 16 32	2139.25	-24.90	33.98	78.57	107.10	2 52 11	1539.2	-22.32	26.13
100.00	15 36 12	4437.74	16.24	180.96	75.63	64.55	16 50 10	3837.7	12.68	173.98
110.00	3 31 6	1905.88	-27.87	15.13	77.44	110.64	4 2 52	1305.9	-24.81	7.30
110.00	16 38 8	4243.86	19.03	164.75	74.12	61.05	17 48 52	3643.9	15.02	157.92

DIFFERENTIAL CORRECTIONS

TDE	.2052	TRA	-.4288	TC3	-.0576	BAU	.3366
RDE	.2231	RRA	-.2501	RC3	-1.1838	FAU	.09733
FDE	1.9083	FRA	-.6017	FC3	-3.9660	BSP	3510
BDE	.3031	BRA	.4988	BC3	1.1852	FSP	-1154

MID-COURSE EXECUTION ACCURACY

SGT	593.5	SGR	1171.2	SG3	382.1		
RRT	.4325	RRF	.9441	RTF	.4572		
SGB	1313.0	RZS	.0565	R13	.9439		
SG1	1205.8	SG2	519.8	THA	74.73		

ORBIT DETERMINATION ACCURACY

ST	301.1	SR	295.5	SS	883.2
CRT	.9694	CRS	-.9692	CST	-.8929
LSA	968.4	MSA	140.3	SSA	22.1
EL1	418.6	EL2	52.1	ALF	44.45

LAUNCH DATE SEP 23 1970 FLIGHT TIME 98.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 279.789

RL	150.11	LAL	-.00	LOL	359.55	VL	27.795	GAL	-8.68	AZL	86.63	HCA	128.10	SMA	133.30	ECC	.19576	INC	3.3679
RP	107.48	LAP	2.65	LOP	127.70	VP	30.393	GAP	-1.66	AZP	92.08	TAL	221.75	TAP	349.85	RCA	107.20	APO	159.39
RC	76.087	GL	20.41	GP	-41.24	ZAL	143.26	ZAP	75.11	ETS	9.27	ZAE	136.15	ETE	272.62	ZAC	59.73	ETC	257.43

V1 29.682 V2 35.258 CLP -70.02

PLANETOCENTRIC CONIC

C3 21.419 VHL 4.628 DLA 7.42 RAL 215.72 RAD 6567.9 VEL 11.950 PTH 2.13 VHP 4.266 DPA -57.14 RAP 216.00 ECC 1.3525

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 43 16	2462.85	-24.72	57.84	80.41	104.28	1 24 19	1862.9	-22.51	49.87
90.00	14 32 53	4642.78	13.81	197.21	76.86	65.03	15 50 16	4042.8	10.34	190.26
100.00	2 8 11	2189.01	-25.85	37.37	80.07	105.55	2 44 40	1589.0	-23.47	29.38
100.00	15 50 40	4391.85	14.88	178.24	76.33	63.77	17 3 52	3791.9	11.23	171.34
110.00	3 24 33	1949.99	-28.89	18.15	79.01	109.12	3 57 3	1350.0	-26.01	10.16
110.00	16 50 47	4203.64	17.69	162.40	74.78	60.26	18 0 50	3603.6	13.60	155.67

DIFFERENTIAL CORRECTIONS

TDE	.2761	TRA	-.4602	TC3	-.2076	BAU	.3613
RDE	.2977	RRA	-.2490	RC3	-1.2446	FAU	.09682
FDE	2.0359	FRA	-.5521	FC3	-3.9135	BSP	3843
BDE	.4061	BRA	.5233	BC3	1.2618	FSP	-1159

MID-COURSE EXECUTION ACCURACY

SGT	695.6	SGR	1248.9	SG3	385.9		
RRT	.6054	RRF	.9531	RTF	.6287		
SGB	1429.5	RZS	.0853	R13	.9515		
SG1	1331.9	SG2	519.2	THA	67.82		

ORBIT DETERMINATION ACCURACY

ST	382.9	SR	381.8	SS	933.0
CRT	.9733	CRS	-.9852	CST	-.9264
LSA	1069.0	MSA	140.2	SSA	20.2
EL1	537.1	EL2	62.5	ALF	44.91

LAUNCH DATE SEP 23 1970 FLIGHT TIME 100.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 286.242

RL	150.11	LAL	-.00	LOL	359.55	VL	27.796	GAL	-8.60	AZL	86.32	HCA	131.34	SMA	133.30	ECC	.19474	INC	3.6847
RP	107.48	LAP	2.77	LOP	130.95	VP	30.393	GAP	-1.15	AZP	92.44	TAL	221.58	TAP	352.92	RCA	107.34	APO	159.26
RC	78.289	GL	22.29	GP	-43.46	ZAL	142.06	ZAP	79.63	ETS	5.72	ZAE	133.99	ETE	266.76	ZAC	57.26	ETC	256.62

V1 29.682 V2 35.259 CLP -75.64

PLANETOCENTRIC CONIC

C3 21.676 VHL 4.656 DLA 9.09 RAL 216.63 RAD 6567.9 VEL 11.961 PTH 2.13 VHP 4.286 DPA -58.17 RAP 211.07 ECC 1.3567

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 33 46	2519.53	-25.61	61.75	82.17	102.51	1 15 46	1919.5	-23.63	53.64
90.00	14 49 39	4591.85	12.33	194.21	77.84	64.31	16 6 11	3991.9	8.77	187.33
100.00	1 59 33	2242.85	-26.78	41.10	81.87	103.80	2 36 56	1642.9	-24.62	32.97
100.00	16 6 33	4343.76	13.41	175.42	77.30	63.03	17 18 57	3743.8	9.69	168.61
110.00	3 17 55	1997.64	-29.91	21.49	80.88	107.38	3 51 13	1397.6	-27.24	13.32
110.00	17 4 41	4161.74	16.26	159.99	75.68	59.51	18 14 3	3561.7	12.09	153.37

DIFFERENTIAL CORRECTIONS

TDE	.3665	TRA	-.4913	TC3	-.3600	BAU	.3910
RDE	.3680	RRA	-.2382	RC3	-1.3002	FAU	.09560
FDE	2.1159	FRA	-.5052	FC3	-3.8183	BSP	4338
BDE	.5194	BRA	.5465	BC3	1.3492	FSP	-1185

MID-COURSE EXECUTION ACCURACY

SGT	831.1	SGR	1328.6	SG3	384.6		
RRT	.7190	RRF	.9604	RTF	.7438		
SGB	1565.5	RZS	.1010	R13	.9581		
SG1	1477.0	SG2	518.9	THA	62.00		

ORBIT DETERMINATION ACCURACY

ST	487.1	SR	463.1	SS	967.6
CRT	.9800	CRS	-.9918	CST	-.9508
LSA	1169.8	MSA	138.1	SSA	18.9
EL1	668.8	EL2	67.1	ALF	43.52

LAUNCH DATE SEP 23 1970 FLIGHT TIME 102.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 292.664

RL	150.11	LAL	-.00	LOL	359.55	VL	27.790	GAL	-8.52	AZL	85.97	HCA	134.58	SMA	133.27	ECC	.19383	INC	4.0347
RP	107.48	LAP	2.87	LOP	134.20	VP	38.389	GAP	-.67	AZP	92.03	TAL	221.31	TAP	355.88	RCA	107.43	APO	159.10
RC	80.507	GL	24.33	GP	-45.65	ZAL	140.65	ZAP	83.92	ETS	1.91	ZAE	131.58	ETE	261.22	ZAC	54.82	ETC	255.75

V1 29.682 V2 35.258 CLP -81.28

PLANETOCENTRIC CONIC

C3	22.039	VHL	4.695	DLA	10.87	RAL	217.70	RAD	6567.9	VEL	11.976	PTH	2.13	VHP	4.345	DPA	-59.08	RAP	206.03

ECC 1.3627

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 23 41	2581.78	-26.46	66.12	84.27	100.48	1 6 42	1981.8	-24.74	57.87
90.00	15 8 16	4537.62	10.71	191.05	79.13	63.63	16 23 54	3937.6	7.08	184.25
100.00	1 50 27	2301.90	-27.67	45.26	84.00	101.78	2 28 49	1701.9	-25.77	36.98
100.00	16 24 11	4292.74	11.81	172.47	78.55	62.34	17 35 43	3692.7	8.02	165.74
110.00	3 11 2	2049.77	-30.91	25.22	83.10	105.38	3 45 12	1449.8	-28.49	16.86
110.00	17 20 6	4117.64	14.72	157.50	76.87	58.79	18 28 43	3517.6	10.47	150.97

DIFFERENTIAL CORRECTIONS

TDE	.4744	TRA	-.5223	TC3	-.5175	BAU	.4203
RDE	.4424	RRA	-.2186	RC3	-1.3294	FAU	.09221
FDE	2.1782	FRA	-.4308	FC3	-3.6220	BSP	4792
BDE	.6486	BRA	.5682	BC3	1.4265	FSP	-1165

MID-COURSE EXECUTION ACCURACY

SGT	996.3	SGR	1386.8	SG3	375.8		
RRT	.7928	RRF	.9658	RTF	.8166		
SGB	1707.6	R23	.1170	R13	.9623		
SG1	1627.3	SG2	517.5	THA	56.51		

ORBIT DETERMINATION ACCURACY

ST	611.0	SR	547.3	SS	1000.7
CRT	.9838	CRS	-.9956	CST	-.9652
LSA	1286.5	MSA	137.5	SSA	17.2
EL1	817.0	EL2	73.3	ALF	41.80

LAUNCH DATE SEP 23 1970 FLIGHT TIME 104.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 299.057

RL	150.11	LAL	-.00	LOL	359.55	VL	27.780	GAL	-8.42	AZL	85.57	HCA	137.81	SMA	133.19	ECC	.19304	INC	4.4259
RP	107.48	LAP	2.97	LOP	137.45	VP	38.381	GAP	-.20	AZP	93.28	TAL	220.94	TAP	358.76	RCA	107.48	APO	158.90
RC	82.739	GL	26.53	GP	-47.82	ZAL	139.02	ZAP	87.92	ETS	357.87	ZAE	128.97	ETE	256.04	ZAC	52.40	ETC	254.85

V1 29.682 V2 35.257 CLP -86.91

PLANETOCENTRIC CONIC

C3	22.542	VHL	4.748	DLA	12.77	RAL	218.93	RAD	6567.9	VEL	11.997	PTH	2.14	VHP	4.447	DPA	-59.90	RAP	200.93

ECC 1.3710

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 12 38	2651.25	-27.22	71.06	86.73	98.12	0 56 49	2051.3	-25.82	62.67
90.00	15 29 10	4479.10	8.92	187.68	80.75	63.01	16 43 50	3879.1	5.23	180.94
100.00	1 40 34	2367.63	-28.50	49.97	86.51	99.43	2 20 2	1767.6	-26.90	41.53
100.00	16 43 55	4237.95	10.06	169.34	80.14	61.70	17 54 33	3637.9	6.21	162.68
110.00	3 3 41	2107.56	-31.88	29.45	85.73	103.05	3 38 49	1507.6	-29.75	20.88
110.00	17 37 18	4070.78	13.05	154.90	73.38	58.12	18 45 8	3470.8	8.74	148.45

DIFFERENTIAL CORRECTIONS

TDE	.6026	TRA	-.5499	TC3	-.6704	BAU	.4503
RDE	.5161	RRA	-.1902	RC3	-1.3354	FAU	.08735
FDE	2.2095	FRA	-.3451	FC3	-3.3549	BSP	5279
BDE	.7934	BRA	.5819	BC3	1.4943	FSP	-1128

MID-COURSE EXECUTION ACCURACY

SGT	1182.0	SGR	1432.2	SG3	360.8		
RRT	.8390	RRF	.9698	RTF	.8625		
SGB	1857.0	R23	.1303	R13	.9652		
SG1	1783.7	SG2	516.5	THA	51.48		

ORBIT DETERMINATION ACCURACY

ST	755.6	SR	627.9	SS	1026.4
CRT	.9865	CRS	-.9976	CST	-.9746
LSA	1414.1	MSA	137.3	SSA	15.5
EL1	979.2	EL2	79.3	ALF	39.66

LAUNCH DATE SEP 23 1970 FLIGHT TIME 106.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 305.420

RL	150.11	LAL	-.00	LOL	359.55	VL	27.765	GAL	-8.32	AZL	85.13	HCA	141.05	SMA	133.08	ECC	.19234	INC	4.8692
RP	107.49	LAP	3.06	LOP	140.70	VP	38.368	GAP	.25	AZP	93.79	TAL	220.49	TAP	1.53	RCA	107.48	APO	158.67
RC	84.985	GL	28.93	GP	-49.99	ZAL	137.14	ZAP	91.57	ETS	353.62	ZAE	126.19	ETE	251.25	ZAC	49.97	ETC	253.89

V1 29.682 V2 35.255 CLP -92.45

PLANETOCENTRIC CONIC

C3	23.233	VHL	4.820	DLA	14.83	RAL	220.35	RAD	6567.9	VEL	12.025	PTH	2.15	VHP	4.594	DPA	-60.67	RAP	195.83

ECC 1.3824

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 0 9	2730.11	-27.85	76.74	89.61	95.34	0 45 39	2130.1	-26.82	68.23
90.00	15 52 58	4414.94	6.92	184.03	82.79	62.47	17 6 32	3814.9	3.18	177.35
100.00	1 29 30	2441.98	-29.21	55.38	89.45	96.67	2 10 12	1842.0	-27.98	46.80
100.00	17 6 18	4178.31	8.12	165.98	82.14	61.13	18 15 56	3578.3	4.21	159.38
110.00	2 55 37	2172.54	-32.77	34.30	88.83	100.31	3 31 49	1572.5	-31.00	25.53
110.00	17 56 40	4020.51	11.22	152.15	80.28	57.50	19 3 41	3420.5	6.86	145.77

DIFFERENTIAL CORRECTIONS

TDE	.7545	TRA	-.5716	TC3	-.8106	BAU	.4792
RDE	.5905	RRA	-.1516	RC3	-1.3127	FAU	.08103
FDE	2.2162	FRA	-.2471	FC3	-3.0193	BSP	5741
BDE	.9581	BRA	.5914	BC3	1.5428	FSP	-1064

MID-COURSE EXECUTION ACCURACY

SGT	1381.7	SGR	1459.1	SG3	340.2		
RRT	.8678	RRF	.9729	RTF	.8916		
SGB	2009.5	R23	.1430	R13	.9670		
SG1	1942.1	SG2	515.8	THA	46.80		

ORBIT DETERMINATION ACCURACY

ST	921.6	SR	705.2	SS	1047.0
CRT	.9882	CRS	-.9988	CST	-.9808
LSA	1556.8	MSA	138.1	SSA	13.8
EL1	1157.3	EL2	86.1	ALF	37.34

LAUNCH DATE SEP 23 1970 FLIGHT TIME 108.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 311.753

RL	150.11	LAL	-.00	LOL	359.55	VL	27.746	GAL	-8.21	AZL	84.62	HCA	144.28	SMA	132.94	ECC	.19173	INC	5.3790
RP	107.50	LAP	3.14	LOP	143.95	VP	38.352	GAP	.68	AZP	94.37	TAL	219.95	TAP	4.23	RCA	107.45	APO	158.42
RC	87.241	GL	31.56	GP	-52.21	ZAL	135.00	ZAP	94.81	ETS	349.17	ZAE	123.26	ETE	246.84	ZAC	47.52	ETC	252.86

V1 29.682 V2 35.253 CLP -97.87

PLANETOCENTRIC CONIC

C3	24.186	VHL	4.918	DLA	17.06	RAL	221.97	RAD	6568.0	VEL	12.065	PTH	2.16	VHP	4.793	DPA	-61.45	RAP	190.69

ECC 1.3980

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 41 36	2821.46	-28.25	83.39	92.98	92.03	24 28 37	2221.5	-27.67	74.77
90.00	16 20 30	4343.26	4.65	179.99	85.36	62.04	17 32 53	3743.3	.87	173.34
100.00	1 16 39	2527.60	-29.72	61.70	92.90	93.39	1 58 46	1927.6	-28.93	52.98
100.00	17 32 3	4112.35	5.94	162.30	84.65	60.65	18 40 36	3512.3	1.98	155.75
110.00	2 46 27	2246.66	-33.53	39.95	92.49	97.05	3 23 53	1646.7	-32.20	30.97
110.00	18 18 45	3966.06	9.21	149.21	82.65	56.94	19 24 51	3366.1	4.80	142.90

DIFFERENTIAL CORRECTIONS

TDE	.9324	TRA	-.5860	TC3	-.9311	BAU	.5091
RDE	.6594	RRA	-.1068	RC3	-1.2697	FAU	.07419
FDE	2.1857	FRA	-.1567	FC3	-2.6556	BSP	6305
BDE	1.1420	BRA	.5960	BC3	1.5745	FSP	-1008

MID-COURSE EXECUTION ACCURACY

SGT	1590.2	SGR	1472.2	SG3	315.6		
RRT	.8854	RRF	.9750	RTF	.9115		
SGB	2167.1	R23	.1523	R13	.9686		
SG1	2104.5	SG2	517.0	THA	42.51		

ORBIT DETERMINATION ACCURACY

ST	1107.6	SR	770.2	SS	1055.3
CRT	.9895	CRS	-.9994	CST	-.9852
LSA	1707.1	MSA	138.2	SSA	12.3
EL1	1345.9	EL2	91.5	ALF	34.71

LAUNCH DATE SEP 23 1970 FLIGHT TIME 110.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 318.057

```
RL  150.11 LAL   -.00 LOL 359.55 VL  27.723 GAL  -8.09 AZL  84.02 HCA 147.51 SMA 132.77 ECC .19119 INC 5.9755 V1  29.682
RP  107.51 LAP   3.21 LOP 147.20 VP  30.332 GAP   1.10 AZP  95.05 TAL 219.33 TAP   6.84 RCA 107.38 APO 158.15 V2  35.249
RC  89.506 GL   34.45 GP  -54.53 ZAL 132.58 ZAP  97.59 ETS 344.50 ZAE 120.18 ETE 242.77 ZAC  44.99 ETC 251.73 CLP-103.15
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PLANETOCENTRIC CONIC

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C3  25.509 VHL  5.051 DLA  19.49 RAL 223.81 RAD 6568.0 VEL 12.120 PTH   2.17 VHP  5.052 DPA -62.27 RAP 185.43 ECC 1.4190
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 23 30	2929.99	-28.26	91.33	96.87	88.05	24 12 29	2330.0	-28.23	82.66
90.00	16 53 11	4280.92	2.00	175.38	86.60	61.75	18 4 12	3660.9	-1.79	168.75
100.00	1 1 7	2628.36	-29.09	60.18	96.91	89.45	1 44 55	2028.4	-29.64	60.38
100.00	18 2 19	4037.79	3.43	158.19	87.80	60.29	19 9 37	3437.8	-.55	151.66
110.00	2 35 40	2332.55	-34.06	46.60	96.80	93.15	3 14 33	1732.6	-33.24	37.46
110.00	18 44 16	3806.36	6.98	146.03	85.61	56.45	19 49 22	3306.4	2.52	139.78

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.1442 TRA -.5892 TC3-1.0219 BAU  .5358   SGT 1803.7 SGR 1463.1 SGS  287.2      ST  1315.7 SR   827.8 SS  1059.2
 RDE  .7288 RRA -.0530 RC3-1.1933 FAU .06628   RRT  .0056 RRF  .9764 RTF  .9240      CRT  .9902 CRS -.9998 CST -.9882
 FDE 2.1381 FRA -.0801 FC3-2.2496 BSP   6812   SGB 2322.5 RZS  .1625 RIS  .9694      LSA 1875.8 MSA  139.6 SSA   10.8
 BDE 1.3566 BRA  .5917 BC3 1.5711 FSP   -925   SGI 2263.8 SGZ  518.6 THA  38.38      EL1 1551.4 EL2   98.2 ALF  32.07
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LAUNCH DATE SEP 23 1970 FLIGHT TIME 112.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 324.331

```
RL  150.11 LAL   -.00 LOL 359.55 VL  27.697 GAL  -7.96 AZL  83.31 HCA 150.73 SMA 132.57 ECC .19071 INC 6.6878 V1  29.682
RP  107.52 LAP   3.26 LOP 150.46 VP  30.309 GAP   1.50 AZP  95.84 TAL 218.63 TAP   9.36 RCA 107.29 APO 157.86 V2  35.245
RC  91.778 GL   37.65 GP  -57.01 ZAL 129.84 ZAP  99.85 ETS 339.59 ZAE 116.96 ETE 236.97 ZAC  42.32 ETC 250.44 CLP-108.32
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PLANETOCENTRIC CONIC

```
C3  27.372 VHL  5.232 DLA  22.15 RAL 225.93 RAD 6568.1 VEL 12.196 PTH   2.19 VHP  5.386 DPA -63.17 RAP 179.86 ECC 1.4505
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 0 10	3063.96	-27.56	101.06	101.28	83.22	23 51 14	2464.0	-28.21	92.46
90.00	17 33 30	4161.90	-1.19	169.86	92.77	61.71	18 42 51	3561.9	-4.96	163.21
100.00	0 41 19	2750.46	-29.46	78.23	101.51	84.71	1 27 10	2150.5	-29.88	69.45
100.00	18 38 57	3950.64	.48	153.40	91.84	60.11	19 44 48	3350.6	-3.50	146.87
110.00	2 22 30	2433.92	-34.15	54.51	101.83	88.47	3 3 4	1833.9	-33.99	45.27
110.00	19 14 16	3839.94	4.47	142.52	89.35	56.08	20 18 16	3239.9	-.01	136.31

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.5900 TRA -.5785 TC3-1.0753 BAU  .5596   SGT 2020.1 SGR 1432.6 SGS  256.5      ST  1546.1 SR   871.3 SS  1055.6
 RDE  .7950 RRA  .0118 RC3-1.0872 FAU .05788   RRT  .0089 RRF  .9767 RTF  .9343      CRT  .9904 CRS -.9999 CST -.9905
 FDE 2.0707 FRA  .0325 FC3-1.8306 BSP   7313   SGB 2476.5 RZS  .1723 RIS  .9697      LSA 2060.0 MSA  141.7 SSA    9.3
 BDE 1.6090 BRA  .5786 BC3 1.5292 FSP   -833   SGI 2421.0 SGZ  521.4 THA  34.36      EL1 1771.5 EL2  105.3 ALF  29.28
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LAUNCH DATE SEP 23 1970 FLIGHT TIME 114.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 330.576

```
RL  150.11 LAL   -.00 LOL 359.55 VL  27.667 GAL  -7.83 AZL  82.44 HCA 153.95 SMA 132.36 ECC .19029 INC 7.5590 V1  29.682
RP  107.53 LAP   3.31 LOP 153.71 VP  30.284 GAP   1.88 AZP  96.80 TAL 217.86 TAP  11.82 RCA 107.17 APO 157.54 V2  35.240
RC  94.056 GL   41.12 GP  -59.73 ZAL 126.77 ZAP 101.56 ETS 334.37 ZAE 113.56 ETE 235.31 ZAC  39.44 ETC 248.88 CLP-113.42
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PLANETOCENTRIC CONIC

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C3  30.056 VHL  5.482 DLA  25.04 RAL 228.35 RAD 6568.2 VEL 12.306 PTH   2.22 VHP  5.818 DPA -64.14 RAP 173.72 ECC 1.4946
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 25 40	3242.28	-25.49	113.69	106.00	77.23	23 19 42	2642.3	-26.99	105.35
90.00	18 27 20	4050.35	-5.41	162.49	98.35	62.16	19 34 30	3450.3	-9.10	155.75
100.00	0 13 54	2905.98	-27.95	89.53	106.59	78.96	1 2 20	2306.0	-29.19	80.95
100.00	19 25 42	3841.85	-3.20	147.43	97.13	60.26	20 29 44	3241.9	-7.14	140.85
110.00	2 5 38	2556.41	-33.52	64.02	107.62	82.88	2 48 15	1956.4	-34.14	54.83
110.00	19 50 28	3764.19	1.58	138.56	94.15	55.85	20 53 12	3164.2	-2.91	132.36

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.7168 TRA -.5446 TC3-1.0772 BAU  .5750   SGT 2238.0 SGR 1373.7 SGS  224.4      ST  1804.4 SR   900.0 SS  1049.8
 RDE  .8600 RRA  .0970 RC3 -.9420 FAU .04867   RRT  .0084 RRF  .9757 RTF  .9408      CRT  .9898 CRS -.9998 CST -.9921
 FDE 1.9974 FRA  .1292 FC3-1.4020 BSP   7630   SGB 2626.0 RZS  .1840 RIS  .9693      LSA 2268.6 MSA  146.3 SSA    7.8
 BDE 1.9202 BRA  .5532 BC3 1.4310 FSP   -713   SGI 2573.1 SGZ  524.7 THA  30.27      EL1 2013.1 EL2  114.7 ALF  26.37
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LAUNCH DATE SEP 23 1970 FLIGHT TIME 116.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 336.788

```
RL  150.11 LAL   -.00 LOL 359.55 VL  27.635 GAL  -7.68 AZL  81.34 HCA 157.17 SMA 132.12 ECC .18993 INC 8.6562 V1  29.682
RP  107.55 LAP   3.35 LOP 156.95 VP  30.255 GAP   2.25 AZP  97.99 TAL 217.03 TAP  14.19 RCA 107.03 APO 157.21 V2  35.235
RC  96.330 GL   44.94 GP  -62.77 ZAL 123.33 ZAP 102.66 ETS 328.68 ZAE 109.92 ETE 231.57 ZAC  36.26 ETC 246.88 CLP-118.61
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PLANETOCENTRIC CONIC

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C3  34.050 VHL  5.835 DLA  28.18 RAL 231.15 RAD 6568.3 VEL 12.467 PTH   2.26 VHP  6.388 DPA -65.11 RAP 166.66 ECC 1.5604
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	21 1 58	3588.83	-18.33	136.52	109.30	68.03	22 1 47	2988.8	-21.15	128.99
90.00	20 13 21	3746.57	-14.05	146.13	107.37	65.16	21 15 47	3146.6	-17.29	138.94
100.00	23 23 45	3131.70	-24.03	105.13	111.54	71.66	24 15 57	2531.7	-26.31	97.08
100.00	20 34 15	3678.03	-8.63	138.38	104.59	61.27	21 35 34	3078.9	-12.40	131.62
110.00	1 42 26	2709.91	-31.63	75.58	114.01	76.29	2 27 36	2109.9	-33.18	66.70
110.00	20 35 59	3673.49	-1.89	133.83	100.45	55.86	21 37 12	3073.5	-6.35	127.59

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 2.1077 TRA -.4826 TC3-1.0364 BAU  .5926   SGT 2459.0 SGR 1286.5 SGS  191.8      ST  2076.4 SR   879.0 SS  1023.6
 RDE  .9086 RRA  .1832 RC3 -.7878 FAU .04054   RRT  .0094 RRF  .9713 RTF  .9477      CRT  .9888 CRS -.9993 CST -.9935
 FDE 1.6874 FRA  .1922 FC3-1.0306 BSP   8304   SGB 2775.3 RZS  .1900 RIS  .9700      LSA 2471.8 MSA  147.8 SSA    6.6
 BDE 2.2889 BRA  .5256 BC3 1.3018 FSP   -638   SGI 2724.0 SGZ  530.8 THA  26.02      EL1 2251.5 EL2  120.9 ALF  22.78
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LAUNCH DATE SEP 23 1970 FLIGHT TIME 118.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 342.966

RL	150.11	LAL	-.00	LOL	359.55	VL	27.600	GAL	-7.52	AZL	79.91	HCA	160.37	SMA	131.87	ECC	.18960	INC	10.0897	V1	29.682
RP	107.57	LAP	3.37	LOP	160.20	VP	38.224	GAP	2.61	AZP	99.51	TAL	216.12	TAP	16.49	RCA	106.86	APO	156.87	V2	35.229
RC	98.624	GL	49.07	GP	-66.21	ZAL	119.52	ZAP	103.10	ETS	322.25	ZAE	105.97	ETE	227.37	ZAC	32.68	ETC	244.10	CLP	-124.20

PLANETOCENTRIC CONIC

C3	40.254	VHL	6.345	DLA	31.53	RAL	234.41	RAD	6568.5	VEL	12.713	PTH	2.31	VHP	7.162	DPA	-65.95	RAP	158.23	ECC	1.6625

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
75.52	18 56 48	4075.46	-16.68	171.76	115.19	62.85	20 4 43	3475.5	-20.19	164.59
104.48	22 44 34	3344.51	-16.67	117.71	115.18	62.84	23 40 19	2744.5	-20.18	110.54
75.52	18 56 48	4075.46	-16.68	171.76	115.19	62.85	20 4 43	3475.5	-20.19	164.59
104.48	22 44 34	3344.51	-16.67	117.71	115.18	62.84	23 40 19	2744.5	-20.18	110.54
110.00	1 5 32	2918.95	-27.30	90.30	120.35	68.58	1 54 11	2318.9	-29.96	82.11
110.00	21 38 56	3549.01	-6.61	127.30	109.18	56.39	22 38 5	2949.0	-10.99	120.94

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	2.6275	TRA	-.3943	TC3	-.9307	BAU	.5954	SGT	2683.2	SGR	1146.2	SG3	159.8	ST	2376.4	SR	805.0	SS	996.5
RDE	.8849	RRA	.2974	RC3	-.5980	FAU	.03195	RRT	.8652	RRF	.9588	RTF	.9535	CRT	.9854	CRS	-.9977	CST	-.9946
FDE	1.7808	FRA	.2572	FC3	-.6871	BSP	8749	SGB	2917.8	R23	.1976	R13	.9703	LSA	2695.4	MSA	152.3	SSA	5.4
BDE	2.7726	BRA	.4938	BC3	1.1063	FSP	-535	SG1	2867.8	SG2	537.8	THA	21.06	EL1	2505.7	EL2	129.9	ALF	18.51

LAUNCH DATE SEP 23 1970 FLIGHT TIME 120.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 349.106

RL	150.11	LAL	-.00	LOL	359.55	VL	27.562	GAL	-7.35	AZL	77.95	HCA	163.55	SMA	131.60	ECC	.18930	INC	12.0538	V1	29.682
RP	107.59	LAP	3.39	LOP	163.45	VP	38.191	GAP	2.95	AZP	101.57	TAL	215.16	TAP	18.71	RCA	106.69	APO	156.51	V2	35.222
RC	100.910	GL	53.45	GP	-70.15	ZAL	115.32	ZAP	102.85	ETS	314.37	ZAE	101.58	ETE	221.93	ZAC	28.54	ETC	239.85	CLP	-130.91

PLANETOCENTRIC CONIC

C3	50.501	VHL	7.106	DLA	34.99	RAL	238.26	RAD	6568.9	VEL	13.110	PTH	2.39	VHP	8.258	DPA	-66.37	RAP	148.02	ECC	1.8311

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
68.53	18 27 53	4268.92	-16.36	186.49	123.49	58.63	19 39 2	3668.9	-20.39	179.63
111.47	23 44 12	3264.95	-16.34	111.38	123.48	58.62	24 38 37	2665.0	-20.38	104.52
68.53	18 27 53	4268.92	-16.36	186.49	123.49	58.63	19 39 2	3668.9	-20.39	179.63
111.47	23 44 12	3264.95	-16.34	111.38	123.48	58.62	24 38 37	2665.0	-20.38	104.52
68.53	18 27 53	4268.92	-16.36	186.49	123.49	58.63	19 39 2	3668.9	-20.39	179.63
111.47	23 44 12	3264.95	-16.34	111.38	123.48	58.62	24 38 37	2665.0	-20.38	104.52

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	3.3362	TRA	-.2247	TC3	-.7655	BAU	.5808	SGT	2910.0	SGR	926.9	SG3	129.5	ST	2690.9	SR	618.5	SS	964.2
RDE	.7803	RRA	.4339	RC3	-.3923	FAU	.02375	RRT	.7931	RRF	.9132	RTF	.9604	CRT	.9728	CRS	-.9900	CST	-.9957
FDE	1.6721	FRA	.3105	FC3	-.4069	BSP	9168	SGB	3054.0	R23	.2027	R13	.9712	LSA	2920.3	MSA	158.1	SSA	4.3
BDE	3.4196	BRA	.4886	BC3	.8602	FSP	-437	SG1	3004.7	SG2	546.7	THA	14.68	EL1	2757.5	EL2	139.8	ALF	12.64

LAUNCH DATE SEP 23 1970 FLIGHT TIME 122.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 355.195

RL	150.11	LAL	-.00	LOL	359.55	VL	27.523	GAL	-7.16	AZL	75.08	HCA	166.71	SMA	131.32	ECC	.18901	INC	14.9238	V1	29.682
RP	107.61	LAP	3.39	LOP	166.70	VP	38.156	GAP	3.27	AZP	104.54	TAL	214.12	TAP	20.82	RCA	106.50	APO	156.14	V2	35.215
RC	103.196	GL	57.87	GP	-74.61	ZAL	110.78	ZAP	101.86	ETS	303.29	ZAE	96.54	ETE	213.36	ZAC	23.66	ETC	232.52	CLP	-140.79

PLANETOCENTRIC CONIC

C3	68.975	VHL	8.305	DLA	38.34	RAL	242.86	RAD	6569.3	VEL	13.796	PTH	2.52	VHP	9.909	DPA	-65.88	RAP	135.98	ECC	2.1351

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.99	18 16 43	4432.09	-14.76	198.55	133.42	54.20	19 30 35	3832.1	-19.33	192.09
117.01	0 35 56	3253.77	-14.74	109.38	133.41	54.19	1 30 10	2653.8	-19.31	102.93
62.99	18 16 43	4432.09	-14.76	198.55	133.42	54.20	19 30 35	3832.1	-19.33	192.09
117.01	0 35 56	3253.77	-14.74	109.38	133.41	54.19	1 30 10	2653.8	-19.31	102.93
62.99	18 16 43	4432.09	-14.76	198.55	133.42	54.20	19 30 35	3832.1	-19.33	192.09
117.01	0 35 56	3253.77	-14.74	109.38	133.41	54.19	1 30 10	2653.8	-19.31	102.93

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	4.3235	TRA	.0841	TC3	-.5469	BAU	.5332	SGT	3118.9	SGR	621.7	SG3	102.0	ST	2982.9	SR	232.2	SS	935.2
RDE	.2533	RRA	.5784	RC3	-.1877	FAU	.01602	RRT	.4343	RRF	.6181	RTF	.9702	CRT	.7578	CRS	-.8067	CST	-.9969
FDE	1.5773	FRA	.3562	FC3	-.2010	BSP	9599	SGB	3180.2	R23	.2030	R13	.9735	LSA	3130.3	MSA	165.6	SSA	3.2
BDE	4.3309	BRA	.5845	BC3	.5782	FSP	-347	SG1	3130.9	SG2	557.9	THA	5.11	EL1	2988.1	EL2	151.3	ALF	3.39

LAUNCH DATE SEP 23 1970 FLIGHT TIME 124.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 361.210

RL	150.11	LAL	-.00	LOL	359.55	VL	27.482	GAL	-6.96	AZL	70.48	HCA	169.81	SMA	131.02	ECC	.18867	INC	19.5192	V1	29.682
RP	107.64	LAP	3.39	LOP	169.94	VP	38.119	GAP	3.56	AZP	109.23	TAL	212.99	TAP	22.80	RCA	106.30	APO	155.74	V2	35.207
RC	105.482	GL	61.83	GP	-79.28	ZAL	105.97	ZAP	100.13	ETS	283.83	ZAE	90.44	ETE	196.37	ZAC	17.65	ETC	217.73	CLP	-161.10

PLANETOCENTRIC CONIC

C3	106.900	VHL	10.339	DLA	41.07	RAL	248.36	RAD	6570.1	VEL	15.108	PTH	2.72	VHP	12.623	DPA	-63.70	RAP	122.80	ECC	2.7593

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.91	18 19 42	4583.99	-11.43	208.70	144.96	50.28	19 36 6	3984.0	-16.47	202.71
121.09	1 16 52	3298.09	-11.42	110.47	144.94	50.27	2 11 50	2698.1	-16.45	104.48
58.91	18 19 42	4583.99	-11.43	208.70	144.96	50.28	19 36 6	3984.0	-16.47	202.71
121.09	1 16 52	3298.09	-11.42	110.47	144.94	50.27	2 11 50	2698.1	-16.45	104.48
58.91	18 19 42	4583.99	-11.43	208.70	144.96	50.28	19 36 6	3984.0	-16.47	202.71
121.09	1 16 52	3298.09	-11.42	110.47	144.94	50.27	2 11 50	2698.1	-16.45	104.48

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	5.5448	TRA	.7047	TC3	-.2854	BAU	.4093	SGT	3171.4	SGR	876.7	SG3	78.9	ST	3076.6	SR	772.8	SS	932.5
RDE	-1.3748	RRA	.5862	RC3	-.0240	FAU	.00856	RRT	-.7511	RRF	-.6381	RTF	.9850	CRT	-.9762	CRS	.9627	CST	-.9985
FDE	1.5342	FRA	.4096	FC3	-.0693	BSP	9988	SGB	3290.4	R23	-.1910	R13	-.9786	LSA	3301.9	MSA	173.8	SSA	2.3
BDE	5.7127	BRA	.9166	BC3	.2864	FSP	-270	SG1	3241.3	SG2	566.3	THA	167.89	EL1	3168.0	EL2	162.9	ALF	166.19

LAUNCH DATE SEP 23 1970 FLIGHT TIME 126.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 367.080

RL 150.11 LAL -.00 LOL 359.55 VL 27.440 GAL -6.72 AZL 62.04 HCA 172.80 SMA 130.72 ECC .18816 INC27.9618 V1 29.682
RP 107.66 LAP 3.37 LOP 173.18 VP 38.080 GAP 3.82 AZP 117.77 TAL 211.74 TAP 24.53 RCA 106.12 APO 155.32 V2 35.198
RC 107.785 GL 63.99 GP -80.94 ZAL 101.05 ZAP 97.72 ETS 244.89 ZAE 82.27 ETE 159.73 ZAC 9.80 ETC 190.41 CLP 148.49

PLANETOCENTRIC CONIC

C3 202.152 VHL 14.218 DLA 41.93 RAL 254.83 RAD 6571.1 VEL 17.985 PTH 3.01 VHP 17.692 DPA -58.47 RAP 110.15 ECC 4.3269

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.69	18 40 14	4714.36	-6.45	215.66	157.61	48.48	19 58 48	4114.4	-11.70	209.97
122.31	1 47 56	3399.38	-6.43	114.91	157.60	48.48	2 44 35	2799.4	-11.69	109.22
57.69	18 40 14	4714.36	-6.45	215.66	157.61	48.48	19 58 48	4114.4	-11.70	209.97
122.31	1 47 56	3399.38	-6.43	114.91	157.60	48.48	2 44 35	2799.4	-11.69	109.22
57.69	18 40 14	4714.36	-6.45	215.66	157.61	48.48	19 58 48	4114.4	-11.70	209.97
122.31	1 47 56	3399.38	-6.43	114.91	157.60	48.48	2 44 35	2799.4	-11.69	109.22

DIFFERENTIAL CORRECTIONS

TDE 5.3817 TRA 1.7088 TC3 -.0415 BAU .1234
RDE-5.9292 RRA -.4015 RC3 -.0190 FAU-.00024
FDE 1.6323 FRA .5184 FC3 .0010 BSP 10176
BDE 8.0074 BRA 1.7553 BC3 .0457 FSP -207

MID-COURSE EXECUTION ACCURACY

SGT 2360.9 SGR 2399.8 SG3 61.8
RRT -.9490 RRF -.9513 RTF .9985
SGB 3366.5 RZ3 -.1504 R13 -.9872
SG1 3323.3 SG2 537.6 THA 134.51

ORBIT DETERMINATION ACCURACY

ST 2186.4 SR 2390.3 SS 1013.7
CRT -.9950 CRS .9950 CST-1.0000
LSA 3390.0 HSA 169.7 SSA 1.6
EL1 3235.4 EL2 161.4 ALF 132.44

LAUNCH DATE SEP 23 1970 FLIGHT TIME 128.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 372.560

RL 150.11 LAL -.00 LOL 359.55 VL 27.396 GAL -6.40 AZL 43.06 HCA 175.42 SMA 130.41 ECC .18699 INC46.9411 V1 29.682
RP 107.69 LAP 3.34 LOP 176.43 VP 38.040 GAP 3.96 AZP 136.85 TAL 210.19 TAP 25.61 RCA 106.03 APO 154.80 V2 35.189
RC 110.046 GL 60.22 GP -71.30 ZAL 96.43 ZAP 94.87 ETS 203.41 ZAE 68.93 ETE 120.50 ZAC 6.37 ETC 259.02 CLP 105.34

PLANETOCENTRIC CONIC

C3 529.299 VHL 22.919 DLA 37.17 RAL 261.65 RAD 6572.4 VEL 25.428 PTH 3.35 VHP 28.947 DPA -46.88 RAP 100.08 ECC 9.6449

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.85	19 41 4	4727.55	-1.37	212.60	169.86	52.86	20 59 52	4127.5	-6.18	206.61
115.15	1 41 30	3603.93	-1.35	127.91	169.84	52.86	2 41 34	3003.9	-6.16	121.93
64.85	19 41 4	4727.55	-1.37	212.60	169.86	52.86	20 59 52	4127.5	-6.18	206.61
115.15	1 41 30	3603.93	-1.35	127.91	169.84	52.86	2 41 34	3003.9	-6.16	121.93
64.85	19 41 4	4727.55	-1.37	212.60	169.86	52.86	20 59 52	4127.5	-6.18	206.61
115.15	1 41 30	3603.93	-1.35	127.91	169.84	52.86	2 41 34	3003.9	-6.16	121.93

DIFFERENTIAL CORRECTIONS

TDE .9339 TRA 1.0317 TC3 -.0187 BAU 1.1886
RD-11.9066 RRA-3.4774 RC3 -.1682 FAU-.01894
FDE 2.0760 FRA .8582 FC3 .0312 BSP 9787
BDE11.9206 BRA 3.9303 BC3 .1692 FSP -165

MID-COURSE EXECUTION ACCURACY

SGT 596.1 SGR 3263.0 SG3 52.0
RRT -.4925 RRF -.9924 RTF .5900
SGB 3317.0 RZ3 -.1018 R13 -.9939
SG1 3276.5 SG2 516.7 THA 95.27

ORBIT DETERMINATION ACCURACY

ST 218.0 SR 2995.1 SS 1313.6
CRT -.6948 CRS .9990 CST -.7263
LSA 3273.6 HSA 164.6 SSA 1.7
EL1 2998.9 EL2 156.6 ALF 92.90

LAUNCH DATE SEP 23 1970 FLIGHT TIME 130.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 383.461

RL 150.11 LAL -.00 LOL 359.55 VL 27.350 GAL -7.17 AZL 178.09 HCA 183.31 SMA 130.10 ECC .19718 INC88.0834 V1 29.682
RP 107.72 LAP 3.30 LOP 179.67 VP 37.999 GAP 5.62 AZP 1.92 TAL 212.09 TAP 35.40 RCA 104.44 APO 155.75 V2 35.179
RC 112.324 GL -43.16 GP 47.53 ZAL 94.23 ZAP 93.96 ETS 180.51 ZAE 52.18 ETE 259.85 ZAC 124.67 ETC 273.90 CLP 95.88

PLANETOCENTRIC CONIC

C31571.911 VHL 39.647 DLA -66.36 RAL 258.57 RAD 6573.2 VEL 41.148 PTH 3.57 VHP 51.255 DPA 71.96 RAP 94.09 ECC26.8697

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.10	5 24 23	2441.80	-1.44	76.24	169.19	156.35	6 5 5	1841.8	5.89	73.44
152.90	15 33 30	713.81	-1.43	290.75	169.21	156.35	15 45 33	113.8	5.90	287.95
27.10	5 24 23	2441.80	-1.44	76.24	169.19	156.35	6 5 5	1841.8	5.89	73.44
152.90	15 33 30	713.81	-1.43	290.75	169.21	156.35	15 45 33	113.8	5.90	287.95
27.10	5 24 23	2441.80	-1.44	76.24	169.19	156.35	6 5 5	1841.8	5.89	73.44
152.90	15 33 30	713.81	-1.43	290.75	169.21	156.35	15 45 33	113.8	5.90	287.95

DIFFERENTIAL CORRECTIONS

TDE 6.4745 TRA .5037 TC3 -.1006 BAU 4.3687
RD-12.6121 RRA 2.2645 RC3 .1819 FAU-.07388
FDE-3.0492 FRA .5452 FC3 .0407 BSP 8397
BDE14.1769 BRA 2.3198 BC3 .2079 FSP -160

MID-COURSE EXECUTION ACCURACY

SGT 1242.8 SGR 2463.5 SG3 50.1
RRT -.8844 RRF .9993 RTF -.8789
SGB 2759.3 RZ3 -.1012 R13 .9943
SG1 2708.4 SG2 527.5 THA 115.06

ORBIT DETERMINATION ACCURACY

ST 937.5 SR 1839.5 SS 1969.2
CRT -.9817 CRS-1.0000 CST .9818
LSA 2848.2 HSA 168.7 SSA 2.4
EL1 2058.5 EL2 159.5 ALF 116.75

LAUNCH DATE SEP 23 1970 FLIGHT TIME 132.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 387.610

RL 150.11 LAL -.00 LOL 359.55 VL 27.304 GAL -6.57 AZL 134.24 HCA 184.67 SMA 129.77 ECC .19318 INC44.2411 V1 29.682
RP 107.75 LAP 3.26 LOP 182.90 VP 37.956 GAP 5.38 AZP 45.85 TAL 209.72 TAP 34.39 RCA 104.70 APO 154.84 V2 35.169
RC 114.399 GL -60.79 GP 71.15 ZAL 96.98 ZAP 96.84 ETS 168.62 ZAE 77.10 ETE 249.79 ZAC 148.87 ETC 269.70 CLP 111.63

PLANETOCENTRIC CONIC

C3 470.068 VHL 21.681 DLA -81.28 RAL 214.29 RAD 6572.3 VEL 24.318 PTH 3.32 VHP 28.289 DPA 81.59 RAP 237.18 ECC 8.7361

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
9.92	1 52 13	2413.36	2.84	84.20	123.84	171.27	2 32 27	1813.4	10.74	83.38
170.08	13 12 32	611.81	2.84	281.21	123.87	171.27	13 22 44	11.8	10.75	280.39
9.92	1 52 13	2413.36	2.84	84.20	123.84	171.27	2 32 27	1813.4	10.74	83.38
170.08	13 12 32	611.81	2.84	281.21	123.87	171.27	13 22 44	11.8	10.75	280.39
9.92	1 52 13	2413.36	2.84	84.20	123.84	171.27	2 32 27	1813.4	10.74	83.38
170.08	13 12 32	611.81	2.84	281.21	123.87	171.27	13 22 44	11.8	10.75	280.39

DIFFERENTIAL CORRECTIONS

TDE 1.0673 TRA .3875 TC3 -.0445 BAU 1.0839
RD-10.8985 RRA -.9829 RC3 .1666 FAU-.01389
FDE-2.2190 FRA -.1667 FC3 .0256 BSP 10934
BDE10.9506 BRA 1.0565 BC3 .1725 FSP -184

MID-COURSE EXECUTION ACCURACY

SGT 757.0 SGR 3428.1 SG3 57.3
RRT -.8127 RRF .9962 RTF -.7623
SGB 3510.7 RZ3 -.1037 R13 .9941
SG1 3483.8 SG2 434.1 THA 100.34

ORBIT DETERMINATION ACCURACY

ST 347.3 SR 2925.7 SS 1449.1
CRT -.9020 CRS -.9996 CST .8890
LSA 3279.6 HSA 155.7 SSA 1.5
EL1 2942.5 EL2 149.1 ALF 96.13

LAUNCH DATE SEP 23 1970 FLIGHT TIME 134.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 393.062

RL	150.11	LAL	-.00	LOL	359.55	VL	27.257	GAL	-6.22	AZL	115.97	HCA	187.31	SMA	129.45	ECC	.19219	INC	25.9666
RP	107.79	LAP	3.20	LOP	186.14	VP	37.912	GAP	5.50	AZP	64.22	TAL	208.11	TAP	35.43	RCA	104.57	APO	154.33
RC	116.871	GL	-63.70	GP	77.60	ZAL	100.75	ZAP	101.34	ETS	115.75	ZAE	90.24	ETE	197.58	ZAC	159.39	ETC	234.91

V1	29.682	V2	35.158	CLP	156.28														

PLANETOCENTRIC CONIC

C3	175.130	VHL	13.234	DLA	-79.05	RAL	183.21	RAD	6570.9	VEL	17.218	PTH	2.94	VHP	17.498	DPA	67.90	RAP	246.82

ECC	3.8822	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		12.46	23 49 17	2287.53	11.02	81.75	91.04	168.84	24 27 24	1687.5	18.86	80.54							
		167.54	11 3 34	5780.26	11.02	259.13	91.06	168.84	12 39 54	5180.3	18.87	257.92							
		12.46	23 49 17	2287.53	11.02	81.75	91.04	168.84	24 27 24	1687.5	18.86	80.54							
		167.54	11 3 34	5780.26	11.02	259.13	91.06	168.84	12 39 54	5180.3	18.87	257.92							
		12.46	23 49 17	2287.53	11.02	81.75	91.04	168.84	24 27 24	1687.5	18.86	80.54							
		167.54	11 3 34	5780.26	11.02	259.13	91.06	168.84	12 39 54	5180.3	18.87	257.92							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-3.2843	TRA	-.9973	TC3	-.0548	BAU	.1297	SGT	2684.8	SGR	2624.4	SG3	70.8	ST	1577.0	SR	1067.2	SS	719.1
RDE	-1.7445	RRA	-1.1029	RC3	-.0081	FAU	.00609	RRT	.9635	RRF	.9624	RTF	.9990	CRT	.9436	CRS	-.9455	CST	-1.0000
FDE	-.9878	FRA	-.3045	FC3	-.0301	BSP	11588	SGB	3754.4	R23	-.1323	R13	.9902	LSA	2012.7	MSA	303.4	SSA	1.5
BDE	3.7188	BRA	1.4869	BC3	.0554	FSP	-228	SG1	3720.1	SG2	506.8	THA	44.32	EL1	1881.0	EL2	296.2	ALF	33.50

LAUNCH DATE SEP 23 1970 FLIGHT TIME 136.00 ARRIVAL DATE FEB 6 1971

HELIOCENTRIC CONIC DISTANCE 398.846

RL	150.11	LAL	-.00	LOL	359.55	VL	27.209	GAL	-5.94	AZL	107.76	HCA	190.30	SMA	129.12	ECC	.19201	INC	17.7636
RP	107.82	LAP	3.13	LOP	189.37	VP	37.867	GAP	5.72	AZP	72.50	TAL	206.68	TAP	36.98	RCA	104.33	APO	153.91
RC	119.138	GL	-61.15	GP	73.46	ZAL	104.32	ZAP	106.36	ETS	73.98	ZAE	98.38	ETE	156.90	ZAC	162.09	ETC	218.30

V1	29.682	V2	35.147	CLP	-171.74														

PLANETOCENTRIC CONIC

C3	88.860	VHL	9.427	DLA	-75.39	RAL	186.80	RAD	6569.7	VEL	14.498	PTH	2.63	VHP	12.678	DPA	58.39	RAP	245.70

ECC	2.4624	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		16.65	0 15 53	2148.05	19.57	77.09	91.47	164.47	0 51 41	1548.1	27.27	75.10							
		163.35	11 9 35	5654.35	19.58	258.59	91.49	164.47	12 43 49	5054.3	27.27	256.60							
		16.65	0 15 53	2148.05	19.57	77.09	91.47	164.47	0 51 41	1548.1	27.27	75.10							
		163.35	11 9 35	5654.35	19.58	258.59	91.49	164.47	12 43 49	5054.3	27.27	256.60							
		16.65	0 15 53	2148.05	19.57	77.09	91.47	164.47	0 51 41	1548.1	27.27	75.10							
		163.35	11 9 35	5654.35	19.58	258.59	91.49	164.47	12 43 49	5054.3	27.27	256.60							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.6935	TRA	-1.4039	TC3	-.4067	BAU	.4838	SGT	3835.2	SGR	540.7	SG3	90.5	ST	1926.2	SR	426.9	SS	695.4
RDE	.6814	RRA	-.1433	RC3	.0213	FAU	.01631	RRT	.2215	RRF	.0471	RTF	.9821	CRT	-.6967	CRS	.8018	CST	-.9873
FDE	-.9639	FRA	-.3381	FC3	-.1589	BSP	11900	SGB	3873.1	R23	-.1790	R13	.9813	LSA	2068.1	MSA	315.1	SSA	2.3
BDE	2.7783	BRA	1.4112	BC3	.4072	FSP	-291	SG1	3837.1	SG2	527.0	THA	1.82	EL1	1949.6	EL2	302.6	ALF	171.00

LAUNCH DATE SEP 23 1970 FLIGHT TIME 138.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 404.729

RL	150.11	LAL	-.00	LOL	359.55	VL	27.161	GAL	-5.68	AZL	103.27	HCA	193.39	SMA	128.79	ECC	.19217	INC	13.2674
RP	107.86	LAP	3.05	LOP	192.60	VP	37.822	GAP	5.96	AZP	77.08	TAL	205.30	TAP	38.69	RCA	104.04	APO	153.54
RC	121.402	GL	-57.01	GP	67.18	ZAL	107.31	ZAP	111.48	ETS	62.38	ZAE	104.39	ETE	147.00	ZAC	160.30	ETC	228.08

V1	29.682	V2	35.136	CLP	-160.77														

PLANETOCENTRIC CONIC

C3	54.689	VHL	7.395	DLA	-71.81	RAL	195.33	RAD	6569.0	VEL	13.268	PTH	2.42	VHP	10.160	DPA	50.58	RAP	244.22

ECC	1.9000	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		20.77	0 58 22	2024.73	26.54	71.35	95.87	159.58	1 32 7	1424.7	33.99	68.41							
		159.23	11 35 7	5548.64	26.54	257.03	95.89	159.57	13 7 36	4948.6	34.00	254.08							
		20.77	0 58 22	2024.73	26.54	71.35	95.87	159.58	1 32 7	1424.7	33.99	68.41							
		159.23	11 35 7	5548.64	26.54	257.03	95.89	159.57	13 7 36	4948.6	34.00	254.08							
		20.77	0 58 22	2024.73	26.54	71.35	95.87	159.58	1 32 7	1424.7	33.99	68.41							
		159.23	11 35 7	5548.64	26.54	257.03	95.89	159.57	13 7 36	4948.6	34.00	254.08							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.4100	TRA	-1.2810	TC3	-.8677	BAU	.6466	SGT	3903.8	SGR	789.0	SG3	114.5	ST	2097.0	SR	722.7	SS	771.7
RDE	.9295	RRA	.0808	RC3	.1708	FAU	.02442	RRT	-.7486	RRF	-.8803	RTF	.9674	CRT	-.9253	CRS	.9778	CST	-.9842
FDE	-1.0857	FRA	-.3422	FC3	-.3866	BSP	12332	SGB	3982.7	R23	.2159	R13	-.9720	LSA	2331.7	MSA	279.9	SSA	3.1
BDE	2.5830	BRA	1.2836	BC3	.8844	FSP	-373	SG1	3949.0	SG2	517.1	THA	171.24	EL1	2202.6	EL2	260.9	ALF	162.05

LAUNCH DATE SEP 23 1970 FLIGHT TIME 140.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 410.647

RL	150.11	LAL	-.00	LOL	359.55	VL	27.112	GAL	-5.41	AZL	100.45	HCA	196.53	SMA	128.46	ECC	.19251	INC	10.4469
RP	107.89	LAP	2.96	LOP	195.83	VP	37.776	GAP	6.22	AZP	79.98	TAL	203.92	TAP	40.45	RCA	103.73	APO	153.19
RC	123.060	GL	-52.49	GP	61.02	ZAL	109.61	ZAP	116.47	ETS	58.10	ZAE	109.12	ETE	144.93	ZAC	156.57	ETC	237.41

V1	29.682	V2	35.124	CLP	-156.92														

PLANETOCENTRIC CONIC

C3	38.069	VHL	6.170	DLA	-68.25	RAL	203.57	RAD	6568.5	VEL	12.627	PTH	2.29	VHP	8.697	DPA	43.74	RAP	243.14

ECC	1.6265	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		24.89	1 40 4	1922.84	31.50	64.86	99.41	154.24	2 12 7	1322.8	38.63	60.84							
		155.11	11 59 11	5468.92	31.51	254.86	99.43	154.24	13 30 20	4868.9	38.64	250.84							
		24.89	1 40 4	1922.84	31.50	64.86	99.41	154.24	2 12 7	1322.8	38.63	60.84							
		155.11	11 59 11	5468.92	31.51	254.86	99.43	154.24	13 30 20	4868.9	38.64	250.84							
		24.89	1 40 4	1922.84	31.50	64.86	99.41	154.24	2 12 7	1322.8	38.63	60.84							
		155.11	11 59 11	5468.92	31.51	254.86	99.43	154.24	13 30 20	4868.9	38.64	250.84							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-2.2550	TRA	-1.1833	TC3	-1.4070	BAU	.7345	SGT	3969.3	SGR	944.2	SG3	139.1	ST	2267.1	SR	819.1	SS	835.0
RDE	.8778	RRA	.1058	RC3	.3209	FAU	.03131	RRT	-.8434	RRF	-.9504	RTF	.9569	CRT	-.9567	CRS	.9927	CST	-.9848
FDE	-1.1678	FRA	-.3199	FC3	-.7120	BSP	12696	SGB	4080.1	R23	.2428	R13	-.9633	LSA	2538.7	MSA	251.3	SSA	3.9
BDE	2.4199	BRA	1.1581	BC3	1.4431	FSP	-456	SG1	4049.6	SG2	497.3	THA	168.48	EL1	2400.0	EL2	225.3	ALF	160.76

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LAUNCH DATE  SEP 23 1970                          FLIGHT TIME 142.00                                ARRIVAL DATE  FEB 12 1971

  HELIOCENTRIC CONIC                                      DISTANCE 416.574
   RL  150.11 LAL   -.00 LOL 359.55 VL  27.062 GAL  -5.14 AZL  98.51 HCA 199.70 SHA 128.13 ECC .19299 INC 0.5107 V1  29.682
   RP  107.93 LAP   2.06 LOP 199.05 VP  37.729 GAP   6.47 AZP  81.98 TAL 202.53 TAP  42.23 RCA 103.40 APO 152.85 V2  35.112
   RC 125.912 GL  -46.01 GP   55.37 ZAL 111.19 ZAP 121.18 ETS  55.96 ZAE 112.91 ETE 145.37 ZAC 152.35 ETC 243.61 CLP-155.66
  PLANETOCENTRIC CONIC
   C3  28.806 VHL  5.367 DLA -64.79 RAL 210.82 RAD 6568.2 VEL 12.255 PTH   2.20 VHP  7.792 DPA  37.64 RAP 242.53 ECC 1.4741
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      28.94     2 18  7   1830.26      34.72      58.04      101.77      148.79    2 48 46     1239.3      41.44      52.93
     151.06    12 19  0   5412.07      34.73     252.40      101.79      148.78   13 49 12     4812.1      41.45     247.39
      28.94     2 18  7   1830.26      34.72      58.04      101.77      148.79    2 48 46     1239.3      41.44      52.93
     151.06    12 19  0   5412.07      34.73     252.40      101.79      148.78   13 49 12     4812.1      41.45     247.39
      28.94     2 18  7   1830.26      34.72      58.04      101.77      148.79    2 48 46     1239.3      41.44      52.93
     151.06    12 19  0   5412.07      34.73     252.40      101.79      148.78   13 49 12     4812.1      41.45     247.39
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
   TDE-2.1085 TRA-1.0382 TC3-2.0023 BAU  .7901      SGT 4053.3 SGR  974.3 SG3  161.7            ST  2382.8 SR   823.5 SS   866.0
   RDE  .7090 RRA  .0844 RC3  .4473 FAU .03605      RRT -.8884 RRF -.9650 RTF  .9491            CRT -.9674 CRS  .9965 CST -.9952
   FDE-1.1080 FRA -.2736 FC3-1.1105 BSP  12997      SGB 4160.0 RZS  .2808 R13 -.9557            LSA 2655.6 NSA  230.9 SSA    4.9
   BDE 2.2444 BRA 1.0386 BC3 2.0516 FSP   -531      SG1 4141.9 SG2  472.9 THA 168.05            EL1 2513.3 EL2  197.8 ALF 161.39

LAUNCH DATE  SEP 23 1970                          FLIGHT TIME 144.00                                ARRIVAL DATE  FEB 14 1971

  HELIOCENTRIC CONIC                                      DISTANCE 422.500
   RL  150.11 LAL   -.00 LOL 359.55 VL  27.013 GAL  -4.87 AZL  97.09 HCA 202.88 SHA 127.79 ECC .19360 INC 7.0946 V1  29.682
   RP  107.97 LAP   2.75 LOP 202.27 VP  37.682 GAP   6.73 AZP  83.46 TAL 201.12 TAP  44.00 RCA 103.05 APO 152.54 V2  35.099
   RC 128.158 GL  -43.73 GP   50.30 ZAL 112.06 ZAP 125.54 ETS  54.60 ZAE 115.95 ETE 146.80 ZAC 148.23 ETC 247.70 CLP-155.51
  PLANETOCENTRIC CONIC
   C3  23.129 VHL  4.808 DLA -61.48 RAL 217.21 RAD 6567.9 VEL 12.021 PTH   2.15 VHP  7.213 DPA  32.18 RAP 242.32 ECC 1.3806
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      32.85     2 52 32   1760.54      36.58      51.25      103.41      143.51    3 22 22     1160.5      42.84      45.19
     147.15    12 35  9   5373.32      36.59     250.24      103.43      143.51   14  4 43     4773.3      42.85     244.18
      32.85     2 52 32   1760.54      36.58      51.25      103.41      143.51    3 22 22     1160.5      42.84      45.19
     147.15    12 35  9   5373.32      36.59     250.24      103.43      143.51   14  4 43     4773.3      42.85     244.18
      32.85     2 52 32   1760.54      36.58      51.25      103.41      143.51    3 22 22     1160.5      42.84      45.19
     147.15    12 35  9   5373.32      36.59     250.24      103.43      143.51   14  4 43     4773.3      42.85     244.18
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
   TDE-1.9883 TRA -.9290 TC3-2.6304 BAU  .8306      SGT 4147.1 SGR  953.2 SG3  181.0            ST  2440.5 SR   786.9 SS   866.3
   RDE  .6595 RRA  .0536 RC3  .5436 FAU .04131      RRT -.8778 RRF -.9675 RTF  .9432            CRT -.9721 CRS  .9980 CST -.9848
   FDE-1.1580 FRA -.2001 FC3-1.5462 BSP  13283      SGB 4255.3 RZS  .2708 R13 -.9493            LSA 2690.0 NSA  216.0 SSA    6.1
   BDE 2.0711 BRA  .9296 BC3 2.6060 FSP   -594      SG1 4231.7 SG2  447.4 THA 168.46            EL1 2558.2 EL2  176.1 ALF 162.51

LAUNCH DATE  SEP 23 1970                          FLIGHT TIME 146.00                                ARRIVAL DATE  FEB 16 1971

  HELIOCENTRIC CONIC                                      DISTANCE 428.418
   RL  150.11 LAL   -.00 LOL 359.55 VL  26.963 GAL  -4.58 AZL  96.01 HCA 206.06 SHA 127.46 ECC .19433 INC 6.0089 V1  29.682
   RP  108.01 LAP   2.64 LOP 205.49 VP  37.634 GAP   6.99 AZP  84.60 TAL 199.70 TAP  45.76 RCA 102.69 APO 152.23 V2  35.086
   RC 130.397 GL  -39.70 GP   45.80 ZAL 112.27 ZAP 129.53 ETS  53.59 ZAE 118.36 ETE 148.65 ZAC 144.44 ETC 250.53 CLP-155.91
  PLANETOCENTRIC CONIC
   C3  19.404 VHL  4.405 DLA -58.34 RAL 222.94 RAD 6567.8 VEL 11.865 PTH   2.10 VHP  6.857 DPA  27.30 RAP 242.48 ECC 1.3193
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      36.59     3 25 13   1709.86      37.44      44.74      104.76      138.63    3 53 43     1109.9      43.23      37.91
     143.41    12 48 35   5348.57      37.45     248.33      104.78      138.62   14 17 43     4748.6      43.24     241.49
      36.59     3 25 13   1709.86      37.44      44.74      104.76      138.63    3 53 43     1109.9      43.23      37.91
     143.41    12 48 35   5348.57      37.45     248.33      104.78      138.62   14 17 43     4748.6      43.24     241.49
      36.59     3 25 13   1709.86      37.44      44.74      104.76      138.63    3 53 43     1109.9      43.23      37.91
     143.41    12 48 35   5348.57      37.45     248.33      104.78      138.62   14 17 43     4748.6      43.24     241.49
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
   TDE-1.8401 TRA -.8329 TC3-3.3059 BAU  .8728      SGT 4298.0 SGR  929.3 SG3  200.1            ST  2473.9 SR   744.7 SS   855.0
   RDE  .5721 RRA  .0315 RC3  .6256 FAU .04516      RRT -.8881 RRF -.9663 RTF  .9422            CRT -.9754 CRS  .9989 CST -.9844
   FDE-1.1098 FRA -.1484 FC3-2.0148 BSP  14009      SGB 4397.3 RZS  .2842 R13 -.9473            LSA 2713.7 NSA  203.0 SSA    7.4
   BDE 1.9270 BRA  .8335 BC3 3.3646 FSP   -679      SG1 4377.3 SG2  419.4 THA 169.03            EL1 2578.7 EL2  157.4 ALF 163.57

LAUNCH DATE  SEP 23 1970                          FLIGHT TIME 148.00                                ARRIVAL DATE  FEB 18 1971

  HELIOCENTRIC CONIC                                      DISTANCE 434.330
   RL  150.11 LAL   -.00 LOL 359.55 VL  26.913 GAL  -4.29 AZL  95.15 HCA 209.25 SHA 127.13 ECC .19517 INC 5.1460 V1  29.682
   RP  108.05 LAP   2.51 LOP 208.71 VP  37.586 GAP   7.25 AZP  85.51 TAL 198.26 TAP  47.51 RCA 102.32 APO 151.95 V2  35.074
   RC 132.827 GL  -36.93 GP   41.84 ZAL 111.88 ZAP 133.13 ETS  52.77 ZAE 120.27 ETE 150.63 ZAC 141.03 ETC 252.60 CLP-156.58
  PLANETOCENTRIC CONIC
   C3  16.831 VHL  4.103 DLA -55.40 RAL 228.23 RAD 6567.7 VEL 11.756 PTH   2.08 VHP  6.595 DPA  22.95 RAP 242.93 ECC 1.2770
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      40.16     3 55 57   1657.29      37.60      38.63      106.13      134.22    4 23 35     1057.3      42.93      31.22
     139.84    13  0  3   5334.76      37.61     246.88      106.15      134.21   14 28 58     4734.8      42.94     239.47
      40.16     3 55 57   1657.29      37.60      38.63      106.13      134.22    4 23 35     1057.3      42.93      31.22
     139.84    13  0  3   5334.76      37.61     246.88      106.15      134.21   14 28 58     4734.8      42.94     239.47
      40.16     3 55 57   1657.29      37.60      38.63      106.13      134.22    4 23 35     1057.3      42.93      31.22
     139.84    13  0  3   5334.76      37.61     246.88      106.15      134.21   14 28 58     4734.8      42.94     239.47
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
   TDE-1.6097 TRA -.7053 TC3-3.9080 BAU  .8910      SGT 4341.7 SGR  863.9 SG3  208.0            ST  2418.4 SR   679.7 SS   798.5
   RDE  .4988 RRA -.0022 RC3  .6501 FAU .04633      RRT -.8808 RRF -.9585 RTF  .9350            CRT -.9759 CRS  .9995 CST -.9817
   FDE-1.0022 FRA -.0477 FC3-2.3828 BSP  13843      SGB 4426.8 RZS  .2898 R13 -.9395            LSA 2628.7 NSA  195.4 SSA    9.0
   BDE 1.7583 BRA  .7053 BC3 3.9598 FSP   -682      SG1 4408.4 SG2  402.8 THA 169.97            EL1 2508.0 EL2  143.0 ALF 164.61
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LAUNCH DATE SEP 23 1970 FLIGHT TIME 150.00 ARRIVAL DATE FEB 20 1971

DISTANCE 440.228

HELIOCENTRIC CONIC
RL 150.11 LAL -.00 LOL 359.55 VL 26.862 GAL -3.99 AZL 94.44 HCA 212.44 SMA 126.81 ECC .19614 INC 4.4397 V1 29.682
RP 108.09 LAP 2.38 LOP 211.92 VP 37.538 GAP 7.50 AZP 86.25 TAL 196.80 TAP 49.24 RCA 101.93 APO 151.68 V2 35.061
RC 134.850 GL -32.40 GP 38.35 ZAL 110.95 ZAP 136.39 ETS 52.08 ZAE 121.76 ETE 152.59 ZAC 138.02 ETC 254.19 CLP-157.41

PLANETOCENTRIC CONIC
C3 14.991 VHL 3.872 DLA -52.63 RAL 233.21 RAD 6567.6 VEL 11.678 PTH 2.05 VHP 6.446 DPA 19.08 RAP 243.64 ECC 1.2467

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.59	4 25 43	1609.66	37.26	32.91	107.68	130.31	4 52 33	1009.7	42.16	25.10
136.41	13 9 59	5329.95	37.27	245.95	107.69	130.30	14 38 49	4729.9	42.17	238.14
43.59	4 25 43	1609.66	37.26	32.91	107.68	130.31	4 52 33	1009.7	42.16	25.10
136.41	13 9 59	5329.95	37.27	245.95	107.69	130.30	14 38 49	4729.9	42.17	238.14
43.59	4 25 43	1609.66	37.26	32.91	107.68	130.31	4 52 33	1009.7	42.16	25.10
136.41	13 9 59	5329.95	37.27	245.95	107.69	130.30	14 38 49	4729.9	42.17	238.14

DIFFERENTIAL CORRECTIONS
TDE-1.5634 TRA -.5932 TC3-4.5240 BAU .9168
RDE .4247 RRA -.0242 RC3 .6709 FAU .04735
FDE -.9006 FRA .0385 FC3-2.7345 BSP 14150
BDE 1.6201 BRA .5937 BC3 4.5743 FSP -710

MID-COURSE EXECUTION ACCURACY
SGT 4440.6 SGR 817.5 SG3 216.3
RRT -.8784 RRF -.9493 RTF .9324
SGB 4515.5 RZ3 .2596 RZ3 -.9361
SG1 4499.0 SG2 385.7 THA 170.75

ORBIT DETERMINATION ACCURACY
ST 2356.2 SR 628.9 SS 743.2
CRT -.9771 CRS .9997 CST -.9788
LSA 2542.5 MSA 187.5 SSA 10.8
EL1 2435.3 EL2 129.4 ALF 185.34

LAUNCH DATE SEP 23 1970 FLIGHT TIME 152.00 ARRIVAL DATE FEB 22 1971

DISTANCE 446.113

HELIOCENTRIC CONIC
RL 150.11 LAL -.00 LOL 359.55 VL 26.812 GAL -3.68 AZL 93.85 HCA 215.64 SMA 126.48 ECC .19722 INC 3.8479 V1 29.682
RP 108.13 LAP 2.24 LOP 215.13 VP 37.490 GAP 7.76 AZP 86.87 TAL 195.32 TAP 50.96 RCA 101.54 APO 151.42 V2 35.047
RC 137.063 GL -29.09 GP 35.29 ZAL 109.55 ZAP 139.33 ETS 51.50 ZAE 122.92 ETE 154.46 ZAC 135.38 ETC 255.47 CLP-158.32

PLANETOCENTRIC CONIC
C3 13.644 VHL 3.694 DLA -50.01 RAL 237.97 RAD 6567.5 VEL 11.620 PTH 2.04 VHP 6.361 DPA 15.62 RAP 244.56 ECC 1.2245

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.89	4 54 57	1565.16	36.56	27.57	109.48	126.85	5 21 2	965.2	41.07	19.49
133.11	13 18 43	5332.74	36.58	245.55	109.49	126.84	14 47 35	4732.7	41.08	237.47
46.89	4 54 57	1565.16	36.56	27.57	109.48	126.85	5 21 2	965.2	41.07	19.49
133.11	13 18 43	5332.74	36.58	245.55	109.49	126.84	14 47 35	4732.7	41.08	237.47
46.89	4 54 57	1565.16	36.56	27.57	109.48	126.85	5 21 2	965.2	41.07	19.49
133.11	13 18 43	5332.74	36.58	245.55	109.49	126.84	14 47 35	4732.7	41.08	237.47

DIFFERENTIAL CORRECTIONS
TDE-1.4415 TRA -.4761 TC3-5.1094 BAU .9401
RDE .3756 RRA -.0433 RC3 .6749 FAU .04755
FDE -.7928 FRA .1255 FC3-3.0169 BSP 14436
BDE 1.4897 BRA .4761 BC3 5.1536 FSP -727

MID-COURSE EXECUTION ACCURACY
SGT 4535.2 SGR 773.9 SG3 221.5
RRT -.8731 RRF -.9372 RTF .9302
SGB 4600.7 RZ3 .2450 RZ3 -.9333
SG1 4585.6 SG2 373.1 THA 171.47

ORBIT DETERMINATION ACCURACY
ST 2265.3 SR 583.7 SS 678.7
CRT -.9784 CRS .9994 CST -.9745
LSA 2429.0 MSA 180.8 SSA 13.0
EL1 2336.3 EL2 116.9 ALF 165.81

LAUNCH DATE SEP 23 1970 FLIGHT TIME 154.00 ARRIVAL DATE FEB 24 1971

DISTANCE 451.983

HELIOCENTRIC CONIC
RL 150.11 LAL -.00 LOL 359.55 VL 26.762 GAL -3.36 AZL 93.34 HCA 218.83 SMA 126.16 ECC .19843 INC 3.3419 V1 29.682
RP 108.17 LAP 2.09 LOP 218.34 VP 37.442 GAP 8.01 AZP 87.40 TAL 193.82 TAP 52.65 RCA 101.12 APO 151.19 V2 35.034
RC 139.266 GL -25.97 GP 32.61 ZAL 107.74 ZAP 141.98 ETS 51.04 ZAE 123.82 ETE 156.20 ZAC 133.07 ETC 256.54 CLP-159.28

PLANETOCENTRIC CONIC
C3 12.647 VHL 3.556 DLA -47.50 RAL 242.57 RAD 6567.5 VEL 11.577 PTH 2.02 VHP 6.325 DPA 12.53 RAP 245.67 ECC 1.2081

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.12	5 24 7	1522.54	35.61	22.51	111.55	123.81	5 49 29	922.5	39.76	14.27
129.88	13 26 16	5342.57	35.62	245.69	111.56	123.80	14 55 18	4742.6	39.77	237.45
50.12	5 24 7	1522.54	35.61	22.51	111.55	123.81	5 49 29	922.5	39.76	14.27
129.88	13 26 16	5342.57	35.62	245.69	111.56	123.80	14 55 18	4742.6	39.77	237.45
50.12	5 24 7	1522.54	35.61	22.51	111.55	123.81	5 49 29	922.5	39.76	14.27
129.88	13 26 16	5342.57	35.62	245.69	111.56	123.80	14 55 18	4742.6	39.77	237.45

DIFFERENTIAL CORRECTIONS
TDE-1.3234 TRA -.3548 TC3-5.6538 BAU .9626
RDE .3373 RRA -.0506 RC3 .6684 FAU .04718
FDE -.6849 FRA .2097 FC3-3.2298 BSP 14739
BDE 1.3657 BRA .3597 BC3 5.6932 FSP -737

MID-COURSE EXECUTION ACCURACY
SGT 4629.5 SGR 735.8 SG3 224.4
RRT -.8660 RRF -.9224 RTF .9288
SGB 4687.6 RZ3 .2261 RZ3 -.9313
SG1 4673.4 SG2 364.5 THA 172.11

ORBIT DETERMINATION ACCURACY
ST 2150.5 SR 545.2 SS 609.7
CRT -.9803 CRS .9977 CST -.9681
LSA 2294.1 MSA 174.8 SSA 15.5
EL1 2216.1 EL2 104.5 ALF 166.01

LAUNCH DATE SEP 23 1970 FLIGHT TIME 156.00 ARRIVAL DATE FEB 26 1971

DISTANCE 457.839

HELIOCENTRIC CONIC
RL 150.11 LAL -.00 LOL 359.55 VL 26.712 GAL -3.03 AZL 92.90 HCA 222.02 SMA 125.84 ECC .19978 INC 2.9019 V1 29.682
RP 108.21 LAP 1.94 LOP 221.54 VP 37.393 GAP 8.27 AZP 87.84 TAL 192.31 TAP 54.33 RCA 100.70 APO 150.98 V2 35.021
RC 141.459 GL -23.03 GP 30.25 ZAL 105.57 ZAP 144.39 ETS 50.69 ZAE 124.52 ETE 157.80 ZAC 131.04 ETC 257.47 CLP-160.24

PLANETOCENTRIC CONIC
C3 11.912 VHL 3.451 DLA -45.10 RAL 247.05 RAD 6567.5 VEL 11.546 PTH 2.02 VHP 6.325 DPA 9.76 RAP 246.94 ECC 1.1960

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.30	5 53 33	1480.44	34.46	17.65	113.89	121.12	6 18 14	880.4	38.29	9.33
126.70	13 32 36	5359.26	34.47	246.37	113.90	121.11	15 1 55	4759.3	38.30	238.06
53.30	5 53 33	1480.44	34.46	17.65	113.89	121.12	6 18 14	880.4	38.29	9.33
126.70	13 32 36	5359.26	34.47	246.37	113.90	121.11	15 1 55	4759.3	38.30	238.06
53.30	5 53 33	1480.44	34.46	17.65	113.89	121.12	6 18 14	880.4	38.29	9.33
126.70	13 32 36	5359.26	34.47	246.37	113.90	121.11	15 1 55	4759.3	38.30	238.06

DIFFERENTIAL CORRECTIONS
TDE-1.2067 TRA -.2278 TC3-6.1430 BAU .9838
RDE .3072 RRA -.0759 RC3 .6537 FAU .04635
FDE -.5795 FRA .2906 FC3-3.3687 BSP 15031
BDE 1.2452 BRA .2395 BC3 6.1776 FSP -741

MID-COURSE EXECUTION ACCURACY
SGT 4720.2 SGR 702.8 SG3 225.3
RRT -.8567 RRF -.9051 RTF .9279
SGB 4772.2 RZ3 .2045 RZ3 -.9299
SG1 4758.6 SG2 359.6 THA 172.69

ORBIT DETERMINATION ACCURACY
ST 2013.7 SR 512.9 SS 538.9
CRT -.9829 CRS .9932 CST -.9584
LSA 2139.9 MSA 169.6 SSA 18.5
EL1 2075.9 EL2 91.7 ALF 165.92

LAUNCH DATE SEP 23 1970 FLIGHT TIME 150.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 463.679

RL 150.11 LAL -.00 LOL 359.55 VL 26.662 GAL -2.69 AZL 92.51 HCA 225.22 SMA 125.52 ECC .20127 INC 2.5134 V1 29.682
RP 108.25 LAP 1.78 LOP 224.74 VP 37.345 GAP 8.53 AZP 88.23 TAL 190.78 TAP 56.00 RCA 100.26 APO 150.78 V2 35.008
RC 143.643 GL -20.25 GP 28.18 ZAL 103.10 ZAP 146.57 ETS 50.46 ZAE 125.06 ETE 159.24 ZAC 129.27 ETC 258.31 CLP-161.22

PLANETOCENTRIC CONIC

C3 11.383 VHL 3.374 DLA -42.77 RAL 251.44 RAD 6567.4 VEL 11.523 PTH 2.01 VHP 6.353 DPA 7.28 RAP 248.34 ECC 1.1873

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.50	6 23 36	1437.60	33.16	12.08	116.48	118.73	6 47 34	837.7	36.71	4.55
123.50	13 37 33	5303.03	33.18	247.62	116.49	118.71	15 7 17	4703.0	36.72	239.28
56.50	6 23 36	1437.60	33.16	12.08	116.48	118.73	6 47 34	837.7	36.71	4.55
123.50	13 37 33	5303.03	33.18	247.62	116.49	118.71	15 7 17	4703.0	36.72	239.28
56.50	6 23 36	1437.60	33.16	12.08	116.48	118.73	6 47 34	837.7	36.71	4.55
123.50	13 37 33	5303.03	33.18	247.62	116.49	118.71	15 7 17	4703.0	36.72	239.28

DIFFERENTIAL CORRECTIONS
TDE-1.0000 TRA -.0042 TC3-6.5660 BAU 1.0039
RDE .2837 RRA -.0070 RC3 .6330 FAU .04517
FDE -.4779 FRA .3679 FC3-3.4354 BSP 15321
BDE 1.1261 BRA .1283 BC3 6.5972 FSP -741

MID-COURSE EXECUTION ACCURACY
SGT 4807.0 SGR 674.6 SG3 224.6
RRT -.0451 RRF -.0053 RTF .9274
SGB 4854.1 RZS .1818 R13 -.9291
SG1 4840.8 SG2 358.2 THA 173.20

ORBIT DETERMINATION ACCURACY
ST 1856.7 SR 485.7 SS 468.6
CRT -.9882 CRS .9824 CST -.9430
LSA 1968.5 MSA 165.4 SSA 22.0
EL1 1917.6 EL2 77.8 ALF 165.51

LAUNCH DATE SEP 23 1970 FLIGHT TIME 160.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 469.503

RL 150.11 LAL -.00 LOL 359.55 VL 26.612 GAL -2.33 AZL 92.17 HCA 228.41 SMA 125.21 ECC .20291 INC 2.1658 V1 29.682
RP 108.29 LAP 1.62 LOP 227.94 VP 37.298 GAP 8.79 AZP 88.56 TAL 189.24 TAP 57.65 RCA 99.80 APO 150.61 V2 34.995
RC 145.818 GL -17.62 GP 26.34 ZAL 100.37 ZAP 148.56 ETS 50.34 ZAE 125.49 ETE 160.54 ZAC 127.71 ETC 259.08 CLP-162.18

PLANETOCENTRIC CONIC

C3 11.023 VHL 3.320 DLA -40.50 RAL 255.74 RAD 6567.4 VEL 11.507 PTH 2.00 VHP 6.404 DPA 5.05 RAP 249.88 ECC 1.1814

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.74	6 54 40	1382.77	31.75	8.10	119.30	116.60	7 17 53	792.8	35.03	359.78
120.26	13 40 48	5414.70	31.76	249.49	119.31	116.58	15 11 2	4814.7	35.04	241.17
59.74	6 54 40	1382.77	31.75	8.10	119.30	116.60	7 17 53	792.8	35.03	359.78
120.26	13 40 48	5414.70	31.76	249.49	119.31	116.58	15 11 2	4814.7	35.04	241.17
59.74	6 54 40	1382.77	31.75	8.10	119.30	116.60	7 17 53	792.8	35.03	359.78
120.26	13 40 48	5414.70	31.76	249.49	119.31	116.58	15 11 2	4814.7	35.04	241.17

DIFFERENTIAL CORRECTIONS
TDE -.9700 TRA .0463 TC3-6.9126 BAU 1.0226
RDE .2851 RRA -.0084 RC3 .6074 FAU .04369
FDE -.3804 FRA .4415 FC3-3.4317 BSP 15584
BDE 1.0084 BRA .1097 BC3 6.9393 FSP -735

MID-COURSE EXECUTION ACCURACY
SGT 4887.5 SGR 650.3 SG3 222.4
RRT -.0311 RRF -.0034 RTF .9271
SGB 4930.5 RZS .1596 R13 -.9284
SG1 4917.4 SG2 359.5 THA 173.66

ORBIT DETERMINATION ACCURACY
ST 1681.3 SR 462.7 SS 401.3
CRT -.9903 CRS .9582 CST -.9175
LSA 1781.7 MSA 163.0 SSA 26.2
EL1 1742.7 EL2 62.1 ALF 164.74

LAUNCH DATE SEP 23 1970 FLIGHT TIME 162.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 475.309

RL 150.11 LAL -.00 LOL 359.55 VL 26.563 GAL -1.97 AZL 91.85 HCA 231.60 SMA 124.89 ECC .20471 INC 1.8514 V1 29.682
RP 108.33 LAP 1.45 LOP 231.14 VP 37.250 GAP 9.05 AZP 88.85 TAL 187.68 TAP 59.28 RCA 99.33 APO 150.46 V2 34.982
RC 147.979 GL -15.12 GP 24.72 ZAL 97.44 ZAP 150.38 ETS 50.35 ZAE 125.82 ETE 161.71 ZAC 126.33 ETC 259.81 CLP-163.14

PLANETOCENTRIC CONIC

C3 10.811 VHL 3.288 DLA -38.28 RAL 259.95 RAD 6567.4 VEL 11.498 PTH 2.00 VHP 6.472 DPA 3.03 RAP 251.52 ECC 1.1779

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.09	7 27 14	1343.92	30.24	3.16	122.32	114.68	7 49 38	743.9	33.29	354.88
116.91	13 41 51	5455.58	30.25	252.08	122.32	114.67	15 12 46	4855.6	33.30	243.79
63.09	7 27 14	1343.92	30.24	3.16	122.32	114.68	7 49 38	743.9	33.29	354.88
116.91	13 41 51	5455.58	30.25	252.08	122.32	114.67	15 12 46	4855.6	33.30	243.79
63.09	7 27 14	1343.92	30.24	3.16	122.32	114.68	7 49 38	743.9	33.29	354.88
116.91	13 41 51	5455.58	30.25	252.08	122.32	114.67	15 12 46	4855.6	33.30	243.79

DIFFERENTIAL CORRECTIONS
TDE -.8461 TRA .1982 TC3-7.1644 BAU 1.0388
RDE .2500 RRA -.1122 RC3 .5766 FAU .04191
FDE -.2854 FRA .5150 FC3-3.3566 BSP 15758
BDE .8825 BRA .2278 BC3 7.1876 FSP -719

MID-COURSE EXECUTION ACCURACY
SGT 4956.1 SGR 629.0 SG3 219.0
RRT -.0142 RRF -.0394 RTF .9261
SGB 4995.9 RZS .1400 R13 -.9272
SG1 4982.7 SG2 363.2 THA 174.07

ORBIT DETERMINATION ACCURACY
ST 1487.1 SR 442.2 SS 339.9
CRT -.9944 CRS .9045 CST -.8718
LSA 1579.4 MSA 165.0 SSA 30.8
EL1 1550.8 EL2 45.0 ALF 163.51

LAUNCH DATE SEP 23 1970 FLIGHT TIME 164.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 481.098

RL 150.11 LAL -.00 LOL 359.55 VL 26.513 GAL -1.59 AZL 91.56 HCA 234.78 SMA 124.59 ECC .20668 INC 1.5638 V1 29.682
RP 108.37 LAP 1.28 LOP 234.35 VP 37.203 GAP 9.32 AZP 89.10 TAL 186.11 TAP 60.90 RCA 98.84 APO 150.34 V2 34.969
RC 150.132 GL -12.76 GP 23.27 ZAL 94.35 ZAP 152.05 ETS 50.49 ZAE 126.08 ETE 162.75 ZAC 125.12 ETC 260.50 CLP-164.08

PLANETOCENTRIC CONIC

C3 10.731 VHL 3.276 DLA -36.10 RAL 264.07 RAD 6567.4 VEL 11.494 PTH 2.00 VHP 6.557 DPA 1.21 RAP 253.25 ECC 1.1766

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
66.61	8 1 56	1288.78	28.66	357.88	125.51	112.96	8 23 25	688.8	31.50	349.65
113.39	13 40 0	5507.69	28.67	255.51	125.51	112.94	15 11 48	4907.7	31.51	247.28
66.61	8 1 56	1288.78	28.66	357.88	125.51	112.96	8 23 25	688.8	31.50	349.65
113.39	13 40 0	5507.69	28.67	255.51	125.51	112.94	15 11 48	4907.7	31.51	247.28
66.61	8 1 56	1288.78	28.66	357.88	125.51	112.96	8 23 25	688.8	31.50	349.65
113.39	13 40 0	5507.69	28.67	255.51	125.51	112.94	15 11 48	4907.7	31.51	247.28

DIFFERENTIAL CORRECTIONS
TDE -.7227 TRA .3830 TC3-7.3430 BAU 1.0564
RDE .2393 RRA -.1230 RC3 .5475 FAU .04021
FDE -.2004 FRA .5805 FC3-3.2440 BSP 16014
BDE .7613 BRA .3741 BC3 7.3634 FSP -709

MID-COURSE EXECUTION ACCURACY
SGT 5032.5 SGR 613.0 SG3 215.5
RRT -.7973 RRF -.0151 RTF .9265
SGB 5069.7 RZS .1199 R13 -.9274
SG1 5056.3 SG2 368.2 THA 174.42

ORBIT DETERMINATION ACCURACY
ST 1292.8 SR 426.3 SS 293.8
CRT -.9962 CRS .8036 CST -.8034
LSA 1381.4 MSA 172.2 SSA 35.2
EL1 1360.8 EL2 35.3 ALF 161.80

LAUNCH DATE SEP 23 1970 FLIGHT TIME 166.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 486.867

RL	150.11	LAL	-.00	LOL	359.55	VL	26.464	GAL	-1.19	AZL	91.30	HCA	237.97	SMA	124.28	ECC	.20882	INC	1.2980	V1	29.682
RP	108.41	LAP	1.10	LOP	237.52	VP	37.156	GAP	9.59	AZP	89.31	TAL	184.53	TAP	62.50	RCA	98.33	APO	150.24	V2	34.956
RC	152.275	GL	-10.52	GP	21.98	ZAL	91.15	ZAP	153.60	ETS	50.76	ZAE	126.29	ETE	163.68	ZAC	124.04	ETC	261.18	CLP	-165.01

PLANETOCENTRIC CONIC

C3	10.776	VHL	3.283	DLA	-33.95	RAL	268.09	RAD	6567.4	VEL	11.496	PTH	2.00	VHP	6.655	DPA	-.43	RAP	255.08	ECC	1.1773

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
70.43	8 39 57	1223.34	27.02	351.96	128.84	111.39	9 0 20	623.3	29.68	343.80
109.57	13 34 3	5574.03	27.03	260.05	128.85	111.38	15 6 58	4974.8	29.68	251.89
70.43	8 39 57	1223.34	27.02	351.96	128.84	111.39	9 0 20	623.3	29.68	343.80
109.57	13 34 3	5574.03	27.03	260.05	128.85	111.38	15 6 58	4974.8	29.68	251.89
110.00	13 6 34	5658.70	24.76	265.53	127.78	114.35	14 40 53	5058.7	27.83	257.71
110.00	14 6 36	5475.51	29.33	253.26	129.79	108.40	15 37 51	4875.5	31.56	244.76

DIFFERENTIAL CORRECTIONS

TDE	-.5942	TRA	.5172	TC3	-7.4242	BAU	1.0721
RDE	.2309	RRA	-.1358	RC3	.5156	FAU	.03836
FDE	-.1192	FRA	.6438	FC3	-3.0815	BSP	16226
BDE	.6375	BRA	.5348	BC3	7.4421	FSP	-695

MID-COURSE EXECUTION ACCURACY

SGT	5100.0	SGR	599.0	SG3	211.1		
RRT	-.7787	RRF	-.7897	RTF	.9267		
SGB	5135.0	RZS	.1023	R13	-.9274		
SG1	5122.1	SG2	374.2	THA	174.75		

ORBIT DETERMINATION ACCURACY

ST	1097.1	SR	412.2	SS	264.9
CRT	-.9896	CRS	.6285	CST	-.7073
LSA	1185.6	MSA	191.5	SSA	38.4
EL1	1170.7	EL2	55.7	ALF	159.56

LAUNCH DATE SEP 23 1970 FLIGHT TIME 168.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 492.615

RL	150.11	LAL	-.00	LOL	359.55	VL	26.415	GAL	-.79	AZL	91.05	HCA	241.15	SMA	123.99	ECC	.21117	INC	1.0503	V1	29.682
RP	108.45	LAP	.92	LOP	240.70	VP	37.109	GAP	9.87	AZP	89.49	TAL	182.94	TAP	64.09	RCA	97.80	APO	150.17	V2	34.943
RC	154.408	GL	-8.42	GP	20.83	ZAL	87.87	ZAP	155.03	ETS	51.17	ZAE	126.46	ETE	164.51	ZAC	123.07	ETC	261.84	CLP	-165.92

PLANETOCENTRIC CONIC

C3	10.942	VHL	3.308	DLA	-31.85	RAL	271.99	RAD	6567.4	VEL	11.503	PTH	2.00	VHP	6.766	DPA	-1.92	RAP	256.98	ECC	1.1801

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
74.78	9 23 26	1140.10	25.34	344.06	132.29	109.96	9 42 26	540.1	27.83	336.77
105.22	13 21 42	5664.33	25.36	266.23	132.30	109.95	14 56 6	5064.3	27.84	258.14
74.78	9 23 26	1140.10	25.34	344.06	132.29	109.96	9 42 26	540.1	27.83	336.77
105.22	13 21 42	5664.33	25.36	266.23	132.30	109.95	14 56 6	5064.3	27.84	258.14
110.00	12 17 2	5865.24	18.38	278.16	128.85	119.34	13 54 48	5265.2	22.15	271.05
110.00	15 27 16	5278.23	32.75	238.67	134.59	100.41	16 55 12	4675.2	33.83	229.60

DIFFERENTIAL CORRECTIONS

TDE	-.4776	TRA	.6744	TC3	-7.4680	BAU	1.0948
RDE	.2275	RRA	-.1455	RC3	.4913	FAU	.03697
FDE	-.0560	FRA	.6821	FC3	-2.9255	BSP	16822
BDE	.5290	BRA	.6900	BC3	7.4842	FSP	-707

MID-COURSE EXECUTION ACCURACY

SGT	5194.8	SGR	590.7	SG3	207.1		
RRT	-.7625	RRF	-.7669	RTF	.9301		
SGB	5228.3	RZS	.0832	R13	-.9307		
SG1	5214.4	SG2	380.7	THA	175.02		

ORBIT DETERMINATION ACCURACY

ST	956.2	SR	404.1	SS	256.2
CRT	-.9625	CRS	.4319	CST	-.6423
LSA	1027.3	MSA	220.5	SSA	39.4
EL1	1014.7	EL2	101.1	ALF	157.20

LAUNCH DATE SEP 23 1970 FLIGHT TIME 170.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 498.344

RL	150.11	LAL	-.00	LOL	359.55	VL	26.367	GAL	-.36	AZL	90.82	HCA	244.33	SMA	123.69	ECC	.21372	INC	.8175	V1	29.682
RP	108.49	LAP	.74	LOP	243.89	VP	37.063	GAP	10.15	AZP	89.65	TAL	181.33	TAP	65.67	RCA	97.26	APO	150.13	V2	34.931
RC	156.530	GL	-6.45	GP	19.80	ZAL	84.54	ZAP	156.36	ETS	51.73	ZAE	126.59	ETE	165.26	ZAC	122.20	ETC	262.49	CLP	-166.81

PLANETOCENTRIC CONIC

C3	11.229	VHL	3.351	DLA	-29.79	RAL	275.78	RAD	6567.4	VEL	11.516	PTH	2.01	VHP	6.889	DPA	-3.27	RAP	258.95	ECC	1.1848

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.34	10 18 51	1017.83	23.65	335.03	135.85	108.66	10 35 49	417.8	25.98	327.01
99.66	12 56 29	5797.27	23.66	275.55	135.85	108.64	14 35 6	5197.3	25.99	267.54
100.00	12 38 6	5855.99	22.21	279.35	135.29	110.54	14 15 42	5256.0	24.80	271.52
100.00	13 19 55	5722.39	25.12	270.50	136.37	106.76	14 55 18	5122.4	27.18	262.30
110.00	11 57 23	696.49	14.27	307.05	131.23	121.40	12 9 0	96.5	18.32	300.28
110.00	16 17 8	5166.61	33.78	230.36	138.33	95.59	17 43 14	4566.6	34.18	221.14

DIFFERENTIAL CORRECTIONS

TDE	-.3314	TRA	.8644	TC3	-7.3383	BAU	1.1038
RDE	.2219	RRA	-.1591	RC3	.4527	FAU	.03474
FDE	.0218	FRA	.7552	FC3	-2.6785	BSP	16748
BDE	.3989	BRA	.8789	BC3	7.3522	FSP	-673

MID-COURSE EXECUTION ACCURACY

SGT	5235.4	SGR	578.2	SG3	201.5		
RRT	-.7403	RRF	-.7394	RTF	.9290		
SGB	5267.2	RZS	.0712	R13	-.9294		
SG1	5252.9	SG2	387.4	THA	175.30		

ORBIT DETERMINATION ACCURACY

ST	777.1	SR	391.0	SS	268.5
CRT	-.8701	CRS	.1607	CST	-.6129
LSA	865.1	MSA	281.2	SSA	37.8
EL1	852.0	EL2	175.8	ALF	155.23

LAUNCH DATE SEP 23 1970 FLIGHT TIME 172.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 504.049

RL	150.11	LAL	-.00	LOL	359.55	VL	26.319	GAL	.08	AZL	90.60	HCA	247.51	SMA	123.40	ECC	.21649	INC	.5970	V1	29.682
RP	108.53	LAP	.55	LOP	247.07	VP	37.018	GAP	10.44	AZP	89.77	TAL	179.72	TAP	67.24	RCA	96.68	APO	150.12	V2	34.919
RC	158.641	GL	-4.61	GP	18.87	ZAL	81.22	ZAP	157.59	ETS	52.43	ZAE	126.70	ETE	165.93	ZAC	121.41	ETC	263.14	CLP	-167.70

PLANETOCENTRIC CONIC

C3	11.641	VHL	3.412	DLA	-27.78	RAL	279.43	RAD	6567.4	VEL	11.534	PTH	2.01	VHP	7.022	DPA	-4.48	RAP	260.98	ECC	1.1916

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	11 3 53	928.28	18.75	326.54	138.27	111.62	11 19 21	328.3	21.52	318.96
90.00	12 40 35	613.76	25.25	305.81	140.47	103.26	12 50 49	13.8	26.83	297.50
100.00	11 39 29	813.21	15.59	316.64	136.81	115.83	11 53 2	213.2	18.93	309.45
100.00	14 47 40	5492.09	28.64	254.32	141.22	98.95	16 19 13	4892.1	29.58	245.64
110.00	11 45 43	793.62	10.76	312.39	134.04	122.64	11 58 56	193.6	14.99	305.84
110.00	16 57 56	5084.45	34.14	223.98	141.83	91.83	18 22 40	4484.4	34.02	214.73

DIFFERENTIAL CORRECTIONS

TDE	-.1867	TRA	1.0825	TC3	-7.1552	BAU	1.1155
RDE	.2182	RRA	-.1737	RC3	.4178	FAU	.03274
FDE	.0945	FRA	.8192	FC3	-2.4347	BSP	16701
BDE	.2872	BRA	1.0766	BC3	7.1673	FSP	-628

MID-COURSE EXECUTION ACCURACY

SGT	5292.0	SGR	569.4	SG3	197.1		
RRT	-.7207	RRF	-.7145	RTF	.9277		
SGB	5322.5	RZS	.0609	R13	-.9280		
SG1	5308.0	SG2	393.5	THA	175.54		

ORBIT DETERMINATION ACCURACY

ST	697.0	SR	379.6	SS	300.5
CRT	-.8650	CRS	-.0617	CST	-.6947
LSA	771.3	MSA	352.3	SSA	35.2
EL1	748.4	EL2	264.0	ALF	157.08

LAUNCH DATE SEP 23 1970 FLIGHT TIME 174.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 509.730

RL 150.11 LAL -.00 LOL 359.55 VL 26.271 GAL .53 AZL 90.39 HCA 250.69 SHA 123.11 ECC .21951 INC .3865 V1 29.682
RP 108.56 LAP .37 LOP 250.25 VP 36.973 GAP 10.74 AZP 89.87 TAL 178.10 TAP 68.80 RCA 96.09 APO 150.14 V2 34.907
RC 160.740 GL -2.91 GP 18.04 ZAL 77.93 ZAP 158.75 ETS 53.30 ZAE 126.79 ETE 166.53 ZAC 120.69 ETC 263.78 CLP-168.56

PLANETOCENTRIC CONIC

C3 12.184 VHL 3.491 DLA -25.83 RAL 282.94 RAD 6567.5 VEL 11.557 PTH 2.02 VHP 7.167 DPA -5.58 RAP 263.07 ECC 1.2005

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 22 22	1122.45	13.48	338.35	140.49	115.14	10 41 4	522.5	16.76	331.21
90.00	13 50 7	5726.77	27.40	271.37	144.82	97.44	15 25 33	5126.8	28.15	282.78
100.00	11 17 25	944.66	11.54	324.31	139.50	117.77	11 33 10	344.7	15.17	317.39
100.00	15 37 44	5379.79	29.55	246.10	145.08	94.72	17 7 24	4779.8	29.89	237.31
110.00	11 38 10	879.55	7.57	317.00	137.12	123.43	11 52 50	279.5	11.92	310.60
110.00	17 33 28	5017.66	34.16	218.76	145.24	88.75	18 57 6	4417.7	33.61	209.56

DIFFERENTIAL CORRECTIONS
TDE -.0456 TRA 1.2557 TC3-6.9087 BAU 1.1270
RDE .2165 RRA -.1864 RC3 .3832 FAU .03075
FDE .1502 FRA .0880 FC3-2.1849 BSP 17043
BDE .2232 BRA 1.2883 BC3 6.9193 FSP -634

MID-COURSE EXECUTION ACCURACY
SGT 5339.5 SGR 580.8 SG3 190.8
RRT -.0004 RRF -.0887 RTF .9288
SGB 5360.9 RZS .0509 R13 -.9291
SG1 5354.0 SG2 400.3 THA 175.78

ORBIT DETERMINATION ACCURACY
ST 706.1 SR 372.8 SS 331.6
CRT -.3710 CRS -.2006 CST -.8286
LSA 770.3 MSA 391.3 SSA 32.1
EL1 723.4 EL2 357.9 ALF 165.74

LAUNCH DATE SEP 23 1970 FLIGHT TIME 176.00 ARRIVAL DATE MAR 18 1971

HELIOCENTRIC CONIC DISTANCE 515.384

RL 150.11 LAL -.00 LOL 359.55 VL 26.224 GAL 1.01 AZL 90.18 HCA 253.87 SHA 122.83 ECC .22279 INC .1839 V1 29.682
RP 108.60 LAP .18 LOP 253.42 VP 36.928 GAP 11.04 AZP 89.95 TAL 176.48 TAP 70.35 RCA 95.47 APO 150.20 V2 34.896
RC 162.826 GL -1.35 GP 17.28 ZAL 74.69 ZAP 159.82 ETS 54.32 ZAE 126.86 ETE 167.07 ZAC 120.02 ETC 264.42 CLP-169.42

PLANETOCENTRIC CONIC

C3 12.885 VHL 3.587 DLA -23.95 RAL 286.30 RAD 6567.5 VEL 11.587 PTH 2.03 VHP 7.323 DPA -6.56 RAP 265.21 ECC 1.2117

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 2 11	1249.61	9.69	345.77	143.37	116.74	10 23 0	649.6	13.20	338.85
90.00	14 37 8	5822.80	28.09	283.84	148.64	93.73	16 10 51	5022.8	28.31	255.18
100.00	11 3 52	1050.50	8.12	330.30	142.54	118.87	11 21 22	450.5	11.91	323.56
100.00	16 18 8	5297.14	29.06	239.97	148.74	91.51	17 46 25	4697.1	29.75	231.17
110.00	11 33 11	958.52	4.59	321.17	140.37	123.91	11 49 10	358.5	9.01	314.87
110.00	18 8 18	4861.89	33.99	214.41	148.64	86.18	19 28 0	4361.9	33.09	205.29

DIFFERENTIAL CORRECTIONS
TDE .0984 TRA 1.4625 TC3-6.6097 BAU 1.1384
RDE .2198 RRA -.1983 RC3 .3509 FAU .02891
FDE .2036 FRA .9136 FC3-1.9458 BSP 17240
BDE .2413 BRA 1.4759 BC3 6.6190 FSP -620

MID-COURSE EXECUTION ACCURACY
SGT 5389.1 SGR 553.9 SG3 185.4
RRT -.6780 RRF -.0852 RTF .9298
SGB 5417.4 RZS .0425 R13 -.9301
SG1 5402.2 SG2 408.2 THA 175.99

ORBIT DETERMINATION ACCURACY
ST 796.0 SR 366.3 SS 367.3
CRT -.0860 CRS -.3012 CST -.9197
LSA 866.7 MSA 388.4 SSA 29.1
EL1 796.8 EL2 364.6 ALF 177.13

LAUNCH DATE SEP 23 1970 FLIGHT TIME 178.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 521.009

RL 150.11 LAL -.00 LOL 359.55 VL 26.177 GAL 1.50 AZL 89.99 HCA 257.04 SHA 122.55 ECC .22635 INC .0000 V1 29.682
RP 108.63 LAP -.01 LOP 256.60 VP 36.885 GAP 11.36 AZP 90.00 TAL 174.85 TAP 71.89 RCA 94.81 APO 150.29 V2 34.885
RC 164.900 GL .08 GP 16.60 ZAL 71.53 ZAP 160.83 ETS 55.53 ZAE 126.93 ETE 167.56 ZAC 119.41 ETC 265.07 CLP-170.26

PLANETOCENTRIC CONIC

C3 13.695 VHL 3.701 DLA -22.15 RAL 289.52 RAD 6567.5 VEL 11.622 PTH 2.04 VHP 7.490 DPA -7.44 RAP 267.39 ECC 1.2254

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 49 11	1354.54	6.42	351.75	146.53	117.64	10 11 46	754.5	10.07	344.97
90.00	15 15 46	5544.98	28.30	258.16	152.32	90.89	16 48 11	4945.0	28.13	249.60
100.00	10 54 38	1143.29	5.04	335.47	145.78	119.50	11 13 42	543.3	8.93	328.84
100.00	16 53 0	5231.46	29.88	235.09	152.32	88.94	18 20 11	4631.5	29.41	226.32
110.00	11 29 56	1032.63	1.76	325.04	143.74	124.14	11 47 9	432.6	6.23	318.81
110.00	18 34 11	4914.89	33.72	210.77	152.04	84.04	19 56 6	4314.9	32.53	201.74

DIFFERENTIAL CORRECTIONS
TDE .2486 TRA 1.6796 TC3-6.2866 BAU 1.1488
RDE .2223 RRA -.2116 RC3 .3195 FAU .02713
FDE .2540 FRA .9612 FC3-1.7151 BSP 17407
BDE .3335 BRA 1.6828 BC3 6.2747 FSP -605

MID-COURSE EXECUTION ACCURACY
SGT 5435.3 SGR 547.3 SG3 180.1
RRT -.6580 RRF -.0425 RTF .9309
SGB 5462.8 RZS .0351 R13 -.9311
SG1 5447.3 SG2 411.2 THA 176.19

ORBIT DETERMINATION ACCURACY
ST 936.5 SR 360.2 SS 403.3
CRT .1248 CRS -.3738 CST -.9641
LSA 1016.8 MSA 387.3 SSA 26.4
EL1 937.7 EL2 356.9 ALF 3.22

LAUNCH DATE SEP 23 1970 FLIGHT TIME 180.00 ARRIVAL DATE MAR 22 1971

HELIOCENTRIC CONIC DISTANCE 526.601

RL 150.11 LAL -.00 LOL 359.55 VL 26.131 GAL 2.02 AZL 89.80 HCA 260.22 SHA 122.28 ECC .23022 INC .2015 V1 29.682
RP 108.66 LAP -.20 LOP 259.77 VP 36.842 GAP 11.70 AZP 90.03 TAL 173.21 TAP 73.43 RCA 94.13 APO 150.43 V2 34.874
RC 166.961 GL 1.38 GP 15.97 ZAL 68.47 ZAP 161.77 ETS 56.92 ZAE 126.98 ETE 168.00 ZAC 118.83 ETC 265.71 CLP-171.10

PLANETOCENTRIC CONIC

C3 14.687 VHL 3.832 DLA -20.43 RAL 292.58 RAD 6567.6 VEL 11.665 PTH 2.05 VHP 7.670 DPA -8.22 RAP 269.82 ECC 1.2417

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 40 5	1447.30	3.48	356.96	149.86	118.12	10 4 13	847.3	7.20	350.27
90.00	15 49 16	5483.09	28.29	253.63	155.94	88.82	17 20 39	4883.1	27.79	245.00
100.00	10 48 6	1227.83	2.19	340.12	149.15	119.82	11 8 34	627.8	6.14	333.57
100.00	17 23 57	5177.80	29.74	231.11	155.87	86.85	18 50 15	4577.8	28.99	222.38
110.00	11 27 55	1103.05	-.93	328.72	147.20	124.17	11 46 18	503.1	3.56	322.51
110.00	19 0 37	4875.34	33.40	207.73	155.46	82.26	20 21 53	4275.3	31.97	198.79

DIFFERENTIAL CORRECTIONS
TDE .3825 TRA 1.8882 TC3-5.9410 BAU 1.1680
RDE .2279 RRA -.2232 RC3 .2942 FAU .02587
FDE .2903 FRA .9969 FC3-1.5246 BSP 18028
BDE .4452 BRA 1.9014 BC3 5.9483 FSP -612

MID-COURSE EXECUTION ACCURACY
SGT 5499.7 SGR 542.0 SG3 174.6
RRT -.6401 RRF -.0227 RTF .9339
SGB 5516.4 RZS .0278 R13 -.9341
SG1 5500.8 SG2 415.6 THA 176.36

ORBIT DETERMINATION ACCURACY
ST 1078.1 SR 357.2 SS 428.0
CRT .2529 CRS -.4190 CST -.9824
LSA 1162.2 MSA 349.1 SSA 24.2
EL1 1082.3 EL2 344.2 ALF 5.33

LAUNCH DATE SEP 23 1970 FLIGHT TIME 182.00 ARRIVAL DATE MAR 24 1971

DISTANCE 532.161

HELIOCENTRIC CONIC

RL 150.11 LAL -.00 LOL 359.55 VL 26.085 GAL 2.56 AZL 89.61 HCA 263.39 SMA 122.01 ECC .25442 INC .3889 V1 29.682
RP 108.69 LAP -.39 LOP 262.94 VP 36.800 GAP 12.05 AZP 90.04 TAL 171.58 TAP 74.96 RCA 93.41 APO 150.61 V2 34.864
RC 169.007 GL 2.55 GP 15.41 ZAL 65.51 ZAP 162.65 ETS 58.50 ZAE 127.02 ETE 168.40 ZAC 118.29 ETC 266.35 CLP-171.92

PLANETOCENTRIC CONIC

C3 15.859 VHL 3.982 DLA -18.79 RAL 295.49 RAD 6567.6 VEL 11.715 PTH 2.06 VHP 7.861 DPA -8.90 RAP 271.87 ECC 1.2610

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 33 29	1532.15	.73	1.70	153.29	118.31	9 59 2	932.1	4.51	355.06
90.00	16 19 6	5432.74	28.15	249.95	159.53	86.78	17 49 39	4832.7	27.40	241.37
100.00	10 43 24	1306.56	-.48	344.44	152.62	119.89	11 5 10	706.6	3.50	337.92
100.00	17 51 53	5133.56	29.53	227.84	159.42	85.14	19 17 26	4533.6	28.54	219.17
110.00	11 26 48	1170.56	-3.51	332.24	150.73	124.02	11 46 19	570.6	.98	326.04
110.00	19 24 58	4842.33	33.07	205.21	158.90	80.81	20 45 40	4242.3	31.45	196.36

DIFFERENTIAL CORRECTIONS

TDE .5534 TRA 2.1414 TC3-5.5003 BAU 1.1675
RDE .2313 RRA -.2383 RC3 .2600 FAU .02371
FDE .3421 FRA 1.0504 FC3-1.2945 BSP 17820
BDE .5994 BRA 2.1546 BC3 5.5064 FSP -579

MID-COURSE EXECUTION ACCURACY

SGT 5515.1 SGR 533.7 SG3 169.6
RRT -.6186 RRF -.5993 RTF .9332
SGB 5540.9 R23 .0237 R13 -.9334
SG1 5525.1 SG2 418.6 THA 176.55

ORBIT DETERMINATION ACCURACY

ST 1266.7 SR 350.2 SS 466.9
CRT .3564 CRS -.4636 CST -.9917
LSA 1355.4 HSA 327.9 SSA 22.4
EL1 1273.2 EL2 325.5 ALF 6.02

LAUNCH DATE SEP 23 1970 FLIGHT TIME 184.00 ARRIVAL DATE MAR 26 1971

DISTANCE 537.682

HELIOCENTRIC CONIC

RL 150.11 LAL -.00 LOL 359.55 VL 26.040 GAL 3.12 AZL 89.43 HCA 266.56 SMA 121.74 ECC .23898 INC .5734 V1 29.682
RP 108.72 LAP -.57 LOP 266.11 VP 36.759 GAP 12.41 AZP 90.03 TAL 169.94 TAP 76.50 RCA 92.65 APO 150.84 V2 34.855
RC 171.039 GL 3.60 GP 14.90 ZAL 62.68 ZAP 163.46 ETS 60.29 ZAE 127.05 ETE 168.77 ZAC 117.77 ETC 267.00 CLP-172.74

PLANETOCENTRIC CONIC

C3 17.229 VHL 4.151 DLA -17.24 RAL 298.25 RAD 6567.7 VEL 11.773 PTH 2.08 VHP 8.067 DPA -9.50 RAP 274.15 ECC 1.2836

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 28 37	1611.22	-1.82	6.11	156.81	118.26	9 55 28	1011.2	1.97	359.48
90.00	16 46 0	5391.60	27.95	246.96	163.11	85.29	18 15 52	4791.6	27.01	238.42
100.00	10 40 1	1380.84	-3.00	348.52	156.16	119.76	11 3 1	780.8	.99	342.00
100.00	18 17 18	5097.22	29.29	225.16	162.96	83.75	19 42 15	4497.2	28.12	216.55
110.00	11 26 22	1235.60	-5.97	335.66	154.31	123.72	11 46 58	635.6	-1.50	329.43
110.00	19 47 25	4815.23	32.76	203.15	162.37	79.63	21 7 41	4215.2	30.98	194.38

DIFFERENTIAL CORRECTIONS

TDE .7176 TRA 2.3952 TC3-5.0796 BAU 1.1712
RDE .2370 RRA -.2523 RC3 .2307 FAU .02191
FDE .3848 FRA 1.0967 FC3-1.1011 BSP 17858
BDE .7557 BRA 2.4085 BC3 5.0848 FSP -559

MID-COURSE EXECUTION ACCURACY

SGT 5545.1 SGR 528.0 SG3 164.6
RRT -.5985 RRF -.5780 RTF .9340
SGB 5570.0 R23 .0196 R13 -.9341
SG1 5554.0 SG2 420.7 THA 176.73

ORBIT DETERMINATION ACCURACY

ST 1440.7 SR 345.0 SS 497.2
CRT .4219 CRS -.4940 CST -.9957
LSA 1531.0 HSA 312.4 SSA 20.8
EL1 1448.4 EL2 311.2 ALF 6.05

LAUNCH DATE SEP 23 1970 FLIGHT TIME 186.00 ARRIVAL DATE MAR 28 1971

DISTANCE 543.160

HELIOCENTRIC CONIC

RL 150.11 LAL -.00 LOL 359.55 VL 25.995 GAL 3.72 AZL 89.24 HCA 269.73 SMA 121.48 ECC .24395 INC .7567 V1 29.682
RP 108.75 LAP -.76 LOP 269.28 VP 36.718 GAP 12.80 AZP 90.00 TAL 168.31 TAP 78.03 RCA 91.85 APO 151.12 V2 34.846
RC 173.036 GL 4.53 GP 14.43 ZAL 59.97 ZAP 164.23 ETS 62.31 ZAE 127.08 ETE 169.10 ZAC 117.28 ETC 267.64 CLP-173.55

PLANETOCENTRIC CONIC

C3 18.821 VHL 4.338 DLA -15.79 RAL 300.87 RAD 6567.8 VEL 11.841 PTH 2.10 VHP 8.287 DPA -10.02 RAP 276.46 ECC 1.3097

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 24 59	1685.85	-4.22	10.28	160.39	118.03	9 53 5	1085.8	-.44	3.64
90.00	17 10 29	5358.19	27.74	244.54	166.68	84.09	18 39 47	4758.2	26.64	236.05
100.00	10 37 36	1451.55	-5.38	352.42	159.75	119.45	11 1 48	851.6	-1.41	345.88
100.00	18 40 33	5067.72	29.05	223.00	166.51	82.64	20 5 1	4467.7	27.73	214.45
110.00	11 26 27	1298.52	-8.34	339.00	157.93	123.27	11 48 6	698.5	-3.90	332.72
110.00	20 8 12	4793.51	32.48	201.52	165.85	78.70	21 28 5	4193.5	30.58	192.82

DIFFERENTIAL CORRECTIONS

TDE .8818 TRA 2.6578 TC3-4.6664 BAU 1.1753
RDE .2442 RRA -.2658 RC3 .2039 FAU .02025
FDE .4230 FRA 1.1408 FC3 -.9316 BSP 17970
BDE .9150 BRA 2.6710 BC3 4.6709 FSP -543

MID-COURSE EXECUTION ACCURACY

SGT 5572.8 SGR 518.1 SG3 159.7
RRT -.5789 RRF -.5576 RTF .9353
SGB 5596.8 R23 .0180 R13 -.9354
SG1 5580.9 SG2 421.8 THA 176.90

ORBIT DETERMINATION ACCURACY

ST 1602.7 SR 340.6 SS 522.9
CRT .4675 CRS -.5172 CST -.9976
LSA 1693.4 HSA 300.2 SSA 19.5
EL1 1610.8 EL2 299.6 ALF 5.88

LAUNCH DATE SEP 23 1970 FLIGHT TIME 188.00 ARRIVAL DATE MAR 30 1971

DISTANCE 548.589

HELIOCENTRIC CONIC

RL 150.11 LAL -.00 LOL 359.55 VL 25.951 GAL 4.34 AZL 89.06 HCA 272.89 SMA 121.23 ECC .24936 INC .9397 V1 29.682
RP 108.78 LAP -.94 LOP 272.45 VP 36.679 GAP 13.20 AZP 89.95 TAL 166.68 TAP 79.57 RCA 91.00 APO 151.46 V2 34.837
RC 175.059 GL 5.36 GP 14.00 ZAL 57.40 ZAP 164.93 ETS 64.56 ZAE 127.10 ETE 169.41 ZAC 116.80 ETC 268.28 CLP-174.36

PLANETOCENTRIC CONIC

C3 20.662 VHL 4.545 DLA -14.42 RAL 303.34 RAD 6567.8 VEL 11.918 PTH 2.12 VHP 8.523 DPA -10.45 RAP 278.79 ECC 1.3400

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 22 19	1756.86	-6.48	14.28	164.01	117.63	9 51 36	1156.9	-2.73	7.61
90.00	17 32 53	5331.48	27.54	242.61	170.25	83.15	19 1 44	4731.5	26.31	234.16
100.00	10 35 57	1519.29	-7.63	356.19	163.39	118.99	11 1 16	919.3	-3.70	349.60
100.00	19 1 56	5044.28	28.84	221.29	170.06	81.77	20 26 0	4444.3	27.40	212.78
110.00	11 26 56	1359.57	-10.60	342.28	161.59	122.69	11 49 36	759.6	-6.22	335.93
110.00	20 27 26	4776.76	32.25	200.27	169.35	77.99	21 47 3	4176.8	30.26	191.62

DIFFERENTIAL CORRECTIONS

TDE 1.0498 TRA 2.9387 TC3-4.2600 BAU 1.1778
RDE .2925 RRA -.2790 RC3 .1790 FAU .01866
FDE .4586 FRA 1.1844 FC3 -.7820 BSP 18083
BDE 1.0796 BRA 2.9459 BC3 4.2638 FSP -528

MID-COURSE EXECUTION ACCURACY

SGT 5596.3 SGR 509.6 SG3 154.9
RRT -.5593 RRF -.5377 RTF .9368
SGB 5619.4 R23 .0130 R13 -.0369
SG1 5603.6 SG2 421.9 THA 177.07

ORBIT DETERMINATION ACCURACY

ST 1753.6 SR 336.5 SS 545.4
CRT .5014 CRS -.5359 CST -.9985
LSA 1844.3 HSA 290.0 SSA 18.3
EL1 1761.9 EL2 289.8 ALF 5.65

LAUNCH DATE SEP 23 1970 FLIGHT TIME 190.00 ARRIVAL DATE APR 1 1971

HELIOCENTRIC CONIC DISTANCE 553.964

RL 150.11 LAL -.00 LOL 359.55 VL 25.907 GAL 4.99 AZL 88.88 HCA 276.06 SMA 120.98 ECC .25524 INC 1.1236 V1 29.682
RP 108.80 LAP -1.12 LOP 275.61 VP 36.640 GAP 13.64 AZP 89.88 TAL 165.05 TAP 81.11 RCA 90.10 APO 151.86 V2 34.829
RC 177.047 GL 6.09 GP 13.60 ZAL 54.96 ZAP 165.58 ETS 67.07 ZAE 127.11 ETE 169.69 ZAC 116.34 ETC 268.92 CLP-175.17

PLANETOCENTRIC CONIC

C3 22.784 VHL 4.773 DLA -13.15 RAL 305.67 RAD 6567.9 VEL 12.007 PTH 2.14 VHP 8.777 DPA -10.81 RAP 281.13 ECC 1.3750

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 20 22	1824.85	-8.60	18.14	167.67	117.08	9 50 47	1224.8	-4.91	11.42
90.00	17 53 27	5310.60	27.36	241.11	173.83	82.42	19 21 57	4710.7	26.03	232.70
100.00	10 34 52	1584.48	-9.76	359.86	167.06	118.39	11 1 17	984.5	-5.89	353.20
100.00	19 21 38	5028.29	28.66	219.98	173.61	81.10	20 45 24	4426.3	27.13	211.52
110.00	11 27 43	1418.95	-12.77	345.52	165.27	121.98	11 51 22	819.0	-8.45	339.08
110.00	20 45 16	4764.58	32.07	199.36	172.87	77.48	22 4 41	4164.6	30.02	190.75

DIFFERENTIAL CORRECTIONS

TDE 1.2224 TRA 3.2215 TC3-3.0644 BAU 1.1780
RDE .2619 RRA -.2917 RC3 .1558 FAU .01711
FDE .4926 FRA 1.2281 FC3 -.6901 BSP 18183
BDE 1.2501 BRA 3.2347 BC3 3.0675 FSP -513

MID-COURSE EXECUTION ACCURACY

SGT 5615.3 SGR 500.2 SG3 150.3
RRT -.5394 RRF -.5179 RTF .9586
SGB 5637.5 RZS .0105 RI3 -.9586
SG1 5621.8 SG2 420.8 THA 177.23

ORBIT DETERMINATION ACCURACY

ST 1893.3 SR 332.4 SS 565.6
CRT .5280 CRS -.5519 CST -.9991
LSA 1983.8 NSA 281.2 SSA 17.4
EL1 1901.6 EL2 281.1 ALF 5.42

LAUNCH DATE SEP 23 1970 FLIGHT TIME 192.00 ARRIVAL DATE APR 3 1971

HELIOCENTRIC CONIC DISTANCE 559.277

RL 150.11 LAL -.00 LOL 359.55 VL 25.063 GAL 5.68 AZL 88.69 HCA 279.22 SMA 120.73 ECC .26167 INC 1.3096 V1 29.682
RP 108.83 LAP -1.29 LOP 278.78 VP 36.603 GAP 14.10 AZP 89.79 TAL 163.44 TAP 82.66 RCA 89.14 APO 152.32 V2 34.822
RC 179.021 GL 6.73 GP 13.25 ZAL 52.65 ZAP 166.17 ETS 69.83 ZAE 127.11 ETE 169.95 ZAC 115.88 ETC 269.56 CLP-175.98

PLANETOCENTRIC CONIC

C3 25.227 VHL 5.023 DLA -11.96 RAL 307.87 RAD 6568.0 VEL 12.108 PTH 2.17 VHP 9.051 DPA -11.10 RAP 283.48 ECC 1.4152

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 19 1	1880.25	-10.61	21.90	171.36	116.41	9 50 31	1290.2	-6.98	15.10
90.00	18 12 22	5295.20	27.22	240.00	177.40	81.88	19 40 37	4695.2	25.82	231.62
100.00	10 34 16	1647.44	-11.77	3.44	170.75	117.67	11 1 43	1047.4	-7.98	356.71
100.00	19 39 48	5013.23	28.51	219.04	177.17	80.62	21 3 21	4413.2	26.92	210.60
110.00	11 28 45	1476.80	-14.83	348.73	168.99	121.16	11 53 22	876.8	-10.59	342.19
110.00	21 1 48	4756.63	31.95	198.77	176.39	77.15	22 21 5	4156.6	29.86	190.19

DIFFERENTIAL CORRECTIONS

TDE 1.3998 TRA 3.5243 TC3-3.4843 BAU 1.1760
RDE .2724 RRA -.3037 RC3 .1343 FAU .01560
FDE .5250 FRA 1.2718 FC3 -.5354 BSP 18274
BDE 1.4258 BRA 3.5374 BC3 3.4869 FSP -499

MID-COURSE EXECUTION ACCURACY

SGT 5629.2 SGR 490.1 SG3 145.8
RRT -.5189 RRF -.4978 RTF .9405
SGB 5650.5 RZS .0083 RI3 -.9405
SG1 5635.0 SG2 418.5 THA 177.40

ORBIT DETERMINATION ACCURACY

ST 2019.9 SR 328.4 SS 583.6
CRT .5497 CRS -.5662 CST -.9994
LSA 2110.3 NSA 273.3 SSA 16.5
EL1 2028.1 EL2 273.2 ALF 5.20

LAUNCH DATE SEP 23 1970 FLIGHT TIME 194.00 ARRIVAL DATE APR 5 1971

HELIOCENTRIC CONIC DISTANCE 564.520

RL 150.11 LAL -.00 LOL 359.55 VL 25.021 GAL 6.41 AZL 88.50 HCA 282.38 SMA 120.49 ECC .26868 INC 1.4990 V1 29.682
RP 108.85 LAP -1.46 LOP 281.94 VP 36.566 GAP 14.59 AZP 89.68 TAL 161.84 TAP 84.23 RCA 88.11 APO 152.86 V2 34.815
RC 180.980 GL 7.28 GP 12.92 ZAL 50.47 ZAP 166.70 ETS 72.87 ZAE 127.10 ETE 170.19 ZAC 115.44 ETC 270.19 CLP-176.79

PLANETOCENTRIC CONIC

C3 28.037 VHL 5.295 DLA -10.85 RAL 309.95 RAD 6568.1 VEL 12.223 PTH 2.20 VHP 9.346 DPA -11.31 RAP 285.83 ECC 1.4614

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 18 6	1953.31	-12.48	25.58	175.07	115.62	9 50 40	1353.3	-8.94	18.70
90.00	18 29 49	5284.51	27.11	239.24	180.96	81.51	19 57 54	4684.5	25.66	230.87
100.00	10 34 1	1708.40	-13.68	6.97	174.47	116.84	11 2 29	1108.4	-9.97	.14
100.00	19 56 36	5004.66	28.42	218.42	180.73	80.31	21 20 0	4404.7	26.79	210.00
110.00	11 29 57	1533.24	-16.79	351.93	172.72	120.22	11 55 30	933.2	-12.65	345.26
110.00	21 17 9	4752.58	31.89	198.47	179.92	76.99	22 36 22	4152.6	29.77	189.90

DIFFERENTIAL CORRECTIONS

TDE 1.5016 TRA 3.8425 TC3-3.1248 BAU 1.1720
RDE .2840 RRA -.3149 RC3 .1148 FAU .01417
FDE .5559 FRA 1.3161 FC3 -.4375 BSP 18309
BDE 1.6069 BRA 3.8554 BC3 3.1269 FSP -486

MID-COURSE EXECUTION ACCURACY

SGT 5639.4 SGR 479.2 SG3 141.4
RRT -.4979 RRF -.4777 RTF .9427
SGB 5659.7 RZS .0066 RI3 -.9427
SG1 5644.5 SG2 415.2 THA 177.56

ORBIT DETERMINATION ACCURACY

ST 2133.5 SR 324.5 SS 599.5
CRT .5682 CRS -.5791 CST -.9995
LSA 2223.9 NSA 266.0 SSA 15.7
EL1 2141.6 EL2 266.0 ALF 5.02

LAUNCH DATE SEP 23 1970 FLIGHT TIME 196.00 ARRIVAL DATE APR 7 1971

HELIOCENTRIC CONIC DISTANCE 569.680

RL 150.11 LAL -.00 LOL 359.55 VL 25.778 GAL 7.19 AZL 88.31 HCA 285.54 SMA 120.25 ECC .27636 INC 1.6929 V1 29.682
RP 108.87 LAP -1.63 LOP 285.10 VP 36.531 GAP 15.12 AZP 89.55 TAL 160.26 TAP 85.81 RCA 87.02 APO 153.48 V2 34.809
RC 182.925 GL 7.77 GP 12.61 ZAL 48.41 ZAP 167.16 ETS 76.20 ZAE 127.08 ETE 170.42 ZAC 114.99 ETC 270.81 CLP-177.61

PLANETOCENTRIC CONIC

C3 31.270 VHL 5.592 DLA -9.83 RAL 311.90 RAD 6568.2 VEL 12.355 PTH 2.23 VHP 9.665 DPA -11.46 RAP 288.18 ECC 1.5146

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 17 34	2014.32	-14.26	29.18	178.80	114.73	9 51 8	1414.3	-10.81	22.21
90.00	18 45 56	5278.17	27.05	238.79	184.52	81.29	20 13 54	4678.2	25.57	230.43
100.00	10 34 4	1767.54	-15.46	10.45	178.21	115.80	11 3 31	1167.5	-11.86	3.52
100.00	20 12 7	5000.18	28.37	218.10	184.28	80.15	21 35 27	4400.2	26.71	209.69
110.00	11 31 17	1588.34	-18.65	355.12	176.48	119.18	11 57 46	988.3	-14.62	348.32
110.00	21 31 23	4752.14	31.88	198.44	183.45	76.97	22 50 35	4152.1	29.76	189.87

DIFFERENTIAL CORRECTIONS

TDE 1.7687 TRA 4.1786 TC3-2.7863 BAU 1.1655
RDE .2967 RRA -.3290 RC3 .0972 FAU .01279
FDE .5856 FRA 1.3610 FC3 -.3542 BSP 18512
BDE 1.7934 BRA 4.1992 BC3 2.7880 FSP -474

MID-COURSE EXECUTION ACCURACY

SGT 5644.3 SGR 467.4 SG3 137.2
RRT -.4759 RRF -.4568 RTF .9452
SGB 5663.6 RZS .0052 RI3 -.9452
SG1 5648.7 SG2 410.7 THA 177.73

ORBIT DETERMINATION ACCURACY

ST 2234.0 SR 320.5 SS 613.9
CRT .5846 CRS -.5914 CST -.9996
LSA 2324.4 NSA 259.1 SSA 15.0
EL1 2241.9 EL2 259.1 ALF 4.86

LAUNCH DATE SEP 23 1970 FLIGHT TIME 198.00 ARRIVAL DATE APR 9 1971

HELIOCENTRIC CONIC DISTANCE 574.746
RL 150.11 LAL -.00 LOL 359.55 VL 25.737 GAL 8.01 AZL 88.11 HCA 288.70 SMA 120.02 ECC .28477 INC 1.8928 V1 29.682
RP 108.88 LAP -1.79 LOP 288.27 VP 36.496 GAP 15.69 AZP 89.39 TAL 158.71 TAP 87.41 RCA 85.84 APO 154.20 V2 34.804
RC 184.854 GL 8.18 GP 12.34 ZAL 46.49 ZAP 167.56 ETS 79.81 ZAE 127.04 ETE 170.84 ZAC 114.56 ETC 271.43 CLP-178.43
PLANETOCENTRIC CONIC
C3 34.994 VHL 5.916 DLA -8.89 RAL 313.73 RAD 6568.4 VEL 12.505 PTH 2.26 VHP 10.011 DPA -11.55 RAP 290.53 ECC 1.5759

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 17 20	2073.42	-15.91	32.74	182.54	113.74	9 51 53	1473.4	-12.57	25.66
90.00	19 0 47	5275.78	27.03	238.62	188.06	81.21	20 28 43	4675.8	25.53	230.27
100.00	10 34 21	1824.97	-17.14	13.89	181.96	114.87	11 4 46	1225.0	-13.65	6.84
100.00	20 26 28	4999.46	28.36	218.05	187.82	80.12	21 49 47	4399.5	26.70	209.64
110.00	11 32 43	1642.17	-20.40	358.31	180.25	118.04	12 0 6	1042.2	-16.49	351.36
110.00	21 44 34	4755.02	31.93	198.65	186.99	77.09	23 3 49	4155.0	29.82	190.08

DIFFERENTIAL CORRECTIONS
TDE 1.9612 TRA 4.5281 TC3-2.4698 BAU 1.1561
RDE .3105 RRA -.3337 RC3 .0812 FAU .01147
FDE .6145 FRA 1.4070 FC3 -.2837 BSP 18659
BDE 1.9857 BRA 4.5404 BC3 2.4711 FSP -463

MID-COURSE EXECUTION ACCURACY
SGT 5643.7 SGR 454.7 SG3 133.0
RRT -.4527 RRF -.4350 RTF .9478
SGB 5662.0 R23 .0042 R13 -.9478
SG1 5647.5 SG2 405.1 THA 177.90

ORBIT DETERMINATION ACCURACY
ST 2321.5 SR 316.4 SS 627.0
CRT .5996 CRS -.6033 CST -.9997
LSA 2412.2 MSA 252.4 SSA 14.4
EL1 2329.4 EL2 252.4 ALF 4.73

LAUNCH DATE SEP 23 1970 FLIGHT TIME 200.00 ARRIVAL DATE APR 11 1971

HELIOCENTRIC CONIC DISTANCE 579.701
RL 150.11 LAL -.00 LOL 359.55 VL 25.696 GAL 8.89 AZL 87.90 HCA 291.86 SMA 119.79 ECC .29400 INC 2.1002 V1 29.682
RP 108.90 LAP -1.95 LOP 291.43 VP 36.463 GAP 16.30 AZP 89.22 TAL 157.18 TAP 89.04 RCA 84.57 APO 155.01 V2 34.799
RC 186.768 GL 8.54 GP 12.08 ZAL 44.68 ZAP 167.90 ETS 83.71 ZAE 126.99 ETE 170.84 ZAC 114.12 ETC 272.04 CLP-179.27
PLANETOCENTRIC CONIC
C3 39.290 VHL 6.268 DLA -8.02 RAL 315.45 RAD 6568.5 VEL 12.675 PTH 2.30 VHP 10.388 DPA -11.57 RAP 292.87 ECC 1.6466

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 17 20	2130.73	-17.45	36.24	186.29	112.66	9 52 51	1530.7	-14.23	29.05
90.00	19 14 30	5276.99	27.04	238.70	191.59	81.25	20 42 27	4677.0	25.55	230.35
100.00	10 34 49	1880.80	-18.71	17.30	185.72	113.75	11 6 9	1280.8	-15.34	10.12
100.00	20 39 43	5002.15	28.39	218.24	191.35	80.22	22 3 5	4402.2	26.75	209.82
110.00	11 34 14	1694.76	-22.05	1.49	184.04	116.80	12 2 28	1094.8	-18.28	354.40
110.00	21 56 47	4760.95	32.02	199.09	190.51	77.33	23 16 8	4161.0	29.94	190.50

DIFFERENTIAL CORRECTIONS
TDE 2.1618 TRA 4.9001 TC3-2.1750 BAU 1.1430
RDE .3255 RRA -.3408 RC3 .0670 FAU .01018
FDE .6432 FRA 1.4548 FC3 -.2243 BSP 18809
BDE 2.1862 BRA 4.9119 BC3 2.1760 FSP -452

MID-COURSE EXECUTION ACCURACY
SGT 5639.0 SGR 441.1 SG3 129.0
RRT -.4277 RRF -.4118 RTF .9507
SGB 5656.2 R23 .0034 R13 -.9508
SG1 5642.2 SG2 398.5 THA 178.07

ORBIT DETERMINATION ACCURACY
ST 2398.5 SR 312.2 SS 639.7
CRT .6140 CRS -.6153 CST -.9998
LSA 2489.8 MSA 245.7 SSA 13.7
EL1 2406.2 EL2 245.6 ALF 4.62

LAUNCH DATE SEP 23 1970 FLIGHT TIME 202.00 ARRIVAL DATE APR 13 1971

HELIOCENTRIC CONIC DISTANCE 584.526
RL 150.11 LAL -.00 LOL 359.55 VL 25.656 GAL 9.83 AZL 87.68 HCA 295.02 SMA 119.57 ECC .30416 INC 2.3170 V1 29.682
RP 108.91 LAP -2.10 LOP 294.59 VP 36.431 GAP 16.98 AZP 89.02 TAL 155.68 TAP 90.70 RCA 83.20 APO 155.94 V2 34.795
RC 188.667 GL 8.84 GP 11.85 ZAL 42.99 ZAP 168.15 ETS 87.87 ZAE 126.91 ETE 171.04 ZAC 113.69 ETC 272.63 CLP 179.88
PLANETOCENTRIC CONIC
C3 44.869 VHL 6.653 DLA -7.22 RAL 317.06 RAD 6568.7 VEL 12.869 PTH 2.34 VHP 10.799 DPA -11.54 RAP 295.19 ECC 1.7284

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 17 32	2186.31	-18.87	39.70	190.03	111.51	9 53 59	1586.3	-15.79	32.38
90.00	19 27 8	5281.47	27.08	239.02	195.10	81.40	20 55 10	4681.5	25.62	230.66
100.00	10 35 26	1935.05	-20.16	20.67	189.48	112.55	11 7 41	1335.1	-16.93	13.37
100.00	20 51 56	5007.97	28.45	218.66	194.85	80.43	22 15 24	4408.0	26.84	210.23
110.00	11 35 46	1746.10	-23.59	4.68	187.83	115.48	12 4 53	1146.1	-19.97	357.42
110.00	22 8 5	4769.68	32.15	199.74	194.03	77.70	23 27 35	4169.7	30.12	191.11

DIFFERENTIAL CORRECTIONS
TDE 2.3711 TRA 5.2782 TC3-1.9001 BAU 1.1247
RDE .3417 RRA -.3462 RC3 .0543 FAU .00891
FDE .6723 FRA 1.5049 FC3 -.1743 BSP 18951
BDE 2.3955 BRA 5.2896 BC3 1.9009 FSP -442

MID-COURSE EXECUTION ACCURACY
SGT 5617.6 SGR 426.8 SG3 125.1
RRT -.4000 RRF -.3869 RTF .9536
SGB 5633.8 R23 .0040 R13 -.9536
SG1 5620.2 SG2 391.0 THA 178.25

ORBIT DETERMINATION ACCURACY
ST 2462.8 SR 307.8 SS 652.4
CRT .6290 CRS -.6274 CST -.9998
LSA 2555.1 MSA 238.6 SSA 13.2
EL1 2470.5 EL2 238.5 ALF 4.54

LAUNCH DATE SEP 23 1970 FLIGHT TIME 204.00 ARRIVAL DATE APR 15 1971

HELIOCENTRIC CONIC DISTANCE 589.198
RL 150.11 LAL -.00 LOL 359.55 VL 25.617 GAL 10.84 AZL 87.45 HCA 298.17 SMA 119.35 ECC .31537 INC 2.5451 V1 29.682
RP 108.92 LAP -2.24 LOP 297.75 VP 36.400 GAP 17.71 AZP 88.80 TAL 154.23 TAP 92.40 RCA 81.71 APO 156.99 V2 34.791
RC 190.549 GL 9.09 GP 11.63 ZAL 41.42 ZAP 168.33 ETS 92.29 ZAE 126.82 ETE 171.23 ZAC 113.25 ETC 273.22 CLP 179.01
PLANETOCENTRIC CONIC
C3 50.023 VHL 7.073 DLA -6.49 RAL 318.56 RAD 6568.8 VEL 13.091 PTH 2.39 VHP 11.250 DPA -11.46 RAP 297.48 ECC 1.8233

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 17 54	2240.19	-20.18	43.11	193.76	110.29	9 55 15	1640.2	-17.24	35.67
90.00	19 38 46	5288.95	27.16	239.56	198.58	81.66	21 6 55	4688.9	25.73	231.18
100.00	10 36 10	1987.74	-21.50	24.01	193.22	111.28	11 9 17	1387.7	-18.42	16.57
100.00	21 3 11	5016.63	28.55	219.29	198.34	80.75	22 26 48	4416.6	26.98	210.84
110.00	11 37 21	1796.18	-25.02	7.87	191.62	114.09	12 7 17	1196.2	-21.56	.44
110.00	22 18 30	4780.95	32.31	200.58	197.53	78.17	23 38 11	4181.0	30.34	191.92

DIFFERENTIAL CORRECTIONS
TDE 2.5910 TRA 5.7192 TC3-1.6456 BAU 1.1009
RDE .3590 RRA -.3490 RC3 .0430 FAU .00764
FDE .7025 FRA 1.5589 FC3 -.1321 BSP 19057
BDE 2.6158 BRA 5.7258 BC3 1.6462 FSP -431

MID-COURSE EXECUTION ACCURACY
SGT 5615.8 SGR 411.4 SG3 121.4
RRT -.3710 RRF -.3590 RTF .9571
SGB 5630.8 R23 .0024 R13 -.9571
SG1 5617.9 SG2 381.9 THA 178.44

ORBIT DETERMINATION ACCURACY
ST 2522.9 SR 303.1 SS 665.9
CRT .6421 CRS -.6403 CST -.9998
LSA 2616.5 MSA 231.8 SSA 12.6
EL1 2530.4 EL2 231.7 ALF 4.45

LAUNCH DATE SEP 23 1970 FLIGHT TIME 206.00 ARRIVAL DATE APR 17 1971

HELIOCENTRIC CONIC DISTANCE 593.686

RL 150.11 LAL -.00 LOL 359.55 VL 25.578 GAL 11.93 AZL 87.21 HCA 301.33 SMA 119.14 ECC .32777 INC 2.7872 V1 29.682
RP 108.93 LAP -2.38 LOP 300.91 VP 36.370 GAP 18.51 AZP 88.55 TAL 152.83 TAP 94.16 RCA 80.09 APO 158.19 V2 34.789
RC 192.414 GL 9.30 GP 11.43 ZAL 39.96 ZAP 168.41 ETS 96.92 ZAE 126.69 ETE 171.41 ZAC 112.82 ETC 273.79 CLP 178.11

PLANETOCENTRIC CONIC

C3 56.736 VHL 7.532 DLA -5.82 RAL 319.96 RAD 6569.0 VEL 13.345 PTH 2.44 VHP 11.746 DPA -11.32 RAP 299.75 ECC 1.9337

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 18 24	2292.34	-21.38	46.47	197.46	109.03	9 56 36	1692.3	-18.58	38.91
90.00	19 49 24	5299.13	27.26	240.29	202.02	82.01	21 17 43	4699.1	25.87	231.89
100.00	10 36 58	2038.83	-22.72	27.31	196.94	109.96	11 10 58	1438.8	-19.80	19.74
100.00	21 13 30	5027.87	28.67	220.10	201.78	81.16	22 37 18	4427.9	27.15	211.63
110.00	11 38 55	1844.93	-26.34	11.05	195.39	112.62	12 9 40	1244.9	-23.04	3.44
110.00	22 28 4	4794.54	32.49	201.60	201.00	78.74	23 47 58	4194.5	30.60	192.89

DIFFERENTIAL CORRECTIONS

TDE 2.8247 TRA 6.1656 TC3-1.4097 BAU 1.0095
RDE .3777 RRA -.3494 RC3 .0332 FAU .00834
FDE .7342 FRA 1.6168 FC3 -.0967 BSP 19123
BDE 2.8490 BRA 6.1755 BC3 1.4101 FSP -420

MID-COURSE EXECUTION ACCURACY

SGT 5599.2 SGR 395.5 SG3 117.9
RRT -.3380 RRF -.3282 RTF .9605
SGB 5613.2 RZS .0023 R13 -.9605
SG1 5600.8 SG2 372.1 THA 178.63

ORBIT DETERMINATION ACCURACY

ST 2573.2 SR 298.2 SS 680.4
CRT .6565 CRS -.6537 CST -.9998
LSA 2668.8 NSA 224.4 SSA 12.1
EL1 2580.7 EL2 224.3 ALF 4.38

LAUNCH DATE SEP 23 1970 FLIGHT TIME 208.00 ARRIVAL DATE APR 19 1971

HELIOCENTRIC CONIC DISTANCE 597.953

RL 150.11 LAL -.00 LOL 359.55 VL 25.541 GAL 13.11 AZL 86.95 HCA 304.48 SMA 118.94 ECC .34152 INC 3.0459 V1 29.682
RP 108.94 LAP -2.51 LOP 304.08 VP 36.342 GAP 19.40 AZP 88.27 TAL 151.49 TAP 95.97 RCA 78.32 APO 159.56 V2 34.787
RC 194.261 GL 9.47 GP 11.25 ZAL 38.62 ZAP 168.41 ETS 101.72 ZAE 126.53 ETE 171.59 ZAC 112.39 ETC 274.34 CLP 177.18

PLANETOCENTRIC CONIC

C3 64.588 VHL 8.037 DLA -5.22 RAL 321.25 RAD 6569.2 VEL 13.636 PTH 2.49 VHP 12.294 DPA -11.15 RAP 301.99 ECC 2.0630

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 19 0	2342.71	-22.46	49.76	201.11	107.72	9 58 2	1742.7	-19.82	42.08
90.00	19 59 6	5311.77	27.37	241.19	205.41	82.45	21 27 38	4711.8	26.05	232.78
100.00	10 37 53	2088.25	-23.84	30.56	200.62	108.59	11 12 41	1488.2	-21.07	22.85
100.00	21 22 55	5041.46	28.81	221.09	205.18	81.66	22 46 56	4441.5	27.36	212.58
110.00	11 40 29	1892.26	-27.54	14.21	199.14	111.10	12 12 1	1292.3	-24.42	6.42
110.00	22 36 46	4810.22	32.89	202.78	204.43	79.41	23 56 58	4210.2	30.89	194.02

DIFFERENTIAL CORRECTIONS

TDE 3.0746 TRA 6.6508 TC3-1.1907 BAU 1.0284
RDE .3978 RRA -.3468 RC3 .0248 FAU .00498
FDE .7683 FRA 1.6800 FC3 -.0667 BSP 19104
BDE 3.1003 BRA 6.6598 BC3 1.1909 FSP -407

MID-COURSE EXECUTION ACCURACY

SGT 5580.1 SGR 378.9 SG3 114.6
RRT -.3009 RRF -.2934 RTF .9640
SGB 5593.0 RZS .0022 R13 -.9640
SG1 5581.3 SG2 361.3 THA 178.82

ORBIT DETERMINATION ACCURACY

ST 2617.0 SR 293.2 SS 696.7
CRT .6715 CRS -.6680 CST -.9998
LSA 2715.3 NSA 216.8 SSA 11.5
EL1 2624.4 EL2 216.6 ALF 4.33

LAUNCH DATE SEP 23 1970 FLIGHT TIME 210.00 ARRIVAL DATE APR 21 1971

HELIOCENTRIC CONIC DISTANCE 601.952

RL 150.11 LAL -.00 LOL 359.55 VL 25.505 GAL 14.40 AZL 86.67 HCA 307.64 SMA 118.74 ECC .35682 INC 3.5250 V1 29.682
RP 108.94 LAP -2.63 LOP 307.24 VP 36.315 GAP 20.39 AZP 87.97 TAL 150.23 TAP 97.86 RCA 76.37 APO 161.11 V2 34.786
RC 196.090 GL 9.60 GP 11.08 ZAL 37.39 ZAP 168.30 ETS 106.65 ZAE 126.33 ETE 171.78 ZAC 111.96 ETC 274.87 CLP 176.22

PLANETOCENTRIC CONIC

C3 73.820 VHL 8.592 DLA -4.69 RAL 322.43 RAD 6569.4 VEL 13.970 PTH 2.55 VHP 12.902 DPA -10.93 RAP 304.18 ECC 2.2149

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 19 40	2391.17	-23.43	52.99	204.71	106.38	9 59 32	1791.2	-20.96	45.19
90.00	20 7 52	5326.65	27.50	242.26	208.74	82.98	21 36 39	4726.6	26.24	233.82
100.00	10 38 49	2135.88	-24.83	33.75	204.24	107.20	11 14 25	1535.9	-22.24	25.91
100.00	21 31 25	5057.18	28.96	222.23	208.53	82.25	22 55 42	4457.2	27.58	213.70
110.00	11 42 0	1938.04	-28.62	17.33	202.83	109.54	12 14 18	1338.0	-25.69	9.38
110.00	22 44 43	4827.78	32.91	204.10	207.82	80.17	24 5 11	4227.8	31.20	195.30

DIFFERENTIAL CORRECTIONS

TDE 3.3435 TRA 7.1780 TC3 -.9887 BAU .9759
RDE .4196 RRA -.3401 RC3 .0177 FAU .00354
FDE .8053 FRA 1.7495 FC3 -.0416 BSP 18989
BDE 3.3697 BRA 7.1830 BC3 .9889 FSP -393

MID-COURSE EXECUTION ACCURACY

SGT 5559.3 SGR 361.9 SG3 111.4
RRT -.2586 RRF -.2534 RTF .9676
SGB 5571.0 RZS .0022 R13 -.9676
SG1 5560.1 SG2 349.6 THA 179.03

ORBIT DETERMINATION ACCURACY

ST 2654.9 SR 288.0 SS 715.2
CRT .6872 CRS -.6833 CST -.9999
LSA 2756.6 NSA 208.8 SSA 11.0
EL1 2662.3 EL2 208.6 ALF 4.29

LAUNCH DATE SEP 23 1970 FLIGHT TIME 212.00 ARRIVAL DATE APR 23 1971

HELIOCENTRIC CONIC DISTANCE 605.623

RL 150.11 LAL -.00 LOL 359.55 VL 25.469 GAL 15.80 AZL 86.37 HCA 310.79 SMA 118.55 ECC .37389 INC 3.6289 V1 29.682
RP 108.94 LAP -2.75 LOP 310.40 VP 36.290 GAP 21.48 AZP 87.63 TAL 149.06 TAP 99.84 RCA 74.22 APO 162.87 V2 34.785
RC 197.900 GL 9.70 GP 10.92 ZAL 36.27 ZAP 168.09 ETS 111.64 ZAE 126.08 ETE 171.96 ZAC 111.53 ETC 275.39 CLP 175.21

PLANETOCENTRIC CONIC

C3 84.738 VHL 9.205 DLA -4.22 RAL 323.51 RAD 6569.7 VEL 14.356 PTH 2.61 VHP 13.579 DPA -10.68 RAP 306.32 ECC 2.3946

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 20 25	2437.59	-24.28	56.12	208.22	105.03	10 1 2	1837.6	-21.98	48.20
90.00	20 15 43	5343.55	27.64	243.48	212.00	83.57	21 44 46	4743.6	26.46	235.01
100.00	10 39 47	2181.57	-25.72	36.86	207.78	105.79	11 16 8	1581.6	-23.30	28.89
100.00	21 39 2	5074.81	29.11	223.52	211.80	82.91	23 3 37	4474.8	27.83	214.95
110.00	11 43 29	1982.11	-29.59	20.39	206.46	107.96	12 16 32	1382.1	-26.85	12.28
110.00	22 51 49	4847.03	33.12	205.56	211.14	81.01	24 12 36	4247.0	31.53	196.70

DIFFERENTIAL CORRECTIONS

TDE 3.6339 TRA 7.7436 TC3 -.8028 BAU .9096
RDE .4434 RRA -.3291 RC3 .0119 FAU .00199
FDE .8457 FRA 1.8282 FC3 -.0204 BSP 18764
BDE 3.6609 BRA 7.7506 BC3 .8029 FSP -377

MID-COURSE EXECUTION ACCURACY

SGT 5536.9 SGR 344.7 SG3 108.5
RRT -.2101 RRF -.2071 RTF .9712
SGB 5547.6 RZS .0024 R13 -.9712
SG1 5537.4 SG2 337.0 THA 179.25

ORBIT DETERMINATION ACCURACY

ST 2687.0 SR 282.8 SS 736.4
CRT .7039 CRS -.6997 CST -.9999
LSA 2793.2 NSA 200.5 SSA 10.5
EL1 2694.4 EL2 200.3 ALF 4.26

LAUNCH DATE SEP 23 1970 FLIGHT TIME 214.00 ARRIVAL DATE APR 25 1971

HELIOCENTRIC CONIC DISTANCE 608.889

```
RL  150.11 LAL   -.00 LOL 359.55 VL  25.436 GAL  17.35 AZL  86.04 HCA 313.94 SMA 118.37 ECC .39301 INC 3.9631 V1  29.682
RP  108.94 LAP  -2.85 LOP 313.56 VP  36.267 GAP  22.71 AZP  87.25 TAL 148.00 TAP 101.94 RCA  71.85 APO 164.89 V2  34.785
RC 199.690 GL    9.77 GP   10.77 ZAL  35.28 ZAP 167.76 ETS 116.63 ZAE 125.78 ETE 172.15 ZAC 111.10 ETC 275.88 CLP 174.14
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PLANETOCENTRIC CONIC

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C3  97.735 VHL  9.886 DLA  -3.81 RAL 324.47 RAD 6569.9 VEL 14.801 PTH   2.67 VHP 14.338 DPA -10.40 RAP 308.40 ECC 2.6085
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 21 12	2481.75	-25.03	59.14	211.62	103.70	10 2 34	1881.8	-22.90	51.12
90.00	20 22 36	5382.31	27.77	244.84	215.16	84.24	21 51 58	4762.3	26.68	236.34
100.00	10 40 45	2225.10	-26.49	39.06	211.22	104.39	11 17 51	1625.1	-24.25	31.78
100.00	21 45 43	5094.19	29.27	224.94	214.97	83.64	23 10 38	4494.2	28.08	216.34
110.00	11 44 55	2024.26	-30.43	23.38	209.98	106.37	12 18 39	1424.3	-27.89	15.11
110.00	22 58 4	4867.79	33.33	207.15	214.37	81.93	24 19 11	4267.8	31.86	198.23

DIFFERENTIAL CORRECTIONS

```
TDE 3.9494 TRA 8.3629 TC3 -.6324 BAU  .8264
RDE  .4697 RRA -.3128 RC3  .0074 FAU .00029
FDE  .8903 FRA 1.9116 FC3 -.0025 BSP  18408
BDE 3.9772 BRA 8.3687 BC3  .6324 FSP   -359
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5513.4 SGR  327.6 SG3  105.8
RRT -.1537 RRF -.1529 RTF  .9748
SGB 5523.2 R23  .0026 R13 -.9748
SG1 5513.7 SG2  323.7 THA 179.48
```

ORBIT DETERMINATION ACCURACY

```
ST  2713.7 SR   277.6 SS   760.9
CRT  .7216 CRS -.7173 CST -.9999
LSA 2825.5 NSA  191.8 SSA   10.0
EL1 2721.1 EL2  191.7 ALF   4.24
```

LAUNCH DATE SEP 23 1970 FLIGHT TIME 216.00 ARRIVAL DATE APR 27 1971

HELIOCENTRIC CONIC DISTANCE 611.650

```
RL  150.11 LAL   -.00 LOL 359.55 VL  25.404 GAL  19.06 AZL  85.67 HCA 317.09 SMA 118.20 ECC .41449 INC 4.3347 V1  29.682
RP  108.94 LAP  -2.95 LOP 316.73 VP  36.245 GAP  24.10 AZP  86.82 TAL 147.07 TAP 104.16 RCA  69.20 APO 167.19 V2  34.786
RC 201.461 GL    9.82 GP   10.63 ZAL  34.42 ZAP 167.30 ETS 121.59 ZAE 125.40 ETE 172.35 ZAC 110.68 ETC 276.34 CLP 173.00
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PLANETOCENTRIC CONIC

```
C3 113.321 VHL 10.645 DLA  -3.47 RAL 325.31 RAD 6570.2 VEL 15.319 PTH   2.74 VHP 15.193 DPA -10.10 RAP 310.40 ECC 2.8650
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 22 1	2523.39	-25.67	62.02	214.88	102.39	10 4 4	1923.4	-23.70	53.90
90.00	20 28 30	5382.76	27.90	246.32	218.20	84.97	21 58 12	4782.8	26.91	237.79
100.00	10 41 44	2266.22	-27.15	42.74	214.51	103.01	11 19 30	1666.2	-25.09	34.55
100.00	21 51 28	5115.16	29.42	226.48	218.04	84.44	23 16 43	4515.2	28.34	217.84
110.00	11 46 15	2064.23	-31.17	26.27	213.37	104.81	12 20 39	1464.2	-28.82	17.85
110.00	23 3 25	4889.92	33.53	208.85	217.51	82.91	24 24 55	4289.9	32.19	199.87

DIFFERENTIAL CORRECTIONS

```
TDE 4.2932 TRA 9.0384 TC3 -.4771 BAU  .7228
RDE  .4990 RRA -.2898 RC3  .0040 FAU-.00162
FDE  .9398 FRA 2.0071 FC3  .0124 BSP  17913
BDE 4.3221 BRA 9.0441 BC3  .4771 FSP   -340
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5489.0 SGR  310.8 SG3  103.2
RRT -.0878 RRF -.0890 RTF  .9784
SGB 5497.8 R23  .0029 R13 -.9784
SG1 5489.1 SG2  309.6 THA 179.71
```

ORBIT DETERMINATION ACCURACY

```
ST  2734.7 SR   272.6 SS   789.0
CRT  .7404 CRS -.7361 CST -.9999
LSA 2853.4 NSA  182.9 SSA    9.5
EL1 2742.2 EL2  182.7 ALF   4.24
```

LAUNCH DATE SEP 23 1970 FLIGHT TIME 218.00 ARRIVAL DATE APR 29 1971

HELIOCENTRIC CONIC DISTANCE 613.772

```
RL  150.11 LAL   -.00 LOL 359.55 VL  25.373 GAL  20.97 AZL  85.25 HCA 320.24 SMA 118.03 ECC .43872 INC 4.7531 V1  29.682
RP  108.93 LAP  -3.04 LOP 319.89 VP  36.225 GAP  25.67 AZP  86.34 TAL 146.31 TAP 106.55 RCA  66.25 APO 169.82 V2  34.788
RC 203.212 GL    9.83 GP   10.49 ZAL  33.69 ZAP 166.70 ETS 126.45 ZAE 124.95 ETE 172.56 ZAC 110.26 ETC 276.78 CLP 171.79
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PLANETOCENTRIC CONIC

```
C3 132.160 VHL 11.496 DLA  -3.20 RAL 326.02 RAD 6570.4 VEL 15.921 PTH   2.81 VHP 16.162 DPA  -9.79 RAP 312.32 ECC 3.1750
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 22 50	2562.17	-26.21	64.73	217.96	101.13	10 5 32	1962.2	-24.40	56.53
90.00	20 33 20	5404.81	28.02	247.92	221.11	85.77	22 3 24	4804.8	27.14	239.37
100.00	10 42 41	2304.59	-27.71	45.45	217.62	101.69	11 21 5	1704.6	-25.82	37.16
100.00	21 56 10	5137.62	29.55	228.13	220.97	85.30	23 21 47	4537.6	28.59	219.46
110.00	11 47 30	2101.69	-31.78	29.01	216.58	103.30	12 22 31	1501.7	-29.63	20.47
110.00	23 7 50	4913.29	33.71	210.65	220.51	83.97	24 29 44	4313.3	32.51	201.62

DIFFERENTIAL CORRECTIONS

```
TDE 4.6256 TRA 9.7368 TC3 -.3494 BAU  .6174
RDE  .5323 RRA -.2586 RC3  .0019 FAU-.00334
FDE  .9848 FRA 2.1040 FC3  .0219 BSP  18302
BDE 4.6561 BRA 9.7402 BC3  .3494 FSP   -340
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5439.0 SGR  295.1 SG3  100.3
RRT -.0119 RRF -.0149 RTF  .9817
SGB 5447.0 R23  .0032 R13 -.9817
SG1 5439.0 SG2  295.1 THA 179.96
```

ORBIT DETERMINATION ACCURACY

```
ST  2727.9 SR   268.1 SS   814.4
CRT  .7591 CRS -.7547 CST -.9999
LSA 2854.1 NSA  174.3 SSA    9.0
EL1 2735.5 EL2  174.1 ALF   4.28
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LAUNCH DATE SEP 23 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAY 1 1971

HELIOCENTRIC CONIC DISTANCE 615.089

```
RL  150.11 LAL   -.00 LOL 359.55 VL  25.345 GAL  23.11 AZL  84.77 HCA 323.39 SMA 117.88 ECC .46612 INC 5.2309 V1  29.682
RP  108.92 LAP  -3.12 LOP 323.06 VP  36.208 GAP  27.47 AZP  85.80 TAL 145.76 TAP 109.15 RCA  62.94 APO 172.83 V2  34.790
RC 204.943 GL    9.82 GP   10.37 ZAL  33.11 ZAP 165.95 ETS 131.18 ZAE 124.39 ETE 172.79 ZAC 109.85 ETC 277.18 CLP 170.46
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PLANETOCENTRIC CONIC

```
C3 155.137 VHL 12.455 DLA  -3.01 RAL 326.58 RAD 6570.7 VEL 16.627 PTH   2.89 VHP 17.265 DPA  -9.47 RAP 314.13 ECC 3.5532
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 23 39	2597.70	-26.65	67.24	220.82	99.95	10 6 56	1997.7	-25.00	58.96
90.00	20 37 1	5428.40	28.13	249.64	223.85	86.62	22 7 29	4828.4	27.37	241.06
100.00	10 43 35	2339.83	-28.17	47.97	220.51	100.44	11 22 35	1739.8	-26.44	39.60
100.00	21 59 45	5161.50	29.67	229.90	223.74	86.22	23 25 47	4561.5	28.83	221.20
110.00	11 48 36	2136.28	-32.30	31.58	219.57	101.86	12 24 13	1536.3	-30.33	22.92
110.00	23 11 13	4937.81	33.87	212.54	223.36	85.08	24 33 31	4337.8	32.82	203.46

DIFFERENTIAL CORRECTIONS

```
TDE 5.0065 TRA10.5196 TC3 -.2287 BAU  .4744
RDE  .5699 RRA -.2181 RC3  .0006 FAU-.00559
FDE 1.0400 FRA 2.2184 FC3  .0312 BSP  18218
BDE 5.0389 BRA10.5219 BC3  .2287 FSP   -330
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5395.4 SGR  280.7 SG3   97.7
RRT  .0766 RRF  .0721 RTF  .9848
SGB 5402.7 R23 -.0036 R13  .9848
SG1 5395.4 SG2  279.9 THA    .23
```

ORBIT DETERMINATION ACCURACY

```
ST  2723.5 SR   263.9 SS   847.6
CRT  .7791 CRS -.7748 CST -.9999
LSA 2859.8 NSA  165.2 SSA    8.4
EL1 2731.3 EL2  165.0 ALF   4.33
```

LAUNCH DATE SEP 24 1970 FLIGHT TIME 70.00 ARRIVAL DATE DEC 3 1970

HELIOCENTRIC CONIC DISTANCE 187.435

RL 150.07 LAL -.00 LOL .53 VL 26.936 GAL -9.63 AZL 89.55 HCA 83.43 SMA 127.23 ECC .24352 INC .4489 V1 29.691
RP 107.71 LAP .45 LOP 83.96 VP 37.699 GAP -11.03 AZP 89.95 TAL 213.75 TAP 297.17 RCA 96.25 APO 158.21 V2 35.184
RC 49.661 GL 2.34 GP -16.42 ZAL 142.02 ZAP 21.47 ETS 45.04 ZAE 146.61 ETE 332.14 ZAC 85.56 ETC 261.67 CLP -14.02

PLANETOCENTRIC CONIC

C3 25.984 VHL 5.097 DLA -12.11 RAL 216.85 RAD 6568.1 VEL 12.139 PTH 2.18 VHP 7.564 DPA -37.59 RAP 244.20 ECC 1.4276

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	3 13 14	1092.53	-10.68	22.03	80.79	116.38	3 44 46	1292.5	-7.05	15.23
90.00	12 4 5	5307.51	27.34	240.09	86.99	82.31	13 32 33	4707.5	25.99	232.48
100.00	4 28 23	1650.03	-11.86	3.59	80.18	117.64	4 55 53	1050.0	-8.06	356.86
100.00	13 31 37	5025.24	28.64	219.91	86.78	81.06	14 55 22	4425.2	27.11	211.44
110.00	5 22 41	1480.02	-14.94	348.91	78.40	121.11	5 47 21	880.0	-10.71	342.36
110.00	14 53 49	4768.02	32.12	199.62	86.02	77.63	16 13 17	4168.0	30.09	191.00

DIFFERENTIAL CORRECTIONS

TDE .0925 TRA -.3359 TC3 .4649 BAU .1862
RDE -.2998 RRA -.1516 RC3 -.2870 FAU .04064
FDE .2859 FRA -.1899 FC3-1.3540 BSP 1626
BDE .3137 BRA .3685 BC3 .5361 FSP -308

MID-COURSE EXECUTION ACCURACY

SGT 620.1 SGR 466.9 SG3 123.9
RRT -.3339 RRF .4563 RTF -.6035
SGB 776.2 RZS -.0904 R13 .6550
SG1 654.9 SG2 416.7 THA 155.37

ORBIT DETERMINATION ACCURACY

ST 156.2 SR 341.1 SS 216.0
CRT -.5448 CRS .9270 CST -.7814
LSA 410.5 MSA 133.8 SSA 31.4
EL1 353.2 EL2 126.5 ALF 106.13

LAUNCH DATE SEP 24 1970 FLIGHT TIME 72.00 ARRIVAL DATE DEC 5 1970

HELIOCENTRIC CONIC DISTANCE 194.256

RL 150.07 LAL -.00 LOL .53 VL 27.088 GAL -9.57 AZL 89.36 HCA 86.65 SMA 128.24 ECC .23624 INC .6361 V1 29.691
RP 107.68 LAP .64 LOP 87.19 VP 37.817 GAP -10.12 AZP 89.96 TAL 215.14 TAP 301.79 RCA 97.94 APO 158.53 V2 35.193
RC 51.263 GL 3.40 GP -17.54 ZAL 143.30 ZAP 24.19 ETS 41.17 ZAE 145.85 ETE 330.12 ZAC 84.47 ETC 261.71 CLP -16.93

PLANETOCENTRIC CONIC

C3 25.063 VHL 5.006 DLA -10.67 RAL 215.88 RAD 6568.0 VEL 12.101 PTH 2.17 VHP 7.107 DPA -38.74 RAP 244.24 ECC 1.4125

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 57 26	1931.60	-11.85	24.30	79.27	115.91	3 29 37	1331.6	-8.27	17.45
90.00	12 12 10	5250.62	26.75	236.83	84.72	80.35	13 39 40	4650.6	25.14	228.53
100.00	4 13 27	1686.35	-12.99	5.69	78.68	117.16	4 41 33	1086.3	-9.25	358.90
100.00	13 36 50	4971.11	28.01	216.01	84.46	79.11	15 1 41	4371.1	26.22	207.67
110.00	5 9 37	1510.45	-16.00	350.63	76.97	120.62	5 34 48	910.4	-11.82	344.02
110.00	14 50 9	4719.77	31.36	196.06	83.60	75.65	16 17 49	4119.8	29.07	187.61

DIFFERENTIAL CORRECTIONS

TDE .0609 TRA -.3240 TC3 .4918 BAU .1949
RDE -.2808 RRA -.1606 RC3 -.3103 FAU .04456
FDE .3555 FRA -.2342 FC3-1.5392 BSP 1713
BDE .2923 BRA .3616 BC3 .5816 FSP -355

MID-COURSE EXECUTION ACCURACY

SGT 627.2 SGR 484.6 SG3 139.7
RRT -.3693 RRF .5093 RTF -.6096
SGB 792.6 RZS -.1030 R13 .6742
SG1 672.0 SG2 420.4 THA 152.62

ORBIT DETERMINATION ACCURACY

ST 147.0 SR 326.4 SS 256.4
CRT -.4909 CRS .9226 CST -.7536
LSA 417.7 MSA 135.4 SSA 32.6
EL1 335.6 EL2 124.5 ALF 104.51

LAUNCH DATE SEP 24 1970 FLIGHT TIME 74.00 ARRIVAL DATE DEC 7 1970

HELIOCENTRIC CONIC DISTANCE 201.061

RL 150.07 LAL -.00 LOL .53 VL 27.221 GAL -9.51 AZL 89.18 HCA 89.89 SMA 129.14 ECC .22993 INC .8223 V1 29.691
RP 107.65 LAP .82 LOP 90.42 VP 37.921 GAP -9.26 AZP 90.00 TAL 216.44 TAP 306.33 RCA 99.45 APO 158.84 V2 35.202
RC 52.948 GL 4.48 GP -18.76 ZAL 144.44 ZAP 27.15 ETS 37.92 ZAE 145.26 ETE 327.80 ZAC 85.27 ETC 261.71 CLP -19.99

PLANETOCENTRIC GONIC

C3 24.321 VHL 4.932 DLA -9.24 RAL 215.05 RAD 6568.0 VEL 12.071 PTH 2.16 VHP 6.683 DPA -39.97 RAP 244.07 ECC 1.4003

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 42 34	1971.02	-13.01	26.62	78.02	115.37	3 15 25	1371.0	-9.49	19.71
90.00	12 20 22	5196.41	26.07	233.00	82.73	78.55	13 46 59	4596.4	24.23	224.82
100.00	3 59 23	1723.19	-14.13	7.83	77.46	116.62	4 28 6	1123.2	-10.44	.98
100.00	13 46 14	4919.48	27.29	212.34	82.43	77.30	15 8 14	4319.5	25.27	204.13
110.00	4 57 20	1541.73	-17.08	352.41	75.80	120.07	5 23 1	941.7	-12.95	345.73
110.00	15 4 46	4673.70	30.54	192.73	81.48	73.83	16 22 40	4073.7	28.02	184.43

DIFFERENTIAL CORRECTIONS

TDE .0701 TRA -.3140 TC3 .5116 BAU .2031
RDE -.2600 RRA -.1704 RC3 -.3584 FAU .04891
FDE .4364 FRA -.2829 FC3-1.7411 BSP 1799
BDE .2692 BRA .3573 BC3 .6247 FSP -409

MID-COURSE EXECUTION ACCURACY

SGT 630.8 SGR 506.4 SG3 157.4
RRT -.4034 RRF .5647 RTF -.6112
SGB 808.9 RZS -.1171 R13 .6934
SG1 688.6 SG2 424.5 THA 149.38

ORBIT DETERMINATION ACCURACY

ST 138.4 SR 308.1 SS 299.8
CRT -.4241 CRS .9159 CST -.7177
LSA 429.0 MSA 137.5 SSA 33.4
EL1 314.7 EL2 122.7 ALF 102.76

LAUNCH DATE SEP 24 1970 FLIGHT TIME 76.00 ARRIVAL DATE DEC 9 1970

HELIOCENTRIC CONIC DISTANCE 207.846

RL 150.07 LAL -.00 LOL .53 VL 27.339 GAL -9.47 AZL 88.99 HCA 93.12 SMA 129.95 ECC .22447 INC 1.0085 V1 29.691
RP 107.63 LAP 1.01 LOP 93.65 VP 38.013 GAP -8.43 AZP 90.05 TAL 217.65 TAP 310.77 RCA 100.78 APO 159.12 V2 35.210
RC 54.707 GL 5.59 GP -20.10 ZAL 145.40 ZAP 30.34 ETS 35.11 ZAE 144.81 ETE 325.12 ZAC 81.93 ETC 261.67 CLP -23.22

PLANETOCENTRIC CONIC

C3 23.726 VHL 4.871 DLA -7.83 RAL 214.35 RAD 6568.0 VEL 12.046 PTH 2.15 VHP 6.292 DPA -41.28 RAP 243.64 ECC 1.3905

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 28 37	2010.59	-14.15	28.96	77.03	114.78	3 2 8	1410.6	-10.69	21.99
90.00	12 28 45	5144.70	25.33	229.40	81.01	76.89	13 54 29	4544.7	23.27	221.33
100.00	3 46 11	1760.34	-15.25	10.02	76.49	116.02	4 15 32	1160.3	-11.63	3.11
100.00	13 53 52	4870.19	26.51	208.89	80.69	75.65	15 15 2	4270.2	24.27	200.80
110.00	4 45 50	1573.61	-18.16	354.26	74.90	119.47	5 12 3	973.6	-14.10	347.50
110.00	15 10 43	4629.68	29.66	189.60	79.66	72.17	16 27 52	4029.7	26.94	181.47

DIFFERENTIAL CORRECTIONS

TDE .0599 TRA -.3089 TC3 .5221 BAU .2108
RDE -.2365 RRA -.1810 RC3 -.4114 FAU .05367
FDE .5303 FRA -.3348 FC3-1.9582 BSP 1876
BDE .2439 BRA .3563 BC3 .6647 FSP -469

MID-COURSE EXECUTION ACCURACY

SGT 629.6 SGR 533.1 SG3 176.8
RRT -.4324 RRF .6202 RTF -.6065
SGB 825.0 RZS -.1322 R13 .7127
SG1 704.2 SG2 429.8 THA 145.58

ORBIT DETERMINATION ACCURACY

ST 131.0 SR 285.8 SS 346.6
CRT -.3405 CRS .9062 CST -.6722
LSA 445.3 MSA 139.9 SSA 33.5
EL1 290.0 EL2 121.4 ALF 100.78

LAUNCH DATE SEP 24 1970 FLIGHT TIME 78.00 ARRIVAL DATE DEC 11 1970

HELIOCENTRIC CONIC DISTANCE 214.608

```
RL  150.07 LAL   -.00 LOL    .53 VL  27.440 GAL  -9.43 AZL  88.80 HCA  96.35 SMA 130.67 ECC .21976 INC 1.1958 V1  29.691
RP  107.60 LAP   1.19 LOP  96.89 VP  38.093 GAP  -7.64 AZP  90.13 TAL 218.76 TAP 315.11 RCA 101.95 APO 159.38 V2  35.218
RC  56.533 GL    6.73 GP  -21.57 ZAL 146.20 ZAP  33.77 ETS  32.62 ZAE 144.46 ETE 322.05 ZAC  80.46 ETC 261.58 CLP -26.63
```

PLANETOCENTRIC CONIC

```
C3  23.252 VHL  4.822 DLA  -6.43 RAL 213.79 RAD 6567.9 VEL 12.026 PTH   2.15 VHP  5.934 DPA -42.65 RAP 242.94 ECC 1.3827
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 15 35	2050.21	-15.27	31.33	76.30	114.14	2 49 45	1450.2	-11.88	24.30
90.00	12 37 20	5095.24	24.52	226.00	79.56	75.37	14 2 15	4495.2	22.27	218.05
100.00	3 33 52	1797.66	-16.35	12.25	75.78	115.38	4 3 50	1197.7	-12.80	5.26
100.00	14 1 44	4823.01	25.67	205.63	79.21	74.13	15 22 7	4223.0	23.24	197.68
110.00	4 35 7	1605.89	-19.23	356.15	74.24	118.82	5 1 53	1005.9	-15.23	349.31
110.00	15 16 59	4587.54	28.75	186.66	78.11	70.65	16 33 26	3987.5	25.84	178.69

DIFFERENTIAL CORRECTIONS

```
TDE  .0515 TRA -.3028 TC3  .5222 BAU  .2183
RDE -.2099 RRA -.1923 RC3 -.4697 FAU .05881
FDE  .6375 FRA -.3895 FC3-2.1896 BSP   1952
BDE  .2161 BRA  .3587 BC3  .7023 FSP   -535
```

MID-COURSE EXECUTION ACCURACY

```
SGT  623.3 SGR  565.9 SG3  198.0
RRT -.4540 RRF  .6746 RTF -.5941
SGB  841.9 R23 -.1461 R13  .7336
SG1  719.8 SG2  436.6 THA 141.01
```

ORBIT DETERMINATION ACCURACY

```
ST   125.6 SR   259.1 SS   396.2
CRT -.2454 CRS  .8909 CST -.6243
LSA  467.6 MSA  142.2 SSA   33.2
EL1  261.5 EL2  120.7 ALF  98.64
```

LAUNCH DATE SEP 24 1970 FLIGHT TIME 80.00 ARRIVAL DATE DEC 13 1970

HELIOCENTRIC CONIC DISTANCE 221.346

```
RL  150.07 LAL   -.00 LOL    .53 VL  27.528 GAL  -9.39 AZL  88.61 HCA  99.59 SMA 131.29 ECC .21571 INC 1.3856 V1  29.691
RP  107.58 LAP   1.37 LOP 100.13 VP  38.163 GAP  -6.89 AZP  90.23 TAL 219.74 TAP 319.33 RCA 102.97 APO 159.61 V2  35.225
RC  58.419 GL    7.89 GP  -23.16 ZAL 146.81 ZAP  37.42 ETS  30.34 ZAE 144.19 ETE 318.53 ZAC  78.84 ETC 261.43 CLP -30.25
```

PLANETOCENTRIC CONIC

```
C3  22.878 VHL  4.783 DLA  -5.05 RAL 213.37 RAD 6567.9 VEL 12.011 PTH   2.14 VHP  5.610 DPA -44.10 RAP 241.90 ECC 1.3765
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 3 24	2089.82	-16.36	33.73	75.81	113.44	2 38 14	1489.8	-13.05	26.62
90.00	12 46 12	5047.73	23.66	222.78	78.36	73.98	14 10 19	4447.7	21.24	214.95
100.00	3 22 22	1835.09	-17.43	14.50	75.31	114.68	3 52 57	1235.1	-13.96	7.43
100.00	14 9 55	4777.69	24.79	202.55	77.99	72.74	15 29 33	4177.7	22.19	194.72
110.00	4 25 10	1638.48	-20.29	358.08	73.82	118.12	4 52 28	1038.5	-16.37	351.15
110.00	15 23 36	4547.06	27.80	183.89	76.83	69.26	16 39 23	3947.1	24.73	176.07

DIFFERENTIAL CORRECTIONS

```
TDE  .0456 TRA -.3025 TC3  .5102 BAU  .2258
RDE -.1796 RRA -.2042 RC3 -.5335 FAU .06429
FDE  .7590 FRA -.4452 FC3-2.4327 BSP   2024
BDE  .1853 BRA  .3650 BC3  .7382 FSP   -607
```

MID-COURSE EXECUTION ACCURACY

```
SGT  611.1 SGR  605.8 SG3  220.8
RRT -.4632 RRF  .7258 RTF -.5708
SGB  860.5 R23 -.1559 R13  .7567
SG1  736.0 SG2  445.8 THA 135.53
```

ORBIT DETERMINATION ACCURACY

```
ST   122.9 SR   227.9 SS   448.8
CRT -.1404 CRS  .8657 CST -.5814
LSA  496.6 MSA  144.1 SSA   32.4
EL1  228.8 EL2  121.2 ALF  96.03
```

LAUNCH DATE SEP 24 1970 FLIGHT TIME 82.00 ARRIVAL DATE DEC 15 1970

HELIOCENTRIC CONIC DISTANCE 228.057

```
RL  150.07 LAL   -.00 LOL    .53 VL  27.603 GAL  -9.35 AZL  88.42 HCA 102.83 SMA 131.83 ECC .21222 INC 1.5792 V1  29.691
RP  107.36 LAP   1.54 LOP 103.36 VP  38.223 GAP  -6.17 AZP  90.35 TAL 220.60 TAP 323.42 RCA 103.85 APO 159.80 V2  35.232
RC  60.358 GL    9.09 GP  -24.89 ZAL 147.23 ZAP  41.30 ETS  28.17 ZAE 143.94 ETE 314.52 ZAC  77.07 ETC 261.23 CLP -34.09
```

PLANETOCENTRIC CONIC

```
C3  22.588 VHL  4.753 DLA  -3.68 RAL 213.10 RAD 6567.9 VEL 11.999 PTH   2.14 VHP  5.319 DPA -45.61 RAP 240.50 ECC 1.3717
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 52 0	2129.49	-17.42	36.16	75.55	112.69	2 27 30	1529.5	-14.19	28.97
90.00	12 55 23	5001.85	22.77	219.72	77.41	72.69	14 18 45	4401.8	20.18	212.00
100.00	3 11 38	1872.64	-18.48	16.80	75.07	113.92	3 42 50	1272.6	-15.09	9.64
100.00	14 18 26	4733.93	23.87	199.63	77.02	71.45	15 37 20	4133.9	21.12	191.91
110.00	4 15 56	1671.35	-21.33	.07	73.62	117.37	4 43 47	1071.4	-17.49	353.04
110.00	15 30 38	4507.98	26.83	181.26	75.81	67.98	16 45 46	3908.0	23.60	173.59

DIFFERENTIAL CORRECTIONS

```
TDE  .0433 TRA -.3059 TC3  .4851 BAU  .2337
RDE -.1450 RRA -.2187 RC3 -.6030 FAU .07000
FDE  .8942 FRA -.5009 FC3-2.6830 BSP   2106
BDE  .1513 BRA  .3749 BC3  .7739 FSP   -685
```

MID-COURSE EXECUTION ACCURACY

```
SGT  593.2 SGR  653.9 SG3  244.9
RRT -.4554 RRF  .7726 RTF -.5330
SGB  882.8 R23 -.1569 R13  .7834
SG1  755.2 SG2  457.2 THA 128.96
```

ORBIT DETERMINATION ACCURACY

```
ST   123.3 SR   192.3 SS   503.6
CRT -.0272 CRS  .8198 CST -.5572
LSA  532.6 MSA  145.4 SSA   31.4
EL1  192.4 EL2  123.2 ALF  91.70
```

LAUNCH DATE SEP 24 1970 FLIGHT TIME 84.00 ARRIVAL DATE DEC 17 1970

HELIOCENTRIC CONIC DISTANCE 234.741

```
RL  150.07 LAL   -.00 LOL    .53 VL  27.666 GAL  -9.31 AZL  88.22 HCA 106.06 SMA 132.28 ECC .20922 INC 1.7779 V1  29.691
RP  107.54 LAP   1.71 LOP 106.61 VP  38.274 GAP  -5.48 AZP  90.49 TAL 221.32 TAP 327.39 RCA 104.61 APO 159.96 V2  35.238
RC  62.346 GL   10.32 GP  -26.73 ZAL 147.47 ZAP  45.40 ETS  26.03 ZAE 143.66 ETE 310.00 ZAC  75.17 ETC 260.96 CLP -38.17
```

PLANETOCENTRIC CONIC

```
C3  22.367 VHL  4.729 DLA  -2.32 RAL 212.96 RAD 6567.9 VEL 11.989 PTH   2.14 VHP  5.061 DPA -47.17 RAP 238.68 ECC 1.3681
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 41 20	2169.33	-18.45	38.64	75.52	111.87	2 17 29	1569.3	-15.32	31.36
90.00	13 4 57	4957.24	21.83	216.78	76.68	71.51	14 27 34	4357.2	19.11	209.17
100.00	3 1 36	1910.42	-19.51	19.13	75.05	113.11	3 33 26	1310.4	-16.21	11.89
100.00	14 27 22	4691.38	22.92	196.82	76.27	70.27	15 45 34	4091.4	20.02	189.23
110.00	4 7 22	1704.56	-22.35	2.10	73.64	116.56	4 35 46	1104.6	-18.61	354.97
110.00	15 38 6	4470.02	25.84	178.76	75.02	66.80	16 52 36	3870.0	22.47	171.22

DIFFERENTIAL CORRECTIONS

```
TDE  .0459 TRA -.3138 TC3  .4452 BAU  .2425
RDE -.1096 RRA -.2292 RC3 -.6777 FAU .07579
FDE 1.0418 FRA -.5535 FC3-2.9335 BSP   2200
BDE  .1151 BRA  .3866 BC3  .8109 FSP   -765
```

MID-COURSE EXECUTION ACCURACY

```
SGT  570.3 SGR  710.3 SG3  269.7
RRT -.4229 RRF  .8136 RTF -.4735
SGB  910.9 R23 -.1450 R13  .8132
SG1  779.9 SG2  470.6 THA 121.19
```

ORBIT DETERMINATION ACCURACY

```
ST   127.6 SR   153.9 SS   560.1
CRT  .1101 CRS  .7257 CST -.5637
LSA  575.7 MSA  145.9 SSA   30.2
EL1  155.7 EL2  125.3 ALF  74.84
```

LAUNCH DATE SEP 24 1970 FLIGHT TIME 88.00 ARRIVAL DATE DEC 19 1970

HELIOCENTRIC CONIC DISTANCE 241.395

RL	150.07	LAL	-.00	LOL	.53	VL	27.718	GAL	-9.27	AZL	88.02	HCA	109.30	SHA	132.67	ECC	.20663	INC	1.9832
RP	107.53	LAP	1.87	LOP	109.85	VP	38.316	GAP	-4.81	AZP	90.66	TAL	221.92	TAP	331.23	RCA	105.25	APO	160.08
RC	84.375	GL	11.59	GP	-28.69	ZAL	147.52	ZAP	49.71	ETS	23.85	ZAE	143.28	ETE	304.98	ZAC	73.12	ETC	280.62

V1 29.691 V2 35.243 CLP -42.50

PLANETOCENTRIC CONIC

C3 22.207 VHL 4.712 DLA -.97 RAL 212.96 RAD 6567.9 VEL 11.983 PTH 2.14 VHP 4.839 DPA -48.74 RAP 236.43 ECC 1.3655

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 31 17	2209.55	-19.45	41.18	75.00	111.00	2 8 7	1609.5	-16.42	33.80
90.00	13 14 50	4013.54	20.86	213.94	76.18	70.41	14 36 53	4313.5	18.00	206.44
100.00	2 52 11	1948.61	-20.51	21.53	75.24	112.23	3 24 40	1348.6	-17.32	14.19
100.00	14 36 47	4649.71	21.94	194.12	75.75	69.17	15 54 16	4049.7	18.81	186.63
110.00	3 50 24	1738.22	-23.36	4.19	75.88	113.69	4 28 22	1138.2	-19.71	356.95
110.00	15 46 3	4432.87	24.82	176.35	74.45	65.70	16 59 56	3832.9	21.33	168.94

DIFFERENTIAL CORRECTIONS

TDE	.0345	TRA	-.3885	TC3	.3005	BAU	.2528
RDE	-.0808	RRA	-.2412	RC3	-.7571	FAU	.08146
FDE	1.2003	FRA	-.5980	FC3	-3.1755	BSP	2314
BDE	.0817	BRA	.4099	BC3	.8514	FSP	-846

MID-COURSE EXECUTION ACCURACY

SGT	544.7	SGR	775.0	SGS	294.5		
RRT	-.3561	RRF	.8485	RTF	-.3836		
SGB	547.3	RZS	-.1171	RIS	.8449		
SGI	813.9	SGZ	484.7	THA	112.35		

ORBIT DETERMINATION ACCURACY

ST	136.7	SR	116.9	SS	618.1
CRT	.3343	CRS	.5018	CST	-.6024
LSA	626.4	MSA	145.8	SSA	28.9
EL1	140.6	EL2	101.4	ALF	32.40

LAUNCH DATE SEP 24 1970 FLIGHT TIME 89.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 248.019

RL	150.07	LAL	-.00	LOL	.53	VL	27.760	GAL	-9.22	AZL	87.80	HCA	112.54	SHA	132.97	ECC	.20440	INC	2.1969
RP	107.91	LAP	2.03	LOP	113.09	VP	38.351	GAP	-4.18	AZP	90.84	TAL	222.39	TAP	334.93	RCA	105.79	APO	160.15
RC	86.441	GL	12.91	GP	-30.75	ZAL	147.39	ZAP	54.19	ETS	21.56	ZAE	142.72	ETE	299.49	ZAC	70.96	ETC	260.21

V1 29.691 V2 35.247 CLP -47.09

PLANETOCENTRIC CONIC

C3 22.100 VHL 4.701 DLA .39 RAL 213.09 RAD 6567.9 VEL 11.978 PTH 2.13 VHP 4.651 DPA -50.31 RAP 233.70 ECC 1.3637

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 21 47	2290.41	-20.42	43.76	76.00	110.05	1 59 17	1650.4	-17.51	36.30
90.00	13 25 34	4070.33	19.85	211.18	75.89	69.38	14 46 45	4270.3	16.87	203.77
100.00	2 43 18	1987.44	-21.49	23.90	75.65	111.29	3 16 25	1387.4	-18.41	16.56
100.00	14 46 44	4608.53	20.92	191.48	75.44	68.15	16 3 33	4008.5	17.77	184.11
110.00	3 51 98	1772.53	-24.36	6.36	74.32	114.76	4 21 30	1172.5	-20.81	359.00
110.00	15 54 34	4396.21	23.77	174.02	74.10	64.68	17 7 50	3796.2	20.16	166.74

DIFFERENTIAL CORRECTIONS

TDE	.0711	TRA	-.3438	TC3	.3171	BAU	.2653
RDE	-.0109	RRA	-.2924	RC3	-.8399	FAU	.08676
FDE	1.3642	FRA	-.6378	FC3	-3.3988	BSP	2470
BDE	.0719	BRA	.4285	BC3	.8878	FSP	-926

MID-COURSE EXECUTION ACCURACY

SGT	521.5	SGR	847.6	SGS	318.4		
RRT	-.2436	RRF	.8774	RTF	-.2513		
SGB	995.2	RZS	-.0762	RIS	.8749		
SGI	882.0	SGZ	497.3	THA	102.87		

ORBIT DETERMINATION ACCURACY

ST	152.9	SR	96.2	SS	675.8
CRT	.8982	CRS	-.0109	CST	-.6707
LSA	683.8	MSA	145.1	SSA	27.5
EL1	169.6	EL2	62.3	ALF	27.71

LAUNCH DATE SEP 24 1970 FLIGHT TIME 90.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 254.613

RL	150.07	LAL	-.00	LOL	.53	VL	27.792	GAL	-9.17	AZL	87.58	HCA	115.78	SHA	133.21	ECC	.20247	INC	2.4209
RP	107.50	LAP	2.18	LOP	116.34	VP	38.378	GAP	-3.57	AZP	91.05	TAL	222.73	TAP	336.51	RCA	106.24	APO	160.19
RC	88.539	GL	14.29	GP	-32.88	ZAL	147.07	ZAP	58.81	ETS	19.12	ZAE	141.94	ETE	293.63	ZAC	68.69	ETC	259.72

V1 29.691 V2 35.251 CLP -51.93

PLANETOCENTRIC CONIC

C3 22.041 VHL 4.685 DLA 1.76 RAL 213.36 RAD 6567.9 VEL 11.976 PTH 2.13 VHP 4.499 DPA -51.84 RAP 230.50 ECC 1.3627

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 12 42	2292.25	-21.37	46.46	76.68	109.03	1 50 54	1692.2	-18.58	38.90
90.00	13 36 49	4827.20	18.79	208.46	75.80	68.42	14 57 16	4227.2	15.70	201.15
100.00	2 34 51	2027.23	-22.45	26.56	76.26	110.27	3 8 39	1427.2	-19.49	19.02
100.00	14 57 20	4567.45	19.85	188.80	75.34	67.18	16 13 28	3967.5	16.59	181.62
110.00	3 44 59	1807.75	-25.34	8.62	74.98	113.75	4 15 6	1207.7	-21.91	1.14
110.00	16 3 42	4359.70	22.69	171.74	73.95	63.72	17 16 22	3759.7	18.97	164.57

DIFFERENTIAL CORRECTIONS

TDE	.0916	TRA	-.3713	TC3	.2178	BAU	.2777
RDE	.0488	RRA	-.2575	RC3	-.9168	FAU	.09057
FDE	1.5481	FRA	-.6447	FC3	-3.5577	BSP	2545
BDE	.1038	BRA	.4519	BC3	.9423	FSP	-963

MID-COURSE EXECUTION ACCURACY

SGT	509.8	SGR	918.3	SGS	338.5		
RRT	-.0573	RRF	.8883	RTF	-.0575		
SGB	1050.3	RZS	-.0168	RIS	.8992		
SGI	919.0	SGZ	508.6	THA	92.63		

ORBIT DETERMINATION ACCURACY

ST	176.2	SR	114.5	SS	741.1
CRT	.9582	CRS	-.6291	CST	-.7227
LSA	756.0	MSA	145.8	SSA	25.4
EL1	208.3	EL2	27.7	ALF	32.56

LAUNCH DATE SEP 24 1970 FLIGHT TIME 92.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 261.175

RL	150.07	LAL	-.00	LOL	.53	VL	27.817	GAL	-9.11	AZL	87.34	HCA	119.02	SHA	133.39	ECC	.20080	INC	2.6575
RP	107.49	LAP	2.32	LOP	119.58	VP	38.398	GAP	-2.99	AZP	91.29	TAL	222.95	TAP	341.97	RCA	106.61	APO	160.18
RC	70.666	GL	15.74	GP	-35.07	ZAL	146.57	ZAP	63.53	ETS	16.47	ZAE	140.88	ETE	287.50	ZAC	66.35	ETC	259.15

V1 29.691 V2 35.254 CLP -57.00

PLANETOCENTRIC CONIC

C3 22.034 VHL 4.684 DLA 3.16 RAL 213.76 RAD 6567.9 VEL 11.976 PTH 2.13 VHP 4.383 DPA -53.28 RAP 226.83 ECC 1.3626

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 3 54	2339.58	-22.31	49.29	77.48	107.91	1 42 49	1735.6	-19.65	41.63
90.00	13 48 48	4783.72	17.68	205.75	75.92	67.52	15 8 32	4183.7	14.48	198.53
100.00	2 26 43	2088.45	-23.40	29.25	77.09	109.15	3 1 11	1488.5	-20.57	21.60
100.00	15 8 41	4528.07	18.74	186.33	75.44	66.28	16 24 7	3928.1	15.38	179.15
110.00	3 38 20	1844.27	-26.32	11.01	75.86	112.64	4 9 5	1244.3	-23.02	3.40
110.00	16 13 32	4323.02	21.57	169.48	74.01	62.81	17 25 35	3723.0	17.75	162.43

DIFFERENTIAL CORRECTIONS

TDE	.1329	TRA	-.3883	TC3	.1197	BAU	.2984
RDE	.1099	RRA	-.2674	RC3	-1.0058	FAU	.09494
FDE	1.6929	FRA	-.6693	FC3	-3.7303	BSP	2898
BDE	.1697	BRA	.4756	BC3	1.0129	FSP	-1060

MID-COURSE EXECUTION ACCURACY

SGT	519.7	SGR	1007.5	SGS	358.4		
RRT	.1374	RRF	.9190	RTF	.1554		
SGB	1133.7	RZS	.0152	RIS	.9194		
SGI	1010.9	SGZ	513.0	THA	84.53		

ORBIT DETERMINATION ACCURACY

ST	217.1	SR	164.4	SS	789.1
CRT	.9794	CRS	-.8562	CST	-.8186
LSA	822.0	MSA	142.9	SSA	24.5
EL1	271.0	EL2	26.6	ALF	36.97

LAUNCH DATE SEP 24 1970 FLIGHT TIME 94.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 267.706

RL	150.07	LAL	-.00	LOL	.53	VL	27.833	GAL	-9.05	AZL	87.09	HCA	122.26	SMA	133.52	ECC	.19934	INC	2.9095	V1	29.691
RP	107.48	LAP	2.46	LOP	122.83	VP	30.412	GAP	-2.43	AZP	91.55	TAL	223.04	TAP	345.50	RCA	106.90	APO	160.13	V2	35.256
RC	72.818	GL	17.27	GP	-37.27	ZAL	145.88	ZAP	68.28	ETS	13.59	ZAE	139.52	ETE	281.27	ZAC	63.96	ETC	258.51	CLP	-62.29

PLANETOCENTRIC CONIC

C3	22.077	VHL	4.699	DLA	4.59	RAL	214.30	RAD	6567.9	VEL	11.977	PTH	2.13	VHP	4.304	DPA	-54.61	RAP	222.74	ECC	1.3633

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 55 16	2380.87	-23.23	52.30	78.52	106.67	1 34 57	1780.9	-20.72	44.52
90.00	14 1 43	4739.38	16.51	203.02	76.24	66.66	15 20 42	4139.4	13.21	195.90
100.00	2 18 46	2111.55	-24.33	32.12	78.14	107.92	2 53 58	1511.5	-21.65	24.34
100.00	15 20 54	4483.94	17.57	183.75	75.75	65.42	16 35 38	3883.9	14.10	176.67
110.00	3 31 58	1882.47	-27.30	13.35	76.96	111.42	4 3 20	1282.5	-24.14	5.80
110.00	16 24 12	4285.77	20.39	167.23	74.28	61.95	17 35 37	3685.8	16.48	160.29

DIFFERENTIAL CORRECTIONS

TDE	.1830	TRA	-.4230	TC3	-.0015	BAU	.3203
RDE	.1690	RRA	-.2707	RC3	-1.0853	FAU	.09749
FDE	1.0371	FRA	-.6637	FC3	-3.8230	BSP	3220
BDE	.2491	BRA	.5021	BC3	1.0853	FSP	-1118

MID-COURSE EXECUTION ACCURACY

SGT	563.5	SGR	1091.9	SG3	372.5		
RRT	.3556	RRF	.9336	RTF	.3808		
SGB	1228.7	RZS	.0493	RIS	.9338		
SG1	1115.3	SG2	515.6	THA	76.71		

ORBIT DETERMINATION ACCURACY

ST	271.8	SR	230.9	SS	838.9		
CRT	.9787	CRS	-.9395	CST	-.8768		
LSA	900.3	NSA	141.1	SSA	23.1		
EL1	354.8	EL2	36.3	ALF	40.24		

LAUNCH DATE SEP 24 1970 FLIGHT TIME 96.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 274.206

RL	150.07	LAL	-.00	LOL	.53	VL	27.842	GAL	-8.90	AZL	86.82	HCA	125.50	SMA	133.58	ECC	.19807	INC	3.1803	V1	29.691
RP	107.48	LAP	2.59	LOP	126.08	VP	30.420	GAP	-1.89	AZP	91.85	TAL	223.02	TAP	348.52	RCA	107.12	APO	160.04	V2	35.258
RC	74.998	GL	18.90	GP	-39.46	ZAL	145.01	ZAP	73.00	ETS	10.46	ZAE	137.83	ETE	275.07	ZAC	61.56	ETC	257.81	CLP	-67.74

PLANETOCENTRIC CONIC

C3	22.179	VHL	4.709	DLA	6.08	RAL	214.97	RAD	6567.9	VEL	11.982	PTH	2.14	VHP	4.262	DPA	-55.81	RAP	218.32	ECC	1.3650

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 46 40	2428.82	-24.12	55.53	79.78	105.29	1 27 9	1828.8	-21.79	47.63
90.00	14 15 41	4693.66	15.25	200.25	76.79	65.85	15 33 55	4093.7	11.87	193.22
100.00	2 10 53	2157.15	-25.25	35.19	79.43	106.55	2 46 51	1557.2	-22.74	27.29
100.00	15 34 9	4440.56	16.32	181.13	76.28	64.60	16 48 9	3840.6	12.77	174.14
110.00	3 25 44	1922.90	-28.27	16.29	78.31	110.07	3 57 47	1322.9	-25.28	8.39
110.00	16 38 47	4247.57	19.15	164.96	74.75	61.13	17 46 35	3647.6	15.15	158.13

DIFFERENTIAL CORRECTIONS

TDE	.2468	TRA	-.4561	TC3	-.1376	BAU	.3448
RDE	.2364	RRA	-.2682	RC3	-1.1547	FAU	.09842
FDE	1.9655	FRA	-.6359	FC3	-3.8416	BSP	3578
BDE	.3415	BRA	.5291	BC3	1.1629	FSP	-1154

MID-COURSE EXECUTION ACCURACY

SGT	646.7	SGR	1171.9	SG3	380.7		
RRT	.5415	RRF	.9448	RTF	.5687		
SGB	1338.5	RZS	.0774	RIS	.9440		
SG1	1235.1	SG2	515.9	THA	69.66		

ORBIT DETERMINATION ACCURACY

ST	343.5	SR	305.7	SS	885.6		
CRT	.9795	CRS	-.9714	CST	-.9159		
LSA	987.8	NSA	139.6	SSA	21.6		
EL1	457.5	EL2	46.3	ALF	41.60		

LAUNCH DATE SEP 24 1970 FLIGHT TIME 98.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 280.674

RL	150.07	LAL	-.00	LOL	.53	VL	27.844	GAL	-8.90	AZL	86.53	HCA	128.74	SMA	133.60	ECC	.19695	INC	3.4738	V1	29.691
RP	107.48	LAP	2.71	LOP	129.33	VP	30.422	GAP	-1.37	AZP	92.18	TAL	222.89	TAP	351.63	RCA	107.29	APO	159.91	V2	35.259
RC	77.186	GL	20.65	GP	-41.63	ZAL	143.94	ZAP	77.61	ETS	7.08	ZAE	135.85	ETE	269.06	ZAC	59.16	ETC	257.05	CLP	-73.31

PLANETOCENTRIC CONIC

C3	22.350	VHL	4.728	DLA	7.64	RAL	215.79	RAD	6567.9	VEL	11.989	PTH	2.14	VHP	4.257	DPA	-56.86	RAP	213.65	ECC	1.3678

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 37 53	2480.23	-25.00	59.04	81.31	103.74	1 19 14	1880.2	-22.87	51.02
90.00	14 30 57	4645.98	13.91	197.40	77.56	65.08	15 48 23	4046.0	10.43	190.45
100.00	2 2 54	2206.02	-26.16	38.54	80.98	105.01	2 39 40	1606.0	-23.84	30.51
100.00	15 48 37	4395.42	14.98	178.45	77.03	63.83	17 1 53	3795.4	11.34	171.55
110.00	3 19 33	1966.19	-29.25	19.28	79.93	108.54	3 52 19	1366.2	-26.44	11.22
110.00	16 48 29	4208.01	17.83	162.65	75.46	60.34	17 58 37	3608.0	13.75	155.92

DIFFERENTIAL CORRECTIONS

TDE	.3249	TRA	-.4913	TC3	-.2853	BAU	.3711
RDE	.3073	RRA	-.2579	RC3	-1.2086	FAU	.09747
FDE	2.0754	FRA	-.5830	FC3	-3.7754	BSP	3949
BDE	.4472	BRA	.5549	BC3	1.2418	FSP	-1159

MID-COURSE EXECUTION ACCURACY

SGT	767.3	SGR	1242.6	SG3	382.3		
RRT	.6758	RRF	.9532	RTF	.7015		
SGB	1460.5	RZS	.1010	RIS	.9510		
SG1	1367.0	SG2	514.2	THA	63.27		

ORBIT DETERMINATION ACCURACY

ST	433.2	SR	385.8	SS	929.4		
CRT	.9814	CRS	-.9856	CST	-.9411		
LSA	1086.5	NSA	138.9	SSA	19.9		
EL1	577.4	EL2	55.6	ALF	41.63		

LAUNCH DATE SEP 24 1970 FLIGHT TIME 100.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 287.112

RL	150.07	LAL	-.00	LOL	.53	VL	27.841	GAL	-8.82	AZL	86.20	HCA	131.98	SMA	133.58	ECC	.19596	INC	3.7953	V1	29.691
RP	107.48	LAP	2.82	LOP	132.58	VP	30.420	GAP	-.88	AZP	92.54	TAL	222.66	TAP	354.64	RCA	107.40	APO	159.75	V2	35.259
RC	79.396	GL	22.52	GP	-43.76	ZAL	142.67	ZAP	82.04	ETS	3.46	ZAE	133.61	ETE	263.33	ZAC	56.78	ETC	256.24	CLP	-78.94

PLANETOCENTRIC CONIC

C3	22.609	VHL	4.755	DLA	9.29	RAL	216.75	RAD	6567.9	VEL	11.999	PTH	2.14	VHP	4.291	DPA	-57.78	RAP	208.83	ECC	1.3721

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 28 44	2536.14	-25.85	62.91	83.12	101.98	1 11 0	1936.1	-23.94	54.76
90.00	14 47 46	4595.65	12.44	194.43	78.59	64.36	16 4 21	3995.7	8.89	187.55
100.00	1 54 37	2259.12	-27.04	42.24	82.83	103.25	2 32 17	1659.1	-24.95	34.06
100.00	16 4 33	4347.91	13.54	175.66	78.04	63.09	17 17 1	3747.9	9.82	168.84
110.00	3 13 13	2013.16	-30.22	22.59	81.85	106.80	3 46 47	1413.2	-27.62	14.36
110.00	17 2 27	4166.63	16.42	160.27	76.40	59.59	18 11 53	3566.6	12.26	153.63

DIFFERENTIAL CORRECTIONS

TDE	.4214	TRA	-.5249	TC3	-.4356	BAU	.4009
RDE	.3792	RRA	-.2446	RC3	-1.2526	FAU	.09546
FDE	2.1444	FRA	-.5256	FC3	-3.6554	BSP	4431
BDE	.5642	BRA	.5791	BC3	1.3262	FSP	-1169

MID-COURSE EXECUTION ACCURACY

SGT	916.6	SGR	1308.7	SG3	378.3		
RRT	.7823	RRF	.9600	RTF	.7882		
SGB	1597.8	RZS	.1157	RIS	.9569		
SG1	1513.1	SG2	513.1	THA	57.75		

ORBIT DETERMINATION ACCURACY

ST	543.1	SR	462.2	SS	961.4		
CRT	.9848	CRS	-.9920	CST	-.9588		
LSA	1189.0	NSA	137.1	SSA	18.5		
EL1	710.5	EL2	61.5	ALF	40.33		

LAUNCH DATE SEP 24 1970 FLIGHT TIME 102.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 293.519

RL	150.07	LAL	-.00	LOL	.53	VL	27.832	GAL	-0.73	AZL	85.85	HCA	135.22	SMA	133.51	ECC	.19509	INC	4.1512	V1	29.691
RP	107.48	LAP	2.92	LOP	135.83	VP	30.413	GAP	-.40	AZP	92.95	TAL	222.53	TAP	357.55	RCA	107.46	APO	159.56	V2	35.258
RC	81.621	GL	24.55	GP	-45.85	ZAL	141.20	ZAP	86.22	ETS	359.61	ZAE	131.14	ETE	257.96	ZAC	54.42	ETC	255.40	CLP	-84.56

PLANETOCENTRIC CONIC

C3	22.979	VHL	4.794	DLA	11.05	RAL	217.86	RAD	6567.9	VEL	12.015	PTH	2.14	VHP	4.364	DPA	-58.59	RAP	203.97	ECC	1.3782

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 18 55	2597.82	-26.65	67.25	85.26	99.95	1 2 13	1997.8	-25.00	58.97
90.00	15 6 27	4541.86	10.84	191.29	79.92	63.68	16 22 9	3941.9	7.22	184.49
100.00	1 45 49	2317.60	-27.09	46.38	85.00	101.23	2 24 26	1717.6	-26.05	38.06
100.00	16 22 15	4297.31	11.96	172.73	79.33	62.40	17 33 52	3697.3	8.17	165.99
110.00	3 6 37	2064.75	-31.17	26.31	84.13	104.79	3 41 2	1464.8	-28.83	17.89
110.00	17 17 56	4122.93	14.90	157.80	77.63	58.87	18 26 39	3522.9	10.67	151.25

DIFFERENTIAL CORRECTIONS

TDE	.5353	TRA	-.5571	TC3	-.5071
BAU	.4308	RDE	.4448	RRA	-.2218
RC3	-1.2733	FAU	.09157	FDE	2.1912
FRA	-.4406	FC3	-3.4501	BSP	4996
BDE	.6960	BRA	.5907	BC3	1.4022
FSP	-1145				

MID-COURSE EXECUTION ACCURACY

SGT	1089.3	SGR	1350.7	SG3	367.5		
RRT	.8180	RRF	.9650	RTF	.8431		
SGB	1741.4	RZS	.1297	R13	.9608		
SG1	1664.6	SG2	511.5	THA	52.62		

ORBIT DETERMINATION ACCURACY

ST	671.7	SR	539.1	SS	990.2
CRT	.9969	CRS	-.9956	CST	-.9999
LSA	1305.1	MSA	136.3	SSA	16.9
EL1	858.6	EL2	68.2	ALF	38.67

LAUNCH DATE SEP 24 1970 FLIGHT TIME 104.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 299.096

RL	150.07	LAL	-.00	LOL	.53	VL	27.818	GAL	-0.65	AZL	85.45	HCA	138.45	SMA	133.41	ECC	.19431	INC	4.5502	V1	29.691
RP	107.48	LAP	3.02	LOP	139.08	VP	30.401	GAP	.08	AZP	93.41	TAL	221.90	TAP	.36	RCA	107.48	APO	159.33	V2	35.256
RC	83.861	GL	28.75	GP	-47.93	ZAL	139.49	ZAP	90.08	ETS	355.55	ZAE	128.49	ETE	253.00	ZAC	52.08	ETC	254.52	CLP	-90.12

PLANETOCENTRIC CONIC

C3	23.498	VHL	4.847	DLA	12.94	RAL	219.14	RAD	6568.0	VEL	12.036	PTH	2.15	VHP	4.479	DPA	-59.35	RAP	199.12	ECC	1.3867

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 8 6	2666.95	-27.37	72.18	87.77	97.57	0 52 35	2066.9	-26.03	63.77
90.00	15 27 28	4483.50	9.06	187.94	81.59	63.06	16 42 12	3883.6	5.37	181.20
100.00	1 36 9	2362.99	-28.66	51.08	87.56	98.87	2 15 52	1783.0	-27.14	42.61
100.00	16 42 6	4242.78	10.22	169.02	80.97	61.76	17 52 49	3642.8	6.37	162.95
110.00	2 59 30	2122.21	-32.10	30.53	86.81	102.45	3 34 52	1522.2	-30.05	21.92
110.00	17 35 15	4076.33	13.25	155.20	79.19	58.20	18 43 12	3476.3	8.95	148.75

DIFFERENTIAL CORRECTIONS

TDE	.6006	TRA	-.5082	TC3	-.7316
BAU	.4609	RDE	.5135	RRA	-.1912
RC3	-1.2718	FAU	.08630	FDE	2.2068
FRA	-.3567	FC3	-3.1798	BSP	5364
BDE	.8438	BRA	.6156	BC3	1.4672
FSP	-1102				

MID-COURSE EXECUTION ACCURACY

SGT	1277.9	SGR	1303.7	SG3	351.0		
RRT	.8531	RRF	.9680	RTF	.8782		
SGB	1890.9	RZS	.1418	R13	.9635		
SG1	1820.7	SG2	510.3	THA	47.91		

ORBIT DETERMINATION ACCURACY

ST	819.8	SR	612.1	SS	1012.2
CRT	.9984	CRS	-.9976	CST	-.9773
LSA	1432.7	MSA	136.1	SSA	15.3
EL1	1020.3	EL2	74.7	ALF	36.66

LAUNCH DATE SEP 24 1970 FLIGHT TIME 106.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 306.243

RL	150.07	LAL	-.00	LOL	.53	VL	27.800	GAL	-0.52	AZL	85.00	HCA	141.69	SMA	133.27	ECC	.19362	INC	5.0035	V1	29.691
RP	107.49	LAP	3.10	LOP	142.33	VP	30.386	GAP	.50	AZP	93.93	TAL	221.39	TAP	3.08	RCA	107.47	APO	159.08	V2	35.254
RC	86.111	GL	29.16	GP	-50.04	ZAL	137.55	ZAP	93.57	ETS	351.30	ZAE	125.68	ETE	248.44	ZAC	49.73	ETC	253.59	CLP	-95.56

PLANETOCENTRIC CONIC

C3	24.213	VHL	4.921	DLA	14.98	RAL	220.60	RAD	6568.0	VEL	12.066	PTH	2.16	VHP	4.639	DPA	-60.09	RAP	194.29	ECC	1.3985

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 51 51	2745.80	-27.94	77.88	90.71	94.77	24 37 37	2145.8	-26.99	68.34
90.00	15 51 27	4419.46	7.06	184.28	83.68	62.51	17 5 6	3819.5	3.32	177.60
100.00	1 25 15	2457.30	-29.32	56.51	90.56	96.09	2 6 12	1857.3	-28.17	47.89
100.00	17 4 40	4183.19	8.28	166.28	83.02	61.18	18 14 24	3583.2	4.37	159.65
110.00	2 51 36	2187.09	-32.94	35.40	89.97	99.68	3 28 3	1587.1	-31.26	26.59
110.00	17 54 48	4026.16	11.43	152.45	81.13	57.56	19 1 54	3426.2	7.07	146.07

DIFFERENTIAL CORRECTIONS

TDE	.8271	TRA	-.6065	TC3	-.8611
BAU	.4896	RDE	.5826	RRA	-.1907
RC3	-1.2433	FAU	.07966	FDE	2.2030
FRA	-.2560	FC3	-2.8484	BSP	5844
BDE	1.0117	BRA	.6249	BC3	1.5124
FSP	-1034				

MID-COURSE EXECUTION ACCURACY

SGT	1476.5	SGR	1410.8	SG3	329.4		
RRT	.8752	RRF	.9717	RTF	.9010		
SGB	2042.2	RZS	.1536	R13	.9651		
SG1	1977.5	SG2	509.6	THA	43.51		

ORBIT DETERMINATION ACCURACY

ST	988.0	SR	681.6	SS	1029.7
CRT	.9893	CRS	-.9988	CST	-.9824
LSA	1575.5	MSA	136.8	SSA	13.6
EL1	1197.5	EL2	82.0	ALF	34.50

LAUNCH DATE SEP 24 1970 FLIGHT TIME 108.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 312.561

RL	150.07	LAL	-.00	LOL	.53	VL	27.778	GAL	-0.40	AZL	84.47	HCA	144.92	SMA	133.10	ECC	.19301	INC	5.5264	V1	29.691
RP	107.50	LAP	3.17	LOP	145.58	VP	30.367	GAP	.92	AZP	94.53	TAL	220.80	TAP	5.72	RCA	107.41	APO	158.79	V2	35.251
RC	88.372	GL	31.81	GP	-52.21	ZAL	135.34	ZAP	96.62	ETS	346.86	ZAE	122.74	ETE	244.27	ZAC	47.34	ETC	252.60	CLP	-100.85

PLANETOCENTRIC CONIC

C3	25.207	VHL	5.021	DLA	17.22	RAL	222.26	RAD	6568.0	VEL	12.107	PTH	2.17	VHP	4.850	DPA	-60.88	RAP	189.42	ECC	1.4148

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 37 17	2837.57	-28.28	84.57	94.13	91.44	24 24 35	2237.6	-27.78	75.94
90.00	16 19 18	4347.48	4.78	180.22	86.30	62.06	17 31 46	3747.5	1.01	173.58
100.00	1 12 29	2543.27	-29.77	62.86	94.07	92.78	1 54 52	1943.3	-29.07	54.12
100.00	17 30 43	4117.01	6.09	162.56	85.58	60.68	18 39 20	3517.0	2.14	156.01
110.00	2 42 33	2281.44	-33.65	41.09	93.70	96.39	3 20 15	1681.4	-32.40	32.08
110.00	18 17 8	3971.80	9.42	149.50	83.55	56.99	19 23 20	3371.6	5.01	143.19

DIFFERENTIAL CORRECTIONS

TDE	1.0147	TRA	-.6187	TC3	-.9652
BAU	.5132	RDE	.6973	RRA	-.0943
RC3	-1.1778	FAU	.07137	FDE	2.1901
FRA	-.1365	FC3	-2.4513	BSP	6148
BDE	1.2090	BRA	.6239	BC3	1.5228
FSP	-920				

MID-COURSE EXECUTION ACCURACY

SGT	1680.2	SGR	1405.0	SG3	303.4		
RRT	.8886	RRF	.9737	RTF	.9152		
SGB	2190.2	RZS	.1681	R13	.9652		
SG1	2130.5	SG2	508.2	THA	39.28		

ORBIT DETERMINATION ACCURACY

ST	1179.2	SR	751.7	SS	1048.1
CRT	.9895	CRS	-.9995	CST	-.9857
LSA	1741.9	MSA	140.5	SSA	11.7
EL1	1395.4	EL2	91.9	ALF	32.40

LAUNCH DATE SEP 24 1970 FLIGHT TIME 110.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 318.848

RL	150.07	LAL	-.00	LOL	.53	VL	27.752	GAL	-8.28	AZL	83.86	HCA	148.15	SMA	132.91	ECC	.19247	INC	6.1407	V1	29.691
RP	107.51	LAP	3.24	LOP	148.83	VP	38.345	GAP	1.33	AZP	95.22	TAL	220.13	TAP	8.28	RCA	107.33	APO	158.49	V2	35.247
RC	90.641	GL	34.72	GP	-54.51	ZAL	132.84	ZAP	99.21	ETS	342.20	ZAE	119.66	ETE	240.43	ZAC	44.84	ETC	251.51	CLP	-106.00

PLANETOCENTRIC CONIC

C3	26.601	VHL	5.158	DLA	19.66	RAL	224.16	RAD	6568.1	VEL	12.165	PTH	2.18	VHP	5.124	DPA	-61.75	RAP	184.40	ECC	1.4378

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 19 14	2947.21	-28.21	92.58	98.08	87.42	24 8 21	2347.2	-28.27	83.92
90.00	16 52 27	4264.47	2.12	175.58	89.61	61.76	18 3 31	3664.5	-1.67	168.95
100.00	0 56 54	2644.96	-29.87	70.41	98.14	88.80	1 40 59	2045.0	-29.72	61.61
100.00	18 1 24	4041.95	3.57	158.41	88.81	60.30	19 8 46	3442.0	-.41	151.89
110.00	2 31 48	2348.02	-34.11	47.81	98.09	92.44	3 10 56	1748.0	-33.39	38.64
110.00	18 42 59	3911.66	7.18	146.31	86.58	56.49	19 48 10	3311.7	2.73	140.05

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.2285	TRA	-.6222	TC3	-1.0483	BAU	.5451	SGT	1889.5	SGR	1398.6	SG3	276.0	ST	1382.7	SR	789.8	SS	1038.1
RDE	.7101	RRA	-.0494	RC3	-1.1182	FAU	.06460	RRT	.8955	RRF	.9748	RTF	.9280	CRT	.9903	CRS	-.9998	CST	-.9888
FDE	2.1102	FRA	-.0661	FC3	-2.1025	BSP	6900	SGB	2350.9	RZS	.1725	R13	.9674	LSA	1895.8	NSA	138.4	SSA	10.6
BDE	1.4189	BRA	.6242	BC3	1.5327	FSP	-892	SG1	2294.3	SG2	512.7	THA	35.58	EL1	1589.5	EL2	95.3	ALF	29.61

LAUNCH DATE SEP 24 1970 FLIGHT TIME 112.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 325.107

RL	150.07	LAL	-.00	LOL	.53	VL	27.722	GAL	-8.14	AZL	83.12	HCA	151.37	SMA	132.70	ECC	.19198	INC	6.8774	V1	29.691
RP	107.53	LAP	3.29	LOP	152.08	VP	38.320	GAP	1.73	AZP	96.04	TAL	219.39	TAP	10.76	RCA	107.22	APO	158.17	V2	35.243
RC	92.917	GL	37.93	GP	-57.00	ZAL	130.03	ZAP	101.27	ETS	357.31	ZAE	116.43	ETE	236.83	ZAC	42.18	ETC	250.23	CLP	-111.03

PLANETOCENTRIC CONIC

C3	28.578	VHL	5.346	DLA	22.33	RAL	226.32	RAD	6568.1	VEL	12.246	PTH	2.20	VHP	5.474	DPA	-62.72	RAP	179.02	ECC	1.4703

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 55 22	3083.46	-27.39	102.46	102.54	82.54	23 46 45	2483.5	-28.14	93.88
90.00	17 33 34	4163.92	-1.13	169.97	93.89	61.70	18 42 58	3563.9	-4.90	163.32
100.00	0 36 51	2768.93	-29.34	79.59	102.80	84.01	1 23 0	2168.9	-29.86	70.82
100.00	18 36 43	3953.68	.59	153.57	92.94	60.11	19 44 36	3353.7	-3.40	147.04
110.00	2 18 34	2450.70	-34.11	55.82	103.21	87.70	2 59 25	1850.7	-34.06	46.58
110.00	19 13 29	3844.67	4.65	142.77	90.41	56.10	20 17 33	3244.7	.17	136.56

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.4912	TRA	-.6094	TC3	-1.0881	BAU	.5679	SGT	2099.1	SGR	1361.7	SG3	245.6	ST	1612.6	SR	826.2	SS	1033.6
RDE	.7703	RRA	.0179	RC3	-1.0127	FAU	.05617	RRT	.8972	RRF	.9748	RTF	.9360	CRT	.9902	CRS	-.9999	CST	-.9908
FDE	2.0383	FRA	.0267	FC3	-1.7014	BSP	7390	SGB	2502.1	RZS	.1821	R13	.9677	LSA	2081.2	NSA	140.6	SSA	9.1
BDE	1.6784	BRA	.6096	BC3	1.4864	FSP	-801	SG1	2448.4	SG2	515.7	THA	31.77	EL1	1809.0	EL2	103.0	ALF	26.99

LAUNCH DATE SEP 24 1970 FLIGHT TIME 114.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 331.335

RL	150.07	LAL	-.00	LOL	.53	VL	27.690	GAL	-8.00	AZL	82.22	HCA	154.59	SMA	132.46	ECC	.19154	INC	7.7832	V1	29.691
RP	107.54	LAP	3.33	LOP	155.33	VP	38.291	GAP	2.11	AZP	97.04	TAL	218.57	TAP	13.16	RCA	107.09	APO	157.83	V2	35.238
RC	95.197	GL	41.47	GP	-59.75	ZAL	126.86	ZAP	102.76	ETS	332.09	ZAE	113.00	ETE	233.35	ZAC	39.28	ETC	248.68	CLP	-116.01

PLANETOCENTRIC CONIC

C3	31.450	VHL	5.608	DLA	25.25	RAL	228.80	RAD	6568.3	VEL	12.362	PTH	2.23	VHP	5.928	DPA	-63.77	RAP	173.00	ECC	1.5176

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 19 39	3267.00	-25.10	115.40	107.30	76.45	23 14 6	2667.0	-26.72	107.11
90.00	18 29 7	4028.36	-5.47	162.38	99.66	62.17	19 36 15	3428.4	-9.16	155.64
100.00	0 8 41	2928.17	-27.65	91.11	107.94	78.17	0 57 29	2328.2	-29.01	82.57
100.00	19 26 42	3842.44	-3.18	147.46	98.40	60.26	20 30 44	3242.4	-7.12	140.88
110.00	2 1 26	2575.44	-33.35	65.48	109.09	82.03	2 44 21	1975.4	-34.09	56.31
110.00	19 50 27	3767.92	1.73	138.76	95.34	55.86	20 53 15	3167.9	-2.77	132.55

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.8189	TRA	-.5734	TC3	-1.0780	BAU	.5832	SGT	2309.7	SGR	1297.8	SG3	214.2	ST	1868.8	SR	845.4	SS	1025.8
RDE	.8262	RRA	.1032	RC3	-.8727	FAU	.04714	RRT	.8930	RRF	.9731	RTF	.9418	CRT	.9893	CRS	-.9997	CST	-.9923
FDE	1.9595	FRA	.1201	FC3	-1.2976	BSP	7740	SGB	2649.3	RZS	.1929	R13	.9674	LSA	2288.7	NSA	144.9	SSA	7.6
BDE	1.9977	BRA	.5826	BC3	1.3870	FSP	-687	SG1	2597.9	SG2	519.4	THA	27.85	EL1	2048.0	EL2	112.5	ALF	24.19

LAUNCH DATE SEP 24 1970 FLIGHT TIME 116.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 337.531

RL	150.07	LAL	-.00	LOL	.53	VL	27.655	GAL	-7.84	AZL	81.07	HCA	157.80	SMA	132.20	ECC	.19116	INC	8.9315	V1	29.691
RP	107.56	LAP	3.36	LOP	158.58	VP	38.261	GAP	2.47	AZP	98.28	TAL	217.69	TAP	15.50	RCA	106.93	APO	157.48	V2	35.232
RC	97.481	GL	45.34	GP	-62.86	ZAL	123.33	ZAP	103.63	ETS	326.37	ZAE	109.33	ETE	229.72	ZAC	36.05	ETC	246.64	CLP	-121.12

PLANETOCENTRIC CONIC

C3	35.762	VHL	5.980	DLA	28.43	RAL	231.68	RAD	6568.4	VEL	12.535	PTH	2.27	VHP	6.529	DPA	-64.82	RAP	165.95	ECC	1.5886

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
87.37	20 13 50	3751.42	-15.98	147.38	109.76	66.17	21 16 22	3151.4	-19.07	140.06
92.63	20 57 52	3608.75	-15.97	136.94	109.76	66.16	21 58 1	3008.8	-19.05	129.61
100.00	23 15 36	3164.97	-23.30	107.53	112.83	70.72	24 8 21	2565.0	-25.71	99.37
100.00	20 38 47	3670.44	-8.91	137.90	106.20	61.35	21 39 58	3070.4	-12.67	131.13
110.00	1 37 33	2732.92	-31.24	77.26	115.55	75.37	2 23 6	2132.9	-32.93	68.45
110.00	20 37 15	3675.25	-1.82	133.92	101.85	55.86	21 38 31	3075.3	-6.29	127.69

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.2263	TRA	-.5167	TC3	-1.0234	BAU	.5983	SGT	2522.9	SGR	1203.7	SG3	182.4	ST	2140.0	SR	816.7	SS	1001.2
RDE	.8494	RRA	.1933	RC3	-.7203	FAU	.03895	RRT	.8799	RRF	.9669	RTF	.9480	CRT	.9877	CRS	-.9990	CST	-.9936
FDE	1.8513	FRA	.1850	FC3	-.9430	BSP	8371	SGB	2795.3	RZS	.1990	R13	.9681	LSA	2495.5	NSA	146.9	SSA	6.4
BDE	2.3828	BRA	.5517	BC3	1.2515	FSP	-609	SG1	2745.4	SG2	525.7	THA	23.69	EL1	2287.4	EL2	119.5	ALF	20.71

LAUNCH DATE SEP 24 1970 FLIGHT TIME 118.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 343.693

RL 150.07 LAL -.00 LOL .53 VL 27.618 GAL -7.60 AZL 79.56 HCA 161.00 SHA 131.93 ECC .19081 INC10.4445 V1 29.691
RP 107.58 LAP 3.38 LOP 161.83 VP 38.228 GAP 2.82 AZP 99.89 TAL 216.75 TAP 17.75 RCA 106.76 APO 157.11 V2 35.226
RC 99.767 GL 49.53 GP -66.41 ZAL 119.39 ZAP 103.84 ETS 319.82 ZAE 105.32 ETE 225.54 ZAC 32.37 ETC 243.75 CLP-126.71

PLANETOCENTRIC CONIC

C3 42.539 VHL 6.522 DLA 31.82 RAL 235.05 RAD 6560.6 VEL 12.803 PTH 2.33 VHP 7.349 DPA -65.72 RAP 157.40 ECC 1.7001

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
74.85	18 50 50	4103.70	-16.38	173.74	116.78	62.34	19 59 13	3503.7	-19.96	166.62
105.15	22 47 44	3344.13	-16.37	117.51	116.77	62.33	23 43 28	2744.1	-19.94	110.40
74.85	18 50 50	4103.70	-16.38	173.74	116.78	62.34	19 59 13	3503.7	-19.96	166.62
105.15	22 47 44	3344.13	-16.37	117.51	116.77	62.33	23 43 28	2744.1	-19.94	110.40
110.00	0 58 34	2950.82	-26.49	92.42	121.84	67.56	1 47 45	2350.8	-29.29	84.36
110.00	21 43 6	3545.01	-6.77	127.08	110.98	56.41	22 42 11	2945.0	-11.13	120.72

DIFFERENTIAL CORRECTIONS

TDE 2.7709 TRA -.4108 TC3 -.9053 BAU .5985
RDE .8217 RRA .3106 RC3 -.5365 FAU .03048
FDE 1.7456 FRA .2491 FC3 -.6202 BSP 8806
BDE 2.8902 BRA .5150 BC3 1.0524 FSP -509

MID-COURSE EXECUTION ACCURACY

SGT 2738.6 SGR 1055.5 SG3 151.4
RRT .8486 RRF .9491 RTF .9539
SGB 2935.0 RZS .2058 R13 .9686
SG1 2886.2 SG2 533.0 THA 18.73

ORBIT DETERMINATION ACCURACY

ST 2437.7 SR 728.5 SS 975.0
CRT .9828 CRS -.9965 CST -.9947
LSA 2720.5 MSA 151.5 SSA 5.2
EL1 2541.0 EL2 128.9 ALF 16.41

LAUNCH DATE SEP 24 1970 FLIGHT TIME 120.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 349.815

RL 150.07 LAL -.00 LOL .53 VL 27.578 GAL -7.50 AZL 77.46 HCA 164.18 SHA 131.65 ECC .19048 INC12.5408 V1 29.691
RP 107.60 LAP 3.39 LOP 165.07 VP 38.193 GAP 3.15 AZP 102.08 TAL 215.74 TAP 19.92 RCA 106.57 APO 156.72 V2 35.218
RC 102.053 GL 53.96 GP -70.47 ZAL 115.07 ZAP 103.34 ETS 311.64 ZAE 100.83 ETE 219.90 ZAC 28.09 ETC 239.24 CLP-133.65

PLANETOCENTRIC CONIC

C3 53.907 VHL 7.342 DLA 35.31 RAL 239.03 RAD 6568.9 VEL 13.239 PTH 2.42 VHP 8.523 DPA -66.13 RAP 146.93 ECC 1.8872

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.97	18 23 51	4294.69	-15.91	188.24	125.32	58.06	19 35 25	3694.7	-20.01	181.44
112.03	23 46 31	3271.57	-15.89	111.62	125.31	58.05	24 41 3	2671.6	-20.00	104.82
67.97	18 23 51	4294.69	-15.91	188.24	125.32	58.06	19 35 25	3694.7	-20.01	181.44
112.03	23 46 31	3271.57	-15.89	111.62	125.31	58.05	24 41 3	2671.6	-20.00	104.82
67.97	18 23 51	4294.69	-15.91	188.24	125.32	58.06	19 35 25	3694.7	-20.01	181.44
112.03	23 46 31	3271.57	-15.89	111.62	125.31	58.05	24 41 3	2671.6	-20.00	104.82

DIFFERENTIAL CORRECTIONS

TDE 3.9174 TRA -.2272 TC3 -.7293 BAU .5795
RDE .6418 RRA .4507 RC3 -.3588 FAU .02239
FDE 1.6404 FRA .3018 FC3 -.3597 BSP 9235
BDE 3.5755 BRA .5047 BC3 .8041 FSP -415

MID-COURSE EXECUTION ACCURACY

SGT 2954.4 SGR 827.1 SG3 122.2
RRT .7423 RRF .8788 RTF .9612
SGB 3068.0 RZS .2095 R13 .9700
SG1 3019.7 SG2 542.2 THA 12.14

ORBIT DETERMINATION ACCURACY

ST 2745.8 SR 517.5 SS 944.9
CRT .9619 CRS -.9828 CST -.9958
LSA 2945.4 MSA 157.3 SSA 4.1
EL1 2790.7 EL2 139.2 ALF 10.30

LAUNCH DATE SEP 24 1970 FLIGHT TIME 122.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 355.883

RL 150.07 LAL -.00 LOL .53 VL 27.537 GAL -7.31 AZL 74.35 HCA 167.33 SHA 131.35 ECC .19015 INC15.6520 V1 29.691
RP 107.63 LAP 3.39 LOP 168.32 VP 38.156 GAP 3.46 AZP 105.29 TAL 214.66 TAP 21.99 RCA 106.37 APO 156.33 V2 35.211
RC 104.339 GL 58.40 GP -75.07 ZAL 110.39 ZAP 102.09 ETS 299.74 ZAE 95.62 ETE 210.59 ZAC 23.00 ETC 231.24 CLP-144.41

PLANETOCENTRIC CONIC

C3 74.852 VHL 8.652 DLA 38.64 RAL 243.81 RAD 6569.5 VEL 14.007 PTH 2.56 VHP 10.319 DPA -65.51 RAP 134.55 ECC 2.2319

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.53	18 14 20	4457.86	-14.08	200.17	135.54	53.64	19 28 38	3857.9	-18.72	193.79
117.47	0 38 6	3266.44	-14.07	109.92	135.53	53.63	1 32 32	2666.4	-18.71	103.54
62.53	18 14 20	4457.86	-14.08	200.17	135.54	53.64	19 28 38	3857.9	-18.72	193.79
117.47	0 38 6	3266.44	-14.07	109.92	135.53	53.63	1 32 32	2666.4	-18.71	103.54
62.53	18 14 20	4457.86	-14.08	200.17	135.54	53.64	19 28 38	3857.9	-18.72	193.79
117.47	0 38 6	3266.44	-14.07	109.92	135.53	53.63	1 32 32	2666.4	-18.71	103.54

DIFFERENTIAL CORRECTIONS

TDE 4.5571 TRA .1163 TC3 -.5007 BAU .5217
RDE .0229 RRA .5936 RC3 -.1455 FAU .01475
FDE 1.5552 FRA .3489 FC3 -.1706 BSP 9629
BDE 4.5571 BRA .6049 BC3 .5214 FSP -328

MID-COURSE EXECUTION ACCURACY

SGT 3141.3 SGR 563.0 SG3 96.0
RRT .1772 RRF .3017 RTF .9718
SGB 3191.4 RZS .2072 R13 .9730
SG1 3143.0 SG2 553.8 THA 1.88

ORBIT DETERMINATION ACCURACY

ST 3018.2 SR 151.9 SS 921.7
CRT .1099 CRS -.1852 CST -.9971
LSA 3155.1 MSA 165.1 SSA 3.0
EL1 3018.2 EL2 151.0 ALF .32

LAUNCH DATE SEP 24 1970 FLIGHT TIME 124.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 361.880

RL 150.07 LAL -.00 LOL .53 VL 27.494 GAL -7.09 AZL 69.25 HCA 170.42 SHA 131.04 ECC .18976 INC20.7492 V1 29.691
RP 107.65 LAP 3.38 LOP 171.56 VP 38.117 GAP 3.75 AZP 110.48 TAL 213.49 TAP 23.91 RCA 106.18 APO 155.91 V2 35.202
RC 106.624 GL 62.25 GP -79.67 ZAL 105.43 ZAP 100.10 ETS 277.97 ZAE 89.21 ETE 191.31 ZAC 16.68 ETC 214.79 CLP-167.97

PLANETOCENTRIC CONIC

C3 119.293 VHL 10.922 DLA 41.22 RAL 249.57 RAD 6570.2 VEL 15.512 PTH 2.77 VHP 13.338 DPA -62.97 RAP 121.18 ECC 2.9633

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.69	18 19 40	4608.98	-10.49	210.05	147.39	49.90	19 36 29	4009.0	-15.57	204.12
121.31	1 18 42	3317.91	-10.47	111.37	147.37	49.90	2 14 0	2717.9	-15.55	105.44
58.69	18 19 40	4608.98	-10.49	210.05	147.39	49.90	19 36 29	4009.0	-15.57	204.12
121.31	1 18 42	3317.91	-10.47	111.37	147.37	49.90	2 14 0	2717.9	-15.55	105.44
58.69	18 19 40	4608.98	-10.49	210.05	147.39	49.90	19 36 29	4009.0	-15.57	204.12
121.31	1 18 42	3317.91	-10.47	111.37	147.37	49.90	2 14 0	2717.9	-15.55	105.44

DIFFERENTIAL CORRECTIONS

TDE 5.7432 TRA .8156 TC3 -.2333 BAU .3722
RDE-1.9746 RRA .5394 RC3 -.0053 FAU .00721
FDE 1.5332 FRA .4086 FC3 -.0523 BSP 9927
BDE 6.0732 BRA .9778 BC3 .2334 FSP -252

MID-COURSE EXECUTION ACCURACY

SGT 3108.1 SGR 1102.1 SG3 74.4
RRT -.8469 RRF -.7637 RTF .9879
SGB 3297.7 RZS -.1899 R13 -.9792
SG1 3249.7 SG2 560.5 THA 162.76

ORBIT DETERMINATION ACCURACY

ST 3017.7 SR 1042.0 SS 932.0
CRT -.9864 CRS .9771 CST -.9988
LSA 3321.3 MSA 172.8 SSA 2.1
EL1 3188.4 EL2 162.2 ALF 161.14

LAUNCH DATE SEP 24 1970 FLIGHT TIME 126.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 367.687
RL 150.07 LAL -.00 LOL .53 VL 27.449 GAL -6.84 AZL 59.55 HCA 173.36 SMA 130.73 ECC .18913 INC30.4507 V1 29.691
RP 107.68 LAP 3.36 LOP 174.81 VP 38.077 GAP 3.99 AZP 120.28 TAL 212.19 TAP 25.55 RCA 106.00 APO 155.45 V2 35.193
RC 108.906 GL 63.83 GP -79.98 ZAL 100.41 ZAP 97.44 ETS 236.03 ZAE 80.37 ETE 151.68 ZAC 8.39 ETC 189.80 CLP 138.10
PLANETOCENTRIC CONIC
C3 236.857 VHL 15.390 DLA 41.50 RAL 256.33 RAD 6571.4 VEL 18.925 PTH 3.07 VHP 19.163 DPA -56.91 RAP 108.69 ECC 4.8981

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.29	18 44 53	4730.51	-5.35	216.10	160.27	48.78	20 3 43	4130.5	-10.59	210.41
121.71	1 47 26	3429.71	-5.34	116.58	160.25	48.78	2 44 35	2829.7	-10.57	110.89
58.29	18 44 53	4730.51	-5.35	216.10	160.27	48.78	20 3 43	4130.5	-10.59	210.41
121.71	1 47 26	3429.71	-5.34	116.58	160.25	48.78	2 44 35	2829.7	-10.57	110.89
58.29	18 44 53	4730.51	-5.35	216.10	160.27	48.78	20 3 43	4130.5	-10.59	210.41
121.71	1 47 26	3429.71	-5.34	116.58	160.25	48.78	2 44 35	2829.7	-10.57	110.89

DIFFERENTIAL CORRECTIONS
TDE 4.8867 TRA 1.8040 TC3 -.0175 BAU .1541
RDE-7.1193 RRA -.7506 RC3 -.0454 FAU-.00238
FDE 1.6805 FRA .5399 FC3 .0087 BSP 10030
BDE 8.6351 BRA 1.9540 BC3 .0487 FSP -194

MID-COURSE EXECUTION ACCURACY
SGT 2029.0 SGR 2680.2 SG3 58.9
RRT -.9468 RRF -.9650 RTF .9964
SG8 3361.6 RZ3 -.1420 R13 -.9885
SG1 3320.1 SG2 527.0 THA 126.71

ORBIT DETERMINATION ACCURACY
ST 1839.1 SR 2652.8 SS 1044.4
CRT -.9945 CRS .9963 CST -.9998
LSA 3388.6 MSA 166.2 SSA 1.6
EL1 3224.1 EL2 158.0 ALF 124.68

LAUNCH DATE SEP 24 1970 FLIGHT TIME 128.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 373.009
RL 150.07 LAL -.00 LOL .53 VL 27.404 GAL -6.48 AZL 36.77 HCA 175.85 SMA 130.41 ECC .18763 INC53.2333 V1 29.691
RP 107.71 LAP 3.32 LOP 178.05 VP 38.035 GAP 4.08 AZP 143.16 TAL 210.51 TAP 26.36 RCA 105.94 APO 154.87 V2 35.184
RC 111.186 GL 57.98 GP -67.70 ZAL 95.82 ZAP 94.47 ETS 198.70 ZAE 65.19 ETE 116.74 ZAC 9.69 ETC 267.32 CLP 101.84
PLANETOCENTRIC CONIC
C3 661.832 VHL 25.726 DLA 34.78 RAL 263.25 RAD 6572.6 VEL 27.984 PTH 3.41 VHP 32.522 DPA -43.26 RAP 99.33 ECC11.8921

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
68.90	20 5 49	4677.77	-.65	208.10	172.34	55.22	21 23 46	4077.8	-5.20	201.93
111.10	1 21 44	3686.83	-.63	134.02	172.33	55.22	2 23 11	3086.8	-5.18	127.84
68.90	20 5 49	4677.77	-.65	208.10	172.34	55.22	21 23 46	4077.8	-5.20	201.93
111.10	1 21 44	3686.83	-.63	134.02	172.33	55.22	2 23 11	3086.8	-5.18	127.84
68.90	20 5 49	4677.77	-.65	208.10	172.34	55.22	21 23 46	4077.8	-5.20	201.93
111.10	1 21 44	3686.83	-.63	134.02	172.33	55.22	2 23 11	3086.8	-5.18	127.84

DIFFERENTIAL CORRECTIONS
TDE -.6390 TRA 1.7455 TC3 -.0319 BAU 1.6680
RD-12.8103 RRA-4.2070 RC3 -.1858 FAU-.02604
FDE 2.2234 FRA .9731 FC3 .0341 BSP 9108
BDE12.8260 BRA 4.5547 BC3 .1885 FSP -152

MID-COURSE EXECUTION ACCURACY
SGT 520.6 SGR 3217.9 SG3 50.8
RRT .0123 RRF -.9946 RTF .0852
SG8 3259.8 RZ3 -.0977 R13 -.9945
SG1 3217.9 SG2 520.6 THA 89.88

ORBIT DETERMINATION ACCURACY
ST 200.5 SR 2873.6 SS 1409.2
CRT .6163 CRS .9992 CST .5850
LSA 3202.5 MSA 166.2 SSA 1.7
EL1 2876.3 EL2 157.7 ALF 87.53

LAUNCH DATE SEP 24 1970 FLIGHT TIME 130.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 383.517
RL 150.07 LAL -.00 LOL .53 VL 27.357 GAL -7.17 AZL 167.13 HCA 183.37 SMA 130.08 ECC .19708 INC77.1288 V1 29.691
RP 107.74 LAP 3.28 LOP 181.28 VP 37.992 GAP 5.63 AZP 12.89 TAL 212.13 TAP 35.49 RCA 104.44 APO 155.71 V2 35.174
RC 113.462 GL -48.01 GP 53.34 ZAL 94.72 ZAP 94.41 ETS 179.47 ZAE 58.13 ETE 259.04 ZAC 130.52 ETC 273.48 CLP 97.40
PLANETOCENTRIC CONIC
C31267.623 VHL 35.604 DLA -71.14 RAL 256.40 RAD 6573.1 VEL 37.268 PTH 3.54 VHP 46.100 DPA 77.77 RAP 101.81 ECC21.8619

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.54	4 59 40	2450.79	-1.02	78.96	166.74	161.14	5 40 31	1850.8	6.54	76.78
158.46	15 33 10	690.45	-1.02	287.53	166.76	161.14	15 44 41	90.5	6.55	285.35
21.54	4 59 40	2450.79	-1.02	78.96	166.74	161.14	5 40 31	1850.8	6.54	76.78
158.46	15 33 10	690.45	-1.02	287.53	166.76	161.14	15 44 41	90.5	6.55	285.35
21.54	4 59 40	2450.79	-1.02	78.96	166.74	161.14	5 40 31	1850.8	6.54	76.78
158.46	15 33 10	690.45	-1.02	287.53	166.76	161.14	15 44 41	90.5	6.55	285.35

DIFFERENTIAL CORRECTIONS
TDE 6.1540 TRA .5087 TC3 -.0950 BAU 3.6476
RD-13.6290 RRA 1.5011 RC3 .1931 FAU-.05767
FDE-3.0430 FRA .3430 FC3 .0394 BSP 8111
BDE14.9540 BRA 1.5849 BC3 .2152 FSP -146

MID-COURSE EXECUTION ACCURACY
SGT 1225.8 SGR 2694.5 SG3 50.9
RRT -.8820 RRF .9992 RTF -.8737
SG8 2960.2 RZ3 -.0924 R13 .9950
SG1 2911.6 SG2 534.6 THA 112.67

ORBIT DETERMINATION ACCURACY
ST 993.5 SR 2205.1 SS 1961.4
CRT -.9841 CRS-1.0000 CST .9837
LSA 3109.4 MSA 168.3 SSA 2.4
EL1 2413.2 EL2 161.1 ALF 114.03

LAUNCH DATE SEP 24 1970 FLIGHT TIME 132.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 388.066
RL 150.07 LAL -.00 LOL .53 VL 27.309 GAL -6.65 AZL 129.04 HCA 185.13 SMA 129.75 ECC .19393 INC39.0373 V1 29.691
RP 107.77 LAP 3.23 LOP 184.52 VP 37.948 GAP 5.50 AZP 51.07 TAL 209.99 TAP 35.12 RCA 104.58 APO 154.91 V2 35.164
RC 115.736 GL -62.16 GP 73.67 ZAL 97.95 ZAP 97.83 ETS 161.57 ZAE 80.52 ETE 242.53 ZAC 151.89 ETC 265.28 CLP 119.00
PLANETOCENTRIC CONIC
C3 373.280 VHL 19.320 DLA -81.58 RAL 203.58 RAD 6572.0 VEL 22.239 PTH 3.25 VHP 25.289 DPA 77.97 RAP 241.48 ECC 7.1432

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
9.57	1 4 54	2392.07	4.30	84.25	112.95	171.56	1 44 46	1792.1	12.21	83.47
170.43	12 26 33	5877.82	4.30	258.84	112.95	171.56	14 4 31	5277.8	12.21	258.05
9.57	1 4 54	2392.07	4.30	84.25	112.95	171.56	1 44 46	1792.1	12.21	83.47
170.43	12 26 33	5877.82	4.30	258.84	112.95	171.56	14 4 31	5277.8	12.21	258.05
9.57	1 4 54	2392.07	4.30	84.25	112.95	171.56	1 44 46	1792.1	12.21	83.47
170.43	12 26 33	5877.82	4.30	258.84	112.95	171.56	14 4 31	5277.8	12.21	258.05

DIFFERENTIAL CORRECTIONS
TDE -.6678 TRA .1945 TC3 -.0258 BAU .7067
RDE-8.5147 RRA-1.1863 RC3 .1392 FAU-.00786
FDE-1.7957 FRA -.2062 FC3 .0182 BSP 10907
BDE 8.5408 BRA 1.2041 BC3 .1416 FSP -187

MID-COURSE EXECUTION ACCURACY
SGT 452.1 SGR 3529.6 SG3 58.8
RRT -.3146 RRF .9942 RTF -.2149
SG8 3558.5 RZ3 -.1080 R13 .9937
SG1 3532.6 SG2 428.8 THA 92.34

ORBIT DETERMINATION ACCURACY
ST 230.6 SR 2626.3 SS 1195.3
CRT .6845 CRS -.9989 CST -.7183
LSA 2889.5 MSA 174.4 SSA 1.2
EL1 2631.1 EL2 167.8 ALF 86.55

LAUNCH DATE SEP 24 1970 FLIGHT TIME 134.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 393.617

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RL  150.07 LAL   -.00 LOL    .53 VL  27.260 GAL  -6.32 AZL 113.73 HCA 187.88 SMA 129.41 ECC .19314 INC23.7274 V1  29.691
RP  107.80 LAP   3.16 LOP 187.75 VP  37.903 GAP   5.65 AZP  66.47 TAL 208.42 TAP  36.30 RCA 104.42 APO 154.40 V2  35.153
RC 118.005 GL  -63.27 GP   77.00 ZAL 101.88 ZAP 102.59 ETS 102.20 ZAE  92.27 ETE 183.92 ZAC 160.45 ETC 226.34 CLP 165.69
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PLANETOCENTRIC CONIC

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C3 149.020 VHL 12.207 DLA -78.31 RAL 183.78 RAD 6570.6 VEL 16.442 PTH   2.87 VHP 16.214 DPA  65.42 RAP 246.33 ECC 3.4525.
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
13.30	23 49 16	2258.28	12.06	80.91	91.06	168.01	24 26 54	1658.3	20.68	79.56
166.70	11 0 15	5753.40	12.06	259.11	91.08	168.01	12 36 9	5153.4	20.68	257.76
13.30	23 49 16	2258.28	12.06	80.91	91.06	168.01	24 26 54	1658.3	20.68	79.56
166.70	11 0 15	5753.40	12.06	259.11	91.08	168.01	12 36 9	5153.4	20.68	257.76
13.30	23 49 16	2258.28	12.06	80.91	91.06	168.01	24 26 54	1658.3	20.68	79.56
166.70	11 0 15	5753.40	12.06	259.11	91.08	168.01	12 36 9	5153.4	20.68	257.76

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-3.2367 TRA-1.2216 TC3 -.1137 BAU  .2328   SGT 3224.1 SGR 1930.6 SG3   73.6     ST  1740.3 SR   668.3 SS   686.5
 RDE -.7459 RRA -.8190 RC3 -.0268 FAU .00870   RRT  .9511 RRF  .9279 RTF  .9966     CRT  .8729 CRS -.8451 CST -.9985
 FDE -.9377 FRA -.3101 FC3 -.0505 BSP  11508   SGB 3757.9 RZS -.1453 RIS  .9881     LSA 1961.2 MSA  317.0 SSA    1.7
 BDE 3.3215 BRA 1.4707 BC3  .1168 FSP   -236   SG1 3722.3 SG2  516.4 THA  30.31     EL1 1838.5 EL2  308.7 ALF  19.09
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LAUNCH DATE SEP 24 1970 FLIGHT TIME 136.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 399.424

```
RL  150.07 LAL   -.00 LOL    .53 VL  27.211 GAL  -6.04 AZL 106.56 HCA 190.89 SMA 129.07 ECC .19301 INC16.5595 V1  29.691
RP  107.84 LAP   3.09 LOP 190.99 VP  37.857 GAP   5.87 AZP  73.72 TAL 207.00 TAP  37.89 RCA 104.16 APO 153.98 V2  35.141
RC 120.271 GL  -60.08 GP   71.89 ZAL 105.48 ZAP 107.74 ETS  70.59 ZAE  99.88 ETE 153.57 ZAC 161.91 ETC 220.20 CLP-168.63
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PLANETOCENTRIC CONIC

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C3  79.180 VHL  8.898 DLA -74.53 RAL 189.49 RAD 6560.5 VEL 14.161 PTH   2.58 VHP 12.038 DPA  56.30 RAP 245.24 ECC 2.3031
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.63	0 24 39	2120.10	21.19	75.86	93.32	163.38	0 59 59	1520.1	28.84	73.68
162.37	11 14 23	5630.19	21.20	258.35	93.34	163.38	12 48 13	5030.2	28.84	256.16
17.63	0 24 39	2120.10	21.19	75.86	93.32	163.38	0 59 59	1520.1	28.84	73.68
162.37	11 14 23	5630.19	21.20	258.35	93.34	163.38	12 48 13	5030.2	28.84	256.16
17.63	0 24 39	2120.10	21.19	75.86	93.32	163.38	0 59 59	1520.1	28.84	73.68
162.37	11 14 23	5630.19	21.20	258.35	93.34	163.38	12 48 13	5030.2	28.84	256.16

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-2.5888 TRA-1.3834 TC3 -.5020 BAU  .5339   SGT 3838.6 SGR  531.3 SG3   94.0     ST  1945.7 SR   498.3 SS   702.2
 RDE  .7698 RRA -.0706 RC3  .0486 FAU .01821   RRT -.1639 RRF -.3528 RTF  .9778     CRT -.7997 CRS  .8903 CST -.9854
 FDE -.9775 FRA -.3370 FC3 -.1991 BSP  11881   SGB 3875.2 RZS  .1920 RIS -.9784     LSA 2105.4 MSA  307.2 SSA    2.4
 BDE 2.7018 BRA 1.3892 BC3  .5043 FSP   -302   SG1 3838.6 SG2  524.0 THA 178.68     EL1 1987.0 EL2  293.0 ALF 168.16
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LAUNCH DATE SEP 24 1970 FLIGHT TIME 138.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 405.310

```
RL  150.07 LAL   -.00 LOL    .53 VL  27.161 GAL  -5.77 AZL 102.51 HCA 194.00 SMA 128.73 ECC .19316 INC12.5077 V1  29.691
RP  107.87 LAP   3.00 LOP 194.21 VP  37.810 GAP   6.12 AZP  77.85 TAL 205.60 TAP  39.60 RCA 103.87 APO 153.60 V2  35.130
RC 122.531 GL  -55.69 GP   65.52 ZAL 108.46 ZAP 112.92 ETS  61.54 ZAE 105.60 ETE 146.40 ZAC 159.45 ETC 230.86 CLP-159.97
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PLANETOCENTRIC CONIC

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C3  50.205 VHL  7.086 DLA -70.82 RAL 198.07 RAD 6560.8 VEL 13.098 PTH   2.39 VHP  9.804 DPA  48.66 RAP 243.96 ECC 1.8262
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.91	1 7 47	2000.68	27.71	68.77	97.53	158.22	1 41 8	1400.7	35.09	66.57
158.09	11 39 44	5530.26	27.72	256.62	97.55	158.22	13 11 54	4930.3	35.10	253.42
21.91	1 7 47	2000.68	27.71	68.77	97.53	158.22	1 41 8	1400.7	35.09	66.57
158.09	11 39 44	5530.26	27.72	256.62	97.55	158.22	13 11 54	4930.3	35.10	253.42
21.91	1 7 47	2000.68	27.71	68.77	97.53	158.22	1 41 8	1400.7	35.09	66.57
158.09	11 39 44	5530.26	27.72	256.62	97.55	158.22	13 11 54	4930.3	35.10	253.42

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-2.3552 TRA-1.2638 TC3 -.9067 BAU  .6757   SGT 3906.2 SGR  808.5 SG3  118.1     ST  2121.2 SR   731.0 SS   775.6
 RDE  .9007 RRA  .0843 RC3  .1999 FAU .02802   RRT -.7689 RRF -.8993 RTF  .9639     CRT -.9322 CRS  .9820 CST -.9838
 FDE-1.0894 FRA -.3368 FC3 -.4488 BSP  12361   SGB 3989.0 RZS  .2272 RIS -.9689     LSA 2358.2 MSA  272.7 SSA    3.2
 BDE 2.5215 BRA 1.2686 BC3 1.0067 FSP   -385   SG1 3956.2 SG2  510.4 THA 170.80     EL1 2229.5 EL2  251.8 ALF 161.95
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LAUNCH DATE SEP 24 1970 FLIGHT TIME 140.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 411.223

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RL  150.07 LAL   -.00 LOL    .53 VL  27.111 GAL  -5.50 AZL  99.91 HCA 197.15 SMA 128.39 ECC .19350 INC 9.9136 V1  29.691
RP  107.91 LAP   2.91 LOP 197.44 VP  37.763 GAP   6.37 AZP  80.52 TAL 204.20 TAP  41.35 RCA 103.55 APO 153.24 V2  35.118
RC 124.788 GL  -51.06 GP   59.42 ZAL 110.71 ZAP 117.90 ETS  57.91 ZAE 110.12 ETE 145.13 ZAC 155.48 ETC 239.40 CLP-156.89
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PLANETOCENTRIC CONIC

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C3  35.677 VHL  5.973 DLA -67.17 RAL 206.02 RAD 6560.4 VEL 12.532 PTH   2.27 VHP  8.489 DPA  41.95 RAP 243.08 ECC 1.5872
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.16	1 48 42	1902.52	32.22	63.00	100.61	152.69	2 20 24	1302.5	39.25	58.69
153.84	12 2 11	5456.45	32.23	254.38	100.63	152.69	13 33 8	4856.5	39.25	250.07
26.16	1 48 42	1902.52	32.22	63.00	100.61	152.69	2 20 24	1302.5	39.25	58.69
153.84	12 2 11	5456.45	32.23	254.38	100.63	152.69	13 33 8	4856.5	39.25	250.07
26.16	1 48 42	1902.52	32.22	63.00	100.61	152.69	2 20 24	1302.5	39.25	58.69
153.84	12 2 11	5456.45	32.23	254.38	100.63	152.69	13 33 8	4856.5	39.25	250.07

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-2.1957 TRA-1.1428 TC3-1.5428 BAU  .7539   SGT 3978.1 SGR  925.1 SG3  141.8     ST  2270.9 SR   797.6 SS   827.0
 RDE  .8281 RRA  .0861 RC3  .3437 FAU .03258   RRT -.8428 RRF -.9521 RTF  .9537     CRT -.9573 CRS  .9933 CST -.9843
 FDE-1.1505 FRA -.3095 FC3 -.7906 BSP  12895   SGB 4082.3 RZS  .2525 RIS -.9601     LSA 2533.0 MSA  246.4 SSA    4.1
 BDE 2.3466 BRA 1.1466 BC3 1.5806 FSP   -465   SG1 4053.0 SG2  488.5 THA 168.74     EL1 2396.9 EL2  218.3 ALF 161.25
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LAUNCH DATE  SEP 24 1970                          FLIGHT TIME 142.00                          ARRIVAL DATE  FEB 13 1971

 HELIOCENTRIC CONIC                                DISTANCE 417.144
  RL  150.07 LAL   -.00 LOL    .53 VL  27.061 GAL  -5.23 AZL  98.11 HCA 200.32 SMA 128.05 ECC .19398 INC 8.1076 V1  29.691
  RP  107.95 LAP   2.81 LOP 200.66 VP  37.715 GAP   6.62 AZP  82.39 TAL 202.79 TAP  43.11 RCA 103.21 APO 152.89 V2  35.105
  RC 127.036 GL  -46.55 GP   53.88 ZAL 112.21 ZAP 122.56 ETS  55.96 ZAE 113.74 ETE 145.87 ZAC 151.22 ETC 244.98 CLP-155.94
 PLANETOCENTRIC CONIC
  C3  27.408 VHL  5.235 DLA -63.64 RAL 212.95 RAD 6568.1 VEL 12.198 PTH   2.19 VHP  7.669 DPA  35.96 RAP 242.63 ECC 1.4511
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     30.29     2 25 50   1821.80      35.05     56.02      102.60      147.16    2 56 12     1221.8      41.63      50.64
    149.71    12 20 25   5404.72      35.06    252.02      102.62      147.15   13 50 29     4804.7      41.64     246.64
     30.29     2 25 50   1821.80      35.05     56.02      102.60      147.16    2 56 12     1221.8      41.63      50.64
    149.71    12 20 25   5404.72      35.06    252.02      102.62      147.15   13 50 29     4804.7      41.64     246.64
     30.29     2 25 50   1821.80      35.05     56.02      102.60      147.16    2 56 12     1221.8      41.63      50.64
    149.71    12 20 25   5404.72      35.06    252.02      102.62      147.15   13 50 29     4804.7      41.64     246.64
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE-2.0421 TRA-1.0295 TC3-2.1471 BAU  .8047      SGT 4060.6 SGR  940.2 SG3  163.1            ST  2361.9 SR   788.5 SS   845.8
  RDE  .7187 RRA  .0731 RC3  .4608 FAU .03784      RRT -.8644 RRF -.9639 RTF  .9460            CRT -.9664 CRS  .9966 CST -.9843
  FDE-1.1527 FRA -.2591 FC3-1.1953 BSP  12974      SGB 4168.0 R23  .2891 R13 -.9524            LSA 2619.9 MSA  227.8 SSA    5.2
  BDE 2.1648 BRA 1.0321 BC3 2.1960 FSP   -535      SG1 4142.1 SG2  463.5 THA 168.54            EL1 2482.6 EL2  192.7 ALF 162.01

LAUNCH DATE  SEP 24 1970                          FLIGHT TIME 144.00                          ARRIVAL DATE  FEB 15 1971

 HELIOCENTRIC CONIC                                DISTANCE 423.063
  RL  150.07 LAL   -.00 LOL    .53 VL  27.010 GAL  -4.95 AZL  96.77 HCA 203.50 SMA 127.72 ECC .19457 INC 6.7732 V1  29.691
  RP  107.99 LAP   2.70 LOP 203.88 VP  37.667 GAP   6.88 AZP  83.78 TAL 201.37 TAP  44.86 RCA 102.87 APO 152.57 V2  35.093
  RC 129.278 GL  -42.27 GP   48.93 ZAL 112.99 ZAP 126.85 ETS  54.66 ZAE 116.63 ETE 147.42 ZAC 147.15 ETC 248.69 CLP-155.92
 PLANETOCENTRIC CONIC
  C3  22.260 VHL  4.718 DLA -60.30 RAL 219.08 RAD 6567.9 VEL 11.985 PTH   2.14 VHP  7.143 DPA  30.62 RAP 242.57 ECC 1.3663
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     34.25     2 59 53   1754.00      36.59     49.17      104.01      141.89    3 29  7     1154.0      42.71      42.88
    145.75    12 35 12   5370.25      36.60    249.85      104.02      141.89   14  4 43     4770.2      42.72     243.56
     34.25     2 59 53   1754.00      36.59     49.17      104.01      141.89    3 29  7     1154.0      42.71      42.88
    145.75    12 35 12   5370.25      36.60    249.85      104.02      141.89   14  4 43     4770.2      42.72     243.56
     34.25     2 59 53   1754.00      36.59     49.17      104.01      141.89    3 29  7     1154.0      42.71      42.88
    145.75    12 35 12   5370.25      36.60    249.85      104.02      141.89   14  4 43     4770.2      42.72     243.56
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE-1.0881 TRA -.9124 TC3-2.7623 BAU  .8376      SGT 4127.5 SGR  905.2 SG3  179.3            ST  2386.9 SR   742.3 SS   830.1
  RDE  .6107 RRA  .0400 RC3  .5402 FAU .04144      RRT -.8686 RRF -.9643 RTF  .9383            CRT -.9700 CRS  .9980 CST -.9831
  FDE-1.1013 FRA -.1843 FC3-1.6117 BSP  13026      SGB 4225.6 R23  .2823 R13 -.9442            LSA 2625.1 MSA  214.9 SSA    6.4
  BDE 1.9816 BRA  .9133 BC3 2.8146 FSP   -577      SG1 4202.6 SG2  440.5 THA 169.09            EL1 2493.7 EL2  172.8 ALF 163.13

LAUNCH DATE  SEP 24 1970                          FLIGHT TIME 146.00                          ARRIVAL DATE  FEB 17 1971

 HELIOCENTRIC CONIC                                DISTANCE 428.973
  RL  150.07 LAL   -.00 LOL    .53 VL  26.959 GAL  -4.66 AZL  95.74 HCA 206.68 SMA 127.38 ECC .19529 INC 5.7422 V1  29.691
  RP  108.03 LAP   2.58 LOP 207.10 VP  37.619 GAP   7.13 AZP  84.87 TAL 199.93 TAP  46.61 RCA 102.50 APO 152.25 V2  35.080
  RC 131.513 GL  -38.27 GP   44.56 ZAL 113.10 ZAP 130.75 ETS  53.66 ZAE 118.92 ETE 149.31 ZAC 143.44 ETC 251.28 CLP-156.38
 PLANETOCENTRIC CONIC
  C3  18.842 VHL  4.341 DLA -57.16 RAL 224.61 RAD 6567.8 VEL 11.842 PTH   2.10 VHP  6.802 DPA  25.86 RAP 242.85 ECC 1.3101
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     38.02     3 31 44   1695.50      37.22     42.67      105.24      137.08    3 59 59     1095.5      42.86      35.66
    141.98    12 47 32   5349.06      37.23    248.09      105.26      137.07   14 16 41     4749.1      42.87     241.07
     38.02     3 31 44   1695.50      37.22     42.67      105.24      137.08    3 59 59     1095.5      42.86      35.66
    141.98    12 47 32   5349.06      37.23    248.09      105.26      137.07   14 16 41     4749.1      42.87     241.07
     38.02     3 31 44   1695.50      37.22     42.67      105.24      137.08    3 59 59     1095.5      42.86      35.66
    141.98    12 47 32   5349.06      37.23    248.09      105.26      137.07   14 16 41     4749.1      42.87     241.07
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE-1.7534 TRA -.8141 TC3-3.4165 BAU  .8740      SGT 4252.1 SGR  873.2 SG3  195.2            ST  2391.2 SR   695.9 SS   805.0
  RDE  .5270 RRA  .0165 RC3  .6062 FAU .04456      RRT -.8754 RRF -.9616 RTF  .9356            CRT -.9726 CRS  .9989 CST -.9820
  FDE-1.0351 FRA -.1147 FC3-2.0476 BSP  13541      SGB 4340.8 R23  .2787 R13 -.9406            LSA 2609.4 MSA  203.5 SSA    7.8
  BDE 1.8309 BRA  .8142 BC3 3.4698 FSP   -639      SG1 4320.9 SG2  415.4 THA 169.71            EL1 2485.5 EL2  155.6 ALF 164.13

LAUNCH DATE  SEP 24 1970                          FLIGHT TIME 148.00                          ARRIVAL DATE  FEB 19 1971

 HELIOCENTRIC CONIC                                DISTANCE 434.874
  RL  150.07 LAL   -.00 LOL    .53 VL  26.908 GAL  -4.36 AZL  94.92 HCA 209.87 SMA 127.04 ECC .19613 INC 4.9175 V1  29.691
  RP  108.07 LAP   2.45 LOP 210.32 VP  37.570 GAP   7.39 AZP  85.73 TAL 198.47 TAP  48.34 RCA 102.13 APO 151.96 V2  35.067
  RC 133.740 GL  -34.53 GP   40.71 ZAL 112.62 ZAP 134.28 ETS  52.85 ZAE 120.71 ETE 151.28 ZAC 140.13 ETC 253.20 CLP-157.08
 PLANETOCENTRIC CONIC
  C3  16.461 VHL  4.057 DLA -54.23 RAL 229.74 RAD 6567.7 VEL 11.741 PTH   2.07 VHP  6.584 DPA  21.63 RAP 243.41 ECC 1.2709
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     41.61     4  2  9   1643.49      37.20     36.58      106.57      132.78    4 29 32     1043.5      42.38      29.05
    138.39    12 58  2   5338.36      37.22    246.82      106.58      132.77   14 27  1     4738.4      42.39     239.29
     41.61     4  2  9   1643.49      37.20     36.58      106.57      132.78    4 29 32     1043.5      42.38      29.05
    138.39    12 58  2   5338.36      37.22    246.82      106.58      132.77   14 27  1     4738.4      42.39     239.29
     41.61     4  2  9   1643.49      37.20     36.58      106.57      132.78    4 29 32     1043.5      42.38      29.05
    138.39    12 58  2   5338.36      37.22    246.82      106.58      132.77   14 27  1     4738.4      42.39     239.29
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE-1.6213 TRA -.7083 TC3-4.0464 BAU  .9016      SGT 4350.5 SGR  828.3 SG3  205.8            ST  2348.0 SR   644.4 SS   758.1
  RDE  .4562 RRA -.0075 RC3  .6412 FAU .04625      RRT -.8748 RRF -.9545 RTF  .9321            CRT -.9740 CRS  .9995 CST -.9796
  FDE -.9426 FRA -.0316 FC3-2.4324 BSP  13839      SGB 4428.6 R23  .2730 R13 -.9363            LSA 2542.7 MSA  194.8 SSA    9.5
  BDE 1.6842 BRA  .7054 BC3 4.0969 FSP   -674      SG1 4410.9 SG2  395.7 THA 170.47            EL1 2430.8 EL2  141.1 ALF 164.98
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LAUNCH DATE SEP 24 1970 FLIGHT TIME 150.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 440.763

RL	150.07	LAL	-.00	LOL	.53	VL	26.856	GAL	-4.06	AZL	94.24	HCA	213.06	SMA	126.71	ECC	.19708	INC	4.2393	V1	29.691
RP	108.11	LAP	2.31	LOP	213.53	VP	37.521	GAP	7.64	AZP	86.45	TAL	196.99	TAP	50.05	RCA	101.74	APO	151.68	V2	35.054
RC	135.957	GL	-31.05	GP	37.34	ZAL	111.60	ZAP	137.45	ETS	52.16	ZAE	122.11	ETE	153.22	ZAC	137.21	ETC	254.70	CLP	-157.91

PLANETOCENTRIC CONIC

C3	14.748	VHL	3.840	DLA	-51.47	RAL	234.60	RAD	6567.6	VEL	11.667	PTH	2.05	VHP	6.451	DPA	17.86	RAP	244.21	ECC	1.2427

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.04	4 31 44	1595.90	36.74	30.91	108.11	128.98	4 58 20	995.9	41.49	23.03
134.96	13 7 10	5336.25	36.75	246.09	108.13	128.97	14 36 7	4736.2	41.50	236.20
45.04	4 31 44	1595.90	36.74	30.91	108.11	128.98	4 58 20	995.9	41.49	23.03
134.96	13 7 10	5336.25	36.75	246.09	108.13	128.97	14 36 7	4736.2	41.50	236.20
45.04	4 31 44	1595.90	36.74	30.91	108.11	128.98	4 58 20	995.9	41.49	23.03
134.96	13 7 10	5336.25	36.75	246.09	108.13	128.97	14 36 7	4736.2	41.50	236.20

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.4977	TRA	-.5948	TC3	-4.6581	BAU	.9274	SGT	4452.1	SGR	785.7	SG3	213.4	ST	2277.7	SR	598.1	SS	701.4
RDE	.4005	RRA	-.0276	RC3	.6586	FAU	.04709	RRT	-.8722	RRF	-.9444	RTF	.9297	CRT	-.9752	CRS	.9997	CST	-.9762
FDE	-.8419	FRA	.0923	FC3	-2.7646	BSP	14169	SGB	4520.9	RZS	.2808	RIS	-.9332	LSA	2450.0	MSA	187.1	SSA	11.4
BDE	1.5903	BRA	.5054	BC3	4.7045	FSP	-701	SG1	4504.9	SG2	379.9	THA	171.19	EL1	2351.5	EL2	128.1	ALF	165.59

LAUNCH DATE SEP 24 1970 FLIGHT TIME 152.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 446.638

RL	150.07	LAL	-.00	LOL	.53	VL	26.805	GAL	-3.74	AZL	93.67	HCA	216.26	SMA	126.38	ECC	.19816	INC	3.6685	V1	29.691
RP	108.15	LAP	2.17	LOP	216.74	VP	37.472	GAP	7.09	AZP	87.04	TAL	195.49	TAP	51.75	RCA	101.34	APO	151.42	V2	35.041
RC	138.168	GL	-27.78	GP	34.39	ZAL	110.11	ZAP	140.30	ETS	51.60	ZAE	123.21	ETE	155.05	ZAC	134.66	ETC	255.91	CLP	-158.82

PLANETOCENTRIC CONIC

C3	13.483	VHL	3.672	DLA	-48.87	RAL	239.26	RAD	6567.5	VEL	11.613	PTH	2.03	VHP	6.379	DPA	14.50	RAP	245.21	ECC	1.2219

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.35	5 0 57	1551.13	35.95	25.00	109.94	125.65	5 26 48	951.1	40.32	17.49
131.65	13 15 9	5341.50	35.96	245.00	109.95	125.64	14 44 10	4741.6	40.33	237.77
48.35	5 0 57	1551.13	35.95	25.00	109.94	125.65	5 26 48	951.1	40.32	17.49
131.65	13 15 9	5341.50	35.96	245.00	109.95	125.64	14 44 10	4741.6	40.33	237.77
48.35	5 0 57	1551.13	35.95	25.00	109.94	125.65	5 26 48	951.1	40.32	17.49
131.65	13 15 9	5341.50	35.96	245.00	109.95	125.64	14 44 10	4741.6	40.33	237.77

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.3771	TRA	-.4775	TC3	-5.2302	BAU	.9502	SGT	4544.5	SGR	745.5	SG3	217.9	ST	2178.5	SR	557.1	SS	636.3
RDE	.3563	RRA	-.0453	RC3	.6803	FAU	.04712	RRT	-.8864	RRF	-.9312	RTF	.9276	CRT	-.9767	CRS	.9991	CST	-.9710
FDE	-.7360	FRA	.1374	FC3	-3.0254	BSP	14447	SGB	4605.3	RZS	.2447	RIS	-.9305	LSA	2329.9	MSA	180.5	SSA	13.7
BDE	1.4224	BRA	.4798	BC3	5.2717	FSP	-715	SG1	4590.5	SG2	368.6	THA	171.86	EL1	2245.6	EL2	116.0	ALF	165.94

LAUNCH DATE SEP 24 1970 FLIGHT TIME 154.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 452.500

RL	150.07	LAL	-.00	LOL	.53	VL	26.754	GAL	-3.42	AZL	93.18	HCA	219.45	SMA	126.05	ECC	.19937	INC	3.1788	V1	29.691
RP	108.19	LAP	2.02	LOP	219.94	VP	37.424	GAP	8.14	AZP	87.54	TAL	193.98	TAP	53.43	RCA	100.92	APO	151.18	V2	35.028
RC	140.364	GL	-24.72	GP	31.80	ZAL	108.22	ZAP	142.88	ETS	51.15	ZAE	124.05	ETE	156.74	ZAC	132.42	ETC	256.95	CLP	-159.76

PLANETOCENTRIC CONIC

C3	12.546	VHL	3.542	DLA	-46.39	RAL	243.78	RAD	6567.5	VEL	11.573	PTH	2.02	VHP	6.352	DPA	11.50	RAP	246.39	ECC	1.2065

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
51.58	5 30 12	1507.77	34.94	20.56	112.05	122.72	5 55 20	907.8	38.96	12.31
128.42	13 21 59	5353.90	34.95	246.23	112.06	122.70	14 51 12	4753.9	38.97	237.99
51.58	5 30 12	1507.77	34.94	20.56	112.05	122.72	5 55 20	907.8	38.96	12.31
128.42	13 21 59	5353.90	34.95	246.23	112.06	122.70	14 51 12	4753.9	38.97	237.99
51.58	5 30 12	1507.77	34.94	20.56	112.05	122.72	5 55 20	907.8	38.96	12.31
128.42	13 21 59	5353.90	34.95	246.23	112.06	122.70	14 51 12	4753.9	38.97	237.99

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.2603	TRA	-.3560	TC3	-5.7594	BAU	.9722	SGT	4636.7	SGR	710.5	SG3	220.3	ST	2057.6	SR	522.5	SS	567.9
RDE	.3218	RRA	-.0607	RC3	.6523	FAU	.04661	RRT	-.8584	RRF	-.9152	RTF	.9262	CRT	-.9788	CRS	.9989	CST	-.9633
FDE	-.6312	FRA	.2195	FC3	-3.2164	BSP	14743	SGB	4690.9	RZS	.2248	RIS	-.9285	LSA	2190.6	MSA	174.6	SSA	16.4
BDE	1.3007	BRA	.3611	BC3	5.7962	FSP	-723	SG1	4676.9	SG2	361.3	THA	172.46	EL1	2120.4	EL2	104.0	ALF	166.01

LAUNCH DATE SEP 24 1970 FLIGHT TIME 156.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 458.346

RL	150.07	LAL	-.00	LOL	.53	VL	26.703	GAL	-3.08	AZL	92.75	HCA	222.64	SMA	125.73	ECC	.20071	INC	2.7516	V1	29.691
RP	108.23	LAP	1.86	LOP	223.14	VP	37.375	GAP	8.40	AZP	87.98	TAL	192.45	TAP	55.09	RCA	100.49	APO	150.96	V2	35.014
RC	142.552	GL	-21.83	GP	29.53	ZAL	105.98	ZAP	145.21	ETS	50.81	ZAE	124.71	ETE	158.28	ZAC	130.47	ETC	257.85	CLP	-160.71

PLANETOCENTRIC CONIC

C3	11.855	VHL	3.443	DLA	-44.01	RAL	248.20	RAD	6567.5	VEL	11.543	PTH	2.01	VHP	6.358	DPA	8.82	RAP	247.72	ECC	1.1951

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.78	5 59 52	1464.57	33.75	15.69	114.43	120.12	6 24 17	864.6	37.46	7.38
125.22	13 27 35	5373.11	33.76	247.13	114.44	120.11	14 57 8	4773.1	37.47	238.82
54.78	5 59 52	1464.57	33.75	15.69	114.43	120.12	6 24 17	864.6	37.46	7.38
125.22	13 27 35	5373.11	33.76	247.13	114.44	120.11	14 57 8	4773.1	37.47	238.82
54.78	5 59 52	1464.57	33.75	15.69	114.43	120.12	6 24 17	864.6	37.46	7.38
125.22	13 27 35	5373.11	33.76	247.13	114.44	120.11	14 57 8	4773.1	37.47	238.82

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.1454	TRA	-.2287	TC3	-6.2536	BAU	.9931	SGT	4726.4	SGR	680.5	SG3	220.8	ST	1916.9	SR	493.7	SS	498.7
RDE	.2949	RRA	-.0743	RC3	.6374	FAU	.04570	RRT	-.8483	RRF	-.8967	RTF	.9254	CRT	-.9816	CRS	.9909	CST	-.9514
FDE	-.5296	FRA	.2981	FC3	-3.3371	BSP	15041	SGB	4775.2	RZS	.2025	RIS	-.9273	LSA	2034.2	MSA	169.4	SSA	19.7
BDE	1.1927	BRA	.2405	BC3	6.2661	FSP	-727	SG1	4761.8	SG2	357.6	THA	173.00	EL1	1977.4	EL2	91.3	ALF	165.78

LAUNCH DATE SEP 24 1970 FLIGHT TIME 158.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 464.177

RL	150.07	LAL	-.00	LOL	.53	VL	26.653	GAL	-2.75	AZL	92.37	HCA	225.83	SMA	125.40	ECC	.20220	INC	2.3734
RP	108.27	LAP	1.70	LOP	226.34	VP	37.326	GAP	8.65	AZP	88.35	TAL	190.91	TAP	56.74	RCA	100.05	APO	150.76
RC	144.730	GL	-19.09	GP	27.53	ZAL	103.45	ZAP	147.33	ETS	50.59	ZAE	125.23	ETE	159.68	ZAC	128.76	ETC	258.67

V1	29.691	V2	35.001	CLP-161.67															

PLANETOCENTRIC CONIC

C3	11.359	VHL	3.370	DLA	-41.71	RAL	252.54	RAD	6567.4	VEL	11.522	PTH	2.01	VHP	6.391	DPA	6.42	RAP	249.19
ECC	1.1869																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.99	6 30 20	1420.16	32.42	10.87	117.07	117.82	6 54 0	820.2	35.86	2.56
122.01	13 31 44	5399.71	32.44	248.61	117.08	117.81	15 1 44	4799.7	35.87	240.29
57.99	6 30 20	1420.16	32.42	10.87	117.07	117.82	6 54 0	820.2	35.86	2.56
122.01	13 31 44	5399.71	32.44	248.61	117.08	117.81	15 1 44	4799.7	35.87	240.29
57.99	6 30 20	1420.16	32.42	10.87	117.07	117.82	6 54 0	820.2	35.86	2.56
122.01	13 31 44	5399.71	32.44	248.61	117.08	117.81	15 1 44	4799.7	35.87	240.29

DIFFERENTIAL CORRECTIONS

TDE	-1.0307	TRA	-.0956	TC3	-6.6433	BAU	1.0132
RDE	.2741	RRA	-.0867	RC3	.6175	FAU	.04447
FDE	-.4329	FRA	.3725	FC3	-3.3896	BSP	15340
BDE	1.0666	BRA	.1291	BC3	6.6719	FSP	-726

MID-COURSE EXECUTION ACCURACY

SGT	4813.6	SGR	655.3	SG3	220.0		
RRT	-.8361	RRF	-.8760	RTF	.9251		
SGB	4858.0	RZ3	.1792	R13	-.9266		
SG1	4844.8	SG2	357.1	THA	173.47		

ORBIT DETERMINATION ACCURACY

ST	1758.6	SR	469.9	SS	431.6		
CRT	-.9854	CRS	.9770	CST	-.9327		
LSA	1863.3	MSA	165.1	SSA	23.5		
EL1	1818.6	EL2	77.3	ALF	165.22		

LAUNCH DATE SEP 24 1970 FLIGHT TIME 160.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 469.992

RL	150.07	LAL	-.00	LOL	.53	VL	26.602	GAL	-2.37	AZL	92.03	HCA	229.02	SMA	125.09	ECC	.20384	INC	2.0344
RP	108.31	LAP	1.54	LOP	229.54	VP	37.278	GAP	8.91	AZP	88.67	TAL	189.35	TAP	58.37	RCA	99.59	APO	150.58
RC	146.899	GL	-16.51	GP	25.76	ZAL	100.67	ZAP	149.26	ETS	50.50	ZAE	125.63	ETE	160.93	ZAC	127.25	ETC	259.43

V1	29.691	V2	34.988	CLP-162.62															

PLANETOCENTRIC CONIC

C3	11.027	VHL	3.321	DLA	-39.47	RAL	256.80	RAD	6567.4	VEL	11.507	PTH	2.00	VHP	6.445	DPA	4.25	RAP	250.77
ECC	1.1815																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.27	7 1 59	1372.99	30.99	5.99	119.93	115.77	7 24 52	773.0	34.18	357.70
118.73	13 34 3	5434.61	31.01	250.75	119.94	115.75	15 4 38	4834.6	34.19	242.45
61.27	7 1 59	1372.99	30.99	5.99	119.93	115.77	7 24 52	773.0	34.18	357.70
118.73	13 34 3	5434.61	31.01	250.75	119.94	115.75	15 4 38	4834.6	34.19	242.45
61.27	7 1 59	1372.99	30.99	5.99	119.93	115.77	7 24 52	773.0	34.18	357.70
118.73	13 34 3	5434.61	31.01	250.75	119.94	115.75	15 4 38	4834.6	34.19	242.45

DIFFERENTIAL CORRECTIONS

TDE	-.9128	TRA	.0464	TC3	-6.9724	BAU	1.0316
RDE	.2575	RRA	-.0990	RC3	.5928	FAU	.04297
FDE	-.3393	FRA	.4449	FC3	-3.3735	BSP	15592
BDE	.9481	BRA	.1094	BC3	6.9976	FSP	-719

MID-COURSE EXECUTION ACCURACY

SGT	4892.0	SGR	633.5	SG3	217.7		
RRT	-.8213	RRF	-.8532	RTF	.9246		
SGB	4932.9	RZ3	.1572	R13	-.9259		
SG1	4919.8	SG2	359.3	THA	173.90		

ORBIT DETERMINATION ACCURACY

ST	1580.9	SR	449.3	SS	367.8		
CRT	-.9899	CRS	.9457	CST	-.9006		
LSA	1676.0	MSA	163.1	SSA	28.1		
EL1	1642.3	EL2	61.4	ALF	164.26		

LAUNCH DATE SEP 24 1970 FLIGHT TIME 162.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 475.790

RL	150.07	LAL	-.00	LOL	.53	VL	26.552	GAL	-2.00	AZL	91.73	HCA	232.21	SMA	124.77	ECC	.20564	INC	1.7268
RP	108.35	LAP	1.36	LOP	232.73	VP	37.230	GAP	9.17	AZP	88.94	TAL	187.78	TAP	59.99	RCA	99.11	APO	150.43
RC	149.057	GL	-14.06	GP	24.19	ZAL	97.68	ZAP	151.03	ETS	50.54	ZAE	125.95	ETE	162.06	ZAC	125.93	ETC	260.15

V1	29.691	V2	34.975	CLP-163.56															

PLANETOCENTRIC CONIC

C3	10.836	VHL	3.292	DLA	-37.27	RAL	260.98	RAD	6567.4	VEL	11.499	PTH	2.00	VHP	6.517	DPA	2.30	RAP	252.46
ECC	1.1783																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.68	7 35 25	1321.07	29.48	.89	122.99	113.92	7 57 26	721.1	32.44	352.64
115.32	13 33 59	5479.40	29.49	253.64	123.00	113.90	15 5 19	4879.4	32.45	245.38
64.68	7 35 25	1321.07	29.48	.89	122.99	113.92	7 57 26	721.1	32.44	352.64
115.32	13 33 59	5479.40	29.49	253.64	123.00	113.90	15 5 19	4879.4	32.45	245.38
64.68	7 35 25	1321.07	29.48	.89	122.99	113.92	7 57 26	721.1	32.44	352.64
115.32	13 33 59	5479.40	29.49	253.64	123.00	113.90	15 5 19	4879.4	32.45	245.38

DIFFERENTIAL CORRECTIONS

TDE	-.7890	TRA	.1988	TC3	-7.2070	BAU	1.0473
RDE	.2441	RRA	-.1115	RC3	.5631	FAU	.04117
FDE	-.2488	FRA	.5159	FC3	-3.2890	BSP	15756
BDE	.8259	BRA	.2279	BC3	7.2289	FSP	-703

MID-COURSE EXECUTION ACCURACY

SGT	4958.7	SGR	614.3	SG3	214.3		
RRT	-.8038	RRF	-.8283	RTF	.9238		
SGB	4996.6	RZ3	.1374	R13	-.9248		
SG1	4983.4	SG2	363.6	THA	174.28		

ORBIT DETERMINATION ACCURACY

ST	1386.9	SR	431.2	SS	311.6		
CRT	-.9942	CRS	.8775	CST	-.8443		
LSA	1475.8	MSA	165.3	SSA	33.1		
EL1	1451.7	EL2	44.4	ALF	162.81		

LAUNCH DATE SEP 24 1970 FLIGHT TIME 164.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 481.569

RL	150.07	LAL	-.00	LOL	.53	VL	26.502	GAL	-1.62	AZL	91.45	HCA	235.40	SMA	124.46	ECC	.20762	INC	1.4450
RP	108.39	LAP	1.19	LOP	235.92	VP	37.182	GAP	9.44	AZP	89.18	TAL	186.19	TAP	61.59	RCA	98.62	APO	150.30
RC	151.205	GL	-11.74	GP	22.79	ZAL	94.55	ZAP	152.66	ETS	50.71	ZAE	126.20	ETE	163.06	ZAC	124.75	ETC	260.84

V1	29.691	V2	34.962	CLP-164.49															

PLANETOCENTRIC CONIC

C3	10.776	VHL	3.283	DLA	-35.12	RAL	265.07	RAD	6567.4	VEL	11.496	PTH	2.00	VHP	6.604	DPA	.54	RAP	254.24
ECC	1.1773																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
68.31	8 11 27	1261.31	27.90	355.33	126.22	112.25	8 32 29	661.3	30.66	347.14
111.69	13 30 36	5536.87	27.91	257.47	126.22	112.23	15 2 53	4936.9	30.67	249.28
68.31	8 11 27	1261.31	27.90	355.33	126.22	112.25	8 32 29	661.3	30.66	347.14
111.69	13 30 36	5536.87	27.91	257.47	126.22	112.23	15 2 53	4936.9	30.67	249.28
68.31	8 11 27	1261.31	27.90	355.33	126.22	112.25	8 32 29	661.3	30.66	347.14
111.69	13 30 36	5536.87	27.91	257.47	126.22	112.23	15 2 53	4936.9	30.67	249.28

DIFFERENTIAL CORRECTIONS

TDE	-.6653	TRA	.3552	TC3	-7.3679	BAU	1.0642
RDE	.2343	RRA	-.1232	RC3	.5347	FAU	.03943
FDE	-.1660	FRA	.5804	FC3	-3.1677	BSP	16001
BDE	.7054	BRA	.3760	BC3	7.3873	FSP	-692

MID-COURSE EXECUTION ACCURACY

SGT	5032.1	SGR	599.6	SG3	210.6		
RRT	-.7862	RRF	-.8032	RTF	.9240		
SGB	5067.7	RZ3	.1178	R13	-.9249		
SG1	5054.3	SG2	368.9	THA	174.62		

ORBIT DETERMINATION ACCURACY

ST	1192.2	SR	416.6	SS	271.2		
CRT	-.9953	CRS	.7498	CST	-.7590		
LSA	1279.3	MSA	174.5	SSA	37.8		
EL1	1262.3	EL2	38.0	ALF	160.80		

LAUNCH DATE SEP 24 1970 FLIGHT TIME 166.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 487.329

RL	150.07	LAL	-.00	LOL	.53	VL	26.453	GAL	-1.22	AZL	91.18	HCA	238.58	SMA	124.16	ECC	.20978	INC	1.1841
RP	108.43	LAP	1.01	LOP	239.11	VP	37.135	GAP	9.71	AZP	89.38	TAL	184.60	TAP	63.18	RCA	98.11	APO	150.20
RC	153.343	GL	-9.56	GP	21.55	ZAL	91.31	ZAP	154.17	ETS	51.01	ZAE	126.40	ETE	163.96	ZAC	123.70	ETC	261.51

V1	29.691	V2	34.949	CLP-165.40															

PLANETOCENTRIC CONIC

C3	10.839	VHL	3.292	DLA	-33.00	RAL	269.07	RAD	6567.4	VEL	11.499	PTH	2.00	VHP	6.704	DPA	-1.05	RAP	256.10

ECC	1.1784	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
72.31	8 51 35	1188.71	26.26	348.95	129.59	110.73	9 11 24	588.7	28.84	340.83									
107.69	13 22 22	5611.84	28.28	262.60	129.60	110.72	14 55 54	5011.8	28.85	254.47									
72.31	8 51 35	1188.71	26.26	348.95	129.59	110.73	9 11 24	588.7	28.84	340.83									
107.69	13 22 22	5611.84	28.28	262.60	129.60	110.72	14 55 54	5011.8	28.85	254.47									
110.00	12 28 35	5777.31	21.23	272.93	127.13	117.44	14 4 52	5177.3	24.73	265.53									
110.00	14 44 32	5350.28	31.54	244.92	131.47	103.92	16 13 52	4759.3	33.13	236.06									

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5385	TRA	.5196	TC3	-7.4375	BAU	1.0802	SGT	5101.3	SGR	587.5	SG3	206.5	ST	1002.3	SR	404.3	SS	250.5
RDE	.2272	RRA	-.1349	RC3	.5047	FAU	.03762	RRT	-.7674	RRF	-.7775	RTF	.9245	CRT	-.9050	CRS	.5464	CST	-.6540
FDE	-.0093	FRA	.6414	FC3	-3.0049	BSP	16227	SGB	5135.0	RZS	.1001	R13	-.9252	LSA	1091.1	NSA	196.8	SSA	40.8
BDE	.5845	BRA	.5368	BC3	7.4546	FSP	-680	SG1	5121.3	SG2	375.2	THA	174.92	EL1	1078.9	EL2	64.7	ALF	158.25

LAUNCH DATE SEP 24 1970 FLIGHT TIME 168.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 493.068

RL	150.07	LAL	-.00	LOL	.53	VL	26.403	GAL	-.81	AZL	90.94	HCA	241.76	SMA	123.86	ECC	.21213	INC	.9406
RP	108.47	LAP	.83	LOP	242.30	VP	37.088	GAP	9.98	AZP	89.56	TAL	182.99	TAP	64.76	RCA	97.58	APO	150.13
RC	155.470	GL	-7.50	GP	20.44	ZAL	87.99	ZAP	155.56	ETS	51.46	ZAE	126.56	ETE	164.76	ZAC	122.76	ETC	262.17

V1	29.691	V2	34.937	CLP-166.30															

PLANETOCENTRIC CONIC

C3	11.022	VHL	3.320	DLA	-30.92	RAL	272.96	RAD	6567.4	VEL	11.507	PTH	2.00	VHP	6.817	DPA	-2.49	RAP	258.04

ECC	1.1814	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
77.03	9 39 7	1092.00	24.60	340.93	133.08	109.35	9 57 19	492.0	27.01	332.87									
102.97	13 5 50	5715.42	24.61	269.80	133.09	109.33	14 41 6	5115.4	27.02	261.74									
77.03	9 39 7	1092.00	24.60	340.93	133.08	109.35	9 57 19	492.0	27.01	332.87									
102.97	13 5 50	5715.42	24.61	269.80	133.09	109.33	14 41 6	5115.4	27.02	261.74									
110.00	11 59 51	634.15	16.45	303.54	129.05	120.39	12 10 25	34.2	20.36	296.60									
110.00	15 44 17	5221.27	33.34	234.57	135.51	98.05	17 11 18	4621.3	34.09	225.41									

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4208	TRA	.6799	TC3	-7.4605	BAU	1.1016	SGT	5190.1	SGR	580.3	SG3	202.5	ST	847.2	SR	396.9	SS	249.2
RDE	.2243	RRA	-.1450	RC3	.4606	FAU	.03620	RRT	-.7506	RRF	-.7544	RTF	.9277	CRT	-.9468	CRS	.3312	CST	-.5978
FDE	-.0279	FRA	.6602	FC3	-2.8431	BSP	16747	SGB	5222.4	RZS	.0821	R13	-.9282	LSA	939.1	NSA	232.1	SSA	41.2
BDE	.4768	BRA	.6952	BC3	7.4759	FSP	-686	SG1	5208.4	SG2	382.0	THA	175.18	EL1	928.3	EL2	116.6	ALF	155.67

LAUNCH DATE SEP 24 1970 FLIGHT TIME 170.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 498.788

RL	150.07	LAL	-.00	LOL	.53	VL	26.354	GAL	-.38	AZL	90.71	HCA	244.95	SMA	123.56	ECC	.21470	INC	.7113
RP	108.51	LAP	.64	LOP	245.48	VP	37.042	GAP	10.26	AZP	89.70	TAL	181.38	TAP	66.32	RCA	97.03	APO	150.09
RC	157.587	GL	-5.58	GP	19.44	ZAL	84.64	ZAP	156.85	ETS	52.05	ZAE	126.70	ETE	165.48	ZAC	121.92	ETC	262.82

V1	29.691	V2	34.925	CLP-167.18															

PLANETOCENTRIC CONIC

C3	11.326	VHL	3.365	DLA	-28.89	RAL	276.73	RAD	6567.4	VEL	11.520	PTH	2.01	VHP	6.940	DPA	-3.78	RAP	260.05

ECC	1.1864	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
84.04	10 47 58	925.71	22.92	327.96	136.68	108.08	11 3 23	325.7	25.18	319.97									
95.96	12 27 6	604.92	22.93	304.45	136.68	108.06	12 37 11	4.9	25.19	296.46									
100.00	11 53 47	712.09	18.48	310.53	134.86	113.92	12 5 39	112.1	21.56	303.09									
100.00	14 3 57	5581.81	27.52	260.75	138.05	102.16	15 36 59	4981.8	28.92	252.22									
110.00	11 44 48	740.37	12.70	309.48	131.67	122.01	11 57 8	140.4	16.84	302.82									
110.00	16 29 26	5126.29	34.00	227.24	139.10	93.76	17 54 52	4526.3	34.15	217.99									

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.2763	TRA	.8005	TC3	-7.3242	BAU	1.1111	SGT	5232.9	SGR	580.3	SG3	197.1	ST	707.4	SR	385.4	SS	268.5
RDE	.2197	RRA	-.1503	RC3	.4442	FAU	.03405	RRT	-.7286	RRF	-.7289	RTF	.9270	CRT	-.8221	CRS	.0692	CST	-.6106
FDE	.0455	FRA	.7505	FC3	-2.6026	BSP	16764	SGB	5263.8	RZS	.0697	R13	-.9275	LSA	793.9	NSA	298.8	SSA	38.9
BDE	.3530	BRA	.8038	BC3	7.3376	FSP	-661	SG1	5249.4	SG2	388.7	THA	175.44	EL1	780.7	EL2	198.8	ALF	154.07

LAUNCH DATE SEP 24 1970 FLIGHT TIME 172.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 504.484

RL	150.07	LAL	-.00	LOL	.53	VL	26.306	GAL	.07	AZL	90.49	HCA	248.13	SMA	123.26	ECC	.21749	INC	.4938
RP	108.54	LAP	.46	LOP	248.66	VP	36.996	GAP	10.55	AZP	89.82	TAL	179.75	TAP	67.88	RCA	96.46	APO	150.07
RC	159.092	GL	-3.79	GP	18.54	ZAL	81.29	ZAP	158.05	ETS	52.80	ZAE	126.80	ETE	166.13	ZAC	121.15	ETC	263.47

V1	29.691	V2	34.913	CLP-168.05															

PLANETOCENTRIC CONIC

C3	11.756	VHL	3.429	DLA	-26.90	RAL	280.37	RAD	6567.4	VEL	11.539	PTH	2.01	VHP	7.075	DPA	-4.95	RAP	262.11

ECC	1.1935	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
90.00	10 33 38	1029.54	16.09	332.78	138.34	113.82	10 50 47	429.5	19.15	325.44									
90.00	13 10 29	5804.64	28.59	276.92	141.75	100.11	14 47 14	5204.6	27.72	268.44									
100.00	11 21 35	874.64	13.73	320.26	137.19	116.82	11 36 9	274.6	17.22	313.20									
100.00	15 5 13	5434.77	29.17	250.14	142.18	96.82	16 35 48	4834.8	29.81	241.39									
110.00	11 35 28	831.06	9.38	314.41	134.63	123.02	11 49 19	231.1	13.66	307.93									
110.00	17 7 49	5051.12	34.18	221.37	142.55	90.29	18 32 1	4451.1	33.84	212.14									

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.1322	TRA	1.0095	TC3	-7.1193	BAU	1.1208	SGT	5279.2	SGR	580.1	SG3	192.1	ST	655.0	SR	374.9	SS	304.4
RDE	.2167	RRA	-.1727	RC3	.4070	FAU	.03184	RRT	-.7064	RRF	-.7003	RTF	.9244	CRT	-.5676	CRS	-.1334	CST	-.7300
FDE	.1152	FRA	.8126	FC3	-2.3449	BSP	16865	SGB	5308.8	RZS	.0616	R13	-.9248	LSA	724.6	NSA	368.8	SSA	36.0
BDE	.2538	BRA	1.0794	BC3	7.1309	FSP	-635	SG1	5294.1	SG2	385.3	THA	175.69	EL1	696.7	EL2	290.2	ALF	157.99

LAUNCH DATE SEP 24 1970 FLIGHT TIME 174.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 510.156

RL 150.07 LAL -.00 LOL .53 VL 26.258 GAL .53 AZL 90.29 HCA 251.30 SMA 122.98 ECC .22053 INC .2857 V1 29.691
RP 108.58 LAP .27 LOP 251.84 VP 36.951 GAP 10.85 AZP 89.91 TAL 178.12 TAP 69.42 RCA 95.86 APO 150.10 V2 34.901
RC 161.784 GL -2.14 GP 17.74 ZAL 77.98 ZAP 159.18 ETS 53.70 ZAE 126.89 ETE 166.71 ZAC 120.44 ETC 264.12 CLP-168.91

PLANETOCENTRIC CONIC

C3 12.318 VHL 3.510 DLA -24.98 RAL 283.88 RAD 6567.5 VEL 11.563 PTH 2.02 VHP 7.221 DPA -6.00 RAP 264.23 ECC 1.2027

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 5 45	1180.74	11.77	341.78	140.98	115.94	10 25 26	580.7	15.16	334.75
90.00	14 6 18	5673.12	27.81	267.50	145.77	95.54	15 40 51	5073.1	28.29	258.86
100.00	11 4 21	991.56	10.04	326.98	140.08	118.30	11 20 53	391.6	13.75	320.15
100.00	15 50 24	5337.52	29.75	242.97	145.93	93.09	17 19 21	4737.5	29.86	234.17
110.00	11 29 23	913.01	6.31	318.77	137.82	123.67	11 44 37	313.0	10.69	312.42
110.00	17 41 51	4988.84	34.10	216.51	145.96	87.42	19 4 59	4388.8	35.36	207.35

DIFFERENTIAL CORRECTIONS
TDE .0064 TRA 1.2619 TC3-6.8755 BAU 1.1339
RDE .2178 RRA -.1845 RC3 .3765 FAU .03010
FDE .1664 FRA .8577 FC3-2.1156 BSP 17043
BDE .2179 BRA 1.2754 BC3 6.8858 FSP -622

MID-COURSE EXECUTION ACCURACY
SGT 5334.5 SGR 553.8 SG3 186.6
RRT -.6860 RRF -.6764 RTF .9270
SGB 5363.2 R23 .0507 R13 -.9273
SG1 5348.1 SG2 401.9 THA 175.90

ORBIT DETERMINATION ACCURACY
ST 697.1 SR 369.4 SS 336.3
CRT -.2540 CRS -.2515 CST -.8657
LSA 761.7 MSA 392.8 SSA 32.3
EL1 705.6 EL2 353.0 ALF 169.74

LAUNCH DATE SEP 24 1970 FLIGHT TIME 176.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 515.800

RL 150.07 LAL -.00 LOL .53 VL 26.210 GAL 1.01 AZL 90.09 HCA 254.48 SMA 122.69 ECC .22584 INC .0839 V1 29.691
RP 108.61 LAP .08 LOP 255.01 VP 36.907 GAP 11.16 AZP 89.98 TAL 176.48 TAP 70.96 RCA 95.23 APO 150.16 V2 34.890
RC 163.865 GL -.63 GP 17.00 ZAL 74.72 ZAP 160.22 ETS 54.78 ZAE 126.97 ETE 167.23 ZAC 119.79 ETC 264.77 CLP-169.75

PLANETOCENTRIC CONIC

C3 13.019 VHL 3.608 DLA -23.13 RAL 287.23 RAD 6567.5 VEL 11.593 PTH 2.03 VHP 7.378 DPA -6.94 RAP 266.39 ECC 1.2143

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 49 35	1295.66	8.27	348.40	144.03	117.18	10 11 11	695.7	11.85	341.55
90.00	14 49 16	5581.90	28.24	260.06	149.52	92.24	16 22 18	4981.9	28.25	252.19
100.00	10 53 11	1080.38	6.80	332.53	143.24	119.18	11 11 21	490.4	10.64	325.85
100.00	16 28 22	5262.41	29.99	237.39	149.56	90.16	17 56 4	4662.4	29.59	228.60
110.00	11 25 27	909.23	3.42	322.78	141.15	124.03	11 41 56	389.2	7.87	316.51
110.00	18 12 36	4936.33	33.86	212.43	149.36	85.01	19 34 52	4336.3	32.80	203.35

DIFFERENTIAL CORRECTIONS
TDE .1928 TRA 1.4709 TC3-6.5709 BAU 1.1453
RDE .2192 RRA -.1977 RC3 .3451 FAU .02831
FDE .2196 FRA .9066 FC3-1.8825 BSP 17215
BDE .2672 BRA 1.4842 BC3 6.5800 FSP -606

MID-COURSE EXECUTION ACCURACY
SGT 5384.7 SGR 547.5 SG3 181.6
RRT -.6660 RRF -.6530 RTF .9280
SGB 5412.5 R23 .0420 R13 -.9282
SG1 5397.1 SG2 407.4 THA 176.10

ORBIT DETERMINATION ACCURACY
ST 812.2 SR 362.9 SS 373.8
CRT .0181 CRS -.3428 CST -.9412
LSA 887.0 MSA 378.7 SSA 29.2
EL1 812.2 EL2 362.8 ALF .58

LAUNCH DATE SEP 24 1970 FLIGHT TIME 178.00 ARRIVAL DATE MAR 21 1971

HELIOCENTRIC CONIC DISTANCE 521.416

RL 150.07 LAL -.00 LOL .53 VL 26.163 GAL 1.51 AZL 89.89 HCA 257.65 SMA 122.41 ECC .22743 INC .1063 V1 29.691
RP 108.65 LAP -.11 LOP 258.19 VP 36.863 GAP 11.48 AZP 90.02 TAL 174.84 TAP 72.49 RCA 94.57 APO 150.25 V2 34.880
RC 165.932 GL .76 GP 16.34 ZAL 71.55 ZAP 161.20 ETS 56.03 ZAE 127.03 ETE 167.70 ZAC 119.18 ETC 265.41 CLP-170.59

PLANETOCENTRIC CONIC

C3 13.872 VHL 3.725 DLA -21.35 RAL 290.45 RAD 6567.5 VEL 11.630 PTH 2.04 VHP 7.547 DPA -7.78 RAP 268.60 ECC 1.2283

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 38 44	1394.23	5.16	353.96	147.30	117.88	10 1 58	794.2	8.85	347.25
90.00	15 25 45	5510.93	28.31	255.67	153.18	89.64	16 57 36	4910.9	27.96	247.02
100.00	10 45 28	1178.87	3.84	337.43	146.58	119.67	11 5 6	578.9	7.76	330.84
100.00	17 1 42	5201.52	29.82	232.87	153.14	87.78	18 28 24	4601.5	29.19	224.12
110.00	11 22 58	1061.30	.67	326.54	144.60	124.18	11 40 40	461.3	5.15	320.32
110.00	18 40 41	4891.86	33.54	208.99	152.78	83.00	20 2 13	4291.9	32.21	200.02

DIFFERENTIAL CORRECTIONS
TDE .3020 TRA 1.6892 TC3-6.2216 BAU 1.1553
RDE .2220 RRA -.2111 RC3 .3142 FAU .02655
FDE .2682 FRA .9534 FC3-1.6569 BSP 17583
BDE .3748 BRA 1.7023 BC3 6.2295 FSP -591

MID-COURSE EXECUTION ACCURACY
SGT 5429.5 SGR 541.2 SG3 176.5
RRT -.6461 RRF -.6303 RTF .9291
SGB 5456.4 R23 .0347 R13 -.9293
SG1 5440.8 SG2 412.2 THA 176.29

ORBIT DETERMINATION ACCURACY
ST 967.3 SR 357.2 SS 409.7
CRT .2030 CRS -.4066 CST -.9744
LSA 1050.8 MSA 355.4 SSA 26.5
EL1 970.4 EL2 348.7 ALF 4.92

LAUNCH DATE SEP 24 1970 FLIGHT TIME 180.00 ARRIVAL DATE MAR 23 1971

HELIOCENTRIC CONIC DISTANCE 526.997

RL 150.07 LAL -.00 LOL .53 VL 26.116 GAL 2.04 AZL 89.70 HCA 260.82 SMA 122.14 ECC .23134 INC .2961 V1 29.691
RP 108.68 LAP -.29 LOP 261.36 VP 36.820 GAP 11.81 AZP 90.05 TAL 173.20 TAP 74.02 RCA 93.88 APO 150.39 V2 34.869
RC 167.985 GL 2.01 GP 15.74 ZAL 68.47 ZAP 162.12 ETS 57.47 ZAE 127.09 ETE 168.13 ZAC 118.61 ETC 266.06 CLP-171.41

PLANETOCENTRIC CONIC

C3 14.891 VHL 3.859 DLA -19.65 RAL 293.50 RAD 6567.6 VEL 11.674 PTH 2.05 VHP 7.727 DPA -8.52 RAP 270.84 ECC 1.2451

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 31 1	1482.99	2.32	358.96	150.71	118.23	9 55 44	883.0	6.07	352.29
90.00	15 57 52	5453.54	28.22	251.47	156.79	87.54	17 28 45	4853.5	27.58	242.86
100.00	10 39 58	1260.46	1.08	341.91	150.02	119.87	11 0 59	660.5	5.05	335.37
100.00	17 31 36	5151.30	29.63	229.15	156.70	85.83	18 57 27	4551.3	28.73	220.46
110.00	11 21 33	1130.15	-1.96	330.13	148.12	124.13	11 40 23	530.2	2.53	323.93
110.00	19 6 30	4854.38	33.20	206.12	156.23	81.34	20 27 24	4254.4	31.64	197.24

DIFFERENTIAL CORRECTIONS
TDE .4389 TRA 1.9019 TC3-5.8833 BAU 1.1726
RDE .2277 RRA -.2230 RC3 .2884 FAU .02524
FDE .3045 FRA .9902 FC3-1.4671 BSP 17936
BDE .4944 BRA 1.9149 BC3 5.8903 FSP -596

MID-COURSE EXECUTION ACCURACY
SGT 5480.2 SGR 536.1 SG3 171.1
RRT -.6278 RRF -.6102 RTF .9320
SGB 5506.4 R23 .0279 R13 -.9321
SG1 5490.6 SG2 416.5 THA 176.47

ORBIT DETERMINATION ACCURACY
ST 1119.1 SR 354.2 SS 435.2
CRT .3141 CRS -.4471 CST -.9877
LSA 1205.3 MSA 337.5 SSA 24.2
EL1 1125.2 EL2 334.4 ALF 6.23

LAUNCH DATE SEP 24 1970 FLIGHT TIME 182.00 ARRIVAL DATE MAR 25 1971

HELIOCENTRIC CONIC DISTANCE 532.547

RL 150.07 LAL -.00 LOL .53 VL 26.070 GAL 2.58 AZL 89.52 HCA 263.99 SMA 121.87 ECC .23558 INC .4821 V1 29.691
RP 108.71 LAP -.48 LOP 264.53 VP 36.778 GAP 12.16 AZP 90.05 TAL 171.55 TAP 75.54 RCA 93.16 APO 150.58 V2 34.859
RC 170.025 GL 3.13 GP 15.10 ZAL 65.51 ZAP 162.97 ETS 59.11 ZAE 127.13 ETE 168.52 ZAC 118.07 ETC 266.70 CLP-172.23

PLANETOCENTRIC CONIC

C3 16.082 VHL 4.011 DLA -18.04 RAL 296.42 RAD 6567.6 VEL 11.725 PTH [illegible] VHP 7.921 DPA -9.17 RAP 273.12 ECC 1.2648

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 25 24	1565.03	-.33	3.53	154.22	118.32	9 51 29	965.0	3.46	356.90
90.00	16 26 43	5406.47	28.03	248.04	160.40	85.83	17 56 49	4806.5	27.16	239.48
100.00	10 36 3	1337.02	-1.51	346.11	155.56	119.06	10 58 20	737.0	2.47	339.59
100.00	17 58 44	5109.72	29.38	226.08	160.26	84.23	19 23 54	4509.7	28.27	217.45
110.00	11 20 56	1196.39	-4.49	353.60	151.71	123.92	11 40 53	596.4	-.00	327.38
110.00	19 30 20	4823.11	32.85	203.75	159.70	79.97	20 50 44	4223.1	31.12	194.96

DIFFERENTIAL CORRECTIONS

TDE .6082 TRA 2.1544 TC3-5.4468 BAU 1.1731
RDE .2316 RRA -.2378 RC3 .2554 FAU .02318
FDE .3537 FRA 1.0418 FC3-1.2471 BSP 17772
BDE .6508 BRA 2.1675 BC3 5.4528 FSP -566

MID-COURSE EXECUTION ACCURACY

SGT 5506.8 SGR 528.2 SGS 166.3
RRT -.6065 RRF -.5871 RTF .9317
SGB 5532.1 RZS .0235 R13 -.9318
SG1 5516.1 SG2 419.3 THA 176.65

ORBIT DETERMINATION ACCURACY

ST 1309.4 SR 347.8 SS 472.4
CRT .4008 CRS -.4858 CST -.9942
LSA 1398.9 MSA 318.2 SSA 22.5
EL1 1317.2 EL2 316.7 ALF 6.45

LAUNCH DATE SEP 24 1970 FLIGHT TIME 184.00 ARRIVAL DATE MAR 27 1971

HELIOCENTRIC CONIC DISTANCE 538.057

RL 150.07 LAL -.00 LOL .53 VL 26.024 GAL 3.16 AZL 89.33 HCA 267.16 SMA 121.60 ECC .24020 INC .6655 V1 29.691
RP 108.74 LAP -.66 LOP 267.70 VP 36.737 GAP 12.53 AZP 90.03 TAL 169.90 TAP 77.07 RCA 92.39 APO 150.81 V2 34.850
RC 172.049 GL 4.14 GP 14.69 ZAL 62.67 ZAP 163.77 ETS 60.97 ZAE 127.17 ETE 168.87 ZAC 117.58 ETC 267.35 CLP-173.03

PLANETOCENTRIC CONIC

C3 17.495 VHL 4.183 DLA -16.52 RAL 299.18 RAD 6567.7 VEL 11.785 PTH 2.08 VHP 8.128 DPA -9.73 RAP 275.42 ECC 1.2879

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 21 15	1642.02	-2.81	7.83	157.80	118.19	9 48 37	1042.0	.98	1.20
90.00	16 52 53	5367.90	27.81	245.24	164.00	84.44	18 22 21	4767.9	26.75	236.74
100.00	10 33 17	1409.82	-3.97	350.11	157.16	119.65	10 56 46	809.6	.01	343.58
100.00	18 23 32	5075.53	29.12	223.57	163.83	82.93	19 48 8	4475.5	27.84	215.00
110.00	11 20 55	1280.39	-6.91	336.97	155.34	123.56	11 41 55	660.4	-2.45	330.72
110.00	19 58 34	4797.52	32.53	201.82	163.20	78.87	21 12 21	4197.5	30.66	193.11

DIFFERENTIAL CORRECTIONS

TDE .7718 TRA 2.4084 TC3-5.0263 BAU 1.1768
RDE .2377 RRA -.2517 RC3 .2267 FAU .02143
FDE .3946 FRA 1.0875 FC3-1.0805 BSP 17823
BDE .8076 BRA 2.4225 BC3 5.0315 FSP -548

MID-COURSE EXECUTION ACCURACY

SGT 5536.1 SGR 520.8 SGS 161.5
RRT -.5864 RRF -.5659 RTF .9327
SGB 5560.6 RZS .0195 R13 -.9328
SG1 5544.6 SG2 421.2 THA 176.82

ORBIT DETERMINATION ACCURACY

ST 1483.3 SR 343.1 SS 501.6
CRT .4562 CRS -.5125 CST -.9969
LSA 1573.7 MSA 304.2 SSA 20.7
EL1 1491.9 EL2 303.5 ALF 6.28

LAUNCH DATE SEP 24 1970 FLIGHT TIME 186.00 ARRIVAL DATE MAR 29 1971

HELIOCENTRIC CONIC DISTANCE 543.523

RL 150.07 LAL -.00 LOL .53 VL 25.979 GAL 3.76 AZL 89.15 HCA 270.33 SMA 121.34 ECC .24522 INC .8479 V1 29.691
RP 108.77 LAP -.85 LOP 270.86 VP 36.696 GAP 12.91 AZP 90.00 TAL 168.26 TAP 78.59 RCA 91.58 APO 151.09 V2 34.841
RC 174.060 GL 5.03 GP 14.24 ZAL 59.96 ZAP 164.51 ETS 63.05 ZAE 127.20 ETE 169.19 ZAC 117.07 ETC 267.99 CLP-173.84

PLANETOCENTRIC CONIC

C3 19.125 VHL 4.373 DLA -15.08 RAL 301.79 RAD 6567.8 VEL 11.854 PTH 2.10 VHP 8.350 DPA -10.21 RAP 277.74 ECC 1.3148

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 18 13	1715.02	-5.15	11.92	161.44	117.88	9 46 48	1115.0	-1.38	5.27
90.00	17 16 47	5336.57	27.58	242.98	167.59	83.33	18 45 44	4736.6	26.37	234.52
100.00	10 31 22	1478.99	-6.29	353.94	160.81	119.28	10 56 1	879.0	-2.34	347.38
100.00	18 46 19	5047.83	28.87	221.55	167.40	81.90	20 10 27	4447.8	27.45	213.04
110.00	11 21 21	1322.45	-9.23	340.28	159.02	123.06	11 43 23	722.4	-4.81	333.97
110.00	20 12 50	4777.14	32.25	200.30	166.71	78.01	21 32 27	4177.1	30.27	191.65

DIFFERENTIAL CORRECTIONS

TDE .9366 TRA 2.6734 TC3-4.6134 BAU 1.1807
RDE .2451 RRA -.2650 RC3 .2003 FAU .01981
FDE .4319 FRA 1.1311 FC3 -.8969 BSP 17938
BDE .9681 BRA 2.6865 BC3 4.6178 FSP -533

MID-COURSE EXECUTION ACCURACY

SGT 5563.0 SGR 513.0 SGS 156.7
RRT -.5867 RRF -.5454 RTF .9341
SGB 5586.6 RZS .0157 R13 -.9342
SG1 5570.6 SG2 422.1 THA 176.99

ORBIT DETERMINATION ACCURACY

ST 1644.6 SR 338.8 SS 526.6
CRT .4954 CRS -.5335 CST -.9982
LSA 1735.1 MSA 293.1 SSA 19.4
EL1 1653.4 EL2 292.8 ALF 6.02

LAUNCH DATE SEP 24 1970 FLIGHT TIME 188.00 ARRIVAL DATE MAR 31 1971

HELIOCENTRIC CONIC DISTANCE 548.940

RL 150.07 LAL -.00 LOL .53 VL 25.934 GAL 4.39 AZL 88.97 HCA 273.50 SMA 121.08 ECC .25069 INC 1.0302 V1 29.691
RP 108.79 LAP -1.03 LOP 274.03 VP 36.657 GAP 13.32 AZP 89.94 TAL 166.62 TAP 80.12 RCA 90.73 APO 151.44 V2 34.833
RC 176.055 GL 5.82 GP 13.82 ZAL 57.38 ZAP 165.19 ETS 65.37 ZAE 127.22 ETE 169.49 ZAC 116.59 ETC 268.64 CLP-174.64

PLANETOCENTRIC CONIC

C3 21.010 VHL 4.584 DLA -13.74 RAL 304.26 RAD 6567.9 VEL 11.933 PTH 2.12 VHP 8.588 DPA -10.61 RAP 280.08 ECC 1.3458

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 16 1	1784.73	-7.35	15.86	165.11	117.42	9 45 46	1184.7	-3.62	9.17
90.00	17 36 43	5311.62	27.37	241.18	171.19	82.45	19 7 14	4711.6	26.04	232.77
100.00	10 30 7	1545.63	-8.49	357.67	164.50	118.77	10 55 53	945.6	-4.59	351.05
100.00	19 7 17	5025.95	28.65	219.96	170.98	81.09	20 31 3	4425.9	27.12	211.49
110.00	11 22 7	1362.77	-11.45	343.53	162.72	122.43	11 45 10	782.8	-7.09	337.15
110.00	20 31 47	4761.58	32.03	199.14	170.24	77.36	21 51 8	4161.6	29.96	190.54

DIFFERENTIAL CORRECTIONS

TDE 1.1058 TRA 2.9902 TC3-4.2064 BAU 1.1825
RDE .2537 RRA -.2781 RC3 .1755 FAU .01823
FDE .4668 FRA 1.1747 FC3 -.7513 BSP 18041
BDE 1.1343 BRA 2.9633 BC3 4.2100 FSP -518

MID-COURSE EXECUTION ACCURACY

SGT 5585.0 SGR 504.5 SGS 152.1
RRT -.5468 RRF -.5254 RTF .9357
SGB 5607.8 RZS .0129 R13 -.9358
SG1 5591.9 SG2 421.9 THA 177.16

ORBIT DETERMINATION ACCURACY

ST 1794.5 SR 334.9 SS 548.6
CRT .5250 CRS -.5505 CST -.9989
LSA 1884.8 MSA 283.7 SSA 18.3
EL1 1803.3 EL2 283.6 ALF 5.74

LAUNCH DATE SEP 24 1970 FLIGHT TIME 190.00 ARRIVAL DATE APR 2 1971

HELIOCENTRIC CONIC DISTANCE 554.301

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RL  150.07 LAL   -.00 LOL    .53 VL  25.890 GAL   5.05 AZL  88.79 HCA 276.66 SMA 120.83 ECC .25665 INC 1.2137 V1  29.691
RP  108.82 LAP  -1.21 LOP 277.20 VP  36.619 GAP  13.76 AZP  89.86 TAL 164.99 TAP  81.65 RCA  89.82 APO 151.84 V2  34.825
RC 178.036 GL    6.51 GP   13.44 ZAL  54.93 ZAP 165.82 ETS  67.94 ZAE 127.23 ETE 169.77 ZAC 116.13 ETC 269.28 CLP-175.44
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PLANETOCENTRIC CONIC

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C3  23.183 VHL  4.815 DLA -12.49 RAL 306.60 RAD 6567.9 VEL 12.023 PTH   2.15 VHP  8.844 DPA -10.94 RAP 282.43 ECC 1.3815
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 14 28	1851.64	-9.43	19.68	168.82	116.82	9 45 20	1251.6	-5.76	12.92
90.00	17 58 53	5292.35	27.19	239.80	174.79	81.78	19 27 6	4692.3	25.77	231.42
100.00	10 29 24	1609.96	-10.58	1.30	168.22	118.12	10 56 14	1010.0	-6.74	354.62
100.00	19 26 39	5009.31	28.47	218.76	174.56	80.48	20 50 8	4409.3	26.86	210.32
110.00	11 23 10	1441.51	-13.57	346.76	166.46	121.68	11 47 11	841.5	-9.29	340.29
110.00	20 49 22	4750.48	31.86	198.32	173.78	76.90	22 8 33	4150.5	29.73	189.76

DIFFERENTIAL CORRECTIONS

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TDE 1.2786 TRA 3.2407 TC3-3.8127 BAU 1.1826
RDE  .2634 RRA -.2906 RC3  .1526 FAU .01671
FDE  .5000 FRA 1.2182 FC3 -.6242 BSP  18143
BDE 1.3055 BRA 3.2537 BC3 3.8157 FSP   -504
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5603.2 SGR  495.3 SG3  147.6
RRT -.5266 RRF -.5054 RTF  .9376
SGB 5625.1 R23  .0104 R13 -.9376
SG1 5609.3 SG2  420.6 THA 177.32
```

ORBIT DETERMINATION ACCURACY

```
ST  1931.6 SR   331.0 SS   568.2
CRT  .5482 CRS -.5652 CST -.9993
LSA 2021.7 MSA  275.6 SSA   17.3
EL1 1940.3 EL2  275.6 ALF   5.48
```

LAUNCH DATE SEP 24 1970 FLIGHT TIME 192.00 ARRIVAL DATE APR 4 1971

HELIOCENTRIC CONIC DISTANCE 559.599

```
RL  150.07 LAL   -.00 LOL    .53 VL  25.847 GAL   5.75 AZL  88.60 HCA 279.82 SMA 120.58 ECC .26316 INC 1.3995 V1  29.691
RP  108.84 LAP  -1.38 LOP 280.36 VP  36.581 GAP  14.22 AZP  89.76 TAL 163.37 TAP  83.19 RCA  88.85 APO 152.32 V2  34.818
RC 180.002 GL    7.12 GP   13.10 ZAL  52.62 ZAP 166.38 ETS  70.78 ZAE 127.24 ETE 170.02 ZAC 115.67 ETC 269.91 CLP-176.25
```

PLANETOCENTRIC CONIC

```
C3  25.684 VHL  5.068 DLA -11.32 RAL 308.80 RAD 6568.0 VEL 12.127 PTH   2.17 VHP  9.121 DPA -11.19 RAP 284.79 ECC 1.4227
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 13 27	1916.12	-11.39	23.40	172.56	116.10	9 45 23	1316.1	-7.79	16.57
90.00	18 17 30	5278.19	27.05	238.79	178.38	81.29	19 45 28	4678.2	25.57	230.43
100.00	10 29 5	1672.08	-12.55	4.86	171.96	117.35	10 56 57	1072.1	-8.79	358.09
100.00	19 44 32	4997.46	28.33	217.90	178.14	80.05	21 7 50	4397.5	26.67	209.50
110.00	11 24 25	1498.80	-15.80	349.97	170.21	120.81	11 49 24	898.8	-11.40	343.38
110.00	21 5 42	4743.51	31.75	197.80	177.33	76.61	22 24 45	4143.5	29.58	189.26

DIFFERENTIAL CORRECTIONS

```
TDE 1.4571 TRA 3.5461 TC3-3.4346 BAU 1.1802
RDE  .2742 RRA -.3025 RC3  .1314 FAU .01524
FDE  .5320 FRA 1.2621 FC3 -.5136 BSP  18236
BDE 1.4827 BRA 3.5590 BC3 3.4371 FSP   -490
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5616.9 SGR  485.2 SG3  143.3
RRT -.5059 RRF -.4852 RTF  .9396
SGB 5637.8 R23  .0083 R13 -.9397
SG1 5622.3 SG2  418.1 THA 177.48
```

ORBIT DETERMINATION ACCURACY

```
ST  2056.4 SR   327.2 SS   585.7
CRT  .5676 CRS -.5785 CST -.9995
LSA 2146.4 MSA  268.3 SSA   16.4
EL1 2065.0 EL2  268.3 ALF   5.25
```

LAUNCH DATE SEP 24 1970 FLIGHT TIME 194.00 ARRIVAL DATE APR 6 1971

HELIOCENTRIC CONIC DISTANCE 564.825

```
RL  150.07 LAL   -.00 LOL    .53 VL  25.804 GAL   6.49 AZL  88.41 HCA 282.98 SMA 120.34 ECC .27027 INC 1.5887 V1  29.691
RP  108.86 LAP  -1.55 LOP 283.52 VP  36.545 GAP  14.72 AZP  89.64 TAL 161.77 TAP  84.75 RCA  87.82 APO 152.86 V2  34.812
RC 181.954 GL    7.64 GP   12.78 ZAL  50.43 ZAP 166.89 ETS  73.90 ZAE 127.23 ETE 170.26 ZAC 115.22 ETC 270.54 CLP-177.05
```

PLANETOCENTRIC CONIC

```
C3  28.563 VHL  5.344 DLA -10.23 RAL 310.88 RAD 6568.1 VEL 12.245 PTH   2.20 VHP  9.419 DPA -11.37 RAP 287.15 ECC 1.4701
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 12 50	1978.42	-13.23	27.05	176.32	115.27	9 45 48	1378.4	-9.72	20.14
90.00	18 34 40	5268.69	26.95	238.11	181.97	80.96	20 2 29	4668.7	25.43	229.77
100.00	10 29 6	1732.36	-14.41	8.37	175.73	116.48	10 57 58	1132.4	-10.74	1.51
100.00	20 1 5	4969.98	28.24	217.36	181.72	79.78	21 24 15	4390.0	26.54	208.97
110.00	11 25 49	1554.74	-17.52	353.16	174.00	119.83	11 51 44	954.7	-13.42	346.45
110.00	21 20 51	4740.36	31.70	197.57	180.88	76.48	22 39 51	4140.4	29.52	189.04

DIFFERENTIAL CORRECTIONS

```
TDE 1.6401 TRA 3.8663 TC3-3.0767 BAU 1.1757
RDE  .2861 RRA -.3134 RC3  .1121 FAU .01382
FDE  .5625 FRA 1.3065 FC3 -.4190 BSP  18344
BDE 1.6649 BRA 3.8790 BC3 3.0788 FSP   -477
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5625.6 SGR  474.3 SG3  139.0
RRT -.4844 RRF -.4646 RTF  .9420
SGB 5645.5 R23  .0066 R13 -.9420
SG1 5630.3 SG2  414.6 THA 177.65
```

ORBIT DETERMINATION ACCURACY

```
ST  2167.5 SR   323.4 SS   601.4
CRT  .5843 CRS -.5907 CST -.9996
LSA 2257.3 MSA  261.4 SSA   15.6
EL1 2175.8 EL2  261.4 ALF   5.05
```

LAUNCH DATE SEP 24 1970 FLIGHT TIME 196.00 ARRIVAL DATE APR 8 1971

HELIOCENTRIC CONIC DISTANCE 569.966

```
RL  150.07 LAL   -.00 LOL    .53 VL  25.761 GAL   7.28 AZL  88.22 HCA 286.14 SMA 120.10 ECC .27806 INC 1.7829 V1  29.691
RP  108.87 LAP  -1.71 LOP 286.68 VP  36.509 GAP  15.25 AZP  89.50 TAL 160.18 TAP  86.32 RCA  86.71 APO 153.50 V2  34.806
RC 183.891 GL    8.10 GP   12.48 ZAL  48.38 ZAP 167.34 ETS  77.30 ZAE 127.21 ETE 170.48 ZAC 114.78 ETC 271.16 CLP-177.86
```

PLANETOCENTRIC CONIC

```
C3  31.877 VHL  5.646 DLA  -9.23 RAL 312.83 RAD 6568.3 VEL 12.379 PTH   2.23 VHP  9.742 DPA -11.49 RAP 289.51 ECC 1.5246
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 12 33	2038.74	-14.95	30.65	180.09	114.33	9 46 31	1438.7	-11.54	23.63
90.00	18 50 32	5263.41	26.89	237.73	185.55	80.78	20 18 15	4663.4	25.34	229.41
100.00	10 29 22	1790.89	-16.15	11.84	179.51	115.50	10 59 13	1190.9	-12.59	4.86
100.00	20 16 23	4986.49	28.20	217.11	185.29	79.66	21 39 30	4386.5	26.48	208.73
110.00	11 27 20	1609.44	-19.34	356.35	177.80	118.75	11 54 9	1009.4	-15.36	349.50
110.00	21 34 55	4740.76	31.71	197.80	184.44	76.50	22 53 56	4140.8	29.53	189.07

DIFFERENTIAL CORRECTIONS

```
TDE 1.8284 TRA 4.2027 TC3-2.7407 BAU 1.1687
RDE  .2991 RRA -.3231 RC3  .0946 FAU .01248
FDE  .5918 FRA 1.3516 FC3 -.3389 BSP  18475
BDE 1.8527 BRA 4.2151 BC3 2.7424 FSP   -466
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5629.5 SGR  462.5 SG3  134.9
RRT -.4619 RRF -.4433 RTF  .9446
SGB 5648.5 R23  .0053 R13 -.9446
SG1 5633.6 SG2  409.9 THA 177.82
```

ORBIT DETERMINATION ACCURACY

```
ST  2265.3 SR   319.5 SS   615.4
CRT  .5993 CRS -.6024 CST -.9997
LSA 2355.3 MSA  254.9 SSA   14.9
EL1 2273.5 EL2  254.9 ALF   4.89
```

LAUNCH DATE SEP 24 1970 FLIGHT TIME 198.00 ARRIVAL DATE APR 10 1971

HELIOCENTRIC CONIC DISTANCE 575.011

```
RL  150.07 LAL   -.00 LOL    .53 VL  25.720 GAL   8.11 AZL  88.02 HCA 289.30 SMA 119.87 ECC .28660 INC 1.9832 V1  29.691
RP  108.89 LAP  -1.87 LOP 289.85 VP  36.475 GAP  15.83 AZP  89.34 TAL 158.62 TAP  87.92 RCA  85.52 APO 154.22 V2  34.801
RC 185.813 GL    8.48 GP   12.21 ZAL  46.45 ZAP 167.72 ETS  80.98 ZAE 127.17 ETE 170.69 ZAC 114.33 ETC 271.78 CLP-178.69
```

PLANETOCENTRIC CONIC

```
C3  35.695 VHL  5.975 DLA  -8.30 RAL 314.67 RAD 6568.4 VEL 12.533 PTH   2.27 VHP 10.092 DPA -11.54 RAP 291.86 ECC 1.5874
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 12 32	2097.23	-16.56	34.19	183.87	113.30	9 47 29	1497.2	-13.26	27.06
90.00	19 5 11	5261.99	26.88	237.63	189.11	80.74	20 32 53	4662.0	25.32	229.31
100.00	10 29 51	1847.79	-17.79	15.27	183.30	114.43	11 0 39	1247.8	-14.34	8.18
100.00	20 30 33	4986.67	28.20	217.13	188.85	79.66	21 53 39	4386.7	26.49	208.74
110.00	11 28 56	1662.81	-21.06	359.55	181.61	117.57	11 56 38	1062.8	-17.20	352.55
110.00	21 47 57	4744.41	31.76	197.87	187.99	76.65	23 7 2	4144.4	29.60	189.33

DIFFERENTIAL CORRECTIONS

```
TDE 2.0227 TRA 4.5573 TC3-2.4268 BAU 1.1587
RDE  .3133 RRA -.3313 RC3  .0789 FAU .01117
FDE  .6207 FRA 1.3080 FC3 -.2709 BSP  18621
BDE 2.0468 BRA 4.5603 BC3 2.4281 FSP   -456
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5628.4 SGR  449.8 SG3  130.9
RRT -.4300 RRF -.4209 RTF  .9474
SGB 5646.4 R23  .0042 R13 -.9474
SG1 5631.9 SG2  404.1 THA 177.99
```

ORBIT DETERMINATION ACCURACY

```
ST  2350.7 SR   315.6 SS   628.5
CRT  .6133 CRS -.6140 CST -.9997
LSA 2441.0 MSA  248.4 SSA   14.3
EL1 2358.7 EL2  248.4 ALF   4.76
```

LAUNCH DATE SEP 24 1970 FLIGHT TIME 200.00 ARRIVAL DATE APR 12 1971

HELIOCENTRIC CONIC DISTANCE 579.942

```
RL  150.07 LAL   -.00 LOL    .53 VL  25.679 GAL   9.00 AZL  87.81 HCA 292.46 SMA 119.64 ECC .29598 INC 2.1914 V1  29.691
RP  108.90 LAP  -2.03 LOP 293.01 VP  36.442 GAP  16.45 AZP  89.16 TAL 157.08 TAP  89.54 RCA  84.23 APO 155.05 V2  34.797
RC 187.719 GL    8.81 GP   11.97 ZAL  44.64 ZAP 168.02 ETS  84.94 ZAE 127.12 ETE 170.89 ZAC 113.89 ETC 272.38 CLP-179.52
```

PLANETOCENTRIC CONIC

```
C3  40.103 VHL  6.333 DLA  -7.45 RAL 316.39 RAD 6568.5 VEL 12.707 PTH   2.31 VHP 10.474 DPA -11.54 RAP 294.20 ECC 1.6600
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 12 44	2153.98	-18.05	37.68	187.66	112.19	9 48 38	1554.0	-14.89	30.44
90.00	19 18 42	5264.08	26.90	237.78	192.66	80.81	20 46 26	4664.1	25.35	229.46
100.00	10 30 30	1903.11	-19.31	18.68	187.10	113.27	11 2 13	1303.1	-16.00	11.45
100.00	20 43 37	4990.19	28.25	217.38	192.40	79.79	22 6 47	4390.2	26.55	208.99
110.00	11 30 34	1715.01	-22.67	2.74	185.44	116.30	11 59 9	1115.0	-18.95	355.58
110.00	22 0 8	4751.05	31.87	198.36	191.54	76.92	23 19 13	4151.1	29.74	189.80

DIFFERENTIAL CORRECTIONS

```
TDE 2.2240 TRA 4.9321 TC3-2.1336 BAU 1.1444
RDE  .3287 RRA -.3380 RC3  .0648 FAU .00980
FDE  .6494 FRA 1.4463 FC3 -.2138 BSP  18762
BDE 2.2482 BRA 4.9437 BC3 2.1346 FSP   -445
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5621.8 SGR  436.2 SG3  127.0
RRT -.4124 RRF -.3969 RTF  .9504
SGB 5638.7 R23  .0033 R13 -.9504
SG1 5624.7 SG2  397.2 THA 178.16
```

ORBIT DETERMINATION ACCURACY

```
ST  2424.6 SR   311.4 SS   641.2
CRT  .6268 CRS -.6257 CST -.9998
LSA 2515.5 MSA  242.0 SSA   13.7
EL1 2432.5 EL2  241.9 ALF   4.65
```

LAUNCH DATE SEP 24 1970 FLIGHT TIME 202.00 ARRIVAL DATE APR 14 1971

HELIOCENTRIC CONIC DISTANCE 584.740

```
RL  150.07 LAL   -.00 LOL    .53 VL  25.639 GAL   9.96 AZL  87.59 HCA 295.62 SMA 119.42 ECC .30631 INC 2.4092 V1  29.691
RP  108.92 LAP  -2.17 LOP 296.17 VP  36.410 GAP  17.13 AZP  88.96 TAL 155.59 TAP  91.20 RCA  82.84 APO 156.00 V2  34.793
RC 189.610 GL    9.08 GP   11.74 ZAL  42.95 ZAP 168.25 ETS  89.16 ZAE 127.05 ETE 171.09 ZAC 113.45 ETC 272.97 CLP 179.63
```

PLANETOCENTRIC CONIC

```
C3  45.204 VHL  6.723 DLA  -6.67 RAL 318.00 RAD 6568.7 VEL 12.906 PTH   2.35 VHP 10.691 DPA -11.48 RAP 296.52 ECC 1.7440
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 13 7	2209.04	-19.43	41.13	191.43	111.01	9 49 56	1609.0	-16.40	33.76
90.00	19 31 10	5269.38	26.96	238.16	196.18	80.99	20 58 59	4669.4	25.44	229.82
100.00	10 31 17	1956.89	-20.72	22.05	190.89	112.04	11 3 53	1356.9	-17.55	14.69
100.00	20 55 41	4996.76	28.33	217.85	195.92	80.03	22 18 58	4396.8	26.66	209.45
110.00	11 32 15	1765.98	-24.17	5.94	189.27	114.94	12 1 41	1166.0	-20.60	358.61
110.00	22 11 12	4760.44	32.01	199.06	195.07	77.31	23 30 32	4160.4	29.93	190.46

DIFFERENTIAL CORRECTIONS

```
TDE 2.4358 TRA 5.3304 TC3-1.8621 BAU 1.1258
RDE  .3452 RRA -.3426 RC3  .0523 FAU .00865
FDE  .6786 FRA 1.4973 FC3 -.1657 BSP  18902
BDE 2.4602 BRA 5.3414 BC3 1.8629 FSP   -436
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5612.0 SGR  421.8 SG3  123.2
RRT -.3843 RRF -.3709 RTF  .9536
SGB 5627.8 R23  .0029 R13 -.9537
SG1 5614.4 SG2  389.2 THA 178.34
```

ORBIT DETERMINATION ACCURACY

```
ST  2489.3 SR   307.1 SS   654.0
CRT  .6403 CRS -.6378 CST -.9998
LSA 2581.3 MSA  235.3 SSA   13.1
EL1 2497.2 EL2  235.2 ALF   4.56
```

LAUNCH DATE SEP 24 1970 FLIGHT TIME 204.00 ARRIVAL DATE APR 16 1971

HELIOCENTRIC CONIC DISTANCE 589.379

```
RL  150.07 LAL   -.00 LOL    .53 VL  25.599 GAL  10.98 AZL  87.36 HCA 298.77 SMA 119.20 ECC .31771 INC 2.6389 V1  29.691
RP  108.93 LAP  -2.31 LOP 299.33 VP  36.379 GAP  17.87 AZP  88.73 TAL 154.13 TAP  92.91 RCA  81.33 APO 157.08 V2  34.790
RC 191.483 GL    9.31 GP   11.53 ZAL  41.38 ZAP 168.40 ETS  93.62 ZAE 126.95 ETE 171.27 ZAC 113.02 ETC 273.55 CLP 178.76
```

PLANETOCENTRIC CONIC

```
C3  51.128 VHL  7.150 DLA  -5.96 RAL 319.50 RAD 6568.9 VEL 13.134 PTH   2.40 VHP 11.349 DPA -11.37 RAP 298.81 ECC 1.8414
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 13 38	2262.42	-20.70	44.53	195.19	109.76	9 51 21	1662.4	-17.82	37.04
90.00	19 42 37	5277.59	27.04	238.75	199.67	81.27	21 10 35	4677.6	25.56	230.39
100.00	10 32 9	2009.12	-22.02	25.39	194.67	110.74	11 5 39	1409.1	-19.00	17.89
100.00	21 6 47	5006.13	28.43	218.53	199.42	80.37	22 30 13	4406.1	26.81	210.10
110.00	11 33 56	1815.69	-25.56	9.13	193.09	113.51	12 4 12	1215.7	-22.16	1.63
110.00	22 21 29	4772.32	32.18	199.94	198.58	77.81	23 41 2	4172.3	30.17	191.30

DIFFERENTIAL CORRECTIONS

```
TDE 2.6586 TRA 5.7849 TC3-1.6097 BAU 1.1006
RDE  .3630 RRA -.3449 RC3  .0413 FAU .00739
FDE  .7090 FRA 1.5517 FC3 -.1251 BSP  19015
BDE 2.6833 BRA 5.7652 BC3 1.6102 FSP   -425
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5597.6 SGR  406.6 SG3  119.6
RRT -.3535 RRF -.3422 RTF  .9570
SGB 5612.4 R23  .0025 R13 -.9570
SG1 5599.5 SG2  380.2 THA 178.52
```

ORBIT DETERMINATION ACCURACY

```
ST  2545.1 SR   302.6 SS   667.5
CRT  .6539 CRS -.6504 CST -.9998
LSA 2638.7 MSA  228.4 SSA   12.5
EL1 2552.9 EL2  228.3 ALF   4.48
```

LAUNCH DATE SEP 24 1970 FLIGHT TIME 206.00 ARRIVAL DATE APR 18 1971

HELIOCENTRIC CONIC DISTANCE 593.828

RL 150.07 LAL -.00 LOL .53 VL 25.561 GAL 12.09 AZL 87.12 HCA 301.93 SMA 118.99 ECC .33033 INC 2.8828 V1 29.691
RP 108.93 LAP -2.45 LOP 302.49 VP 36.350 GAP 18.69 AZP 88.47 TAL 152.73 TAP 94.66 RCA 79.69 APO 158.30 V2 34.788
RC 193.340 GL 9.50 GP 11.34 ZAL 39.93 ZAP 168.47 ETS 98.29 ZAE 126.82 ETE 171.46 ZAC 112.58 ETC 274.12 CLP 177.86

PLANETOCENTRIC CONIC

C3 58.032 VHL 7.618 DLA -5.31 RAL 320.89 RAD 6569.1 VEL 13.394 PTH 2.45 VHP 11.853 DPA -11.21 RAP 301.08 ECC 1.9551

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 14 17	2314.08	-21.85	47.88	198.92	108.47	9 52 51	1714.1	-19.13	40.27
90.00	19 53 6	5288.47	27.15	239.52	203.12	81.64	21 21 15	4688.5	25.72	231.15
100.00	10 33 7	2059.75	-23.20	28.68	198.41	109.39	11 7 27	1459.8	-20.35	21.05
100.00	21 16 57	5018.02	28.57	219.39	202.88	80.80	22 40 35	4418.0	27.00	210.93
110.00	11 35 37	1864.06	-26.83	12.32	196.90	112.02	12 6 42	1264.1	-23.61	4.64
110.00	22 30 56	4786.48	32.38	200.99	202.07	78.40	23 50 43	4186.5	30.45	192.31

DIFFERENTIAL CORRECTIONS
TDE 2.8954 TRA 6.2103 TC3-1.3759 BAU 1.0677
RDE .3822 RRA -.3445 RC3 .0317 FAU .00610
FDE .7412 FRA 1.6107 FC3 -.0910 BSP 19066
BDE 2.9205 BRA 6.2198 BC3 1.3762 FSP -414

MID-COURSE EXECUTION ACCURACY
SGT 5580.5 SGR 390.7 SG3 116.2
RRT -.3192 RRF -.3102 RTF .9605
SGB 5594.2 R23 .0023 R13 -.9605
SG1 5581.9 SG2 370.2 THA 178.71

ORBIT DETERMINATION ACCURACY
ST 2593.6 SR 297.9 SS 682.4
CRT .6679 CRS -.6638 CST -.9998
LSA 2689.3 MSA 221.2 SSA 12.0
EL1 2601.3 EL2 221.0 ALF 4.42

LAUNCH DATE SEP 24 1970 FLIGHT TIME 208.00 ARRIVAL DATE APR 20 1971

HELIOCENTRIC CONIC DISTANCE 598.049

RL 150.07 LAL -.00 LOL .53 VL 25.523 GAL 13.29 AZL 86.86 HCA 305.08 SMA 118.79 ECC .34433 INC 3.1440 V1 29.691
RP 108.94 LAP -2.57 LOP 305.66 VP 36.322 GAP 19.59 AZP 88.19 TAL 151.40 TAP 96.48 RCA 77.89 APO 159.69 V2 34.786
RC 195.178 GL 9.65 GP 11.16 ZAL 38.58 ZAP 168.43 ETS 103.11 ZAE 126.66 ETE 171.64 ZAC 112.14 ETC 274.66 CLP 176.93

PLANETOCENTRIC CONIC

C3 66.117 VHL 8.131 DLA -4.72 RAL 322.18 RAD 6569.3 VEL 13.692 PTH 2.50 VHP 12.410 DPA -11.01 RAP 303.31 ECC 2.0881

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 15 1	2363.95	-22.89	51.17	202.59	107.14	9 54 25	1763.9	-20.33	43.44
90.00	20 2 39	5301.75	27.28	240.47	206.52	82.10	21 31 1	4701.8	25.91	232.08
100.00	10 34 8	2108.71	-24.27	31.93	202.12	108.00	11 9 17	1508.7	-21.58	24.16
100.00	21 26 13	5032.22	28.72	220.41	206.29	81.32	22 50 5	4432.2	27.22	211.93
110.00	11 37 17	1911.00	-27.99	15.48	200.67	110.47	12 9 8	1311.0	-24.95	7.63
110.00	22 39 33	4802.69	32.60	202.21	205.51	79.09	23 59 36	4202.7	30.75	193.48

DIFFERENTIAL CORRECTIONS
TDE 3.1488 TRA 6.7004 TC3-1.1593 BAU 1.0250
RDE .4029 RRA -.3408 RC3 .0235 FAU .00475
FDE .7758 FRA 1.6749 FC3 -.0622 BSP 19038
BDE 3.1744 BRA 6.7091 BC3 1.1596 FSP -401

MID-COURSE EXECUTION ACCURACY
SGT 5560.7 SGR 374.3 SG3 113.0
RRT -.2805 RRF -.2738 RTF .9641
SGB 5573.3 R23 .0023 R13 -.9641
SG1 5561.7 SG2 359.2 THA 178.91

ORBIT DETERMINATION ACCURACY
ST 2635.5 SR 292.9 SS 699.1
CRT .6826 CRS -.6780 CST -.9998
LSA 2734.0 MSA 213.6 SSA 11.5
EL1 2643.1 EL2 213.5 ALF 4.37

LAUNCH DATE SEP 24 1970 FLIGHT TIME 210.00 ARRIVAL DATE APR 22 1971

HELIOCENTRIC CONIC DISTANCE 601.993

RL 150.07 LAL -.00 LOL .53 VL 25.487 GAL 14.60 AZL 86.57 HCA 308.24 SMA 118.59 ECC .35993 INC 3.4263 V1 29.691
RP 108.94 LAP -2.69 LOP 308.82 VP 36.296 GAP 20.60 AZP 87.88 TAL 150.14 TAP 98.38 RCA 75.91 APO 161.28 V2 34.785
RC 196.997 GL 9.76 GP 10.99 ZAL 37.36 ZAP 168.30 ETS 108.03 ZAE 126.45 ETE 171.82 ZAC 111.70 ETC 275.19 CLP 175.96

PLANETOCENTRIC CONIC

C3 75.633 VHL 8.697 DLA -4.21 RAL 323.36 RAD 6569.5 VEL 14.035 PTH 2.56 VHP 13.029 DPA -10.76 RAP 305.49 ECC 2.2447

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 15 49	2411.90	-23.82	54.38	206.21	105.79	9 56 1	1811.9	-21.42	46.53
90.00	20 11 16	5317.22	27.42	241.58	209.86	82.65	21 39 53	4717.2	26.12	233.16
100.00	10 35 11	2155.86	-25.23	35.10	205.76	106.59	11 11 7	1555.9	-22.71	27.21
100.00	21 34 35	5048.49	28.88	221.60	209.64	81.92	22 58 43	4448.5	27.46	213.08
110.00	11 38 55	1956.37	-29.03	18.60	204.39	108.89	12 11 31	1356.4	-26.18	10.58
110.00	22 47 21	4820.75	32.82	203.57	208.90	79.87	24 7 42	4220.7	31.08	194.78

DIFFERENTIAL CORRECTIONS
TDE 3.4215 TRA 7.2310 TC3 -.9595 BAU .9703
RDE .4253 RRA -.3333 RC3 .0166 FAU .00331
FDE .8135 FRA 1.7457 FC3 -.0378 BSP 18908
BDE 3.4478 BRA 7.2387 BC3 .9596 FSP -387

MID-COURSE EXECUTION ACCURACY
SGT 5539.3 SGR 357.5 SG3 110.0
RRT -.2365 RRF -.2321 RTF .9678
SGB 5550.8 R23 .0023 R13 -.9678
SG1 5539.9 SG2 347.3 THA 179.12

ORBIT DETERMINATION ACCURACY
ST 2671.6 SR 287.9 SS 718.1
CRT .6981 CRS -.6933 CST -.9999
LSA 2773.7 MSA 205.7 SSA 11.0
EL1 2679.1 EL2 205.5 ALF 4.33

LAUNCH DATE SEP 24 1970 FLIGHT TIME 212.00 ARRIVAL DATE APR 24 1971

HELIOCENTRIC CONIC DISTANCE 605.596

RL 150.07 LAL -.00 LOL .53 VL 25.452 GAL 16.03 AZL 86.27 HCA 311.39 SMA 118.40 ECC .37735 INC 3.7342 V1 29.691
RP 108.94 LAP -2.80 LOP 311.98 VP 36.271 GAP 21.71 AZP 87.53 TAL 148.98 TAP 100.37 RCA 73.72 APO 163.08 V2 34.785
RC 198.798 GL 9.84 GP 10.84 ZAL 36.25 ZAP 168.06 ETS 113.01 ZAE 126.20 ETE 172.00 ZAC 111.27 ETC 275.70 CLP 174.95

PLANETOCENTRIC CONIC

C3 86.901 VHL 9.322 DLA -3.75 RAL 324.43 RAD 6569.7 VEL 14.431 PTH 2.62 VHP 13.720 DPA -10.49 RAP 307.63 ECC 2.4302

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 16 40	2457.78	-24.63	57.50	209.73	104.43	9 57 38	1857.8	-22.41	49.53
90.00	20 18 57	5334.69	27.57	242.84	213.12	83.26	21 47 52	4734.7	26.35	234.39
100.00	10 36 16	2201.04	-26.07	38.20	209.31	105.17	11 12 57	1601.0	-23.73	30.18
100.00	21 42 3	5066.66	29.04	222.92	212.91	82.60	23 6 30	4466.7	27.72	214.37
110.00	11 40 29	2000.00	-29.96	21.66	208.03	107.29	12 13 49	1400.0	-27.30	13.47
110.00	22 54 19	4840.46	33.05	205.07	212.22	80.73	24 15 0	4240.5	31.42	196.22

DIFFERENTIAL CORRECTIONS
TDE 3.7170 TRA 7.8073 TC3 -.7756 BAU .9012
RDE .4499 RRA -.3211 RC3 .0110 FAU .00174
FDE .8548 FRA 1.8241 FC3 -.0174 BSP 18654
BDE 3.7441 BRA 7.8139 BC3 .7757 FSP -371

MID-COURSE EXECUTION ACCURACY
SGT 5516.8 SGR 340.6 SG3 107.2
RRT -.1858 RRF -.1836 RTF .9715
SGB 5527.3 R23 .0025 R13 -.9715
SG1 5517.2 SG2 334.6 THA 179.34

ORBIT DETERMINATION ACCURACY
ST 2702.3 SR 282.8 SS 740.0
CRT .7146 CRS -.7097 CST -.9999
LSA 2809.0 MSA 197.5 SSA 10.4
EL1 2709.9 EL2 197.3 ALF 4.30

LAUNCH DATE SEP 24 1970 FLIGHT TIME 214.00 ARRIVAL DATE APR 26 1971

HELIOCENTRIC CONIC DISTANCE 608.777

RL 150.07 LAL -.00 LOL .53 VL 25.418 GAL 17.61 AZL 85.93 HCA 314.54 SMA 118.22 ECC .39687 INC 4.0735 V1 29.691
RP 108.94 LAP -2.90 LOP 315.15 VP 36.248 GAP 22.97 AZP 87.14 TAL 147.93 TAP 102.47 RCA 71.30 APO 165.14 V2 34.786
RC 200.578 GL 9.89 GP 10.69 ZAL 35.27 ZAP 167.70 ETS 117.97 ZAE 125.89 ETE 172.20 ZAC 110.84 ETC 276.18 CLP 173.87

PLANETOCENTRIC CONIC

C3 100.334 VHL 10.017 DLA -3.36 RAL 325.39 RAD 6569.9 VEL 14.889 PTH 2.69 VHP 14.495 DPA -10.19 RAP 309.69 ECC 2.6513

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 17 34	2501.35	-25.34	60.49	213.13	103.09	9 59 15	1901.4	-23.28	52.42
90.00	20 25 40	5353.97	27.71	244.23	216.27	83.94	21 54 54	4754.0	26.59	235.75
100.00	10 37 20	2244.02	-26.80	41.18	212.74	103.76	11 14 44	1644.0	-24.64	33.05
100.00	21 48 35	5086.53	29.21	224.38	216.08	83.35	23 13 22	4486.5	27.98	215.79
110.00	11 41 59	2041.66	-30.76	24.63	211.55	105.70	12 16 1	1441.7	-28.30	16.30
110.00	23 0 26	4861.66	33.27	206.60	215.46	81.66	24 21 28	4261.7	31.76	197.78

DIFFERENTIAL CORRECTIONS
TDE 4.0378 TRA 8.4345 TC3 -.6075 BAU .8149
RDE .4770 RRA -.3033 RC3 .0067 FAU .00002
FDE .9005 FRA 1.9112 FC3 -.0002 BSP 18285
BDE 4.0659 BRA 8.4400 BC3 .6075 FSP -353

MID-COURSE EXECUTION ACCURACY
SGT 5492.9 SGR 323.8 SG3 104.0
RRT -.1270 RRF -.1270 RTF .9752
SGB 5502.4 RZ3 .0027 R13 -.9752
SG1 5493.1 SG2 321.1 THA 179.57

ORBIT DETERMINATION ACCURACY
ST 2727.2 SR 277.8 SS 765.1
CRT .7320 CRS -.7272 CST -.9999
LSA 2839.8 MSA 188.9 SSA 9.9
EL1 2734.8 EL2 188.7 ALF 4.28

LAUNCH DATE SEP 24 1970 FLIGHT TIME 216.00 ARRIVAL DATE APR 28 1971

HELIOCENTRIC CONIC DISTANCE 611.433

RL 150.07 LAL -.00 LOL .53 VL 25.386 GAL 19.36 AZL 85.55 HCA 317.69 SMA 118.05 ECC .41882 INC 4.4516 V1 29.691
RP 108.93 LAP -3.00 LOP 318.31 VP 36.227 GAP 24.39 AZP 86.71 TAL 147.03 TAP 104.72 RCA 68.61 APO 167.49 V2 34.787
RC 202.339 GL 9.92 GP 10.55 ZAL 34.41 ZAP 167.21 ETS 122.88 ZAE 125.50 ETE 172.40 ZAC 110.41 ETC 276.64 CLP 172.73

PLANETOCENTRIC CONIC

C3 116.468 VHL 10.792 DLA -3.04 RAL 326.22 RAD 6570.2 VEL 15.421 PTH 2.76 VHP 15.368 DPA -9.88 RAP 311.68 ECC 2.9168

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 18 29	2542.35	-25.94	63.34	216.38	101.78	10 0 51	1942.3	-24.05	55.18
90.00	20 31 24	5374.93	27.86	245.75	219.31	84.69	22 0 59	4774.9	26.83	237.23
100.00	10 38 24	2284.52	-27.42	44.03	216.03	102.39	11 16 29	1684.5	-25.44	35.79
100.00	21 54 9	5107.98	29.37	225.95	219.14	84.16	23 19 17	4508.0	28.25	217.33
110.00	11 43 24	2081.07	-31.45	27.50	214.94	104.14	12 18 5	1481.1	-29.19	19.02
110.00	23 5 30	4884.19	33.48	208.41	218.59	82.66	24 27 3	4284.2	32.10	199.45

DIFFERENTIAL CORRECTIONS
TDE 4.3878 TRA 9.1202 TC3 -.4544 BAU .7075
RDE .5073 RRA -.2786 RC3 .0036 FAU-.00192
FDE .9512 FRA 2.0088 FC3 .0142 BSP 17770
BDE 4.4169 BRA 9.1245 BC3 .4544 FSP -334

MID-COURSE EXECUTION ACCURACY
SGT 5468.0 SGR 307.5 SG3 102.1
RRT -.0585 RRF -.0604 RTF .9788
SGB 5476.6 RZ3 .0030 R13 -.9788
SG1 5468.0 SG2 306.9 THA 179.81

ORBIT DETERMINATION ACCURACY
ST 2746.5 SR 273.0 SS 794.1
CRT .7506 CRS -.7459 CST -.9999
LSA 2866.3 MSA 180.1 SSA 9.4
EL1 2754.1 EL2 179.9 ALF 4.28

LAUNCH DATE SEP 24 1970 FLIGHT TIME 218.00 ARRIVAL DATE APR 30 1971

HELIOCENTRIC CONIC DISTANCE 613.421

RL 150.07 LAL -.00 LOL .53 VL 25.356 GAL 21.31 AZL 85.12 HCA 320.84 SMA 117.89 ECC .44359 INC 4.8785 V1 29.691
RP 108.93 LAP -3.08 LOP 321.48 VP 36.207 GAP 26.00 AZP 86.21 TAL 146.30 TAP 107.14 RCA 65.59 APO 170.18 V2 34.789
RC 204.080 GL 9.92 GP 10.42 ZAL 33.70 ZAP 166.58 ETS 127.69 ZAE 125.03 ETE 172.61 ZAC 109.99 ETC 277.06 CLP 171.50

PLANETOCENTRIC CONIC

C3 136.003 VHL 11.662 DLA -2.79 RAL 326.91 RAD 6570.5 VEL 16.042 PTH 2.83 VHP 16.359 DPA -9.55 RAP 313.58 ECC 3.2383

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 19 24	2580.41	-26.44	66.02	219.45	100.53	10 2 25	1980.4	-24.72	57.77
90.00	20 36 2	5397.47	27.99	247.39	222.21	85.50	22 5 59	4797.5	27.07	238.84
100.00	10 39 27	2322.21	-27.95	46.71	219.12	101.07	11 18 9	1722.2	-26.13	38.38
100.00	21 58 41	5130.90	29.52	227.64	222.06	85.04	23 24 11	4530.9	28.52	218.98
110.00	11 44 42	2117.91	-32.03	30.21	218.13	102.63	12 20 0	1517.9	-29.96	21.61
110.00	23 9 54	4907.96	33.67	210.23	221.58	83.73	24 31 42	4308.0	32.44	201.22

DIFFERENTIAL CORRECTIONS
TDE 4.7230 TRA 9.8240 TC3 -.3297 BAU .5995
RDE .5418 RRA -.2454 RC3 .0016 FAU-.00364
FDE .9967 FRA 2.1072 FC3 .0232 BSP 18232
BDE 4.7540 BRA 9.8271 BC3 .3297 FSP -336

MID-COURSE EXECUTION ACCURACY
SGT 5415.4 SGR 292.3 SG3 99.2
RRT .0190 RRF .0162 RTF .9821
SGB 5423.3 RZ3 -.0035 R13 .9821
SG1 5415.4 SG2 292.3 THA .06

ORBIT DETERMINATION ACCURACY
ST 2736.1 SR 268.7 SS 819.9
CRT .7689 CRS -.7642 CST -.9999
LSA 2863.8 MSA 171.5 SSA 8.9
EL1 2744.0 EL2 171.3 ALF 4.33

LAUNCH DATE SEP 24 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAY 2 1971

HELIOCENTRIC CONIC DISTANCE 614.568

RL 150.07 LAL -.00 LOL .53 VL 25.328 GAL 23.50 AZL 84.63 HCA 323.99 SMA 117.74 ECC .47163 INC 5.3673 V1 29.691
RP 108.92 LAP -3.15 LOP 324.64 VP 36.191 GAP 27.84 AZP 85.65 TAL 145.77 TAP 109.76 RCA 62.21 APO 173.27 V2 34.792
RC 205.802 GL 9.89 GP 10.30 ZAL 33.14 ZAP 165.79 ETS 132.36 ZAE 124.45 ETE 172.84 ZAC 109.58 ETC 277.46 CLP 170.16

PLANETOCENTRIC CONIC

C3 159.872 VHL 12.644 DLA -2.62 RAL 327.46 RAD 6570.7 VEL 16.769 PTH 2.90 VHP 17.490 DPA -9.22 RAP 315.38 ECC 3.6311

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 20 19	2615.13	-26.85	68.48	222.28	99.36	10 3 54	2015.1	-25.28	60.16
90.00	20 39 30	5421.55	28.10	249.14	224.93	86.37	22 9 51	4821.5	27.30	240.56
100.00	10 40 26	2356.07	-28.37	49.18	221.99	99.83	11 19 43	1756.7	-26.72	40.77
100.00	22 2 3	5155.24	29.65	229.44	224.81	85.98	23 27 59	4555.2	28.77	220.74
110.00	11 45 53	2151.80	-32.51	32.74	221.10	101.20	12 21 45	1551.8	-30.62	24.03
110.00	23 13 6	4932.87	33.84	212.16	224.41	84.85	24 35 19	4332.9	32.76	203.09

DIFFERENTIAL CORRECTIONS
TDE 5.1111 TRA10.0181 TC3 -.2110 BAU .4509
RDE .5808 RRA -.2026 RC3 .0006 FAU-.00594
FDE 1.0935 FRA 2.2242 FC3 .0322 BSP 18138
BDE 5.1440 BRA10.0200 BC3 .2110 FSP -327

MID-COURSE EXECUTION ACCURACY
SGT 5371.0 SGR 278.8 SG3 96.7
RRT .1109 RRF .1059 RTF .9852
SGB 5378.2 RZ3 -.0037 R13 .9852
SG1 5371.1 SG2 277.0 THA .33

ORBIT DETERMINATION ACCURACY
ST 2729.9 SR 264.6 SS 854.2
CRT .7886 CRS -.7841 CST -.9999
LSA 2868.0 MSA 162.5 SSA 8.3
EL1 2737.9 EL2 162.2 ALF 4.39

LAUNCH DATE SEP 25 1970 FLIGHT TIME 70.00 ARRIVAL DATE DEC 4 1970

HELIOCENTRIC CONIC DISTANCE 188.470

RL	150.03	LAL	-.00	LOL	1.51	VL	27.073	GAL	-9.94	AZL	89.46	HCA	84.06	SMA	128.07	ECC	.24153	INC	.5437	V1	29.699
RP	107.69	LAP	.54	LOP	85.57	VP	37.795	GAP	-10.61	AZP	89.94	TAL	215.70	TAP	299.76	RCA	97.14	APO	159.01	V2	35.188
RC	50.451	GL	2.80	GP	-16.86	ZAL	144.00	ZAP	22.84	ETS	42.49	ZAE	146.42	ETE	331.15	ZAC	85.13	ETC	261.66	CLP	-15.64

PLANETOCENTRIC CONIC

C3	26.767	VHL	5.174	DLA	-11.33	RAL	215.99	RAD	6568.1	VEL	12.171	PTH	2.18	VHP	7.364	DPA	-38.01	RAP	244.06	ECC	1.4405		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 59 25	1925.82	-11.68	23.97	80.39	115.98	3 31 31	1325.8	-8.09	17.13
90.00	12 3 12	5288.94	27.16	239.56	86.35	81.66	13 31 21	4688.9	25.73	231.18
100.00	4 15 3	1681.82	-12.85	5.43	79.79	117.22	4 43 4	1081.8	-9.10	358.64
100.00	13 30 16	5008.17	28.46	218.67	86.12	80.44	14 53 44	4408.2	26.84	210.24
110.00	5 10 21	1508.60	-15.94	350.52	78.03	120.65	5 35 30	908.6	-11.76	343.92
110.00	14 51 26	4754.16	31.92	198.59	85.32	77.05	16 10 41	4154.2	29.81	190.02

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0864	TRA	-.3319	TC3	.4506	BAU	.1884	SGT	605.9	SGR	489.8	SG3	128.3	ST	148.3	SR	333.1
RDE	-.2965	RRA	-.1618	RC3	-.2724	FAU	.04234	RRT	-.3315	RRF	.4694	RTF	-.5887	CRT	-.5138	CRS	.9211
FDE	.3270	FRA	-.2276	FC3	-1.3694	BSP	1558	SGB	766.7	R23	-.0984	R13	.6492	LSA	412.6	MSA	134.0
BDE	.3089	BRA	.3692	BC3	.5266	FSP	-319	SG1	642.9	SG2	417.7	THA	153.90	EL1	343.0	EL2	123.6

SS	237.1	CST	-.7731	INJ 2 LAT	17.13
SSA	31.2	ALF	104.86		

LAUNCH DATE SEP 25 1970 FLIGHT TIME 72.00 ARRIVAL DATE DEC 6 1970

HELIOCENTRIC CONIC DISTANCE 195.289

RL	150.03	LAL	-.00	LOL	1.51	VL	27.215	GAL	-9.88	AZL	89.27	HCA	87.29	SMA	129.04	ECC	.23475	INC	.7299	V1	29.699
RP	107.67	LAP	.73	LOP	88.80	VP	37.906	GAP	-9.71	AZP	89.97	TAL	217.06	TAP	304.35	RCA	98.75	APO	159.33	V2	35.198
RC	52.096	GL	3.85	GP	-18.00	ZAL	145.19	ZAP	25.70	ETS	38.94	ZAE	145.77	ETE	328.97	ZAC	84.00	ETC	261.67	CLP	-18.65

PLANETOCENTRIC CONIC

C3	25.903	VHL	5.089	DLA	-9.93	RAL	215.11	RAD	6568.0	VEL	12.136	PTH	2.18	VHP	6.918	DPA	-39.18	RAP	243.97	ECC	1.4263		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 44 25	1964.01	-12.81	26.20	79.03	115.47	3 17 9	1364.0	-9.27	19.31
90.00	12 11 9	5234.48	26.56	235.68	84.24	79.81	13 38 23	4634.5	24.88	227.42
100.00	4 0 51	1717.40	-13.95	7.50	78.45	116.71	4 29 29	1117.4	-10.26	.66
100.00	13 37 23	4956.32	27.81	214.95	83.97	78.58	15 0 0	4356.3	25.96	206.65
110.00	4 57 57	1538.60	-16.97	352.23	76.75	120.13	5 23 36	938.6	-12.84	345.56
110.00	14 56 47	4707.88	31.16	195.20	83.07	75.17	16 15 15	4107.9	28.81	186.78

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0761	TRA	-.3210	TC3	.4728	BAU	.1968	SGT	611.1	SGR	488.7	SG3	144.7	ST	140.2	SR	317.5
RDE	-.2770	RRA	-.1715	RC3	-.3155	FAU	.04650	RRT	-.3662	RRF	.5236	RTF	-.5926	CRT	-.4578	CRS	.9156
FDE	.4021	FRA	-.2760	FC3	-1.5540	BSP	1652	SGB	782.5	R23	-.1109	R13	.6690	LSA	422.1	MSA	136.1
BDE	.2873	BRA	.3639	BC3	.5684	FSP	-369	SG1	659.2	SG2	421.6	THA	150.80	EL1	325.0	EL2	121.8

SS	277.9	CST	-.7442	INJ 2 LAT	18.65
SSA	32.1	ALF	103.33		

LAUNCH DATE SEP 25 1970 FLIGHT TIME 74.00 ARRIVAL DATE DEC 8 1970

HELIOCENTRIC CONIC DISTANCE 202.089

RL	150.03	LAL	-.00	LOL	1.51	VL	27.341	GAL	-9.82	AZL	89.08	HCA	90.52	SMA	129.90	ECC	.22889	INC	.9151	V1	29.699
RP	107.64	LAP	.92	LOP	92.04	VP	38.004	GAP	-8.86	AZP	90.01	TAL	218.34	TAP	308.86	RCA	100.17	APO	159.64	V2	35.206
RC	53.818	GL	4.92	GP	-19.27	ZAL	146.22	ZAP	28.79	ETS	35.92	ZAE	145.29	ETE	326.46	ZAC	82.75	ETC	261.65	CLP	-21.82

PLANETOCENTRIC CONIC

C3	25.205	VHL	5.020	DLA	-8.54	RAL	214.36	RAD	6568.0	VEL	12.107	PTH	2.17	VHP	6.507	DPA	-40.41	RAP	243.65	ECC	1.4148		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 30 21	2002.36	-13.92	28.47	77.93	114.91	3 3 44	1402.4	-10.45	21.52
90.00	12 19 13	5182.65	25.89	232.04	82.40	78.10	13 45 35	4582.7	23.99	223.88
100.00	3 47 33	1753.32	-15.04	9.61	77.38	116.14	4 16 46	1153.3	-11.41	2.70
100.00	13 44 42	4906.92	27.10	211.46	82.10	76.87	15 6 29	4306.9	25.02	203.27
110.00	4 46 20	1569.24	-18.01	354.00	75.74	119.56	5 12 30	969.2	-13.94	347.26
110.00	15 2 24	4663.77	30.35	192.01	81.12	73.45	16 20 8	4063.8	27.78	183.76

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0665	TRA	-.3125	TC3	.4873	BAU	.2048	SGT	612.6	SGR	512.0	SG3	163.0	ST	133.0	SR	298.4
RDE	-.2554	RRA	-.1821	RC3	-.3633	FAU	.05109	RRT	-.3980	RRF	.5795	RTF	-.5910	CRT	-.3898	CRS	.9075
FDE	.4889	FRA	-.3285	FC3	-1.7549	BSP	1741	SGB	798.4	R23	-.1248	R13	.6889	LSA	435.7	MSA	138.6
BDE	.2639	BRA	.3617	BC3	.6079	FSP	-426	SG1	675.1	SG2	426.3	THA	147.19	EL1	303.7	EL2	120.3

SS	321.5	CST	-.7086	INJ 2 LAT	21.52
SSA	32.5	ALF	101.72		

LAUNCH DATE SEP 25 1970 FLIGHT TIME 76.00 ARRIVAL DATE DEC 10 1970

HELIOCENTRIC CONIC DISTANCE 208.868

RL	150.03	LAL	-.00	LOL	1.51	VL	27.450	GAL	-9.77	AZL	88.90	HCA	93.76	SMA	130.67	ECC	.22383	INC	1.1005	V1	29.699
RP	107.61	LAP	1.10	LOP	95.27	VP	38.090	GAP	-8.04	AZP	90.07	TAL	219.51	TAP	313.26	RCA	101.42	APO	159.92	V2	35.214
RC	55.612	GL	6.01	GP	-20.64	ZAL	147.08	ZAP	32.12	ETS	33.28	ZAE	144.93	ETE	323.57	ZAC	81.37	ETC	261.58	CLP	-25.17

PLANETOCENTRIC CONIC

C3	24.645	VHL	4.964	DLA	-7.17	RAL	213.74	RAD	6568.0	VEL	12.084	PTH	2.16	VHP	6.129	DPA	-41.72	RAP	243.06	ECC	1.4056		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 17 13	2040.72	-15.01	30.76	77.09	114.30	2 51 14	1440.7	-11.60	23.74
90.00	12 27 28	5133.22	25.15	228.61	80.83	76.53	13 53 1	4533.2	23.05	220.57
100.00	3 35 7	1789.39	-16.11	11.75	76.56	115.52	4 4 57	1189.4	-12.54	4.78
100.00	13 52 14	4859.79	26.33	208.17	80.50	75.31	15 13 14	4259.8	24.05	200.11
110.00	4 35 31	1600.29	-19.04	355.82	74.97	118.94	5 2 11	1000.3	-15.04	348.99
110.00	15 8 20	4621.65	29.49	189.03	79.45	71.88	16 25 22	4021.6	26.73	180.93

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0580	TRA	-.3074	TC3	.4921	BAU	.2123	SGT	609.1	SGR	540.4	SG3	183.0	ST	127.3	SR	275.1
RDE	-.2309	RRA	-.1934	RC3	-.4158	FAU	.05607	RRT	-.4225	RRF	.6348	RTF	-.5815	CRT	-.3075	CRS	.8957
FDE	.5892	FRA	-.3639	FC3	-1.9697	BSP	1819	SGB	814.3	R23	-.1392	R13	.7093	LSA	454.5	MSA	141.3
BDE	.2380	BRA	.3631	BC3	.6442	FSP	-488	SG1	690.0	SG2	432.4	THA	142.93	EL1	278.5	EL2	119.6

SS	368.3	CST	-.6665	INJ 2 LAT	23.74
SSA	32.4	ALF	99.95		

LAUNCH DATE SEP 25 1970 FLIGHT TIME 78.00 ARRIVAL DATE DEC 12 1970

HELIOCENTRIC CONIC DISTANCE 215.623

RL	150.03	LAL	-.00	LOL	1.51	VL	27.544	GAL	-9.72	AZL	88.71	HCA	96.99	SMA	131.34	ECC	.21948	INC	1.2875	V1	29.699
RP	107.59	LAP	1.28	LOP	98.51	VP	38.165	GAP	-7.27	AZP	90.16	TAL	220.56	TAP	317.55	RCA	102.51	APO	160.17	V2	35.222
RC	57.469	GL	7.12	GP	-22.15	ZAL	147.76	ZAP	35.68	ETS	30.90	ZAE	144.67	ETE	320.24	ZAC	79.84	ETC	261.46	CLP	-28.72

PLANETOCENTRIC CONIC

C3	24.197	VHL	4.919	DLA	-5.82	RAL	213.27	RAD	6568.0	VEL	12.065	PTH	2.16	VHP	5.785	DPA	-43.10	RAP	242.16	ECC	1.3982		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 4 58	2079.01	-16.06	33.08	76.49	113.64	2 39 37	1479.0	-12.73	25.98
90.00	12 35 56	5085.92	24.36	225.37	79.52	75.09	14 0 42	4485.9	22.07	217.44
100.00	3 23 33	1825.50	-17.16	13.92	75.97	114.86	3 53 58	1225.5	-13.66	6.87
100.00	14 0 2	4814.66	25.51	205.06	79.16	73.87	15 20 17	4214.7	23.05	197.13
110.00	4 25 28	1631.61	-20.06	357.67	74.44	118.27	4 52 40	1031.6	-16.13	350.76
110.00	15 14 36	4581.32	28.61	186.23	78.04	70.43	16 30 57	3981.3	25.67	178.28

DIFFERENTIAL CORRECTIONS

TDE	.0516	TRA	-.3057	TC3	.4860	BAU	.2195	SGT	600.3	SGR	575.0	SG3	204.7	ST	123.8	SR	247.6	SS	417.8
RDE	-.2030	RRA	-.2054	RC3	-.4734	FAU	.06144	RRT	-.4370	RRF	.6884	RTF	-.5623	CRT	-.2170	CRS	.8770	CST	-.6269
FDE	.7030	FRA	-.4418	FC3	-2.1981	BSP	1893	SGB	831.3	R23	-.1512	R13	.7318	LSA	479.1	MSA	143.7	SSA	31.9
BDE	.2095	BRA	.3683	BC3	.6785	FSP	-556	SG1	705.0	SG2	440.4	THA	137.81	EL1	249.5	EL2	120.0	ALF	98.07

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE SEP 25 1970 FLIGHT TIME 80.00 ARRIVAL DATE DEC 14 1970

HELIOCENTRIC CONIC DISTANCE 222.352

RL	150.03	LAL	-.00	LOL	1.51	VL	27.625	GAL	-9.67	AZL	88.52	HCA	100.23	SMA	131.92	ECC	.21573	INC	1.4771	V1	29.699		
RP	107.57	LAP	1.45	LOP	101.75	VP	38.230	GAP	-8.52	AZP	90.26	TAL	221.48	TAP	321.71	RCA	103.46	APO	160.38	V2	35.229		
RC	59.382	GL	8.27	GP	-23.77	ZAL	148.25	ZAP	39.46	ETS	28.68	ZAE	144.45	ETE	316.44	ZAC	78.18	ETC	261.28	CLP	-32.48		

PLANETOCENTRIC CONIC

C3	23.842	VHL	4.883	DLA	-4.49	RAL	212.93	RAD	6568.0	VEL	12.051	PTH	2.15	VHP	5.474	DPA	-44.54	RAP	240.92	ECC	1.3924		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 53 32	2117.25	-17.09	35.41	76.12	112.92	2 28 49	1517.2	-13.84	28.24
90.00	12 44 41	5040.44	23.53	222.29	78.45	73.77	14 8 41	4440.4	21.08	214.48
100.00	3 12 46	1861.65	-18.18	16.12	75.62	114.15	3 43 47	1261.6	-14.76	8.99
100.00	14 8 8	4771.27	24.66	202.12	78.07	72.54	15 27 39	4171.3	22.04	194.31
110.00	4 16 10	1663.14	-21.07	359.57	74.13	117.56	4 43 53	1063.1	-17.21	352.56
110.00	15 21 13	4542.55	27.69	183.58	76.89	69.11	16 36 55	3942.5	24.60	175.78

DIFFERENTIAL CORRECTIONS

TDE	.0483	TRA	-.3078	TC3	.4681	BAU	.2269	SGT	586.0	SGR	617.0	SG3	227.9	ST	123.3	SR	215.9	SS	469.6
RDE	-.1713	RRA	-.2180	RC3	-.5364	FAU	.06710	RRT	-.4367	RRF	.7383	RTF	-.5299	CRT	-.1217	CRS	.8454	CST	-.5997
FDE	.8305	FRA	-.5004	FC3	-2.4364	BSP	1969	SGB	850.9	R23	-.1566	R13	.7575	LSA	510.1	MSA	145.4	SSA	31.2
BDE	.1780	BRA	.3771	BC3	.7119	FSP	-630	SG1	721.8	SG2	450.6	THA	131.63	EL1	216.6	EL2	122.0	ALF	95.83

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE SEP 25 1970 FLIGHT TIME 82.00 ARRIVAL DATE DEC 16 1970

HELIOCENTRIC CONIC DISTANCE 229.053

RL	150.03	LAL	-.00	LOL	1.51	VL	27.693	GAL	-9.63	AZL	88.33	HCA	103.47	SMA	132.42	ECC	.21251	INC	1.6707	V1	29.699		
RP	107.53	LAP	1.62	LOP	104.98	VP	38.285	GAP	-5.81	AZP	90.39	TAL	222.27	TAP	325.74	RCA	104.28	APO	160.56	V2	35.235		
RC	61.346	GL	9.44	GP	-25.52	ZAL	148.57	ZAP	43.47	ETS	26.53	ZAE	144.24	ETE	312.13	ZAC	76.38	ETC	261.05	CLP	-36.47		

PLANETOCENTRIC CONIC

C3	23.564	VHL	4.854	DLA	-3.17	RAL	212.73	RAD	6568.0	VEL	12.039	PTH	2.15	VHP	5.197	DPA	-46.03	RAP	239.30	ECC	1.3878		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 42 51	2155.50	-18.09	37.77	75.96	112.16	2 18 47	1555.5	-14.93	30.53
90.00	12 53 46	4996.45	22.66	219.36	77.61	72.55	14 17 2	4396.4	20.06	211.65
100.00	3 2 43	1897.88	-19.17	18.35	75.49	113.38	3 34 21	1297.9	-15.85	11.14
100.00	14 16 35	4729.30	23.77	199.32	77.21	71.32	15 35 24	4129.3	21.00	191.62
110.00	4 7 34	1684.89	-22.06	1.50	74.04	116.80	4 35 49	1094.9	-18.28	354.40
110.00	15 28 14	4505.06	26.76	181.07	75.98	67.89	16 43 19	3905.1	23.52	173.40

DIFFERENTIAL CORRECTIONS

TDE	.0492	TRA	-.3143	TC3	.4367	BAU	.2349	SGT	566.7	SGR	666.7	SG3	252.1	ST	126.3	SR	180.3	SS	523.5
RDE	-.1352	RRA	-.2309	RC3	-.6046	FAU	.07294	RRT	-.4148	RRF	.7832	RTF	-.4787	CRT	-.0158	CRS	.7871	CST	-.5946
FDE	.9712	FRA	-.5576	FC3	-2.6797	BSP	2056	SGB	875.0	R23	-.1506	R13	.7870	LSA	547.8	MSA	146.5	SSA	30.2
BDE	.1439	BRA	.3900	BC3	.7458	FSP	-708	SG1	742.4	SG2	463.0	THA	124.26	EL1	180.3	EL2	126.3	ALF	91.24

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE SEP 25 1970 FLIGHT TIME 84.00 ARRIVAL DATE DEC 18 1970

HELIOCENTRIC CONIC DISTANCE 235.725

RL	150.03	LAL	-.00	LOL	1.51	VL	27.750	GAL	-9.58	AZL	88.13	HCA	106.70	SMA	132.84	ECC	.20973	INC	1.8697	V1	29.699		
RP	107.53	LAP	1.79	LOP	108.23	VP	38.331	GAP	-5.13	AZP	90.54	TAL	222.93	TAP	329.64	RCA	104.98	APO	160.70	V2	35.240		
RC	63.355	GL	10.65	GP	-27.38	ZAL	148.70	ZAP	47.69	ETS	24.37	ZAE	143.96	ETE	307.30	ZAC	74.44	ETC	260.74	CLP	-40.71		

PLANETOCENTRIC CONIC

C3	23.350	VHL	4.832	DLA	-1.87	RAL	212.67	RAD	6567.9	VEL	12.030	PTH	2.15	VHP	4.954	DPA	-47.55	RAP	237.26	ECC	1.3843		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 32 52	2193.93	-19.06	40.18	76.02	111.34	2 9 26	1593.9	-15.99	32.85
90.00	13 3 15	4953.58	21.75	216.54	76.98	71.41	14 25 48	4353.6	19.02	208.94
100.00	2 53 20	1934.33	-20.14	20.63	75.56	112.57	3 25 35	1334.3	-16.91	13.33
100.00	14 25 27	4688.40	22.85	196.63	76.57	70.19	15 43 36	4088.4	19.95	189.04
110.00	3 59 35	1726.94	-23.03	3.48	74.16	115.99	4 28 22	1126.9	-19.34	356.28
110.00	15 35 41	4468.56	25.80	178.66	75.30	66.75	16 50 10	3868.6	22.43	171.13

DIFFERENTIAL CORRECTIONS

TDE	.0554	TRA	-.3254	TC3	.3907	BAU	.2441	SGT	544.0	SGR	724.5	SG3	276.8	ST	133.6	SR	142.8	SS	578.9
RDE	-.0942	RRA	-.2437	RC3	-.6775	FAU	.07877	RRT	-.3627	RRF	.8223	RTF	-.4007	CRT	.1300	CRS	.6645	CST	-.6182
FDE	1.1235	FRA	-.6106	FC3	-2.9206	BSP	2158	SGB	905.9	R23	-.1288	R13	.8196	LSA	592.5	MSA	146.7	SSA	29.1
BDE	.1093	BRA	.4066	BC3	.7821	FSP	-789	SG1	770.4	SG2	476.7	THA	115.66	EL1	148.0	EL2	127.8	ALF	58.55

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE SEP 25 1970 FLIGHT TIME 86.00 ARRIVAL DATE DEC 20 1970

HELIOCENTRIC CONIC DISTANCE 242.367

RL	150.03	LAL	-.00	LOL	1.51	VL	27.796	GAL	-9.53	AZL	87.92	HCA	109.94	SMA	133.18	ECC	.20734	INC	2.0757	V1	29.699
RP	107.52	LAP	1.95	LOP	111.47	VP	38.369	GAP	-4.48	AZP	90.71	TAL	223.46	TAP	333.40	RCA	105.56	APO	160.79	V2	35.245
RC	65.403	GL	11.90	GP	-29.35	ZAL	148.65	ZAP	52.10	ETS	22.14	ZAE	143.54	ETE	301.97	ZAC	72.38	ETC	260.37	CLP	-45.20

PLANETOCENTRIC CONIC

C3	23.192	VHL	4.816	DLA	-.56	RAL	212.74	RAD	6567.9	VEL	12.024	PTH	2.15	VHP	4.747	DPA	-49.06	RAP	234.76	ECC	1.3817

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 23 27	2232.74	-20.01	42.63	76.28	110.47	2 0 40	1632.7	-17.04	35.21
90.00	13 13 12	4911.45	20.81	213.81	76.57	70.36	14 35 3	4311.4	17.95	206.31
100.00	2 44 32	1971.20	-21.09	22.96	75.84	111.69	3 17 23	1371.2	-17.96	15.56
100.00	14 34 48	4648.23	21.90	194.02	76.14	69.13	15 52 16	4048.2	18.87	186.54
110.00	3 52 11	1759.44	-23.98	5.53	74.48	115.12	4 21 30	1159.4	-20.40	358.22
110.00	15 43 38	4432.75	24.82	176.35	74.82	65.70	16 57 31	3832.7	21.32	168.94

DIFFERENTIAL CORRECTIONS

TDE	.0687	TRA	-.3416	TC3	.3289	BAU	.2552	SGT	521.8	SGR	789.8	SG3	301.1	ST	147.1	SR	110.0	SS	634.8
RDE	-.0482	RRA	-.2558	RC3	-.7543	FAU	.08438	RRT	-.2697	RRF	.8552	RTF	-.2854	CRT	.3853	CRS	.3775	CST	-.6699
FDE	1.2837	FRA	-.6561	FC3	-3.1496	BSP	2289	SGB	946.6	R23	-.0916	R13	.8522	LSA	643.9	MSA	146.3	SSA	27.9
BDE	.0839	BRA	.4268	BC3	.8229	FSP	-869	SG1	809.9	SG2	490.0	THA	106.15	EL1	157.2	EL2	95.0	ALF	26.31

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE SEP 25 1970 FLIGHT TIME 88.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 248.978

RL	150.03	LAL	-.00	LOL	1.51	VL	27.832	GAL	-9.48	AZL	87.71	HCA	113.18	SMA	133.45	ECC	.20526	INC	2.2903	V1	29.699
RP	107.51	LAP	2.11	LOP	114.71	VP	38.399	GAP	-3.85	AZP	90.90	TAL	223.85	TAP	337.04	RCA	106.06	APO	160.84	V2	35.249
RC	67.486	GL	13.20	GP	-31.39	ZAL	148.42	ZAP	56.67	ETS	19.79	ZAE	142.93	ETE	296.22	ZAC	70.21	ETC	259.92	CLP	-49.94

PLANETOCENTRIC CONIC

C3	23.085	VHL	4.805	DLA	.75	RAL	212.94	RAD	6567.9	VEL	12.019	PTH	2.15	VHP	4.575	DPA	-50.55	RAP	231.81	ECC	1.3799

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 14 32	2272.25	-20.93	45.17	76.74	109.52	1 52 24	1672.3	-18.07	37.65
90.00	13 23 42	4869.67	19.84	211.14	76.36	69.37	14 44 52	4269.7	16.85	203.73
100.00	2 36 13	2008.75	-22.01	25.36	76.32	110.75	3 9 42	1408.7	-18.99	17.87
100.00	14 44 42	4608.41	20.91	191.48	75.91	68.14	16 1 30	4008.4	17.76	184.10
110.00	3 45 16	1792.62	-24.92	7.64	75.00	114.19	4 15 9	1192.6	-21.44	.22
110.00	15 52 9	4397.30	23.80	174.09	74.55	64.71	17 5 26	3797.3	20.20	166.80

DIFFERENTIAL CORRECTIONS

TDE	.0903	TRA	-.3627	TC3	.2511	BAU	.2687	SGT	506.9	SGR	861.9	SG3	324.0	ST	168.8	SR	98.4	SS	690.2
RDE	.0028	RRA	-.2667	RC3	-.8337	FAU	.08950	RRT	-.1267	RRF	.8823	RTF	-.1240	CRT	.7563	CRS	-.1840	CST	-.7369
FDE	1.4474	FRA	-.6913	FC3	-3.3566	BSP	2463	SGB	999.9	R23	-.0449	R13	.8813	LSA	701.9	MSA	145.4	SSA	26.7
BDE	.0903	BRA	.4502	BC3	.8707	FSP	-948	SG1	865.5	SG2	500.7	THA	96.41	EL1	186.5	EL2	58.3	ALF	26.61

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE SEP 25 1970 FLIGHT TIME 90.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 255.557

RL	150.03	LAL	-.00	LOL	1.51	VL	27.860	GAL	-9.42	AZL	87.48	HCA	116.42	SMA	133.65	ECC	.20346	INC	2.5156	V1	29.699
RP	107.50	LAP	2.25	LOP	117.96	VP	38.422	GAP	-3.25	AZP	91.12	TAL	224.12	TAP	340.54	RCA	106.46	APO	160.84	V2	35.253
RC	69.600	GL	14.56	GP	-33.49	ZAL	148.02	ZAP	61.36	ETS	17.26	ZAE	142.05	ETE	290.13	ZAC	67.96	ETC	259.39	CLP	-54.92

PLANETOCENTRIC CONIC

C3	23.024	VHL	4.798	DLA	2.08	RAL	213.27	RAD	6567.9	VEL	12.017	PTH	2.14	VHP	4.438	DPA	-51.98	RAP	228.41	ECC	1.3789

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 5 59	2312.82	-21.83	47.80	77.41	108.50	1 44 32	1712.8	-19.10	40.19
90.00	13 34 53	4827.81	18.81	208.49	76.34	68.44	14 55 21	4227.8	15.72	201.18
100.00	2 28 18	2047.32	-22.92	27.87	77.00	109.73	3 2 25	1447.3	-20.02	20.27
100.00	14 55 15	4568.55	19.88	188.97	75.88	67.21	16 11 24	3968.5	16.62	181.69
110.00	3 38 46	1826.76	-25.86	9.86	75.73	113.18	4 9 13	1226.8	-22.50	2.31
110.00	16 1 16	4361.88	22.76	171.87	74.47	63.78	17 13 58	3761.9	19.05	164.70

DIFFERENTIAL CORRECTIONS

TDE	.1218	TRA	-.3886	TC3	.1567	BAU	.2852	SGT	509.3	SGR	938.6	SG3	344.3	ST	201.4	SR	123.8	SS	744.2
RDE	.0586	RRA	-.2752	RC3	-.9131	FAU	.09382	RRT	.0650	RRF	.9040	RTF	.0815	CRT	.9546	CRS	-.6757	CST	-.8045
FDE	1.6090	FRA	-.7121	FC3	-3.5276	BSP	2682	SGB	1067.8	R23	.0015	R13	.9043	LSA	767.0	MSA	144.0	SSA	25.3
BDE	.1352	BRA	.4761	BC3	.9265	FSP	-1018	SG1	939.4	SG2	507.7	THA	87.15	EL1	234.3	EL2	31.7	ALF	31.03

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE SEP 25 1970 FLIGHT TIME 92.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 262.105

RL	150.03	LAL	-.00	LOL	1.51	VL	27.879	GAL	-9.35	AZL	87.25	HCA	119.66	SMA	133.79	ECC	.20189	INC	2.7540	V1	29.699
RP	107.49	LAP	2.39	LOP	121.21	VP	38.438	GAP	-2.68	AZP	91.36	TAL	224.27	TAP	343.93	RCA	106.78	APO	160.81	V2	35.255
RC	71.740	GL	15.99	GP	-35.62	ZAL	147.43	ZAP	66.11	ETS	14.52	ZAE	140.88	ETE	283.87	ZAC	65.65	ETC	258.80	CLP	-60.12

PLANETOCENTRIC CONIC

C3	23.010	VHL	4.797	DLA	3.44	RAL	213.73	RAD	6567.9	VEL	12.016	PTH	2.14	VHP	4.338	DPA	-53.30	RAP	224.59	ECC	1.3787

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 57 42	2354.91	-22.71	50.57	78.27	107.39	1 36 57	1754.9	-20.12	42.86
90.00	13 46 50	4785.44	17.73	205.86	76.52	67.55	15 6 35	4185.4	14.53	198.64
100.00	2 20 39	2087.35	-23.82	30.50	77.88	108.62	2 55 26	1487.4	-21.05	22.80
100.00	15 6 34	4528.23	18.80	186.46	76.04	66.32	16 22 2	3928.2	15.44	179.28
110.00	3 32 35	1862.21	-26.79	12.19	76.66	112.08	4 3 37	1262.2	-23.55	4.52
110.00	16 11 7	4326.13	21.66	169.67	74.59	62.89	17 23 14	3726.1	17.85	162.61

DIFFERENTIAL CORRECTIONS

TDE	.1636	TRA	-.4201	TC3	.0441	BAU	.3041	SGT	541.0	SGR	1014.6	SG3	360.2	ST	246.8	SR	177.2	SS	798.1
RDE	.1201	RRA	-.2789	RC3	-.9875	FAU	.09677	RRT	.2837	RRF	.9209	RTF	.3068	CRT	.9851	CRS	-.8781	CST	-.8579
FDE	1.7679	FRA	-.7099	FC3	-3.6407	BSP	2921	SGB	1149.8	R23	.0448	R13	.9210	LSA	841.6	MSA	142.9	SSA	23.8
BDE	.2029	BRA	.5042	BC3	.9885	FSP	-1065	SG1	1030.1	SG2	511.0	THA	78.55	EL1	302.8	EL2	24.9	ALF	35.54

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE SEP 25 1970 FLIGHT TIME 94.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 268.621

RL	150.03	LAL	-.00	LOL	1.51	VL	27.890	GAL	-9.29	AZL	86.99	HCA	122.90	SMA	133.88	ECC	.20052	INC	3.0083	V1	29.699
RP	107.48	LAP	2.53	LOP	124.45	VP	38.448	GAP	-2.13	AZP	91.64	TAL	224.29	TAP	347.20	RCA	107.04	APO	160.73	V2	35.257
RC	73.903	GL	17.51	GP	-37.75	ZAL	146.66	ZAP	70.87	ETS	11.54	ZAE	139.40	ETE	277.58	ZAC	63.32	ETC	258.14	CLP	-65.51

PLANETOCENTRIC CONIC

C3	23.049	VHL	4.801	DLA	4.84	RAL	214.31	RAD	6567.9	VEL	12.018	PTH	2.15	VHP	4.274	DPA	-54.50	RAP	220.41	ECC	1.3793

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 49 32	2399.08	-23.58	53.52	79.36	106.16	1 29 31	1799.1	-21.14	45.70
90.00	13 59 42	4742.08	16.58	203.19	76.90	66.71	15 18 44	4142.1	13.29	196.06
100.00	2 13 9	2129.37	-24.70	33.31	78.99	107.39	2 48 38	1529.4	-22.09	25.49
100.00	15 18 46	4487.03	17.65	183.94	76.40	65.48	16 33 33	3887.0	14.20	176.85
110.00	3 26 37	1899.45	-27.71	14.69	77.82	110.86	3 58 16	1299.4	-24.62	6.88
110.00	16 21 47	4289.72	20.52	167.47	74.91	62.04	17 33 17	3689.7	16.62	160.52

DIFFERENTIAL CORRECTIONS

TDE	.2207	TRA	-.4525	TC3	-.0783	BAU	.3278
RDE	.1816	RRA	-.2811	RC3	-1.0608	FAU	.09891
FDE	1.8986	FRA	-.7006	FC3	-3.7150	BSP	3282
BDE	.2858	BRA	.5327	BC3	1.0637	FSP	-1123

MID-COURSE EXECUTION ACCURACY

SGT	607.2	SGR	1094.5	SG3	372.2		
RRT	.4757	RRF	.9346	RTF	.5044		
SGB	1251.7	R23	.0726	R13	.9343		
SG1	1142.2	SG2	511.8	THA	71.34		

ORBIT DETERMINATION ACCURACY

ST	309.5	SR	241.1	SS	842.7
CRT	.9860	CRS	-.9448	CST	-.9030
LSA	918.6	MSA	140.7	SSA	22.6
EL1	391.1	EL2	31.8	ALF	37.82

LAUNCH DATE SEP 25 1970 FLIGHT TIME 96.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 275.105

RL	150.03	LAL	-.00	LOL	1.51	VL	27.895	GAL	-9.21	AZL	86.72	HCA	126.14	SMA	133.92	ECC	.19931	INC	3.2820	V1	29.699
RP	107.48	LAP	2.65	LOP	127.70	VP	38.452	GAP	-1.60	AZP	91.94	TAL	224.20	TAP	350.35	RCA	107.23	APO	160.61	V2	35.258
RC	76.087	GL	19.13	GP	-39.86	ZAL	145.71	ZAP	75.55	ETS	8.33	ZAE	137.61	ETE	271.41	ZAC	60.98	ETC	257.43	CLP	-71.03

PLANETOCENTRIC CONIC

C3	23.146	VHL	4.811	DLA	6.30	RAL	215.04	RAD	6567.9	VEL	12.022	PTH	2.15	VHP	4.246	DPA	-55.56	RAP	215.98	ECC	1.3809

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 41 20	2446.01	-24.43	58.69	80.67	104.78	1 22 6	1846.0	-22.16	48.76
90.00	14 13 40	4697.20	15.35	200.47	77.49	65.91	15 31 57	4097.2	11.97	193.42
100.00	2 5 40	2174.00	-25.57	36.34	80.33	106.03	2 41 54	1574.0	-23.13	28.39
100.00	15 32 1	4444.45	16.43	181.57	76.98	64.67	16 46 5	3844.4	12.89	174.37
110.00	3 20 46	1938.99	-28.64	17.39	79.22	109.51	3 53 5	1339.0	-25.72	9.44
110.00	16 33 25	4252.20	19.30	165.24	75.44	61.23	17 44 17	3652.2	15.32	158.39

DIFFERENTIAL CORRECTIONS

TDE	.2908	TRA	-.4885	TC3	-.2145	BAU	.3535
RDE	.2469	RRA	-.2765	RC3	-1.1221	FAU	.09924
FDE	2.0142	FRA	-.6655	FC3	-3.7119	BSP	3656
BDE	.3815	BRA	.5613	BC3	1.1424	FSP	-1151

MID-COURSE EXECUTION ACCURACY

SGT	710.7	SGR	1167.0	SG3	378.1		
RRT	.6253	RRF	.9450	RTF	.6543		
SGB	1366.4	R23	.0964	R13	.9436		
SG1	1267.3	SG2	510.7	THA	64.78		

ORBIT DETERMINATION ACCURACY

ST	388.3	SR	312.0	SS	885.3
CRT	.9859	CRS	-.9728	CST	-.9321
LSA	1006.0	MSA	139.0	SSA	21.2
EL1	496.5	EL2	40.8	ALF	38.70

LAUNCH DATE SEP 25 1970 FLIGHT TIME 98.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 281.558

RL	150.03	LAL	-.00	LOL	1.51	VL	27.893	GAL	-9.13	AZL	86.42	HCA	129.38	SMA	133.90	ECC	.19823	INC	3.5793	V1	29.699
RP	107.48	LAP	2.77	LOP	130.95	VP	38.451	GAP	-1.09	AZP	92.27	TAL	224.01	TAP	353.39	RCA	107.36	APO	160.45	V2	35.259
RC	78.289	GL	20.86	GP	-41.93	ZAL	144.58	ZAP	80.09	ETS	4.88	ZAE	135.53	ETE	265.50	ZAC	58.66	ETC	256.68	CLP	-76.63

PLANETOCENTRIC CONIC

C3	23.314	VHL	4.828	DLA	7.83	RAL	215.90	RAD	6567.9	VEL	12.029	PTH	2.15	VHP	4.256	DPA	-56.48	RAP	211.38	ECC	1.3837

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 32 56	2496.54	-25.26	60.16	82.24	103.24	1 14 32	1896.5	-23.19	52.10
90.00	14 28 56	4650.20	14.03	197.65	78.31	65.15	15 46 26	4050.2	10.56	190.69
100.00	1 58 2	2222.02	-26.43	39.65	81.92	104.49	2 35 4	1622.0	-24.18	31.57
100.00	15 46 30	4399.96	15.12	178.72	77.77	63.90	16 59 50	3800.0	11.49	171.81
110.00	3 14 54	1981.50	-29.57	20.35	80.89	107.98	3 47 55	1381.5	-26.83	12.24
110.00	16 46 8	4213.24	18.01	162.95	76.18	60.44	17 56 21	3613.2	13.94	156.21

DIFFERENTIAL CORRECTIONS

TDE	.3759	TRA	-.5255	TC3	-.3593	BAU	.3811
RDE	.3137	RRA	-.2647	RC3	-1.1687	FAU	.09781
FDE	2.1064	FRA	-.6086	FC3	-3.6319	BSP	4056
BDE	.4896	BRA	.5884	BC3	1.2227	FSP	-1153

MID-COURSE EXECUTION ACCURACY

SGT	845.9	SGR	1230.0	SG3	377.4		
RRT	.7278	RRF	.9530	RTF	.7552		
SGB	1492.8	R23	.1157	R13	.9502		
SG1	1403.6	SG2	508.4	THA	58.88		

ORBIT DETERMINATION ACCURACY

ST	484.5	SR	385.7	SS	923.4
CRT	.9866	CRS	-.9858	CST	-.9512
LSA	1103.1	MSA	137.8	SSA	19.6
EL1	617.3	EL2	49.5	ALF	38.44

LAUNCH DATE SEP 25 1970 FLIGHT TIME 100.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 287.980

RL	150.03	LAL	-.00	LOL	1.51	VL	27.886	GAL	-9.03	AZL	86.09	HCA	132.62	SMA	133.85	ECC	.19728	INC	3.9056	V1	29.699
RP	107.48	LAP	2.87	LOP	134.20	VP	38.446	GAP	-.60	AZP	92.65	TAL	223.71	TAP	356.33	RCA	107.44	APO	160.25	V2	35.258
RC	80.507	GL	22.73	GP	-43.96	ZAL	143.24	ZAP	84.43	ETS	1.21	ZAE	133.21	ETE	259.94	ZAC	56.37	ETC	255.89	CLP	-82.25

PLANETOCENTRIC CONIC

C3	23.572	VHL	4.855	DLA	9.46	RAL	216.90	RAD	6568.0	VEL	12.040	PTH	2.15	VHP	4.303	DPA	-57.29	RAP	206.73	ECC	1.3879

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 24 5	2551.72	-26.07	64.00	84.10	101.47	1 6 37	1951.7	-24.22	55.82
90.00	14 45 46	4600.41	12.58	194.71	79.38	64.42	16 2 27	4000.4	9.04	187.82
100.00	1 50 4	2274.40	-27.27	43.31	83.81	102.73	2 27 59	1674.4	-25.25	35.10
100.00	16 2 28	4352.96	13.69	175.95	78.82	63.17	17 15 1	3753.0	9.98	169.13
110.00	3 8 52	2027.81	-30.50	23.64	82.86	106.24	3 42 40	1427.8	-27.98	15.35
110.00	17 0 10	4172.32	16.62	160.60	77.17	59.69	18 9 42	3572.3	12.47	153.95

DIFFERENTIAL CORRECTIONS

TDE	.4779	TRA	-.5810	TC3	-.5060	BAU	.4111
RDE	.3785	RRA	-.2481	RC3	-1.2024	FAU	.09510
FDE	2.1636	FRA	-.5423	FC3	-3.4926	BSP	4530
BDE	.6096	BRA	.6134	BC3	1.3046	FSP	-1151

MID-COURSE EXECUTION ACCURACY

SGT	1005.0	SGR	1284.9	SG3	371.0		
RRT	.7936	RRF	.9592	RTF	.8206		
SGB	1631.2	R23	.1291	R13	.9555		
SG1	1550.5	SG2	506.7	THA	53.68		

ORBIT DETERMINATION ACCURACY

ST	599.0	SR	456.8	SS	952.8
CRT	.9880	CRS	-.9921	CST	-.9645
LSA	1206.8	MSA	136.1	SSA	18.2
EL1	751.2	EL2	56.2	ALF	37.24

LAUNCH DATE SEP 25 1970 FLIGHT TIME 102.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 294.371

```
RL  150.03 LAL   -.00 LOL   1.51 VL  27.873 GAL  -8.94 AZL  85.73 HCA 135.86 SMA 133.75 ECC .19643 INC 4.2677 V1  29.699
RP  107.48 LAP   2.97 LOP 137.45 VP  38.436 GAP   -.13 AZP  93.07 TAL 223.32 TAP 359.18 RCA 107.48 APO 160.03 V2  35.257
RC  82.739 GL   24.75 GP  -45.97 ZAL 141.70 ZAP  88.48 ETS 357.33 ZAE 130.69 ETE 254.78 ZAC  54.11 ETC 255.08 CLP -87.81
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PLANETOCENTRIC CONIC

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C3  23.948 VHL  4.894 DLA  11.20 RAL 218.06 RAD 6568.0 VEL 12.055 PTH   2.15 VHP  4.389 DPA -58.03 RAP 202.09 ECC 1.3941
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 14 33	2612.86	-26.82	68.32	86.28	99.44	0 58 6	2012.9	-25.24	60.00
90.00	15 4 32	4546.99	10.99	191.59	80.74	63.74	16 20 19	3947.0	7.38	184.78
100.00	1 41 31	2332.36	-28.08	47.44	86.03	100.71	2 20 24	1732.4	-26.31	39.08
100.00	16 20 15	4302.73	12.13	173.04	80.15	62.47	17 31 57	3702.7	8.35	166.30
110.00	3 2 31	2078.91	-31.42	27.34	85.18	104.22	3 37 10	1478.9	-29.14	18.87
110.00	17 15 44	4128.94	15.11	158.14	78.43	58.97	18 24 33	3528.9	10.89	151.58

DIFFERENTIAL CORRECTIONS

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TDE  .5975 TRA -.5940 TC3 -.6504 BAU  .4413
RDE  .4436 RRA -.2229 RC3-1.2151 FAU .09072
FDE 2.1963 FRA -.4579 FC3-3.2795 BSP   5000
BDE  .7442 BRA  .6344 BC3 1.3783 FSP  -1120
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MID-COURSE EXECUTION ACCURACY

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SGT 1182.1 SGR 1324.7 SG3  358.5
RRT  .8359 RRF  .9640 RTF  .8625
SGB 1775.4 R23  .1417 R13  .9591
SG1 1702.1 SG2  504.9 THA  48.89
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ORBIT DETERMINATION ACCURACY

```
ST   731.4 SR   526.6 SS   977.8
CRT  .9890 CRS -.9956 CST -.9733
LSA 1322.8 MSA  135.3 SSA   16.7
EL1  899.1 EL2   63.4 ALF  35.66
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LAUNCH DATE SEP 25 1970 FLIGHT TIME 104.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 300.732

```
RL  150.03 LAL   -.00 LOL   1.51 VL  27.856 GAL  -8.83 AZL  85.33 HCA 139.09 SMA 133.62 ECC .19566 INC 4.6745 V1  29.699
RP  107.49 LAP   3.06 LOP 140.70 VP  38.421 GAP    .32 AZP  93.54 TAL 222.84 TAP   1.93 RCA 107.48 APO 159.77 V2  35.255
RC  84.985 GL   26.96 GP  -47.97 ZAL 139.93 ZAP  92.19 ETS 353.27 ZAE 128.00 ETE 250.04 ZAC  51.85 ETC 254.23 CLP -93.27
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PLANETOCENTRIC CONIC

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C3  24.478 VHL  4.948 DLA  13.08 RAL 219.38 RAD 6568.0 VEL 12.077 PTH   2.16 VHP  4.516 DPA -58.75 RAP 197.49 ECC 1.4029
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 3 56	2681.71	-27.49	73.24	88.83	97.06	0 48 38	2081.7	-26.23	64.80
90.00	15 25 41	4488.91	9.22	188.24	82.45	63.11	16 40 30	3888.9	5.54	181.50
100.00	1 32 5	2397.46	-28.81	52.13	88.63	98.34	2 12 2	1797.5	-27.36	43.63
100.00	16 40 13	4248.38	10.40	169.94	81.83	61.82	17 51 2	3648.4	6.55	163.26
110.00	2 55 37	2136.07	-32.29	31.56	87.91	101.87	3 31 13	1536.1	-30.32	22.90
110.00	17 33 11	4082.54	13.47	155.55	80.02	58.28	18 41 13	3482.5	9.18	149.08

DIFFERENTIAL CORRECTIONS

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TDE  .7367 TRA -.6222 TC3 -.7861 BAU  .4715
RDE  .5071 RRA -.1903 RC3-1.2075 FAU .08510
FDE 2.2009 FRA -.3650 FC3-3.0099 BSP   5492
BDE  .8944 BRA  .6506 BC3 1.4408 FSP  -1074
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MID-COURSE EXECUTION ACCURACY

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SGT 1371.1 SGR 1350.5 SG3  340.8
RRT  .8629 RRF  .9676 RTF  .8898
SGB 1924.5 R23  .1528 R13  .9616
SG1 1857.4 SG2  503.9 THA  44.50
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ORBIT DETERMINATION ACCURACY

```
ST   881.8 SR   592.3 SS   996.4
CRT  .9897 CRS -.9976 CST -.9794
LSA 1450.1 MSA  134.9 SSA   15.1
EL1 1059.9 EL2   70.4 ALF  33.78
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LAUNCH DATE SEP 25 1970 FLIGHT TIME 106.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 307.063

```
RL  150.03 LAL   -.00 LOL   1.51 VL  27.834 GAL  -8.71 AZL  84.86 HCA 142.33 SMA 133.46 ECC .19497 INC 5.1381 V1  29.699
RP  107.50 LAP   3.14 LOP 143.95 VP  38.403 GAP    .75 AZP  94.07 TAL 222.27 TAP   4.60 RCA 107.44 APO 159.48 V2  35.253
RC  87.241 GL   29.38 GP  -50.02 ZAL 137.92 ZAP  95.51 ETS 349.03 ZAE 125.18 ETE 245.73 ZAC  49.57 ETC 253.34 CLP -98.59
```

PLANETOCENTRIC CONIC

```
C3  25.222 VHL  5.022 DLA  15.12 RAL 220.88 RAD 6568.0 VEL 12.108 PTH   2.17 VHP  4.688 DPA -59.49 RAP 192.93 ECC 1.4151
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 47 49	2760.59	-28.02	78.95	91.82	94.24	24 33 50	2160.6	-27.14	70.40
90.00	15 49 51	4424.75	7.23	184.58	84.58	62.55	17 3 36	3824.7	3.49	177.89
100.00	1 21 19	2471.77	-29.42	57.57	91.68	95.54	2 2 30	1871.8	-28.34	48.93
100.00	17 2 59	4188.80	8.47	166.57	83.92	61.22	18 12 47	3588.8	4.56	159.96
110.00	2 47 52	2200.92	-33.10	36.45	91.13	99.08	3 24 33	1600.9	-31.49	27.60
110.00	17 52 54	4032.41	11.66	152.79	82.00	57.64	19 0 7	3432.4	7.30	146.41

DIFFERENTIAL CORRECTIONS

```
TDE  .8990 TRA -.6431 TC3 -.9052 BAU  .5001
RDE  .5707 RRA -.1483 RC3-1.1750 FAU .07825
FDE 2.1845 FRA -.2629 FC3-2.6858 BSP   5958
BDE 1.0648 BRA  .6600 BC3 1.4832 FSP  -1006
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1567.2 SGR 1359.2 SG3  318.5
RRT  .8797 RRF  .9703 RTF  .9080
SGB 2074.5 R23  .1638 R13  .9632
SG1 2012.5 SG2  503.2 THA  40.39
```

ORBIT DETERMINATION ACCURACY

```
ST  1051.0 SR   654.2 SS  1010.8
CRT  .9901 CRS -.9988 CST -.9836
LSA 1592.4 MSA  135.6 SSA   13.4
EL1 1235.5 EL2   78.1 ALF  31.79
```

LAUNCH DATE SEP 25 1970 FLIGHT TIME 108.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 313.365

```
RL  150.03 LAL   -.00 LOL   1.51 VL  27.809 GAL  -8.59 AZL  84.33 HCA 145.56 SMA 133.27 ECC .19435 INC 5.6748 V1  29.699
RP  107.51 LAP   3.21 LOP 147.20 VP  38.382 GAP   1.17 AZP  94.69 TAL 221.63 TAP   7.19 RCA 107.37 APO 159.17 V2  35.249
RC  89.506 GL   32.04 GP  -52.15 ZAL 135.65 ZAP  98.38 ETS 344.61 ZAE 122.23 ETE 241.80 ZAC  47.22 ETC 252.39 CLP-103.75
```

PLANETOCENTRIC CONIC

```
C3  26.261 VHL  5.125 DLA  17.35 RAL 222.59 RAD 6568.1 VEL 12.151 PTH   2.18 VHP  4.913 DPA -60.31 RAP 188.32 ECC 1.4322
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 33 17	2852.85	-28.30	85.69	95.29	90.88	24 20 50	2252.8	-27.88	77.05
90.00	16 18 0	4352.44	4.94	180.50	87.26	62.08	17 30 33	3752.4	1.17	173.86
100.00	1 8 36	2558.16	-29.82	63.96	95.25	92.20	1 51 14	1958.2	-29.20	55.21
100.00	17 29 19	4122.37	6.27	162.86	86.53	60.71	18 38 1	3522.4	2.32	156.30
110.00	2 38 55	2275.57	-33.75	42.18	94.93	95.75	3 16 51	1675.6	-32.59	33.14
110.00	18 15 29	3977.72	9.65	149.83	84.47	57.05	19 21 46	3377.7	5.24	143.52

DIFFERENTIAL CORRECTIONS

```
TDE 1.0919 TRA -.6522 TC3 -.9975 BAU  .5237
RDE  .6390 RRA -.0915 RC3-1.1092 FAU .06993
FDE 2.1604 FRA -.1450 FC3-2.3053 BSP   6277
BDE 1.2651 BRA  .6586 BC3 1.4918 FSP   -896
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1766.1 SGR 1347.0 SG3  292.3
RRT  .8896 RRF  .9721 RTF  .9195
SGB 2221.2 R23  .1774 R13  .9633
SG1 2163.6 SG2  502.2 THA  36.43
```

ORBIT DETERMINATION ACCURACY

```
ST  1242.5 SR   716.0 SS  1025.9
CRT  .9899 CRS -.9995 CST -.9865
LSA 1757.7 MSA  138.9 SSA   11.6
EL1 1431.3 EL2   88.2 ALF  29.83
```

LAUNCH DATE SEP 25 1970 FLIGHT TIME 110.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 319.636

RL 150.03 LAL -.00 LOL 1.51 VL 27.780 GAL -8.46 AZL 83.69 HCA 148.79 SMA 133.06 ECC .19380 INC 6.3077 V1 29.699
RP 107.52 LAP 3.26 LOP 150.46 VP 38.357 GAP 1.57 AZP 95.40 TAL 220.91 TAP 9.70 RCA 107.27 APO 158.84 V2 35.245
RC 91.778 GL 34.98 GP -54.44 ZAL 133.08 ZAP 100.78 ETS 339.98 ZAE 119.14 ETE 238.19 ZAC 44.75 ETC 251.32 CLP-108.75

PLANETOCENTRIC CONIC

C3 27.729 VHL 5.266 DLA 19.80 RAL 224.52 RAD 6568.1 VEL 12.211 PTH 2.19 VHP 5.200 DPA -61.24 RAP 183.52 ECC 1.4564

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 15 7	2963.66	-28.15	93.79	99.30	86.82	24 4 31	2363.7	-28.30	85.12
90.00	16 51 38	4268.66	2.25	175.81	90.65	61.77	18 2 47	3668.7	-1.54	169.18
100.00	0 52 57	2860.85	-29.84	71.59	99.39	88.18	1 37 18	2060.9	-29.78	62.79
100.00	18 0 25	4046.70	3.73	158.68	89.83	60.32	19 7 52	3446.7	-.25	152.15
110.00	2 28 12	2362.89	-34.14	48.97	99.39	91.75	3 7 35	1762.9	-33.52	39.78
110.00	18 41 40	3917.43	7.40	146.61	87.57	56.53	19 46 58	3317.4	2.95	140.36

DIFFERENTIAL CORRECTIONS
TDE 1.3111 TRA -.6567 TC3-1.0689 BAU .5544
RDE .6881 RRA -.0435 RC3-1.0460 FAU .06293
FDE 2.0782 FRA -.0706 FC3-1.9647 BSP 7000
BDE 1.4807 BRA .6581 BC3 1.4956 FSP -860

MID-COURSE EXECUTION ACCURACY
SGT 1969.5 SGR 1332.9 SG3 264.9
RRT .8938 RRF .9730 RTF .9302
SGB 2378.2 R23 .1826 R13 .9652
SG1 2323.6 SG2 506.7 THA 32.93

ORBIT DETERMINATION ACCURACY
ST 1445.0 SR 749.6 SS 1016.3
CRT .9903 CRS -.9998 CST -.9891
LSA 1914.1 MSA 137.4 SSA 10.4
EL1 1625.2 EL2 92.8 ALF 27.29

LAUNCH DATE SEP 25 1970 FLIGHT TIME 112.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 325.879

RL 150.03 LAL -.00 LOL 1.51 VL 27.748 GAL -8.32 AZL 82.93 HCA 152.01 SMA 132.82 ECC .19330 INC 7.0700 V1 29.699
RP 107.53 LAP 3.31 LOP 153.71 VP 38.329 GAP 1.96 AZP 96.25 TAL 220.12 TAP 12.13 RCA 107.14 APO 158.49 V2 35.240
RC 94.056 GL 38.23 GP -56.95 ZAL 130.18 ZAP 102.63 ETS 335.10 ZAE 115.90 ETE 234.81 ZAC 42.08 ETC 250.06 CLP-113.64

PLANETOCENTRIC CONIC

C3 29.828 VHL 5.462 DLA 22.50 RAL 226.74 RAD 6568.2 VEL 12.296 PTH 2.21 VHP 5.567 DPA -62.28 RAP 178.32 ECC 1.4909

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 50 50	3102.30	-27.22	103.82	103.83	81.88	23 42 33	2502.3	-28.06	95.25
90.00	17 33 36	4166.48	-1.04	170.11	95.04	61.70	18 43 2	3566.5	-4.82	163.47
100.00	0 32 37	2786.79	-29.21	80.90	104.12	83.33	1 19 4	2186.8	-29.82	72.15
100.00	18 38 26	3957.23	.71	153.76	94.07	60.12	19 44 23	3357.2	-3.28	147.24
110.00	2 14 51	2486.97	-34.06	57.09	104.60	86.95	2 55 58	1867.0	-34.11	47.85
110.00	19 12 42	3849.82	4.85	143.04	91.49	56.12	20 16 51	3249.8	.36	136.83

DIFFERENTIAL CORRECTIONS
TDE 1.5816 TRA -.6417 TC3-1.0963 BAU .5764
RDE .7424 RRA .0251 RC3 -.9420 FAU .05450
FDE 2.0027 FRA .0218 FC3-1.5820 BSP 7484
BDE 1.7471 BRA .6422 BC3 1.4454 FSP -770

MID-COURSE EXECUTION ACCURACY
SGT 2172.1 SGR 1290.8 SG3 235.0
RRT .8930 RRF .9725 RTF .9371
SGB 2526.7 R23 .1918 R13 .9655
SG1 2474.7 SG2 509.9 THA 29.32

ORBIT DETERMINATION ACCURACY
ST 1673.9 SR 779.5 SS 1010.9
CRT .9898 CRS -.9999 CST -.9910
LSA 2100.5 MSA 139.6 SSA 8.9
EL1 1843.7 EL2 100.9 ALF 24.82

LAUNCH DATE SEP 25 1970 FLIGHT TIME 114.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 332.091

RL 150.03 LAL -.00 LOL 1.51 VL 27.713 GAL -8.16 AZL 81.99 HCA 155.23 SMA 132.56 ECC .19284 INC 8.0126 V1 29.699
RP 107.55 LAP 3.35 LOP 156.95 VP 38.299 GAP 2.33 AZP 97.28 TAL 219.26 TAP 14.49 RCA 107.00 APO 158.12 V2 35.235
RC 96.339 GL 41.81 GP -59.76 ZAL 126.93 ZAP 103.90 ETS 329.87 ZAE 112.46 ETE 231.49 ZAC 39.15 ETC 248.50 CLP-118.50

PLANETOCENTRIC CONIC

C3 32.902 VHL 5.736 DLA 25.46 RAL 229.29 RAD 6568.3 VEL 12.421 PTH 2.24 VHP 6.043 DPA -63.42 RAP 172.38 ECC 1.5415

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 13 50	3291.42	-24.70	117.08	108.60	75.70	23 8 42	2691.4	-26.43	108.83
90.00	18 30 56	4026.68	-5.53	162.29	101.00	62.18	19 38 2	3426.7	-9.21	155.54
100.00	0 3 41	2949.97	-27.34	92.66	109.30	77.42	0 52 51	2350.0	-28.80	84.16
100.00	19 27 42	3843.36	-3.15	147.51	99.69	60.26	20 31 46	3243.4	-7.09	140.93
110.00	1 57 25	2594.13	-33.17	66.90	110.57	81.21	2 40 39	1994.1	-34.03	57.77
110.00	19 50 28	3771.97	1.88	138.97	96.56	55.86	20 53 20	3172.0	-2.81	132.76

DIFFERENTIAL CORRECTIONS
TDE 1.9204 TRA -.6028 TC3-1.0737 BAU .5905
RDE .7905 RRA .1116 RC3 -.8060 FAU .04556
FDE 1.9215 FRA .1134 FC3-1.1989 BSP 7829
BDE 2.0768 BRA .6130 BC3 1.3425 FSP -660

MID-COURSE EXECUTION ACCURACY
SGT 2375.2 SGR 1222.1 SG3 204.3
RRT .8858 RRF .9698 RTF .9423
SGB 2671.2 R23 .2021 R13 .9654
SG1 2621.3 SG2 514.0 THA 25.55

ORBIT DETERMINATION ACCURACY
ST 1929.0 SR 790.9 SS 1002.6
CRT .9885 CRS -.9995 CST -.9924
LSA 2309.0 MSA 143.7 SSA 7.4
EL1 2081.9 EL2 110.7 ALF 22.13

LAUNCH DATE SEP 25 1970 FLIGHT TIME 116.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 338.271

RL 150.03 LAL -.00 LOL 1.51 VL 27.675 GAL -8.00 AZL 80.78 HCA 158.44 SMA 132.29 ECC .19243 INC 9.2158 V1 29.699
RP 107.57 LAP 3.37 LOP 160.20 VP 38.266 GAP 2.69 AZP 98.58 TAL 218.34 TAP 16.78 RCA 106.83 APO 157.74 V2 35.229
RC 98.624 GL 45.74 GP -62.95 ZAL 123.29 ZAP 104.55 ETS 324.11 ZAE 108.75 ETE 227.97 ZAC 35.85 ETC 246.41 CLP-123.54

PLANETOCENTRIC CONIC

C3 37.565 VHL 6.129 DLA 28.67 RAL 232.24 RAD 6568.5 VEL 12.607 PTH 2.29 VHP 6.676 DPA -64.56 RAP 165.31 ECC 1.6182

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
85.32	19 55 10	3818.77	-15.76	152.22	111.19	65.74	20 58 49	3218.8	-18.91	144.93
94.68	21 13 10	3566.25	-15.75	133.72	111.18	65.73	22 12 36	2966.2	-18.89	126.43
100.00	23 7 13	3199.36	-22.51	109.58	114.10	69.79	24 0 32	2599.4	-25.05	101.71
100.00	20 43 48	3060.89	-9.22	137.36	107.86	61.44	21 44 49	3060.9	-12.97	130.58
110.00	1 32 40	2755.84	-30.84	78.93	117.10	74.46	2 18 45	2155.8	-32.66	70.18
110.00	20 38 30	3677.17	-1.74	134.02	103.29	55.86	21 39 55	3077.2	-6.21	127.79

DIFFERENTIAL CORRECTIONS
TDE 2.3456 TRA -.5408 TC3-1.0061 BAU .6033
RDE .8038 RRA .2055 RC3 -.6563 FAU .03738
FDE 1.8154 FRA .1793 FC3 -.8614 BSP 8421
BDE 2.4794 BRA .5785 BC3 1.2012 FSP -580

MID-COURSE EXECUTION ACCURACY
SGT 2580.9 SGR 1122.2 SG3 173.5
RRT .8677 RRF .9613 RTF .9481
SGB 2814.3 R23 .2081 R13 .9661
SG1 2765.8 SG2 520.5 THA 21.47

ORBIT DETERMINATION ACCURACY
ST 2199.9 SR 754.4 SS 979.6
CRT .9862 CRS -.9985 CST -.9937
LSA 2519.3 MSA 146.1 SSA 6.2
EL1 2322.6 EL2 118.4 ALF 18.74

LAUNCH DATE SEP 25 1970 FLIGHT TIME 118.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 344.416

```
RL  150.03 LAL   -.00 LOL   1.51 VL  27.635 GAL  -7.83 AZL  79.18 HCA 161.63 SMA 132.00 ECC .19205 INC10.8153 V1  29.699
RP  107.59 LAP   3.39 LOP 163.45 VP  38.231 GAP   3.03 AZP 100.28 TAL 217.36 TAP  18.99 RCA 106.65 APO 157.35 V2  35.222
RC 100.910 GL   49.99 GP  -66.61 ZAL 119.24 ZAP 104.52 ETS 317.42 ZAE 104.67 ETE 223.78 ZAC  32.06 ETC 243.40 CLP-129.17
```

PLANETOCENTRIC CONIC

```
C3  44.982 VHL  6.707 DLA  32.10 RAL 235.71 RAD 6568.7 VEL 12.898 PTH   2.35 VHP  7.546 DPA -65.51 RAP 156.59 ECC 1.7403
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
74.21	18 45 14	4131.24	-16.07	175.66	118.40	61.83	19 54 5	3531.2	-19.71	168.59
105.79	22 50 47	3344.70	-16.05	117.38	118.39	61.82	23 46 31	2744.7	-19.69	110.31
74.21	18 45 14	4131.24	-16.07	175.66	118.40	61.83	19 54 5	3531.2	-19.71	168.59
105.79	22 50 47	3344.70	-16.05	117.38	118.39	61.82	23 46 31	2744.7	-19.69	110.31
110.00	0 51 27	2983.59	-25.62	94.57	123.33	66.56	1 41 11	2383.6	-28.56	86.63
110.00	21 47 40	3540.35	-6.94	126.84	112.84	56.44	22 46 40	2940.4	-11.31	120.47

DIFFERENTIAL CORRECTIONS

```
TDE 2.9162 TRA -.4270 TC3 -.8768 BAU  .6007
RDE  .7537 RRA  .3263 RC3 -.4786 FAU .02902
FDE 1.7114 FRA  .2422 FC3 -.5585 BSP   8855
BDE 3.0120 BRA  .5374 BC3  .9989 FSP   -484
```

MID-COURSE EXECUTION ACCURACY

```
SGT 2788.4 SGR  967.0 SG3  143.5
RRT  .8224 RRF  .9357 RTF  .9540
SGB 2951.3 R23  .2139 R13  .9669
SG1 2903.6 SG2  528.3 THA  16.48
```

ORBIT DETERMINATION ACCURACY

```
ST  2494.9 SR   651.7 SS   954.5
CRT  .9792 CRS -.9947 CST -.9948
LSA 2745.4 MSA  150.9 SSA    5.0
EL1 2575.4 EL2  128.2 ALF  14.38
```

LAUNCH DATE SEP 25 1970 FLIGHT TIME 120.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 350.519

```
RL  150.03 LAL   -.00 LOL   1.51 VL  27.594 GAL  -7.65 AZL  76.94 HCA 164.81 SMA 131.70 ECC .19169 INC13.0579 V1  29.699
RP  107.61 LAP   3.39 LOP 166.70 VP  38.194 GAP   3.35 AZP 102.62 TAL 216.31 TAP  21.12 RCA 106.45 APO 156.94 V2  35.215
RC 103.196 GL   54.48 GP  -70.82 ZAL 114.78 ZAP 103.76 ETS 308.89 ZAE 100.06 ETE 217.88 ZAC  27.63 ETC 238.59 CLP-136.39
```

PLANETOCENTRIC CONIC

```
C3  57.630 VHL  7.591 DLA  35.62 RAL 239.84 RAD 6569.0 VEL 13.379 PTH   2.45 VHP  8.807 DPA -65.91 RAP 145.82 ECC 1.9484
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.43	18 20 6	4320.26	-15.44	189.96	127.19	57.49	19 32 6	3720.3	-19.61	183.22
112.57	23 48 52	3278.88	-15.42	111.89	127.18	57.49	24 43 31	2678.9	-19.60	105.15
67.43	18 20 6	4320.26	-15.44	189.96	127.19	57.49	19 32 6	3720.3	-19.61	183.22
112.57	23 48 52	3278.88	-15.42	111.89	127.18	57.49	24 43 31	2678.9	-19.60	105.15
67.43	18 20 6	4320.26	-15.44	189.96	127.19	57.49	19 32 6	3720.3	-19.61	183.22
112.57	23 48 52	3278.88	-15.42	111.89	127.18	57.49	24 43 31	2678.9	-19.60	105.15

DIFFERENTIAL CORRECTIONS

```
TDE 3.7036 TRA -.2272 TC3 -.6905 BAU  .5767
RDE  .5220 RRA  .4705 RC3 -.2890 FAU .02107
FDE 1.6107 FRA  .2941 FC3 -.3164 BSP   9279
BDE 3.7402 BRA  .5225 BC3  .7486 FSP   -393
```

MID-COURSE EXECUTION ACCURACY

```
SGT 2992.8 SGR  733.9 SG3  115.4
RRT  .6689 RRF  .8256 RTF  .9619
SGB 3081.5 R23  .2160 R13  .9688
SG1 3034.2 SG2  538.1 THA   9.62
```

ORBIT DETERMINATION ACCURACY

```
ST  2796.1 SR   415.4 SS   927.2
CRT  .9413 CRS -.9678 CST -.9960
LSA 2970.9 MSA  156.9 SSA    3.9
EL1 2823.4 EL2  138.9 ALF   7.98
```

LAUNCH DATE SEP 25 1970 FLIGHT TIME 122.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 356.566

```
RL  150.03 LAL   -.00 LOL   1.51 VL  27.550 GAL  -7.45 AZL  73.56 HCA 167.95 SMA 131.38 ECC .19132 INC16.4423 V1  29.699
RP  107.64 LAP   3.39 LOP 169.94 VP  38.155 GAP   3.66 AZP 106.10 TAL 215.19 TAP  23.14 RCA 106.25 APO 156.52 V2  35.207
RC 105.482 GL   58.93 GP  -75.54 ZAL 109.96 ZAP 102.26 ETS 296.03 ZAE  94.66 ETE 207.66 ZAC  22.30 ETC 229.83 CLP-148.22
```

PLANETOCENTRIC CONIC

```
C3  81.489 VHL  9.027 DLA  38.93 RAL 244.82 RAD 6569.6 VEL 14.242 PTH   2.59 VHP 10.767 DPA -65.12 RAP 133.09 ECC 2.3411
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.09	18 12 19	4483.50	-13.37	201.76	137.72	53.09	19 27 3	3883.5	-18.08	195.46
117.91	0 40 19	3279.93	-13.36	110.50	137.71	53.09	1 34 59	2679.9	-18.07	104.20
62.09	18 12 19	4483.50	-13.37	201.76	137.72	53.09	19 27 3	3883.5	-18.08	195.46
117.91	0 40 19	3279.93	-13.36	110.50	137.71	53.09	1 34 59	2679.9	-18.07	104.20
62.09	18 12 19	4483.50	-13.37	201.76	137.72	53.09	19 27 3	3883.5	-18.08	195.46
117.91	0 40 19	3279.93	-13.36	110.50	137.71	53.09	1 34 59	2679.9	-18.07	104.20

DIFFERENTIAL CORRECTIONS

```
TDE 4.7916 TRA  .1539 TC3 -.4538 BAU  .5081
RDE -.2428 RRA  .6095 RC3 -.1077 FAU .01351
FDE 1.5357 FRA  .3423 FC3 -.1435 BSP   9690
BDE 4.7978 BRA  .6286 BC3  .4664 FSP   -310
```

MID-COURSE EXECUTION ACCURACY

```
SGT 3152.2 SGR  555.7 SG3   90.4
RRT -.1410 RRF  .0671 RTF  .9736
SGB 3200.8 R23 -.2108 R13 -.9727
SG1 3153.2 SG2  550.0 THA 178.53
```

ORBIT DETERMINATION ACCURACY

```
ST  3041.6 SR   214.6 SS   910.1
CRT -.7094 CRS  .6559 CST -.9973
LSA 3177.8 MSA  164.9 SSA    2.8
EL1 3045.4 EL2  151.1 ALF 177.13
```

LAUNCH DATE SEP 25 1970 FLIGHT TIME 124.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 362.520

```
RL  150.03 LAL   -.00 LOL   1.51 VL  27.505 GAL  -7.22 AZL  67.87 HCA 171.02 SMA 131.06 ECC .19086 INC22.1271 V1  29.699
RP  107.66 LAP   3.37 LOP 173.18 VP  38.115 GAP   3.93 AZP 111.88 TAL 213.98 TAP  25.00 RCA 106.05 APO 156.08 V2  35.198
RC 107.765 GL   62.62 GP  -79.97 ZAL 104.86 ZAP 100.00 ETS 271.58 ZAE  87.90 ETE 185.73 ZAC  15.63 ETC 211.63 CLP-175.67
```

PLANETOCENTRIC CONIC

```
C3 133.966 VHL 11.574 DLA  41.32 RAL 250.85 RAD 6570.4 VEL 15.978 PTH   2.82 VHP 14.141 DPA -62.15 RAP 119.54 ECC 3.2047
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.56	18 20 16	4633.26	-9.51	211.31	149.88	49.60	19 37 29	4033.3	-14.63	205.44
121.44	1 20 29	3338.90	-9.50	112.34	149.87	49.60	2 16 8	2738.9	-14.62	106.47
58.56	18 20 16	4633.26	-9.51	211.31	149.88	49.60	19 37 29	4033.3	-14.63	205.44
121.44	1 20 29	3338.90	-9.50	112.34	149.87	49.60	2 16 8	2738.9	-14.62	106.47
58.56	18 20 16	4633.26	-9.51	211.31	149.88	49.60	19 37 29	4033.3	-14.63	205.44
121.44	1 20 29	3338.90	-9.50	112.34	149.87	49.60	2 16 8	2738.9	-14.62	106.47

DIFFERENTIAL CORRECTIONS

```
TDE 5.8826 TRA  .9344 TC3 -.1848 BAU  .5311
RDE-2.6740 RRA  .4715 RC3  .0062 FAU .00589
FDE 1.5371 FRA  .4082 FC3 -.0381 BSP  10026
BDE 6.4618 BRA 1.0466 BC3  .1849 FSP   -240
```

MID-COURSE EXECUTION ACCURACY

```
SGT 3007.0 SGR 1359.8 SG3   70.1
RRT -.8974 RRF -.8378 RTF  .9909
SGB 3300.2 R23 -.1873 R13 -.9801
SG1 3253.2 SG2  554.5 THA 157.21
```

ORBIT DETERMINATION ACCURACY

```
ST  2917.9 SR  1327.0 SS   934.9
CRT -.9911 CRS  .9845 CST -.9991
LSA 3334.6 MSA  171.5 SSA    1.9
EL1 3201.4 EL2  161.3 ALF 155.67
```

LAUNCH DATE SEP 25 1970 FLIGHT TIME 126.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 368.275

```
RL  150.03 LAL   -.00 LOL   1.51 VL  27.459 GAL  -6.95 AZL  56.63 HCA 173.92 SMA 130.73 ECC .19009 INC33.3722 V1  29.699
RP  107.69 LAP   3.34 LOP 176.43 VP  38.073 GAP   4.15 AZP 123.22 TAL 212.61 TAP  26.52 RCA 105.88 APO 155.58 V2  35.189
RC 110.046 GL   63.46 GP  -78.62 ZAL  99.74 ZAP  97.11 ETS 227.50 ZAE  78.25 ETE 143.97 ZAC   7.04 ETC 193.67 CLP 128.86
```

PLANETOCENTRIC CONIC

```
C3 280.895 VHL 16.760 DLA  40.88 RAL 257.92 RAD 6571.6 VEL 20.055 PTH   3.14 VHP 20.889 DPA -55.11 RAP 107.30 ECC 5.6228
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.19	18 51 13	4742.19	-4.29	216.18	162.97	49.31	20 10 16	4142.2	-9.47	210.46
120.81	1 45 55	3463.16	-4.27	118.54	162.96	49.30	2 43 38	2863.2	-9.45	112.81
59.19	18 51 13	4742.19	-4.29	216.18	162.97	49.31	20 10 16	4142.2	-9.47	210.46
120.81	1 45 55	3463.16	-4.27	118.54	162.96	49.30	2 43 38	2863.2	-9.45	112.81
59.19	18 51 13	4742.19	-4.29	216.18	162.97	49.31	20 10 16	4142.2	-9.47	210.46
120.81	1 45 55	3463.16	-4.27	118.54	162.96	49.30	2 43 38	2863.2	-9.45	112.81

DIFFERENTIAL CORRECTIONS

```
TDE 4.1969 TRA 1.8657 TC3 -.0046 BAU  .2793
RDE-8.3255 RRA-1.1478 RC3 -.0742 FAU-.00482
FDE 1.7427 FRA  .5601 FC3  .0149 BSP  10106
BDE 9.3235 BRA 2.1905 BC3  .0744 FSP   -187
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1664.5 SGR 2903.8 SG3   56.2
RRT -.9347 RRF -.9745 RTF  .9886
SGB 3347.0 RZS -.1334 RZ3 -.9898
SG1 3306.4 SG2  519.6 THA 118.96
```

ORBIT DETERMINATION ACCURACY

```
ST  1456.9 SR  2850.4 SS  1084.2
CRT -.9928 CRS  .9973 CST -.9989
LSA 3375.8 MSA  163.5 SSA    1.7
EL1 3197.4 EL2  155.5 ALF 116.97
```

LAUNCH DATE SEP 25 1970 FLIGHT TIME 128.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 373.393

```
RL  150.03 LAL   -.00 LOL   1.51 VL  27.411 GAL  -6.55 AZL  29.19 HCA 176.21 SMA 130.40 ECC .18816 INC60.8129 V1  29.699
RP  107.72 LAP   3.30 LOP 179.67 VP  38.030 GAP   4.18 AZP 150.76 TAL 210.79 TAP  27.00 RCA 105.86 APO 154.93 V2  35.179
RC 112.324 GL   55.04 GP  -63.45 ZAL  95.22 ZAP  94.06 ETS 194.86 ZAE  60.85 ETE 113.95 ZAC  13.84 ETC 270.44 CLP  99.10
```

PLANETOCENTRIC CONIC

```
C3 841.635 VHL 29.011 DLA  31.73 RAL 264.87 RAD 6572.8 VEL 31.031 PTH   3.47 VHP 36.713 DPA -39.00 RAP  98.82 ECC14.8512
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
75.05	20 47 16	4571.90	-.09	199.57	174.74	58.27	22 3 28	3971.9	-4.29	193.17
104.95	0 45 20	3820.98	-.08	144.00	174.73	58.27	1 49 1	3221.0	-4.27	137.60
75.05	20 47 16	4571.90	-.09	199.57	174.74	58.27	22 3 28	3971.9	-4.29	193.17
104.95	0 45 20	3820.98	-.08	144.00	174.73	58.27	1 49 1	3221.0	-4.27	137.60
110.00	2 55 22	3417.70	-11.49	120.26	181.90	57.58	3 52 20	2817.7	-15.69	113.67
110.00	23 36 34	4023.18	11.32	152.29	167.57	57.53	24 43 27	3423.2	6.96	145.92

DIFFERENTIAL CORRECTIONS

```
TDE-1.8180 TRA 1.8478 TC3 -.0455 BAU 2.2351
RD-13.4239 RRA-4.9465 RC3 -.1934 FAU-.03478
FDE 2.3701 FRA 1.1095 FC3  .0358 BSP   9761
BDE13.5465 BRA 5.2137 BC3  .1986 FSP   -163
```

MID-COURSE EXECUTION ACCURACY

```
SGT  587.4 SGR 3099.5 SG3   49.5
RRT  .4443 RRF -.9961 RTF -.3693
SGB 3154.6 RZS -.0963 RZ3 -.9948
SG1 3110.8 SG2  524.3 THA  85.05
```

ORBIT DETERMINATION ACCURACY

```
ST   377.2 SR  2673.7 SS  1505.0
CRT  .9054 CRS  .9994 CST  .8902
LSA 3086.7 MSA  168.1 SSA    1.7
EL1 2695.5 EL2  158.9 ALF  82.70
```

LAUNCH DATE SEP 25 1970 FLIGHT TIME 130.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 383.687

```
RL  150.03 LAL   -.00 LOL   1.51 VL  27.363 GAL  -7.19 AZL 156.91 HCA 183.54 SMA 130.06 ECC .19723 INC66.9125 V1  29.699
RP  107.75 LAP   3.26 LOP 182.90 VP  37.985 GAP   5.67 AZP  23.13 TAL 212.22 TAP  35.76 RCA 104.41 APO 155.71 V2  35.169
RC 114.599 GL  -52.34 GP   58.79 ZAL  95.34 ZAP  95.00 ETS 177.82 ZAE  63.81 ETE 257.49 ZAC 136.07 ETC 272.76 CLP  99.69
```

PLANETOCENTRIC CONIC

```
C3 995.169 VHL 31.546 DLA -75.34 RAL 252.26 RAD 6573.0 VEL 33.413 PTH   3.50 VHP 40.930 DPA  82.81 RAP 120.30 ECC17.3780
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.71	4 29 14	2451.45	-.39	81.21	162.35	165.33	5 10 6	1851.4	7.35	79.59
163.29	15 22 43	669.91	-.38	284.86	162.37	165.33	15 33 53	69.9	7.35	283.25
16.71	4 29 14	2451.45	-.39	81.21	162.35	165.33	5 10 6	1851.4	7.35	79.59
163.29	15 22 43	669.91	-.38	284.86	162.37	165.33	15 33 53	69.9	7.35	283.25
16.71	4 29 14	2451.45	-.39	81.21	162.35	165.33	5 10 6	1851.4	7.35	79.59
163.29	15 22 43	669.91	-.38	284.86	162.37	165.33	15 33 53	69.9	7.35	283.25

DIFFERENTIAL CORRECTIONS

```
TDE 5.4602 TRA  .5237 TC3 -.0855 BAU 2.8462
RD-14.1038 RRA  .7082 RC3  .1961 FAU-.04251
FDE-2.9750 FRA  .1649 FC3  .0370 BSP   9306
BDE15.1238 BRA  .8792 BC3  .2139 FSP   -159
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1189.9 SGR 2889.5 SG3   51.9
RRT -.8777 RRF  .9989 RTF -.8642
SGB 3124.9 RZS -.0909 RZ3  .9951
SG1 3078.7 SG2  535.2 THA 110.52
```

ORBIT DETERMINATION ACCURACY

```
ST   998.2 SR  2566.4 SS  1915.1
CRT -.9852 CRS-1.0000 CST  .9841
LSA 3350.0 MSA  166.1 SSA    2.3
EL1 2749.0 EL2  159.9 ALF 111.04
```

LAUNCH DATE SEP 25 1970 FLIGHT TIME 132.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 388.554

```
RL  150.03 LAL   -.00 LOL   1.51 VL  27.314 GAL  -6.73 AZL 124.70 HCA 185.62 SMA 129.72 ECC .19476 INC34.7044 V1  29.699
RP  107.79 LAP   3.20 LOP 186.14 VP  37.940 GAP   5.63 AZP  55.42 TAL 210.27 TAP  35.89 RCA 104.45 APO 154.98 V2  35.158
RC 116.871 GL  -62.98 GP   75.45 ZAL  99.00 ZAP  98.91 ETS 151.70 ZAE  83.55 ETE 232.46 ZAC 154.43 ETC 258.59 CLP 128.08
```

PLANETOCENTRIC CONIC

```
C3 300.547 VHL 17.336 DLA -81.33 RAL 195.63 RAD 6571.7 VEL 20.539 PTH   3.17 VHP 22.773 DPA  74.64 RAP 243.29 ECC 5.9463
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
9.86	0 29 49	2367.76	5.91	83.95	104.71	171.29	1 9 17	1767.8	13.82	83.12
170.14	11 50 21	5854.12	5.91	258.80	104.74	171.29	13 27 55	5254.1	13.82	257.98
9.86	0 29 49	2367.76	5.91	83.95	104.71	171.29	1 9 17	1767.8	13.82	83.12
170.14	11 50 21	5854.12	5.91	258.80	104.74	171.29	13 27 55	5254.1	13.82	257.98
9.86	0 29 49	2367.76	5.91	83.95	104.71	171.29	1 9 17	1767.8	13.82	83.12
170.14	11 50 21	5854.12	5.91	258.80	104.74	171.29	13 27 55	5254.1	13.82	257.98

DIFFERENTIAL CORRECTIONS

```
TDE-1.9998 TRA -.0725 TC3 -.0114 BAU  .4067
RDE-6.2255 RRA-1.3137 RC3  .1006 FAU-.00288
FDE-1.4442 FRA -.2369 FC3  .0083 BSP  11307
BDE 6.5388 BRA 1.3157 BC3  .1012 FSP   -198
```

MID-COURSE EXECUTION ACCURACY

```
SGT  680.9 SGR 3557.2 SG3   61.0
RRT  .7449 RRF  .9908 RTF  .8257
SGB 3621.8 RZS -.1133 RZ3  .9931
SG1 3593.8 SG2  449.7 THA  81.75
```

ORBIT DETERMINATION ACCURACY

```
ST   662.6 SR  2231.7 SS   987.9
CRT  .9474 CRS -.9966 CST -.9705
LSA 2520.1 MSA  210.5 SSA    1.2
EL1 2319.0 EL2  204.0 ALF  74.16
```

LAUNCH DATE SEP 25 1970 FLIGHT TIME 134.00 ARRIVAL DATE FEB 6 1971

HELIOCENTRIC CONIC DISTANCE 394.180

```
RL  150.03 LAL   -.00 LOL   1.51 VL  27.263 GAL  -6.42 AZL 111.78 HCA 188.45 SMA 129.37 ECC .19411 INC21.7784 V1  29.699
RP  107.82 LAP   3.13 LOP 189.37 VP  37.893 GAP   5.80 AZP  68.44 TAL 208.73 TAP  37.18 RCA 104.26 APO 154.48 V2  35.147
RC 119.138 GL  -62.61 GP   76.01 ZAL 103.06 ZAP 103.90 ETS  91.59 ZAE  94.16 ETE 173.24 ZAC 161.20 ETC 221.10 CLP 173.48
```

PLANETOCENTRIC CONIC

```
C3 128.155 VHL 11.321 DLA -77.52 RAL 185.23 RAD 6570.4 VEL 15.795 PTH   2.80 VHP 15.109 DPA  63.02 RAP 245.91 ECC 3.1091
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
14.21	23 52 56	2228.61	14.70	79.97	91.89	167.09	24 30 4	1628.6	22.48	78.45
165.79	11 0 18	5726.51	14.70	259.05	91.90	167.09	12 35 44	5126.5	22.49	257.54
14.21	23 52 56	2228.61	14.70	79.97	91.89	167.09	24 30 4	1628.6	22.48	78.45
165.79	11 0 18	5726.51	14.70	259.05	91.90	167.09	12 35 44	5126.5	22.49	257.54
14.21	23 52 56	2228.61	14.70	79.97	91.89	167.09	24 30 4	1628.6	22.48	78.45
165.79	11 0 18	5726.51	14.70	259.05	91.90	167.09	12 35 44	5126.5	22.49	257.54

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-3.0552 TRA-1.3274 TC3 -.1847 BAU  .3204   SGT 3496.4 SGR 1344.5 SG3   75.8      ST  1805.7 SR   406.1 SS   667.2
RDE -.1069 RRA -.5731 RC3 -.0294 FAU .01092   RRT  .9108 RRF  .8576 RTF  .9922      CRT  .6259 CRS -.5438 CST -.9949
FDE -.9130 FRA -.3107 FC3 -.0737 BSP  11290   SGB 3746.0 RZ3 -.1614 RI3  .9853      LSA 1940.6 MSA  325.3 SSA    1.8
BDE 3.0571 BRA 1.4458 BC3  .1870 FSP   -238   SG1 3709.3 SG2  523.2 THA  19.71      EL1 1824.1 EL2  313.6 ALF    8.26
```

LAUNCH DATE SEP 25 1970 FLIGHT TIME 136.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 400.002

```
RL  150.03 LAL   -.00 LOL   1.51 VL  27.213 GAL  -6.14 AZL 105.47 HCA 191.49 SMA 129.02 ECC .19402 INC15.4714 V1  29.699
RP  107.86 LAP   3.05 LOP 192.60 VP  37.846 GAP   6.03 AZP  74.82 TAL 207.30 TAP  38.79 RCA 103.99 APO 154.06 V2  35.136
RC 121.402 GL  -58.90 GP   70.25 ZAL 106.69 ZAP 109.16 ETS  68.10 ZAE 101.32 ETE 151.21 ZAC 161.52 ETC 222.76 CLP-166.27
```

PLANETOCENTRIC CONIC

```
C3  71.044 VHL  8.429 DLA -73.61 RAL 192.28 RAD 6569.4 VEL 13.871 PTH   2.53 VHP 11.473 DPA  54.22 RAP 244.87 ECC 2.1692
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.69	0 34 1	2092.68	22.73	74.52	95.19	162.19	1 8 54	1492.7	30.32	72.11
161.31	11 19 24	5607.16	22.73	258.07	95.21	162.19	12 52 51	5007.2	30.32	255.66
18.69	0 34 1	2092.68	22.73	74.52	95.19	162.19	1 8 54	1492.7	30.32	72.11
161.31	11 19 24	5607.16	22.73	258.07	95.21	162.19	12 52 51	5007.2	30.32	255.66
18.69	0 34 1	2092.68	22.73	74.52	95.19	162.19	1 8 54	1492.7	30.32	72.11
161.31	11 19 24	5607.16	22.73	258.07	95.21	162.19	12 52 51	5007.2	30.32	255.66

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.5094 TRA-1.3652 TC3 -.6046 BAU  .5768   SGT 3842.7 SGR  569.5 SG3   97.6      ST  1970.9 SR   551.9 SS   709.8
RDE  .8114 RRA -.0238 RC3  .0770 FAU .02005   RRT -.4042 RRF -.5884 RTF  .9736      CRT -.8496 CRS  .9298 CST -.9840
FDE -.9909 FRA -.3355 FC3 -.2443 BSP  11930   SGB 3884.7 RZ3  .2050 RI3 -.9753      LSA 2145.5 MSA  299.1 SSA    2.6
BDE 2.6373 BRA 1.3654 BC3  .6094 FSP   -314   SG1 3849.7 SG2  520.0 THA 176.51      EL1 2027.0 EL2  283.0 ALF 166.35
```

LAUNCH DATE SEP 25 1970 FLIGHT TIME 138.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 405.888

```
RL  150.03 LAL   -.00 LOL   1.51 VL  27.162 GAL  -5.87 AZL 101.80 HCA 194.61 SMA 128.67 ECC .19418 INC11.8035 V1  29.699
RP  107.89 LAP   2.96 LOP 195.83 VP  37.799 GAP   6.27 AZP  78.57 TAL 205.89 TAP  40.50 RCA 103.69 APO 153.66 V2  35.124
RC 123.660 GL  -54.30 GP   63.84 ZAL 109.63 ZAP 114.37 ETS  60.89 ZAE 106.77 ETE 146.05 ZAC 158.51 ETC 233.47 CLP-159.39
```

PLANETOCENTRIC CONIC

```
C3  46.317 VHL  6.806 DLA -69.77 RAL 200.76 RAD 6568.7 VEL 12.949 PTH   2.36 VHP  9.486 DPA  46.75 RAP 243.78 ECC 1.7623
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
23.12	1 17 11	1977.31	28.78	68.07	99.08	156.77	1 50 8	1377.3	36.07	64.59
156.88	11 43 56	5513.32	28.79	256.19	99.09	156.77	13 15 50	4913.3	36.08	252.72
23.12	1 17 11	1977.31	28.78	68.07	99.08	156.77	1 50 8	1377.3	36.07	64.59
156.88	11 43 56	5513.32	28.79	256.19	99.09	156.77	13 15 50	4913.3	36.08	252.72
23.12	1 17 11	1977.31	28.78	68.07	99.08	156.77	1 50 8	1377.3	36.07	64.59
156.88	11 43 56	5513.32	28.79	256.19	99.09	156.77	13 15 50	4913.3	36.08	252.72

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.2988 TRA-1.2496 TC3-1.1108 BAU  .7021   SGT 3910.2 SGR  817.5 SG3  121.5      ST  2140.2 SR   731.0 SS   776.3
RDE  .8651 RRA  .0839 RC3  .2278 FAU .02756   RRT -.7820 RRF -.9121 RTF  .9604      CRT -.9370 CRS  .9849 CST -.9833
FDE-1.0877 FRA -.3305 FC3 -.5151 BSP  12388   SGB 3994.8 RZ3  .2383 RI3 -.9656      LSA 2376.3 MSA  266.0 SSA    3.4
BDE 2.4562 BRA 1.2524 BC3 1.1339 FSP   -397   SG1 3963.0 SG2  502.8 THA 170.56      EL1 2248.5 EL2  243.1 ALF 162.04
```

LAUNCH DATE SEP 25 1970 FLIGHT TIME 140.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 411.797

```
RL  150.03 LAL   -.00 LOL   1.51 VL  27.110 GAL  -5.59 AZL  99.41 HCA 197.76 SMA 128.33 ECC .19451 INC 9.4107 V1  29.699
RP  107.93 LAP   2.86 LOP 199.05 VP  37.750 GAP   6.52 AZP  81.03 TAL 204.48 TAP  42.24 RCA 103.37 APO 153.29 V2  35.112
RC 125.912 GL  -49.60 GP   57.83 ZAL 111.81 ZAP 119.33 ETS  57.75 ZAE 111.10 ETE 145.41 ZAC 154.36 ETC 241.22 CLP-156.94
```

PLANETOCENTRIC CONIC

```
C3  33.564 VHL  5.793 DLA -66.03 RAL 208.38 RAD 6568.3 VEL 12.447 PTH   2.25 VHP  8.302 DPA  40.16 RAP 243.08 ECC 1.5524
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.48	1 57 10	1882.76	32.84	61.06	101.69	151.08	2 28 33	1282.8	39.74	56.45
152.52	12 4 43	5445.39	32.84	253.09	101.71	151.08	13 35 28	4845.4	39.75	249.28
27.48	1 57 10	1882.76	32.84	61.06	101.69	151.08	2 28 33	1282.8	39.74	56.45
152.52	12 4 43	5445.39	32.84	253.09	101.71	151.08	13 35 28	4845.4	39.75	249.28
27.48	1 57 10	1882.76	32.84	61.06	101.69	151.08	2 28 33	1282.8	39.74	56.45
152.52	12 4 43	5445.39	32.84	253.09	101.71	151.08	13 35 28	4845.4	39.75	249.28

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.1346 TRA-1.1360 TC3-1.6834 BAU  .7729   SGT 3988.5 SGR  903.2 SG3  144.4      ST  2269.0 SR   773.0 SS   816.0
RDE  .7799 RRA  .0884 RC3  .3644 FAU .03379   RRT -.8414 RRF -.9530 RTF  .9505      CRT -.9574 CRS  .9937 CST -.9836
FDE-1.1285 FRA -.2989 FC3 -.8715 BSP  12735   SGB 4089.5 RZ3  .2618 RI3 -.9568      LSA 2520.5 MSA  242.1 SSA    4.4
BDE 2.2723 BRA 1.1393 BC3 1.7224 FSP   -474   SG1 4061.3 SG2  479.4 THA 169.06      EL1 2387.7 EL2  212.0 ALF 161.79
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LAUNCH DATE SEP 25 1970 FLIGHT TIME 142.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 417.710

RL	150.03	LAL	-.00	LOL	1.51	VL	27.058	GAL	-5.31	AZL	97.72	HCA	200.93	SMA	127.98	ECC	.19497	INC	7.7229	V1	29.699
RP	107.97	LAP	2.75	LOP	202.27	VP	37.702	GAP	6.77	AZP	82.78	TAL	203.05	TAP	43.98	RCA	103.03	APO	152.93	V2	35.099
RC	128.150	GL	-45.06	GP	52.41	ZAL	113.23	ZAP	123.94	ETS	55.96	ZAE	114.55	ETE	146.40	ZAC	150.09	ETC	246.24	CLP	-156.24

PLANETOCENTRIC CONIC

C3	26.159	VHL	5.115	DLA	-62.45	RAL	215.01	RAD	6560.1	VEL	12.146	PTH	2.18	VHP	7.559	DPA	34.30	RAP	242.79	ECC	1.4305

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.69	2 33 27	1804.66	35.28	53.94	103.35	145.49	3 3 32	1204.7	41.72	48.29
148.31	12 21 21	5390.71	35.29	251.56	103.36	145.49	13 51 20	4798.7	41.73	245.91
31.69	2 33 27	1804.66	35.28	53.94	103.35	145.49	3 3 32	1204.7	41.72	48.29
148.31	12 21 21	5390.71	35.29	251.56	103.36	145.49	13 51 20	4798.7	41.73	245.91
31.69	2 33 27	1804.66	35.28	53.94	103.35	145.49	3 3 32	1204.7	41.72	48.29
148.31	12 21 21	5390.71	35.29	251.56	103.36	145.49	13 51 20	4798.7	41.73	245.91

DIFFERENTIAL CORRECTIONS

TDE	-1.9760	TRA	-1.0889	TC3	-2.2960	BAU	.8198
RDE	.6714	RRA	.0029	RC3	.4724	FAU	.03068
FDE	-1.1140	FRA	-.2452	FC3	-1.2801	BSP	13004
BDE	2.0869	BRA	1.0289	BC3	2.3441	FSP	-539

MID-COURSE EXECUTION ACCURACY

SGT	4074.8	SGR	906.9	SG3	164.5		
RRT	-.8602	RRF	-.9625	RTF	.9429		
SGB	4174.5	RZ3	.2768	R13	-.9490		
SG1	4149.7	SG2	454.1	THA	169.03		

ORBIT DETERMINATION ACCURACY

ST	2337.1	SR	753.6	SS	823.7
CRT	-.9652	CRS	.9966	CST	-.9833
LSA	2580.2	MSA	225.2	SSA	5.5
EL1	2448.3	EL2	188.1	ALF	162.61

LAUNCH DATE SEP 25 1970 FLIGHT TIME 144.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 423.735

RL	150.03	LAL	-.00	LOL	1.51	VL	27.007	GAL	-5.00	AZL	96.46	HCA	204.12	SMA	127.63	ECC	.19535	INC	6.4635	V1	29.699
RP	108.01	LAP	2.64	LOP	205.49	VP	37.653	GAP	7.00	AZP	84.10	TAL	201.50	TAP	45.62	RCA	102.70	APO	152.57	V2	35.086
RC	130.397	GL	-40.87	GP	47.65	ZAL	113.77	ZAP	128.07	ETS	54.63	ZAE	117.30	ETE	147.94	ZAC	146.16	ETC	249.59	CLP	-156.26

PLANETOCENTRIC CONIC

C3	21.426	VHL	4.629	DLA	-59.21	RAL	221.07	RAD	6567.9	VEL	11.950	PTH	2.13	VHP	7.074	DPA	29.12	RAP	242.95	ECC	1.3526

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.56	3 7 13	1738.65	36.61	47.18	104.78	140.37	3 36 11	1138.7	42.58	40.68
144.44	12 35 56	5367.13	36.62	249.47	104.80	140.37	14 5 23	4767.1	42.59	242.96
35.56	3 7 13	1738.65	36.61	47.18	104.78	140.37	3 36 11	1138.7	42.58	40.68
144.44	12 35 56	5367.13	36.62	249.47	104.80	140.37	14 5 23	4767.1	42.59	242.96
35.56	3 7 13	1738.65	36.61	47.18	104.78	140.37	3 36 11	1138.7	42.58	40.68
144.44	12 35 56	5367.13	36.62	249.47	104.80	140.37	14 5 23	4767.1	42.59	242.96

DIFFERENTIAL CORRECTIONS

TDE	-.8281	TRA	.1001	TC3	-1.0510	BAU	.3113
RDE	.1295	RRA	-.3989	RC3	-.2762	FAU	.00025
FDE	-.1503	FRA	.7280	FC3	-.0101	BSP	13606
BDE	.8381	BRA	.4112	BC3	1.0866	FSP	1261

MID-COURSE EXECUTION ACCURACY

SGT	1433.8	SGR	1010.5	SG3	152.9		
RRT	-.1028	RRF	-.9644	RTF	.2465		
SGB	1754.1	RZ3	.9156	R13	-.3373		
SG1	1441.1	SG2	1000.0	THA	171.97		

ORBIT DETERMINATION ACCURACY

ST	1028.0	SR	330.8	SS	342.2
CRT	-.5442	CRS	.9858	CST	-.3979
LSA	1056.8	MSA	407.9	SSA	7.1
EL1	1044.8	EL2	273.1	ALF	169.33

LAUNCH DATE SEP 25 1970 FLIGHT TIME 146.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 429.522

RL	150.03	LAL	-.00	LOL	1.51	VL	26.954	GAL	-4.74	AZL	95.48	HCA	207.30	SMA	127.29	ECC	.19626	INC	5.4833	V1	29.699
RP	108.05	LAP	2.51	LOP	208.71	VP	37.603	GAP	7.27	AZP	85.12	TAL	200.15	TAP	47.45	RCA	102.31	APO	152.27	V2	35.074
RC	132.627	GL	-36.83	GP	43.34	ZAL	113.93	ZAP	131.97	ETS	53.73	ZAE	119.45	ETE	149.97	ZAC	142.45	ETC	252.00	CLP	-156.84

PLANETOCENTRIC CONIC

C3	18.339	VHL	4.282	DLA	-55.96	RAL	226.24	RAD	6567.7	VEL	11.820	PTH	2.09	VHP	6.773	DPA	24.44	RAP	243.26	ECC	1.3018

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.48	3 38 15	1681.07	36.93	40.57	105.70	135.55	4 6 16	1081.1	42.41	33.40
140.52	12 46 5	5350.78	36.94	247.91	105.72	135.54	14 15 16	4750.8	42.42	240.74
39.48	3 38 15	1681.07	36.93	40.57	105.70	135.55	4 6 16	1081.1	42.41	33.40
140.52	12 46 5	5350.78	36.94	247.91	105.72	135.54	14 15 16	4750.8	42.42	240.74
39.48	3 38 15	1681.07	36.93	40.57	105.70	135.55	4 6 16	1081.1	42.41	33.40
140.52	12 46 5	5350.78	36.94	247.91	105.72	135.54	14 15 16	4750.8	42.42	240.74

DIFFERENTIAL CORRECTIONS

TDE	-1.6869	TRA	-.8168	TC3	-3.5658	BAU	.8867
RDE	.4938	RRA	.0107	RC3	.6035	FAU	.04480
FDE	-.9810	FRA	-.1004	FC3	-2.1148	BSP	13600
BDE	1.7576	BRA	.8168	BC3	3.6165	FSP	-638

MID-COURSE EXECUTION ACCURACY

SGT	4289.8	SGR	839.2	SG3	194.4		
RRT	-.8705	RRF	-.9584	RTF	.9330		
SGB	4351.5	RZ3	.2819	R13	-.9377		
SG1	4332.4	SG2	407.0	THA	170.20		

ORBIT DETERMINATION ACCURACY

ST	2333.4	SR	660.9	SS	769.9
CRT	-.9707	CRS	.9989	CST	-.9803
LSA	2536.4	MSA	202.4	SSA	8.3
EL1	2420.4	EL2	153.1	ALF	164.56

LAUNCH DATE SEP 25 1970 FLIGHT TIME 148.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 435.414

RL	150.03	LAL	-.00	LOL	1.51	VL	26.902	GAL	-4.44	AZL	94.69	HCA	210.49	SMA	126.95	ECC	.19709	INC	4.6947	V1	29.699
RP	108.09	LAP	2.38	LOP	211.92	VP	37.554	GAP	7.52	AZP	85.95	TAL	198.67	TAP	49.16	RCA	101.93	APO	151.97	V2	35.061
RC	134.850	GL	-33.13	GP	39.62	ZAL	113.34	ZAP	135.40	ETS	52.92	ZAE	121.14	ETE	151.93	ZAC	139.24	ETC	253.78	CLP	-157.56

PLANETOCENTRIC CONIC

C3	16.131	VHL	4.016	DLA	-53.04	RAL	231.22	RAD	6567.6	VEL	11.727	PTH	2.07	VHP	6.577	DPA	20.32	RAP	243.92	ECC	1.2655

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.08	4 8 24	1629.50	36.76	34.53	107.01	131.37	4 35 33	1029.5	41.78	26.90
136.92	12 55 43	5343.09	36.77	246.84	107.02	131.36	14 24 46	4743.1	41.79	239.20
43.08	4 8 24	1629.50	36.76	34.53	107.01	131.37	4 35 33	1029.5	41.78	26.90
136.92	12 55 43	5343.09	36.77	246.84	107.02	131.36	14 24 46	4743.1	41.79	239.20
43.08	4 8 24	1629.50	36.76	34.53	107.01	131.37	4 35 33	1029.5	41.78	26.90
136.92	12 55 43	5343.09	36.77	246.84	107.02	131.36	14 24 46	4743.1	41.79	239.20

DIFFERENTIAL CORRECTIONS

TDE	-1.5550	TRA	-.7081	TC3	-4.1861	BAU	.9130
RDE	.4280	RRA	-.0118	RC3	.6323	FAU	.04618
FDE	-.8855	FRA	-.0173	FC3	-2.4783	BSP	13881
BDE	1.6131	BRA	.7082	BC3	4.2336	FSP	-668

MID-COURSE EXECUTION ACCURACY

SGT	4364.6	SGR	795.7	SG3	203.7		
RRT	-.8691	RRF	-.9502	RTF	.9294		
SGB	4436.6	RZ3	.2750	R13	-.9333		
SG1	4419.5	SG2	388.7	THA	170.93		

ORBIT DETERMINATION ACCURACY

ST	2277.1	SR	612.2	SS	718.7
CRT	-.9719	CRS	.9995	CST	-.9773
LSA	2457.4	MSA	194.1	SSA	10.0
EL1	2353.8	EL2	139.5	ALF	165.30

LAUNCH DATE SEP 25 1970 FLIGHT TIME 150.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 441.294

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RL  150.03 LAL   -.00 LOL   1.51 VL  26.850 GAL  -4.12 AZL  94.04 HCA 213.68 SMA 126.61 ECC .19803 INC 4.0429 V1  29.699
RP  108.13 LAP   2.24 LOP 215.13 VP  37.504 GAP   7.77 AZP  86.63 TAL 197.17 TAP  50.86 RCA 101.54 APO 151.68 V2  35.047
RC 137.063 GL  -29.69 GP   36.36 ZAL 112.23 ZAP 138.48 ETS  52.24 ZAE 122.46 ETE 153.83 ZAC 136.42 ETC 255.19 CLP-158.40
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PLANETOCENTRIC CONIC

```
C3  14.529 VHL  3.812 DLA -50.30 RAL 235.96 RAD 6567.6 VEL 11.658 PTH   2.05 VHP  6.460 DPA  16.66 RAP 244.81 ECC 1.2391
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.51	4 37 52	1581.85	36.18	28.90	108.57	127.70	5 4 13	981.9	40.78	20.96
133.49	13 4 2	5343.71	36.19	246.31	108.58	127.68	14 33 6	4743.7	40.79	238.36
46.51	4 37 52	1581.85	36.18	28.90	108.57	127.70	5 4 13	981.9	40.78	20.96
133.49	13 4 2	5343.71	36.19	246.31	108.58	127.68	14 33 6	4743.7	40.79	238.36
46.51	4 37 52	1581.85	36.18	28.90	108.57	127.70	5 4 13	981.9	40.78	20.96
133.49	13 4 2	5343.71	36.19	246.31	108.58	127.68	14 33 6	4743.7	40.79	238.36

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.4311 TRA -.5959 TC3-4.7818 BAU  .9372   SGT 4459.0 SGR  754.7 SG3  210.1     ST  2194.6 SR   568.9 SS   658.9
 RDE  .3781 RRA -.0309 RC3  .6444 FAU .04672   RRT -.8650 RRF -.9388 RTF  .9266     CRT -.9731 CRS  .9996 CST -.9730
 FDE -.7835 FRA  .0668 FC3-2.7838 BSP  14161   SGB 4522.4 R23  .2622 R13 -.9299     LSA 2353.5 MSA  186.9 SSA   12.1
 BDE 1.4802 BRA  .5967 BC3 4.8250 FSP   -668   SG1 4506.9 SG2  374.6 THA 171.61     EL1 2263.6 EL2  127.2 ALF 165.80
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LAUNCH DATE SEP 25 1970 FLIGHT TIME 152.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 447.160

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RL  150.03 LAL   -.00 LOL   1.51 VL  26.798 GAL  -3.80 AZL  93.49 HCA 216.88 SMA 126.27 ECC .19911 INC 3.4922 V1  29.699
RP  108.17 LAP   2.09 LOP 218.34 VP  37.455 GAP   8.02 AZP  87.21 TAL 195.66 TAP  52.54 RCA 101.13 APO 151.42 V2  35.034
RC 139.266 GL  -26.48 GP   33.51 ZAL 110.66 ZAP 141.26 ETS  51.68 ZAE 123.49 ETE 155.62 ZAC 133.95 ETC 256.35 CLP-159.30
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PLANETOCENTRIC CONIC

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C3  13.345 VHL  3.653 DLA -47.73 RAL 240.53 RAD 6567.5 VEL 11.607 PTH   2.03 VHP  6.399 DPA  13.40 RAP 245.89 ECC 1.2196
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.83	5 7 6	1536.59	35.31	23.62	110.43	124.48	5 32 43	936.6	39.54	15.48
130.17	13 11 15	5351.65	35.32	246.32	110.44	124.47	14 40 27	4751.6	39.55	238.18
49.83	5 7 6	1536.59	35.31	23.62	110.43	124.48	5 32 43	936.6	39.54	15.48
130.17	13 11 15	5351.65	35.32	246.32	110.44	124.47	14 40 27	4751.6	39.55	238.18
49.83	5 7 6	1536.59	35.31	23.62	110.43	124.48	5 32 43	936.6	39.54	15.48
130.17	13 11 15	5351.65	35.32	246.32	110.44	124.47	14 40 27	4751.6	39.55	238.18

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.3135 TRA -.4803 TC3-5.3446 BAU  .9604   SGT 4554.7 SGR  718.6 SG3  214.3     ST  2090.6 SR   532.4 SS   594.6
 RDE  .3587 RRA -.0471 RC3  .6452 FAU .04665   RRT -.8591 RRF -.9246 RTF  .9248     CRT -.9747 CRS  .9988 CST -.9668
 FDE -.6812 FRA  .1487 FC3-3.0265 BSP  14471   SGB 4611.1 R23  .2442 R13 -.9275     LSA 2230.5 MSA  180.4 SSA   14.5
 BDE 1.3564 BRA  .4826 BC3 5.5834 FSP   -703   SG1 4596.6 SG2  364.5 THA 172.23     EL1 2154.3 EL2  115.5 ALF 166.02
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LAUNCH DATE SEP 25 1970 FLIGHT TIME 154.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 453.012

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RL  150.03 LAL   -.00 LOL   1.51 VL  26.747 GAL  -3.47 AZL  93.02 HCA 220.07 SMA 125.94 ECC .20031 INC 3.0181 V1  29.699
RP  108.21 LAP   1.94 LOP 221.54 VP  37.405 GAP   8.27 AZP  87.69 TAL 194.13 TAP  54.20 RCA 100.71 APO 151.17 V2  35.021
RC 141.459 GL  -23.46 GP   31.01 ZAL 108.69 ZAP 143.76 ETS  51.24 ZAE 124.29 ETE 157.26 ZAC 131.79 ETC 257.34 CLP-160.23
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PLANETOCENTRIC CONIC

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C3  12.463 VHL  3.530 DLA -45.28 RAL 244.98 RAD 6567.5 VEL 11.569 PTH   2.02 VHP  6.380 DPA  10.50 RAP 247.14 ECC 1.2051
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.07	5 36 32	1492.30	34.24	18.58	112.58	121.65	6 1 24	892.3	38.14	10.33
126.93	13 17 20	5366.54	34.25	246.88	112.58	121.64	14 46 47	4766.5	38.15	238.63
53.07	5 36 32	1492.30	34.24	18.58	112.58	121.65	6 1 24	892.3	38.14	10.33
126.93	13 17 20	5366.54	34.25	246.88	112.58	121.64	14 46 47	4766.5	38.15	238.63
53.07	5 36 32	1492.30	34.24	18.58	112.58	121.65	6 1 24	892.3	38.14	10.33
126.93	13 17 20	5366.54	34.25	246.88	112.58	121.64	14 46 47	4766.5	38.15	238.63

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.1989 TRA -.3591 TC3-5.8601 BAU  .9821   SGT 4646.7 SGR  686.9 SG3  216.2     ST  1965.6 SR   501.8 SS   527.6
 RDE  .3079 RRA -.0614 RC3  .6365 FAU .04604   RRT -.8505 RRF -.9075 RTF  .9236     CRT -.9770 CRS  .9957 CST -.9575
 FDE -.5802 FRA  .2281 FC3-3.1982 BSP  14778   SGB 4697.2 R23  .2230 R13 -.9258     LSA 2088.7 MSA  174.5 SSA   17.5
 BDE 1.2379 BRA  .3643 BC3 5.8945 FSP   -711   SG1 4683.5 SG2  358.4 THA 172.79     EL1 2025.9 EL2  103.7 ALF 165.96
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LAUNCH DATE SEP 25 1970 FLIGHT TIME 156.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 458.849

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RL  150.03 LAL   -.00 LOL   1.51 VL  26.695 GAL  -3.13 AZL  92.60 HCA 223.26 SMA 125.61 ECC .20165 INC 2.6032 V1  29.699
RP  108.25 LAP   1.78 LOP 224.74 VP  37.356 GAP   8.53 AZP  88.10 TAL 192.59 TAP  55.85 RCA 100.28 APO 150.94 V2  35.008
RC 143.643 GL  -20.62 GP   28.82 ZAL 106.38 ZAP 146.02 ETS  50.92 ZAE 124.91 ETE 158.76 ZAC 129.91 ETC 258.22 CLP-161.17
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PLANETOCENTRIC CONIC

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C3  11.813 VHL  3.437 DLA -42.93 RAL 249.34 RAD 6567.5 VEL 11.541 PTH   2.01 VHP  6.392 DPA   7.90 RAP 248.53 ECC 1.1944
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.28	6 6 30	1447.76	33.02	13.68	115.00	119.16	6 30 37	847.8	36.62	5.39
123.72	13 22 11	5388.44	33.03	248.00	115.01	119.15	14 51 59	4788.4	36.62	239.71
56.28	6 6 30	1447.76	33.02	13.68	115.00	119.16	6 30 37	847.8	36.62	5.39
123.72	13 22 11	5388.44	33.03	248.00	115.01	119.15	14 51 59	4788.4	36.62	239.71
56.28	6 6 30	1447.76	33.02	13.68	115.00	119.16	6 30 37	847.8	36.62	5.39
123.72	13 22 11	5388.44	33.03	248.00	115.01	119.15	14 51 59	4788.4	36.62	239.71

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.0858 TRA -.2315 TC3-6.3193 BAU 1.0028   SGT 4735.3 SGR  659.9 SG3  216.5     ST  1821.6 SR   476.4 SS   460.7
 RDE  .2840 RRA -.0744 RC3  .6216 FAU .04505   RRT -.8397 RRF -.8880 RTF  .9228     CRT -.9803 CRS  .9879 CST -.9431
 FDE -.4029 FRA  .3044 FC3-3.3017 BSP  15072   SGB 4781.1 R23  .2001 R13 -.9246     LSA 1930.9 MSA  169.3 SSA   21.0
 BDE 1.1223 BRA  .2432 BC3 6.3498 FSP   -713   SG1 4767.8 SG2  355.9 THA 173.29     EL1 1880.7 EL2   91.2 ALF 165.59
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LAUNCH DATE SEP 25 1970 FLIGHT TIME 158.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 464.671

```
RL  150.03 LAL   -.00 LOL   1.51 VL  26.643 GAL  -2.78 AZL  92.24 HCA 228.45 SMA 125.29 ECC .20314 INC 2.2350 V1  29.699
RP  108.29 LAP   1.62 LOP 227.94 VP  37.307 GAP   8.78 AZP  88.46 TAL 191.03 TAP  57.48 RCA  99.84 APO 150.74 V2  34.995
RC 145.816 GL  -17.94 GP   26.89 ZAL 103.78 ZAP 148.08 ETS  50.73 ZAE 125.39 ETE 160.11 ZAC 128.26 ETC 259.03 CLP-162.11
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PLANETOCENTRIC CONIC

```
C3  11.349 VHL  3.369 DLA -40.65 RAL 253.63 RAD 6567.4 VEL 11.521 PTH   2.01 VHP  6.430 DPA   5.57 RAP 250.05 ECC 1.1868
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.52	6 37 25	1401.50	31.67	8.80	117.68	116.94	7 0 46	801.5	35.00	.51
120.48	13 25 29	5417.99	31.68	249.73	117.69	116.93	14 55 47	4818.0	35.01	241.43
59.52	6 37 25	1401.50	31.67	8.80	117.68	116.94	7 0 46	801.5	35.00	.51
120.48	13 25 29	5417.99	31.68	249.73	117.69	116.93	14 55 47	4818.0	35.01	241.43
59.52	6 37 25	1401.50	31.67	8.80	117.68	116.94	7 0 46	801.5	35.00	.51
120.48	13 25 29	5417.99	31.68	249.73	117.69	116.93	14 55 47	4818.0	35.01	241.43

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.9710 TRA -.0963 TC3-6.7105 BAU 1.0222   SGT 4818.3 SGR  636.9 SG3  215.4     ST  1658.3 SR   454.9 SS   395.5
 RDE  .2652 RRA -.0868 RC3  .6019 FAU .04376   RRT -.8265 RRF -.8662 RTF  .9223    CRT -.9845 CRS  .9696 CST -.9192
 FDE -.3890 FRA  .3781 FC3-3.3381 BSP  15338   SGB 4860.2 RZS  .1770 RIS -.9238   LSA 1756.6 MSA  165.2 SSA   25.2
 BDE 1.0066 BRA  .1296 BC3 6.7375 FSP   -709   SG1 4847.1 SG2  356.4 THA 173.73   EL1 1717.9 EL2   77.1 ALF 164.86
```

LAUNCH DATE SEP 25 1970 FLIGHT TIME 160.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 470.477

```
RL  150.03 LAL   -.00 LOL   1.51 VL  26.592 GAL  -2.41 AZL  91.90 HCA 229.64 SMA 124.97 ECC .20478 INC 1.9042 V1  29.699
RP  108.33 LAP   1.45 LOP 231.14 VP  37.258 GAP   9.03 AZP  88.77 TAL 189.46 TAP  59.09 RCA  99.38 APO 150.56 V2  34.982
RC 147.979 GL  -15.41 GP   25.18 ZAL 100.95 ZAP 149.96 ETS  50.66 ZAE 125.78 ETE 161.32 ZAC 126.81 ETC 259.78 CLP-163.05
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PLANETOCENTRIC CONIC

```
C3  11.041 VHL  3.323 DLA -38.44 RAL 257.85 RAD 6567.4 VEL 11.508 PTH   2.00 VHP  6.487 DPA   3.47 RAP 251.69 ECC 1.1817
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.84	7 9 47	1351.68	30.23	3.80	120.59	114.96	7 32 19	751.7	33.32	355.53
117.16	13 26 47	5456.47	30.24	252.15	120.59	114.95	14 57 43	4856.5	33.33	243.88
62.84	7 9 47	1351.68	30.23	3.80	120.59	114.96	7 32 19	751.7	33.32	355.53
117.16	13 26 47	5456.47	30.24	252.15	120.59	114.95	14 57 43	4856.5	33.33	243.88
62.84	7 9 47	1351.68	30.23	3.80	120.59	114.96	7 32 19	751.7	33.32	355.53
117.16	13 26 47	5456.47	30.24	252.15	120.59	114.95	14 57 43	4856.5	33.33	243.88

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.8553 TRA  .0451 TC3-7.0266 BAU 1.0407   SGT 4898.0 SGR  617.8 SG3  213.1     ST  1481.8 SR   437.2 SS   336.3
 RDE  .2506 RRA -.0984 RC3  .5787 FAU .04225   RRT -.8113 RRF -.8426 RTF  .9222    CRT -.9894 CRS  .9297 CST -.8797
 FDE -.3005 FRA  .4472 FC3-3.3130 BSP  15615   SGB 4936.9 RZS  .1545 RIS -.9234   LSA 1572.4 MSA  163.0 SSA   30.2
 BDE  .8913 BRA  .1083 BC3 7.0504 FSP   -704   SG1 4923.8 SG2  359.3 THA 174.13   EL1 1543.7 EL2   61.0 ALF 163.70
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LAUNCH DATE SEP 25 1970 FLIGHT TIME 162.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 476.266

```
RL  150.03 LAL   -.00 LOL   1.51 VL  26.541 GAL  -2.04 AZL  91.60 HCA 232.82 SMA 124.65 ECC .20658 INC 1.6034 V1  29.699
RP  108.37 LAP   1.28 LOP 234.33 VP  37.210 GAP   9.29 AZP  89.03 TAL 187.87 TAP  60.69 RCA  98.90 APO 150.40 V2  34.969
RC 150.132 GL  -13.01 GP   23.67 ZAL  97.92 ZAP 151.68 ETS  50.72 ZAE 126.08 ETE 162.40 ZAC 125.52 ETC 260.49 CLP-163.98
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PLANETOCENTRIC CONIC

```
C3  10.872 VHL  3.297 DLA -36.27 RAL 262.00 RAD 6567.4 VEL 11.500 PTH   2.00 VHP  6.562 DPA   1.58 RAP 253.42 ECC 1.1789
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
66.33	7 44 15	1296.07	28.71	358.49	123.69	113.18	8 5 51	696.1	31.59	350.27
113.67	13 25 25	5505.74	28.72	255.38	123.69	113.16	14 57 11	4905.7	31.60	247.16
66.33	7 44 15	1296.07	28.71	358.49	123.69	113.18	8 5 51	696.1	31.59	350.27
113.67	13 25 25	5505.74	28.72	255.38	123.69	113.16	14 57 11	4905.7	31.60	247.16
66.33	7 44 15	1296.07	28.71	358.49	123.69	113.18	8 5 51	696.1	31.59	350.27
113.67	13 25 25	5505.74	28.72	255.38	123.69	113.16	14 57 11	4905.7	31.60	247.16

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.7328 TRA  .1980 TC3-7.2462 BAU 1.0563   SGT 4963.7 SGR  600.6 SG3  209.7     ST  1287.8 SR   421.0 SS   285.4
 RDE  .2387 RRA -.1107 RC3  .5505 FAU .04046   RRT -.7932 RRF -.8169 RTF  .9215    CRT -.9939 CRS  .8427 CST -.8095
 FDE -.2137 FRA  .5162 FC3-3.2216 BSP  15776   SGB 4999.9 RZS  .1347 RIS -.9224   LSA 1374.1 MSA  165.8 SSA   35.7
 BDE  .7707 BRA  .2269 BC3 7.2671 FSP   -688   SG1 4986.6 SG2  364.0 THA 174.49   EL1 1354.1 EL2   44.3 ALF 161.98
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LAUNCH DATE SEP 25 1970 FLIGHT TIME 164.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 482.036

```
RL  150.03 LAL   -.00 LOL   1.51 VL  26.491 GAL  -1.65 AZL  91.33 HCA 236.01 SMA 124.34 ECC .20856 INC 1.3272 V1  29.699
RP  108.41 LAP   1.10 LOP 237.52 VP  37.162 GAP   9.55 AZP  89.26 TAL 186.27 TAP  62.28 RCA  98.40 APO 150.27 V2  34.956
RC 152.275 GL  -10.74 GP   22.32 ZAL  94.74 ZAP 153.26 ETS  50.92 ZAE 126.32 ETE 163.37 ZAC 124.39 ETC 261.18 CLP-164.89
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PLANETOCENTRIC CONIC

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C3  10.830 VHL  3.291 DLA -34.14 RAL 266.07 RAD 6567.4 VEL 11.499 PTH   2.00 VHP  6.651 DPA   -.12 RAP 255.24 ECC 1.1782
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
70.08	8 21 54	1230.83	27.13	352.59	126.95	111.56	8 42 25	630.8	29.81	344.43
109.92	13 20 14	5569.41	27.15	259.68	126.96	111.55	14 53 3	4969.4	29.82	251.52
70.08	8 21 54	1230.83	27.13	352.59	126.95	111.56	8 42 25	630.8	29.81	344.43
109.92	13 20 14	5569.41	27.15	259.68	126.96	111.55	14 53 3	4969.4	29.82	251.52
110.00	13 7 32	5608.11	26.14	262.25	126.50	112.85	14 41 0	5008.1	29.00	254.23
110.00	13 33 46	5528.17	28.14	256.89	127.39	110.25	15 5 54	4928.2	30.64	248.58

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.6103 TRA  .3557 TC3-7.3883 BAU 1.0724   SGT 5033.6 SGR  587.5 SG3  205.9     ST  1095.7 SR   408.3 SS   252.3
 RDE  .2302 RRA -.1223 RC3  .5226 FAU .03868   RRT -.7747 RRF -.7911 RTF  .9217    CRT -.9940 CRS  .6874 CST -.7092
 FDE -.1353 FRA  .5790 FC3-3.0918 BSP  16003   SGB 5067.7 RZS  .1156 RIS -.9225   LSA 1182.4 MSA  176.6 SSA   40.6
 BDE  .6523 BRA  .3761 BC3 7.4068 FSP   -676   SG1 5054.2 SG2  369.9 THA 174.81   EL1 1168.6 EL2   41.9 ALF 159.65
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LAUNCH DATE SEP 25 1970 FLIGHT TIME 166.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 487.788

RL	150.03	LAL	-.00	LOL	1.51	VL	26.441	GAL	-1.24	AZL	91.07	HCA	239.19	SMA	124.03	ECC	.21073	INC	1.0712
RP	108.45	LAP	.92	LOP	240.70	VP	37.114	GAP	9.82	AZP	89.45	TAL	184.66	TAP	63.86	RCA	97.89	APO	150.16
RC	154.408	GL	-8.61	GP	21.12	ZAL	91.46	ZAP	154.72	ETS	51.26	ZAE	126.51	ETE	164.23	ZAC	123.37	ETC	261.85

V1	29.699	V2	34.943	CLP	-165.79														

PLANETOCENTRIC CONIC

C3	10.910	VHL	3.303	DLA	-32.05	RAL	270.04	RAD	6567.4	VEL	11.502	PTH	2.00	VHP	6.753	DPA	-1.65	RAP	257.15

ECC	1.1796	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		74.33	9 4 46	1148.98	25.51	345.60	130.36	110.09	9 23 55	549.0	28.01	337.50							
		105.67	13 9 5	5654.27	25.52	265.53	130.37	110.07	14 43 20	5054.3	28.02	257.43							
		74.33	9 4 46	1148.98	25.51	345.60	130.36	110.09	9 23 55	549.0	28.01	337.50							
		105.67	13 9 5	5654.27	25.52	265.53	130.37	110.07	14 43 20	5054.3	28.02	257.43							
		110.00	12 5 31	5851.47	18.84	277.35	127.07	119.06	13 43 2	5251.5	22.57	270.20							
		110.00	15 7 32	5287.80	32.59	239.62	132.61	100.94	16 35 39	4687.8	33.75	230.57							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4842	TRA	.5205	TC3	-7.4460	BAU	1.0885	SGT	5102.5	SGR	576.9	SG3	201.9	ST	910.6	SR	397.4	SS	239.4
RDE	.2241	RRA	-.1339	RC3	.4944	FAU	.03691	RRT	-.7558	RRF	-.7651	RTF	.9224	CRT	-.9786	CRS	.4567	CST	-.5991
FDE	-.0618	FRA	.6381	FC3	-2.9289	BSP	16235	SGB	5135.0	RZS	.0979	RIS	-.9231	LSA	1000.7	MSA	202.9	SSA	43.3
BDE	.5335	BRA	.5374	BC3	7.4624	FSP	-664	SG1	5121.2	SG2	376.3	THA	175.09	EL1	990.7	EL2	75.1	ALF	156.73

LAUNCH DATE SEP 25 1970 FLIGHT TIME 168.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 493.518

RL	150.03	LAL	-.00	LOL	1.51	VL	26.391	GAL	-.82	AZL	90.83	HCA	242.38	SMA	123.72	ECC	.21310	INC	.8317
RP	108.49	LAP	.74	LOP	243.89	VP	37.067	GAP	10.09	AZP	89.61	TAL	183.04	TAP	65.42	RCA	97.36	APO	150.09
RC	156.530	GL	-6.60	GP	20.05	ZAL	88.11	ZAP	156.08	ETS	51.75	ZAE	126.67	ETE	165.01	ZAC	122.46	ETC	262.51

V1	29.699	V2	34.931	CLP	-166.67														

PLANETOCENTRIC CONIC

C3	11.110	VHL	3.333	DLA	-30.00	RAL	273.92	RAD	6567.4	VEL	11.511	PTH	2.01	VHP	6.867	DPA	-3.04	RAP	259.12

ECC	1.1828	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		79.67	9 58 24	1032.10	23.86	336.17	133.89	108.74	10 15 37	432.1	26.19	328.14							
		100.33	12 46 21	5778.60	23.87	274.24	133.90	108.73	14 22 39	5178.6	26.20	266.21							
		79.67	9 58 24	1032.10	23.86	336.17	133.89	108.74	10 15 37	432.1	26.19	328.14							
		100.33	12 46 21	5778.60	23.87	274.24	133.90	108.73	14 22 39	5178.6	26.20	266.21							
		110.00	11 45 8	684.10	14.71	306.36	129.38	121.21	11 56 33	84.1	18.74	299.56							
		110.00	15 58 47	5174.60	33.72	230.98	136.35	95.96	17 25 2	4574.6	34.18	221.77							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.3652	TRA	.6039	TC3	-7.4500	BAU	1.1088	SGT	5186.8	SGR	570.5	SG3	198.0	ST	763.0	SR	390.5	SS	245.2
RDE	.2215	RRA	-.1445	RC3	.4700	FAU	.03542	RRT	-.7383	RRF	-.7416	RTF	.9251	CRT	-.9246	CRS	.2291	CST	-.5614
FDE	-.0019	FRA	.6879	FC3	-2.7603	BSP	16726	SGB	5218.1	RZS	.0813	RIS	-.9256	LSA	856.1	MSA	245.3	SSA	43.0
BDE	.4272	BRA	.6990	BC3	7.4648	FSP	-670	SG1	5203.9	SG2	383.5	THA	175.33	EL1	846.6	EL2	134.1	ALF	153.97

LAUNCH DATE SEP 25 1970 FLIGHT TIME 170.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 499.229

RL	150.03	LAL	-.00	LOL	1.51	VL	26.342	GAL	-.39	AZL	90.61	HCA	245.56	SMA	123.42	ECC	.21568	INC	.6060
RP	108.53	LAP	.55	LOP	247.07	VP	37.020	GAP	10.37	AZP	89.75	TAL	181.41	TAP	66.97	RCA	96.80	APO	150.04
RC	158.641	GL	-4.73	GP	19.09	ZAL	84.73	ZAP	157.33	ETS	52.38	ZAE	126.80	ETE	165.70	ZAC	121.63	ETC	263.16

V1	29.699	V2	34.919	CLP	-167.54														

PLANETOCENTRIC CONIC

C3	11.431	VHL	3.381	DLA	-27.99	RAL	277.68	RAD	6567.4	VEL	11.525	PTH	2.01	VHP	6.992	DPA	-4.29	RAP	261.16

ECC	1.1881	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	10 59 34	890.05	19.69	324.13	136.59	110.77	11 14 24	290.0	22.34	316.46							
		90.00	12 15 11	644.41	24.75	307.92	138.31	104.21	12 25 56	44.4	26.47	299.67							
		100.00	11 29 22	793.70	16.16	315.48	135.00	115.49	11 42 35	193.7	19.46	308.24							
		100.00	14 28 5	5504.03	28.51	255.18	139.19	99.39	15 59 49	4904.0	29.51	246.52							
		110.00	11 33 21	781.14	11.22	311.71	132.19	122.50	11 46 22	181.1	15.43	305.14							
		110.00	16 40 34	5089.35	34.13	224.36	139.85	92.06	18 5 24	4489.4	34.04	215.11							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.2240	TRA	.8732	TC3	-7.3039	BAU	1.1182	SGT	5229.3	SGR	560.9	SG3	192.7	ST	647.1	SR	380.6	SS	270.0
RDE	.2181	RRA	-.1576	RC3	.4350	FAU	.03331	RRT	-.7160	RRF	-.7142	RTF	.9246	CRT	-.7600	CRS	-.0128	CST	-.6250
FDE	.0665	FRA	.7461	FC3	-2.5226	BSP	16691	SGB	5259.3	RZS	.0695	RIS	-.9250	LSA	730.9	MSA	317.3	SSA	40.0
BDE	.3126	BRA	.8873	BC3	7.3168	FSP	-639	SG1	5244.7	SG2	390.4	THA	175.58	EL1	716.7	EL2	223.4	ALF	153.09

LAUNCH DATE SEP 25 1970 FLIGHT TIME 172.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 504.916

RL	150.03	LAL	-.00	LOL	1.51	VL	26.293	GAL	.06	AZL	90.39	HCA	248.73	SMA	123.13	ECC	.21850	INC	.3914
RP	108.56	LAP	.37	LOP	250.25	VP	36.975	GAP	10.66	AZP	89.86	TAL	179.78	TAP	68.51	RCA	96.23	APO	150.03
RC	160.740	GL	-2.99	GP	18.22	ZAL	81.36	ZAP	158.51	ETS	53.17	ZAE	126.91	ETE	166.32	ZAC	120.88	ETC	263.81

V1	29.699	V2	34.907	CLP	-168.40														

PLANETOCENTRIC CONIC

C3	11.879	VHL	3.447	DLA	-26.03	RAL	281.31	RAD	6567.5	VEL	11.544	PTH	2.01	VHP	7.128	DPA	-5.41	RAP	263.25

ECC	1.1955	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	10 12 16	1102.67	14.05	337.18	138.67	114.84	10 30 38	502.7	17.28	330.00							
		90.00	13 31 28	5735.86	27.32	272.02	142.81	97.76	15 7 4	5135.9	28.11	263.44							
		100.00	11 6 17	928.22	12.06	323.36	137.67	117.56	11 21 45	328.2	15.66	316.42							
		100.00	15 20 8	5385.55	29.52	246.52	143.09	94.94	16 49 54	4785.5	29.89	237.74							
		110.00	11 25 54	866.69	8.05	316.31	135.28	123.33	11 40 20	266.7	12.38	309.89							
		110.00	17 17 1	5019.84	34.17	218.95	143.27	88.85	18 40 41	4419.8	33.63	209.73							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0779	TRA	1.0746	TC3	-7.0828	BAU	1.1266	SGT	5273.1	SGR	552.3	SG3	187.6	ST	627.7	SR	370.9	SS	311.2
RDE	.2154	RRA	-.1730	RC3	.3952	FAU	.03087	RRT	-.6912	RRF	-.6870	RTF	.9198	CRT	-.4505	CRS	-.1936	CST	-.7782
FDE	.1343	FRA	.8123	FC3	-2.2496	BSP	16751	SGB	5302.0	RZS	.0658	RIS	-.9202	LSA	693.6	MSA	382.0	SSA	36.9
BDE	.2291	BRA	1.0884	BC3	7.0938	FSP	-611	SG1	5287.0	SG2	398.0	THA	175.84	EL1	656.8	EL2	316.4	ALF	160.36

LAUNCH DATE SEP 25 1970 FLIGHT TIME 174.00 ARRIVAL DATE MAR 18 1971

HELIOCENTRIC CONIC DISTANCE 510.578

RL 150.03 LAL -.00 LOL 1.51 VL 26.244 GAL .53 AZL 90.19 HCA 251.91 SMA 122.84 ECC .22156 INC .1860 V1 29.699
RP 108.60 LAP .18 LOP 253.42 VP 36.929 GAP 10.96 AZP 89.94 TAL 178.13 TAP 70.04 RCA 95.62 APO 150.05 V2 34.896
RC 162.826 GL -1.39 GP 17.44 ZAL 78.03 ZAP 159.60 ETS 54.12 ZAE 127.00 ETE 166.88 ZAC 120.19 ETC 264.46 CLP-169.25

PLANETOCENTRIC CONIC

C3 12.459 VHL 3.530 DLA -24.14 RAL 284.81 RAD 6567.5 VEL 11.569 PTH 2.02 VHP 7.275 DPA -6.42 RAP 265.39 ECC 1.2050

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 51 16	1232.57	10.21	344.79	141.56	116.56	10 11 48	632.6	13.69	337.84
90.00	14 20 22	5626.14	28.08	264.08	146.67	93.85	15 54 8	5026.1	28.31	255.43
100.00	10 52 27	1035.02	8.63	329.43	140.72	118.73	11 9 42	435.0	12.40	322.67
100.00	16 1 52	5298.92	29.85	240.10	146.77	91.58	17 30 11	4698.9	29.75	231.30
110.00	11 21 5	945.27	5.09	320.47	136.55	123.85	11 36 50	345.3	9.50	314.16
110.00	17 49 44	4961.44	33.99	214.38	146.67	86.16	19 12 25	4361.4	33.09	205.26

DIFFERENTIAL CORRECTIONS
TDE .0605 TRA 1.2677 TC3-6.8413 BAU 1.1412
RDE .2168 RRA -.1838 RC3 .3701 FAU .02948
FDE .1848 FRA .8507 FC3-2.0486 BSP 17028
BDE .2251 BRA 1.2810 BC3 6.8513 FSP -607

MID-COURSE EXECUTION ACCURACY
SGT 5331.0 SGR 546.8 SG3 182.7
RRT -.6740 RRF -.6634 RTF .9249
SGB 5359.0 RZ3 .0494 R13 -.9252
SG1 5343.8 SG2 403.0 THA 176.02

ORBIT DETERMINATION ACCURACY
ST 698.8 SR 365.4 SS 343.1
CRT -.1289 CRS -.3042 CST -.8989
LSA 766.6 MSA 388.3 SSA 32.6
EL1 700.9 EL2 361.2 ALF 174.75

LAUNCH DATE SEP 25 1970 FLIGHT TIME 176.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 516.213

RL 150.03 LAL -.00 LOL 1.51 VL 26.196 GAL 1.02 AZL 89.99 HCA 255.09 SMA 122.55 ECC .22489 INC .0000 V1 29.699
RP 108.63 LAP -.01 LOP 256.60 VP 36.885 GAP 11.27 AZP 90.00 TAL 176.48 TAP 71.57 RCA 94.99 APO 150.11 V2 34.885
RC 164.900 GL .08 GP 16.73 ZAL 74.75 ZAP 160.62 ETS 55.24 ZAE 127.08 ETE 167.39 ZAC 119.55 ETC 265.11 CLP-170.08

PLANETOCENTRIC CONIC

C3 13.181 VHL 3.631 DLA -22.31 RAL 288.16 RAD 6567.5 VEL 11.600 PTH 2.03 VHP 7.433 DPA -7.32 RAP 267.58 ECC 1.2169

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 38 2	1338.61	6.92	350.84	144.74	117.53	10 0 21	738.6	10.56	344.05
90.00	15 0 22	5544.29	28.30	258.11	150.38	90.86	16 32 46	4944.3	28.12	249.45
100.00	10 43 13	1128.26	5.54	334.63	143.99	119.42	11 2 1	528.3	9.42	327.99
100.00	16 37 53	5229.87	29.87	234.97	150.38	88.88	18 5 2	4629.9	29.40	226.20
110.00	11 18 2	1019.07	2.28	324.34	141.97	124.12	11 35 2	419.1	6.74	318.09
110.00	18 19 38	4911.83	33.70	210.53	150.09	83.90	19 41 24	4311.8	32.49	201.51

DIFFERENTIAL CORRECTIONS
TDE .2048 TRA 1.4779 TC3-6.5298 BAU 1.1523
RDE .2189 RRA -.1970 RC3 .3394 FAU .02773
FDE .2341 FRA .8987 FC3-1.8210 BSP 17216
BDE .2998 BRA 1.4910 BC3 6.5386 FSP -595

MID-COURSE EXECUTION ACCURACY
SGT 5379.7 SGR 541.3 SG3 177.8
RRT -.6539 RRF -.6405 RTF .9262
SGB 5406.9 RZ3 .0414 R13 -.9264
SG1 5391.4 SG2 408.6 THA 176.21

ORBIT DETERMINATION ACCURACY
ST 834.7 SR 359.9 SS 379.8
CRT .1143 CRS -.3805 CST -.9582
LSA 913.8 MSA 367.0 SSA 29.3
EL1 835.9 EL2 357.0 ALF 3.45

LAUNCH DATE SEP 25 1970 FLIGHT TIME 178.00 ARRIVAL DATE MAR 22 1971

HELIOCENTRIC CONIC DISTANCE 521.819

RL 150.03 LAL -.00 LOL 1.51 VL 26.148 GAL 1.53 AZL 89.80 HCA 258.26 SMA 122.27 ECC .22852 INC .2029 V1 29.699
RP 108.66 LAP -.20 LOP 259.77 VP 36.841 GAP 11.59 AZP 90.04 TAL 174.83 TAP 73.09 RCA 94.33 APO 150.21 V2 34.874
RC 166.961 GL 1.42 GP 16.09 ZAL 71.56 ZAP 161.58 ETS 56.54 ZAE 127.15 ETE 167.84 ZAC 118.95 ETC 265.76 CLP-170.90

PLANETOCENTRIC CONIC

C3 14.058 VHL 3.749 DLA -20.56 RAL 291.37 RAD 6567.6 VEL 11.638 PTH 2.04 VHP 7.603 DPA -8.11 RAP 269.81 ECC 1.2314

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 28 55	1432.07	3.95	356.11	148.11	118.06	9 52 47	832.1	7.68	349.41
90.00	15 35 5	5478.93	28.28	253.33	154.03	88.46	17 6 24	4878.9	27.77	244.70
100.00	10 36 46	1213.13	2.69	339.32	147.41	119.78	10 56 59	613.1	6.63	332.75
100.00	17 9 55	5173.10	29.72	230.76	153.96	86.67	18 36 9	4573.1	28.94	222.04
110.00	11 16 16	1089.32	-.40	328.00	145.48	124.18	11 34 25	489.3	4.08	321.79
110.00	18 46 54	4869.67	33.35	207.29	153.54	82.01	20 8 4	4269.7	31.88	198.37

DIFFERENTIAL CORRECTIONS
TDE .3546 TRA 1.6875 TC3-6.1753 BAU 1.1620
RDE .2219 RRA -.2104 RC3 .3090 FAU .02599
FDE .2814 FRA .9448 FC3-1.6006 BSP 17306
BDE .4183 BRA 1.7105 BC3 6.1831 FSP -581

MID-COURSE EXECUTION ACCURACY
SGT 5423.4 SGR 535.4 SG3 172.9
RRT -.6339 RRF -.6177 RTF .9274
SGB 5449.7 RZ3 .0342 R13 -.9275
SG1 5434.0 SG2 413.2 THA 176.40

ORBIT DETERMINATION ACCURACY
ST 1001.9 SR 354.5 SS 415.6
CRT .2737 CRS -.4367 CST -.9822
LSA 1087.9 MSA 343.3 SSA 26.5
EL1 1007.2 EL2 339.2 ALF 6.24

LAUNCH DATE SEP 25 1970 FLIGHT TIME 180.00 ARRIVAL DATE MAR 24 1971

HELIOCENTRIC CONIC DISTANCE 527.380

RL 150.03 LAL -.00 LOL 1.51 VL 26.101 GAL 2.06 AZL 89.61 HCA 261.43 SMA 121.99 ECC .23246 INC .3906 V1 29.699
RP 108.69 LAP -.39 LOP 262.94 VP 36.798 GAP 11.92 AZP 90.06 TAL 173.18 TAP 74.61 RCA 93.64 APO 150.35 V2 34.864
RC 169.007 GL 2.62 GP 15.51 ZAL 68.48 ZAP 162.47 ETS 58.04 ZAE 127.20 ETE 168.26 ZAC 118.39 ETC 266.41 CLP-171.72

PLANETOCENTRIC CONIC

C3 15.102 VHL 3.886 DLA -18.88 RAL 294.43 RAD 6567.6 VEL 11.683 PTH 2.05 VHP 7.785 DPA -8.81 RAP 272.07 ECC 1.2485

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 22 23	1517.42	1.21	.88	151.60	118.29	9 47 40	917.4	4.98	354.23
90.00	16 6 1	5425.43	28.12	249.42	157.65	86.51	17 36 26	4825.4	27.34	240.84
100.00	10 32 11	1292.15	.01	343.65	150.93	119.89	10 53 43	692.1	3.99	337.12
100.00	17 38 53	5125.93	29.49	227.27	157.53	84.85	19 4 19	4525.9	28.46	218.62
110.00	11 15 24	1156.73	-2.98	331.52	149.06	124.07	11 34 41	556.7	1.51	325.31
110.00	19 12 10	4834.11	32.98	204.58	157.01	80.45	20 32 44	4234.1	31.31	195.76

DIFFERENTIAL CORRECTIONS
TDE .4936 TRA 1.9138 TC3-5.8275 BAU 1.1780
RDE .2277 RRA -.2225 RC3 .2830 FAU .02465
FDE .3173 FRA .9822 FC3-1.4128 BSP 17866
BDE .5436 BRA 1.9267 BC3 5.8343 FSP -582

MID-COURSE EXECUTION ACCURACY
SGT 5471.5 SGR 530.4 SG3 167.7
RRT -.6154 RRF -.5976 RTF .9302
SGB 5497.1 RZ3 .0277 R13 -.9303
SG1 5481.3 SG2 417.3 THA 176.57

ORBIT DETERMINATION ACCURACY
ST 1161.2 SR 351.5 SS 441.4
CRT .3684 CRS -.4727 CST -.9916
LSA 1248.9 MSA 326.4 SSA 24.1
EL1 1169.0 EL2 324.6 ALF 6.90

LAUNCH DATE SEP 25 1970 FLIGHT TIME 182.00 ARRIVAL DATE MAR 26 1971

HELIOCENTRIC CONIC DISTANCE 532.930

RL 150.03 LAL -.00 LOL 1.51 VL 26.055 GAL 2.61 AZL 89.42 HCA 264.60 SMA 121.72 ECC .23675 INC .5750 V1 29.699
RP 108.72 LAP -.57 LOP 266.11 VP 36.756 GAP 12.27 AZP 90.05 TAL 171.52 TAP 76.12 RCA 92.90 APO 150.54 V2 34.855
RC 171.039 GL 3.71 GP 14.98 ZAL 65.50 ZAP 163.30 ETS 59.74 ZAE 127.25 ETE 168.63 ZAC 117.85 ETC 267.05 CLP-172.52

PLANETOCENTRIC CONIC

C3 16.333 VHL 4.041 DLA -17.30 RAL 297.34 RAD 6567.7 VEL 11.735 PTH 2.07 VHP 7.980 DPA -9.42 RAP 274.37 ECC 1.2688

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 17 37	1596.99	-1.36	5.31	155.17	118.29	9 44 14	997.0	2.43	358.69
90.00	16 33 59	5381.29	27.89	246.21	161.27	84.92	18 3 41	4781.3	26.90	237.69
100.00	10 28 58	1366.76	-2.52	347.75	154.53	119.80	10 51 45	766.8	1.46	341.23
100.00	18 5 19	5086.76	29.21	224.39	161.12	83.36	19 30 6	4486.8	27.99	215.80
110.00	11 15 15	1221.81	-5.45	334.93	152.71	123.80	11 35 36	621.8	-.98	328.71
110.00	19 35 33	4804.48	32.62	202.34	160.51	79.17	20 55 37	4204.5	30.78	193.61

DIFFERENTIAL CORRECTIONS
TDE .6618 TRA 2.1666 TC3-5.3927 BAU 1.1788
RDE .2321 RRA -.2372 RC3 .2510 FAU .02267
FDE .3644 FRA 1.0327 FC3-1.2016 BSP 17743
BDE .7013 BRA 2.1795 BC3 5.3986 FSP -555

MID-COURSE EXECUTION ACCURACY
SGT 5498.1 SGR 522.9 SG3 163.1
RRT -.5943 RRF -.5747 RTF .9301
SGB 5522.9 R23 .0232 R13 -.9303
SG1 5506.9 SG2 419.9 THA 176.75

ORBIT DETERMINATION ACCURACY
ST 1352.4 SR 345.6 SS 477.4
CRT .4406 CRS -.5065 CST -.9959
LSA 1442.3 MSA 309.0 SSA 22.3
EL1 1361.4 EL2 308.2 ALF 6.77

LAUNCH DATE SEP 25 1970 FLIGHT TIME 184.00 ARRIVAL DATE MAR 28 1971

HELIOCENTRIC CONIC DISTANCE 538.428

RL 150.03 LAL -.00 LOL 1.51 VL 26.009 GAL 3.19 AZL 89.24 HCA 267.77 SMA 121.46 ECC .24142 INC .7573 V1 29.699
RP 108.75 LAP -.76 LOP 269.28 VP 36.715 GAP 12.64 AZP 90.03 TAL 169.86 TAP 77.63 RCA 92.13 APO 150.78 V2 34.846
RC 173.056 GL 4.67 GP 14.49 ZAL 62.65 ZAP 164.07 ETS 61.66 ZAE 127.29 ETE 168.97 ZAC 117.34 ETC 267.70 CLP-173.33

PLANETOCENTRIC CONIC

C3 17.770 VHL 4.215 DLA -15.80 RAL 300.10 RAD 6567.7 VEL 11.796 PTH 2.09 VHP 8.189 DPA -9.95 RAP 276.69 ECC 1.2925

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 14 9	1672.11	-3.78	9.51	158.82	118.08	9 42 1	1072.1	.01	2.88
90.00	16 59 30	5345.05	27.65	243.59	164.89	83.63	18 28 35	4745.1	26.48	235.12
100.00	10 26 46	1437.83	-4.92	351.66	158.19	119.52	10 50 43	837.8	-.95	345.12
100.00	18 29 34	5054.56	28.94	222.04	164.71	82.15	19 53 49	4454.6	27.55	213.51
110.00	11 15 36	1284.84	-7.83	338.27	156.40	123.38	11 37 1	684.8	-3.38	332.00
110.00	19 57 13	4780.31	32.30	200.53	164.03	78.14	21 16 54	4180.3	30.33	191.87

DIFFERENTIAL CORRECTIONS
TDE .8254 TRA 2.4224 TC3-4.9736 BAU 1.1828
RDE .2385 RRA -.2510 RC3 .2228 FAU .02097
FDE .4040 FRA 1.0781 FC3-1.0216 BSP 17806
BDE .8592 BRA 2.4354 BC3 4.9786 FSP -537

MID-COURSE EXECUTION ACCURACY
SGT 5527.2 SGR 515.8 SG3 158.4
RRT -.5742 RRF -.5536 RTF .9313
SGB 5551.2 R23 .0193 R13 -.9313
SG1 5535.2 SG2 421.7 THA 176.92

ORBIT DETERMINATION ACCURACY
ST 1525.8 SR 341.2 SS 505.7
CRT .4875 CRS -.5301 CST -.9978
LSA 1616.2 MSA 296.4 SSA 20.7
EL1 1535.2 EL2 296.1 ALF 6.46

LAUNCH DATE SEP 25 1970 FLIGHT TIME 186.00 ARRIVAL DATE MAR 30 1971

HELIOCENTRIC CONIC DISTANCE 543.882

RL 150.03 LAL -.00 LOL 1.51 VL 25.963 GAL 3.80 AZL 89.06 HCA 270.93 SMA 121.19 ECC .24650 INC .9386 V1 29.699
RP 108.78 LAP -.94 LOP 272.45 VP 36.675 GAP 13.03 AZP 89.98 TAL 168.21 TAP 79.14 RCA 91.32 APO 151.07 V2 34.837
RC 175.059 GL 5.52 GP 14.05 ZAL 59.93 ZAP 164.79 ETS 63.80 ZAE 127.32 ETE 169.29 ZAC 116.85 ETC 268.35 CLP-174.12

PLANETOCENTRIC CONIC

C3 19.439 VHL 4.409 DLA -14.39 RAL 302.72 RAD 6567.8 VEL 11.867 PTH 2.11 VHP 8.413 DPA -10.39 RAP 279.02 ECC 1.3199

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 11 39	1743.63	-6.06	13.53	162.51	117.71	9 40 42	1143.6	-2.30	6.87
90.00	17 22 52	5315.66	27.41	241.47	168.51	82.59	18 51 28	4715.7	26.10	233.05
100.00	10 25 18	1505.97	-7.19	355.45	161.89	119.09	10 50 24	906.0	-3.25	348.87
100.00	18 51 54	5028.55	28.68	220.15	168.31	81.19	20 15 42	4428.5	27.16	211.67
110.00	11 16 21	1346.08	-10.11	341.55	160.12	122.83	11 38 47	746.1	-5.71	335.22
110.00	20 17 21	4761.20	32.02	199.11	167.57	77.34	21 36 42	4161.2	29.95	190.51

DIFFERENTIAL CORRECTIONS
TDE .9908 TRA 2.6885 TC3-4.5600 BAU 1.1861
RDE .2462 RRA -.2843 RC3 .1966 FAU .01937
FDE .4403 FRA 1.1216 FC3 -.8628 BSP 17914
BDE 1.0210 BRA 2.7014 BC3 4.5642 FSP -523

MID-COURSE EXECUTION ACCURACY
SGT 5553.0 SGR 508.1 SG3 153.8
RRT -.5543 RRF -.5331 RTF .9328
SGB 5576.2 R23 .0157 R13 -.9329
SG1 5560.2 SG2 422.3 THA 177.08

ORBIT DETERMINATION ACCURACY
ST 1686.2 SR 337.2 SS 530.0
CRT .5210 CRS -.5488 CST -.9987
LSA 1776.4 MSA 286.3 SSA 19.3
EL1 1695.6 EL2 286.2 ALF 6.12

LAUNCH DATE SEP 25 1970 FLIGHT TIME 188.00 ARRIVAL DATE APR 1 1971

HELIOCENTRIC CONIC DISTANCE 549.286

RL 150.03 LAL -.00 LOL 1.51 VL 25.918 GAL 4.44 AZL 88.88 HCA 274.10 SMA 120.94 ECC .25204 INC 1.1203 V1 29.699
RP 108.80 LAP -1.12 LOP 275.61 VP 36.635 GAP 13.44 AZP 89.92 TAL 166.56 TAP 80.66 RCA 90.46 APO 151.42 V2 34.829
RC 177.047 GL 6.27 GP 13.65 ZAL 57.35 ZAP 165.45 ETS 66.19 ZAE 127.35 ETE 169.58 ZAC 116.37 ETC 268.99 CLP-174.92

PLANETOCENTRIC CONIC

C3 21.368 VHL 4.623 DLA -13.07 RAL 305.19 RAD 6567.9 VEL 11.948 PTH 2.13 VHP 8.653 DPA -10.76 RAP 281.37 ECC 1.3517

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 9 53	1812.13	-8.21	17.42	166.24	117.20	9 40 5	1212.1	-4.50	10.70
90.00	17 44 22	5292.35	27.19	239.80	172.13	81.78	19 12 35	4692.4	25.77	231.42
100.00	10 24 26	1571.59	-9.34	359.13	165.63	118.52	10 50 38	971.6	-5.46	352.49
100.00	19 12 30	5008.13	28.46	218.67	171.91	80.44	20 35 58	4408.1	26.84	210.24
110.00	11 17 24	1405.70	-12.29	344.79	163.88	122.15	11 40 50	805.7	-7.95	338.37
110.00	20 36 2	4746.78	31.80	198.04	171.13	76.75	21 55 8	4146.8	29.65	189.49

DIFFERENTIAL CORRECTIONS
TDE 1.1803 TRA 2.9670 TC3-4.1543 BAU 1.1878
RDE .2551 RRA -.2772 RC3 .1721 FAU .01782
FDE .4745 FRA 1.1650 FC3 -.7221 BSP 18017
BDE 1.1880 BRA 2.9799 BC3 4.1579 FSP -508

MID-COURSE EXECUTION ACCURACY
SGT 5574.2 SGR 499.7 SG3 149.4
RRT -.5342 RRF -.5129 RTF .9345
SGB 5596.6 R23 .0128 R13 -.9346
SG1 5580.7 SG2 421.9 THA 177.24

ORBIT DETERMINATION ACCURACY
ST 1834.2 SR 333.4 SS 551.5
CRT .5466 CRS -.5644 CST -.9992
LSA 1924.1 MSA 277.8 SSA 18.2
EL1 1843.5 EL2 277.8 ALF 5.81

LAUNCH DATE SEP 25 1970 FLIGHT TIME 190.00 ARRIVAL DATE APR 3 1971

HELIOCENTRIC CONIC DISTANCE 554.633

RL 150.03 LAL -.00 LOL 1.51 VL 25.874 GAL 5.11 AZL 88.70 HCA 277.26 SMA 120.68 ECC .25808 INC 1.3032 V1 29.699
RP 108.83 LAP -1.29 LOP 278.78 VP 36.597 GAP 13.88 AZP 89.84 TAL 164.92 TAP 82.19 RCA 89.54 APO 151.83 V2 34.822
RC 179.021 GL 6.93 GP 13.28 ZAL 54.90 ZAP 166.05 ETS 68.84 ZAE 127.36 ETE 169.85 ZAC 115.91 ETC 269.63 CLP-175.71

PLANETOCENTRIC CONIC

C3 23.593 VHL 4.857 DLA -11.83 RAL 307.53 RAD 6568.0 VEL 12.040 PTH 2.15 VHP 8.912 DPA -11.05 RAP 283.74 ECC 1.3883

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 8 43	1878.04	-10.24	21.20	169.99	116.55	9 40 1	1278.0	-6.59	14.41
90.00	18 4 12	5274.51	27.01	238.53	175.75	81.16	19 32 6	4674.5	25.51	230.18
100.00	10 24 2	1635.01	-11.38	2.73	169.40	117.83	10 51 17	1035.0	-7.57	356.02
100.00	19 31 33	4992.78	28.28	217.57	175.51	79.88	20 54 46	4392.8	26.59	209.17
110.00	11 18 42	1463.84	-14.37	348.00	167.66	121.35	11 43 6	863.8	-10.11	341.49
110.00	20 53 23	4736.71	31.64	197.30	174.70	76.34	22 12 20	4136.7	29.44	188.79

DIFFERENTIAL CORRECTIONS
TDE 1.3348 TRA 3.2597 TC3-3.7612 BAU 1.1873
RDE .2650 RRA -.2885 RC3 .1493 FAU .01633
FDE .5073 FRA 1.2086 FC3 -.5991 BSP 18114
BDE 1.3609 BRA 3.2726 BC3 3.7641 FSP -495

MID-COURSE EXECUTION ACCURACY
SGT 5591.4 SGR 490.5 SG3 145.1
RRT -.5137 RRF -.4927 RTF .9365
SGB 5612.9 R23 .0103 R13 -.9366
SG1 5597.1 SG2 420.4 THA 177.41

ORBIT DETERMINATION ACCURACY
ST 1969.8 SR 329.7 SS 570.7
CRT .5672 CRS -.5780 CST -.9994
LSA 2059.4 MSA 270.3 SSA 17.2
EL1 1978.9 EL2 270.3 ALF 5.53

LAUNCH DATE SEP 25 1970 FLIGHT TIME 192.00 ARRIVAL DATE APR 5 1971

HELIOCENTRIC CONIC DISTANCE 559.916

RL 150.03 LAL -.00 LOL 1.51 VL 25.830 GAL 5.82 AZL 88.51 HCA 280.42 SMA 120.43 ECC .26467 INC 1.4887 V1 29.699
RP 108.85 LAP -1.46 LOP 281.94 VP 36.559 GAP 14.34 AZP 89.73 TAL 163.30 TAP 83.72 RCA 88.56 APO 152.31 V2 34.815
RC 180.980 GL 7.50 GP 12.95 ZAL 52.58 ZAP 166.80 ETS 71.75 ZAE 127.37 ETE 170.09 ZAC 115.45 ETC 270.26 CLP-176.51

PLANETOCENTRIC CONIC

C3 26.155 VHL 5.114 DLA -10.68 RAL 309.73 RAD 6568.1 VEL 12.146 PTH 2.18 VHP 9.191 DPA -11.27 RAP 286.10 ECC 1.4304

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 8 0	1941.67	-12.15	24.09	173.78	115.78	9 40 21	1341.7	-8.58	18.03
90.00	18 22 30	5261.62	26.87	237.61	179.37	80.72	19 50 12	4661.6	25.32	229.29
100.00	10 24 0	1696.44	-13.31	6.27	173.19	117.02	10 52 17	1096.4	-9.58	359.47
100.00	19 49 10	4982.08	28.15	216.80	179.12	79.50	21 12 12	4382.1	26.41	208.43
110.00	11 20 10	1520.60	-16.35	351.20	171.46	120.44	11 45 30	920.6	-12.19	344.57
110.00	21 9 31	4730.69	31.54	196.86	178.27	76.09	22 28 21	4130.7	29.31	188.37

DIFFERENTIAL CORRECTIONS
TDE 1.5138 TRA 3.5671 TC3-3.3853 BAU 1.1846
RDE .2761 RRA -.3011 RC3 .1284 FAU .01488
FDE .5385 FRA 1.2526 FC3 -.4928 BSP 18210
BDE 1.5388 BRA 3.5798 BC3 3.3878 FSP -482

MID-COURSE EXECUTION ACCURACY
SGT 5604.1 SGR 480.4 SG3 140.8
RRT -.4926 RRF -.4722 RTF .9387
SGB 5624.6 R23 .0083 R13 -.9388
SG1 5609.1 SG2 417.7 THA 177.57

ORBIT DETERMINATION ACCURACY
ST 2091.8 SR 326.1 SS 587.7
CRT .5844 CRS -.5903 CST -.9996
LSA 2181.2 MSA 263.5 SSA 16.4
EL1 2100.6 EL2 263.5 ALF 5.29

LAUNCH DATE SEP 25 1970 FLIGHT TIME 194.00 ARRIVAL DATE APR 7 1971

HELIOCENTRIC CONIC DISTANCE 565.125

RL 150.03 LAL -.00 LOL 1.51 VL 25.787 GAL 6.57 AZL 88.32 HCA 283.58 SMA 120.19 ECC .27189 INC 1.6779 V1 29.699
RP 108.87 LAP -1.63 LOP 285.10 VP 36.523 GAP 14.84 AZP 89.61 TAL 161.69 TAP 85.27 RCA 87.51 APO 152.87 V2 34.809
RC 182.925 GL 7.99 GP 12.64 ZAL 50.39 ZAP 167.09 ETS 74.94 ZAE 127.36 ETE 170.33 ZAC 115.00 ETC 270.89 CLP-177.31

PLANETOCENTRIC CONIC

C3 29.104 VHL 5.395 DLA -9.62 RAL 311.81 RAD 6568.2 VEL 12.267 PTH 2.21 VHP 9.492 DPA -11.42 RAP 288.47 ECC 1.4790

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 7 39	2003.23	-13.94	28.52	177.58	114.90	9 41 2	1403.2	-10.47	21.57
90.00	18 39 25	5253.25	26.78	237.01	182.98	80.44	20 6 58	4653.2	25.19	228.71
100.00	10 24 16	1756.07	-15.12	9.77	177.00	116.10	10 53 32	1156.1	-11.49	2.86
100.00	20 5 29	4975.64	28.07	216.34	182.72	79.27	21 28 25	4375.6	26.30	207.98
110.00	11 21 45	1576.06	-18.24	354.40	175.29	119.42	11 48 1	976.1	-14.18	347.63
110.00	21 24 29	4728.42	31.51	196.69	181.85	76.00	22 43 18	4128.4	29.26	188.21

DIFFERENTIAL CORRECTIONS
TDE 1.6982 TRA 3.8898 TC3-3.0291 BAU 1.1794
RDE .2883 RRA -.3117 RC3 .1093 FAU .01349
FDE .5686 FRA 1.2971 FC3 -.4013 BSP 18316
BDE 1.7225 BRA 3.9023 BC3 3.0311 FSP -470

MID-COURSE EXECUTION ACCURACY
SGT 5611.7 SGR 469.5 SG3 136.7
RRT -.4707 RRF -.4513 RTF .9412
SGB 5631.3 R23 .0066 R13 -.9413
SG1 5616.1 SG2 413.9 THA 177.73

ORBIT DETERMINATION ACCURACY
ST 2200.6 SR 322.4 SS 603.0
CRT .5995 CRS -.6019 CST -.9996
LSA 2290.0 MSA 257.1 SSA 15.6
EL1 2209.2 EL2 257.0 ALF 5.09

LAUNCH DATE SEP 25 1970 FLIGHT TIME 196.00 ARRIVAL DATE APR 9 1971

HELIOCENTRIC CONIC DISTANCE 570.248

RL 150.03 LAL -.00 LOL 1.51 VL 25.744 GAL 7.37 AZL 88.13 HCA 286.74 SMA 119.95 ECC .27978 INC 1.8722 V1 29.699
RP 108.88 LAP -1.79 LOP 288.27 VP 36.488 GAP 15.38 AZP 89.46 TAL 160.09 TAP 86.84 RCA 86.39 APO 153.51 V2 34.804
RC 184.854 GL 8.41 GP 12.35 ZAL 48.34 ZAP 167.51 ETS 78.41 ZAE 127.34 ETE 170.54 ZAC 114.55 ETC 271.51 CLP-178.12

PLANETOCENTRIC CONIC

C3 32.500 VHL 5.701 DLA -8.63 RAL 313.76 RAD 6568.3 VEL 12.405 PTH 2.24 VHP 9.819 DPA -11.50 RAP 290.84 ECC 1.5349

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 7 36	2062.91	-15.62	32.10	181.40	113.92	9 41 59	1462.9	-12.26	25.04
90.00	18 55 3	5248.99	26.73	236.71	186.58	80.30	20 22 32	4649.0	25.12	228.41
100.00	10 24 45	1814.03	-16.83	13.23	180.82	115.08	10 54 59	1214.0	-13.31	6.20
100.00	20 20 35	4973.11	28.03	216.15	186.31	79.18	21 43 28	4373.1	26.25	207.80
110.00	11 23 26	1630.28	-20.02	357.59	179.13	118.30	11 50 36	1030.3	-16.08	350.69
110.00	21 38 24	4729.62	31.53	196.78	185.43	76.05	22 57 13	4129.6	29.29	188.29

DIFFERENTIAL CORRECTIONS
TDE 1.8873 TRA 4.2285 TC3-2.6958 BAU 1.1720
RDE .3017 RRA -.3210 RC3 .0921 FAU .01217
FDE .5977 FRA 1.3424 FC3 -.3242 BSP 18449
BDE 1.9112 BRA 4.2407 BC3 2.6974 FSP -459

MID-COURSE EXECUTION ACCURACY
SGT 5614.5 SGR 457.7 SG3 132.7
RRT -.4476 RRF -.4295 RTF .9440
SGB 5633.1 R23 .0053 R13 -.9440
SG1 5618.3 SG2 409.0 THA 177.90

ORBIT DETERMINATION ACCURACY
ST 2295.5 SR 318.7 SS 616.8
CRT .6133 CRS -.6131 CST -.9997
LSA 2385.0 MSA 250.9 SSA 14.9
EL1 2303.9 EL2 250.8 ALF 4.93

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LAUNCH DATE  SEP 25 1970                          FLIGHT TIME 198.00                          ARRIVAL DATE  APR 11 1971

 HELIOCENTRIC CONIC                                   DISTANCE 575.271
  RL  150.03 LAL   -.00 LOL   1.51 VL  25.702 GAL   8.21 AZL  87.93 HCA 289.90 SMA 119.72 ECC .28845 INC 2.0730 V1  29.699
  RP  108.90 LAP  -1.95 LOP 291.43 VP  36.454 GAP  15.96 AZP  89.29 TAL 158.53 TAP  88.43 RCA  85.19 APO 154.25 V2  34.799
  RC 186.768 GL    8.77 GP   12.09 ZAL  46.41 ZAP 167.86 ETS  82.16 ZAE 127.31 ETE 170.75 ZAC 114.10 ETC 272.12 CLP-178.94
 PLANETOCENTRIC CONIC
  C3  36.415 VHL  6.035 DLA  -7.73 RAL 315.60 RAD 6568.4 VEL 12.561 PTH   2.28 VHP 10.174 DPA -11.53 RAP 293.19 ECC 1.5993
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC   INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     90.00     9  7 48   2120.82     -17.19     35.63     185.22      112.85    9 43  9     1520.8     -13.95      28.46
     90.00    19  9 30   5248.50      26.73    236.67     190.16       80.28   20 36 58     4648.5      25.11     228.38
    100.00    10 25 26   1870.40     -18.42     16.66     184.66      113.97   10 56 36     1270.4     -15.03       9.51
    100.00    20 34 33   4974.15      28.05    216.23     189.89       79.21   21 57 28     4374.2      26.27     207.88
    110.00    11 25 11   1683.30     -21.70       .79     182.99      117.08   11 53 14     1083.3     -17.89     353.73
    110.00    21 51 17   4734.01      31.60    197.11     189.00       76.23   23 10 11     4134.0      29.38     188.60
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE 2.0833 TRA 4.5858 TC3-2.3844 BAU 1.1614       SGT 5612.6 SGR  445.0 SG3  128.8            ST  2378.6 SR   314.8 SS   629.8
  RDE  .3163 RRA -.3289 RC3  .0765 FAU .01089       RRT -.4230 RRF -.4064 RTF  .9469            CRT  .6265 CRS -.6244 CST -.9997
  FDE  .6265 FRA 1.3891 FC3 -.2589 BSP  18590       SGB 5630.2 RZS  .0042 RI3 -.9469            LSA 2468.5 MSA  244.6 SSA   14.2
  BDE 2.1072 BRA 4.5976 BC3 2.3856 FSP   -449       SG1 5615.7 SG2  403.0 THA 178.07            EL1 2386.9 EL2  244.6 ALF   4.79

LAUNCH DATE  SEP 25 1970                          FLIGHT TIME 200.00                          ARRIVAL DATE  APR 13 1971

 HELIOCENTRIC CONIC                                   DISTANCE 580.178
  RL  150.03 LAL   -.00 LOL   1.51 VL  25.661 GAL   9.12 AZL  87.72 HCA 293.06 SMA 119.49 ECC .29798 INC 2.2819 V1  29.699
  RP  108.91 LAP  -2.10 LOP 294.59 VP  36.421 GAP  16.60 AZP  89.11 TAL 156.99 TAP  90.05 RCA  83.89 APO 155.10 V2  34.795
  RC 188.667 GL    9.07 GP   11.85 ZAL  44.60 ZAP 168.15 ETS  86.19 ZAE 127.25 ETE 170.95 ZAC 113.66 ETC 272.72 CLP-179.77
 PLANETOCENTRIC CONIC
  C3  40.938 VHL  6.398 DLA  -6.39 RAL 317.32 RAD 6568.6 VEL 12.740 PTH   2.32 VHP 10.561 DPA -11.49 RAP 295.53 ECC 1.6737
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC   INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     90.00     9  8 12   2177.03     -18.64     39.12     189.04      111.71    9 44 29     1577.0     -15.53      31.82
     90.00    19 22 50   5251.44      26.76    236.88     193.73       80.38   20 50 21     4651.4      25.16     228.58
    100.00    10 26 15   1925.23     -19.90     20.06     188.49      112.78   10 58 20     1325.2     -16.64      12.78
    100.00    20 47 28   4978.47      28.10    216.54     193.46       79.37   22 10 27     4378.5      26.35     208.18
    110.00    11 26 58   1735.12     -23.27      4.00     186.86      115.78   11 55 53     1135.1     -19.61     356.77
    110.00    22  3 14   4741.35      31.72    197.64     192.57       76.53   23 22 15     4141.4      29.54     189.11
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE 2.2881 TRA 4.9829 TC3-2.0940 BAU 1.1466       SGT 5605.2 SGR  431.4 SG3  125.0            ST  2451.2 SR   310.9 SS   642.4
  RDE  .3321 RRA -.3350 RC3  .0627 FAU .00964       RRT -.3963 RRF -.3817 RTF  .9501            CRT  .6395 CRS -.6359 CST -.9998
  FDE  .6552 FRA 1.4370 FC3 -.2038 BSP  18745       SGB 5621.8 RZS  .0037 RI3 -.9501            LSA 2541.8 MSA  238.3 SSA   13.6
  BDE 2.3120 BRA 4.9742 BC3 2.0950 FSP   -439       SG1 5607.8 SG2  395.9 THA 178.24            EL1 2459.3 EL2  238.2 ALF   4.68

LAUNCH DATE  SEP 25 1970                          FLIGHT TIME 202.00                          ARRIVAL DATE  APR 15 1971

 HELIOCENTRIC CONIC                                   DISTANCE 584.947
  RL  150.03 LAL   -.00 LOL   1.51 VL  25.621 GAL  10.09 AZL  87.50 HCA 296.22 SMA 119.27 ECC .30848 INC 2.5009 V1  29.699
  RP  108.92 LAP  -2.24 LOP 297.75 VP  36.389 GAP  17.29 AZP  88.89 TAL 155.49 TAP  91.71 RCA  82.48 APO 156.06 V2  34.791
  RC 190.549 GL    9.32 GP   11.63 ZAL  42.91 ZAP 168.35 ETS  90.46 ZAE 127.18 ETE 171.14 ZAC 113.21 ETC 273.31 CLP 179.38
 PLANETOCENTRIC CONIC
  C3  46.177 VHL  6.795 DLA  -6.13 RAL 318.93 RAD 6568.7 VEL 12.944 PTH   2.36 VHP 10.984 DPA -11.41 RAP 297.85 ECC 1.7599
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC   INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     90.00     9  8 45   2231.58     -19.98     42.56     192.85      110.50    9 45 57     1631.6     -17.01      35.14
     90.00    19 35  8   5257.52      26.83    237.32     197.27       80.58   21  2 45     4657.5      25.25     229.00
    100.00    10 27 11   1978.55     -21.27     23.43     192.32      111.51   11  0 10     1378.6     -18.16      16.01
    100.00    20 59 23   4985.78      28.19    217.06     197.00       79.63   22 22 28     4385.8      26.47     208.68
    110.00    11 28 47   1785.72     -24.73      7.20     190.73      114.39   11 58 32     1185.7     -21.23     359.80
    110.00    22 14 16   4751.38      31.87    198.38     196.12       76.94   23 33 28     4151.4      29.75     189.82
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE 2.5002 TRA 5.3850 TC3-1.8241 BAU 1.1265       SGT 5593.6 SGR  417.1 SG3  121.4            ST  2512.5 SR   306.7 SS   655.3
  RDE  .3490 RRA -.3390 RC3  .0504 FAU .00840       RRT -.3675 RRF -.3548 RTF  .9535            CRT  .6522 CRS -.6478 CST -.9998
  FDE  .6846 FRA 1.4895 FC3 -.1575 BSP  18881       SGB 5609.2 RZS  .0029 RI3 -.9535            LSA 2604.2 MSA  231.9 SSA   13.0
  BDE 2.5245 BRA 5.3757 BC3 1.8248 FSP   -430       SG1 5595.7 SG2  387.7 THA 178.42            EL1 2520.5 EL2  231.7 ALF   4.59

LAUNCH DATE  SEP 25 1970                          FLIGHT TIME 204.00                          ARRIVAL DATE  APR 17 1971

 HELIOCENTRIC CONIC                                   DISTANCE 589.552
  RL  150.03 LAL   -.00 LOL   1.51 VL  25.581 GAL  11.13 AZL  87.27 HCA 299.37 SMA 119.05 ECC .32008 INC 2.7320 V1  29.699
  RP  108.93 LAP  -2.38 LOP 300.91 VP  36.359 GAP  18.04 AZP  88.66 TAL 154.04 TAP  93.41 RCA  80.95 APO 157.16 V2  34.789
  RC 192.414 GL    9.53 GP   11.43 ZAL  41.34 ZAP 168.48 ETS  94.97 ZAE 127.08 ETE 171.32 ZAC 112.77 ETC 273.89 CLP 178.51
 PLANETOCENTRIC CONIC
  C3  52.264 VHL  7.229 DLA  -5.43 RAL 320.43 RAD 6568.9 VEL 13.177 PTH   2.41 VHP 11.449 DPA -11.27 RAP 300.15 ECC 1.8601
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC   INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     90.00     9  9 26   2284.47     -21.20     45.96     196.64      109.22    9 47 30     1684.5     -18.38      38.42
     90.00    19 46 25   5266.46      26.93    237.95     200.77       80.89   21 14 12     4666.5      25.39     229.62
    100.00    10 28 13   2030.33     -22.53     26.76     196.12      110.19   11  2  3     1430.3     -19.57      19.21
    100.00    21 10 20   4995.83      28.31    217.78     200.51       79.99   22 33 35     4395.8      26.64     209.38
    110.00    11 30 35   1835.06     -26.08     10.40     194.58      112.92   12  1 10     1235.1     -22.75       2.83
    110.00    22 24 27   4763.87      32.06    199.31     199.64       77.45   23 43 51     4163.9      30.00     190.70
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE 2.7257 TRA 5.7944 TC3-1.5743 BAU 1.1003       SGT 5579.2 SGR  401.9 SG3  117.9            ST  2566.4 SR   302.2 SS   669.1
  RDE  .3673 RRA -.3407 RC3  .0386 FAU .00715       RRT -.3356 RRF -.3250 RTF  .9569            CRT  .6653 CRS -.6603 CST -.9998
  FDE  .7153 FRA 1.5448 FC3 -.1184 BSP  18970       SGB 5593.6 RZS  .0026 RI3 -.9569            LSA 2659.8 MSA  225.1 SSA   12.4
  BDE 2.7503 BRA 5.8044 BC3 1.5748 FSP   -419       SG1 5580.8 SG2  378.5 THA 178.61            EL1 2574.3 EL2  224.9 ALF   4.51
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LAUNCH DATE SEP 25 1970 FLIGHT TIME 206.00 ARRIVAL DATE APR 19 1971

HELIOCENTRIC CONIC DISTANCE 593.962

RL	150.03	LAL	-.00	LOL	1.51	VL	25.543	GAL	12.26	AZL	87.02	HCA	302.53	SMA	118.84	ECC	.33293	INC	2.9778
RP	108.94	LAP	-2.51	LOP	304.08	VP	36.330	GAP	18.87	AZP	88.40	TAL	152.64	TAP	95.16	RCA	79.28	APO	158.41
RC	194.261	GL	9.69	GP	11.24	ZAL	39.89	ZAP	168.51	ETS	99.66	ZAE	126.95	ETE	171.50	ZAC	112.33	ETC	274.44

V1	29.699	V2	34.787	CLP	177.61

PLANETOCENTRIC CONIC

C3	59.366	VHL	7.705	DLA	-4.80	RAL	321.83	RAD	6569.1	VEL	13.443	PTH	2.46	VHP	11.961	DPA	-11.08	RAP	302.41
ECC	1.9770																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 10 13	2335.64	-22.31	49.30	200.39	107.90	9 49 9	1735.6	-19.65	41.63
90.00	19 56 45	5278.01	27.05	238.77	204.23	81.28	21 24 43	4678.0	25.57	230.42
100.00	10 29 18	2080.52	-23.67	30.05	199.90	108.81	11 3 59	1480.5	-20.88	22.36
100.00	21 20 21	5008.36	28.46	218.69	203.98	80.45	22 43 50	4408.4	26.85	210.26
110.00	11 32 22	1883.06	-27.31	13.59	198.42	111.40	12 3 45	1283.1	-24.16	5.84
110.00	22 33 46	4778.58	32.27	200.41	203.14	78.07	23 53 25	4178.6	30.29	191.75

DIFFERENTIAL CORRECTIONS

TDE	2.9652	TRA	6.2544	TC3	-1.3428	BAU	1.0660
RDE	.3869	RRA	-.3394	RC3	.0302	FAU	.00587
FDE	.7479	FRA	1.6047	FC3	-.0856	BSP	19015
BDE	2.9903	BRA	6.2636	BC3	1.3431	FSP	-408

MID-COURSE EXECUTION ACCURACY

SGT	5561.2	SGR	386.2	SG3	114.6		
RRT	-.2999	RRF	-.2917	RTF	.9606		
SGB	5574.6	R23	.0024	R13	-.9606		
SG1	5562.4	SG2	368.3	THA	178.80		

ORBIT DETERMINATION ACCURACY

ST	2612.7	SR	297.6	SS	684.3		
CRT	.6790	CRS	-.6736	CST	-.9998		
LSA	2708.4	MSA	218.0	SSA	11.9		
EL1	2620.6	EL2	217.8	ALF	4.45		

LAUNCH DATE SEP 25 1970 FLIGHT TIME 208.00 ARRIVAL DATE APR 21 1971

HELIOCENTRIC CONIC DISTANCE 598.135

RL	150.03	LAL	-.00	LOL	1.51	VL	25.505	GAL	13.48	AZL	86.76	HCA	305.68	SMA	118.64	ECC	.34720	INC	3.2416
RP	108.94	LAP	-2.63	LOP	307.24	VP	36.302	GAP	19.79	AZP	88.11	TAL	151.31	TAP	96.99	RCA	77.45	APO	159.83
RC	196.090	GL	9.81	GP	11.06	ZAL	38.55	ZAP	168.45	ETS	104.50	ZAE	126.78	ETE	171.68	ZAC	111.89	ETC	274.98

V1	29.699	V2	34.786	CLP	176.68

PLANETOCENTRIC CONIC

C3	67.691	VHL	8.227	DLA	-4.23	RAL	323.11	RAD	6569.3	VEL	13.749	PTH	2.51	VHP	12.528	DPA	-10.86	RAP	304.63
ECC	2.1140																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 11 5	2385.02	-23.31	52.58	204.09	106.55	9 50 50	1785.0	-20.82	44.79
90.00	20 6 9	5291.91	27.19	239.77	207.64	81.76	21 34 21	4691.9	25.77	231.39
100.00	10 30 26	2129.02	-24.69	33.29	203.62	107.40	11 5 55	1529.0	-22.08	25.47
100.00	21 29 29	5023.14	28.62	219.76	207.40	80.99	22 53 12	4423.1	27.08	211.29
110.00	11 34 8	1929.61	-28.43	16.75	202.22	109.83	12 6 18	1329.6	-25.46	8.83
110.00	22 42 16	4795.31	32.50	201.66	206.59	78.78	24 2 12	4195.3	30.61	192.95

DIFFERENTIAL CORRECTIONS

TDE	3.2223	TRA	6.7507	TC3	-1.1285	BAU	1.0214
RDE	.4082	RRA	-.3349	RC3	.0222	FAU	.00452
FDE	.7831	FRA	1.6702	FC3	-.0578	BSP	18976
BDE	3.2480	BRA	6.7590	BC3	1.1287	FSP	-395

MID-COURSE EXECUTION ACCURACY

SGT	5541.2	SGR	369.9	SG3	111.5		
RRT	-.2597	RRF	-.2537	RTF	.9643		
SGB	5553.6	R23	.0024	R13	-.9643		
SG1	5542.1	SG2	357.1	THA	179.00		

ORBIT DETERMINATION ACCURACY

ST	2653.0	SR	292.8	SS	701.4		
CRT	.6934	CRS	-.6878	CST	-.9998		
LSA	2751.7	MSA	210.6	SSA	11.4		
EL1	2660.8	EL2	210.4	ALF	4.40		

LAUNCH DATE SEP 25 1970 FLIGHT TIME 210.00 ARRIVAL DATE APR 23 1971

HELIOCENTRIC CONIC DISTANCE 602.021

RL	150.03	LAL	-.00	LOL	1.51	VL	25.469	GAL	14.81	AZL	86.47	HCA	308.83	SMA	118.44	ECC	.36310	INC	3.5270
RP	108.94	LAP	-2.75	LOP	310.40	VP	36.276	GAP	20.81	AZP	87.79	TAL	150.06	TAP	98.89	RCA	75.44	APO	161.45
RC	197.900	GL	9.91	GP	10.90	ZAL	37.33	ZAP	168.29	ETS	109.42	ZAE	126.57	ETE	171.86	ZAC	111.44	ETC	275.51

V1	29.699	V2	34.785	CLP	175.71

PLANETOCENTRIC CONIC

C3	77.502	VHL	8.804	DLA	-3.73	RAL	324.29	RAD	6569.5	VEL	14.101	PTH	2.57	VHP	13.159	DPA	-10.59	RAP	306.81
ECC	2.2755																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 12 0	2432.46	-24.19	55.77	207.71	105.19	9 52 33	1832.5	-21.87	47.87
90.00	20 14 37	5307.97	27.34	240.92	210.98	82.32	21 43 5	4708.0	25.99	232.51
100.00	10 31 36	2175.69	-25.61	36.46	207.28	105.97	11 7 52	1575.7	-23.17	28.50
100.00	21 37 42	5039.97	28.80	220.98	210.75	81.61	23 1 42	4440.0	27.33	212.48
110.00	11 35 51	1974.57	-29.43	19.87	205.95	108.23	12 8 45	1374.6	-26.65	11.78
110.00	22 49 57	4813.85	32.74	203.05	209.99	79.57	24 10 11	4213.9	30.95	194.28

DIFFERENTIAL CORRECTIONS

TDE	3.4991	TRA	7.2872	TC3	-.9308	BAU	.9646
RDE	.4313	RRA	-.3262	RC3	.0156	FAU	.00307
FDE	.8215	FRA	1.7422	FC3	-.0343	BSP	18836
BDE	3.5256	BRA	7.2944	BC3	.9310	FSP	-381

MID-COURSE EXECUTION ACCURACY

SGT	5519.1	SGR	353.3	SG3	108.6		
RRT	-.2138	RRF	-.2101	RTF	.9680		
SGB	5530.4	R23	.0024	R13	-.9680		
SG1	5519.7	SG2	345.1	THA	179.21		

ORBIT DETERMINATION ACCURACY

ST	2687.3	SR	287.9	SS	720.9		
CRT	.7086	CRS	-.7030	CST	-.9998		
LSA	2789.8	MSA	202.7	SSA	10.9		
EL1	2695.1	EL2	202.5	ALF	4.37		

LAUNCH DATE SEP 25 1970 FLIGHT TIME 212.00 ARRIVAL DATE APR 25 1971

HELIOCENTRIC CONIC DISTANCE 605.553

RL	150.03	LAL	-.00	LOL	1.51	VL	25.434	GAL	16.27	AZL	86.16	HCA	311.99	SMA	118.25	ECC	.38087	INC	3.8390
RP	108.94	LAP	-2.85	LOP	313.56	VP	36.252	GAP	21.95	AZP	87.43	TAL	148.90	TAP	100.89	RCA	73.22	APO	163.29
RC	199.690	GL	9.97	GP	10.75	ZAL	36.23	ZAP	168.02	ETS	114.37	ZAE	126.31	ETE	172.05	ZAC	111.01	ETC	276.00

V1	29.699	V2	34.785	CLP	174.69

PLANETOCENTRIC CONIC

C3	89.134	VHL	9.441	DLA	-3.29	RAL	325.35	RAD	6569.7	VEL	14.508	PTH	2.63	VHP	13.863	DPA	-10.30	RAP	308.93
ECC	2.4669																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 12 59	2477.79	-24.96	58.87	211.24	103.82	9 54 16	1877.8	-22.82	50.85
90.00	20 22 9	5325.98	27.50	242.21	214.24	82.95	21 50 55	4726.0	26.24	233.77
100.00	10 32 47	2220.35	-26.41	39.53	210.84	104.54	11 9 47	1620.4	-24.15	31.46
100.00	21 45 2	5058.65	28.97	222.34	214.02	82.30	23 9 20	4458.6	27.60	213.80
110.00	11 37 30	2017.75	-30.31	22.92	209.60	106.62	12 11 8	1417.7	-27.73	14.67
110.00	22 56 48	4834.02	32.98	204.58	213.31	80.44	24 17 22	4234.0	31.31	195.75

DIFFERENTIAL CORRECTIONS

TDE	3.7994	TRA	7.8708	TC3	-.7492	BAU	.8928
RDE	.4566	RRA	-.3127	RC3	.0102	FAU	.00150
FDE	.8638	FRA	1.8221	FC3	-.0146	BSP	18565
BDE	3.8267	BRA	7.8770	BC3	.7492	FSP	-365

MID-COURSE EXECUTION ACCURACY

SGT	5496.3	SGR	336.6	SG3	105.9		
RRT	-.1810	RRF	-.1596	RTF	.9718		
SGB	5508.5	R23	.0026	R13	-.9718		
SG1	5496.5	SG2	332.2	THA	179.43		

ORBIT DETERMINATION ACCURACY

ST	2716.3	SR	282.9	SS	743.4		
CRT	.7249	CRS	-.7193	CST	-.9999		
LSA	2823.7	MSA	194.6	SSA	10.4		
EL1	2724.1	EL2	194.3	ALF	4.34		

LAUNCH DATE SEP 25 1970 FLIGHT TIME 214.00 ARRIVAL DATE APR 27 1971

HELIOCENTRIC CONIC DISTANCE 608.648

```
RL  150.03 LAL   -.00 LOL   1.51 VL  25.400 GAL  17.88 AZL  85.82 HCA 315.14 SMA 118.08 ECC .40080 INC 4.1835 V1  29.699
RP  108.94 LAP  -2.95 LOP 316.73 VP  36.229 GAP  23.23 AZP  87.03 TAL 147.87 TAP 103.01 RCA  70.75 APO 165.40 V2  34.786
RC 201.461 GL   10.01 GP   10.61 ZAL  35.25 ZAP 167.63 ETS 119.31 ZAE 125.99 ETE 172.24 ZAC 110.57 ETC 276.48 CLP 173.61
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PLANETOCENTRIC CONIC

```
C3 103.022 VHL 10.150 DLA  -2.92 RAL 326.30 RAD 6570.0 VEL 14.979 PTH   2.70 VHP 14.654 DPA  -9.98 RAP 310.99 ECC 2.6955
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 13 59	2520.78	-25.63	61.84	214.65	102.47	9 55 59	1920.8	-23.65	53.73
90.00	20 28 42	5345.77	27.65	243.64	217.39	83.65	21 57 48	4745.8	26.49	235.17
100.00	10 33 58	2262.77	-27.10	42.50	214.27	103.13	11 11 40	1662.8	-25.02	34.31
100.00	21 51 25	5079.01	29.15	223.83	217.20	83.07	23 16 4	4479.0	27.88	215.25
110.00	11 39 5	2058.91	-31.07	25.88	213.13	105.02	12 13 24	1458.9	-28.70	17.49
110.00	23 2 47	4855.64	33.21	206.22	216.55	81.39	24 23 42	4255.6	31.66	197.33

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 4.1255 TRA 8.5063 TC3 -.5832 BAU  .8033   SGT 5471.9 SGR  320.2 SG3  103.4     ST  2739.5 SR   278.1 SS   769.2
 RDE  .4846 RRA -.2934 RC3  .0061 FAU-.00024   RRT -.0999 RRF -.1005 RTF  .9755     CRT  .7421 CRS -.7368 CST -.9999
 FDE  .9104 FRA 1.9111 FC3  .0020 BSP  18172   SGB 5481.3 RZS  .0028 RIS -.9755    LSA 2853.0 MSA  186.1 SSA    9.8
 BDE 4.1539 BRA 8.5114 BC3  .5833 FSP   -348   SG1 5472.0 SG2  318.6 THA 179.66    EL1 2747.3 EL2  185.8 ALF    4.33
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LAUNCH DATE SEP 25 1970 FLIGHT TIME 216.00 ARRIVAL DATE APR 29 1971

HELIOCENTRIC CONIC DISTANCE 611.194

```
RL  150.03 LAL   -.00 LOL   1.51 VL  25.368 GAL  19.67 AZL  85.43 HCA 318.29 SMA 117.91 ECC .42324 INC 4.5684 V1  29.699
RP  108.93 LAP  -3.04 LOP 319.89 VP  36.208 GAP  24.68 AZP  86.59 TAL 146.99 TAP 105.28 RCA  68.00 APO 167.81 V2  34.788
RC 203.212 GL   10.01 GP   10.48 ZAL  34.40 ZAP 167.11 ETS 124.17 ZAE 125.60 ETE 172.44 ZAC 110.14 ETC 276.93 CLP 172.45
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PLANETOCENTRIC CONIC

```
C3 119.727 VHL 10.942 DLA  -2.61 RAL 327.12 RAD 6570.2 VEL 15.526 PTH   2.77 VHP 15.547 DPA  -9.65 RAP 312.97 ECC 2.9704
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 15 0	2561.12	-26.19	64.66	217.89	101.17	9 57 41	1961.1	-24.39	56.46
90.00	20 34 15	5367.23	27.81	245.19	220.42	84.42	22 3 42	4767.2	26.74	236.69
100.00	10 35 7	2302.65	-27.68	45.32	217.55	101.76	11 13 30	1702.7	-25.78	37.03
100.00	21 56 49	5100.93	29.32	225.43	220.25	83.90	23 21 50	4500.9	28.16	216.82
110.00	11 40 34	2097.77	-31.72	28.72	216.51	103.46	12 15 32	1497.8	-29.55	20.19
110.00	23 7 51	4878.58	33.43	207.98	219.67	82.41	24 29 10	4278.6	32.02	199.03

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 4.4814 TRA 9.2014 TC3 -.4323 BAU  .6920   SGT 5446.5 SGR  304.4 SG3  101.0     ST  2757.0 SR   273.4 SS   799.1
 RDE  .5160 RRA -.2870 RC3  .0032 FAU-.00220   RRT -.0288 RRF -.0313 RTF  .9792     CRT  .7604 CRS -.7554 CST -.9999
 FDE  .9624 FRA 2.0107 FC3  .0159 BSP  17642   SGB 5455.0 RZS  .0030 RIS -.9792    LSA 2878.0 MSA  177.3 SSA    9.3
 BDE 4.5110 BRA 9.2052 BC3  .4324 FSP   -329   SG1 5446.5 SG2  304.2 THA 179.91    EL1 2764.9 EL2  177.1 ALF    4.33
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LAUNCH DATE SEP 25 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAY 1 1971

HELIOCENTRIC CONIC DISTANCE 613.042

```
RL  150.03 LAL   -.00 LOL   1.51 VL  25.338 GAL  21.66 AZL  85.00 HCA 321.44 SMA 117.75 ECC .44857 INC 5.0039 V1  29.699
RP  108.92 LAP  -3.12 LOP 323.06 VP  36.190 GAP  26.33 AZP  86.08 TAL 146.28 TAP 107.72 RCA  64.93 APO 170.56 V2  34.790
RC 204.943 GL   10.00 GP   10.35 ZAL  33.70 ZAP 166.45 ETS 128.92 ZAE 125.11 ETE 172.66 ZAC 109.72 ETC 277.35 CLP 171.20
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PLANETOCENTRIC CONIC

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C3 139.989 VHL 11.832 DLA  -2.38 RAL 327.81 RAD 6570.5 VEL 16.165 PTH   2.84 VHP 16.561 DPA  -9.31 RAP 314.85 ECC 3.3039
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 16 1	2598.45	-26.66	67.29	220.93	99.92	9 59 19	1998.4	-25.01	59.01
90.00	20 38 42	5390.27	27.95	246.86	223.30	85.24	22 8 32	4790.3	26.99	238.33
100.00	10 36 15	2339.64	-28.17	47.96	220.63	100.45	11 15 14	1739.6	-26.44	39.58
100.00	22 1 9	5124.31	29.48	227.15	223.15	84.79	23 26 33	4524.3	28.44	218.50
110.00	11 41 57	2133.98	-32.27	31.41	219.69	101.95	12 17 30	1534.0	-30.28	22.75
110.00	23 11 56	4902.73	33.63	209.83	222.65	83.49	24 33 39	4302.7	32.37	200.83

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 4.8199 TRA 9.9122 TC3 -.3104 BAU  .5810   SGT 5391.5 SGR  289.8 SG3   98.1     ST  2743.3 SR   269.3 SS   825.4
 RDE  .5517 RRA -.2318 RC3  .0014 FAU-.00394   RRT  .0519 RRF  .0477 RTF  .9825     CRT  .7784 CRS -.7734 CST -.9999
 FDE 1.0086 FRA 2.1108 FC3  .0244 BSP  18169   SGB 5399.3 RZS -.0034 RIS  .9825    LSA 2872.4 MSA  168.8 SSA    8.8
 BDE 4.8514 BRA 9.9150 BC3  .3104 FSP   -332   SG1 5391.5 SG2  289.4 THA    .16     EL1 2751.3 EL2  168.6 ALF    4.39
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LAUNCH DATE SEP 25 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAY 3 1971

HELIOCENTRIC CONIC DISTANCE 614.011

```
RL  150.03 LAL   -.00 LOL   1.51 VL  25.311 GAL  23.91 AZL  84.50 HCA 324.59 SMA 117.60 ECC .47727 INC 5.5042 V1  29.699
RP  108.91 LAP  -3.19 LOP 326.22 VP  36.173 GAP  28.22 AZP  85.51 TAL 145.79 TAP 110.38 RCA  61.47 APO 173.73 V2  34.793
RC 206.655 GL    9.96 GP   10.22 ZAL  33.16 ZAP 165.63 ETS 133.53 ZAE 124.52 ETE 172.89 ZAC 109.31 ETC 277.73 CLP 169.85
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PLANETOCENTRIC CONIC

```
C3 164.793 VHL 12.837 DLA  -2.23 RAL 328.34 RAD 6570.8 VEL 16.915 PTH   2.92 VHP 17.720 DPA  -8.97 RAP 316.62 ECC 3.7121
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 17 1	2632.35	-27.03	69.70	223.74	98.77	10 0 53	2032.3	-25.54	61.35
90.00	20 41 56	5414.84	28.07	248.65	226.01	86.13	22 12 11	4814.8	27.24	240.08
100.00	10 37 19	2373.31	-28.56	50.38	223.46	99.23	11 16 53	1773.3	-26.99	41.93
100.00	22 4 19	5149.11	29.62	228.98	225.88	85.74	23 30 8	4549.1	28.71	220.30
110.00	11 43 11	2167.15	-32.71	33.90	222.63	100.54	12 19 18	1567.1	-30.91	25.14
110.00	23 14 57	4928.04	33.81	211.79	225.47	84.63	24 37 5	4328.0	32.70	202.73

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 5.2146 TRA10.7169 TC3 -.1937 BAU  .4268   SGT 5345.9 SGR  277.1 SG3   95.7     ST  2734.8 SR   265.4 SS   860.7
 RDE  .5920 RRA -.1867 RC3  .0006 FAU-.00630   RRT  .1451 RRF  .1397 RTF  .9856     CRT  .7977 CRS -.7931 CST -.9999
 FDE 1.0668 FRA 2.2304 FC3  .0331 BSP  18086   SGB 5353.1 RZS -.0038 RIS  .9856    LSA 2874.9 MSA  159.9 SSA    8.2
 BDE 5.2481 BRA10.7186 BC3  .1937 FSP   -324   SG1 5346.1 SG2  274.1 THA    .43     EL1 2743.1 EL2  159.6 ALF    4.44
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LAUNCH DATE SEP 26 1970 FLIGHT TIME 70.00 ARRIVAL DATE DEC 5 1970

HELIOCENTRIC CONIC DISTANCE 189.513

RL	149.99	LAL	-.00	LOL	2.49	VL	27.208	GAL	-10.26	AZL	89.36	HCA	84.69	SHA	128.93	ECC	.23991	INC	.6379	V1	29.707
RP	107.68	LAP	.64	LOP	87.19	VP	37.890	GAP	-10.18	AZP	89.94	TAL	217.67	TAP	302.36	RCA	98.00	APO	159.86	V2	35.193
RC	51.263	GL	3.25	GP	-17.30	ZAL	145.91	ZAP	24.30	ETS	40.07	ZAE	146.31	ETE	330.07	ZAC	84.68	ETC	261.63	CLP	-17.34

PLANETOCENTRIC CONIC

C3	27.644	VHL	5.258	DLA	-10.60	RAL	215.21	RAD	6568.1	VEL	12.207	PTH	2.19	VHP	7.168	DPA	-38.42	RAP	243.83	ECC	1.4549

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 46 18	1958.24	-12.64	25.87	80.12	115.55	3 18 56	1358.2	-9.10	18.98
90.00	12 2 12	5272.54	26.99	238.39	85.84	81.10	13 30 5	4672.5	25.48	230.04
100.00	4 2 21	1712.86	-13.81	7.23	79.53	116.78	4 30 54	1112.9	-10.11	.40
100.00	13 28 50	4993.16	28.28	217.59	85.60	79.90	14 52 3	4393.2	26.60	209.20
110.00	4 58 37	1536.67	-16.91	352.12	77.79	120.16	5 24 14	936.7	-12.77	345.45
110.00	14 49 3	4742.11	31.73	197.70	84.77	76.56	16 8 5	4142.1	29.55	189.17

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0812	TRA	-.3295	TC3	.4337	BAU	.1902	SGT	591.0	SGR	472.9	SG3	132.9	ST	141.5	SR	324.9
RDE	-.2934	RRA	-.1724	RC3	-.2771	FAU	.04415	RRT	-.3270	RRF	.4827	RTF	-.5713	CRT	-.4813	CRS	.9152
FDE	.3708	FRA	-.2670	FC3	-1.3827	BSP	1490	SGB	757.0	RZS	-.1070	R13	.6426	LSA	415.8	MSA	134.8
BDE	.3044	BRA	.3719	BC3	.5147	FSP	-330	SG1	630.4	SG2	419.0	THA	152.26	EL1	333.1	EL2	121.0

SS	257.6
CST	-.7625
SSA	30.7
ALF	103.68

LAUNCH DATE SEP 26 1970 FLIGHT TIME 72.00 ARRIVAL DATE DEC 7 1970

HELIOCENTRIC CONIC DISTANCE 196.329

RL	149.99	LAL	-.00	LOL	2.49	VL	27.342	GAL	-10.18	AZL	89.18	HCA	87.93	SHA	129.85	ECC	.23361	INC	.8229	V1	29.707
RP	107.65	LAP	.82	LOP	90.42	VP	37.994	GAP	-9.30	AZP	89.97	TAL	219.01	TAP	306.93	RCA	99.51	APO	160.18	V2	35.202
RC	52.948	GL	4.28	GP	-18.48	ZAL	146.99	ZAP	27.30	ETS	36.81	ZAE	145.78	ETE	327.71	ZAC	83.51	ETC	261.62	CLP	-20.46

PLANETOCENTRIC CONIC

C3	26.828	VHL	5.180	DLA	-9.24	RAL	214.41	RAD	6568.1	VEL	12.174	PTH	2.18	VHP	6.735	DPA	-39.59	RAP	243.60	ECC	1.4415

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 32 7	1995.41	-13.72	28.06	78.91	115.02	3 5 22	1395.4	-10.23	21.11
90.00	12 10 0	5220.49	26.39	234.69	83.89	79.34	13 37 0	4620.5	24.65	226.46
100.00	3 48 56	1747.57	-14.87	9.27	78.34	116.23	4 18 3	1147.6	-11.22	2.37
100.00	13 35 52	4943.56	27.64	214.05	83.61	78.14	14 58 15	4343.6	25.72	205.77
110.00	4 46 53	1566.10	-17.91	353.82	76.67	119.62	5 12 59	966.1	-13.83	347.08
110.00	14 54 84	4697.80	30.98	194.46	82.69	74.77	16 12 41	4097.8	28.58	186.08

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0721	TRA	-.3800	TC3	.4511	BAU	.1984	SGT	594.4	SGR	493.1	SG3	149.9	ST	134.6	SR	308.6
RDE	-.2732	RRA	-.1827	RC3	-.3199	FAU	.04854	RRT	-.3599	RRF	.5377	RTF	-.5722	CRT	-.4241	CRS	.9086
FDE	.4516	FRA	-.3191	FC3	-1.3664	BSP	1584	SGB	772.3	RZS	-.1193	R13	.6630	LSA	427.5	MSA	137.4
BDE	.2826	BRA	.3685	BC3	.5530	FSP	-383	SG1	646.0	SG2	423.3	THA	148.79	EL1	314.7	EL2	119.5

SS	298.7
CST	-.7334
SSA	31.3
ALF	102.28

LAUNCH DATE SEP 26 1970 FLIGHT TIME 74.00 ARRIVAL DATE DEC 9 1970

HELIOCENTRIC CONIC DISTANCE 203.124

RL	149.99	LAL	-.00	LOL	2.49	VL	27.459	GAL	-10.12	AZL	88.99	HCA	91.16	SHA	130.67	ECC	.22817	INC	1.0072	V1	29.707
RP	107.63	LAP	1.01	LOP	93.65	VP	38.086	GAP	-8.46	AZP	90.02	TAL	220.24	TAP	311.40	RCA	100.85	APO	160.48	V2	35.210
RC	54.707	GL	5.33	GP	-19.78	ZAL	147.91	ZAP	30.53	ETS	33.99	ZAE	145.40	ETE	324.99	ZAC	82.22	ETC	261.57	CLP	-23.74

PLANETOCENTRIC CONIC

C3	26.169	VHL	5.116	DLA	-7.89	RAL	213.74	RAD	6568.1	VEL	12.147	PTH	2.18	VHP	6.337	DPA	-40.84	RAP	243.12	ECC	1.4307

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 18 51	2032.59	-14.78	30.28	77.96	114.43	2 52 44	1432.6	-11.36	23.27
90.00	12 17 56	5170.97	25.72	231.22	82.20	77.72	13 44 7	4571.0	23.77	223.10
100.00	3 36 23	1782.45	-15.91	11.34	77.41	115.65	4 6 6	1182.4	-12.33	4.38
100.00	13 43 5	4896.34	26.93	210.72	81.89	76.52	15 4 42	4296.3	24.81	202.56
110.00	4 35 57	1595.96	-18.90	355.56	75.79	119.03	5 2 33	996.0	-14.89	348.75
110.00	15 0 1	4655.59	30.19	191.43	80.89	73.14	16 17 37	4055.6	27.58	183.21

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0639	TRA	-.3133	TC3	.4603	BAU	.2060	SGT	593.6	SGR	517.7	SG3	168.7	ST	128.9	SR	288.6
RDE	-.2507	RRA	-.1940	RC3	-.3672	FAU	.05336	RRT	-.3881	RRF	.5936	RTF	-.5663	CRT	-.3564	CRS	.8990
FDE	.5448	FRA	-.3751	FC3	-1.7654	BSP	1674	SGB	787.7	RZS	-.1326	R13	.6838	LSA	443.4	MSA	140.2
BDE	.2587	BRA	.3685	BC3	.5888	FSP	-441	SG1	660.9	SG2	428.6	THA	144.74	EL1	292.9	EL2	118.7

SS	342.5
CST	-.6997
SSA	31.5
ALF	100.85

LAUNCH DATE SEP 26 1970 FLIGHT TIME 76.00 ARRIVAL DATE DEC 11 1970

HELIOCENTRIC CONIC DISTANCE 209.896

RL	149.99	LAL	-.00	LOL	2.49	VL	27.560	GAL	-10.06	AZL	88.81	HCA	94.39	SHA	131.39	ECC	.22350	INC	1.1920	V1	29.707
RP	107.60	LAP	1.19	LOP	96.89	VP	38.167	GAP	-7.66	AZP	90.09	TAL	221.36	TAP	315.75	RCA	102.03	APO	160.76	V2	35.218
RC	56.533	GL	6.40	GP	-21.19	ZAL	148.66	ZAP	33.99	ETS	31.49	ZAE	145.13	ETE	321.85	ZAC	80.79	ETC	261.47	CLP	-27.22

PLANETOCENTRIC CONIC

C3	25.637	VHL	5.063	DLA	-6.57	RAL	213.21	RAD	6568.0	VEL	12.125	PTH	2.17	VHP	5.972	DPA	-42.15	RAP	242.35	ECC	1.4219

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 6 30	2069.66	-15.81	32.51	77.25	113.80	2 41 0	1469.7	-12.46	25.43
90.00	12 26 4	5123.74	24.99	227.95	80.77	76.24	13 51 28	4523.7	22.86	219.94
100.00	3 24 43	1817.35	-16.92	13.43	76.73	115.01	3 55 0	1217.3	-13.41	6.40
100.00	13 50 32	4851.29	26.18	207.58	80.44	75.03	15 11 23	4251.3	23.87	199.54
110.00	4 25 48	1626.09	-19.89	357.34	75.16	118.39	4 52 54	1026.1	-15.94	350.45
110.00	15 5 56	4615.31	29.36	188.59	79.36	71.65	16 22 52	4015.3	26.57	180.51

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0574	TRA	-.3101	TC3	.4598	BAU	.2132	SGT	588.0	SGR	547.9	SG3	189.3	ST	125.1	SR	264.6
RDE	-.2251	RRA	-.2060	RC3	-.4192	FAU	.05859	RRT	-.4076	RRF	.6489	RTF	-.5512	CRT	-.2801	CRS	.8846
FDE	.6510	FRA	-.4344	FC3	-1.9786	BSP	1757	SGB	803.7	RZS	-.1455	R13	.7060	LSA	464.3	MSA	142.9
BDE	.2323	BRA	.3723	BC3	.6222	FSP	-506	SG1	675.5	SG2	435.5	THA	139.92	EL1	267.5	EL2	118.8

SS	389.0
CST	-.6655
SSA	31.3
ALF	99.41

LAUNCH DATE SEP 26 1970 FLIGHT TIME 78.00 ARRIVAL DATE DEC 13 1970

HELIOCENTRIC CONIC DISTANCE 216.642

RL	149.99	LAL	-.00	LOL	2.49	VL	27.647	GAL	-10.01	AZL	88.62	HCA	97.63	SMA	132.02	ECC	.21947	INC	1.3785	V1	29.707
RP	107.58	LAP	1.37	LOP	100.13	VP	38.236	GAP	-6.89	AZP	90.18	TAL	222.35	TAP	319.98	RCA	103.05	APO	160.99	V2	35.225
RC	58.419	GL	7.50	GP	-22.72	ZAL	149.23	ZAP	37.68	ETS	29.19	ZAE	144.94	ETE	318.26	ZAC	79.22	ETC	261.32	CLP	-30.90

PLANETOCENTRIC CONIC

C3	25.210	VHL	5.021	DLA	-5.27	RAL	212.82	RAD	6568.0	VEL	12.107	PTH	2.17	VHP	5.641	DPA	-43.52	RAP	241.26	ECC	1.4149

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 55 0	2106.59	-16.81	34.76	76.77	113.13	2 30 7	1506.6	-13.54	27.61
90.00	12 34 25	5078.51	24.23	224.86	79.59	74.87	13 59 4	4478.5	21.91	216.95
100.00	3 13 52	1852.21	-17.91	15.54	76.27	114.34	3 44 44	1252.2	-14.48	8.44
100.00	13 58 15	4808.13	25.39	204.62	79.23	73.66	15 18 23	4208.1	22.90	196.70
110.00	4 16 25	1656.38	-20.86	359.16	74.74	117.72	4 44 1	1056.4	-16.98	352.18
110.00	15 12 11	4576.73	28.50	185.91	78.09	70.27	16 28 28	3976.7	25.55	177.98

DIFFERENTIAL CORRECTIONS

TDE	.0535	TRA	-.3108	TC3	.4483	BAU	.2204
RDE	-.1961	RRA	-.2187	RC3	-.4762	FAU	.06417
FDE	.7710	FRA	-.4952	FC3	-2.2036	BSP	1836
BDE	.2032	BRA	.3800	BC3	.6540	FSP	-577

MID-COURSE EXECUTION ACCURACY

SGT	577.3	SGR	584.4	SG3	211.5		
RRT	-.4141	RRF	.7015	RTF	-.5239		
SGB	821.4	RZ3	-.1542	R13	.7308		
SG1	690.7	SG2	444.5	THA	134.15		

ORBIT DETERMINATION ACCURACY

ST	123.8	SR	236.5	SS	438.0
CRT	-.1986	CRS	.8617	CST	-.6381
LSA	491.0	MSA	145.2	SSA	30.8
EL1	238.2	EL2	120.4	ALF	97.99

LAUNCH DATE SEP 26 1970 FLIGHT TIME 80.00 ARRIVAL DATE DEC 15 1970

HELIOCENTRIC CONIC DISTANCE 223.361

RL	149.99	LAL	-.00	LOL	2.49	VL	27.721	GAL	-9.96	AZL	88.43	HCA	100.87	SMA	132.56	ECC	.21601	INC	1.5679	V1	29.707
RP	107.56	LAP	1.54	LOP	103.36	VP	38.296	GAP	-6.16	AZP	90.30	TAL	223.20	TAP	324.07	RCA	103.92	APO	161.19	V2	35.232
RC	60.358	GL	8.62	GP	-24.38	ZAL	149.61	ZAP	41.60	ETS	27.01	ZAE	144.77	ETE	314.16	ZAC	77.52	ETC	261.11	CLP	-34.81

PLANETOCENTRIC CONIC

C3	24.868	VHL	4.987	DLA	-3.99	RAL	212.56	RAD	6568.0	VEL	12.093	PTH	2.16	VHP	5.345	DPA	-44.94	RAP	239.80	ECC	1.4093

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 44 18	2143.42	-17.78	37.03	76.51	112.41	2 20 1	1543.4	-14.59	29.80
90.00	12 43 4	5054.96	23.42	221.93	78.64	73.61	14 6 59	4435.0	20.95	214.12
100.00	3 3 47	1887.04	-18.88	17.68	76.02	113.62	3 35 14	1287.0	-15.52	10.50
100.00	14 6 16	4766.57	24.56	201.81	78.25	72.40	15 25 43	4166.6	21.92	194.00
110.00	4 7 44	1686.80	-21.81	1.01	74.54	117.00	4 35 51	1086.8	-18.01	353.93
110.00	15 18 48	4539.58	27.62	183.38	77.06	69.01	16 34 28	3939.6	24.51	175.59

DIFFERENTIAL CORRECTIONS

TDE	.0531	TRA	-.3157	TC3	.4244	BAU	.2278
RDE	-.1630	RRA	-.2318	RC3	-.5381	FAU	.06999
FDE	.9043	FRA	-.5562	FC3	-2.4364	BSP	1918
BDE	.1714	BRA	.3917	BC3	.6853	FSP	-653

MID-COURSE EXECUTION ACCURACY

SGT	561.3	SGR	628.0	SG3	234.9		
RRT	-.4015	RRF	.7499	RTF	-.4798		
SGB	842.3	RZ3	-.1536	R13	.7595		
SG1	708.3	SG2	455.8	THA	127.18		

ORBIT DETERMINATION ACCURACY

ST	125.6	SR	204.3	SS	489.1
CRT	-.1128	CRS	.8226	CST	-.6271
LSA	523.8	MSA	146.7	SSA	30.0
EL1	205.1	EL2	124.4	ALF	96.29

LAUNCH DATE SEP 26 1970 FLIGHT TIME 82.00 ARRIVAL DATE DEC 17 1970

HELIOCENTRIC CONIC DISTANCE 230.051

RL	149.99	LAL	-.00	LOL	2.49	VL	27.783	GAL	-9.90	AZL	88.24	HCA	104.10	SMA	133.01	ECC	.21303	INC	1.7616	V1	29.707
RP	107.54	LAP	1.71	LOP	106.61	VP	38.346	GAP	-5.46	AZP	90.43	TAL	223.93	TAP	328.03	RCA	104.68	APO	161.35	V2	35.238
RC	62.346	GL	9.77	GP	-26.14	ZAL	149.82	ZAP	45.73	ETS	24.87	ZAE	144.57	ETE	309.53	ZAC	75.69	ETC	260.84	CLP	-38.96

PLANETOCENTRIC CONIC

C3	24.597	VHL	4.960	DLA	-2.72	RAL	212.43	RAD	6568.0	VEL	12.082	PTH	2.16	VHP	5.083	DPA	-46.40	RAP	237.96	ECC	1.4048

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 34 19	2180.25	-18.72	39.32	76.46	111.64	2 10 39	1580.3	-15.62	32.02
90.00	12 52 3	4992.74	22.58	219.12	77.90	72.45	14 15 15	4392.7	19.97	211.42
100.00	2 54 24	1921.94	-19.82	19.85	75.98	112.85	3 26 26	1321.9	-16.55	12.58
100.00	14 14 39	4726.29	23.70	199.12	77.50	71.24	15 33 26	4126.3	20.92	191.43
110.00	3 59 44	1717.40	-22.74	2.89	74.55	116.24	4 28 21	1117.4	-19.03	355.72
110.00	15 25 48	4503.59	26.72	180.97	76.26	67.84	16 40 52	3903.6	23.48	173.31

DIFFERENTIAL CORRECTIONS

TDE	.0574	TRA	-.3255	TC3	.3872	BAU	.2361
RDE	-.1254	RRA	-.2451	RC3	-.6048	FAU	.07591
FDE	1.0499	FRA	-.6143	FC3	-2.6719	BSP	2010
BDE	.1380	BRA	.4074	BC3	.7181	FSP	-731

MID-COURSE EXECUTION ACCURACY

SGT	541.8	SGR	679.1	SG3	259.2		
RRT	-.3623	RRF	.7929	RTF	-.4121		
SGB	868.8	RZ3	-.1385	R13	.7921		
SG1	731.3	SG2	468.9	THA	118.92		

ORBIT DETERMINATION ACCURACY

ST	131.5	SR	169.0	SS	541.9
CRT	-.0100	CRS	.7491	CST	-.6388
LSA	563.0	MSA	147.5	SSA	29.1
EL1	169.0	EL2	131.5	ALF	91.13

LAUNCH DATE SEP 26 1970 FLIGHT TIME 84.00 ARRIVAL DATE DEC 19 1970

HELIOCENTRIC CONIC DISTANCE 236.711

RL	149.99	LAL	-.00	LOL	2.49	VL	27.833	GAL	-9.85	AZL	88.04	HCA	107.34	SMA	133.39	ECC	.21046	INC	1.9609	V1	29.707
RP	107.53	LAP	1.87	LOP	109.85	VP	38.387	GAP	-4.79	AZP	90.58	TAL	224.52	TAP	331.86	RCA	105.32	APO	161.46	V2	35.243
RC	64.375	GL	10.95	GP	-28.01	ZAL	149.85	ZAP	50.06	ETS	22.68	ZAE	144.27	ETE	304.38	ZAC	73.73	ETC	260.50	CLP	-43.35

PLANETOCENTRIC CONIC

C3	24.386	VHL	4.938	DLA	-1.46	RAL	212.44	RAD	6568.0	VEL	12.073	PTH	2.16	VHP	4.855	DPA	-47.86	RAP	235.68	ECC	1.4013

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 24 58	2217.27	-19.63	41.65	76.60	110.82	2 1 56	1617.3	-16.63	34.27
90.00	13 1 26	4951.50	21.71	216.41	77.37	71.36	14 23 58	4351.5	18.96	208.81
100.00	2 45 38	1957.06	-20.73	22.06	76.14	112.03	3 18 15	1357.1	-17.56	14.70
100.00	14 23 27	4686.94	22.82	196.53	76.95	70.15	15 41 34	4086.9	19.91	188.95
110.00	3 52 20	1748.29	-23.66	4.82	74.75	115.42	4 21 28	1148.3	-20.04	357.55
110.00	15 33 15	4468.47	25.80	178.66	75.86	66.75	16 47 44	3868.5	22.42	171.12

DIFFERENTIAL CORRECTIONS

TDE	.0678	TRA	-.3402	TC3	.3353	BAU	.2459
RDE	-.0831	RRA	-.2580	RC3	-.6756	FAU	.08174
FDE	1.2052	FRA	-.6669	FC3	-2.9020	BSP	2124
BDE	.1073	BRA	.4269	BC3	.7542	FSP	-812

MID-COURSE EXECUTION ACCURACY

SGT	521.3	SGR	737.7	SG3	283.5		
RRT	-.2870	RRF	.8300	RTF	-.3119		
SGB	903.3	RZ3	-.1061	R13	.8268		
SG1	763.7	SG2	482.3	THA	109.50		

ORBIT DETERMINATION ACCURACY

ST	142.6	SR	133.3	SS	595.7
CRT	.1497	CRS	.5932	CST	-.6754
LSA	608.6	MSA	147.5	SSA	28.1
EL1	148.9	EL2	126.2	ALF	32.95

LAUNCH DATE SEP 26 1970 FLIGHT TIME 86.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 243.340

RL	149.99	LAL	-.00	LOL	2.49	VL	27.874	GAL	-9.79	AZL	87.83	HCA	110.58	SMA	133.69	ECC	.20824	INC	2.1674	V1	29.707
RP	107.51	LAP	2.03	LOP	113.09	VP	38.420	GAP	-4.14	AZP	90.76	TAL	224.97	TAP	335.55	RCA	105.85	APO	161.53	V2	35.247
RC	66.441	GL	12.18	GP	-29.97	ZAL	149.71	ZAP	54.57	ETS	20.40	ZAE	143.81	ETE	298.76	ZAC	71.66	ETC	260.09	CLP	-48.00

PLANETOCENTRIC CONIC

C3	24.227	VHL	4.922	DLA	-.20	RAL	212.57	RAD	6568.0	VEL	12.067	PTH	2.16	VHP	4.663	DPA	-49.31	RAP	232.96	ECC	1.3987

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 16 10	2254.71	-20.52	44.04	76.94	109.95	1 53 45	1654.7	-17.62	36.57
90.00	13 11 18	4910.84	20.80	213.77	77.04	70.34	14 33 9	4310.8	17.93	206.27
100.00	2 37 25	1992.61	-21.62	24.32	76.50	111.16	3 10 38	1392.6	-18.55	16.87
100.00	14 32 44	4648.16	21.90	194.02	76.61	69.13	15 50 13	4048.2	18.87	186.54
110.00	3 45 27	1779.65	-24.56	6.81	75.15	114.56	4 15 7	1179.6	-21.04	359.43
110.00	15 41 12	4433.89	24.85	176.42	75.27	65.73	16 55 5	3833.9	21.36	169.01

DIFFERENTIAL CORRECTIONS

TDE	.0858	TRA	-.3801	TC3	.2680	BAU	.2578
RDE	-.0361	RRA	-.2899	RC3	-.7495	FAU	.08723
FDE	1.3662	FRA	-.7104	FC3	-3.1170	BSP	2272
BDE	.0930	BRA	.4500	BC3	.7959	FSP	-891

MID-COURSE EXECUTION ACCURACY

SGT	505.2	SGR	803.0	SG3	307.0		
RRT	-.1656	RRF	.8810	RTF	-.1694		
SGB	948.7	RZ3	-.0805	R13	.8593		
SG1	810.0	SG2	494.0	THA	99.51		

ORBIT DETERMINATION ACCURACY

ST	160.8	SR	105.5	SS	649.5		
CRT	.4413	CRS	.2429	CST	-.7302		
LSA	660.7	MSA	146.8	SSA	27.0		
EL1	170.2	EL2	89.4	ALF	22.75		

LAUNCH DATE SEP 26 1970 FLIGHT TIME 88.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 249.937

RL	149.99	LAL	-.00	LOL	2.49	VL	27.904	GAL	-9.73	AZL	87.62	HCA	113.82	SMA	133.92	ECC	.20630	INC	2.3829	V1	29.707
RP	107.50	LAP	2.18	LOP	116.34	VP	38.446	GAP	-3.53	AZP	90.96	TAL	225.29	TAP	339.11	RCA	106.29	APO	161.55	V2	35.251
RC	68.539	GL	13.47	GP	-31.99	ZAL	149.39	ZAP	59.22	ETS	17.97	ZAE	143.12	ETE	292.75	ZAC	69.50	ETC	259.60	CLP	-52.89

PLANETOCENTRIC CONIC

C3	24.115	VHL	4.911	DLA	1.07	RAL	212.83	RAD	6568.0	VEL	12.062	PTH	2.16	VHP	4.506	DPA	-50.70	RAP	229.81	ECC	1.3969

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 7 48	2292.09	-21.39	46.50	77.47	109.01	1 46 1	1692.9	-18.60	38.94
90.00	13 21 45	4870.38	19.85	211.18	76.90	69.38	14 42 55	4270.4	16.87	203.78
100.00	2 29 39	2028.90	-22.49	26.67	77.04	110.23	3 3 28	1428.9	-19.53	19.12
100.00	14 42 36	4609.60	20.94	191.55	76.45	68.17	15 59 25	4009.6	17.80	184.17
110.00	3 39 2	1811.70	-25.45	8.88	75.74	113.63	4 9 14	1211.7	-22.04	1.39
110.00	15 49 42	4399.56	23.87	174.23	75.07	64.77	17 3 1	3799.6	20.27	166.94

DIFFERENTIAL CORRECTIONS

TDE	.1127	TRA	-.3850	TC3	.1851	BAU	.2725
RDE	.0157	RRA	-.2800	RC3	-.8247	FAU	.09209
FDE	1.5279	FRA	-.7419	FC3	-3.3060	BSP	2463
BDE	.1138	BRA	.4760	BC3	.8452	FSP	-965

MID-COURSE EXECUTION ACCURACY

SGT	502.1	SGR	873.6	SG3	328.7		
RRT	.0045	RRF	.8863	RTF	.0173		
SGB	1007.6	RZ3	-.0114	R13	.8864		
SG1	873.6	SG2	502.1	THA	89.78		

ORBIT DETERMINATION ACCURACY

ST	188.4	SR	102.6	SS	702.4		
CRT	.8008	CRS	-.3263	CST	-.7913		
LSA	719.4	MSA	145.6	SSA	25.8		
EL1	207.1	EL2	55.9	ALF	25.57		

LAUNCH DATE SEP 26 1970 FLIGHT TIME 90.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 256.502

RL	149.99	LAL	-.00	LOL	2.49	VL	27.926	GAL	-9.67	AZL	87.39	HCA	117.06	SMA	134.09	ECC	.20461	INC	2.6096	V1	29.707
RP	107.49	LAP	2.32	LOP	119.58	VP	38.465	GAP	-2.94	AZP	91.19	TAL	225.48	TAP	342.55	RCA	106.65	APO	161.52	V2	35.254
RC	70.666	GL	14.81	GP	-34.04	ZAL	148.89	ZAP	63.96	ETS	15.35	ZAE	142.14	ETE	286.49	ZAC	67.27	ETC	259.05	CLP	-58.01

PLANETOCENTRIC CONIC

C3	24.047	VHL	4.904	DLA	2.36	RAL	213.22	RAD	6568.0	VEL	12.059	PTH	2.16	VHP	4.385	DPA	-52.01	RAP	226.24	ECC	1.3958

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 59 47	2332.19	-22.24	49.07	78.19	108.00	1 38 39	1732.2	-19.57	41.41
90.00	13 32 52	4829.70	18.86	208.61	76.95	68.48	14 53 21	4229.7	15.77	201.30
100.00	2 22 13	2066.27	-23.35	29.11	77.78	109.21	2 56 40	1466.3	-20.51	21.46
100.00	14 53 6	4570.86	19.94	189.11	76.48	67.26	16 9 17	3970.9	16.69	181.83
110.00	3 33 0	1844.76	-26.33	11.04	76.52	112.62	4 3 44	1244.8	-23.04	3.43
110.00	15 58 49	4365.13	22.65	172.08	75.06	63.86	17 11 34	3765.1	19.15	164.89

DIFFERENTIAL CORRECTIONS

TDE	.1501	TRA	-.4146	TC3	.0866	BAU	.2903
RDE	.0715	RRA	-.2874	RC3	-.8969	FAU	.09601
FDE	1.6838	FRA	-.7574	FC3	-3.4566	BSP	2706
BDE	.1663	BRA	.5045	BC3	.9031	FSP	-1030

MID-COURSE EXECUTION ACCURACY

SGT	522.6	SGR	947.2	SG3	347.2		
RRT	.2075	RRF	.9066	RTF	.2317		
SGB	1081.8	RZ3	.0324	R13	.9071		
SG1	955.8	SG2	506.6	THA	80.89		

ORBIT DETERMINATION ACCURACY

ST	227.9	SR	133.6	SS	753.1		
CRT	.9609	CRS	-.7298	CST	-.8466		
LSA	784.6	MSA	144.0	SSA	24.6		
EL1	262.2	EL2	32.2	ALF	29.88		

LAUNCH DATE SEP 26 1970 FLIGHT TIME 92.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 263.035

RL	149.99	LAL	-.00	LOL	2.49	VL	27.940	GAL	-9.60	AZL	87.15	HCA	120.30	SMA	134.19	ECC	.20313	INC	2.8498	V1	29.707
RP	107.48	LAP	2.46	LOP	122.83	VP	38.477	GAP	-2.37	AZP	91.44	TAL	225.55	TAP	345.86	RCA	106.93	APO	161.45	V2	35.256
RC	72.818	GL	16.23	GP	-36.10	ZAL	148.23	ZAP	68.73	ETS	12.52	ZAE	140.85	ETE	280.12	ZAC	65.01	ETC	258.44	CLP	-63.32

PLANETOCENTRIC CONIC

C3	24.026	VHL	4.902	DLA	3.68	RAL	213.73	RAD	6568.0	VEL	12.058	PTH	2.16	VHP	4.300	DPA	-53.21	RAP	222.31	ECC	1.3954

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 51 58	2373.09	-23.07	51.78	79.11	106.89	1 31 31	1773.1	-20.54	44.02
90.00	13 44 46	4788.36	17.80	206.04	77.18	67.61	15 4 34	4188.4	14.61	198.81
100.00	2 15 2	2105.16	-24.20	31.69	78.72	108.11	2 50 7	1505.2	-21.50	23.93
100.00	15 4 23	4531.52	18.89	186.66	76.70	66.39	16 19 55	3931.5	15.54	179.48
110.00	3 27 14	1879.19	-27.22	13.33	77.51	111.53	3 58 33	1279.2	-24.05	5.59
110.00	16 8 41	4330.26	21.79	169.93	75.24	62.99	17 20 51	3730.3	17.99	162.85

DIFFERENTIAL CORRECTIONS

TDE	.1976	TRA	-.4902	TC3	-.0296	BAU	.3103
RDE	.1330	RRA	-.2885	RC3	-.9655	FAU	.09829
FDE	1.8373	FRA	-.7446	FC3	-3.5419	BSP	2952
BDE	.2382	BRA	.5347	BC3	.9659	FSP	-1064

MID-COURSE EXECUTION ACCURACY

SGT	576.4	SGR	1016.9	SG3	360.7		
RRT	.4121	RRF	.9221	RTF	.4391		
SGB	1168.9	RZ3	.0724	R13	.9216		
SG1	1053.2	SG2	507.1	THA	72.73		

ORBIT DETERMINATION ACCURACY

ST	279.9	SR	187.7	SS	804.7		
CRT	.9887	CRS	-.8934	CST	-.8864		
LSA	860.3	MSA	143.0	SSA	23.1		
EL1	336.3	EL2	23.4	ALF	33.73		

LAUNCH DATE SEP 26 1970 FLIGHT TIME 94.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 269.535

```
RL  149.99 LAL   -.00 LOL   2.49 VL  27.947 GAL  -9.52 AZL  86.89 HCA 123.54 SMA 134.25 ECC .20182 INC 3.1064 V1  29.707
RP  107.48 LAP   2.59 LOP 126.08 VP  38.483 GAP  -1.83 AZP  91.72 TAL 225.51 TAP 349.06 RCA 107.15 APO 161.34 V2  35.258
RC  74.992 GL   17.73 GP  -38.15 ZAL 147.39 ZAP  73.47 ETS   9.46 ZAE 139.25 ETE 273.82 ZAC  62.74 ETC 257.78 CLP -68.79
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PLANETOCENTRIC CONIC

```
C3  24.056 VHL  4.905 DLA   5.05 RAL 214.37 RAD 6568.0 VEL 12.060 PTH   2.16 VHP  4.251 DPA -54.27 RAP 218.10 ECC 1.3959
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 44 14	2416.18	-23.90	54.67	80.24	105.66	1 24 30	1816.2	-21.52	46.81
90.00	13 57 36	4745.90	16.68	203.42	77.61	66.78	15 16 42	4145.9	13.40	196.29
100.00	2 7 57	2146.14	-25.04	34.44	79.87	106.89	2 43 43	1546.1	-22.49	26.58
100.00	15 16 34	4491.17	17.77	184.19	77.11	65.56	16 31 25	3891.2	14.33	177.09
110.00	3 21 39	1915.48	-28.10	15.78	78.72	110.32	3 53 35	1315.5	-25.07	7.91
110.00	16 19 21	4294.59	20.67	167.76	75.60	62.15	17 30 56	3694.6	16.78	160.80

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .2614 TRA -.4852 TC3 -.1523 BAU  .3356   SGT  662.8 SGR 1091.5 SG3  370.7     ST   349.9 SR   248.3 SS   844.2
RDE  .1921 RRA -.2896 RC3-1.0325 FAU .10000   RRT  .5709 RRF  .9351 RTF  .6022    CRT  .9905 CRS -.9486 CST -.9216
FDE 1.9533 FRA -.7316 FC3-3.5988 BSP  3347    SGB 1277.0 RZS  .0937 RIS  .9341    LSA  936.3 MSA  140.3 SSA   22.1
BDE  .3244 BRA  .5650 BC3 1.0436 FSP  -1121   SG1 1172.2 SG2  506.7 THA  66.16    EL1  428.1 EL2   27.9 ALF  35.28
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LAUNCH DATE SEP 26 1970 FLIGHT TIME 96.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 276.004

```
RL  149.99 LAL   -.00 LOL   2.49 VL  27.947 GAL  -9.44 AZL  86.62 HCA 126.78 SMA 134.25 ECC .20066 INC 3.3831 V1  29.707
RP  107.48 LAP   2.71 LOP 129.33 VP  38.484 GAP  -1.31 AZP  92.03 TAL 225.35 TAP 352.14 RCA 107.31 APO 161.18 V2  35.259
RC  77.186 GL   19.34 GP  -40.17 ZAL 146.37 ZAP  78.11 ETS   6.18 ZAE 137.35 ETE 267.74 ZAC  60.48 ETC 257.07 CLP -74.35
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PLANETOCENTRIC CONIC

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C3  24.146 VHL  4.914 DLA   6.48 RAL 215.14 RAD 6568.0 VEL 12.063 PTH   2.16 VHP  4.238 DPA -55.20 RAP 213.71 ECC 1.3974
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 36 25	2462.13	-24.70	57.79	81.60	104.30	1 17 28	1862.1	-22.50	49.82
90.00	14 11 33	4701.76	15.48	200.74	78.24	65.99	15 29 55	4101.8	12.11	193.69
100.00	2 0 51	2189.82	-25.87	37.42	81.25	105.53	2 37 21	1589.8	-23.49	29.44
100.00	15 29 49	4449.30	16.57	181.66	77.72	64.76	16 43 58	3849.3	13.04	174.65
110.00	3 16 9	1954.16	-28.98	18.44	80.16	108.97	3 48 43	1354.2	-26.12	10.43
110.00	16 31 0	4257.73	19.48	165.56	76.17	61.34	17 41 58	3657.7	15.51	158.70

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .3370 TRA -.5244 TC3 -.2890 BAU  .3616   SGT  783.4 SGR 1153.0 SG3  373.5     ST   434.2 SR   316.5 SS   885.4
RDE  .2564 RRA -.2807 RC3-1.0823 FAU .09939   RRT  .6889 RRF  .9446 RTF  .7181    CRT  .9895 CRS -.9745 CST -.9426
FDE 2.0618 FRA -.6821 FC3-3.5636 BSP  3701    SGB 1393.9 RZS  .1160 RIS  .9420    LSA 1026.2 MSA  139.1 SSA   20.6
BDE  .4235 BRA  .5948 BC3 1.1202 FSP  -1126   SG1 1299.7 SG2  503.7 THA  59.95    EL1  536.1 EL2   37.0 ALF  36.00
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LAUNCH DATE SEP 26 1970 FLIGHT TIME 98.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 282.440

```
RL  149.99 LAL   -.00 LOL   2.49 VL  27.941 GAL  -9.35 AZL  86.32 HCA 130.02 SMA 134.20 ECC .19962 INC 3.6842 V1  29.707
RP  107.48 LAP   2.82 LOP 132.58 VP  38.480 GAP  -.81 AZP  92.37 TAL 225.09 TAP 355.12 RCA 107.41 APO 160.99 V2  35.259
RC  79.396 GL   21.06 GP  -42.14 ZAL 145.16 ZAP  82.57 ETS   2.68 ZAE 135.18 ETE 261.97 ZAC  58.25 ETC 256.33 CLP -79.95
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PLANETOCENTRIC CONIC

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C3  24.309 VHL  4.930 DLA   7.99 RAL 216.05 RAD 6568.0 VEL 12.070 PTH   2.16 VHP  4.261 DPA -56.01 RAP 209.24 ECC 1.4001
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 28 22	2511.82	-25.50	61.22	83.21	102.76	1 10 13	1911.8	-23.49	53.13
90.00	14 26 50	4655.38	14.18	197.96	79.10	65.23	15 44 25	4055.4	10.72	190.99
100.00	1 53 33	2237.03	-26.69	40.69	82.89	103.99	2 30 50	1637.0	-24.50	32.58
100.00	15 44 19	4405.40	15.28	179.04	78.55	63.99	16 57 44	3805.4	11.66	172.12
110.00	3 10 36	1995.94	-29.87	21.37	81.87	107.45	3 43 52	1395.9	-27.20	13.20
110.00	16 43 46	4219.26	18.21	163.30	76.95	60.56	17 54 5	3619.3	14.15	156.54

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .4288 TRA -.5623 TC3 -.4286 BAU  .3913   SGT  928.6 SGR 1210.9 SG3  371.3     ST   536.3 SR   381.8 SS   915.5
RDE  .3170 RRA -.2691 RC3-1.1251 FAU .09781   RRT  .7656 RRF  .9523 RTF  .7947    CRT  .9900 CRS -.9858 CST -.9584
FDE 2.1296 FRA -.6281 FC3-3.4835 BSP  4165    SGB 1526.0 RZS  .1292 RIS  .9490    LSA 1119.2 MSA  136.8 SSA   19.4
BDE  .5533 BRA  .6233 BC3 1.2039 FSP  -1142   SG1 1441.0 SG2  502.0 THA  54.67    EL1  656.9 EL2   43.9 ALF  35.36
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LAUNCH DATE SEP 26 1970 FLIGHT TIME 100.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 288.847

```
RL  149.99 LAL   -.00 LOL   2.49 VL  27.930 GAL  -9.25 AZL  85.98 HCA 133.26 SMA 134.12 ECC .19868 INC 4.0154 V1  29.707
RP  107.48 LAP   2.92 LOP 135.83 VP  38.471 GAP  -.33 AZP  92.75 TAL 224.73 TAP 358.00 RCA 107.47 APO 160.76 V2  35.258
RC  81.621 GL   22.92 GP  -44.08 ZAL 143.77 ZAP  86.78 ETS 358.98 ZAE 132.80 ETE 256.61 ZAC  56.05 ETC 255.57 CLP -85.52
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PLANETOCENTRIC CONIC

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C3  24.564 VHL  4.956 DLA   9.59 RAL 217.09 RAD 6568.0 VEL 12.081 PTH   2.16 VHP  4.321 DPA -56.74 RAP 204.79 ECC 1.4043
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 19 50	2566.30	-26.26	65.02	85.10	101.00	1 2 36	1966.3	-24.48	56.81
90.00	14 43 43	4806.03	12.75	195.04	80.20	64.50	16 0 29	4006.0	9.21	188.15
100.00	1 45 53	2288.74	-27.49	44.33	84.82	102.24	2 24 2	1688.7	-25.52	36.08
100.00	16 0 20	4358.82	13.87	176.30	79.64	63.25	17 12 59	3758.8	10.17	169.46
110.00	3 4 51	2041.61	-30.76	24.63	83.89	105.70	3 38 53	1441.6	-28.30	16.30
110.00	16 57 52	4178.71	16.84	160.96	77.97	59.80	18 7 30	3578.7	12.70	154.30

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .5360 TRA -.5996 TC3 -.5715 BAU  .4173   SGT 1095.1 SGR 1243.2 SG3  360.9     ST   654.8 SR   456.8 SS   954.2
RDE  .3872 RRA -.2402 RC3-1.1351 FAU .09313   RRT  .8174 RRF  .9577 RTF  .8424    CRT  .9889 CRS -.9929 CST -.9674
FDE 2.2033 FRA -.5242 FC3-3.2821 BSP  4456    SGB 1656.7 RZS  .1487 RIS  .9517    LSA 1236.3 MSA  138.3 SSA   17.3
BDE  .6613 BRA  .6459 BC3 1.2708 FSP  -1067   SG1 1580.7 SG2  496.2 THA  49.42    EL1  796.4 EL2   55.9 ALF  34.80
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LAUNCH DATE SEP 26 1970 FLIGHT TIME 102.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 295.220

RL 149.99 LAL -.00 LOL 2.49 VL 27.914 GAL -9.14 AZL 85.62 HCA 136.50 SMA 133.99 ECC .19784 INC 4.3838 V1 29.707
RP 107.48 LAP 3.02 LOP 139.08 VP 38.458 GAP .13 AZP 93.18 TAL 224.29 TAP .79 RCA 107.48 APO 160.50 V2 35.256
RC 83.861 GL 24.95 GP -46.00 ZAL 142.16 ZAP 90.70 ETS 355.10 ZAE 130.23 ETE 251.67 ZAC 53.87 ETC 254.78 CLP -91.01

PLANETOCENTRIC CONIC

C3 24.945 VHL 4.995 DLA 11.32 RAL 218.29 RAD 6568.0 VEL 12.096 PTH 2.17 VHP 4.420 DPA -57.42 RAP 200.38 ECC 1.4105

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 10 32	2626.96	-26.98	89.32	87.32	98.96	0 54 18	2027.0	-25.46	60.98
90.00	15 2 32	4552.94	11.17	191.94	81.60	63.81	16 18 25	3952.9	7.56	185.12
100.00	1 37 34	2346.23	-28.25	48.43	87.08	100.21	2 16 40	1746.2	-26.55	40.04
100.00	16 18 11	4308.91	12.32	173.40	81.00	62.55	17 29 59	3708.9	8.55	166.64
110.00	2 58 44	2092.28	-31.64	28.32	86.25	103.68	3 33 36	1492.3	-29.43	19.81
110.00	17 13 31	4135.63	15.35	158.51	79.26	59.07	18 22 26	3535.6	11.13	151.94

DIFFERENTIAL CORRECTIONS
TDE .6602 TRA -.6325 TC3 -.7073 BAU .4521
RDE .4382 RRA -.2223 RC3-1.1563 FAU .08973
FDE 2.1924 FRA -.4664 FC3-3.1141 BSP 5112
BDE .7924 BRA .6704 BC3 1.3555 FSP -1095

MID-COURSE EXECUTION ACCURACY
SGT 1272.9 SGR 1286.3 SG3 348.8
RRT .8484 RRF .9627 RTF .8769
SGB 1809.7 RZ3 .1528 R13 .9572
SG1 1739.7 SG2 496.1 THA 45.35

ORBIT DETERMINATION ACCURACY
ST 789.5 SR 509.8 SS 963.1
CRT .9906 CRS -.9956 CST -.9758
LSA 1338.9 HSA 134.2 SSA 16.4
EL1 938.0 EL2 58.8 ALF 32.75

LAUNCH DATE SEP 26 1970 FLIGHT TIME 104.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 301.565

RL 149.99 LAL -.00 LOL 2.49 VL 27.893 GAL -9.03 AZL 85.20 HCA 139.74 SMA 133.83 ECC .19708 INC 4.7988 V1 29.707
RP 107.49 LAP 3.10 LOP 142.33 VP 38.441 GAP .57 AZP 93.67 TAL 223.75 TAP 3.48 RCA 107.46 APO 160.21 V2 35.254
RC 86.111 GL 27.16 GP -47.93 ZAL 140.34 ZAP 94.26 ETS 351.04 ZAE 127.52 ETE 247.19 ZAC 51.69 ETC 253.98 CLP -96.36

PLANETOCENTRIC CONIC

C3 25.489 VHL 5.049 DLA 13.19 RAL 219.65 RAD 6568.0 VEL 12.119 PTH 2.17 VHP 4.558 DPA -58.12 RAP 196.05 ECC 1.4195

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 0 6	2605.56	-27.61	74.24	89.92	96.57	0 45 2	2095.6	-26.41	65.78
90.00	15 23 48	4494.98	9.41	188.59	83.34	63.17	16 38 43	3895.0	5.74	181.84
100.00	1 28 19	2411.08	-28.94	53.13	89.72	97.83	2 8 30	1811.1	-27.55	44.60
100.00	16 38 17	4254.73	10.60	170.30	82.71	61.89	17 49 11	3654.7	6.76	163.61
110.00	2 52 1	2149.19	-32.47	32.55	89.03	101.31	3 27 50	1549.2	-30.58	23.84
110.00	17 31 4	4089.35	13.71	155.93	80.88	58.38	18 39 14	3489.4	9.43	149.44

DIFFERENTIAL CORRECTIONS
TDE .8040 TRA -.6604 TC3 -.8334 BAU .4819
RDE .4973 RRA -.1872 RC3-1.1425 FAU .08372
FDE 2.1869 FRA -.3601 FC3-2.8436 BSP 5590
BDE .9453 BRA .6864 BC3 1.4141 FSP -1043

MID-COURSE EXECUTION ACCURACY
SGT 1460.5 SGR 1302.7 SG3 330.0
RRT .8692 RRF .9661 RTF .8984
SGB 1957.0 RZ3 .1634 R13 .9595
SG1 1892.9 SG2 497.0 THA 41.25

ORBIT DETERMINATION ACCURACY
ST 941.5 SR 569.2 SS 979.4
CRT .9907 CRS -.9976 CST -.9809
LSA 1468.8 HSA 133.9 SSA 14.9
EL1 1098.2 EL2 66.5 ALF 31.05

LAUNCH DATE SEP 26 1970 FLIGHT TIME 106.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 307.880

RL 149.99 LAL -.00 LOL 2.49 VL 27.868 GAL -8.91 AZL 84.73 HCA 142.97 SMA 133.65 ECC .19639 INC 5.2732 V1 29.707
RP 107.50 LAP 3.17 LOP 145.58 VP 38.420 GAP 1.00 AZP 94.21 TAL 223.13 TAP 6.10 RCA 107.40 APO 159.89 V2 35.251
RC 88.372 GL 29.59 GP -49.93 ZAL 138.27 ZAP 97.40 ETS 346.83 ZAE 124.69 ETE 243.13 ZAC 49.46 ETC 253.13 CLP-101.55

PLANETOCENTRIC CONIC

C3 26.259 VHL 5.124 DLA 15.23 RAL 221.19 RAD 6568.1 VEL 12.151 PTH 2.18 VHP 4.743 DPA -58.88 RAP 191.76 ECC 1.4322

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 44 6	2774.53	-28.09	79.97	92.95	93.74	24 30 21	2174.5	-27.28	71.40
90.00	15 48 11	4430.73	7.42	184.92	85.51	62.59	17 2 1	3830.7	3.69	178.23
100.00	1 17 41	2485.44	-29.51	58.58	92.82	95.01	1 59 6	1885.4	-28.50	49.92
100.00	17 1 13	4195.05	8.67	166.92	84.84	61.28	18 11 8	3595.1	4.77	160.30
110.00	2 44 25	2214.05	-33.23	37.45	92.30	98.50	3 21 19	1614.0	-31.70	28.56
110.00	17 50 58	4039.21	11.90	153.17	82.90	57.72	18 58 17	3439.2	7.56	146.77

DIFFERENTIAL CORRECTIONS
TDE .9704 TRA -.6808 TC3 -.9423 BAU .5105
RDE .5556 RRA -.1442 RC3-1.1076 FAU .07674
FDE 2.1601 FRA -.2671 FC3-2.5301 BSP 6065
BDE 1.1182 BRA .6859 BC3 1.4542 FSP -976

MID-COURSE EXECUTION ACCURACY
SGT 1652.9 SGR 1304.7 SG3 307.3
RRT .8819 RRF .9686 RTF .9131
SGB 2105.8 RZ3 .1739 R13 .9610
SG1 2046.4 SG2 496.8 THA 37.43

ORBIT DETERMINATION ACCURACY
ST 1110.9 SR 624.1 SS 990.9
CRT .9906 CRS -.9989 CST -.9845
LSA 1608.5 HSA 134.3 SSA 13.3
EL1 1272.0 EL2 74.5 ALF 29.21

LAUNCH DATE SEP 26 1970 FLIGHT TIME 108.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 314.166

RL 149.99 LAL -.00 LOL 2.49 VL 27.839 GAL -8.78 AZL 84.18 HCA 146.20 SMA 133.43 ECC .19575 INC 5.8241 V1 29.707
RP 107.51 LAP 3.24 LOP 148.83 VP 38.396 GAP 1.41 AZP 94.84 TAL 222.43 TAP 8.63 RCA 107.31 APO 159.55 V2 35.247
RC 90.641 GL 32.27 GP -52.05 ZAL 135.92 ZAP 100.09 ETS 342.43 ZAE 121.74 ETE 239.45 ZAC 47.15 ETC 252.21 CLP-106.55

PLANETOCENTRIC CONIC

C3 27.345 VHL 5.229 DLA 17.47 RAL 222.94 RAD 6568.1 VEL 12.195 PTH 2.19 VHP 4.979 DPA -59.75 RAP 187.40 ECC 1.4500

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 29 35	2867.34	-28.32	86.75	96.47	90.35	24 17 23	2267.5	-27.97	78.10
90.00	16 16 39	4358.05	5.12	180.82	88.24	62.11	17 29 17	3758.0	1.35	174.17
100.00	1 5 1	2572.31	-29.85	65.01	96.44	91.65	1 47 53	1972.3	-29.30	56.25
100.00	17 27 50	4128.31	6.47	163.19	87.50	60.75	18 36 39	3528.3	2.52	156.63
110.00	2 35 33	2289.05	-33.84	43.22	96.16	95.14	3 13 42	1689.1	-32.76	34.15
110.00	18 13 48	3984.33	9.89	150.19	85.42	57.11	19 20 12	3384.3	5.49	143.86

DIFFERENTIAL CORRECTIONS
TDE 1.1680 TRA -.6887 TC3-1.0234 BAU .5340
RDE .6181 RRA -.0870 RC3-1.0423 FAU .06843
FDE 2.1272 FRA -.1509 FC3-2.1664 BSP 6397
BDE 1.3215 BRA .6941 BC3 1.4608 FSP -870

MID-COURSE EXECUTION ACCURACY
SGT 1846.4 SGR 1287.2 SG3 281.2
RRT .8888 RRF .9703 RTF .9226
SGB 2250.8 RZ3 .1866 R13 .9612
SG1 2195.5 SG2 496.1 THA 33.74

ORBIT DETERMINATION ACCURACY
ST 1302.0 SR 678.7 SS 1003.3
CRT .9901 CRS -.9996 CST -.9871
LSA 1772.9 HSA 137.3 SSA 11.5
EL1 1465.8 EL2 84.7 ALF 27.40

LAUNCH DATE SEP 26 1970 FLIGHT TIME 110.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 320.420

```
RL  149.99 LAL   -.00 LOL   2.49 VL  27.807 GAL  -8.64 AZL  83.52 HCA 149.43 SMA 133.19 ECC .19518 INC 6.4763 V1  29.707
RP  107.53 LAP   3.29 LOP 152.08 VP  38.368 GAP   1.80 AZP  95.58 TAL 221.66 TAP  11.09 RCA 107.20 APO 159.19 V2  35.243
RC  92.917 GL   35.23 GP  -54.34 ZAL 133.28 ZAP 102.28 ETS 337.83 ZAE 118.65 ETE 236.07 ZAC  44.70 ETC 251.17 CLP-111.41
```

PLANETOCENTRIC CONIC

```
C3  28.892 VHL  5.375 DLA  19.93 RAL 224.92 RAD 6568.2 VEL 12.258 PTH   2.21 VHP  5.280 DPA -60.74 RAP 182.80 ECC 1.4755
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 11 17	2979.40	-28.09	94.93	100.54	86.25	24 0 57	2379.4	-28.31	86.27
90.00	16 50 46	4273.43	2.41	176.08	91.70	61.78	18 2 0	3673.4	-1.38	169.45
100.00	0 49 17	2676.09	-29.80	72.73	100.64	87.59	1 33 53	2076.1	-29.82	63.92
100.00	17 59 24	4051.97	3.91	158.97	90.87	60.34	19 6 56	3452.0	-.07	152.44
110.00	2 24 49	2377.20	-34.17	50.08	100.70	91.09	3 4 26	1777.2	-33.64	40.88
110.00	18 40 21	3923.62	7.63	146.94	88.58	56.58	19 45 45	3323.6	3.18	140.68

DIFFERENTIAL CORRECTIONS

```
TDE 1.3935 TRA -.6912 TC3-1.0827 BAU  .5630
RDE  .6642 RRA -.0357 RC3 -.9760 FAU .06119
FDE 2.0450 FRA -.0721 FC3-1.8335 BSP   7069
BDE 1.5437 BRA  .6921 BC3 1.4576 FSP   -826
```

MID-COURSE EXECUTION ACCURACY

```
SGT 2043.4 SGR 1266.3 SG3  254.0
RRT  .8906 RRF  .9709 RTF  .9315
SGB 2403.9 RZS  .1926 RIS  .9629
SG1 2351.3 SG2  500.5 THA  30.42
```

ORBIT DETERMINATION ACCURACY

```
ST  1504.3 SR   708.8 SS   994.8
CRT  .9900 CRS -.9998 CST -.9894
LSA 1933.0 MSA  136.4 SSA   10.2
EL1 1660.5 EL2   90.4 ALF  25.09
```

LAUNCH DATE SEP 26 1970 FLIGHT TIME 112.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 326.647

```
RL  149.99 LAL   -.00 LOL   2.49 VL  27.772 GAL  -8.49 AZL  82.73 HCA 152.65 SMA 132.94 ECC .19465 INC 7.2658 V1  29.707
RP  107.54 LAP   3.33 LOP 155.33 VP  38.338 GAP   2.18 AZP  96.46 TAL 220.83 TAP  13.48 RCA 107.06 APO 158.81 V2  35.238
RC  95.197 GL   38.52 GP  -56.88 ZAL 130.31 ZAP 103.93 ETS 332.96 ZAE 115.40 ETE 232.89 ZAC  42.02 ETC 249.93 CLP-116.15
```

PLANETOCENTRIC CONIC

```
C3  31.122 VHL  5.579 DLA  22.66 RAL 227.19 RAD 6568.2 VEL 12.349 PTH   2.23 VHP  5.664 DPA -61.87 RAP 177.74 ECC 1.5122
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 46 34	3120.57	-27.04	105.12	105.12	81.25	23 38 34	2520.6	-27.97	96.58
90.00	17 33 35	4169.53	-.95	170.28	96.21	61.70	18 43 5	3569.5	-4.72	163.64
100.00	0 28 38	2804.11	-29.06	82.16	105.44	82.68	1 15 22	2204.1	-29.77	73.43
100.00	18 38 8	3961.22	.84	153.98	95.21	60.12	19 44 9	3361.2	-3.14	147.46
110.00	2 11 21	2482.79	-34.00	58.32	106.01	86.22	2 52 44	1882.8	-34.15	49.08
110.00	19 11 55	3855.31	5.05	143.33	92.59	56.15	20 16 10	3255.3	.57	137.11

DIFFERENTIAL CORRECTIONS

```
TDE 1.6717 TRA -.6743 TC3-1.0987 BAU  .5841
RDE  .7129 RRA  .0343 RC3 -.8740 FAU .05280
FDE 1.9669 FRA  .0192 FC3-1.4689 BSP   7550
BDE 1.8173 BRA  .6751 BC3 1.4039 FSP   -738
```

MID-COURSE EXECUTION ACCURACY

```
SGT 2239.1 SGR 1220.0 SG3  224.8
RRT  .8873 RRF  .9698 RTF  .9376
SGB 2549.9 RZS  .2017 RIS  .9633
SG1 2499.6 SG2  504.1 THA  26.99
```

ORBIT DETERMINATION ACCURACY

```
ST  1732.0 SR   732.8 SS   988.9
CRT  .9892 CRS -.9998 CST -.9911
LSA 2120.3 MSA  138.7 SSA    8.7
EL1 1878.0 EL2   99.1 ALF  22.78
```

LAUNCH DATE SEP 26 1970 FLIGHT TIME 114.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 332.843

```
RL  149.99 LAL   -.00 LOL   2.49 VL  27.735 GAL  -8.33 AZL  81.75 HCA 155.86 SMA 132.66 ECC .19417 INC 8.2475 V1  29.707
RP  107.56 LAP   3.36 LOP 158.58 VP  38.306 GAP   2.55 AZP  97.54 TAL 219.93 TAP  15.79 RCA 106.90 APO 158.42 V2  35.232
RC  97.481 GL   42.15 GP  -59.76 ZAL 126.96 ZAP 104.99 ETS 327.72 ZAE 111.93 ETE 229.72 ZAC  39.04 ETC 248.35 CLP-120.90
```

PLANETOCENTRIC CONIC

```
C3  34.416 VHL  5.867 DLA  25.65 RAL 229.80 RAD 6568.4 VEL 12.481 PTH   2.26 VHP  6.164 DPA -63.11 RAP 171.86 ECC 1.5664
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 8 10	3315.61	-24.29	118.73	109.92	74.98	23 3 26	2715.6	-26.12	110.54
90.00	18 32 48	4025.19	-5.58	162.20	102.37	62.19	19 39 54	3425.2	-9.26	155.45
100.00	23 54 55	2971.48	-27.01	94.17	110.68	76.69	24 44 26	2371.5	-28.58	85.72
100.00	19 28 45	3844.56	-3.11	147.58	101.01	60.26	20 32 50	3244.6	-7.05	141.00
110.00	1 53 34	2612.52	-32.97	68.30	112.07	80.40	2 37 7	2012.5	-33.94	59.20
110.00	19 50 31	3776.28	2.04	139.19	97.80	55.87	20 53 27	3176.3	-2.45	132.99

DIFFERENTIAL CORRECTIONS

```
TDE 2.0216 TRA -.6327 TC3-1.0652 BAU  .5975
RDE  .7527 RRA  .1216 RC3 -.7429 FAU .04402
FDE 1.8832 FRA  .1081 FC3-1.1073 BSP   7912
BDE 2.1571 BRA  .6442 BC3 1.2987 FSP   -633
```

MID-COURSE EXECUTION ACCURACY

```
SGT 2435.2 SGR 1147.8 SG3  194.8
RRT  .8767 RRF  .9659 RTF  .9424
SGB 2692.1 RZS  .2113 RIS  .9632
SG1 2643.6 SG2  508.6 THA  23.37
```

ORBIT DETERMINATION ACCURACY

```
ST  1985.4 SR   736.6 SS   979.9
CRT  .9875 CRS -.9993 CST -.9925
LSA 2329.0 MSA  142.7 SSA    7.3
EL1 2114.8 EL2  109.0 ALF  20.18
```

LAUNCH DATE SEP 26 1970 FLIGHT TIME 116.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 339.006

```
RL  149.99 LAL   -.00 LOL   2.49 VL  27.695 GAL  -8.16 AZL  80.49 HCA 159.07 SMA 132.37 ECC .19374 INC 9.5098 V1  29.707
RP  107.58 LAP   3.38 LOP 161.83 VP  38.271 GAP   2.90 AZP  98.89 TAL 218.97 TAP  18.04 RCA 106.72 APO 158.01 V2  35.226
RC  99.767 GL   46.14 GP  -63.04 ZAL 123.22 ZAP 105.41 ETS 321.90 ZAE 108.18 ETE 226.29 ZAC  35.66 ETC 246.21 CLP-125.88
```

PLANETOCENTRIC CONIC

```
C3  39.464 VHL  6.282 DLA  28.90 RAL 232.83 RAD 6568.5 VEL 12.682 PTH   2.30 VHP  6.830 DPA -64.34 RAP 164.72 ECC 1.6495
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.95	19 42 24	3867.40	-15.53	155.68	112.64	65.31	20 46 51	3267.4	-18.73	148.43
96.05	21 22 47	3542.56	-15.52	131.87	112.63	65.30	22 21 50	2942.6	-18.72	124.61
100.00	22 58 24	3235.42	-21.64	111.91	115.36	68.86	23 52 20	2635.4	-24.32	104.14
100.00	20 49 28	3649.76	-9.58	136.74	109.59	61.55	21 50 18	3049.8	-13.31	129.93
110.00	1 28 11	2778.76	-30.41	80.57	118.67	73.57	2 14 30	2178.8	-32.35	71.90
110.00	20 40 7	3679.19	-1.67	134.13	104.76	55.85	21 41 26	3079.2	-6.14	127.89

DIFFERENTIAL CORRECTIONS

```
TDE 2.4642 TRA -.5880 TC3 -.9864 BAU  .6083
RDE  .7540 RRA  .2186 RC3 -.5970 FAU .03589
FDE 1.7785 FRA  .1735 FC3 -.7873 BSP   8494
BDE 2.5770 BRA  .6068 BC3 1.1529 FSP   -554
```

MID-COURSE EXECUTION ACCURACY

```
SGT 2635.4 SGR 1042.8 SG3  164.9
RRT  .8524 RRF  .9540 RTF  .9481
SGB 2832.3 RZS  .2169 RIS  .9642
SG1 2785.0 SG2  515.5 THA  19.34
```

ORBIT DETERMINATION ACCURACY

```
ST  2254.7 SR   691.4 SS   957.9
CRT  .9842 CRS -.9977 CST -.9937
LSA 2541.3 MSA  145.3 SSA    6.0
EL1 2355.4 EL2  117.4 ALF  16.84
```

LAUNCH DATE SEP 26 1970 FLIGHT TIME 118.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 345.134
RL 149.99 LAL -.00 LOL 2.49 VL 27.653 GAL -7.98 AZL 78.80 HCA 162.26 SMA 132.06 ECC .19332 INC11.2035 V1 29.707
RP 107.60 LAP 3.39 LOP 165.07 VP 38.254 GAP 3.23 AZP 100.68 TAL 217.94 TAP 20.20 RCA 106.53 APO 157.59 V2 35.210
RC 102.053 GL 50.46 GP -66.83 ZAL 119.05 ZAP 105.14 ETS 315.05 ZAE 104.02 ETE 222.06 ZAC 31.75 ETC 243.06 CLP-131.57
PLANETOCENTRIC CONIC
C3 47.600 VHL 6.899 DLA 32.38 RAL 236.41 RAD 6568.8 VEL 12.999 PTH 2.37 VHP 7.755 DPA -65.34 RAP 155.79 ECC 1.7834

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.60	18 40 1	4158.13	-15.73	177.52	120.05	61.33	19 49 19	3558.1	-19.44	170.50
106.40	22 53 43	3346.19	-15.72	117.31	120.04	61.32	23 49 29	2746.2	-19.42	110.29
73.60	18 40 1	4158.13	-15.73	177.52	120.05	61.33	19 49 19	3558.1	-19.44	170.50
106.40	22 53 43	3346.19	-15.72	117.31	120.04	61.32	23 49 29	2746.2	-19.42	110.29
110.00	0 44 6	3017.55	-24.68	96.76	124.81	65.57	1 34 24	2417.5	-27.77	88.95
110.00	21 52 44	3534.77	-7.15	126.54	114.78	56.48	22 51 39	2934.8	-11.51	120.16

DIFFERENTIAL CORRECTIONS
TDE 3.0633 TRA -.4431 TC3 -.8459 BAU .6024
RDE .6799 RRA .3437 RC3 -.4250 FAU .02762
FDE 1.6774 FRA .2357 FC3 -.5024 BSP 8904
BDE 3.1379 BRA .5607 BC3 .9467 FSP -460

MID-COURSE EXECUTION ACCURACY
SGT 2832.7 SGR 881.4 SG3 135.9
RRT .7905 RRF .9169 RTF .9542
SGB 2966.6 RZS .2218 R13 .9653
SG1 2920.0 SG2 523.7 THA 14.29

ORBIT DETERMINATION ACCURACY
ST 2547.6 SR 573.9 SS 934.6
CRT .9738 CRS -.9917 CST -.9949
LSA 2769.5 MSA 150.2 SSA 4.8
EL1 2608.3 EL2 127.6 ALF 12.40

LAUNCH DATE SEP 26 1970 FLIGHT TIME 120.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 351.218
RL 149.99 LAL -.00 LOL 2.49 VL 27.609 GAL -7.79 AZL 76.39 HCA 165.43 SMA 131.74 ECC .19292 INC13.6085 V1 29.707
RP 107.63 LAP 3.39 LOP 168.32 VP 38.195 GAP 3.55 AZP 103.19 TAL 216.86 TAP 22.29 RCA 106.32 APO 157.16 V2 35.211
RC 104.339 GL 55.01 GP -71.18 ZAL 114.46 ZAP 104.12 ETS 306.11 ZAE 99.28 ETE 215.84 ZAC 27.14 ETC 237.91 CLP-139.14
PLANETOCENTRIC CONIC
C3 61.717 VHL 7.856 DLA 35.93 RAL 240.69 RAD 6569.2 VEL 13.530 PTH 2.47 VHP 9.111 DPA -65.70 RAP 144.67 ECC 2.0157

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
66.90	18 16 38	4345.71	-14.94	191.66	129.11	56.94	19 29 4	3745.7	-19.18	184.98
113.10	23 51 16	3286.82	-14.92	112.19	129.10	56.93	24 46 2	2686.8	-19.17	105.51
66.90	18 16 38	4345.71	-14.94	191.66	129.11	56.94	19 29 4	3745.7	-19.18	184.98
113.10	23 51 16	3286.82	-14.92	112.19	129.10	56.93	24 46 2	2686.8	-19.17	105.51
66.90	18 16 38	4345.71	-14.94	191.66	129.11	56.94	19 29 4	3745.7	-19.18	184.98
113.10	23 51 16	3286.82	-14.92	112.19	129.10	56.93	24 46 2	2686.8	-19.17	105.51

DIFFERENTIAL CORRECTIONS
TDE 3.0030 TRA -.2252 TC3 -.6502 BAU .5728
RDE .3078 RRA .4921 RC3 -.2433 FAU .01978
FDE 1.5822 FRA .2068 FC3 -.2775 BSP 9339
BDE 3.9131 BRA .3412 BC3 .6942 FSP -372

MID-COURSE EXECUTION ACCURACY
SGT 3024.8 SGR 650.1 SG3 108.9
RRT .5614 RRF .7416 RTF .9627
SGB 3093.9 RZS .2220 R13 .9678
SG1 3047.4 SG2 534.0 THA 7.10

ORBIT DETERMINATION ACCURACY
ST 2840.7 SR 312.8 SS 910.5
CRT .8954 CRS -.9312 CST -.9961
LSA 2995.3 MSA 156.4 SSA 3.7
EL1 2854.5 EL2 138.6 ALF 5.64

LAUNCH DATE SEP 26 1970 FLIGHT TIME 122.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 357.241
RL 149.99 LAL -.00 LOL 2.49 VL 27.563 GAL -7.58 AZL 72.70 HCA 168.56 SMA 131.41 ECC .19250 INC17.3040 V1 29.707
RP 107.65 LAP 3.38 LOP 171.56 VP 38.154 GAP 3.85 AZP 106.98 TAL 215.70 TAP 24.26 RCA 106.12 APO 156.71 V2 35.202
RC 106.624 GL 58.46 GP -76.02 ZAL 109.48 ZAP 102.35 ETS 292.10 ZAE 93.66 ETE 204.53 ZAC 21.57 ETC 228.27 CLP-152.28
PLANETOCENTRIC CONIC
C3 89.034 VHL 9.436 DLA 39.20 RAL 245.89 RAD 6569.7 VEL 14.504 PTH 2.63 VHP 11.258 DPA -64.70 RAP 131.57 ECC 2.4693

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.68	18 10 41	4509.08	-12.63	203.32	139.96	52.58	19 25 50	3909.1	-17.40	197.08
118.32	0 42 37	3294.19	-12.62	111.11	139.95	52.57	1 37 32	2694.2	-17.39	104.88
61.68	18 10 41	4509.08	-12.63	203.32	139.96	52.58	19 25 50	3909.1	-17.40	197.08
118.32	0 42 37	3294.19	-12.62	111.11	139.95	52.57	1 37 32	2694.2	-17.39	104.88
61.68	18 10 41	4509.08	-12.63	203.32	139.96	52.58	19 25 50	3909.1	-17.40	197.08
118.32	0 42 37	3294.19	-12.62	111.11	139.95	52.57	1 37 32	2694.2	-17.39	104.88

DIFFERENTIAL CORRECTIONS
TDE 5.0274 TRA .2010 TC3 -.4055 BAU .4909
RDE -.5530 RRA .6235 RC3 -.0751 FAU .01229
FDE 1.5194 FRA .3366 FC3 -.1195 BSP 9730
BDE 5.0577 BRA .6552 BC3 .4124 FSP -293

MID-COURSE EXECUTION ACCURACY
SGT 3151.1 SGR 609.5 SG3 85.2
RRT -.4371 RRF -.2479 RTF .9757
SGB 3209.5 RZS -.2132 R13 -.9726
SG1 3162.7 SG2 546.2 THA 175.02

ORBIT DETERMINATION ACCURACY
ST 3053.1 SR 366.4 SS 900.7
CRT -.9100 CRS .8788 CST -.9975
LSA 3200.0 MSA 164.4 SSA 2.6
EL1 3071.3 EL2 151.0 ALF 173.75

LAUNCH DATE SEP 26 1970 FLIGHT TIME 124.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 363.162
RL 149.99 LAL -.00 LOL 2.49 VL 27.516 GAL -7.35 AZL 66.32 HCA 171.61 SMA 131.08 ECC .19196 INC23.6827 V1 29.707
RP 107.68 LAP 3.36 LOP 174.81 VP 38.112 GAP 4.11 AZP 113.46 TAL 214.45 TAP 26.06 RCA 105.92 APO 156.24 V2 35.193
RC 108.906 GL 62.93 GP -80.14 ZAL 104.25 ZAP 99.83 ETS 264.62 ZAE 86.49 ETE 179.58 ZAC 14.52 ETC 208.55 CLP 175.74
PLANETOCENTRIC CONIC
C3 151.533 VHL 12.310 DLA 41.35 RAL 252.22 RAD 6570.6 VEL 16.519 PTH 2.88 VHP 15.053 DPA -61.21 RAP 117.90 ECC 3.4939

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.52	18 21 36	4656.54	-8.51	212.45	152.45	49.38	19 39 13	4056.5	-13.66	206.63
121.48	1 22 11	3361.17	-8.49	113.40	152.43	49.38	2 18 12	2761.2	-13.64	107.58
58.52	18 21 36	4656.54	-8.51	212.45	152.45	49.38	19 39 13	4056.5	-13.66	206.63
121.48	1 22 11	3361.17	-8.49	113.40	152.43	49.38	2 18 12	2761.2	-13.64	107.58
58.52	18 21 36	4656.54	-8.51	212.45	152.45	49.38	19 39 13	4056.5	-13.66	206.63
121.48	1 22 11	3361.17	-8.49	113.40	152.43	49.38	2 18 12	2761.2	-13.64	107.58

DIFFERENTIAL CORRECTIONS
TDE 5.9476 TRA 1.0704 TC3 -.1376 BAU .2793
RDE-3.4885 RRA .3705 RC3 .0088 FAU .00445
FDE 1.5495 FRA .4116 FC3 -.0254 BSP 10015
BDE 6.8951 BRA 1.1327 BC3 .1379 FSP -226

MID-COURSE EXECUTION ACCURACY
SGT 2866.8 SGR 1640.0 SG3 66.3
RRT -.9252 RRF -.8847 RTF .9939
SGB 3302.7 RZS -.1827 R13 -.9812
SG1 3257.0 SG2 547.9 THA 151.22

ORBIT DETERMINATION ACCURACY
ST 2775.4 SR 1625.2 SS 943.2
CRT -.9935 CRS .9890 CST -.9994
LSA 3347.4 MSA 169.9 SSA 1.8
EL1 3212.2 EL2 160.1 ALF 149.73

LAUNCH DATE SEP 26 1970 FLIGHT TIME 126.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 368.841

```
RL  149.99 LAL   -.00 LOL   2.49 VL  27.468 GAL  -7.06 AZL  53.16 HCA 174.45 SMA 130.73 ECC .19103 INC36.8376 V1  29.707
RP  107.71 LAP   3.32 LOP 178.05 VP  38.069 GAP   4.31 AZP 126.71 TAL 213.01 TAP  27.46 RCA 105.76 APO 155.71 V2  35.184
RC 111.186 GL   62.80 GP  -76.83 ZAL  99.04 ZAP  96.73 ETS 219.56 ZAE  75.86 ETE 136.87 ZAC   6.02 ETC 205.12 CLP 120.93
```

PLANETOCENTRIC CONIC

```
C3 537.639 VHL 18.375 DLA  40.00 RAL 259.60 RAD 6571.9 VEL 21.423 PTH   3.21 VHP 22.930 DPA -53.01 RAP 106.02 ECC 6.5567
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.49	18 59 49	4747.45	-3.27	215.76	165.72	50.12	20 18 56	4147.4	-8.37	209.98
119.51	1 42 50	3501.14	-3.25	120.91	165.70	50.11	2 41 11	2901.1	-8.35	115.13
60.49	18 59 49	4747.45	-3.27	215.76	165.72	50.12	20 18 56	4147.4	-8.37	209.98
119.51	1 42 50	3501.14	-3.25	120.91	165.70	50.11	2 41 11	2901.1	-8.35	115.13
60.49	18 59 49	4747.45	-3.27	215.76	165.72	50.12	20 18 56	4147.4	-8.37	209.98
119.51	1 42 50	3501.14	-3.25	120.91	165.70	50.11	2 41 11	2901.1	-8.35	115.13

DIFFERENTIAL CORRECTIONS

```
TDE 3.3333 TRA 1.9002 TC3 -.0008 BAU  .4746
RDE-9.5311 RRA-1.6129 RC3 -.1051 FAU-.00790
FDE 1.8245 FRA  .6095 FC3  .0203 BSP   9913
BDE10.0972 BRA 2.4924 BC3  .1051 FSP   -176
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1295.6 SGR 3068.0 SG3   54.0
RRT -.9046 RRF -.9815 RTF  .9668
SGB 3330.3 R23 -.1245 R13 -.9911
SG1 3290.3 SG2  515.0 THA 111.46
```

ORBIT DETERMINATION ACCURACY

```
ST  1064.9 SR  2978.5 SS  1136.7
CRT -.9882 CRS  .9980 CST -.9960
LSA 3357.3 MSA  161.4 SSA    1.7
EL1 3159.4 EL2  153.5 ALF 109.51
```

LAUNCH DATE SEP 26 1970 FLIGHT TIME 128.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 373.694

```
RL  149.99 LAL   -.00 LOL   2.49 VL  27.419 GAL  -6.61 AZL  20.21 HCA 176.50 SMA 130.39 ECC .18852 INC69.7864 V1  29.707
RP  107.74 LAP   3.28 LOP 181.28 VP  38.024 GAP   4.27 AZP 159.75 TAL 211.00 TAP  27.50 RCA 105.81 APO 154.97 V2  35.174
RC 113.462 GL   51.31 GP  -58.50 ZAL  94.67 ZAP  93.66 ETS 191.79 ZAE  55.89 ETE 112.14 ZAC  18.74 ETC 271.48 CLP  97.01
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PLANETOCENTRIC CONIC

```
C31072.154 VHL 32.744 DLA  27.93 RAL 266.48 RAD 6573.0 VEL 34.546 PTH   3.51 VHP 41.484 DPA -34.05 RAP  98.60 ECC18.6449
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.00	23 27 44	4074.94	-3.99	165.00	179.31	61.94	24 35 39	3474.9	-7.71	158.29
90.00	22 5 51	4341.05	4.58	179.86	174.75	62.03	23 18 12	3741.0	.80	173.22
100.00	1 42 44	3652.40	-9.50	136.89	182.29	61.52	2 43 37	3052.4	-13.23	130.08
100.00	22 37 28	4238.82	10.09	169.39	171.78	61.71	23 48 7	3638.8	6.23	162.73
110.00	3 54 36	3239.70	-17.76	110.28	187.01	60.30	4 48 36	2639.7	-21.58	103.23
110.00	22 42 5	4224.28	18.38	163.60	167.09	60.66	23 52 30	3624.5	14.33	156.82

DIFFERENTIAL CORRECTIONS

```
TDE-2.9560 TRA 1.5219 TC3 -.0586 BAU 2.9536
RD-13.7301 RRA-5.7828 RC3 -.1975 FAU-.04670
FDE 2.5202 FRA 1.2943 FC3  .0377 BSP   8475
BDE14.0447 BRA 5.9797 BC3  .2061 FSP   -146
```

MID-COURSE EXECUTION ACCURACY

```
SGT  711.2 SGR 2959.3 SG3   49.0
RRT  .6624 RRF -.9973 RTF -.6095
SGB 3043.6 R23 -.0970 R13 -.9949
SG1 2997.8 SG2  525.9 THA  80.66
```

ORBIT DETERMINATION ACCURACY

```
ST   525.2 SR  2427.3 SS  1604.7
CRT  .9508 CRS  .9995 CST  .9408
LSA 2951.9 MSA  170.0 SSA    1.6
EL1 2478.3 EL2  159.4 ALF  78.33
```

LAUNCH DATE SEP 26 1970 FLIGHT TIME 130.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 383.955

```
RL  149.99 LAL   -.00 LOL   2.49 VL  27.369 GAL  -7.24 AZL 147.90 HCA 183.81 SMA 130.04 ECC .19761 INC57.8996 V1  29.707
RP  107.77 LAP   3.23 LOP 184.52 VP  37.978 GAP   5.75 AZP  32.16 TAL 212.38 TAP  36.19 RCA 104.34 APO 155.73 V2  35.164
RC 115.736 GL  -55.92 GP   63.61 ZAL  96.11 ZAP  95.74 ETS 175.26 ZAE  68.98 ETE 254.91 ZAC 141.05 ETC 271.52 CLP 103.00
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PLANETOCENTRIC CONIC

```
C3 771.070 VHL 27.768 DLA -78.64 RAL 245.25 RAD 6572.8 VEL 29.872 PTH   3.45 VHP 36.119 DPA  85.22 RAP 168.73 ECC13.6899
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
12.93	3 49 50	2444.60	.48	82.93	155.15	168.64	4 30 35	1844.6	8.32	81.76
167.07	14 58 22	650.60	.48	282.86	155.17	168.64	15 9 12	50.6	8.32	281.69
12.93	3 49 50	2444.60	.48	82.93	155.15	168.64	4 30 35	1844.6	8.32	81.76
167.07	14 58 22	650.60	.48	282.86	155.17	168.64	15 9 12	50.6	8.32	281.69
12.93	3 49 50	2444.60	.48	82.93	155.15	168.64	4 30 35	1844.6	8.32	81.76
167.07	14 58 22	650.60	.48	282.86	155.17	168.64	15 9 12	50.6	8.32	281.69

DIFFERENTIAL CORRECTIONS

```
TDE 4.3029 TRA  .4965 TC3 -.0728 BAU 2.1180
RD-13.9105 RRA  .0580 RC3  .1921 FAU-.03006
FDE-2.8290 FRA  .0338 FC3  .0338 BSP   9775
BDE14.5608 BRA  .4999 BC3  .2055 FSP   -163
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1105.4 SGR 3062.8 SG3   53.1
RRT -.8707 RRF  .9983 RTF -.8479
SGB 3256.2 R23 -.0952 R13  .9947
SG1 3214.7 SG2  517.9 THA 107.93
```

ORBIT DETERMINATION ACCURACY

```
ST   901.5 SR  2870.5 SS  1822.0
CRT -.9838 CRS -.9999 CST  .9816
LSA 3513.7 MSA  160.4 SSA    2.1
EL1 3004.7 EL2  154.4 ALF 107.22
```

LAUNCH DATE SEP 26 1970 FLIGHT TIME 132.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 389.064

```
RL  149.99 LAL   -.00 LOL   2.49 VL  27.318 GAL  -6.82 AZL 121.07 HCA 186.14 SMA 129.68 ECC .19566 INC51.0720 V1  29.707
RP  107.80 LAP   3.16 LOP 187.75 VP  37.931 GAP   5.77 AZP  59.07 TAL 212.55 TAP  36.69 RCA 104.31 APO 155.06 V2  35.153
RC 118.005 GL  -63.33 GP   76.48 ZAL 100.12 ZAP 100.08 ETS 138.87 ZAE  86.26 ETE 219.46 ZAC 156.53 ETC 249.54 CLP 138.45
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PLANETOCENTRIC CONIC

```
C3 245.433 VHL 15.666 DLA -80.76 RAL 190.80 RAD 6571.4 VEL 19.151 PTH   3.09 VHP 20.661 DPA  71.58 RAP 244.13 ECC 5.0392
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
10.50	0 7 53	2341.12	7.64	83.40	99.54	170.68	0 46 54	1741.1	15.54	82.48
169.50	11 25 53	5828.93	7.65	258.88	99.56	170.68	13 3 2	5228.9	15.54	257.96
10.50	0 7 53	2341.12	7.64	83.40	99.54	170.68	0 46 54	1741.1	15.54	82.48
169.50	11 25 53	5828.93	7.65	258.88	99.56	170.68	13 3 2	5228.9	15.54	257.96
10.50	0 7 53	2341.12	7.64	83.40	99.54	170.68	0 46 54	1741.1	15.54	82.48
169.50	11 25 53	5828.93	7.65	258.88	99.56	170.68	13 3 2	5228.9	15.54	257.96

DIFFERENTIAL CORRECTIONS

```
TDE-2.8660 TRA -.4080 TC3 -.0099 BAU  .1920
RDE-4.2254 RRA-1.3055 RC3  .0577 FAU .00105
FDE-1.1959 FRA -.2557 FC3 -.0037 BSP  11204
BDE 5.1057 BRA 1.3678 BC3  .0585 FSP   -202
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1401.5 SGR 3357.4 SG3   63.0
RRT  .9310 RRF  .9840 RTF  .9798
SGB 3638.2 R23 -.1228 R13  .9918
SG1 3606.9 SG2  476.3 THA  68.37
```

ORBIT DETERMINATION ACCURACY

```
ST  1084.7 SR  1784.6 SS   840.8
CRT  .9654 CRS -.9897 CST -.9928
LSA 2237.3 MSA  249.9 SSA    1.3
EL1 2074.1 EL2  243.2 ALF  59.12
```

LAUNCH DATE SEP 26 1970 FLIGHT TIME 134.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 394.744

RL 149.99 LAL -.00 LOL 2.49 VL 27.266 GAL -6.51 AZL 110.07 HCA 189.03 SMA 129.33 ECC .19512 INC20.0668 V1 29.707
RP 107.84 LAP 3.09 LOP 190.99 VP 37.884 GAP 5.95 AZP 70.16 TAL 209.04 TAP 38.07 RCA 104.09 APO 154.56 V2 35.141
RC 120.271 GL -61.77 GP 74.74 ZAL 104.28 ZAP 105.26 ETS 83.79 ZAE 95.95 ETE 165.43 ZAC 161.66 ETC 218.95 CLP 179.65

PLANETOCENTRIC CONIC

C3 111.297 VHL 10.550 DLA -76.66 RAL 187.27 RAD 6570.1 VEL 15.252 PTH 2.73 VHP 14.154 DPA 60.69 RAP 245.54 ECC 2.8317

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
15.20	0 3 2	2198.84	16.51	78.90	93.23	166.07	0 39 40	1598.8	24.26	77.21
164.80	11 2 34	5699.93	16.51	258.96	93.25	166.07	12 37 33	5099.9	24.26	257.27
15.20	0 3 2	2198.84	16.51	78.90	93.23	166.07	0 39 40	1598.8	24.26	77.21
164.80	11 2 34	5699.93	16.51	258.96	93.25	166.07	12 37 33	5099.9	24.26	257.27
15.20	0 3 2	2198.84	16.51	78.90	93.23	166.07	0 39 40	1598.8	24.26	77.21
164.80	11 2 34	5699.93	16.51	258.96	93.25	166.07	12 37 33	5099.9	24.26	257.27

DIFFERENTIAL CORRECTIONS
TDE-2.8801 TRA-1.3799 TC3 -.2693 BAU .4017
RDE .2742 RRA -.3865 RC3 -.0189 FAU .01318
FDE -.9103 FRA -.3149 FC3 -.1025 BSP 11404
BDE 2.8931 BRA 1.4330 BC3 .2700 FSP -250

MID-COURSE EXECUTION ACCURACY
SGT 3649.3 SGR 922.7 SG3 79.2
RRT .8150 RRF .7202 RTF .9873
SGB 3764.1 R23 -.1749 R13 .9826
SG1 3727.5 SG2 523.5 THA 11.88

ORBIT DETERMINATION ACCURACY
ST 1842.9 SR 310.9 SS 662.9
CRT .0576 CRS .0768 CST -.9910
LSA 1956.8 MSA 321.7 SSA 2.0
EL1 1843.0 EL2 310.4 ALF .57

LAUNCH DATE SEP 26 1970 FLIGHT TIME 136.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 400.578

RL 149.99 LAL -.00 LOL 2.49 VL 27.214 GAL -6.23 AZL 104.48 HCA 192.09 SMA 128.97 ECC .19504 INC14.4820 V1 29.707
RP 107.87 LAP 3.00 LOP 194.21 VP 37.835 GAP 6.18 AZP 75.83 TAL 207.60 TAP 39.69 RCA 103.82 APO 154.13 V2 35.130
RC 122.531 GL -57.63 GP 68.57 ZAL 107.92 ZAP 110.61 ETS 66.25 ZAE 102.71 ETE 149.54 ZAC 160.96 ETC 225.64 CLP-164.47

PLANETOCENTRIC CONIC

C3 64.159 VHL 8.010 DLA -72.62 RAL 195.11 RAD 6569.2 VEL 13.620 PTH 2.49 VHP 10.972 DPA 52.16 RAP 244.58 ECC 2.0559

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
19.83	0 43 43	2065.89	24.17	73.05	97.02	160.89	1 18 9	1465.9	31.69	70.39
160.17	11 24 24	5585.39	24.17	257.75	97.04	160.89	12 57 29	4985.4	31.70	255.10
19.83	0 43 43	2065.89	24.17	73.05	97.02	160.89	1 18 9	1465.9	31.69	70.39
160.17	11 24 24	5585.39	24.17	257.75	97.04	160.89	12 57 29	4985.4	31.70	255.10
19.83	0 43 43	2065.89	24.17	73.05	97.02	160.89	1 18 9	1465.9	31.69	70.39
160.17	11 24 24	5585.39	24.17	257.75	97.04	160.89	12 57 29	4985.4	31.70	255.10

DIFFERENTIAL CORRECTIONS
TDE-2.4391 TRA-1.3477 TC3 -.7126 BAU .6180
RDE .8243 RRA .0067 RC3 .1063 FAU .02181
FDE-1.0016 FRA -.3333 FC3 -.2943 BSP 11958
BDE 2.5746 BRA 1.3477 BC3 .7205 FSP -327

MID-COURSE EXECUTION ACCURACY
SGT 3842.7 SGR 613.9 SG3 101.2
RRT -.5406 RRF -.7168 RTF .9695
SGB 3891.4 R23 .2177 R13 -.9721
SG1 3857.2 SG2 514.5 THA 174.97

ORBIT DETERMINATION ACCURACY
ST 1995.7 SR 589.6 SS 716.2
CRT -.8783 CRS .9510 CST -.9831
LSA 2181.5 MSA 290.7 SSA 2.7
EL1 2063.0 EL2 272.7 ALF 165.19

LAUNCH DATE SEP 26 1970 FLIGHT TIME 138.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 406.463

RL 149.99 LAL -.00 LOL 2.49 VL 27.162 GAL -5.96 AZL 101.15 HCA 195.22 SMA 128.61 ECC .19520 INC11.1482 V1 29.707
RP 107.91 LAP 2.91 LOP 197.44 VP 37.787 GAP 6.42 AZP 79.23 TAL 206.17 TAP 41.39 RCA 103.51 APO 153.72 V2 35.118
RC 124.786 GL -52.86 GP 62.17 ZAL 110.82 ZAP 115.84 ETS 60.38 ZAE 107.91 ETE 145.88 ZAC 157.49 ETC 235.91 CLP-158.99

PLANETOCENTRIC CONIC

C3 42.934 VHL 6.552 DLA -68.67 RAL 203.38 RAD 6568.6 VEL 12.818 PTH 2.33 VHP 9.201 DPA 44.85 RAP 243.67 ECC 1.7066

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
24.41	1 26 28	1954.62	29.73	66.26	100.48	155.23	1 59 2	1354.6	36.93	62.49
155.59	11 47 41	5497.86	29.74	255.74	100.50	155.23	13 19 19	4897.9	36.94	251.98
24.41	1 26 28	1954.62	29.73	66.26	100.48	155.23	1 59 2	1354.6	36.93	62.49
155.59	11 47 41	5497.86	29.74	255.74	100.50	155.23	13 19 19	4897.9	36.94	251.98
24.41	1 26 28	1954.62	29.73	66.26	100.48	155.23	1 59 2	1354.6	36.93	62.49
155.59	11 47 41	5497.86	29.74	255.74	100.50	155.23	13 19 19	4897.9	36.94	251.98

DIFFERENTIAL CORRECTIONS
TDE-2.2391 TRA-1.2377 TC3-1.2390 BAU .7260
RDE .8247 RRA .0801 RC3 .2537 FAU .02899
FDE-1.0799 FRA -.3228 FC3 -.5846 BSP 12401
BDE 2.3862 BRA 1.2403 BC3 1.2648 FSP -407

MID-COURSE EXECUTION ACCURACY
SGT 3914.3 SGR 817.1 SG3 124.6
RRT -.7894 RRF -.9206 RTF .9567
SGB 3998.7 R23 .2495 R13 -.9621
SG1 3967.9 SG2 494.8 THA 170.49

ORBIT DETERMINATION ACCURACY
ST 2152.4 SR 723.5 SS 773.3
CRT -.9401 CRS .9869 CST -.9828
LSA 2384.6 MSA 260.0 SSA 3.6
EL1 2258.5 EL2 235.0 ALF 162.26

LAUNCH DATE SEP 26 1970 FLIGHT TIME 140.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 412.367

RL 149.99 LAL -.00 LOL 2.49 VL 27.109 GAL -5.68 AZL 98.94 HCA 198.38 SMA 128.26 ECC .19552 INC 8.9351 V1 29.707
RP 107.95 LAP 2.81 LOP 200.66 VP 37.737 GAP 6.67 AZP 81.51 TAL 204.74 TAP 43.12 RCA 103.18 APO 153.34 V2 35.105
RC 127.036 GL -48.09 GP 56.25 ZAL 112.93 ZAP 120.77 ETS 57.63 ZAE 112.04 ETE 145.76 ZAC 153.21 ETC 242.88 CLP-157.05

PLANETOCENTRIC CONIC

C3 31.694 VHL 5.630 DLA -64.85 RAL 210.66 RAD 6568.3 VEL 12.372 PTH 2.23 VHP 8.134 DPA 38.38 RAP 243.14 ECC 1.5216

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.87	2 5 32	1863.45	33.34	59.02	102.66	149.42	2 36 35	1263.5	40.11	54.13
151.13	12 6 43	5435.81	33.34	253.41	102.68	149.42	13 37 18	4835.8	40.12	248.51
28.87	2 5 32	1863.45	33.34	59.02	102.66	149.42	2 36 35	1263.5	40.11	54.13
151.13	12 6 43	5435.81	33.34	253.41	102.68	149.42	13 37 18	4835.8	40.12	248.51
28.87	2 5 32	1863.45	33.34	59.02	102.66	149.42	2 36 35	1263.5	40.11	54.13
151.13	12 6 43	5435.81	33.34	253.41	102.68	149.42	13 37 18	4835.8	40.12	248.51

DIFFERENTIAL CORRECTIONS
TDE-2.0687 TRA-1.1293 TC3-1.8243 BAU .7898
RDE .7305 RRA .0763 RC3 .3824 FAU .03487
FDE-1.1010 FRA -.2868 FC3 -.9525 BSP 12726
BDE 2.1939 BRA 1.1319 BC3 1.8639 FSP -481

MID-COURSE EXECUTION ACCURACY
SGT 3995.5 SGR 878.3 SG3 146.6
RRT -.8388 RRF -.9533 RTF .9471
SGB 4090.9 R23 .2712 R13 -.9532
SG1 4063.8 SG2 470.2 THA 169.41

ORBIT DETERMINATION ACCURACY
ST 2257.1 SR 745.5 SS 801.0
CRT -.9570 CRS .9941 CST -.9828
LSA 2497.0 MSA 238.3 SSA 4.6
EL1 2368.1 EL2 206.1 ALF 162.32

LAUNCH DATE SEP 26 1970 FLIGHT TIME 142.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 418.273

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RL  149.99 LAL   -.00 LOL   2.49 VL  27.056 GAL  -5.40 AZL  97.35 HCA 201.55 SMA 127.90 ECC .19597 INC 7.3547 V1  29.707
RP  107.99 LAP   2.70 LOP 203.88 VP  37.688 GAP   6.92 AZP  83.15 TAL 203.29 TAP  44.85 RCA 102.84 APO 152.97 V2  35.093
RC 129.278 GL  -43.55 GP   50.95 ZAL 114.25 ZAP 125.31 ETS  55.95 ZAE 115.32 ETE 146.95 ZAC 148.95 ETC 247.41 CLP-156.56
```

PLANETOCENTRIC CONIC

```
C3  25.044 VHL  5.004 DLA -61.24 RAL 217.00 RAD 6568.0 VEL 12.100 PTH   2.17 VHP  7.461 DPA  32.64 RAP 243.00 ECC 1.4122
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.14	2 40 59	1787.78	35.41	51.81	104.02	143.81	3 10 47	1187.8	41.71	45.91
146.86	12 21 50	5394.08	35.42	251.14	104.03	143.81	13 51 44	4794.1	41.72	245.24
33.14	2 40 59	1787.78	35.41	51.81	104.02	143.81	3 10 47	1187.8	41.71	45.91
146.86	12 21 50	5394.08	35.42	251.14	104.03	143.81	13 51 44	4794.1	41.72	245.24
33.14	2 40 59	1787.78	35.41	51.81	104.02	143.81	3 10 47	1187.8	41.71	45.91
146.86	12 21 50	5394.08	35.42	251.14	104.03	143.81	13 51 44	4794.1	41.72	245.24

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.9073 TRA-1.0248 TC3-2.4434 BAU  .8338   SGT 4085.9 SGR  873.8 SG3  165.4     ST  2304.1 SR   718.6 SS   798.7
 RDE  .6267 RRA  .0531 RC3  .4815 FAU .03941   RRT -.8556 RRF -.9608 RTF  .9397    CRT -.9636 CRS  .9967 CST -.9820
 FDE-1.0720 FRA -.2304 FC3-1.3624 BSP  13012   SGB 4178.2 R23  .2843 R13 -.9455    LSA 2532.5 MSA  222.9 SSA    5.8
 BDE 2.0076 BRA 1.0262 BC3 2.4904 FSP   -542   SG1 4154.5 SG2  444.7 THA 169.51   EL1 2406.6 EL2  183.9 ALF 163.17
```

LAUNCH DATE SEP 26 1970 FLIGHT TIME 144.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 424.173

```
RL  149.99 LAL   -.00 LOL   2.49 VL  27.003 GAL  -5.11 AZL  96.16 HCA 204.73 SMA 127.55 ECC .19655 INC 6.1646 V1  29.707
RP  108.03 LAP   2.58 LOP 207.10 VP  37.638 GAP   7.17 AZP  84.40 TAL 201.83 TAP  46.57 RCA 102.48 APO 152.62 V2  35.080
RC 131.513 GL  -39.31 GP   46.26 ZAL 114.83 ZAP 129.44 ETS  54.74 ZAE 117.92 ETE 148.70 ZAC 145.01 ETC 250.47 CLP-156.76
```

PLANETOCENTRIC CONIC

```
C3  20.784 VHL  4.559 DLA -57.87 RAL 222.65 RAD 6567.8 VEL 11.923 PTH   2.12 VHP  7.028 DPA  27.55 RAP 243.21 ECC 1.3421
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.17	3 13 46	1723.28	36.38	44.91	105.07	138.65	3 42 29	1123.3	42.18	38.20
142.83	12 34 6	5367.89	36.39	249.23	105.09	138.64	14 3 33	4767.9	42.19	242.52
37.17	3 13 46	1723.28	36.38	44.91	105.07	138.65	3 42 29	1123.3	42.18	38.20
142.83	12 34 6	5367.89	36.39	249.23	105.09	138.64	14 3 33	4767.9	42.19	242.52
37.17	3 13 46	1723.28	36.38	44.91	105.07	138.65	3 42 29	1123.3	42.18	38.20
142.83	12 34 6	5367.89	36.39	249.23	105.09	138.64	14 3 33	4767.9	42.19	242.52

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.7674 TRA -.0325 TC3-3.0964 BAU  .8744   SGT 4214.2 SGR  853.8 SG3  183.0     ST  2319.1 SR   680.1 SS   781.5
 RDE  .5407 RRA  .0323 RC3  .5607 FAU .04315   RRT -.8674 RRF -.9613 RTF  .9364    CRT -.9674 CRS  .9980 CST -.9811
 FDE-1.0188 FRA -.1707 FC3-1.7975 BSP  13576   SGB 4299.8 R23  .2833 R13 -.9414    LSA 2531.2 MSA  210.3 SSA    7.1
 BDE 1.8483 BRA  .9331 BC3 3.1467 FSP   -613   SG1 4279.4 SG2  418.5 THA 169.94   EL1 2411.1 EL2  165.6 ALF 164.08
```

LAUNCH DATE SEP 26 1970 FLIGHT TIME 146.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 430.067

```
RL  149.99 LAL   -.00 LOL   2.49 VL  26.950 GAL  -4.81 AZL  95.23 HCA 207.92 SMA 127.20 ECC .19724 INC 5.2318 V1  29.707
RP  108.07 LAP   2.45 LOP 210.32 VP  37.588 GAP   7.41 AZP  85.37 TAL 200.36 TAP  48.28 RCA 102.11 APO 152.29 V2  35.067
RC 133.740 GL  -35.38 GP   42.14 ZAL 114.74 ZAP 133.16 ETS  53.78 ZAE 119.96 ETE 150.65 ZAC 141.48 ETC 252.67 CLP-157.31
```

PLANETOCENTRIC CONIC

```
C3  17.889 VHL  4.230 DLA -54.74 RAL 227.82 RAD 6567.7 VEL 11.801 PTH   2.09 VHP  6.749 DPA  23.03 RAP 243.71 ECC 1.2944
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.98	3 44 48	1666.57	36.58	38.46	106.16	134.04	4 12 34	1066.6	41.90	31.15
139.02	12 44 19	5353.70	36.59	247.82	106.17	134.03	14 13 32	4753.7	41.91	240.51
40.98	3 44 48	1666.57	36.58	38.46	106.16	134.04	4 12 34	1066.6	41.90	31.15
139.02	12 44 19	5353.70	36.59	247.82	106.17	134.03	14 13 32	4753.7	41.91	240.51
40.98	3 44 48	1666.57	36.58	38.46	106.16	134.04	4 12 34	1066.6	41.90	31.15
139.02	12 44 19	5353.70	36.59	247.82	106.17	134.03	14 13 32	4753.7	41.91	240.51

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.6194 TRA -.8197 TC3-3.7100 BAU  .8988   SGT 4285.1 SGR  806.1 SG3  193.2     ST  2270.3 SR   627.3 SS   733.3
 RDE  .4629 RRA  .0052 RC3  .5986 FAU .04493   RRT -.8651 RRF -.9548 RTF  .9302    CRT -.9685 CRS  .9989 CST -.9782
 FDE -.9263 FRA -.0855 FC3-2.1745 BSP  13654   SGB 4360.2 R23  .2851 R13 -.9346    LSA 2458.6 MSA  201.5 SSA    8.7
 BDE 1.6843 BRA  .8198 BC3 3.7579 FSP   -636   SG1 4341.9 SG2  399.0 THA 170.68   EL1 2350.5 EL2  151.0 ALF 164.96
```

LAUNCH DATE SEP 26 1970 FLIGHT TIME 148.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 435.950

```
RL  149.99 LAL   -.00 LOL   2.49 VL  26.897 GAL  -4.51 AZL  94.48 HCA 211.11 SMA 126.86 ECC .19806 INC 4.4770 V1  29.707
RP  108.11 LAP   2.31 LOP 213.53 VP  37.537 GAP   7.66 AZP  86.16 TAL 198.86 TAP  49.97 RCA 101.73 APO 151.98 V2  35.054
RC 135.957 GL  -31.73 GP   38.54 ZAL 114.05 ZAP 136.50 ETS  52.97 ZAE 121.55 ETE 152.57 ZAC 138.36 ETC 254.34 CLP-158.04
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PLANETOCENTRIC CONIC

```
C3  15.838 VHL  3.980 DLA -51.84 RAL 232.67 RAD 6567.6 VEL 11.714 PTH   2.06 VHP  6.574 DPA  19.03 RAP 244.47 ECC 1.2607
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.58	4 14 44	1615.24	36.26	32.46	107.45	129.98	4 41 39	1015.2	41.13	24.74
135.42	12 53 2	5349.04	36.27	246.95	107.47	129.97	14 22 11	4749.0	41.14	239.22
44.58	4 14 44	1615.24	36.26	32.46	107.45	129.98	4 41 39	1015.2	41.13	24.74
135.42	12 53 2	5349.04	36.27	246.95	107.47	129.97	14 22 11	4749.0	41.14	239.22
44.58	4 14 44	1615.24	36.26	32.46	107.45	129.98	4 41 39	1015.2	41.13	24.74
135.42	12 53 2	5349.04	36.27	246.95	107.47	129.97	14 22 11	4749.0	41.14	239.22

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.4881 TRA -.7107 TC3-4.3181 BAU  .9237   SGT 4375.5 SGR  764.2 SG3  201.3     ST  2201.6 SR   581.6 SS   678.5
 RDE  .4038 RRA -.0160 RC3  .6215 FAU .04601   RRT -.8625 RRF -.9454 RTF  .9263    CRT -.9695 CRS  .9995 CST -.9745
 FDE -.8287 FRA -.0024 FC3-2.5149 BSP  13897   SGB 4441.7 R23  .2772 R13 -.9300    LSA 2368.2 MSA  193.7 SSA   10.6
 BDE 1.5419 BRA  .7109 BC3 4.3626 FSP   -660   SG1 4425.2 SG2  382.4 THA 171.37   EL1 2273.0 EL2  138.2 ALF 165.58
```

LAUNCH DATE SEP 26 1970 FLIGHT TIME 150.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 441.820

```
RL  149.99 LAL   -.00 LOL   2.49 VL  26.844 GAL  -4.19 AZL  93.85 HCA 214.30 SMA 126.51 ECC .19899 INC 3.8503 V1  29.707
RP  108.19 LAP   2.17 LOP 216.74 VP  37.487 GAP   7.91 AZP  86.82 TAL 197.35 TAP  51.65 RCA 101.34 APO 151.69 V2  35.041
RC 138.166 GL  -28.34 GP   35.39 ZAL 112.85 ZAP 139.50 ETS  52.30 ZAE 122.80 ETE 154.44 ZAC 135.63 ETC 255.67 CLP-158.88
```

PLANETOCENTRIC CONIC

```
C3  14.340 VHL  3.787 DLA -49.13 RAL 237.29 RAD 6567.6 VEL 11.650 PTH   2.05 VHP  6.471 DPA  15.48 RAP 245.44 ECC 1.2360
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.01	4 44 8	1567.36	35.58	28.88	109.04	126.44	5 10 16	967.4	40.04	18.89
131.99	13 0 34	5352.42	35.59	246.63	109.05	126.43	14 29 47	4752.4	40.05	238.63
48.01	4 44 8	1567.36	35.58	28.88	109.04	126.44	5 10 16	967.4	40.04	18.89
131.99	13 0 34	5352.42	35.59	246.63	109.05	126.43	14 29 47	4752.4	40.05	238.63
48.01	4 44 8	1567.36	35.58	28.88	109.04	126.44	5 10 16	967.4	40.04	18.89
131.99	13 0 34	5352.42	35.59	246.63	109.05	126.43	14 29 47	4752.4	40.05	238.63

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.3660 TRA -.5901 TC3-4.9020 BAU  .9476   SGT 4409.3 SGR  726.6 SG3  207.1     ST  2111.1 SR   542.5 SS   618.0
 RDE  .3581 RRA -.0535 RC3  .6309 FAU .04630   RRT -.8581 RRF -.9329 RTF  .9238     CRT -.9707 CRS  .9995 CST -.9694
 FDE -.7284 FRA  .0796 FC3-2.7998 BSP  14184   SGB 4528.0 RZS  .2824 RIS -.9268     LSA 2257.9 NSA  106.7 SSA   12.8
 BDE 1.4122 BRA  .6000 BC3 4.9425 FSP   -679   SG1 4512.9 SG2  389.5 THA 172.00     EL1 2176.0 EL2  126.4 ALF 165.94
```

LAUNCH DATE SEP 26 1970 FLIGHT TIME 152.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 447.677

```
RL  149.99 LAL   -.00 LOL   2.49 VL  26.791 GAL  -3.86 AZL  93.32 HCA 217.49 SMA 126.17 ECC .20006 INC 3.3187 V1  29.707
RP  108.19 LAP   2.02 LOP 219.94 VP  37.437 GAP   8.15 AZP  87.37 TAL 195.82 TAP  53.31 RCA 100.93 APO 151.41 V2  35.028
RC 140.364 GL  -25.18 GP   32.64 ZAL 111.19 ZAP 142.19 ETS  51.75 ZAE 123.76 ETE 156.18 ZAC 133.25 ETC 256.78 CLP-159.77
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PLANETOCENTRIC CONIC

```
C3  13.228 VHL  3.657 DLA -46.58 RAL 241.78 RAD 6567.5 VEL 11.602 PTH   2.03 VHP  6.421 DPA  12.32 RAP 246.60 ECC 1.2177
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
51.33	5 13 27	1521.46	34.64	21.62	110.94	123.34	5 38 48	921.5	38.74	13.47
128.67	13 7 2	5362.96	34.65	246.06	110.95	123.33	14 36 25	4763.0	38.75	238.70
51.33	5 13 27	1521.46	34.64	21.62	110.94	123.34	5 38 48	921.5	38.74	13.47
128.67	13 7 2	5362.96	34.65	246.06	110.95	123.33	14 36 25	4763.0	38.75	238.70
51.33	5 13 27	1521.46	34.64	21.62	110.94	123.34	5 38 48	921.5	38.74	13.47
128.67	13 7 2	5362.96	34.65	246.06	110.95	123.33	14 36 25	4763.0	38.75	238.70

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.2490 TRA -.4833 TC3-5.4496 BAU  .9701   SGT 4562.7 SGR  693.3 SG3  210.6     ST  2000.5 SR   509.7 SS   553.7
 RDE  .3227 RRA -.0487 RC3  .6296 FAU .04614   RRT -.8513 RRF -.9174 RTF  .9220     CRT -.9725 CRS  .9982 CST -.9619
 FDE -.6284 FRA  .1595 FC3-3.0200 BSP  14486   SGB 4615.1 RZS  .2432 RIS -.9245     LSA 2129.7 NSA  180.2 SSA   15.4
 BDE 1.2909 BRA  .4857 BC3 5.4859 FSP   -691   SG1 4600.9 SG2  380.7 THA 172.58     EL1 2061.1 EL2  115.1 ALF 166.04
```

LAUNCH DATE SEP 26 1970 FLIGHT TIME 154.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 453.520

```
RL  149.99 LAL   -.00 LOL   2.49 VL  26.739 GAL  -3.53 AZL  92.86 HCA 220.68 SMA 125.83 ECC .20125 INC 2.8595 V1  29.707
RP  108.23 LAP   1.86 LOP 223.14 VP  37.387 GAP   8.40 AZP  87.83 TAL 194.27 TAP  54.96 RCA 100.51 APO 151.16 V2  35.014
RC 142.552 GL  -22.22 GP   30.24 ZAL 109.14 ZAP 144.62 ETS  51.33 ZAE 124.51 ETE 157.78 ZAC 131.17 ETC 257.74 CLP-160.69
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PLANETOCENTRIC CONIC

```
C3  12.398 VHL  3.521 DLA -44.16 RAL 246.18 RAD 6567.5 VEL 11.567 PTH   2.02 VHP  6.409 DPA   9.51 RAP 247.91 ECC 1.2040
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.58	5 43 5	1476.12	33.53	16.58	113.13	120.62	6 7 41	876.1	37.30	8.33
125.42	13 12 22	5380.49	33.54	247.64	113.14	120.61	14 42 3	4780.5	37.31	239.40
54.58	5 43 5	1476.12	33.53	16.58	113.13	120.62	6 7 41	876.1	37.30	8.33
125.42	13 12 22	5380.49	33.54	247.64	113.14	120.61	14 42 3	4780.5	37.31	239.40
54.58	5 43 5	1476.12	33.53	16.58	113.13	120.62	6 7 41	876.1	37.30	8.33
125.42	13 12 22	5380.49	33.54	247.64	113.14	120.61	14 42 3	4780.5	37.31	239.40

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.1370 TRA -.3614 TC3-5.9501 BAU  .9915   SGT 4653.2 SGR  664.6 SG3  212.1     ST  1870.8 SR   482.5 SS   488.1
 RDE  .2953 RRA -.0822 RC3  .6204 FAU .04544   RRT -.8420 RRF -.8992 RTF  .9208     CRT -.9751 CRS  .9941 CST -.9505
 FDE -.5310 FRA  .2371 FC3-3.1729 BSP  14789   SGB 4700.4 RZS  .2212 RIS -.9229     LSA 1965.0 NSA  174.4 SSA   18.6
 BDE 1.1748 BRA  .3668 BC3 5.9823 FSP   -697   SG1 4686.9 SG2  355.9 THA 173.10     EL1 1929.2 EL2  103.7 ALF 165.84
```

LAUNCH DATE SEP 26 1970 FLIGHT TIME 156.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 459.349

```
RL  149.99 LAL   -.00 LOL   2.49 VL  26.686 GAL  -3.18 AZL  92.46 HCA 223.87 SMA 125.50 ECC .20259 INC 2.4566 V1  29.707
RP  108.27 LAP   1.70 LOP 226.34 VP  37.337 GAP   8.65 AZP  88.23 TAL 192.71 TAP  56.59 RCA 100.07 APO 150.93 V2  35.001
RC 144.730 GL  -19.43 GP   28.12 ZAL 106.76 ZAP 146.82 ETS  51.03 ZAE 125.10 ETE 159.22 ZAC 129.36 ETC 258.60 CLP-161.62
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PLANETOCENTRIC CONIC

```
C3  11.786 VHL  3.433 DLA -41.84 RAL 250.47 RAD 6567.4 VEL 11.540 PTH   2.01 VHP  6.427 DPA   6.99 RAP 249.37 ECC 1.1940
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.81	6 13 24	1430.03	32.27	11.64	115.60	118.22	6 37 14	830.0	35.76	3.36
122.19	13 16 24	5405.20	32.28	248.99	115.61	118.21	14 46 30	4805.2	35.77	240.72
57.81	6 13 24	1430.03	32.27	11.64	115.60	118.22	6 37 14	830.0	35.76	3.36
122.19	13 16 24	5405.20	32.28	248.99	115.61	118.21	14 46 30	4805.2	35.77	240.72
57.81	6 13 24	1430.03	32.27	11.64	115.60	118.22	6 37 14	830.0	35.76	3.36
122.19	13 16 24	5405.20	32.28	248.99	115.61	118.21	14 46 30	4805.2	35.77	240.72

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.0250 TRA -.2336 TC3-6.3031 BAU 1.0118   SGT 4740.0 SGR  640.0 SG3  212.1     ST  1722.8 SR   459.9 SS   422.9
 RDE  .2738 RRA -.0746 RC3  .6053 FAU .04436   RRT -.8303 RRF -.8784 RTF  .9200     CRT -.9787 CRS  .9938 CST -.9324
 FDE -.4369 FRA  .3113 FC3-3.2587 BSP  15074   SGB 4783.0 RZS  .1978 RIS -.9217     LSA 1824.7 NSA  169.2 SSA   22.4
 BDE 1.0609 BRA  .2453 BC3 6.4217 FSP   -697   SG1 4769.9 SG2  354.4 THA 173.57     EL1 1780.8 EL2   91.3 ALF 165.32
```

LAUNCH DATE SEP 26 1970 FLIGHT TIME 158.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 465.161

```
RL  149.99 LAL   -.00 LOL   2.49 VL  26.634 GAL  -2.82 AZL  92.10 HCA 227.06 SMA 125.17 ECC .20408 INC 2.0980 V1  29.707
RP  108.31 LAP   1.54 LOP 229.54 VP  37.287 GAP   8.90 AZP  88.57 TAL 191.14 TAP  58.20 RCA  99.63 APO 150.72 V2  34.988
RC 146.899 GL  -16.80 GP   26.26 ZAL 104.10 ZAP 148.82 ETS  50.86 ZAE 125.56 ETE 160.52 ZAC 127.76 ETC 259.38 CLP-162.55
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PLANETOCENTRIC CONIC

```
C3  11.351 VHL  3.369 DLA -39.60 RAL 254.71 RAD 6567.4 VEL 11.521 PTH   2.01 VHP  6.469 DPA   4.73 RAP 250.94 ECC 1.1868
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.08	6 44 54	1381.55	30.91	6.67	118.32	116.09	7 7 55	781.5	34.14	358.40
118.92	13 18 46	5438.01	30.92	250.98	118.33	116.08	14 49 24	4838.0	34.15	242.71
61.08	6 44 54	1381.55	30.91	6.67	118.32	116.09	7 7 55	781.5	34.14	358.40
118.92	13 18 46	5438.01	30.92	250.98	118.33	116.08	14 49 24	4838.0	34.15	242.71
61.08	6 44 54	1381.55	30.91	6.67	118.32	116.09	7 7 55	781.5	34.14	358.40
118.92	13 18 46	5438.01	30.92	250.98	118.33	116.08	14 49 24	4838.0	34.15	242.71

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.9123 TRA -.0983 TC3-6.7688 BAU 1.0310   SGT 4822.5 SGR  619.6 SGS  210.8     ST  1558.9 SR   441.4 SS   361.4
RDE  .2573 RRA -.0865 RC3  .5864 FAU .04303   RRT -.8164 RRF -.8557 RTF  .9197    CRT -.9834 CRS  .9599 CST -.9028
FDE -.3477 FRA  .3823 FC3-3.2821 BSP  15352   SGB 4862.1 RZS  .1744 RIS -.9211   LSA 1651.6 MSA  165.0 SSA   27.1
BDE  .9479 BRA  .1309 BC3 6.7941 FSP   -694   SGI 4849.1 SGZ  355.9 THA 173.98   EL1 1618.3 EL2   77.1 ALF 164.40
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LAUNCH DATE SEP 26 1970 FLIGHT TIME 160.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 470.958

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RL  149.99 LAL   -.00 LOL   2.49 VL  26.582 GAL  -2.45 AZL  91.78 HCA 230.25 SMA 124.85 ECC .20572 INC 1.7750 V1  29.707
RP  108.35 LAP   1.36 LOP 232.73 VP  37.238 GAP   9.15 AZP  88.86 TAL 189.55 TAP  59.80 RCA  99.16 APO 150.53 V2  34.975
RC 149.057 GL  -14.32 GP   24.62 ZAL 101.21 ZAP 150.64 ETS  50.82 ZAE 125.92 ETE 161.69 ZAC 126.36 ETC 260.12 CLP-163.47
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PLANETOCENTRIC CONIC

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C3  11.067 VHL  3.327 DLA -37.41 RAL 258.90 RAD 6567.4 VEL 11.509 PTH   2.00 VHP  6.530 DPA   2.71 RAP 252.62 ECC 1.1821
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.46	7 18 5	1328.75	29.46	1.51	121.27	114.18	7 40 14	728.8	32.46	353.27
115.54	13 18 57	5480.36	29.47	253.70	121.27	114.16	14 50 18	4880.4	32.47	245.47
64.46	7 18 5	1328.75	29.46	1.51	121.27	114.18	7 40 14	728.8	32.46	353.27
115.54	13 18 57	5480.36	29.47	253.70	121.27	114.16	14 50 18	4880.4	32.47	245.47
64.46	7 18 5	1328.75	29.46	1.51	121.27	114.18	7 40 14	728.8	32.46	353.27
115.54	13 18 57	5480.36	29.47	253.70	121.27	114.16	14 50 18	4880.4	32.47	245.47

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.7980 TRA  .0439 TC3-7.0696 BAU 1.0493   SGT 4901.3 SGR  602.9 SGS  208.6     ST  1381.8 SR   425.9 SS   306.6
RDE  .2444 RRA -.0979 RC3  .5647 FAU .04153   RRT -.8007 RRF -.8314 RTF  .9198    CRT -.9888 CRS  .9083 CST -.8532
FDE -.2633 FRA  .4496 FC3-3.2484 BSP  15618   SGB 4938.3 RZS  .1517 RIS -.9209   LSA 1468.8 MSA  162.9 SSA   32.6
BDE  .8346 BRA  .1073 BC3 7.0922 FSP   -688   SGI 4925.2 SGZ  359.4 THA 174.34   EL1 1444.7 EL2   60.7 ALF 163.02
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LAUNCH DATE SEP 26 1970 FLIGHT TIME 162.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 476.736

```
RL  149.99 LAL   -.00 LOL   2.49 VL  26.531 GAL  -2.07 AZL  91.48 HCA 233.44 SMA 124.53 ECC .20753 INC 1.4809 V1  29.707
RP  108.39 LAP   1.19 LOP 235.92 VP  37.189 GAP   9.41 AZP  89.12 TAL 187.95 TAP  61.39 RCA  98.68 APO 150.37 V2  34.962
RC 151.205 GL  -11.97 GP   23.16 ZAL  98.14 ZAP 152.31 ETS  50.91 ZAE 126.21 ETE 162.73 ZAC 125.12 ETC 260.83 CLP-164.38
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PLANETOCENTRIC CONIC

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C3  10.918 VHL  3.304 DLA -35.27 RAL 263.01 RAD 6567.4 VEL 11.502 PTH   2.00 VHP  6.607 DPA    .88 RAP 254.40 ECC 1.1797
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
68.04	7 53 49	1268.66	27.94	355.94	124.40	112.45	8 14 58	668.7	30.73	347.75
111.96	13 16 4	5534.88	27.96	257.34	124.41	112.44	14 48 19	4934.9	30.74	249.15
68.04	7 53 49	1268.66	27.94	355.94	124.40	112.45	8 14 58	668.7	30.73	347.75
111.96	13 16 4	5534.88	27.96	257.34	124.41	112.44	14 48 19	4934.9	30.74	249.15
68.04	7 53 49	1268.66	27.94	355.94	124.40	112.45	8 14 58	668.7	30.73	347.75
111.96	13 16 4	5534.88	27.96	257.34	124.41	112.44	14 48 19	4934.9	30.74	249.15

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.6958 TRA  .1782 TC3-7.3441 BAU 1.0750   SGT 5015.4 SGR  594.2 SGS  207.1     ST  1220.5 SR   417.3 SS   268.8
RDE  .2374 RRA -.1065 RC3  .5508 FAU .04047   RRT -.7881 RRF -.8093 RTF  .9238    CRT -.9932 CRS  .8264 CST -.7934
FDE -.1962 FRA  .5011 FC3-3.2089 BSP  16258   SGB 5050.5 RZS  .1258 RIS -.9246   LSA 1307.0 MSA  162.0 SSA   38.4
BDE  .7351 BRA  .2076 BC3 7.3647 FSP   -706   SGI 5037.3 SGZ  364.1 THA 174.64   EL1 1289.0 EL2   45.9 ALF 161.22
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LAUNCH DATE SEP 26 1970 FLIGHT TIME 164.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 482.499

```
RL  149.99 LAL   -.00 LOL   2.49 VL  26.480 GAL  -1.67 AZL  91.21 HCA 236.62 SMA 124.21 ECC .20952 INC 1.2102 V1  29.707
RP  108.43 LAP   1.01 LOP 239.11 VP  37.141 GAP   9.67 AZP  89.33 TAL 186.34 TAP  62.96 RCA  98.19 APO 150.23 V2  34.949
RC 153.343 GL   -9.75 GP   21.86 ZAL  94.92 ZAP 153.85 ETS  51.14 ZAE 126.44 ETE 163.66 ZAC 124.02 ETC 261.52 CLP-165.28
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PLANETOCENTRIC CONIC

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C3  10.894 VHL  3.301 DLA -33.17 RAL 267.06 RAD 6567.4 VEL 11.501 PTH   2.00 VHP  6.698 DPA   -.76 RAP 256.26 ECC 1.1793
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
71.96	8 33 29	1196.56	26.37	349.60	127.71	110.89	8 53 26	596.6	28.97	341.47
108.04	13 8 41	5606.06	26.38	262.20	127.71	110.87	14 42 7	5006.1	28.98	254.06
71.96	8 33 29	1196.56	26.37	349.60	127.71	110.89	8 53 26	596.6	28.97	341.47
108.04	13 8 41	5606.06	26.38	262.20	127.71	110.87	14 42 7	5006.1	28.98	254.06
110.00	12 17 47	5762.41	21.70	272.02	125.43	117.09	13 53 50	5162.4	25.15	264.57
110.00	14 23 33	5376.26	31.25	246.17	129.49	104.61	15 53 10	4776.3	32.94	237.35

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.5553 TRA  .3561 TC3-7.4035 BAU 1.0808   SGT 5035.7 SGR  576.3 SGS  201.5     ST   999.8 SR   400.5 SS   236.2
RDE  .2268 RRA -.1215 RC3  .5115 FAU .03797   RRT -.7633 RRF -.7788 RTF  .9193    CRT -.9919 CRS  .6108 CST -.6495
FDE -.1055 FRA  .5782 FC3-3.0176 BSP  16019   SGB 5068.6 RZS  .1134 RIS -.9201   LSA 1087.1 MSA  179.5 SSA   43.8
BDE  .5997 BRA  .3762 BC3 7.4211 FSP   -663   SGI 5055.0 SGZ  370.9 THA 174.98   EL1 1076.1 EL2   47.1 ALF 158.28
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LAUNCH DATE SEP 26 1970 FLIGHT TIME 166.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 488.242

RL 149.99 LAL -.00 LOL 2.49 VL 26.429 GAL -1.26 AZL 90.96 HCA 239.80 SMA 123.90 ECC .21169 INC .9588 V1 29.707
RP 108.47 LAP .83 LOP 242.30 VP 37.093 GAP 9.94 AZP 89.52 TAL 184.72 TAP 64.52 RCA 97.67 APO 150.13 V2 34.937
RC 155.470 GL -7.67 GP 20.70 ZAL 91.60 ZAP 155.27 ETS 51.52 ZAE 126.63 ETE 164.50 ZAC 123.04 ETC 262.19 CLP-166.17

PLANETOCENTRIC CONIC

C3 10.990 VHL 3.315 DLA -31.11 RAL 271.02 RAD 6567.4 VEL 11.506 PTH 2.00 VHP 6.802 DPA -2.24 RAP 258.20 ECC 1.1809

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
76.56	9 20 7	1102.17	24.76	341.76	131.16	109.46	9 38 29	502.2	27.18	333.69
103.44	12 53 38	5704.07	24.77	269.00	131.16	109.45	14 28 43	5104.1	27.19	260.94
76.56	9 20 7	1102.17	24.76	341.76	131.16	109.46	9 38 29	502.2	27.18	333.69
103.44	12 53 38	5704.07	24.77	269.00	131.16	109.45	14 28 43	5104.1	27.19	260.94
110.00	11 47 27	623.07	16.83	302.90	127.24	120.20	11 57 50	23.1	20.72	295.93
110.00	15 25 28	5231.16	33.24	235.32	133.57	98.48	16 52 39	4631.2	34.05	226.18

DIFFERENTIAL CORRECTIONS
TDE -.4295 TRA .5221 TC3-7.4449 BAU 1.0962
RDE .2212 RRA -.1332 RC3 .4840 FAU .03618
FDE -.0352 FRA .6361 FC3-2.8502 BSP 16234
BDE .4831 BRA .5308 BC3 7.4606 FSP -650

MID-COURSE EXECUTION ACCURACY
SGT 5101.7 SGR 566.9 SG3 197.5
RRT -.7438 RRF -.7524 RTF .9200
SGB 5133.1 RZ3 .0963 R13 -.9206
SG1 5119.2 SG2 377.6 THA 175.25

ORBIT DETERMINATION ACCURACY
ST 820.4 SR 390.8 SS 231.6
CRT -.9691 CRS .3564 CST -.5425
LSA 912.6 MSA 210.8 SSA 46.0
EL1 904.5 EL2 87.4 ALF 154.97

LAUNCH DATE SEP 26 1970 FLIGHT TIME 168.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 493.964

RL 149.99 LAL -.00 LOL 2.49 VL 26.379 GAL -.84 AZL 90.72 HCA 242.99 SMA 123.59 ECC .21408 INC .7234 V1 29.707
RP 108.51 LAP .64 LOP 245.48 VP 37.046 GAP 10.21 AZP 89.67 TAL 183.09 TAP 66.07 RCA 97.13 APO 150.05 V2 34.925
RC 157.587 GL -5.71 GP 19.67 ZAL 88.22 ZAP 156.59 ETS 52.04 ZAE 126.78 ETE 165.24 ZAC 122.15 ETC 262.85 CLP-167.04

PLANETOCENTRIC CONIC

C3 11.206 VHL 3.348 DLA -29.08 RAL 274.87 RAD 6567.4 VEL 11.515 PTH 2.01 VHP 6.917 DPA -3.58 RAP 260.21 ECC 1.1844

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.08	10 24 58	948.38	23.12	329.70	134.72	108.15	10 40 47	348.4	25.38	321.70
96.92	12 19 33	5065.87	23.13	280.43	134.72	108.14	13 57 19	5265.9	25.39	272.43
100.00	11 45 10	688.30	19.13	309.06	133.10	113.41	11 56 38	88.3	22.14	301.56
100.00	13 42 3	5001.19	27.23	262.12	135.98	102.83	15 15 24	5001.2	28.73	253.63
110.00	11 32 8	729.33	13.10	308.87	129.81	121.86	11 44 17	129.3	17.22	302.18
110.00	16 11 36	5132.92	33.97	227.75	137.14	94.06	17 37 7	4532.9	34.16	218.51

DIFFERENTIAL CORRECTIONS
TDE -.3088 TRA .6882 TC3-7.4332 BAU 1.1158
RDE .2190 RRA -.1440 RC3 .4605 FAU .03471
FDE .0236 FRA .6853 FC3-2.6814 BSP 16656
BDE .3789 BRA .7031 BC3 7.4475 FSP -650

MID-COURSE EXECUTION ACCURACY
SGT 5183.1 SGR 561.3 SG3 193.7
RRT -.7282 RRF -.7286 RTF .9228
SGB 5213.4 RZ3 .0796 R13 -.9232
SG1 5199.2 SG2 384.7 THA 175.48

ORBIT DETERMINATION ACCURACY
ST 682.6 SR 384.4 SS 244.0
CRT -.8918 CRS .1239 CST -.5366
LSA 776.5 MSA 261.3 SSA 44.7
EL1 767.9 EL2 154.6 ALF 152.11

LAUNCH DATE SEP 26 1970 FLIGHT TIME 170.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 499.665

RL 149.99 LAL -.00 LOL 2.49 VL 26.329 GAL -.40 AZL 90.50 HCA 246.17 SMA 123.29 ECC .21667 INC .5010 V1 29.707
RP 108.54 LAP .46 LOP 248.66 VP 36.999 GAP 10.48 AZP 89.80 TAL 181.45 TAP 67.61 RCA 96.58 APO 150.00 V2 34.913
RC 159.692 GL -3.89 GP 18.74 ZAL 84.82 ZAP 157.81 ETS 52.71 ZAE 126.91 ETE 165.91 ZAC 121.34 ETC 263.50 CLP-167.90

PLANETOCENTRIC CONIC

C3 11.544 VHL 3.398 DLA -27.10 RAL 278.62 RAD 6567.4 VEL 11.530 PTH 2.01 VHP 7.044 DPA -4.78 RAP 262.28 ECC 1.1900

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 24 26	1006.97	16.70	331.41	136.54	113.20	10 41 13	407.0	19.70	324.02
90.00	12 50 0	5819.60	26.41	277.98	138.70	100.61	14 26 59	5219.6	27.61	269.52
100.00	11 10 27	858.31	14.23	319.30	135.35	116.57	11 24 46	258.3	17.68	312.21
100.00	14 46 40	5443.50	29.10	250.78	140.18	97.15	16 17 23	4843.5	29.79	242.04
110.00	11 22 49	819.47	9.81	313.78	132.77	122.91	11 36 29	219.5	14.08	307.28
110.00	16 50 47	5055.10	34.18	221.68	140.58	90.48	18 15 2	4455.1	33.87	212.45

DIFFERENTIAL CORRECTIONS
TDE -.1705 TRA .8776 TC3-7.2795 BAU 1.1254
RDE .2166 RRA -.1571 RC3 .4266 FAU .03262
FDE .0869 FRA .7423 FC3-2.4461 BSP 16715
BDE .2757 BRA .8916 BC3 7.2920 FSP -628

MID-COURSE EXECUTION ACCURACY
SGT 5226.5 SGR 553.2 SG3 188.5
RRT -.7035 RRF -.7015 RTF .9222
SGB 5255.7 RZ3 .0691 R13 -.9226
SG1 5241.0 SG2 392.1 THA 175.72

ORBIT DETERMINATION ACCURACY
ST 594.5 SR 376.1 SS 273.5
CRT -.6746 CRS -.0914 CST -.6575
LSA 673.7 MSA 337.8 SSA 41.0
EL1 657.1 EL2 251.2 ALF 152.55

LAUNCH DATE SEP 26 1970 FLIGHT TIME 172.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 505.343

RL 149.99 LAL -.00 LOL 2.49 VL 26.279 GAL .06 AZL 90.29 HCA 249.34 SMA 122.99 ECC .21951 INC .2895 V1 29.707
RP 108.58 LAP .27 LOP 251.84 VP 36.953 GAP 10.77 AZP 89.90 TAL 179.80 TAP 69.14 RCA 95.99 APO 149.99 V2 34.901
RC 161.784 GL -2.20 GP 17.90 ZAL 81.42 ZAP 158.95 ETS 53.54 ZAE 127.02 ETE 166.51 ZAC 120.61 ETC 264.16 CLP-168.74

PLANETOCENTRIC CONIC

C3 12.009 VHL 3.465 DLA -25.17 RAL 282.25 RAD 6567.5 VEL 11.550 PTH 2.02 VHP 7.181 DPA -5.86 RAP 264.40 ECC 1.1976

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 54 51	1163.53	12.28	340.77	139.14	115.72	10 14 14	583.5	15.64	333.71
90.00	13 48 30	5679.59	27.77	267.96	143.77	95.77	15 23 10	5079.6	28.28	259.33
100.00	10 52 45	976.58	10.52	326.13	138.23	118.14	11 9 2	376.6	14.21	319.27
100.00	15 33 17	5341.77	29.73	243.28	143.95	93.25	17 2 19	4741.8	29.87	234.48
110.00	11 16 54	900.80	6.77	318.12	135.96	123.59	11 31 55	300.8	11.14	311.76
110.00	17 25 37	4990.31	34.10	216.63	143.98	87.48	18 48 47	4390.3	33.38	207.46

DIFFERENTIAL CORRECTIONS
TDE -.0238 TRA 1.0780 TC3-7.0422 BAU 1.1323
RDE .2139 RRA -.1712 RC3 .3891 FAU .03029
FDE .1551 FRA .8007 FC3-2.1834 BSP 16717
BDE .2152 BRA 1.0896 BC3 7.0530 FSP -598

MID-COURSE EXECUTION ACCURACY
SGT 5261.9 SGR 543.8 SG3 183.2
RRT -.6798 RRF -.6722 RTF .9189
SGB 5290.0 RZ3 .0600 R13 -.9192
SG1 5275.0 SG2 397.8 THA 175.96

ORBIT DETERMINATION ACCURACY
ST 608.9 SR 366.0 SS 316.6
CRT -.3160 CRS -.2632 CST -.8219
LSA 672.5 MSA 389.0 SSA 37.0
EL1 624.6 EL2 338.5 ALF 164.63

LAUNCH DATE SEP 26 1970 FLIGHT TIME 174.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 510.996

RL	149.99	LAL	-.00	LOL	2.49	VL	26.230	GAL	.53	AZL	90.09	HCA	252.52	SMA	122.70	ECC	.22260	INC	.0857	V1	29.707
RP	108.61	LAP	.08	LOP	255.01	VP	36.908	GAP	11.07	AZP	89.97	TAL	178.14	TAP	70.66	RCA	95.39	APO	150.01	V2	34.890
RC	163.865	GL	-.64	GP	17.14	ZAL	78.07	ZAP	160.02	ETS	54.54	ZAE	127.11	ETE	167.05	ZAC	119.93	ETC	264.81	CLP	-169.58

PLANETOCENTRIC CONIC

C3	12.608	VHL	3.551	DLA	-23.30	RAL	285.74	RAD	6567.5	VEL	11.576	PTH	2.02	VHP	7.329	DPA	-6.82	RAP	268.57	ECC	1.2075

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 38 16	1279.89	8.75	347.50	142.20	117.04	9 59 36	679.9	12.31	340.63
90.00	14 32 56	5583.89	28.23	261.00	147.55	92.31	16 6 0	4983.9	28.25	252.34
100.00	10 41 30	1075.81	7.29	331.72	141.41	119.07	10 59 26	475.8	11.11	325.01
100.00	16 12 23	5263.21	29.69	237.45	147.59	90.19	17 40 7	4663.2	29.60	228.66
110.00	11 13 10	976.48	5.91	322.11	139.33	123.99	11 29 27	376.5	8.34	315.83
110.00	17 57 12	4935.29	33.85	212.35	147.39	84.96	19 19 27	4335.3	32.79	203.27

DIFFERENTIAL CORRECTIONS

TDE	.1124	TRA	1.2738	TC3	-6.8048	BAU	1.1486
RDE	.2163	RRA	-.1832	RC3	.3644	FAU	.02892
FDE	.1999	FRA	.8440	FC3	-1.9858	BSP	17011
BDE	.2438	BRA	1.2869	BC3	6.8145	FSP	-594

MID-COURSE EXECUTION ACCURACY

SGT	5328.6	SGR	540.7	SG3	179.0		
RRT	-.6620	RRF	-.6513	RTF	.9233		
SGB	5356.0	RZS	.0487	R13	-.9235		
SG1	5340.7	SG2	404.4	THA	176.13		

ORBIT DETERMINATION ACCURACY

ST	710.4	SR	362.3	SS	349.0
CRT	-.0102	CRS	-.3472	CST	-.9280
LSA	783.0	MSA	378.9	SSA	32.7
EL1	710.4	EL2	362.2	ALF	179.60

LAUNCH DATE SEP 26 1970 FLIGHT TIME 176.00 ARRIVAL DATE MAR 21 1971

HELIOCENTRIC CONIC DISTANCE 516.622

RL	149.99	LAL	-.00	LOL	2.49	VL	26.182	GAL	1.03	AZL	89.89	HCA	255.69	SMA	122.41	ECC	.22596	INC	.1077	V1	29.707
RP	108.65	LAP	-.11	LOP	258.19	VP	36.863	GAP	11.38	AZP	90.03	TAL	176.48	TAP	72.17	RCA	94.75	APO	150.07	V2	34.880
RC	165.932	GL	.78	GP	16.46	ZAL	74.78	ZAP	161.01	ETS	55.71	ZAE	127.19	ETE	167.54	ZAC	119.30	ETC	265.46	CLP	-170.40

PLANETOCENTRIC CONIC

C3	13.351	VHL	3.654	DLA	-21.50	RAL	289.09	RAD	6567.5	VEL	11.608	PTH	2.03	VHP	7.489	DPA	-7.68	RAP	268.78	ECC	1.2197

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 27 19	1379.12	5.64	353.13	145.50	117.80	9 50 19	779.1	9.32	346.38
90.00	15 10 37	5509.34	28.31	255.55	151.23	89.58	16 42 26	4909.3	27.96	246.90
100.00	10 33 50	1164.48	4.33	336.64	144.78	119.61	10 53 14	564.5	6.24	330.03
100.00	16 46 47	5199.20	29.81	232.69	151.19	87.69	18 13 27	4599.2	29.17	223.95
110.00	11 10 57	1048.15	1.17	325.85	142.81	124.17	11 28 25	448.2	5.65	319.63
110.00	18 26 10	4888.30	33.51	208.72	150.83	82.84	19 47 38	4288.3	32.16	199.75

DIFFERENTIAL CORRECTIONS

TDE	.2583	TRA	1.4848	TC3	-6.4843	BAU	1.1590
RDE	.2185	RRA	-.1963	RC3	.3539	FAU	.02716
FDE	.2492	FRA	.8909	FC3	-1.7609	BSP	17196
BDE	.3383	BRA	1.4978	BC3	6.4929	FSP	-582

MID-COURSE EXECUTION ACCURACY

SGT	5374.1	SGR	535.1	SG3	174.2		
RRT	-.6417	RRF	-.6276	RTF	.9244		
SGB	5400.7	RZS	.0403	R13	-.9246		
SG1	5385.1	SG2	409.6	THA	176.32		

ORBIT DETERMINATION ACCURACY

ST	864.7	SR	356.7	SS	386.6
CRT	.2048	CRS	-.4168	CST	-.9713
LSA	948.0	MSA	353.6	SSA	29.3
EL1	868.4	EL2	347.7	ALF	5.75

LAUNCH DATE SEP 26 1970 FLIGHT TIME 178.00 ARRIVAL DATE MAR 23 1971

HELIOCENTRIC CONIC DISTANCE 522.218

RL	149.99	LAL	-.00	LOL	2.49	VL	26.134	GAL	1.54	AZL	89.70	HCA	258.86	SMA	122.13	ECC	.22962	INC	.2982	V1	29.707
RP	108.68	LAP	-.29	LOP	261.36	VP	36.819	GAP	11.70	AZP	90.06	TAL	174.82	TAP	73.68	RCA	94.09	APO	150.17	V2	34.869
RC	167.985	GL	2.07	GP	15.84	ZAL	71.57	ZAP	161.94	ETS	57.07	ZAE	127.26	ETE	167.98	ZAC	118.71	ETC	266.11	CLP	-171.22

PLANETOCENTRIC CONIC

C3	14.251	VHL	3.775	DLA	-19.77	RAL	292.30	RAD	6567.6	VEL	11.646	PTH	2.04	VHP	7.660	DPA	-8.43	RAP	271.03	ECC	1.2345

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 19 39	1488.32	2.79	358.14	148.95	118.19	9 44 8	868.3	6.54	351.46
90.00	15 43 51	5448.69	28.20	251.12	154.88	87.36	17 14 40	4848.7	27.54	242.52
100.00	10 28 28	1246.24	1.57	341.13	148.27	119.86	10 49 15	646.2	5.53	334.59
100.00	17 17 43	5146.01	29.60	228.75	154.78	85.62	18 43 29	4546.0	28.68	220.07
110.00	11 9 48	1116.75	-1.45	329.43	146.39	124.16	11 28 24	516.7	3.04	323.23
110.00	18 52 53	4848.27	33.13	205.66	154.30	81.07	20 13 42	4248.3	31.55	196.79

DIFFERENTIAL CORRECTIONS

TDE	.4073	TRA	1.7064	TC3	-6.1255	BAU	1.1685
RDE	.2221	RRA	-.2098	RC3	.3039	FAU	.02544
FDE	.2938	FRA	.9370	FC3	-1.5454	BSP	17349
BDE	.4639	BRA	1.7193	BC3	6.1331	FSP	-567

MID-COURSE EXECUTION ACCURACY

SGT	5417.1	SGR	529.8	SG3	169.4		
RRT	-.6216	RRF	-.6053	RTF	.9256		
SGB	5443.0	RZS	.0339	R13	-.9258		
SG1	5427.2	SG2	414.3	THA	176.50		

ORBIT DETERMINATION ACCURACY

ST	1040.7	SR	352.0	SS	421.5
CRT	.3372	CRS	-.4639	CST	-.9880
LSA	1128.8	MSA	331.3	SSA	26.4
EL1	1048.2	EL2	329.1	ALF	7.22

LAUNCH DATE SEP 26 1970 FLIGHT TIME 180.00 ARRIVAL DATE MAR 25 1971

HELIOCENTRIC CONIC DISTANCE 527.779

RL	149.99	LAL	-.00	LOL	2.49	VL	26.086	GAL	2.08	AZL	89.52	HCA	262.03	SMA	121.85	ECC	.23360	INC	.4842	V1	29.707
RP	108.71	LAP	-.48	LOP	264.53	VP	36.776	GAP	12.03	AZP	90.07	TAL	173.15	TAP	75.19	RCA	93.39	APO	150.32	V2	34.859
RC	170.025	GL	3.23	GP	15.28	ZAL	68.48	ZAP	162.81	ETS	58.62	ZAE	127.32	ETE	168.38	ZAC	118.16	ETC	266.76	CLP	-172.02

PLANETOCENTRIC CONIC

C3	15.322	VHL	3.914	DLA	-18.12	RAL	295.35	RAD	6567.6	VEL	11.692	PTH	2.06	VHP	7.843	DPA	-9.09	RAP	273.32	ECC	1.2522

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 14 8	1550.73	.13	2.73	152.51	118.32	9 39 59	950.7	3.92	356.10
90.00	16 13 46	5388.59	27.99	247.47	158.52	85.54	17 43 44	4798.6	27.08	238.92
100.00	10 24 43	1322.98	-1.04	345.34	151.86	119.88	10 46 46	723.0	2.95	338.82
100.00	17 45 52	5101.58	29.32	225.48	158.38	83.92	19 10 53	4501.6	28.17	216.87
110.00	11 9 27	1182.84	-3.97	332.89	150.03	123.98	11 29 10	582.8	.51	326.68
110.00	19 17 38	4814.48	32.75	203.10	157.80	79.60	20 37 52	4214.5	30.97	194.33

DIFFERENTIAL CORRECTIONS

TDE	.5486	TRA	1.9298	TC3	-5.7893	BAU	1.1832
RDE	.2278	RRA	-.2222	RC3	.2777	FAU	.02407
FDE	.3299	FRA	.9751	FC3	-1.3602	BSP	17800
BDE	.5941	BRA	1.9386	BC3	5.7760	FSP	-568

MID-COURSE EXECUTION ACCURACY

SGT	5462.8	SGR	524.9	SG3	164.4		
RRT	-.6030	RRF	-.5849	RTF	.9283		
SGB	5488.0	RZS	.0274	R13	-.9284		
SG1	5472.0	SG2	418.0	THA	176.66		

ORBIT DETERMINATION ACCURACY

ST	1206.3	SR	348.9	SS	448.1
CRT	.4171	CRS	-.4965	CST	-.9943
LSA	1295.2	MSA	315.6	SSA	24.1
EL1	1215.7	EL2	314.7	ALF	7.38

LAUNCH DATE SEP 26 1970 FLIGHT TIME 182.00 ARRIVAL DATE MAR 27 1971

HELIOCENTRIC CONIC DISTANCE 533.308

RL 149.99 LAL -.00 LOL 2.49 VL 26.039 GAL 2.64 AZL 89.33 HCA 265.20 SMA 121.58 ECC .23793 INC .6671 V1 29.707
RP 108.74 LAP -.66 LOP 267.70 VP 36.734 GAP 12.38 AZP 90.06 TAL 171.48 TAP 76.69 RCA 92.65 APO 150.51 V2 34.850
RC 172.049 GL 4.27 GP 14.76 ZAL 65.49 ZAP 165.62 ETS 60.38 ZAE 127.37 ETE 168.75 ZAC 117.63 ETC 267.41 CLP-172.82

PLANETOCENTRIC CONIC

C3 16.583 VHL 4.072 DLA -16.56 RAL 298.26 RAD 6567.7 VEL 11.746 PTH 2.07 VHP 8.039 DPA -9.67 RAP 275.63 ECC 1.2729

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 10 9	1628.12	-2.37	7.05	156.15	118.23	9 37 17	1028.1	1.43	.42
90.00	16 40 58	5357.10	27.74	244.46	162.15	84.05	18 10 15	4757.1	26.62	235.97
100.00	10 22 8	1395.83	-3.50	349.35	155.52	119.71	10 45 24	795.8	.48	342.82
100.00	18 11 40	5064.62	29.03	222.77	161.98	82.52	19 36 5	4464.6	27.69	214.23
110.00	11 9 42	1246.83	-6.40	336.25	153.73	123.65	11 30 29	646.8	-1.93	330.01
110.00	19 40 35	4786.39	32.38	200.99	161.33	78.40	21 0 22	4186.4	30.45	192.31

DIFFERENTIAL CORRECTIONS

TDE .7154 TRA 2.1787 TC3-5.3375 BAU 1.1846
RDE .2327 RRA -.2366 RC3 .2465 FAU .02217
FDE .3745 FRA 1.0242 FC3-1.1573 BSP 17700
BDE .7525 BRA 2.1915 BC3 5.3432 FSP -543

MID-COURSE EXECUTION ACCURACY

SGT 5489.8 SGR 517.8 SG3 159.9
RRT -.5819 RRF -.5823 RTF .9285
SGB 5514.1 RZS .0231 R13 -.9286
SG1 5498.1 SG2 420.5 THA 176.84

ORBIT DETERMINATION ACCURACY

ST 1396.7 SR 343.6 SS 482.2
CRT .4767 CRS -.5255 CST -.9972
LSA 1486.8 MSA 300.3 SSA 22.2
EL1 1406.7 EL2 299.9 ALF 7.01

LAUNCH DATE SEP 26 1970 FLIGHT TIME 184.00 ARRIVAL DATE MAR 29 1971

HELIOCENTRIC CONIC DISTANCE 538.795

RL 149.99 LAL -.00 LOL 2.49 VL 25.993 GAL 3.23 AZL 89.15 HCA 268.37 SMA 121.31 ECC .24265 INC .8482 V1 29.707
RP 108.77 LAP -.85 LOP 270.86 VP 36.693 GAP 12.75 AZP 90.02 TAL 169.82 TAP 78.19 RCA 91.87 APO 150.75 V2 34.841
RC 174.080 GL 5.19 GP 14.30 ZAL 62.64 ZAP 164.37 ETS 62.36 ZAE 127.41 ETE 169.08 ZAC 117.12 ETC 268.06 CLP-173.61

PLANETOCENTRIC CONIC

C3 18.054 VHL 4.249 DLA -15.08 RAL 301.03 RAD 6567.7 VEL 11.808 PTH 2.09 VHP 8.250 DPA -10.16 RAP 277.96 ECC 1.2971

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 7 17	1701.54	-4.72	11.16	159.85	117.95	9 35 39	1101.5	-.94	4.52
90.00	17 5 53	5323.00	27.47	242.00	165.80	82.85	18 34 36	4723.0	26.20	233.56
100.00	10 20 26	1465.51	-5.84	353.20	159.24	119.37	10 44 52	865.5	-1.89	346.64
100.00	18 35 24	5034.26	28.74	220.56	165.60	81.40	19 59 19	4434.3	27.25	212.08
110.00	11 10 29	1308.96	-8.73	339.55	157.47	123.18	11 32 14	709.0	-4.30	333.26
110.00	20 1 58	4763.58	32.06	199.29	164.88	77.44	21 21 19	4163.6	30.00	190.68

DIFFERENTIAL CORRECTIONS

TDE .8782 TRA 2.4380 TC3-4.9184 BAU 1.1883
RDE .2394 RRA -.2903 RC3 .2188 FAU .02051
FDE .4131 FRA 1.0880 FC3 -.9834 BSP 17776
BDE .9112 BRA 2.4488 BC3 4.9232 FSP -527

MID-COURSE EXECUTION ACCURACY

SGT 5518.0 SGR 510.8 SG3 155.5
RRT -.5818 RRF -.5412 RTF .9299
SGB 5541.6 RZS .0190 R13 -.9299
SG1 5525.5 SG2 422.0 THA 177.01

ORBIT DETERMINATION ACCURACY

ST 1569.4 SR 339.4 SS 509.8
CRT .5162 CRS -.5466 CST -.9984
LSA 1659.5 MSA 289.0 SSA 20.6
EL1 1579.5 EL2 288.9 ALF 6.59

LAUNCH DATE SEP 26 1970 FLIGHT TIME 186.00 ARRIVAL DATE MAR 31 1971

HELIOCENTRIC CONIC DISTANCE 544.237

RL 149.99 LAL -.00 LOL 2.49 VL 25.947 GAL 3.84 AZL 88.97 HCA 271.54 SMA 121.05 ECC .24779 INC 1.0287 V1 29.707
RP 108.79 LAP -1.03 LOP 274.03 VP 36.653 GAP 13.14 AZP 89.97 TAL 168.16 TAP 79.69 RCA 91.05 APO 151.04 V2 34.833
RC 176.085 GL 6.00 GP 13.87 ZAL 59.91 ZAP 165.07 ETS 64.57 ZAE 127.44 ETE 169.38 ZAC 116.63 ETC 268.70 CLP-174.40

PLANETOCENTRIC CONIC

C3 19.762 VHL 4.445 DLA -13.70 RAL 303.64 RAD 6567.8 VEL 11.880 PTH 2.11 VHP 8.475 DPA -10.56 RAP 280.31 ECC 1.3252

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 5 16	1771.71	-6.94	15.12	163.60	117.52	9 34 48	1171.7	-3.20	8.44
90.00	17 28 46	5295.40	27.22	240.02	169.44	81.88	18 57 2	4695.4	25.82	231.63
100.00	10 19 24	1532.51	-8.06	356.93	162.99	118.88	10 44 57	932.5	-4.15	350.33
100.00	18 57 19	5009.83	28.48	218.79	169.22	80.50	20 20 49	4409.8	26.87	210.36
110.00	11 11 28	1360.43	-10.96	342.81	161.24	122.58	11 34 18	769.4	-6.59	336.45
110.00	20 21 45	4745.67	31.78	197.96	168.45	76.70	21 40 50	4145.7	29.63	189.42

DIFFERENTIAL CORRECTIONS

TDE 1.0454 TRA 2.7035 TC3-4.5049 BAU 1.1913
RDE .2474 RRA -.2635 RC3 .1928 FAU .01893
FDE .4485 FRA 1.1123 FC3 -.8294 BSP 17880
BDE 1.0743 BRA 2.7163 BC3 4.5090 FSP -513

MID-COURSE EXECUTION ACCURACY

SGT 5542.6 SGR 503.2 SG3 151.0
RRT -.5416 RRF -.5206 RTF .9315
SGB 5565.4 RZS .0156 R13 -.9316
SG1 5549.3 SG2 422.5 THA 177.17

ORBIT DETERMINATION ACCURACY

ST 1728.4 SR 335.7 SS 533.4
CRT .5449 CRS -.5635 CST -.9990
LSA 1818.2 MSA 279.9 SSA 19.3
EL1 1738.3 EL2 279.9 ALF 6.20

LAUNCH DATE SEP 26 1970 FLIGHT TIME 188.00 ARRIVAL DATE APR 2 1971

HELIOCENTRIC CONIC DISTANCE 549.628

RL 149.99 LAL -.00 LOL 2.49 VL 25.902 GAL 4.49 AZL 88.79 HCA 274.70 SMA 120.79 ECC .25340 INC 1.2096 V1 29.707
RP 108.82 LAP -1.21 LOP 277.20 VP 36.613 GAP 13.55 AZP 89.90 TAL 166.50 TAP 81.20 RCA 90.18 APO 151.40 V2 34.825
RC 178.036 GL 6.71 GP 13.48 ZAL 57.32 ZAP 165.70 ETS 67.03 ZAE 127.47 ETE 169.67 ZAC 116.15 ETC 269.34 CLP-175.19

PLANETOCENTRIC CONIC

C3 21.737 VHL 4.662 DLA -12.40 RAL 306.12 RAD 6567.9 VEL 11.963 PTH 2.13 VHP 8.718 DPA -10.89 RAP 282.68 ECC 1.3577

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 3 55	1839.10	-9.05	18.96	167.38	116.95	9 34 34	1239.1	-5.36	12.22
90.00	17 49 53	5273.64	27.00	238.46	173.08	81.13	19 17 46	4673.6	25.50	230.12
100.00	10 18 54	1597.18	-10.17	.58	166.78	118.26	10 45 31	997.2	-6.31	353.91
100.00	19 17 35	4980.79	28.25	217.42	172.85	79.81	20 40 46	4390.8	26.56	209.03
110.00	11 12 47	1428.39	-13.10	346.04	165.05	121.86	11 36 36	828.4	-8.80	339.58
110.00	20 40 11	4732.34	31.57	196.98	172.03	76.16	21 59 3	4132.3	29.35	188.48

DIFFERENTIAL CORRECTIONS

TDE 1.2156 TRA 2.9841 TC3-4.1005 BAU 1.1926
RDE .2968 RRA -.2762 RC3 .1687 FAU .01742
FDE .4820 FRA 1.1556 FC3 -.6939 BSP 17983
BDE 1.2423 BRA 2.9968 BC3 4.1040 FSP -499

MID-COURSE EXECUTION ACCURACY

SGT 5563.2 SGR 494.9 SG3 148.7
RRT -.5214 RRF -.5002 RTF .9334
SGB 5585.2 RZS .0126 R13 -.9335
SG1 5569.2 SG2 421.9 THA 177.33

ORBIT DETERMINATION ACCURACY

ST 1874.4 SR 332.1 SS 554.3
CRT .5670 CRS -.5776 CST -.9993
LSA 1963.8 MSA 272.2 SSA 18.1
EL1 1884.1 EL2 272.2 ALF 5.86

LAUNCH DATE SEP 26 1970 FLIGHT TIME 190.00 ARRIVAL DATE APR 4 1971

HELIOCENTRIC CONIC DISTANCE 554.961

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RL  149.99 LAL   -.00 LOL   2.49 VL  25.857 GAL   5.17 AZL  88.61 HCA 277.86 SMA 120.54 ECC .25952 INC 1.3921 V1  29.707
RP  108.84 LAP  -1.38 LOP 280.36 VP  36.575 GAP  13.99 AZP  89.81 TAL 164.85 TAP  82.72 RCA  89.25 APO 151.82 V2  34.818
RC 180.002 GL    7.33 GP   13.12 ZAL  54.86 ZAP 166.29 ETS  69.75 ZAE 127.49 ETE 169.93 ZAC 115.68 ETC 269.98 CLP-175.98
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PLANETOCENTRIC CONIC

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C3  24.015 VHL  4.900 DLA -11.18 RAL 308.46 RAD 6568.0 VEL 12.058 PTH   2.16 VHP  8.979 DPA -11.15 RAP 285.05 ECC 1.3952
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 3 5	1904.08	-11.03	22.70	171.18	116.25	9 34 49	1304.1	-7.41	15.89
90.00	18 9 22	5257.15	26.82	237.29	176.73	80.57	19 36 59	4657.2	25.25	228.98
100.00	10 18 48	1659.79	-12.16	4.15	170.60	117.52	10 46 28	1059.8	-8.38	357.40
100.00	19 36 20	4976.68	28.08	216.41	176.48	79.30	20 59 17	4376.7	26.32	208.05
110.00	11 14 19	1485.95	-15.15	349.24	168.88	121.02	11 39 5	886.0	-10.93	342.68
110.00	20 57 19	4723.27	31.42	196.32	175.63	75.79	22 16 2	4123.3	29.15	187.85

DIFFERENTIAL CORRECTIONS

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TDE 1.3906 TRA 3.2785 TC3-3.7092 BAU 1.1918
RDE  .2668 RRA -.2884 RC3  .1461 FAU .01595
FDE  .5140 FRA 1.1990 FC3 -.5749 BSP  18081
BDE 1.4159 BRA 3.2912 BC3 3.7121 FSP   -486
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MID-COURSE EXECUTION ACCURACY

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SGT 5579.2 SGR  485.7 SG3  142.5
RRT -.5005 RRF -.4798 RTF  .9355
SGB 5600.3 RZS  .0102 RIS -.9356
SG1 5584.5 SG2  420.1 THA 177.49
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ORBIT DETERMINATION ACCURACY

```
ST  2007.3 SR   328.6 SS   572.9
CRT  .5850 CRS -.5902 CST -.9995
LSA 2096.4 HSA  265.3 SSA   17.2
EL1 2016.7 EL2  265.2 ALF   5.57
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LAUNCH DATE SEP 26 1970 FLIGHT TIME 192.00 ARRIVAL DATE APR 6 1971

HELIOCENTRIC CONIC DISTANCE 560.229

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RL  149.99 LAL   -.00 LOL   2.49 VL  25.813 GAL   5.89 AZL  88.42 HCA 281.02 SMA 120.29 ECC .26620 INC 1.5772 V1  29.707
RP  108.86 LAP  -1.55 LOP 283.52 VP  36.538 GAP  14.47 AZP  89.70 TAL 163.22 TAP  84.24 RCA  88.27 APO 152.31 V2  34.812
RC 181.954 GL    7.87 GP   12.79 ZAL  52.54 ZAP 166.81 ETS  72.74 ZAE 127.50 ETE 170.17 ZAC 115.22 ETC 270.61 CLP-176.77
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PLANETOCENTRIC CONIC

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C3  26.638 VHL  5.161 DLA -10.06 RAL 310.66 RAD 6568.1 VEL 12.166 PTH   2.18 VHP  9.261 DPA -11.33 RAP 287.42 ECC 1.4384
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 2 40	1966.90	-12.89	26.37	175.01	115.43	9 35 27	1366.9	-9.36	19.47
90.00	18 27 24	5245.47	26.69	236.46	180.37	80.18	19 54 49	4645.5	25.06	228.17
100.00	10 19 2	1720.52	-14.05	7.68	174.43	116.66	10 47 42	1120.5	-10.36	.83
100.00	19 53 43	4967.08	27.96	215.72	180.11	78.96	21 16 30	4367.1	26.15	207.39
110.00	11 15 59	1542.20	-17.10	352.44	172.73	120.06	11 41 41	942.2	-12.97	345.76
110.00	21 13 18	4718.17	31.34	195.94	179.23	75.59	22 31 53	4118.2	29.04	187.49

DIFFERENTIAL CORRECTIONS

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TDE 1.5709 TRA 3.5882 TC3-3.3349 BAU 1.1885
RDE  .2782 RRA -.2997 RC3  .1254 FAU .01453
FDE  .5449 FRA 1.2432 FC3 -.4721 BSP  18175
BDE 1.5953 BRA 3.6007 BC3 3.3373 FSP   -473
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MID-COURSE EXECUTION ACCURACY

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SGT 5590.8 SGR  475.7 SG3  138.5
RRT -.4791 RRF -.4590 RTF  .9379
SGB 5611.0 RZS  .0082 RIS -.9379
SG1 5595.4 SG2  417.2 THA 177.65
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ORBIT DETERMINATION ACCURACY

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ST  2127.1 SR   325.0 SS   589.6
CRT  .6003 CRS -.6017 CST -.9996
LSA 2216.0 HSA  258.9 SSA   16.3
EL1 2136.2 EL2  258.8 ALF   5.32
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LAUNCH DATE SEP 26 1970 FLIGHT TIME 194.00 ARRIVAL DATE APR 8 1971

HELIOCENTRIC CONIC DISTANCE 565.420

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RL  149.99 LAL   -.00 LOL   2.49 VL  25.770 GAL   6.65 AZL  88.23 HCA 284.18 SMA 120.04 ECC .27352 INC 1.7665 V1  29.707
RP  108.87 LAP  -1.71 LOP 286.69 VP  36.502 GAP  14.97 AZP  89.57 TAL 161.60 TAP  85.79 RCA  87.21 APO 152.88 V2  34.806
RC 183.891 GL    8.33 GP   12.49 ZAL  50.36 ZAP 167.28 ETS  76.00 ZAE 127.49 ETE 170.39 ZAC 114.76 ETC 271.24 CLP-177.57
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PLANETOCENTRIC CONIC

```
C3  29.659 VHL  5.446 DLA  -9.01 RAL 312.74 RAD 6568.2 VEL 12.290 PTH   2.21 VHP  9.566 DPA -11.45 RAP 289.80 ECC 1.4881
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 2 35	2027.77	-14.64	29.99	178.86	114.51	9 36 22	1427.8	-11.21	22.99
90.00	18 44 4	5238.17	26.61	235.94	184.00	79.93	20 11 22	4638.2	24.94	227.67
100.00	10 19 31	1779.54	-15.82	11.16	178.29	115.70	10 49 11	1179.5	-12.23	4.21
100.00	20 9 48	4961.84	27.89	215.33	183.73	78.77	21 32 30	4361.6	26.05	207.01
110.00	11 17 45	1597.20	-18.94	355.84	176.60	119.00	11 44 22	997.2	-14.93	348.82
110.00	21 28 4	4716.74	31.31	195.84	182.83	75.53	22 46 41	4116.7	29.01	187.39

DIFFERENTIAL CORRECTIONS

```
TDE 1.7558 TRA 3.9127 TC3-2.9818 BAU 1.1831
RDE  .2907 RRA -.3100 RC3  .1065 FAU .01317
FDE  .5746 FRA 1.2878 FC3 -.3844 BSP  18291
BDE 1.7797 BRA 3.9249 BC3 2.9837 FSP   -462
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5597.4 SGR  464.8 SG3  134.5
RRT -.4566 RRF -.4377 RTF  .9405
SGB 5616.7 RZS  .0066 RIS -.9405
SG1 5601.5 SG2  413.2 THA 177.82
```

ORBIT DETERMINATION ACCURACY

```
ST  2232.7 SR   321.5 SS   604.5
CRT  .6140 CRS -.6127 CST -.9996
LSA 2321.5 HSA  252.9 SSA   15.5
EL1 2241.5 EL2  252.8 ALF   5.12
```

LAUNCH DATE SEP 26 1970 FLIGHT TIME 196.00 ARRIVAL DATE APR 10 1971

HELIOCENTRIC CONIC DISTANCE 570.524

```
RL  149.99 LAL   -.00 LOL   2.49 VL  25.727 GAL   7.46 AZL  88.04 HCA 287.34 SMA 119.80 ECC .28153 INC 1.9609 V1  29.707
RP  108.89 LAP  -1.87 LOP 289.85 VP  36.467 GAP  15.52 AZP  89.42 TAL 160.00 TAP  87.35 RCA  86.08 APO 153.53 V2  34.801
RC 185.813 GL    8.72 GP   12.22 ZAL  48.30 ZAP 167.68 ETS  79.54 ZAE 127.48 ETE 170.61 ZAC 114.31 ETC 271.86 CLP-178.37
```

PLANETOCENTRIC CONIC

```
C3  33.140 VHL  5.757 DLA  -8.04 RAL 314.70 RAD 6568.3 VEL 12.430 PTH   2.25 VHP  9.897 DPA -11.51 RAP 292.17 ECC 1.5454
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 2 46	2088.83	-16.28	33.55	182.72	113.49	9 37 32	1486.8	-12.96	26.44
90.00	18 59 29	5234.90	26.57	235.71	187.62	79.82	20 26 44	4634.9	24.89	227.44
100.00	10 20 13	1836.95	-17.48	14.62	182.15	114.64	10 50 50	1236.9	-14.01	7.54
100.00	20 24 43	4960.02	27.86	215.22	187.34	78.71	21 47 23	4360.0	26.02	206.90
110.00	11 19 36	1651.01	-20.69	358.84	180.48	117.84	11 47 7	1051.0	-16.80	351.87
110.00	21 41 49	4718.72	31.35	195.98	186.43	75.61	23 0 28	4118.7	29.05	187.53

DIFFERENTIAL CORRECTIONS

```
TDE 1.9464 TRA 4.2844 TC3-2.6504 BAU 1.1749
RDE  .3048 RRA -.3189 RC3  .0895 FAU .01186
FDE  .6036 FRA 1.3333 FC3 -.3099 BSP  18419
BDE 1.9701 BRA 4.2663 BC3 2.6519 FSP   -451
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5599.3 SGR  453.0 SG3  130.6
RRT -.4330 RRF -.4153 RTF  .9434
SGB 5617.6 RZS  .0052 RIS -.9434
SG1 5602.8 SG2  408.1 THA 177.98
```

ORBIT DETERMINATION ACCURACY

```
ST  2325.3 SR   317.9 SS   618.2
CRT  .6268 CRS -.6236 CST -.9997
LSA 2414.4 HSA  246.9 SSA   14.8
EL1 2334.0 EL2  246.8 ALF   4.95
```

LAUNCH DATE SEP 26 1970 FLIGHT TIME 206.00 ARRIVAL DATE APR 20 1971

HELIOCENTRIC CONIC DISTANCE 594.086

RL	149.99	LAL	-.00	LOL	2.49	VL	25.525	GAL	12.43	AZL	86.93	HCA	303.13	SMA	118.69	ECC	.33557	INC	3.0721	V1	29.707
RP	108.94	LAP	-2.57	LOP	305.66	VP	36.310	GAP	19.05	AZP	88.32	TAL	152.54	TAP	95.67	RCA	78.86	APO	158.53	V2	34.786
RC	195.178	GL	9.87	GP	11.14	ZAL	39.85	ZAP	168.56	ETS	101.05	ZAE	127.08	ETE	171.55	ZAC	112.07	ETC	274.77	CLP	177.36

PLANETOCENTRIC CONIC

C3	60.739	VHL	7.794	DLA	-4.29	RAL	322.76	RAD	6569.1	VEL	13.494	PTH	2.47	VHP	12.071	DPA	-10.95	RAP	303.74	ECC	1.9996

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 6 12	2357.04	-22.75	50.71	201.87	107.33	9 45 29	1757.0	-20.17	42.99
90.00	20 0 22	5267.74	26.94	238.04	205.35	80.93	21 28 9	4667.7	25.41	229.71
100.00	10 25 32	2101.13	-24.11	31.42	201.39	108.22	11 0 33	1501.1	-21.40	23.68
100.00	21 23 43	4998.08	28.35	218.00	205.08	80.10	22 47 2	4398.9	26.69	209.60
110.00	11 29 10	1901.94	-27.77	14.86	199.95	110.78	12 0 52	1301.9	-24.69	7.04
110.00	22 36 35	4770.84	32.16	199.83	204.22	77.75	23 56 6	4170.8	30.14	191.20

DIFFERENTIAL CORRECTIONS

TDE	3.0355	TRA	6.2906	TC3	-1.3096	BAU	1.0836
RDE	.3919	RRA	-.3342	RC3	.0287	FAU	.00563
FDE	.7546	FRA	1.5990	FC3	-.0803	BSP	18958
BDE	3.0607	BRA	6.3085	BC3	1.3099	FSP	-402

MID-COURSE EXECUTION ACCURACY

SGT	5542.3	SGR	381.7	SG3	113.1		
RRT	-.2802	RRF	-.2727	RTF	.9606		
SGB	5555.4	RZ3	.0024	R13	-.9606		
SG1	5543.3	SG2	366.3	THA	178.89		

ORBIT DETERMINATION ACCURACY

ST	2631.6	SR	297.4	SS	686.2
CRT	.6897	CRS	-.6832	CST	-.9998
LSA	2727.3	MSA	214.9	SSA	11.8
EL1	2639.6	EL2	214.7	ALF	4.49

LAUNCH DATE SEP 26 1970 FLIGHT TIME 208.00 ARRIVAL DATE APR 22 1971

HELIOCENTRIC CONIC DISTANCE 598.211

RL	149.99	LAL	-.00	LOL	2.49	VL	25.487	GAL	13.67	AZL	86.66	HCA	306.28	SMA	118.49	ECC	.35011	INC	3.3384	V1	29.707
RP	108.94	LAP	-2.69	LOP	308.82	VP	36.283	GAP	19.99	AZP	88.02	TAL	151.21	TAP	97.49	RCA	77.01	APO	159.98	V2	34.785
RC	196.997	GL	9.98	GP	10.97	ZAL	38.51	ZAP	168.47	ETS	105.89	ZAE	126.91	ETE	171.73	ZAC	111.62	ETC	275.30	CLP	176.43

PLANETOCENTRIC CONIC

C3	69.313	VHL	8.325	DLA	-3.74	RAL	324.04	RAD	6569.3	VEL	13.808	PTH	2.52	VHP	12.648	DPA	-10.70	RAP	305.96	ECC	2.1407

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 7 12	2405.92	-23.70	53.98	205.59	105.96	9 47 18	1805.9	-21.29	46.14
90.00	20 9 37	5282.25	27.09	239.08	208.76	81.43	21 37 39	4682.3	25.63	230.72
100.00	10 26 47	2149.17	-25.10	34.65	205.14	106.80	11 2 36	1549.2	-22.56	26.77
100.00	21 32 42	5014.24	28.53	219.11	208.51	80.66	22 56 17	4414.2	26.94	210.67
110.00	11 31 1	1948.10	-28.85	18.02	203.77	109.19	12 3 29	1348.1	-25.96	10.03
110.00	22 44 58	4788.07	32.40	201.11	207.68	78.47	24 4 46	4188.1	30.48	192.43

DIFFERENTIAL CORRECTIONS

TDE	3.2958	TRA	6.8012	TC3	-1.0976	BAU	1.0172
RDE	.4137	RRA	-.3296	RC3	.0209	FAU	.00429
FDE	.7904	FRA	1.6656	FC3	-.0535	BSP	18908
BDE	3.3217	BRA	6.8091	BC3	1.0978	FSP	-390

MID-COURSE EXECUTION ACCURACY

SGT	5521.4	SGR	365.8	SG3	110.1		
RRT	-.2383	RRF	-.2331	RTF	.9644		
SGB	5533.5	RZ3	.0024	R13	-.9644		
SG1	5522.1	SG2	355.0	THA	179.09		

ORBIT DETERMINATION ACCURACY

ST	2669.8	SR	292.7	SS	703.7
CRT	.7038	CRS	-.6973	CST	-.9998
LSA	2768.7	MSA	207.6	SSA	11.3
EL1	2677.8	EL2	207.3	ALF	4.44

LAUNCH DATE SEP 26 1970 FLIGHT TIME 210.00 ARRIVAL DATE APR 24 1971

HELIOCENTRIC CONIC DISTANCE 602.037

RL	149.99	LAL	-.00	LOL	2.49	VL	25.451	GAL	15.03	AZL	86.37	HCA	309.43	SMA	118.30	ECC	.36632	INC	3.6271	V1	29.707
RP	108.94	LAP	-2.80	LOP	311.98	VP	36.257	GAP	21.03	AZP	87.69	TAL	149.97	TAP	99.40	RCA	74.96	APO	161.63	V2	34.785
RC	198.798	GL	10.05	GP	10.81	ZAL	37.30	ZAP	168.28	ETS	110.81	ZAE	126.70	ETE	171.91	ZAC	111.18	ETC	275.82	CLP	175.46

PLANETOCENTRIC CONIC

C3	79.429	VHL	8.912	DLA	-3.26	RAL	325.22	RAD	6569.6	VEL	14.170	PTH	2.58	VHP	13.290	DPA	-10.41	RAP	308.13	ECC	2.3072

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 8 14	2452.86	-24.55	57.16	209.23	104.58	9 49 7	1852.9	-22.30	49.21
90.00	20 17 56	5298.87	27.25	240.27	212.11	82.01	21 46 15	4698.9	25.87	231.87
100.00	10 28 4	2195.36	-25.97	37.81	208.81	105.35	11 4 39	1595.4	-23.61	29.80
100.00	21 40 48	5051.60	28.71	220.37	211.87	81.30	23 4 39	4431.6	27.21	211.89
110.00	11 32 49	1992.64	-29.81	21.14	207.53	107.57	12 6 2	1392.6	-27.11	12.98
110.00	22 52 32	4807.09	32.65	202.54	211.08	79.28	24 12 39	4207.1	30.83	193.80

DIFFERENTIAL CORRECTIONS

TDE	3.5771	TRA	7.3447	TC3	-.9022	BAU	.9581
RDE	.4375	RRA	-.3189	RC3	.0145	FAU	.00284
FDE	.8296	FRA	1.7391	FC3	-.0309	BSP	18744
BDE	3.6037	BRA	7.3516	BC3	.9023	FSP	-376

MID-COURSE EXECUTION ACCURACY

SGT	5499.3	SGR	349.2	SG3	107.3		
RRT	-.1906	RRF	-.1877	RTF	.9683		
SGB	5510.3	RZ3	.0025	R13	-.9683		
SG1	5499.7	SG2	342.8	THA	179.30		

ORBIT DETERMINATION ACCURACY

ST	2702.6	SR	287.9	SS	723.8
CRT	.7188	CRS	-.7125	CST	-.9998
LSA	2805.4	MSA	199.8	SSA	10.8
EL1	2710.5	EL2	199.6	ALF	4.40

LAUNCH DATE SEP 26 1970 FLIGHT TIME 212.00 ARRIVAL DATE APR 26 1971

HELIOCENTRIC CONIC DISTANCE 605.496

RL	149.99	LAL	-.00	LOL	2.49	VL	25.416	GAL	16.52	AZL	86.06	HCA	312.58	SMA	118.11	ECC	.38446	INC	3.9432	V1	29.707
RP	108.94	LAP	-2.90	LOP	315.15	VP	36.233	GAP	22.19	AZP	87.53	TAL	148.83	TAP	101.41	RCA	72.70	APO	163.52	V2	34.786
RC	200.578	GL	10.09	GP	10.67	ZAL	36.20	ZAP	167.98	ETS	115.74	ZAE	126.43	ETE	172.10	ZAC	110.73	ETC	276.31	CLP	174.43

PLANETOCENTRIC CONIC

C3	91.440	VHL	9.562	DLA	-2.83	RAL	326.28	RAD	6569.8	VEL	14.587	PTH	2.64	VHP	14.008	DPA	-10.10	RAP	310.24	ECC	2.5049

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 9 19	2497.64	-25.28	60.24	212.76	103.20	9 50 57	1897.6	-23.21	52.18
90.00	20 25 18	5317.42	27.42	241.60	215.36	82.65	21 53 56	4717.4	26.12	233.17
100.00	10 29 21	2239.51	-26.73	40.87	212.37	103.91	11 6 40	1639.5	-24.55	32.74
100.00	21 47 58	5050.78	28.90	221.76	215.14	82.01	23 12 9	4450.8	27.49	213.24
110.00	11 34 33	2035.36	-30.64	24.18	211.18	105.95	12 8 29	1435.4	-28.15	15.87
110.00	22 59 15	4827.69	32.90	204.10	214.41	80.17	24 19 42	4227.7	31.20	195.29

DIFFERENTIAL CORRECTIONS

TDE	3.8818	TRA	7.9983	TC3	-.7229	BAU	.8838
RDE	.4836	RRA	-.3041	RC3	.0094	FAU	.00125
FDE	.8727	FRA	1.8206	FC3	-.0119	BSP	18464
BDE	3.9094	BRA	7.9411	BC3	.7230	FSP	-360

MID-COURSE EXECUTION ACCURACY

SGT	5475.7	SGR	332.8	SG3	104.6		
RRT	-.1357	RRF	-.1350	RTF	.9721		
SGB	5485.8	RZ3	.0026	R13	-.9721		
SG1	5475.9	SG2	329.7	THA	179.53		

ORBIT DETERMINATION ACCURACY

ST	2729.7	SR	283.1	SS	746.9
CRT	.7348	CRS	-.7288	CST	-.9999
LSA	2837.6	MSA	191.7	SSA	10.3
EL1	2737.6	EL2	191.5	ALF	4.38

LAUNCH DATE SEP 26 1970 FLIGHT TIME 198.00 ARRIVAL DATE APR 12 1971

HELIOCENTRIC CONIC DISTANCE 575.525

RL 149.99 LAL -.00 LOL 2.49 VL 25.685 GAL 8.32 AZL 87.84 HCA 290.50 SMA 119.57 ECC .29033 INC 2.1621 V1 29.707
RP 108.90 LAP -2.03 LOP 293.01 VP 36.433 GAP 16.10 AZP 89.24 TAL 158.43 TAP 88.93 RCA 84.86 APO 154.29 V2 34.797
RC 187.719 GL 9.05 GP 11.97 ZAL 46.37 ZAP 168.01 ETS 83.36 ZAE 127.44 ETE 170.81 ZAC 113.86 ETC 272.47 CLP-179.19

PLANETOCENTRIC CONIC

C3 37.155 VHL 6.095 DLA -7.15 RAL 316.53 RAD 6568.4 VEL 12.591 PTH 2.28 VHP 10.256 DPA -11.50 RAP 294.52 ECC 1.6115

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 3 10	2144.18	-17.80	37.07	186.58	112.39	9 38 54	1544.2	-14.61	29.85
90.00	19 13 44	5235.30	26.57	235.74	191.22	79.83	20 41 0	4635.3	24.90	227.47
100.00	10 21 5	1892.81	-19.03	18.04	186.03	113.49	10 52 37	1292.8	-15.70	10.84
100.00	20 38 30	4961.90	27.89	215.35	190.94	78.78	22 1 12	4361.9	26.06	207.03
110.00	11 21 30	1703.64	-22.32	2.04	184.38	116.58	11 49 53	1103.6	-18.57	354.91
110.00	21 54 35	4723.84	31.43	196.36	190.02	75.81	23 13 18	4123.8	29.16	187.89

DIFFERENTIAL CORRECTIONS
TDE 2.1438 TRA 4.6143 TC3-2.3409 BAU 1.1634
RDE .3194 RRA -.3263 RC3 .0742 FAU .01060
FDE .6321 FRA 1.3804 FC3 -.2471 BSP 18564
BDE 2.1675 BRA 4.6258 BC3 2.3421 FSP -442

MID-COURSE EXECUTION ACCURACY
SGT 5595.8 SGR 440.3 SG3 128.8
RRT -.4076 RRF -.3917 RTF .9465
SGB 5613.1 R23 .0042 R13 -.9465
SG1 5598.7 SG2 401.8 THA 178.15

ORBIT DETERMINATION ACCURACY
ST 2405.8 SR 314.2 SS 631.0
CRT .6391 CRS -.6345 CST -.9997
LSA 2495.3 MSA 241.0 SSA 14.1
EL1 2414.2 EL2 240.8 ALF 4.82

LAUNCH DATE SEP 26 1970 FLIGHT TIME 200.00 ARRIVAL DATE APR 14 1971

HELIOCENTRIC CONIC DISTANCE 580.407

RL 149.99 VHL -.00 LOL 2.49 VL 25.644 GAL 9.24 AZL 87.63 HCA 293.66 SMA 119.34 ECC .30001 INC 2.3718 V1 29.707
RP 108.92 LAP -2.17 LOP 296.17 VP 36.400 GAP 16.74 AZP 89.05 TAL 156.89 TAP 90.55 RCA 83.54 APO 155.15 V2 34.793
RC 189.610 GL 9.32 GP 11.73 ZAL 44.56 ZAP 168.27 ETS 87.45 ZAE 127.39 ETE 171.00 ZAC 113.41 ETC 273.06 CLP 179.98

PLANETOCENTRIC CONIC

C3 41.796 VHL 6.465 DLA -6.34 RAL 318.26 RAD 6568.6 VEL 12.774 PTH 2.32 VHP 10.649 DPA -11.44 RAP 296.87 ECC 1.6879

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 3 44	2199.87	-19.21	40.55	190.43	111.21	9 40 24	1590.9	-16.16	33.21
90.00	19 26 54	5239.07	26.62	236.01	194.81	79.96	20 54 13	4639.1	24.96	227.73
100.00	10 22 4	1947.18	-20.47	21.44	189.90	112.27	10 54 31	1347.2	-17.28	14.10
100.00	20 51 15	4966.99	27.96	215.72	194.52	78.96	22 14 2	4367.0	26.15	207.38
110.00	11 23 25	1755.09	-23.86	5.25	188.29	115.24	11 52 40	1155.1	-20.26	357.96
110.00	22 6 34	4731.85	31.56	196.95	193.61	76.14	23 25 15	4131.9	29.34	188.45

DIFFERENTIAL CORRECTIONS
TDE 2.3492 TRA 4.9901 TC3-2.0536 BAU 1.1480
RDE .3355 RRA -.3318 RC3 .0605 FAU .00937
FDE .6609 FRA 1.4296 FC3 -.1941 BSP 18701
BDE 2.3731 BRA 5.0091 BC3 2.0545 FSP -432

MID-COURSE EXECUTION ACCURACY
SGT 5590.0 SGR 426.7 SG3 123.2
RRT -.3804 RRF -.3662 RTF .9499
SGB 5606.3 R23 .0033 R13 -.9499
SG1 5592.4 SG2 394.5 THA 178.33

ORBIT DETERMINATION ACCURACY
ST 2475.6 SR 310.3 SS 643.7
CRT .6511 CRS -.6458 CST -.9997
LSA 2565.9 MSA 234.9 SSA 13.5
EL1 2483.9 EL2 234.8 ALF 4.71

LAUNCH DATE SEP 26 1970 FLIGHT TIME 202.00 ARRIVAL DATE APR 16 1971

HELIOCENTRIC CONIC DISTANCE 585.146

RL 149.99 LAL -.00 LOL 2.49 VL 25.603 GAL 10.22 AZL 87.41 HCA 296.82 SMA 119.12 ECC .31069 INC 2.5918 V1 29.707
RP 108.93 LAP -2.31 LOP 299.33 VP 36.369 GAP 17.44 AZP 88.83 TAL 155.39 TAP 92.21 RCA 82.11 APO 156.13 V2 34.790
RC 191.483 GL 9.55 GP 11.52 ZAL 42.87 ZAP 168.45 ETS 91.78 ZAE 127.31 ETE 171.19 ZAC 112.97 ETC 273.65 CLP 179.13

PLANETOCENTRIC CONIC

C3 47.175 VHL 6.868 DLA -5.59 RAL 319.87 RAD 6568.8 VEL 12.982 PTH 2.37 VHP 11.078 DPA -11.32 RAP 299.19 ECC 1.7764

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 4 27	2253.93	-20.50	43.99	194.28	109.97	9 42 1	1653.9	-17.60	36.52
90.00	19 39 2	5245.91	26.70	236.49	198.36	80.19	21 6 28	4645.9	25.07	228.20
100.00	10 23 9	2000.05	-21.80	24.80	193.76	110.97	10 56 29	1400.0	-18.75	17.33
100.00	21 3 1	4975.02	28.06	216.29	198.08	79.25	22 25 56	4375.0	26.29	207.94
110.00	11 25 21	1805.33	-25.28	8.46	192.20	113.82	11 55 26	1205.3	-21.84	1.00
110.00	22 17 19	4742.51	31.73	197.73	197.17	76.57	23 36 21	4142.5	29.56	189.19

DIFFERENTIAL CORRECTIONS
TDE 2.5650 TRA 5.4014 TC3-1.7866 BAU 1.1272
RDE .3529 RRA -.3353 RC3 .0484 FAU .00815
FDE .6905 FRA 1.4821 FC3 -.1496 BSP 18833
BDE 2.5891 BRA 5.4118 BC3 1.7873 FSP -425

MID-COURSE EXECUTION ACCURACY
SGT 5576.5 SGR 412.4 SG3 119.6
RRT -.3503 RRF -.3383 RTF .9533
SGB 5591.8 R23 .0030 R13 -.9533
SG1 5578.4 SG2 386.2 THA 178.51

ORBIT DETERMINATION ACCURACY
ST 2535.4 SR 306.3 SS 656.7
CRT .6636 CRS -.6575 CST -.9998
LSA 2627.0 MSA 228.6 SSA 12.9
EL1 2543.6 EL2 228.4 ALF 4.82

LAUNCH DATE SEP 26 1970 FLIGHT TIME 204.00 ARRIVAL DATE APR 18 1971

HELIOCENTRIC CONIC DISTANCE 589.717

RL 149.99 LAL -.00 LOL 2.49 VL 25.564 GAL 11.28 AZL 87.18 HCA 299.97 SMA 118.90 ECC .32249 INC 2.8243 V1 29.707
RP 108.93 LAP -2.45 LOP 302.49 VP 36.339 GAP 18.21 AZP 88.59 TAL 153.94 TAP 93.91 RCA 80.56 APO 157.25 V2 34.788
RC 193.340 GL 9.73 GP 11.32 ZAL 41.30 ZAP 168.55 ETS 96.33 ZAE 127.21 ETE 171.37 ZAC 112.52 ETC 274.22 CLP 178.26

PLANETOCENTRIC CONIC

C3 53.432 VHL 7.310 DLA -4.91 RAL 321.37 RAD 6568.9 VEL 13.221 PTH 2.42 VHP 11.550 DPA -11.16 RAP 301.48 ECC 1.8794

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 5 17	2306.34	-21.68	47.38	198.09	108.67	9 43 43	1706.3	-18.94	39.78
90.00	19 50 10	5255.55	26.81	237.18	201.88	80.52	21 17 46	4655.5	25.22	228.87
100.00	10 24 19	2051.39	-23.01	28.13	197.59	109.62	10 58 30	1451.4	-20.13	20.52
100.00	21 13 50	4985.73	28.19	217.06	201.60	79.63	22 36 55	4385.7	26.47	208.68
110.00	11 27 16	1854.30	-26.58	11.67	196.09	112.33	11 58 10	1254.3	-23.32	4.03
110.00	22 27 22	4755.58	31.94	198.70	200.71	77.11	23 46 37	4155.6	29.83	190.12

DIFFERENTIAL CORRECTIONS
TDE 2.7926 TRA 5.8343 TC3-1.5390 BAU 1.0997
RDE .3717 RRA -.3302 RC3 .0378 FAU .00691
FDE .7215 FRA 1.5362 FC3 -.1120 BSP 18931
BDE 2.8172 BRA 5.8440 BC3 1.5394 FSP -413

MID-COURSE EXECUTION ACCURACY
SGT 5560.7 SGR 397.4 SG3 116.3
RRT -.3172 RRF -.3074 RTF .9569
SGB 5574.8 R23 .0026 R13 -.9569
SG1 5562.1 SG2 376.7 THA 178.70

ORBIT DETERMINATION ACCURACY
ST 2586.9 SR 301.9 SS 670.6
CRT .6764 CRS -.6699 CST -.9998
LSA 2680.2 MSA 221.9 SSA 12.4
EL1 2595.0 EL2 221.7 ALF 4.55

LAUNCH DATE SEP 26 1970 FLIGHT TIME 214.00 ARRIVAL DATE APR 28 1971

HELIOCENTRIC CONIC DISTANCE 608.490

RL 149.99 LAL -.00 LOL 2.49 VL 25.382 GAL 18.16 AZL 85.71 HCA 315.74 SMA 117.93 ECC .40482 INC 4.2930 V1 29.707
RP 108.93 LAP -3.00 LOP 318.31 VP 36.211 GAP 23.50 AZP 86.92 TAL 147.81 TAP 103.55 RCA 70.19 APO 165.67 V2 34.787
RC 202.339 GL 10.11 GP 10.53 ZAL 35.23 ZAP 167.56 ETS 120.63 ZAE 126.10 ETE 172.29 ZAC 110.30 ETC 276.77 CLP 173.34

PLANETOCENTRIC CONIC

C3 105.800 VHL 10.286 DLA -2.48 RAL 327.22 RAD 6570.0 VEL 15.071 PTH 2.71 VHP 14.816 DPA -9.76 RAP 312.28 ECC 2.7412

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 10 26	2540.03	-25.90	63.18	216.16	101.85	9 52 46	1940.0	-24.01	55.02
90.00	20 31 42	5337.73	27.59	243.06	218.52	83.37	22 0 40	4737.7	26.39	234.60
100.00	10 30 37	2281.36	-27.38	43.81	215.81	102.49	11 8 39	1681.4	-25.38	35.57
100.00	21 54 12	5071.63	29.09	223.29	218.31	82.79	23 18 44	4471.6	27.78	214.72
110.00	11 36 13	2078.02	-31.37	27.13	214.72	104.34	12 10 49	1476.0	-29.08	18.67
110.00	23 5 6	4849.73	33.15	205.77	217.64	81.13	24 25 55	4249.7	31.57	196.90

DIFFERENTIAL CORRECTIONS
TDE 4.2136 TRA 8.5798 TC3 -.5591 BAU .7908
RDE .4925 RRA -.2833 RC3 .0055 FAU-.00051
FDE .9205 FRA 1.9114 FC3 .5041 BSP 18047
BDE 4.2423 BRA 8.5844 BC3 .5591 FSP -342

MID-COURSE EXECUTION ACCURACY
SGT 5451.2 SGR 316.8 SG3 102.2
RRT -.0722 RRF -.0735 RTF .9759
SGB 5480.4 RZS .0029 R13 -.9759
SG1 5451.2 SG2 315.9 THA 179.76

ORBIT DETERMINATION ACCURACY
ST 2751.3 SR 278.4 SS 773.5
CRT .7519 CRS -.7461 CST -.9999
LSA 2965.6 NSA 183.3 SSA 9.8
EL1 2759.3 EL2 183.0 ALF 4.57

LAUNCH DATE SEP 26 1970 FLIGHT TIME 216.00 ARRIVAL DATE APR 30 1971

HELIOCENTRIC CONIC DISTANCE 610.931

RL 149.99 LAL -.00 LOL 2.49 VL 25.351 GAL 19.99 AZL 85.32 HCA 318.89 SMA 117.76 ECC .42775 INC 4.6848 V1 29.707
RP 108.93 LAP -3.08 LOP 321.48 VP 36.190 GAP 24.98 AZP 86.47 TAL 146.95 TAP 105.84 RCA 67.39 APO 168.13 V2 34.789
RC 204.080 GL 10.10 GP 10.40 ZAL 34.40 ZAP 167.01 ETS 125.45 ZAE 125.69 ETE 172.49 ZAC 109.84 ETC 277.21 CLP 172.17

PLANETOCENTRIC CONIC

C3 123.102 VHL 11.095 DLA -2.19 RAL 328.03 RAD 6570.3 VEL 15.634 PTH 2.78 VHP 15.729 DPA -9.41 RAP 314.24 ECC 3.0259

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 11 33	2579.71	-28.43	65.97	219.40	100.55	9 54 33	1979.7	-24.71	57.73
90.00	20 37 4	5389.68	27.75	244.65	221.54	84.15	22 6 24	4759.7	26.65	236.15
100.00	10 31 52	2320.61	-27.92	46.59	219.08	101.12	11 10 33	1720.6	-26.11	38.27
100.00	21 59 28	5084.01	29.27	224.92	221.35	83.63	23 24 20	4494.0	28.08	216.32
110.00	11 37 46	2114.31	-31.98	29.95	218.09	102.78	12 13 1	1514.3	-29.89	21.36
110.00	23 18 1	4873.07	33.38	207.55	220.75	82.16	24 31 14	4273.1	31.94	198.62

DIFFERENTIAL CORRECTIONS
TDE 4.5758 TRA 9.2842 TC3 -.4104 BAU .6755
RDE .5250 RRA -.2591 RC3 .0028 FAU-.00250
FDE .9736 FRA 2.0131 FC3 .0176 BSP 17500
BDE 4.6056 BRA 9.2877 BC3 .4104 FSP -325

MID-COURSE EXECUTION ACCURACY
SGT 5425.1 SGR 301.5 SG3 99.9
RRT .0014 RRF -.0017 RTF .9796
SGB 5433.5 RZS -.0031 R13 -.9796
SG1 5425.1 SG2 301.5 THA .00

ORBIT DETERMINATION ACCURACY
ST 2766.9 SR 274.0 SS 804.2
CRT .7899 CRS -.7646 CST -.9999
LSA 2989.1 NSA 174.6 SSA 9.2
EL1 2774.9 EL2 174.3 ALF 4.38

LAUNCH DATE SEP 26 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAY 2 1971

HELIOCENTRIC CONIC DISTANCE 612.633

RL 149.99 LAL -.00 LOL 2.49 VL 25.321 GAL 22.03 AZL 84.87 HCA 322.04 SMA 117.60 ECC .45367 INC 5.1293 V1 29.707
RP 108.92 LAP -3.15 LOP 324.64 VP 36.172 GAP 26.67 AZP 85.95 TAL 146.27 TAP 108.31 RCA 64.25 APO 170.96 V2 34.792
RC 205.802 GL 10.07 GP 10.27 ZAL 33.71 ZAP 166.32 ETS 130.14 ZAE 125.19 ETE 172.71 ZAC 109.44 ETC 277.62 CLP 170.91

PLANETOCENTRIC CONIC

C3 144.124 VHL 12.005 DLA -1.98 RAL 328.70 RAD 6570.6 VEL 16.293 PTH 2.85 VHP 16.787 DPA -9.06 RAP 316.11 ECC 3.3719

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 12 40	2616.30	-26.86	68.56	222.42	99.32	9 56 16	2016.3	-25.30	60.24
90.00	20 41 18	5383.20	27.91	246.35	224.40	84.99	22 11 2	4783.2	26.92	237.82
100.00	10 33 5	2356.88	-28.37	49.20	222.13	99.82	11 12 22	1756.9	-26.72	40.78
100.00	22 3 34	5117.85	29.44	226.68	224.24	84.54	23 28 52	4517.8	28.37	218.04
110.00	11 39 13	2149.88	-32.48	32.60	221.25	101.28	12 15 2	1549.9	-30.59	23.89
110.00	23 13 56	4897.61	33.59	209.44	223.72	83.26	24 35 34	4297.6	32.29	200.45

DIFFERENTIAL CORRECTIONS
TDE 4.9174 TRA10.0021 TC3 -.2914 BAU .5614
RDE .5618 RRA -.2179 RC3 .0013 FAU-.00425
FDE 1.0205 FRA 2.1149 FC3 .0255 BSP 18099
BDE 4.9494 BRA10.0045 BC3 .2914 FSP -328

MID-COURSE EXECUTION ACCURACY
SGT 5367.7 SGR 287.6 SG3 97.0
RRT .0843 RRF .0796 RTF .9829
SGB 5375.4 RZS -.0035 R13 .9829
SG1 5367.7 SG2 286.6 THA .26

ORBIT DETERMINATION ACCURACY
ST 2749.8 SR 269.9 SS 831.0
CRT .7875 CRS -.7823 CST -.9999
LSA 2880.5 NSA 166.2 SSA 8.7
EL1 2758.1 EL2 165.9 ALF 4.44

LAUNCH DATE SEP 26 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAY 4 1971

HELIOCENTRIC CONIC DISTANCE 613.417

RL 149.99 LAL -.00 LOL 2.49 VL 25.294 GAL 24.32 AZL 84.36 HCA 325.18 SMA 117.46 ECC .48305 INC 5.6414 V1 29.707
RP 108.91 LAP -3.22 LOP 327.81 VP 36.156 GAP 28.61 AZP 85.36 TAL 145.82 TAP 111.00 RCA 60.72 APO 174.20 V2 34.795
RC 207.503 GL 10.01 GP 10.15 ZAL 33.19 ZAP 165.46 ETS 134.69 ZAE 124.58 ETE 172.94 ZAC 109.03 ETC 278.00 CLP 169.53

PLANETOCENTRIC CONIC

C3 169.907 VHL 13.035 DLA -1.85 RAL 329.22 RAD 6570.8 VEL 17.066 PTH 2.93 VHP 17.955 DPA -8.71 RAP 317.86 ECC 3.7962

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 13 46	2649.36	-27.20	70.92	225.19	98.19	9 57 55	2049.4	-25.79	62.54
90.00	20 44 19	5408.28	28.04	248.17	227.08	85.89	22 14 27	4808.3	27.18	239.61
100.00	10 34 14	2389.74	-28.73	51.57	224.94	98.62	11 14 4	1789.7	-27.24	43.09
100.00	22 6 31	5143.11	29.58	228.54	226.95	85.51	23 32 14	4543.1	28.65	219.86
110.00	11 40 30	2182.31	-32.89	35.04	224.15	99.89	12 16 53	1582.3	-31.18	26.24
110.00	23 16 45	4923.31	33.78	211.42	226.52	84.42	24 38 48	4323.3	32.64	202.37

DIFFERENTIAL CORRECTIONS
TDE 5.3191 TRA10.0182 TC3 -.1767 BAU .4013
RDE .6036 RRA -.1703 RC3 .0006 FAU-.00667
FDE 1.0804 FRA 2.2373 FC3 .0340 BSP 18009
BDE 5.3532 BRA10.0195 BC3 .1767 FSP -320

MID-COURSE EXECUTION ACCURACY
SGT 5321.1 SGR 275.7 SG3 94.7
RRT .1794 RRF .1735 RTF .9860
SGB 5328.3 RZS -.0039 R13 .9860
SG1 5321.4 SG2 271.2 THA .53

ORBIT DETERMINATION ACCURACY
ST 2739.3 SR 266.3 SS 867.4
CRT .8065 CRS -.8017 CST -.9999
LSA 2881.4 NSA 157.3 SSA 8.1
EL1 2747.7 EL2 156.9 ALF 4.50

LAUNCH DATE SEP 27 1970 FLIGHT TIME 70.00 ARRIVAL DATE DEC 6 1970

HELIOCENTRIC CONIC DISTANCE 190.563

RL	149.95	LAL	-.00	LOL	3.47	VL	27.342	GAL	-10.57	AZL	89.27	HCA	85.33	SHA	129.79	ECC	.23865	INC	.7314
RP	107.67	LAP	.73	LOP	88.80	VP	37.984	GAP	-9.76	AZP	89.94	TAL	219.65	TAP	304.98	RCA	98.81	APO	160.76
RC	52.096	GL	3.68	GP	-17.74	ZAL	147.73	ZAP	25.86	ETS	37.78	ZAE	146.29	ETE	328.87	ZAC	84.22	ETC	261.59

V1 29.715 V2 35.198 CLP -19.12

PLANETOCENTRIC CONIC

C3 28.612 VHL 5.349 DLA -9.90 RAL 214.50 RAD 6568.1 VEL 12.247 PTH 2.20 VHP 6.977 DPA -38.81 RAP 243.50 ECC 1.4709

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 33 53	1989.69	-13.55	27.72	79.98	115.10	3 7 3	1389.7	-10.06	20.78
90.00	12 1 4	5250.28	26.84	237.37	85.47	80.61	13 28 43	4659.3	25.26	229.05
100.00	3 50 20	1743.03	-14.73	9.00	79.40	116.31	4 19 23	1143.0	-11.08	2.11
100.00	13 27 18	4980.17	28.12	216.66	85.22	79.43	14 50 18	4380.2	26.38	208.29
110.00	4 47 28	1564.12	-17.84	353.71	77.68	119.65	5 13 32	964.1	-13.76	346.97
110.00	14 46 39	4731.84	31.56	196.95	84.36	76.14	16 5 31	4131.8	29.34	188.45

DIFFERENTIAL CORRECTIONS

TDE	.0762	TRA	-.3294	TC3	.4137	BAU	.1913
RDE	-.2902	RRA	-.1830	RC3	-.2809	FAU	.04603
FDE	.4181	FRA	-.3070	FC3	-1.3928	BSP	1406
BDE	.3000	BRA	.3768	BC3	.5001	FSP	-340

MID-COURSE EXECUTION ACCURACY

SGT	575.2	SGR	475.9	SG3	137.5		
RRT	-.3182	RRF	.4951	RTF	-.5499		
SGB	746.6	RZ3	-.1166	R13	.6347		
SG1	616.6	SG2	420.9	THA	150.47		

ORBIT DETERMINATION ACCURACY

ST	135.6	SR	316.6	SS	278.0
CRT	-.4445	CRS	.9098	CST	-.7475
LSA	420.1	NSA	136.0	SSA	29.9
EL1	323.2	EL2	119.0	ALF	102.50

LAUNCH DATE SEP 27 1970 FLIGHT TIME 72.00 ARRIVAL DATE DEC 8 1970

HELIOCENTRIC CONIC DISTANCE 197.375

RL	149.95	LAL	-.00	LOL	3.47	VL	27.467	GAL	-10.49	AZL	89.08	HCA	88.56	SHA	130.67	ECC	.23281	INC	.9153
RP	107.64	LAP	.92	LOP	92.04	VP	38.082	GAP	-8.89	AZP	89.98	TAL	220.96	TAP	309.52	RCA	100.25	APO	161.09
RC	53.818	GL	4.69	GP	-18.96	ZAL	148.71	ZAP	28.99	ETS	34.76	ZAE	145.87	ETE	326.31	ZAC	83.01	ETC	261.55

V1 29.715 V2 35.206 CLP -22.35

PLANETOCENTRIC CONIC

C3 27.839 VHL 5.276 DLA -8.58 RAL 213.78 RAD 6568.1 VEL 12.215 PTH 2.19 VHP 6.557 DPA -39.99 RAP 243.11 ECC 1.4582

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 20 30	2025.74	-14.58	29.87	78.92	114.54	2 54 16	1425.7	-11.15	22.87
90.00	12 8 44	5208.56	26.24	233.85	83.67	78.95	13 35 33	4608.6	24.45	225.64
100.00	3 37 40	1776.77	-15.74	11.00	78.36	115.75	4 7 17	1176.8	-12.15	4.05
100.00	13 34 15	4932.76	27.49	213.28	83.38	77.76	14 56 28	4332.8	25.52	205.03
110.00	4 36 25	1592.84	-18.80	355.38	76.70	119.09	5 2 58	992.8	-14.78	348.57
110.00	14 52 0	4689.46	30.83	193.06	82.43	74.45	16 10 9	4089.5	28.39	185.51

DIFFERENTIAL CORRECTIONS

TDE	.0867	TRA	-.3212	TC3	.4268	BAU	.1993
RDE	-.2693	RRA	-.1941	RC3	-.3234	FAU	.05068
FDE	.5045	FRA	-.3632	FC3	-1.5781	BSP	1509
BDE	.2780	BRA	.3753	BC3	.5355	FSP	-395

MID-COURSE EXECUTION ACCURACY

SGT	576.9	SGR	497.5	SG3	155.2		
RRT	-.3496	RRF	.5512	RTF	-.5476		
SGB	761.8	RZ3	-.1279	R13	.6565		
SG1	631.8	SG2	425.6	THA	146.52		

ORBIT DETERMINATION ACCURACY

ST	150.2	SR	299.6	SS	318.9
CRT	-.3898	CRS	.9017	CST	-.7215
LSA	433.8	NSA	138.9	SSA	30.4
EL1	304.6	EL2	117.9	ALF	101.34

LAUNCH DATE SEP 27 1970 FLIGHT TIME 74.00 ARRIVAL DATE DEC 10 1970

HELIOCENTRIC CONIC DISTANCE 204.164

RL	149.95	LAL	-.00	LOL	3.47	VL	27.576	GAL	-10.42	AZL	88.90	HCA	91.80	SHA	131.44	ECC	.22778	INC	1.0987
RP	107.61	LAP	1.10	LOP	95.27	VP	38.168	GAP	-8.06	AZP	90.03	TAL	222.14	TAP	313.94	RCA	101.50	APO	161.38
RC	55.612	GL	5.72	GP	-20.29	ZAL	149.52	ZAP	32.36	ETS	32.11	ZAE	145.59	ETE	323.36	ZAC	81.67	ETC	261.47

V1 29.715 V2 35.214 CLP -25.76

PLANETOCENTRIC CONIC

C3 27.212 VHL 5.216 DLA -7.29 RAL 213.20 RAD 6568.1 VEL 12.190 PTH 2.19 VHP 6.172 DPA -41.24 RAP 242.46 ECC 1.4478

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 8 2	2061.67	-15.59	32.03	78.11	113.94	2 42 24	1461.7	-12.22	24.97
90.00	12 16 35	5161.28	25.58	230.55	82.13	77.42	13 42 34	4561.3	23.59	222.44
100.00	3 25 53	1810.52	-16.73	13.02	77.57	115.14	3 56 3	1210.5	-13.20	6.00
100.00	13 41 23	4887.66	26.79	210.11	81.81	76.23	15 2 51	4287.7	24.63	201.97
110.00	4 26 9	1621.83	-19.75	357.09	75.96	118.49	4 53 11	1021.8	-15.79	350.21
110.00	14 57 37	4649.12	30.06	190.97	80.78	72.90	16 15 6	4049.1	27.42	182.77

DIFFERENTIAL CORRECTIONS

TDE	.0624	TRA	-.3164	TC3	.4310	BAU	.2067
RDE	-.2458	RRA	-.2080	RC3	-.3702	FAU	.05575
FDE	.6037	FRA	-.4230	FC3	-1.7736	BSP	1604
BDE	.2536	BRA	.3776	BC3	.5682	FSP	-457

MID-COURSE EXECUTION ACCURACY

SGT	574.1	SGR	523.6	SG3	174.6		
RRT	-.3735	RRF	.6073	RTF	-.5366		
SGB	777.0	RZ3	-.1401	R13	.6788		
SG1	646.2	SG2	431.6	THA	141.94		

ORBIT DETERMINATION ACCURACY

ST	126.2	SR	278.8	SS	362.7
CRT	-.3261	CRS	.8902	CST	-.6930
LSA	451.8	NSA	141.9	SSA	30.4
EL1	282.5	EL2	117.8	ALF	100.19

LAUNCH DATE SEP 27 1970 FLIGHT TIME 76.00 ARRIVAL DATE DEC 12 1970

HELIOCENTRIC CONIC DISTANCE 210.928

RL	149.95	LAL	-.00	LOL	3.47	VL	27.670	GAL	-10.36	AZL	88.72	HCA	95.03	SHA	132.12	ECC	.22346	INC	1.2828
RP	107.59	LAP	1.28	LOP	98.51	VP	38.243	GAP	-7.27	AZP	90.11	TAL	223.20	TAP	318.23	RCA	102.60	APO	161.64
RC	57.469	GL	6.77	GP	-21.74	ZAL	150.15	ZAP	35.96	ETS	29.73	ZAE	145.40	ETE	319.97	ZAC	80.20	ETC	261.34

V1 29.715 V2 35.222 CLP -29.38

PLANETOCENTRIC CONIC

C3 26.703 VHL 5.167 DLA -6.01 RAL 212.75 RAD 6568.1 VEL 12.169 PTH 2.18 VHP 5.822 DPA -42.54 RAP 241.51 ECC 1.4395

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 56 27	2097.40	-16.56	34.20	77.52	113.30	2 31 24	1497.4	-13.27	27.07
90.00	12 24 34	5116.16	24.87	227.43	80.83	76.01	13 49 50	4516.2	22.70	219.43
100.00	3 14 56	1844.19	-17.69	15.06	77.00	114.50	3 45 41	1244.2	-14.24	7.97
100.00	13 48 45	4844.60	26.06	207.12	80.49	74.82	15 9 30	4244.6	23.72	199.10
110.00	4 16 40	1650.96	-20.68	358.83	75.44	117.84	4 44 10	1051.0	-16.80	351.87
110.00	15 3 31	4610.60	29.26	188.26	79.39	71.48	16 20 22	4010.6	26.45	180.20

DIFFERENTIAL CORRECTIONS

TDE	.0583	TRA	-.3183	TC3	.4255	BAU	.2130
RDE	-.2192	RRA	-.2187	RC3	-.4217	FAU	.06121
FDE	.7159	FRA	-.4857	FC3	-1.9844	BSP	1694
BDE	.2269	BRA	.3837	BC3	.5990	FSP	-525

MID-COURSE EXECUTION ACCURACY

SGT	566.7	SGR	555.4	SG3	195.7		
RRT	-.3864	RRF	.6821	RTF	-.5143		
SGB	793.5	RZ3	-.1503	R13	.7031		
SG1	660.7	SG2	439.3	THA	136.49		

ORBIT DETERMINATION ACCURACY

ST	124.4	SR	254.2	SS	408.7
CRT	-.2587	CRS	.8728	CST	-.6693
LSA	474.7	NSA	144.6	SSA	30.1
EL1	258.8	EL2	119.0	ALF	99.21

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LAUNCH DATE  SEP 27 1970                                FLIGHT TIME  78.00                                ARRIVAL DATE  DEC 14 1970

  HELIOCENTRIC CONIC                                    DISTANCE 217.666
   RL  149.95 LAL    -.00 LOL    3.47 VL  27.750 GAL -10.30 AZL  88.53 HCA  98.27 SMA 132.70 ECC .21975 INC 1.4689 V1  29.715
   RP  107.57 LAP    1.45 LOP 101.75 VP  30.307 GAP  -6.52 AZP  90.21 TAL 224.12 TAP 322.39 RCA 103.54 APO 161.86 V2  35.229
   RC  59.382 GL     7.85 GP  -23.30 ZAL 150.61 ZAP  39.78 ETS  27.50 ZAE 145.27 ETE 316.08 ZAC  78.60 ETC 261.16 CLP -33.20
  PLANETOCENTRIC CONIC
   C3  26.290 VHL  5.127 DLA  -4.76 RAL 212.43 RAD 6560.1 VEL 12.152 PTH   2.18 VHP  5.505 DPA -45.90 RAP 240.21 ECC 1.4327
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      90.00     1 45 41   2132.94     -17.51      36.38      77.15      112.62    2 21 14     1532.9     -14.29      29.18
      90.00    12 32 40   5072.90      24.13     224.48      79.77       74.71   13 57 21     4472.9      21.79     216.59
     100.00     3  4 40   1877.75     -18.62      17.11      76.65      113.81    3 36  5     1277.8     -15.25       9.94
     100.00    13 56 23   4803.32      25.29     204.29      79.40       73.52   15 16 27     4203.3      22.79     196.39
     110.00     4  7 54   1680.16     -21.60        .60      75.14      117.16    4 35 55     1080.2     -17.79     353.55
     110.00    15  9 46   4573.67      28.43     185.70      78.25       70.17   16 25 59     3973.7      25.46     177.78
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
   TDE  .0572 TRA -.3186 TCS  .4086 BAU  .2209      SGT  554.3 SGR  593.5 SGS  218.2            ST   125.4 SR   225.6 SS   457.0
   RDE -.1888 RRA -.2320 RCS -.4778 FAU .06697      RRT -.3825 RRF  .7136 RTF -.4768            CRT -.1876 CRS  .8450 CST -.6558
   FDE  .8416 FRA -.5493 FCS-2.2054 BSP   1778      SGB  812.1 RZS -.1539 RIS  .7309            LSA  503.1 MSA  146.6 SSA   29.6
   BDE  .1974 BRA  .3941 BCS  .6296 FSP   -597      SGI  676.5 SGZ  449.4 THA 129.92            EL1  227.3 EL2  122.2 ALF  98.40

LAUNCH DATE  SEP 27 1970                                FLIGHT TIME  80.00                                ARRIVAL DATE  DEC 16 1970

  HELIOCENTRIC CONIC                                    DISTANCE 224.374
   RL  149.95 LAL    -.00 LOL    3.47 VL  27.817 GAL -10.24 AZL  88.34 HCA 101.51 SMA 133.20 ECC .21655 INC 1.6581 V1  29.715
   RP  107.55 LAP    1.82 LOP 104.98 VP  30.361 GAP  -5.79 AZP  90.35 TAL 224.91 TAP 326.42 RCA 104.36 APO 162.04 V2  35.235
   RC  61.346 GL     8.94 GP  -24.97 ZAL 150.89 ZAP  43.82 ETS  25.34 ZAE 145.14 ETE 311.66 ZAC  76.86 ETC 260.92 CLP -37.26
  PLANETOCENTRIC CONIC
   C3  25.956 VHL  5.085 DLA  -3.53 RAL 212.25 RAD 6560.0 VEL 12.138 PTH   2.18 VHP  5.223 DPA -45.29 RAP 238.54 ECC 1.4272
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      90.00     1 35 41   2168.34     -18.42      38.57      76.99      111.89    2 11 50     1568.3     -15.29      31.30
      90.00    12 41 21   5031.18      23.35     221.67      78.92       73.51   14  5 12     4431.2      20.87     213.88
     100.00     2 55 23   1911.26     -19.53      19.18      76.51      113.09    3 27 14     1311.3     -16.24      11.94
     100.00    14  4 20   4763.49      24.90     201.60      78.53       72.31   15 23 44     4163.5      21.85     193.80
     110.00     3 50 51   1709.45     -22.90       2.40      75.04      116.44    4 28 20     1109.5     -18.77     355.25
     110.00    15 16 02   4536.06      27.58     183.28      77.33       68.96   16 32  0     3938.1      24.47     175.49
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
   TDE  .0800 TRA -.3867 TCS  .3793 BAU  .2296      SGT  538.0 SGR  638.6 SGS  241.8            ST   129.9 SR   193.3 SS   507.2
   RDE -.1546 RRA -.2488 RCS -.5385 FAU .07293      RRT -.3551 RRF  .7604 RTF -.4183            CRT -.1100 CRS  .7972 CST -.6599
   FDE  .9801 FRA -.6116 FCS-2.4324 BSP   1865      SGB  835.0 RZS -.1452 RIS  .7631            LSA  537.4 MSA  147.9 SSA   28.9
   BDE  .1658 BRA  .4086 BCS  .6587 FSP   -674      SGI  695.9 SGZ  461.5 THA 122.06            EL1  194.3 EL2  128.5 ALF  97.55

LAUNCH DATE  SEP 27 1970                                FLIGHT TIME  82.00                                ARRIVAL DATE  DEC 18 1970

  HELIOCENTRIC CONIC                                    DISTANCE 231.052
   RL  149.95 LAL    -.00 LOL    3.47 VL  27.872 GAL -10.18 AZL  88.15 HCA 104.74 SMA 133.61 ECC .21379 INC 1.8518 V1  29.715
   RP  107.53 LAP    1.79 LOP 108.23 VP  30.406 GAP  -5.10 AZP  90.47 TAL 225.56 TAP 330.30 RCA 105.05 APO 162.17 V2  35.240
   RC  63.355 GL    10.07 GP  -26.75 ZAL 150.99 ZAP  48.08 ETS  25.18 ZAE 144.94 ETE 306.71 ZAC  75.00 ETC 260.61 CLP -41.57
  PLANETOCENTRIC CONIC
   C3  25.688 VHL  5.068 DLA  -2.30 RAL 212.20 RAD 6560.0 VEL 12.127 PTH   2.17 VHP  4.976 DPA -46.70 RAP 236.47 ECC 1.4228
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      90.00     1 26 22   2203.75     -19.30      40.80      77.03      111.13    2  3  6     1603.8     -16.26      33.44
      90.00    12 50 14   4990.63      22.54     218.98      78.28       72.39   14 13 25     4390.6      19.92     211.28
     100.00     2 46 38   1944.82     -20.41      21.29      76.56      112.32    3 19  3     1344.8     -17.21      13.96
     100.00    14 12 39   4724.79      23.67     199.02      77.88       71.19   15 31 24     4124.8      20.89     191.33
     110.00     3 52 25   1738.90     -23.38       4.23      75.13      115.68    4 21 24     1138.9     -19.73     356.99
     110.00    15 23 21   4503.48      26.72     180.96      76.62       67.84   16 38 25     3903.5      23.47     173.30
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
   TDE  .0683 TRA -.3397 TCS  .3364 BAU  .2373      SGT  519.8 SGR  680.8 SGS  265.9            ST   139.1 SR   158.7 SS   558.5
   RDE -.1158 RRA -.2590 RCS -.6035 FAU .07891      RRT -.2956 RRF  .8016 RTF -.3310            CRT -.0069 CRS  .7061 CST -.6855
   FDE 1.1292 FRA -.6703 FCS-2.6593 BSP   1968      SGB  864.4 RZS -.1190 RIS  .7988            LSA  577.7 MSA  148.4 SSA   28.1
   BDE  .1344 BRA  .4272 BCS  .6809 FSP   -754      SGI  722.4 SGZ  474.7 THA 112.84            EL1  158.7 EL2  139.1 ALF  91.50

LAUNCH DATE  SEP 27 1970                                FLIGHT TIME  84.00                                ARRIVAL DATE  DEC 20 1970

  HELIOCENTRIC CONIC                                    DISTANCE 237.699
   RL  149.95 LAL    -.00 LOL    3.47 VL  27.916 GAL -10.12 AZL  87.95 HCA 107.98 SMA 133.94 ECC .21140 INC 2.0514 V1  29.715
   RP  107.52 LAP    1.95 LOP 111.47 VP  30.443 GAP  -4.44 AZP  90.63 TAL 226.07 TAP 334.06 RCA 105.63 APO 162.26 V2  35.245
   RC  65.403 GL    11.24 GP  -28.61 ZAL 150.93 ZAP  52.52 ETS  20.96 ZAE 144.61 ETE 301.24 ZAC  73.03 ETC 260.23 CLP -46.12
  PLANETOCENTRIC CONIC
   C3  25.475 VHL  5.047 DLA  -1.09 RAL 212.27 RAD 6560.0 VEL 12.118 PTH   2.17 VHP  4.764 DPA -48.11 RAP 233.97 ECC 1.4193
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      90.00     1 17 39   2239.37     -20.16      43.06      77.25      110.31    1 54 58     1639.4     -17.22      35.62
      90.00    12 59 32   4990.90      21.70     216.37      77.84       71.34   14 22  3     4350.9      18.95     208.77
     100.00     2 38 29   1978.62     -21.27      23.43      76.79      111.51    3 11 27     1378.6     -18.16      16.01
     100.00    14 21 23   4686.09      22.82     196.53      77.42       70.15   15 39 30     4086.9      19.91     188.94
     110.00     3 45 34   1768.63     -24.25       6.11      75.41      114.87    4 15  2     1168.6     -20.69     358.77
     110.00    15 30 47   4469.64      25.83     178.73      76.11       66.79   16 45 17     3869.6      22.46     171.20
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
   TDE  .0830 TRA -.3882 TCS  .2791 BAU  .2478      SGT  503.6 SGR  749.6 SGS  289.7            ST   154.4 SR   125.4 SS   610.7
   RDE -.0723 RRA -.2717 RCS -.6718 FAU .08467      RRT -.1943 RRF  .8367 RTF -.2059            CRT  .1750 CRS  .5128 CST -.7284
   FDE 1.2867 FRA -.7214 FCS-2.8774 BSP   2095      SGB  903.0 RZS -.0760 RIS  .8344            LSA  624.3 MSA  148.1 SSA   27.2
   BDE  .1101 BRA  .4496 BCS  .7275 FSP   -832      SGI  760.5 SGZ  486.9 THA 102.73            EL1  158.3 EL2  120.4 ALF  19.92
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LAUNCH DATE SEP 27 1970 FLIGHT TIME 86.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 244.314

RL	149.95	LAL	-.00	LOL	3.47	VL	27.950	GAL	-10.05	AZL	87.74	HCA	111.22	SMA	134.20	ECC	.20932	INC	2.2585	V1	29.715
RP	107.51	LAP	2.11	LOP	114.71	VP	38.472	GAP	-3.81	AZP	90.82	TAL	226.45	TAP	337.67	RCA	106.11	APO	162.29	V2	35.249
RC	67.486	GL	12.45	GP	-30.55	ZAL	150.69	ZAP	57.12	ETS	18.61	ZAE	144.08	ETE	295.34	ZAC	70.96	ETC	259.79	CLP	-50.92

PLANETOCENTRIC CONIC

C3	25.310	VHL	5.031	DLA	.13	RAL	212.46	RAD	6568.0	VEL	12.111	PTH	2.17	VHP	4.587	DPA	-49.47	RAP	231.05	ECC	1.4165

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 9 25	2275.46	-21.00	45.37	77.65	109.45	1 47 20	1675.5	-18.15	37.85
90.00	13 9 20	4911.61	20.82	213.82	77.58	70.36	14 31 11	4311.6	17.95	206.32
100.00	2 30 49	2012.88	-22.11	25.63	77.22	110.64	3 4 22	1412.9	-19.10	18.12
100.00	14 30 37	4649.42	21.93	194.10	77.14	69.16	15 48 6	4049.4	18.90	186.61
110.00	3 39 12	1798.84	-25.10	8.04	75.88	114.01	4 9 11	1198.8	-21.64	.60
110.00	15 38 43	4436.22	24.91	176.57	75.80	65.80	16 52 40	3836.2	21.43	169.15

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1060	TRA	-.3819	TC3	.2069	BAU	.2608	SGT	497.1	SGR	814.0	SG3	312.2	ST	177.9	SR	103.1
RDE	-.0245	RRA	-.2831	RC3	-.7423	FAU	.08997	RRT	-.0482	RRF	.8658	RTF	-.0381	CRT	.4966	CRS	.1086
FDE	1.4466	FRA	-.7622	FC3	-3.0775	BSP	2263	SGB	953.8	RZS	-.0255	RIS	.8655	LSA	676.9	MSA	147.2
BDE	.1088	BRA	.4754	BC3	.7707	FSP	-909	SG1	814.6	SG2	496.2	THA	92.57	EL1	187.2	EL2	85.1

SS	662.1	CST	-.7818
SSA	26.2		
ALF	20.48		

LAUNCH DATE SEP 27 1970 FLIGHT TIME 88.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 250.897

RL	149.95	LAL	-.00	LOL	3.47	VL	27.976	GAL	-9.99	AZL	87.52	HCA	114.46	SMA	134.39	ECC	.20751	INC	2.4749	V1	29.715
RP	107.50	LAP	2.25	LOP	117.96	VP	36.493	GAP	-3.21	AZP	91.03	TAL	226.69	TAP	341.16	RCA	106.51	APO	162.28	V2	35.253
RC	69.600	GL	13.71	GP	-32.53	ZAL	150.28	ZAP	61.83	ETS	16.11	ZAE	143.28	ETE	289.10	ZAC	68.82	ETC	259.28	CLP	-55.95

PLANETOCENTRIC CONIC

C3	25.190	VHL	5.019	DLA	1.36	RAL	212.78	RAD	6568.0	VEL	12.106	PTH	2.17	VHP	4.446	DPA	-50.76	RAP	227.71	ECC	1.4146

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 1 35	2312.33	-21.81	47.77	78.24	108.52	1 40 8	1712.3	-19.08	40.16
90.00	13 19 42	4872.38	19.90	211.31	77.51	69.43	14 40 55	4272.4	16.92	203.90
100.00	2 23 34	2047.93	-22.93	27.91	77.82	109.72	2 57 42	1447.9	-20.04	20.31
100.00	14 40 25	4612.02	21.01	191.71	77.05	68.23	15 57 17	4012.0	17.87	184.32
110.00	3 33 15	1829.79	-25.94	10.05	76.53	113.09	4 3 45	1229.8	-22.59	2.50
110.00	15 47 18	4402.92	23.97	174.44	75.66	64.86	17 0 36	3802.9	20.38	167.14

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1388	TRA	-.4106	TC3	.1197	BAU	.2768	SGT	509.2	SGR	882.4	SG3	332.3	ST	211.6	SR	107.7
RDE	.0273	RRA	-.2923	RC3	-.8131	FAU	.09451	RRT	.1409	RRF	.8895	RTF	.1634	CRT	.8304	CRS	-.4338
FDE	1.6039	FRA	-.7889	FC3	-3.2482	BSP	2478	SGB	1018.7	RZS	.0221	RIS	.8901	LSA	735.8	MSA	145.7
BDE	.1412	BRA	.5040	BC3	.8219	FSP	-980	SG1	886.7	SG2	501.7	THA	83.15	EL1	231.0	EL2	55.0

SS	711.9	CST	-.8340
SSA	25.1		
ALF	24.38		

LAUNCH DATE SEP 27 1970 FLIGHT TIME 90.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 257.446

RL	149.95	LAL	-.00	LOL	3.47	VL	27.992	GAL	-9.91	AZL	87.30	HCA	117.70	SMA	134.52	ECC	.20591	INC	2.7029	V1	29.715
RP	107.49	LAP	2.39	LOP	121.21	VP	38.507	GAP	-2.63	AZP	91.26	TAL	226.81	TAP	344.52	RCA	106.82	APO	162.22	V2	35.255
RC	71.740	GL	15.04	GP	-34.52	ZAL	149.71	ZAP	66.60	ETS	13.41	ZAE	142.19	ETE	282.70	ZAC	66.63	ETC	258.71	CLP	-61.19

PLANETOCENTRIC CONIC

C3	25.112	VHL	5.011	DLA	2.61	RAL	213.22	RAD	6568.0	VEL	12.103	PTH	2.17	VHP	4.340	DPA	-51.94	RAP	224.02	ECC	1.4133

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 54 3	2350.41	-22.62	30.27	79.01	107.51	1 35 13	1750.4	-20.01	42.57
90.00	13 30 45	4832.78	18.93	208.81	77.61	68.54	14 51 18	4232.8	15.85	201.49
100.00	2 16 36	2084.12	-23.75	30.29	78.61	108.71	2 51 21	1484.1	-20.97	22.59
100.00	14 50 53	4574.31	20.03	189.33	77.14	67.34	16 7 7	3974.3	16.79	182.03
110.00	3 27 38	1861.79	-26.78	12.17	77.37	112.09	3 58 40	1261.8	-23.54	4.50
110.00	15 56 21	4369.40	22.98	172.34	75.71	63.97	17 9 10	3769.4	19.29	165.14

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1817	TRA	-.4439	TC3	.0180	BAU	.2961	SGT	549.2	SGR	952.1	SG3	349.0	ST	257.7	SR	141.8
RDE	.0826	RRA	-.2983	RC3	-.8818	FAU	.09800	RRT	.3387	RRF	.9085	RTF	.3695	CRT	.9638	CRS	-.7662
FDE	1.7526	FRA	-.7985	FC3	-3.3784	BSP	2744	SGB	1099.1	RZS	.0608	RIS	.9088	LSA	801.1	MSA	143.9
BDE	.1996	BRA	.5348	BC3	.8820	FSP	-1040	SG1	977.0	SG2	503.5	THA	74.82	EL1	292.2	EL2	33.4

SS	759.3	CST	-.8778
SSA	24.0		
ALF	28.35		

LAUNCH DATE SEP 27 1970 FLIGHT TIME 92.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 263.964

RL	149.95	LAL	-.00	LOL	3.47	VL	28.001	GAL	-9.84	AZL	87.06	HCA	120.94	SMA	134.59	ECC	.20450	INC	2.9449	V1	29.715
RP	107.48	LAP	2.53	LOP	124.45	VP	38.516	GAP	-2.07	AZP	91.52	TAL	226.81	TAP	347.76	RCA	107.07	APO	162.11	V2	35.257
RC	73.903	GL	16.44	GP	-36.51	ZAL	148.97	ZAP	71:38	ETS	10.50	ZAE	140.78	ETE	276.29	ZAC	64.43	ETC	258.08	CLP	-66.59

PLANETOCENTRIC CONIC

C3	25.079	VHL	5.008	DLA	3.09	RAL	213.79	RAD	6568.0	VEL	12.102	PTH	2.17	VHP	4.270	DPA	-53.01	RAP	220.03	ECC	1.4127

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 46 41	2380.16	-23.41	52.92	79.98	106.41	1 26 32	1790.2	-20.93	45.12
90.00	13 42 37	4792.38	17.91	206.28	77.90	67.69	15 2 30	4192.4	14.73	199.05
100.00	2 9 51	2121.91	-24.55	32.81	79.60	107.62	2 45 13	1521.9	-21.91	25.01
100.00	15 2 8	4535.86	19.01	186.93	77.41	66.49	16 17 44	3935.9	15.67	179.73
110.00	3 22 17	1895.23	-27.61	14.41	78.40	111.00	3 53 52	1295.2	-24.51	6.61
110.00	16 6 12	4335.31	21.95	170.23	75.93	63.11	17 18 28	3735.3	18.16	163.15

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2345	TRA	-.4835	TC3	-.1012	BAU	.3168	SGT	624.2	SGR	1013.7	SG3	359.8	ST	315.7	SR	196.0
RDE	.1443	RRA	-.2959	RC3	-.9393	FAU	.09943	RRT	.5181	RRF	.9226	RTF	.5476	CRT	.9909	CRS	-.9048
FDE	1.9018	FRA	-.7724	FC3	-3.4324	BSP	2983	SGB	1190.5	RZS	.0976	RIS	.9210	LSA	879.0	MSA	143.1
BDE	.2753	BRA	.5669	BC3	.9447	FSP	-1053	SG1	1079.8	SG2	501.2	THA	67.11	EL1	370.9	EL2	22.4

SS	809.6	CST	-.9069
SSA	22.4		
ALF	31.73		

LAUNCH DATE SEP 27 1970 FLIGHT TIME 94.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 270.448

RL	149.95	LAL	-.00	LOL	3.47	VL	28.004	GAL	-9.75	AZL	86.80	HCA	124.19	SMA	134.61	ECC	.20324	INC	3.2039	V1	29.715
RP	107.48	LAP	2.65	LOP	127.70	VP	38.518	GAP	-1.54	AZP	91.80	TAL	226.70	TAP	350.88	RCA	107.25	APO	161.97	V2	35.258
RC	78.087	GL	17.93	GP	-38.47	ZAL	148.06	ZAP	76.09	ETS	7.37	ZAE	139.06	ETE	270.03	ZAC	62.23	ETC	257.42	CLP	-72.11

PLANETOCENTRIC CONIC

C3	25.099	VHL	5.010	DLA	5.23	RAL	214.47	RAD	6568.0	VEL	12.103	PTH	2.17	VHP	4.236	DPA	-53.94	RAP	215.83	ECC	1.4131

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 39 21	2432.21	-24.19	55.75	81.15	105.19	1 19 54	1832.2	-21.87	47.85
90.00	13 55 25	4750.73	16.81	203.72	78.37	66.87	15 14 36	4150.7	13.54	196.57
100.00	2 3 10	2161.88	-25.34	35.51	80.79	106.40	2 39 12	1561.9	-22.85	27.60
100.00	15 14 18	4496.29	17.92	184.50	77.86	65.66	16 29 14	3896.3	14.48	177.39
110.00	3 17 4	1950.61	-28.45	16.82	79.65	109.80	3 49 14	1330.6	-25.49	8.89
110.00	16 16 54	4300.32	20.85	168.11	76.34	62.28	17 28 34	3700.3	16.98	161.12

DIFFERENTIAL CORRECTIONS

TDE	.3040	TRA	-.5207	TC3	-.2229	BAU	.3441
RDE	.1996	RRA	-.2961	RC3	-1.0009	FAU	.10080
FDE	1.9989	FRA	-.7571	FC3	-3.4770	BSP	3419
BDE	.3644	BRA	.5990	BC3	1.0254	FSP	-1114

MID-COURSE EXECUTION ACCURACY

SGT	727.3	SGR	1083.3	SG3	367.8		
RRT	.6433	RRF	.9350	RTF	.6767		
SGB	1304.8	RZS	.1122	R13	.9334		
SG1	1205.0	SG2	500.6	THA	61.22		

ORBIT DETERMINATION ACCURACY

ST	392.2	SR	251.8	SS	842.9
CRT	.9932	CRS	-.9510	CST	-.9350
LSA	952.7	NSA	139.8	SSA	21.6
EL1	465.4	EL2	24.6	ALF	32.63

LAUNCH DATE SEP 27 1970 FLIGHT TIME 96.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 276.900

RL	149.95	LAL	-.00	LOL	3.47	VL	27.999	GAL	-9.66	AZL	86.52	HCA	127.43	SMA	134.57	ECC	.20211	INC	3.4836	V1	29.715
RP	107.48	LAP	2.77	LOP	130.95	VP	38.516	GAP	-1.02	AZP	92.12	TAL	226.47	TAP	353.90	RCA	107.38	APO	161.77	V2	35.259
RC	78.289	GL	19.53	GP	-40.39	ZAL	146.97	ZAP	80.65	ETS	4.03	ZAE	137.05	ETE	264.07	ZAC	60.06	ETC	256.72	CLP	-77.69

PLANETOCENTRIC CONIC

C3	25.178	VHL	5.018	DLA	6.63	RAL	215.29	RAD	6568.0	VEL	12.106	PTH	2.17	VHP	4.237	DPA	-54.75	RAP	211.54	ECC	1.4144

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 31 55	2477.22	-24.95	58.83	82.55	103.84	1 13 12	1877.2	-22.81	50.82
90.00	14 9 22	4707.27	15.63	201.07	79.03	66.09	15 27 49	4107.3	12.27	194.01
100.00	1 56 25	2204.67	-26.13	38.45	82.21	105.05	2 33 10	1604.7	-23.81	30.42
100.00	15 27 33	4455.06	16.74	182.00	78.51	64.87	16 41 48	3855.1	13.22	174.98
110.00	3 11 58	1988.47	-29.30	19.44	81.14	108.48	3 44 42	1368.5	-26.50	11.37
110.00	16 28 34	4264.02	19.69	165.94	76.94	61.48	17 39 38	3664.0	15.73	159.06

DIFFERENTIAL CORRECTIONS

TDE	.3861	TRA	-.5821	TC3	-.3576	BAU	.3705
RDE	.2622	RRA	-.2833	RC3	-1.0408	FAU	.09935
FDE	2.0981	FRA	-.6956	FC3	-3.4161	BSP	3763
BDE	.4667	BRA	.6295	BC3	1.1005	FSP	-1102

MID-COURSE EXECUTION ACCURACY

SGT	880.7	SGR	1134.3	SG3	367.9		
RRT	.7348	RRF	.9438	RTF	.7650		
SGB	1423.9	RZS	.1322	R13	.9404		
SG1	1334.6	SG2	496.2	THA	55.42		

ORBIT DETERMINATION ACCURACY

ST	481.8	SR	316.5	SS	882.2
CRT	.9922	CRS	-.9754	CST	-.9508
LSA	1044.4	NSA	138.9	SSA	20.1
EL1	575.5	EL2	33.0	ALF	33.22

LAUNCH DATE SEP 27 1970 FLIGHT TIME 98.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 283.320

RL	149.95	LAL	-.00	LOL	3.47	VL	27.989	GAL	-9.56	AZL	86.21	HCA	130.66	SMA	134.50	ECC	.20110	INC	3.7886	V1	29.715
RP	107.48	LAP	2.87	LOP	134.20	VP	38.508	GAP	-.53	AZP	92.47	TAL	226.15	TAP	356.82	RCA	107.45	APO	161.55	V2	35.258
RC	80.507	GL	21.24	GP	-42.26	ZAL	145.71	ZAP	85.02	ETS	.50	ZAE	134.81	ETE	258.48	ZAC	57.92	ETC	256.00	CLP	-85.26

PLANETOCENTRIC CONIC

C3	25.335	VHL	5.035	DLA	8.12	RAL	216.23	RAD	6568.0	VEL	12.112	PTH	2.17	VHP	4.273	DPA	-55.46	RAP	207.24	ECC	1.4170

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 24 10	2526.11	-25.71	62.21	84.19	102.30	1 6 16	1926.1	-23.75	54.09
90.00	14 24 30	4861.44	14.35	198.32	79.92	65.32	15 42 20	4061.4	10.90	191.34
100.00	1 49 26	2251.11	-26.91	41.68	83.89	103.52	2 26 57	1651.1	-24.79	33.52
100.00	15 42 4	4411.68	15.47	179.41	79.37	64.10	16 55 35	3811.7	11.86	172.48
110.00	3 6 37	2009.54	-30.15	22.33	82.88	106.93	3 40 7	1409.5	-27.53	14.12
110.00	16 41 22	4226.01	18.44	163.70	77.75	60.69	17 51 48	3626.0	14.39	156.92

DIFFERENTIAL CORRECTIONS

TDE	.4832	TRA	-.6011	TC3	-.4926	BAU	.4016
RDE	.3171	RRA	-.2710	RC3	-1.0785	FAU	.09751
FDE	2.1448	FRA	-.8416	FC3	-3.3320	BSP	4268
BDE	.5790	BRA	.6594	BC3	1.1856	FSP	-1124

MID-COURSE EXECUTION ACCURACY

SGT	1013.0	SGR	1185.8	SG3	364.1		
RRT	.7928	RRF	.9512	RTF	.8237		
SGB	1559.6	RZS	.1417	R13	.9475		
SG1	1478.9	SG2	495.1	THA	50.64		

ORBIT DETERMINATION ACCURACY

ST	588.1	SR	374.3	SS	905.8
CRT	.9924	CRS	-.9858	CST	-.9637
LSA	1134.8	NSA	135.8	SSA	19.1
EL1	696.0	EL2	39.0	ALF	32.39

LAUNCH DATE SEP 27 1970 FLIGHT TIME 100.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 289.710

RL	149.95	LAL	-.00	LOL	3.47	VL	27.974	GAL	-9.46	AZL	85.88	HCA	133.90	SMA	134.38	ECC	.20017	INC	4.1248	V1	29.715
RP	107.48	LAP	2.97	LOP	137.45	VP	38.496	GAP	-.06	AZP	92.86	TAL	225.73	TAP	359.63	RCA	107.48	APO	161.28	V2	35.257
RC	82.739	GL	23.10	GP	-44.11	ZAL	144.25	ZAP	89.11	ETS	356.79	ZAE	132.37	ETE	253.35	ZAC	55.81	ETC	255.27	CLP	-88.76

PLANETOCENTRIC CONIC

C3	25.587	VHL	5.058	DLA	9.70	RAL	217.32	RAD	6568.0	VEL	12.123	PTH	2.17	VHP	4.346	DPA	-56.12	RAP	203.01	ECC	1.4211

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 15 55	2579.84	-26.43	65.99	86.12	100.54	0 58 55	1979.9	-24.71	57.74
90.00	14 41 34	4812.49	12.94	195.42	81.08	64.59	15 58 26	4012.5	9.41	188.52
100.00	1 42 2	2302.19	-27.68	45.28	85.85	101.77	2 20 24	1702.2	-25.77	37.00
100.00	15 58 8	4365.48	14.08	176.09	80.48	63.35	17 10 53	3765.5	10.39	169.84
110.00	3 1 8	2054.64	-31.00	25.57	84.84	105.19	3 35 23	1454.6	-28.60	17.19
110.00	16 55 31	4185.79	17.08	161.37	78.80	59.93	18 5 17	3585.8	12.96	154.69

DIFFERENTIAL CORRECTIONS

TDE	.5956	TRA	-.6806	TC3	-.6281	BAU	.4289
RDE	.3807	RRA	-.2419	RC3	-1.0853	FAU	.09265
FDE	2.1975	FRA	-.9398	FC3	-3.1349	BSP	4604
BDE	.7069	BRA	.6829	BC3	1.2539	FSP	-1059

MID-COURSE EXECUTION ACCURACY

SGT	1182.1	SGR	1211.9	SG3	352.4		
RRT	.8525	RRF	.9564	RTF	.8606		
SGB	1693.0	RZS	.1577	R13	.9505		
SG1	1620.6	SG2	489.8	THA	45.86		

ORBIT DETERMINATION ACCURACY

ST	709.9	SR	440.5	SS	937.9
CRT	.9911	CRS	-.9926	CST	-.9711
LSA	1248.4	NSA	136.5	SSA	17.2
EL1	833.9	EL2	49.8	ALF	31.72

LAUNCH DATE SEP 27 1970 FLIGHT TIME 102.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 296.067

RL 149.95 LAL -.00 LOL 3.47 VL 27.954 GAL -9.35 AZL 85.50 HCA 137.14 SMA 134.23 ECC .19933 INC 4.4997 V1 29.715
RP 107.49 LAP 3.06 LOP 140.70 VP 38.480 GAP .39 AZP 93.30 TAL 225.22 TAP 2.36 RCA 107.47 APO 160.99 V2 35.255
RC 84.985 GL 25.13 GP -45.95 ZAL 142.60 ZAP 92.88 ETS 352.91 ZAE 129.77 ETE 248.67 ZAC 53.71 ETC 254.53 CLP -94.15

PLANETOCENTRIC CONIC

C3 25.971 VHL 5.096 DLA 11.42 RAL 218.55 RAD 6568.1 VEL 12.139 PTH 2.18 VHP 4.456 DPA -56.77 RAP 198.86 ECC 1.4274

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 6 50	2640.16	-27.11	70.26	88.38	98.50	0 50 50	2040.2	-25.66	61.90
90.00	15 0 28	4559.65	11.37	192.33	82.48	63.89	16 16 27	3959.6	7.77	185.50
100.00	1 33 56	2359.24	-28.40	49.37	88.14	99.74	2 13 16	1759.2	-26.76	40.95
100.00	16 16 3	4315.80	12.54	173.80	81.88	62.64	17 27 59	3715.8	8.78	167.03
110.00	2 55 13	2104.89	-31.83	29.25	87.34	103.16	3 30 18	1504.9	-29.70	20.69
110.00	17 11 15	4142.91	15.60	158.93	80.12	59.19	18 20 18	3542.9	11.40	152.34

DIFFERENTIAL CORRECTIONS
TDE .7233 TRA -.6723 TC3 -.7571 BAU .4625
RDE .4297 RRA -.2193 RC3-1.0961 FAU .08850
FDE 2.1825 FRA -.4699 FC3-2.9500 BSP 5212
BDE .8413 BRA .7072 BC3 1.3322 FSP -1065

MID-COURSE EXECUTION ACCURACY
SGT 1360.7 SGR 1242.9 SG3 330.5
RRT .8568 RRF .9610 RTF .8874
SGB 1842.9 RZ3 .1635 R13 .9551
SG1 1776.3 SG2 491.0 THA 41.98

ORBIT DETERMINATION ACCURACY
ST 845.8 SR 490.1 SS 947.3
CRT .9917 CRS -.9955 CST -.9777
LSA 1354.6 MSA 133.2 SSA 16.2
EL1 976.0 EL2 54.6 ALF 29.99

LAUNCH DATE SEP 27 1970 FLIGHT TIME 104.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 302.395

RL 149.95 LAL -.00 LOL 3.47 VL 27.929 GAL -9.23 AZL 85.08 HCA 140.38 SMA 134.04 ECC .19856 INC 4.9231 V1 29.715
RP 107.50 LAP 3.14 LOP 143.95 VP 38.459 GAP .83 AZP 93.80 TAL 224.63 TAP 5.00 RCA 107.43 APO 160.66 V2 35.253
RC 87.241 GL 27.34 GP -47.83 ZAL 140.71 ZAP 96.27 ETS 348.88 ZAE 127.05 ETE 244.45 ZAC 51.60 ETC 253.76 CLP -99.37

PLANETOCENTRIC CONIC

C3 26.528 VHL 5.151 DLA 13.28 RAL 219.95 RAD 6568.1 VEL 12.162 PTH 2.18 VHP 4.606 DPA -57.47 RAP 194.80 ECC 1.4366

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 52 39	2708.56	-27.70	75.18	91.01	96.11	24 37 48	2108.6	-26.57	66.70
90.00	15 21 51	4501.76	9.62	188.98	84.25	63.24	16 36 53	3901.8	5.95	182.22
100.00	1 24 52	2423.88	-29.06	54.06	90.83	97.35	2 5 15	1823.9	-27.73	45.51
100.00	16 36 16	4261.67	10.83	170.69	83.62	61.97	17 47 18	3661.7	6.99	164.00
110.00	2 48 41	2161.60	-32.64	33.48	90.17	100.78	3 24 43	1561.6	-30.81	24.74
110.00	17 28 56	4096.71	13.97	156.34	81.77	58.48	18 37 13	3496.7	9.70	149.84

DIFFERENTIAL CORRECTIONS
TDE .8705 TRA -.7001 TC3 -.8744 BAU .4925
RDE .4838 RRA -.1830 RC3-1.0789 FAU .08230
FDE 2.1657 FRA -.3722 FC3-2.6860 BSP 5702
BDE .9959 BRA .7236 BC3 1.3888 FSP -1014

MID-COURSE EXECUTION ACCURACY
SGT 1545.7 SGR 1252.5 SG3 319.1
RRT .8728 RRF .9643 RTF .9048
SGB 1989.5 RZ3 .1735 R13 .9574
SG1 1928.2 SG2 490.1 THA 38.18

ORBIT DETERMINATION ACCURACY
ST 998.0 SR 542.9 SS 960.6
CRT .9914 CRS -.9976 CST -.9820
LSA 1481.8 MSA 132.7 SSA 14.7
EL1 1134.4 EL2 62.6 ALF 28.43

LAUNCH DATE SEP 27 1970 FLIGHT TIME 106.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 308.693

RL 149.95 LAL -.00 LOL 3.47 VL 27.901 GAL -9.10 AZL 84.59 HCA 143.61 SMA 133.83 ECC .19786 INC 5.4085 V1 29.715
RP 107.51 LAP 3.21 LOP 147.20 VP 38.436 GAP 1.25 AZP 94.36 TAL 223.96 TAP 7.56 RCA 107.35 APO 160.31 V2 35.249
RC 89.506 GL 29.79 GP -49.79 ZAL 138.58 ZAP 99.24 ETS 344.69 ZAE 124.21 ETE 240.65 ZAC 49.43 ETC 252.95 CLP-104.40

PLANETOCENTRIC CONIC

C3 27.325 VHL 5.227 DLA 15.32 RAL 221.53 RAD 6568.1 VEL 12.194 PTH 2.19 VHP 4.801 DPA -58.26 RAP 190.76 ECC 1.4497

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 40 41	2787.66	-28.14	80.92	94.09	93.26	24 27 9	2187.7	-27.40	72.34
90.00	15 46 26	4437.36	7.62	185.30	86.47	62.65	17 0 23	3837.4	3.90	178.60
100.00	1 14 20	2498.36	-29.58	59.53	93.97	94.52	1 55 58	1898.4	-28.64	50.86
100.00	16 59 24	4201.89	8.89	167.31	85.78	61.34	18 9 26	3601.9	5.00	160.68
110.00	2 41 13	2226.51	-33.36	38.41	93.49	97.95	3 18 19	1626.5	-31.90	29.48
110.00	17 49 1	4046.50	12.17	153.56	83.83	57.81	18 56 27	3446.5	7.83	147.15

DIFFERENTIAL CORRECTIONS
TDE 1.0409 TRA -.7196 TC3 -.9731 BAU .5207
RDE .5377 RRA -.1384 RC3-1.0415 FAU .07515
FDE 2.1316 FRA -.2685 FC3-2.3811 BSP 6168
BDE 1.1716 BRA .7327 BC3 1.4253 FSP -944

MID-COURSE EXECUTION ACCURACY
SGT 1733.6 SGR 1248.1 SG3 296.1
RRT .8822 RRF .9667 RTF .9168
SGB 2136.1 RZ3 .1838 R13 .9587
SG1 2079.1 SG2 490.0 THA 34.62

ORBIT DETERMINATION ACCURACY
ST 1167.3 SR 592.2 SS 970.4
CRT .9909 CRS -.9989 CST -.9851
LSA 1623.9 MSA 133.2 SSA 13.1
EL1 1307.0 EL2 71.2 ALF 26.77

LAUNCH DATE SEP 27 1970 FLIGHT TIME 108.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 314.962

RL 149.95 LAL -.00 LOL 3.47 VL 27.869 GAL -8.96 AZL 84.03 HCA 146.84 SMA 133.59 ECC .19720 INC 5.9744 V1 29.715
RP 107.52 LAP 3.28 LOP 150.46 VP 38.409 GAP 1.65 AZP 95.01 TAL 223.21 TAP 10.05 RCA 107.25 APO 159.94 V2 35.245
RC 91.778 GL 32.49 GP -51.09 ZAL 136.18 ZAP 101.74 ETS 340.33 ZAE 121.26 ETE 237.22 ZAC 47.15 ETC 252.06 CLP-109.25

PLANETOCENTRIC CONIC

C3 28.460 VHL 5.335 DLA 17.57 RAL 223.32 RAD 6568.1 VEL 12.241 PTH 2.20 VHP 5.049 DPA -59.19 RAP 186.63 ECC 1.4684

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 26 10	2801.08	-28.32	87.75	97.66	89.84	24 14 11	2281.1	-28.04	79.10
90.00	16 15 13	4384.23	5.32	181.17	89.24	62.15	17 27 57	3764.2	1.55	174.51
100.00	1 1 41	2585.76	-29.87	66.01	97.65	91.12	1 44 47	1985.8	-29.40	57.24
100.00	17 26 19	4134.78	6.68	163.55	88.49	60.80	18 35 14	3534.8	2.74	156.98
110.00	2 32 24	2301.93	-33.92	44.22	97.41	94.55	3 10 46	1701.9	-32.91	35.13
110.00	18 12 6	3991.37	10.15	150.57	86.39	57.18	19 18 37	3391.4	5.76	144.24

DIFFERENTIAL CORRECTIONS
TDE 1.2424 TRA -.7284 TC3-1.0440 BAU .5442
RDE .5947 RRA -.0811 RC3 -.9776 FAU .06689
FDE 2.0906 FRA -.1550 FC3-2.0348 BSP 6519
BDE 1.3774 BRA .7310 BC3 1.4303 FSP -845

MID-COURSE EXECUTION ACCURACY
SGT 1921.2 SGR 1226.4 SG3 270.3
RRT .8985 RRF .9682 RTF .9247
SGB 2279.3 RZ3 .1959 R13 .9590
SG1 2226.0 SG2 489.0 THA 31.18

ORBIT DETERMINATION ACCURACY
ST 1357.1 SR 640.0 SS 980.2
CRT .9901 CRS -.9996 CST -.9874
LSA 1787.1 MSA 135.9 SSA 11.3
EL1 1498.3 EL2 81.5 ALF 25.11

LAUNCH DATE SEP 27 1970 FLIGHT TIME 110.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 321.201

RL 149.95 LAL -.00 LOL 3.47 VL 27.835 GAL -8.82 AZL 83.35 HCA 150.06 SHA 133.33 ECC .19661 INC 6.6469 V1 29.715
RP 107.53 LAP 3.31 LOP 153.71 VP 38.379 GAP 2.04 AZP 95.77 TAL 222.40 TAP 12.46 RCA 107.12 APO 159.54 V2 35.240
RC 94.056 GL 35.48 GP -54.21 ZAL 133.47 ZAP 103.74 ETS 335.75 ZAE 118.17 ETE 234.06 ZAC 44.69 ETC 251.05 CLP-113.95

PLANETOCENTRIC CONIC

C3 30.091 VHL 5.486 DLA 20.05 RAL 225.34 RAD 6568.2 VEL 12.307 PTH 2.22 VHP 5.364 DPA -60.26 RAP 182.22 ECC 1.4952

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 7 43	2994.48	-28.02	96.03	101.79	85.71	23 57 37	2394.5	-28.32	87.38
90.00	16 49 51	4278.71	2.58	176.37	92.77	61.79	18 1 10	3678.7	-1.21	168.74
100.00	0 45 51	2690.71	-29.76	73.81	101.92	87.02	1 30 42	2090.7	-29.85	65.01
100.00	17 58 20	4057.71	4.10	159.28	91.93	60.36	19 5 58	3457.7	.13	152.75
110.00	2 21 39	2390.99	-34.18	51.16	102.03	90.45	3 1 30	1791.0	-33.74	41.95
110.00	18 39 2	3930.19	7.88	147.29	89.60	56.63	19 44 32	3330.2	3.43	141.02

DIFFERENTIAL CORRECTIONS
TDE 1.4736 TRA -.7272 TC3-1.0920 BAU .5718
RDE .6375 RRA -.0273 RC3 -.9099 FAU .05951
FDE 2.0083 FRA -.0738 FC3-1.7122 BSP 7158
BDE 1.6058 BRA .7277 BC3 1.4214 FSP -795

MID-COURSE EXECUTION ACCURACY
SGT 2111.6 SGR 1200.3 SG3 243.4
RRT .8850 RRF .9684 RTF .9325
SGB 2428.9 RZS .2025 R13 .9605
SG1 2378.1 SG2 494.3 THA 28.05

ORBIT DETERMINATION ACCURACY
ST 1558.8 SR 666.6 SS 972.6
CRT .9896 CRS -.9990 CST -.9896
LSA 1949.8 NSA 135.5 SSA 10.0
EL1 1693.1 EL2 88.2 ALF 23.00

LAUNCH DATE SEP 27 1970 FLIGHT TIME 112.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 327.411

RL 149.95 LAL -.00 LOL 3.47 VL 27.797 GAL -8.66 AZL 82.53 HCA 153.28 SHA 133.05 ECC .19606 INC 7.4650 V1 29.715
RP 107.55 LAP 3.35 LOP 156.95 VP 38.347 GAP 2.41 AZP 96.68 TAL 221.52 TAP 14.80 RCA 106.97 APO 159.14 V2 35.235
RC 96.330 GL 38.80 GP -56.80 ZAL 130.41 ZAP 105.18 ETS 330.89 ZAE 114.91 ETE 231.07 ZAC 41.99 ETC 249.82 CLP-118.56

PLANETOCENTRIC CONIC

C3 32.461 VHL 5.807 DLA 22.80 RAL 227.66 RAD 6568.3 VEL 12.403 PTH 2.24 VHP 5.766 DPA -61.49 RAP 177.27 ECC 1.5342

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 42 31	3138.30	-28.85	106.39	106.43	80.65	23 34 49	2538.3	-27.87	97.87
90.00	17 33 33	4173.00	-.83	170.48	97.39	61.69	18 43 6	3573.0	-4.61	163.83
100.00	0 24 52	2820.95	-28.91	83.39	106.79	82.05	1 11 53	2220.9	-29.71	74.68
100.00	18 37 49	3865.58	.99	154.22	96.38	60.12	19 43 54	3365.6	-2.99	147.70
110.00	2 8 2	2498.20	-33.92	59.52	107.42	85.52	2 49 40	1898.2	-34.17	50.28
110.00	19 11 8	3861.10	5.27	143.64	93.71	58.18	20 15 30	3261.1	.79	137.41

DIFFERENTIAL CORRECTIONS
TDE 1.7888 TRA -.7081 TC3-1.0873 BAU .5920
RDE .6808 RRA .0441 RC3 -.8104 FAU .05118
FDE 1.9286 FRA .0169 FC3-1.3649 BSP 7632
BDE 1.8871 BRA .7095 BC3 1.3641 FSP -709

MID-COURSE EXECUTION ACCURACY
SGT 2300.6 SGR 1150.6 SG3 214.8
RRT .8800 RRF .9666 RTF .9377
SGB 2572.3 RZS .2114 R13 .9609
SG1 2523.5 SG2 498.3 THA 24.79

ORBIT DETERMINATION ACCURACY
ST 1785.4 SR 685.5 SS 966.5
CRT .9884 CRS -.9997 CST -.9912
LSA 2138.3 NSA 137.8 SSA 8.5
EL1 1910.0 EL2 97.3 ALF 20.84

LAUNCH DATE SEP 27 1970 FLIGHT TIME 114.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 333.590

RL 149.95 LAL -.00 LOL 3.47 VL 27.757 GAL -8.50 AZL 81.51 HCA 156.50 SHA 132.75 ECC .19555 INC 8.4885 V1 29.715
RP 107.57 LAP 3.37 LOP 160.20 VP 38.312 GAP 2.77 AZP 97.79 TAL 220.57 TAP 17.07 RCA 106.79 APO 158.71 V2 35.229
RC 98.624 GL 42.49 GP -59.75 ZAL 126.97 ZAP 106.02 ETS 325.63 ZAE 111.41 ETE 228.05 ZAC 38.95 ETC 248.22 CLP-123.21

PLANETOCENTRIC CONIC

C3 35.996 VHL 6.000 DLA 25.83 RAL 230.34 RAD 6568.4 VEL 12.545 PTH 2.27 VHP 6.289 DPA -62.83 RAP 171.42 ECC 1.5924

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 2 38	3339.60	-25.85	120.38	111.25	74.27	22 58 17	2739.7	-25.78	112.22
90.00	18 34 46	4023.78	-5.62	162.12	103.76	62.20	19 41 50	3423.8	-9.30	155.37
100.00	23 50 15	2982.75	-26.67	95.66	112.07	75.97	24 40 7	2392.8	-28.34	87.25
100.00	19 29 51	3845.94	-3.07	147.65	102.35	60.25	20 33 57	3245.9	-7.00	141.08
110.00	1 49 54	2630.67	-32.75	69.67	113.59	79.62	2 33 45	2030.7	-33.84	60.61
110.00	19 50 37	3780.79	2.22	139.43	99.06	55.88	20 53 37	3180.8	-2.28	133.23

DIFFERENTIAL CORRECTIONS
TDE 2.1216 TRA -.6836 TC3-1.0534 BAU .6044
RDE .7126 RRA .1328 RC3 -.6837 FAU .04252
FDE 1.8440 FRA .1033 FC3-1.0226 BSP 8000
BDE 2.2360 BRA .6767 BC3 1.2559 FSP -608

MID-COURSE EXECUTION ACCURACY
SGT 2489.7 SGR 1075.2 SG3 185.7
RRT .8654 RRF .9610 RTF .9423
SGB 2711.9 RZS .2204 R13 .9611
SG1 2664.8 SG2 503.3 THA 21.29

ORBIT DETERMINATION ACCURACY
ST 2037.4 SR 682.3 SS 957.2
CRT .9861 CRS -.9989 CST -.9925
LSA 2347.9 NSA 141.7 SSA 7.1
EL1 2145.9 EL2 107.5 ALF 18.32

LAUNCH DATE SEP 27 1970 FLIGHT TIME 116.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 339.737

RL 149.95 LAL -.00 LOL 3.47 VL 27.714 GAL -8.32 AZL 80.19 HCA 159.70 SHA 132.44 ECC .19507 INC 9.8144 V1 29.715
RP 107.59 LAP 3.39 LOP 163.45 VP 38.275 GAP 3.11 AZP 99.22 TAL 219.57 TAP 19.27 RCA 106.61 APO 158.28 V2 35.222
RC 100.910 GL 46.54 GP -63.14 ZAL 123.12 ZAP 106.21 ETS 319.74 ZAE 107.61 ETE 224.70 ZAC 35.48 ETC 246.02 CLP-128.15

PLANETOCENTRIC CONIC

C3 41.460 VHL 6.440 DLA 29.14 RAL 233.46 RAD 6568.6 VEL 12.761 PTH 2.32 VHP 6.991 DPA -64.14 RAP 164.18 ECC 1.6825

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.84	19 32 2	3808.60	-15.29	158.60	114.11	64.89	20 37 11	3308.6	-18.54	151.38
97.16	21 30 15	3926.38	-15.27	130.56	114.11	64.88	22 29 1	2926.4	-18.53	123.34
100.00	22 48 55	3274.02	-20.67	114.37	116.59	67.91	23 43 29	2674.0	-23.49	106.70
100.00	20 56 3	3636.19	-10.02	135.97	111.40	61.69	21 56 39	3036.2	-13.73	129.14
110.00	1 23 30	2801.76	-29.95	82.21	120.26	72.70	2 10 21	2201.8	-32.02	73.61
110.00	20 41 44	3681.22	-1.59	134.23	106.27	55.85	21 43 5	3081.2	-6.06	128.00

DIFFERENTIAL CORRECTIONS
TDE 2.5836 TRA -.5811 TC3 -.9635 BAU .6126
RDE .7019 RRA .2338 RC3 -.5412 FAU .03441
FDE 1.7423 FRA .1680 FC3 -.7184 BSP 8548
BDE 2.6774 BRA .6357 BC3 1.1049 FSP -528

MID-COURSE EXECUTION ACCURACY
SGT 2680.8 SGR 965.7 SG3 156.7
RRT .8332 RRF .9445 RTF .9478
SGB 2849.4 RZS .2257 R13 .9622
SG1 2803.3 SG2 510.6 THA 17.30

ORBIT DETERMINATION ACCURACY
ST 2306.3 SR 628.9 SS 937.0
CRT .9814 CRS -.9966 CST -.9938
LSA 2563.5 NSA 144.7 SSA 5.8
EL1 2387.6 EL2 116.5 ALF 15.02

LAUNCH DATE SEP 27 1970 FLIGHT TIME 118.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 345.847

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RL  140.95 LAL   -.00 LOL   3.47 VL  27.670 GAL  -8.14 AZL  78.39 HCA 162.89 SMA 132.12 ECC .19462 INC11.6112 V1  29.715
RP  107.61 LAP   3.39 LOP 166.70 VP  38.236 GAP   3.44 AZP 101.11 TAL 218.51 TAP  21.40 RCA 106.40 APO 157.83 V2  35.215
RC 103.196 GL   50.94 GP  -67.06 ZAL 118.83 ZAP 105.69 ETS 312.70 ZAE 103.36 ETE 220.39 ZAC  31.43 ETC 242.71 CLP-133.92
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PLANETOCENTRIC CONIC

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C3  50.413 VHL  7.100 DLA  32.66 RAL 237.15 RAD 6568.9 VEL 13.106 PTH   2.39 VHP  7.975 DPA -65.19 RAP 155.00 ECC 1.8297
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.01	18 35 8	4184.56	-15.38	179.35	121.74	60.83	19 44 52	3584.6	-19.15	172.37
106.99	22 56 36	3348.44	-15.37	117.28	121.74	60.82	23 52 24	2748.4	-19.14	110.31
73.01	18 35 8	4184.56	-15.38	179.35	121.74	60.83	19 44 52	3584.6	-19.15	172.37
106.99	22 56 36	3348.44	-15.37	117.28	121.74	60.82	23 52 24	2748.4	-19.14	110.31
110.00	0 36 24	3053.11	-23.66	99.02	128.27	64.58	1 27 17	2453.1	-26.88	91.34
110.00	21 58 27	3527.88	-7.41	126.18	116.80	56.53	22 57 14	2927.9	-11.76	119.79

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 3.2121 TRA -.4595 TC3 -.8134 BAU  .6038   SGT 2871.8 SGR  799.6 SG3  128.7     ST  2595.7 SR   495.3 SS   915.2
 RDE  .5997 RRA  .3627 RC3 -.3755 FAU .02629   RRT  .7478 RRF  .8901 RTF  .9543     CRT  .9654 CRS -.9867 CST -.9949
 FDE 1.6437 FRA  .2291 FC3 -.4515 BSP   8984   SGB 2981.0 RZS  .2293 RIS  .9637     LSA 2792.5 MSA  149.6 SSA    4.6
 BDE 3.2676 BRA  .5854 BC3  .8959 FSP   -438   SG1 2935.4 SG2  519.3 THA  12.15     EL1 2639.4 EL2  127.0 ALF  10.46
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LAUNCH DATE SEP 27 1970 FLIGHT TIME 120.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 351.911

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RL  149.95 LAL   -.00 LOL   3.47 VL  27.624 GAL  -7.94 AZL  75.80 HCA 166.06 SMA 131.78 ECC .19418 INC14.1973 V1  29.715
RP  107.64 LAP   3.39 LOP 169.94 VP  38.195 GAP   3.75 AZP 103.80 TAL 217.39 TAP  23.44 RCA 106.19 APO 157.37 V2  35.207
RC 105.482 GL   55.54 GP  -71.56 ZAL 114.09 ZAP 104.42 ETS 303.27 ZAE  98.48 ETE 213.77 ZAC  26.63 ETC 237.17 CLP-141.93
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PLANETOCENTRIC CONIC

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C3  66.225 VHL  8.138 DLA  36.23 RAL 241.59 RAD 6569.3 VEL 13.696 PTH   2.50 VHP  9.438 DPA -65.48 RAP 143.48 ECC 2.0899
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
66.38	18 13 28	4371.09	-14.41	193.33	131.08	56.39	19 26 19	3771.1	-18.73	186.72
113.62	23 53 44	3295.39	-14.40	112.52	131.07	56.38	24 48 39	2695.4	-18.71	105.91
66.38	18 13 28	4371.09	-14.41	193.33	131.08	56.39	19 26 19	3771.1	-18.73	186.72
113.62	23 53 44	3295.39	-14.40	112.52	131.07	56.38	24 48 39	2695.4	-18.71	105.91
66.38	18 13 28	4371.09	-14.41	193.33	131.08	56.39	19 26 19	3771.1	-18.73	186.72
113.62	23 53 44	3295.39	-14.40	112.52	131.07	56.38	24 48 39	2695.4	-18.71	105.91

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 4.0006 TRA -.2196 TC3 -.6078 BAU  .5669   SGT 3050.6 SGR  581.9 SG3  102.8     ST  2880.1 SR   215.4 SS   895.3
 RDE  .2376 RRA  .5165 RC3 -.2013 FAU .01852   RRT  .4053 RRF  .6108 RTF  .9636     CRT  .7646 CRS -.8176 CST -.9962
 FDE 1.5559 FRA  .2806 FC3 -.2420 BSP   9380   SGB 3105.6 RZS  .2275 RIS  .9668     LSA 3019.7 MSA  156.1 SSA    3.5
 BDE 4.0965 BRA  .5612 BC3  .6403 FSP   -352   SG1 3060.0 SG2  530.3 THA   4.56     EL1 2884.8 EL2  138.6 ALF   3.28
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LAUNCH DATE SEP 27 1970 FLIGHT TIME 122.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 357.911

```
RL  149.95 LAL   -.00 LOL   3.47 VL  27.576 GAL  -7.72 AZL  71.75 HCA 169.18 SMA 131.44 ECC .19370 INC18.2489 V1  29.715
RP  107.66 LAP   3.37 LOP 173.18 VP  38.153 GAP   4.04 AZP 107.95 TAL 216.19 TAP  25.37 RCA 105.98 APO 156.90 V2  35.198
RC 107.765 GL   59.98 GP  -76.50 ZAL 108.97 ZAP 102.38 ETS 287.92 ZAE  92.62 ETE 201.15 ZAC  20.78 ETC 226.54 CLP-156.68
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PLANETOCENTRIC CONIC

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C3  97.679 VHL  9.883 DLA  39.45 RAL 247.02 RAD 6569.9 VEL 14.799 PTH   2.67 VHP 11.799 DPA -64.24 RAP 130.00 ECC 2.6075
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.29	18 9 28	4534.44	-11.86	204.83	142.26	52.09	19 25 3	3934.4	-16.69	198.67
118.71	0 45 0	3309.37	-11.84	111.77	142.25	52.09	1 40 9	2709.4	-16.67	105.61
61.29	18 9 28	4534.44	-11.86	204.83	142.26	52.09	19 25 3	3934.4	-16.69	198.67
118.71	0 45 0	3309.37	-11.84	111.77	142.25	52.09	1 40 9	2709.4	-16.67	105.61
61.29	18 9 28	4534.44	-11.86	204.83	142.26	52.09	19 25 3	3934.4	-16.69	198.67
118.71	0 45 0	3309.37	-11.84	111.77	142.25	52.09	1 40 9	2709.4	-16.67	105.61

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 5.2620 TRA  .2614 TC3 -.3557 BAU  .4686   SGT 3136.6 SGR  719.8 SG3   80.3     ST  3051.2 SR   549.9 SS   894.3
 RDE -.9159 RRA  .6350 RC3 -.0475 FAU .01104   RRT -.6468 RRF -.4885 RTF  .9781     CRT -.9603 CRS  .9398 CST -.9978
 FDE 1.5075 FRA  .3327 FC3 -.0979 BSP   9718   SGB 3218.2 RZS -.2144 RIS -.9728     LSA 3222.5 MSA  164.2 SSA    2.5
 BDE 5.3411 BRA  .6867 BC3  .3588 FSP   -275   SG1 3172.0 SG2  542.8 THA 171.30     EL1 3096.6 EL2  151.1 ALF 170.16
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LAUNCH DATE SEP 27 1970 FLIGHT TIME 124.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 363.793

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RL  149.95 LAL   -.00 LOL   3.47 VL  27.527 GAL  -7.48 AZL  64.55 HCA 172.20 SMA 131.09 ECC .19307 INC25.4542 V1  29.715
RP  107.68 LAP   3.34 LOP 176.43 VP  38.109 GAP   4.29 AZP 115.25 TAL 214.89 TAP  27.10 RCA 105.78 APO 156.40 V2  35.189
RC 110.046 GL   63.16 GP  -80.12 ZAL 103.59 ZAP  99.60 ETS 257.10 ZAE  84.97 ETE 172.88 ZAC  13.34 ETC 205.18 CLP 166.35
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PLANETOCENTRIC CONIC

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C3 172.828 VHL 13.148 DLA  41.29 RAL 253.67 RAD 6570.9 VEL 17.151 PTH   2.94 VHP 16.094 DPA -60.15 RAP 116.26 ECC 3.8443
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.59	18 23 48	4678.46	-7.49	213.46	155.08	49.27	19 41 46	4078.5	-12.65	207.67
121.41	1 23 43	3384.90	-7.47	114.57	155.07	49.27	2 20 8	2784.9	-12.64	108.78
58.59	18 23 48	4678.46	-7.49	213.46	155.08	49.27	19 41 46	4078.5	-12.65	207.67
121.41	1 23 43	3384.90	-7.47	114.57	155.07	49.27	2 20 8	2784.9	-12.64	108.78
58.59	18 23 48	4678.46	-7.49	213.46	155.08	49.27	19 41 46	4078.5	-12.65	207.67
121.41	1 23 43	3384.90	-7.47	114.57	155.07	49.27	2 20 8	2784.9	-12.64	108.78

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 5.9055 TRA 1.2185 TC3 -.0945 BAU  .2184   SGT 2680.6 SGR 1931.5 SG3   62.9     ST  2582.5 SR  1927.3 SS   957.8
 RDE-4.4212 RRA  .2286 RC3  .0027 FAU .00287   RRT -.9401 RRF -.9161 RTF  .9965     CRT -.9947 CRS  .9920 CST -.9997
 FDE 1.5716 FRA  .4192 FC3 -.0144 BSP   9966   SGB 3304.0 RZS -.1764 RIS -.9826     LSA 3357.5 MSA  168.3 SSA    1.7
 BDE 7.3771 BRA 1.2307 BC3  .0945 FSP   -212   SG1 3259.3 SG2  541.4 THA 144.77     EL1 3218.5 EL2  158.8 ALF 143.31
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LAUNCH DATE  SEP 27 1970                          FLIGHT TIME 126.00                          ARRIVAL DATE  JAN 31 1971

  HELIOCENTRIC CONIC                                  DISTANCE 369.380
   RL  149.95 LAL   -.00 LOL   3.47 VL  27.477 GAL  -7.17 AZL  49.01 HCA 174.96 SMA 130.73 ECC .19192 INC40.9915 V1  29.715
   RP  107.72 LAP   3.50 LOP 179.67 VP  38.064 GAP   4.46 AZP 130.88 TAL 213.38 TAP  28.34 RCA 105.64 APO 155.82 V2  35.179
   RC 112.324 GL   61.79 GP  -74.56 ZAL  98.32 ZAP  96.29 ETS 212.42 ZAE  73.14 ETE 130.58 ZAC   5.90 ETC 224.73 CLP 114.32
  PLANETOCENTRIC CONIC
   C3 411.836 VHL 20.294 DLA  38.77 RAL 261.36 RAD 6572.1 VEL 23.090 PTH   3.28 VHP 25.362 DPA -50.53 RAP 104.88 ECC 7.7778
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      62.33    19 11 33   4743.17      -2.32      214.62      160.49       51.28   20 30 36     4143.2       -7.30      208.76
     117.67     1 37 16   3546.12      -2.30      123.90      160.47       51.28    2 36 22     2946.1       -7.28      118.04
      62.33    19 11 33   4743.17      -2.32      214.62      160.49       51.28   20 30 36     4143.2       -7.30      208.76
     117.67     1 37 16   3546.12      -2.30      123.90      160.47       51.28    2 36 22     2946.1       -7.28      118.04
      62.33    19 11 33   4743.17      -2.32      214.62      160.49       51.28   20 30 36     4143.2       -7.30      208.76
     117.67     1 37 16   3546.12      -2.30      123.90      160.47       51.28    2 36 22     2946.1       -7.28      118.04
  DIFFERENTIAL CORRECTIONS                        MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
   TDE 2.3174 TRA 1.9074 TC3 -.0048 BAU  .7358     SGT  951.8 SGR 3163.6 SG3   52.1            ST   606.3 SR  3027.9 SS  1202.5
   RD-10.0926 RRA-2.1408 RC3 -.1335 FAU-.01177     RRT -.8305 RRF -.9867 RTF  .9064            CRT -.9737 CRS  .9985 CST -.9848
   FDE 1.9268 FRA  .6658 FC3  .0248 BSP   9720     SGB 3303.6 RZS -.1163 R13 -.9922            LSA 3325.5 MSA  160.6 SSA    1.8
   BDE10.9409 BRA 2.8673 BC3  .1336 FSP   -167     SG1 3263.4 SG2  513.9 THA 104.39            EL1 3100.9 EL2  152.7 ALF 102.48

LAUNCH DATE  SEP 27 1970                          FLIGHT TIME 128.00                          ARRIVAL DATE  FEB  2 1971

  HELIOCENTRIC CONIC                                  DISTANCE 373.092
   RL  149.95 LAL   -.00 LOL   3.47 VL  27.426 GAL  -6.64 AZL   9.95 HCA 176.70 SMA 130.37 ECC .18869 INC80.0441 V1  29.715
   RP  107.75 LAP   3.26 LOP 182.90 VP  38.018 GAP   4.32 AZP 170.03 TAL 211.14 TAP  27.84 RCA 105.77 APO 154.97 V2  35.169
   RC 114.599 GL   46.86 GP  -52.94 ZAL  94.18 ZAP  93.29 ETS 189.43 ZAE  50.39 ETE 111.33 ZAC  24.29 ETC 271.66 CLP  95.46
  PLANETOCENTRIC CONIC
   C3 1382.207 VHL 36.772 DLA  23.43 RAL 288.03 RAD 6573.1 VEL 38.386 PTH   3.55 VHP 46.641 DPA -28.50 RAP  98.70 ECC23.2539
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      90.00     1 18 23   3751.83     -14.47      145.25      185.86       65.39    2 20 35     3131.8      -17.67      138.03
      90.00    20 23 42   4702.07      15.49      200.76      172.54       66.00   21 42  4     4102.1       12.12      193.71
     100.00     2 58  8   3410.20     -16.96      122.78      187.05       65.01    3 54 58     2810.2      -20.19      115.47
     100.00    21 26 38   4488.94      17.99      184.86      171.37       65.72   22 41 37     3898.9       14.56      177.55
     110.00     4 43 24   3080.84     -22.84      100.75      190.04       63.85    5 34 45     2480.8      -26.16       93.17
     110.00    21 57 51   4401.05      23.91      174.33      168.45       64.81   23 11 12     3801.1       20.32      167.03
  DIFFERENTIAL CORRECTIONS                        MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
   TDE-3.9380 TRA 1.3758 TC3 -.0700 BAU 3.7127     SGT  834.1 SGR 2761.1 SG3   48.4            ST   617.5 SR  2121.2 SS  1676.7
   RD-13.4436 RRA-6.8040 RC3 -.1931 FAU-.08085     RRT  .7631 RRF -.9981 RTF -.7242            CRT  .9636 CRS  .9996 CST  .9557
   FDE 2.0243 FRA 1.5018 FC3  .0380 BSP   7824     SGB 2884.4 RZS -.1020 R13 -.9945            LSA 2768.1 MSA  171.5 SSA    1.5
   BDE14.0080 BRA 6.6480 BC3  .2054 FSP   -141     SG1 2836.2 SG2  524.8 THA  76.55            EL1 2203.5 EL2  158.9 ALF  74.25

LAUNCH DATE  SEP 27 1970                          FLIGHT TIME 130.00                          ARRIVAL DATE  FEB  4 1971

  HELIOCENTRIC CONIC                                  DISTANCE 384.301
   RL  149.95 LAL   -.00 LOL   3.47 VL  27.374 GAL  -7.30 AZL 140.24 HCA 184.16 SMA 130.01 ECC .19817 INC50.2351 V1  29.715
   RP  107.79 LAP   3.20 LOP 186.14 VP  37.971 GAP   5.84 AZP  39.84 TAL 212.57 TAP  36.73 RCA 104.25 APO 155.78 V2  35.158
   RC 116.871 GL  -58.68 GP   67.67 ZAL  97.02 ZAP  96.61 ETS 171.37 ZAE  73.56 ETE 250.92 ZAC 145.39 ETC 269.40 CLP 107.63
  PLANETOCENTRIC CONIC
   C3 596.895 VHL 24.431 DLA -80.88 RAL 234.83 RAD 6572.5 VEL 26.799 PTH   3.39 VHP 31.873 DPA  83.17 RAP 213.41 ECC10.8234
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      10.38     2 59 19   2431.53       1.58       84.08      144.56      170.87    3 39 50     1831.5       9.48       83.22
     169.62    14 17 50    631.00       1.58      281.53      144.58      170.87   14 28 21       31.0       9.48      280.67
      10.38     2 59 19   2431.53       1.58       84.08      144.56      170.87    3 39 50     1831.5       9.48       83.22
     169.62    14 17 50    631.00       1.58      281.53      144.58      170.87   14 28 21       31.0       9.48      280.67
      10.38     2 59 19   2431.53       1.58       84.08      144.56      170.87    3 39 50     1831.5       9.48       83.22
     169.62    14 17 50    631.00       1.58      281.53      144.58      170.87   14 28 21       31.0       9.48      280.67
  DIFFERENTIAL CORRECTIONS                        MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
   TDE 2.6562 TRA  .4275 TC3 -.0564 BAU 1.5033     SGT  929.4 SGR 3224.7 SG3   54.3            ST   651.2 SR  3040.3 SS  1670.2
   RD-12.9368 RRA -.4395 RC3  .1798 FAU-.02014     RRT -.8485 RRF  .9970 RTF -.8098            CRT -.9733 CRS -.9998 CST  .9686
   FDE-2.5835 FRA -.0604 FC3  .0292 BSP  10168     SGB 3355.9 RZS -.1040 R13  .9939            LSA 3526.1 MSA  152.7 SSA    1.8
   BDE13.2067 BRA  .6131 BC3  .1884 FSP   -168     SG1 3321.8 SG2  477.5 THA 104.04            EL1 3105.8 EL2  146.2 ALF 101.80

LAUNCH DATE  SEP 27 1970                          FLIGHT TIME 132.00                          ARRIVAL DATE  FEB  6 1971

  HELIOCENTRIC CONIC                                  DISTANCE 389.590
   RL  149.95 LAL   -.00 LOL   3.47 VL  27.322 GAL  -6.91 AZL 118.00 HCA 186.67 SMA 129.65 ECC .19660 INC28.0005 V1  29.715
   RP  107.82 LAP   3.13 LOP 189.37 VP  37.923 GAP   5.91 AZP  62.16 TAL 210.84 TAP  37.51 RCA 104.16 APO 155.14 V2  35.147
   RC 119.138 GL  -63.30 GP   76.80 ZAL 101.31 ZAP 101.32 ETS 124.18 ZAE  88.72 ETE 204.65 ZAC 158.24 ETC 239.24 CLP 149.22
  PLANETOCENTRIC CONIC
   C3 203.186 VHL 14.254 DLA -80.02 RAL 188.55 RAD 6571.1 VEL 18.014 PTH   3.01 VHP 18.880 DPA  68.71 RAP 244.53 ECC 4.3439
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      11.35    23 52 41   2312.75       9.46       82.67       96.86      169.88   24 31 13     1712.7       17.33       81.63
     168.65    11 11 20   5802.56       9.46      258.97       96.88      169.88   12 48  3     5202.6       17.34      257.92
      11.35    23 52 41   2312.75       9.46       82.67       96.86      169.88   24 31 13     1712.7       17.33       81.63
     168.65    11 11 20   5802.56       9.46      258.97       96.88      169.88   12 48  3     5202.6       17.34      257.92
      11.35    23 52 41   2312.75       9.46       82.67       96.86      169.88   24 31 13     1712.7       17.33       81.63
     168.65    11 11 20   5802.56       9.46      258.97       96.88      169.88   12 48  3     5202.6       17.34      257.92
  DIFFERENTIAL CORRECTIONS                        MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
   TDE-3.2860 TRA -.7804 TC3 -.0313 BAU  .0847     SGT 2205.8 SGR 2911.9 SG3   65.3            ST  1423.2 SR  1319.9 SS   749.2
   RDE-2.5807 RRA-1.1727 RC3  .0154 FAU .00440     RRT  .9800 RRF  .9711 RTF  .9981            CRT  .9595 CRS -.9701 CST -.9992
   FDE-1.0427 FRA -.2889 FC3 -.0188 BSP  11174     SGB 3653.0 RZS -.1349 R13  .9901            LSA 2061.3 MSA  282.7 SSA    1.4
   BDE 4.1789 BRA 1.3976 BC3  .0349 FSP   -209     SG1 3619.0 SG2  497.2 THA  53.17            EL1 1921.4 EL2  275.5 ALF  42.75
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LAUNCH DATE SEP 27 1970 FLIGHT TIME 134.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 395.311

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RL  149.95 LAL   -.00 LOL   3.47 VL  27.269 GAL  -6.61 AZL 108.55 HCA 189.62 SMA 129.28 ECC .19614 INC18.5517 V1  29.715
RP  107.86 LAP   3.05 LOP 192.60 VP  37.874 GAP   6.11 AZP  71.69 TAL 209.33 TAP  38.95 RCA 103.92 APO 154.64 V2  35.136
RC 121.402 GL  -60.77 GP  75.28 ZAL 105.55 ZAP 106.66 ETS  78.17 ZAE  97.65 ETE 159.85 ZAC 161.84 ETC 219.08 CLP-175.56
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PLANETOCENTRIC CONIC

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C3  97.535 VHL  9.876 DLA -75.74 RAL 189.71 RAD 6569.9 VEL 14.795 PTH   2.67 VHP 13.323 DPA  58.41 RAP 245.23 ECC 2.6052
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.25	0 10 57	2169.17	18.27	77.71	94.89	164.96	0 47 7	1569.2	25.98	75.82
163.75	11 6 15	5674.01	18.27	258.81	94.90	164.96	12 40 49	5074.0	25.98	256.92
16.25	0 10 57	2169.17	18.27	77.71	94.89	164.96	0 47 7	1569.2	25.98	75.82
163.75	11 6 15	5674.01	18.27	258.81	94.90	164.96	12 40 49	5074.0	25.98	256.92
16.25	0 10 57	2169.17	18.27	77.71	94.89	164.96	0 47 7	1569.2	25.98	75.82
163.75	11 6 15	5674.01	18.27	258.81	94.90	164.96	12 40 49	5074.0	25.98	256.92

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-2.7271 TRA-1.3904 TC3 -.3580 BAU  .4668   SGT 3704.2 SGR  664.1 SG3   82.2     ST  1862.3 SR   338.7 SS   662.7
 RDE  .4949 RRA -.2543 RC3 -.0000 FAU .01520   RRT  .6123 RRF  .4635 RTF  .9823     CRT -.4405 CRS  .5759 CST -.9876
 FDE -.9147 FRA -.3158 FC3 -.1349 BSP  11335   SGB 3763.3 RZS -.1898 R13  .9794     LSA 1980.4 MSA  316.1 SSA    2.1
 BDE 2.7716 BRA 1.4134 BC3  .3580 FSP   -258   SG1 3726.9 SG2  521.9 THA   6.39     EL1 1868.4 EL2  303.1 ALF 175.30
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LAUNCH DATE SEP 27 1970 FLIGHT TIME 136.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 401.152

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RL  149.95 LAL   -.00 LOL   3.47 VL  27.215 GAL  -6.33 AZL 103.58 HCA 192.70 SMA 128.92 ECC .19608 INC13.5777 V1  29.715
RP  107.89 LAP   2.96 LOP 195.83 VP  37.824 GAP   6.34 AZP  76.74 TAL 207.88 TAP  40.58 RCA 103.64 APO 154.20 V2  35.124
RC 123.660 GL  -56.27 GP  66.86 ZAL 109.18 ZAP 112.09 ETS  64.85 ZAE 104.05 ETE 148.37 ZAC 160.23 ETC 228.58 CLP-163.11
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PLANETOCENTRIC CONIC

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C3  58.300 VHL  7.635 DLA -71.57 RAL 197.93 RAD 6569.1 VEL 13.404 PTH   2.45 VHP 10.528 DPA  50.12 RAP 244.36 ECC 1.9595
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.05	0 53 35	2039.78	25.50	71.45	98.77	159.50	1 27 34	1439.8	32.95	68.53
158.95	11 29 10	5565.02	25.50	257.40	98.79	159.49	13 1 55	4965.0	32.96	254.49
21.05	0 53 35	2039.78	25.50	71.45	98.77	159.50	1 27 34	1439.8	32.95	68.53
158.95	11 29 10	5565.02	25.50	257.40	98.79	159.49	13 1 55	4965.0	32.96	254.49
21.05	0 53 35	2039.78	25.50	71.45	98.77	159.50	1 27 34	1439.8	32.95	68.53
158.95	11 29 10	5565.02	25.50	257.40	98.79	159.49	13 1 55	4965.0	32.96	254.49

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-2.3735 TRA-1.3325 TC3 -.8264 BAU  .6526   SGT 3842.8 SGR  649.7 SG3  104.7     ST  2018.4 SR   613.5 SS   720.3
 RDE  .8172 RRA  .0252 RC3  .1350 FAU .02349   RRT -.6173 RRF -.7879 RTF  .9652     CRT -.8959 CRS  .9632 CST -.9823
 FDE-1.0076 FRA -.3297 FC3 -.3488 BSP  11982   SGB 3897.3 RZS  .2306 R13 -.9686     LSA 2211.1 MSA  282.7 SSA    2.9
 BDE 2.5103 BRA 1.3328 BC3  .8373 FSP   -358   SG1 3864.0 SG2  508.3 THA 173.94     EL1 2093.1 EL2  262.8 ALF 164.52
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LAUNCH DATE SEP 27 1970 FLIGHT TIME 138.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 407.036

```
RL  149.95 LAL   -.00 LOL   3.47 VL  27.162 GAL  -6.05 AZL 100.54 HCA 195.83 SMA 128.55 ECC .19624 INC10.5362 V1  29.715
RP  107.93 LAP   2.86 LOP 199.05 VP  37.774 GAP   6.58 AZP  79.85 TAL 206.44 TAP  42.27 RCA 103.33 APO 153.78 V2  35.112
RC 125.912 GL  -51.36 GP  60.50 ZAL 112.03 ZAP 117.32 ETS  59.98 ZAE 109.02 ETE 145.88 ZAC 156.40 ETC 238.15 CLP-158.73
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PLANETOCENTRIC CONIC

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C3  39.981 VHL  6.323 DLA -67.51 RAL 205.92 RAD 6568.5 VEL 12.702 PTH   2.31 VHP  8.946 DPA  42.95 RAP 243.63 ECC 1.6580
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
25.76	1 35 38	1932.55	30.56	64.34	101.75	153.62	2 7 51	1332.5	37.65	60.27
154.24	11 50 53	5483.98	30.57	255.28	101.77	153.62	13 22 17	4884.0	37.66	251.22
25.76	1 35 38	1932.55	30.56	64.34	101.75	153.62	2 7 51	1332.5	37.65	60.27
154.24	11 50 53	5483.98	30.57	255.28	101.77	153.62	13 22 17	4884.0	37.66	251.22
25.76	1 35 38	1932.55	30.56	64.34	101.75	153.62	2 7 51	1332.5	37.65	60.27
154.24	11 50 53	5483.98	30.57	255.28	101.77	153.62	13 22 17	4884.0	37.66	251.22

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-2.1754 TRA-1.2275 TC3-1.3704 BAU  .7474   SGT 3916.9 SGR  810.0 SG3  127.4     ST  2156.2 SR   710.3 SS   766.6
 RDE  .7816 RRA  .0745 RC3  .2777 FAU .03033   RRT -.7935 RRF -.9266 RTF  .9528     CRT -.9421 CRS  .9884 CST -.9821
 FDE-1.0662 FRA -.3139 FC3 -.6567 BSP  12385   SGB 3999.7 RZS  .2606 R13 -.9584     LSA 2382.5 MSA  254.5 SSA    3.8
 BDE 2.3115 BRA 1.2298 BC3 1.3982 FSP   -416   SG1 3970.1 SG2  486.3 THA 170.54     EL1 2258.7 EL2  227.4 ALF 162.58
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LAUNCH DATE SEP 27 1970 FLIGHT TIME 140.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 412.935

```
RL  149.95 LAL   -.00 LOL   3.47 VL  27.108 GAL  -5.77 AZL  98.48 HCA 198.99 SMA 128.19 ECC .19655 INC 8.4842 V1  29.715
RP  107.97 LAP   2.75 LOP 202.27 VP  37.724 GAP   6.82 AZP  81.97 TAL 204.99 TAP  43.99 RCA 102.99 APO 153.38 V2  35.099
RC 128.158 GL  -46.55 GP  54.68 ZAL 114.05 ZAP 122.20 ETS  57.52 ZAE 112.95 ETE 146.17 ZAC 152.04 ETC 244.41 CLP-157.21
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PLANETOCENTRIC CONIC

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C3  30.038 VHL  5.481 DLA -63.62 RAL 212.87 RAD 6568.2 VEL 12.305 PTH   2.22 VHP  7.984 DPA  36.62 RAP 243.26 ECC 1.4944
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.31	2 13 44	1844.62	33.73	56.92	103.52	147.71	2 44 29	1244.6	40.37	51.74
149.69	12 8 13	5427.68	33.74	252.94	103.54	147.71	13 38 41	4827.7	40.38	247.75
30.31	2 13 44	1844.62	33.73	56.92	103.52	147.71	2 44 29	1244.6	40.37	51.74
149.69	12 8 13	5427.68	33.74	252.94	103.54	147.71	13 38 41	4827.7	40.38	247.75
30.31	2 13 44	1844.62	33.73	56.92	103.52	147.71	2 44 29	1244.6	40.37	51.74
149.69	12 8 13	5427.68	33.74	252.94	103.54	147.71	13 38 41	4827.7	40.38	247.75

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-2.0016 TRA-1.1299 TC3-1.9682 BAU  .8064   SGT 4006.5 SGR  852.2 SG3  148.5     ST  2239.3 SR   716.6 SS   783.3
 RDE  .6030 RRA  .0666 RC3  .3982 FAU .03588   RRT -.8356 RRF -.9530 RTF  .9436     CRT -.9561 CRS  .9943 CST -.9817
 FDE-1.0690 FRA -.2744 FC3-1.0341 BSP  12745   SGB 4096.1 RZS  .2802 R13 -.9496     LSA 2467.0 MSA  234.9 SSA    4.9
 BDE 2.1152 BRA 1.1278 BC3 2.0081 FSP   -487   SG1 4070.1 SG2  460.8 THA 169.79     EL1 2342.6 EL2  200.7 ALF 162.86
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LAUNCH DATE SEP 27 1970 FLIGHT TIME 142.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 418.831

RL 149.95 LAL -.00 LOL 3.47 VL 27.054 GAL -5.48 AZL 97.00 HCA 202.17 SHA 127.83 ECC .19699 INC 7.0017 V1 29.715
RP 100.01 LAP 2.64 LOP 205.49 VP 37.673 GAP 7.06 AZP 83.51 TAL 203.53 TAP 45.70 RCA 102.65 APO 153.01 V2 35.086
RC 130.387 GL -42.02 GP 49.51 ZAL 115.26 ZAP 126.66 ETS 55.94 ZAE 116.07 ETE 147.54 ZAC 147.82 ETC 240.49 CLP-156.90

PLANETOCENTRIC CONIC

C3 24.049 VHL 4.904 DLA -59.99 RAL 218.93 RAD 6568.0 VEL 12.059 PTH 2.16 VHP 7.375 DPA 31.01 RAP 243.26 ECC 1.3958

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.62	2 48 25	1771.16	35.45	49.64	104.65	142.12	3 17 56	1171.2	41.59	43.49
145.38	12 21 54	5300.77	35.46	250.77	104.65	142.11	13 51 45	4790.8	41.61	244.62
34.62	2 48 25	1771.16	35.45	49.64	104.65	142.12	3 17 56	1171.2	41.59	43.49
145.38	12 21 54	5300.77	35.46	250.77	104.65	142.11	13 51 45	4790.8	41.61	244.62
34.62	2 48 25	1771.16	35.45	49.64	104.65	142.12	3 17 56	1171.2	41.59	43.49
145.38	12 21 54	5300.77	35.46	250.77	104.65	142.11	13 51 45	4790.8	41.61	244.62

DIFFERENTIAL CORRECTIONS

TDE-1.0358 TRA-1.0825 TC3-2.5876 BAU .0466
RDE .5044 RRA .0437 RC3 .4878 FAU .04002
FDE-1.0800 FRA -.2146 FC3-1.4407 BGP 12962
BDE 1.9886 BRA 1.0254 BC3 2.6332 FBP -543

MID-COURSE EXECUTION ACCURACY

BGT 4082.1 BGR 840.0 BGS 165.9
RRT -.8903 RRF -.9500 RTF .9562
BGB 4177.4 RZS .2918 R13 -.9418
BGI 4154.7 BGZ 435.5 THA 160.99

ORBIT DETERMINATION ACCURACY

ST 2262.6 SR 663.7 SS 770.9
CRT -.9617 CRS .9967 CST -.9805
LSA 2476.4 NSA 220.7 SSA 6.1
EL1 2356.8 EL2 180.0 ALF 163.70

LAUNCH DATE SEP 27 1970 FLIGHT TIME 144.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 424.725

RL 149.95 LAL -.00 LOL 3.47 VL 27.000 GAL -5.19 AZL 95.88 HCA 205.35 SHA 127.47 ECC .19755 INC 5.8757 V1 29.715
RP 100.05 LAP 2.51 LOP 208.71 VP 37.023 GAP 7.31 AZP 84.60 TAL 202.05 TAP 47.40 RCA 102.29 APO 152.65 V2 35.074
RC 132.027 GL -37.01 GP 44.95 ZAL 115.73 ZAP 130.72 ETS 54.77 ZAE 118.53 ETE 149.34 ZAC 143.96 ETC 251.28 CLP-157.18

PLANETOCENTRIC CONIC

C3 20.100 VHL 4.480 DLA -56.82 RAL 224.36 RAD 6567.8 VEL 11.897 PTH 2.11 VHP 6.982 DPA 26.04 RAP 243.59 ECC 1.3518

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.68	3 20 42	1707.94	36.16	42.74	105.56	137.04	3 49 10	1107.9	41.80	35.85
141.32	12 32 56	5300.06	36.17	240.02	105.56	137.04	14 2 25	4708.7	41.81	242.13
38.68	3 20 42	1707.94	36.16	42.74	105.56	137.04	3 49 10	1107.9	41.80	35.85
141.32	12 32 56	5300.06	36.17	240.02	105.56	137.04	14 2 25	4708.7	41.81	242.13
38.68	3 20 42	1707.94	36.16	42.74	105.56	137.04	3 49 10	1107.9	41.80	35.85
141.32	12 32 56	5300.06	36.17	240.02	105.56	137.04	14 2 25	4708.7	41.81	242.13

DIFFERENTIAL CORRECTIONS

TDE-1.0888 TRA -.0894 TC3-3.2320 BAU .0839
RDE .5036 RRA .0231 RC3 .5561 FAU .04328
FDE -.9029 FRA -.1909 FC3-1.8506 BGP 13477
BDE 1.7063 BRA .0297 BC3 3.2795 FBP -603

MID-COURSE EXECUTION ACCURACY

BGT 4211.6 BGR 815.6 BGS 181.6
RRT -.8908 RRF -.9577 RTF .9523
BGB 4299.8 RZS .2907 R13 -.9371
BGI 4270.1 BGZ 410.8 THA 170.46

ORBIT DETERMINATION ACCURACY

ST 2256.8 SR 643.0 SS 744.8
CRT -.9648 CRS .9980 CST -.9790
LSA 2453.0 NSA 209.3 SSA 7.5
EL1 2341.0 EL2 163.0 ALF 164.55

LAUNCH DATE SEP 27 1970 FLIGHT TIME 146.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 430.608

RL 149.95 LAL -.00 LOL 3.47 VL 26.946 GAL -4.89 AZL 94.99 HCA 209.54 SHA 127.11 ECC .19825 INC 4.9871 V1 29.715
RP 100.09 LAP 2.38 LOP 211.92 VP 37.372 GAP 7.55 AZP 85.82 TAL 200.56 TAP 49.09 RCA 101.91 APO 152.31 V2 35.061
RC 134.050 GL -33.92 GP 40.96 ZAL 115.53 ZAP 134.34 ETS 53.81 ZAE 120.45 ETE 151.28 ZAC 140.52 ETC 253.32 CLP-157.76

PLANETOCENTRIC CONIC

C3 17.490 VHL 4.182 DLA -53.51 RAL 229.36 RAD 6567.7 VEL 11.784 PTH 2.08 VHP 6.731 DPA 21.65 RAP 244.20 ECC 1.2878

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.49	3 51 24	1651.90	36.17	36.33	106.61	132.55	4 18 56	1051.9	41.33	28.90
137.51	12 42 11	5357.06	36.18	247.80	106.63	132.54	14 11 28	4757.9	41.35	240.37
42.49	3 51 24	1651.90	36.17	36.33	106.61	132.55	4 18 56	1051.9	41.33	28.90
137.51	12 42 11	5357.06	36.18	247.80	106.63	132.54	14 11 28	4757.9	41.35	240.37
42.49	3 51 24	1651.90	36.17	36.33	106.61	132.55	4 18 56	1051.9	41.33	28.90
137.51	12 42 11	5357.06	36.18	247.80	106.63	132.54	14 11 28	4757.9	41.35	240.37

DIFFERENTIAL CORRECTIONS

TDE-1.5483 TRA -.0198 TC3-3.8403 BAU .9084
RDE .4335 RRA -.0010 RC3 .5003 FAU .04484
FDE -.0600 FRA -.0677 FC3-2.2198 BGP 13602
BDE 1.6079 BRA .0198 BC3 3.0053 FBP -626

MID-COURSE EXECUTION ACCURACY

BGT 4297.8 BGR 771.8 BGS 191.0
RRT -.8878 RRF -.9504 RTF .9265
BGB 4356.7 RZS .2897 R13 -.9307
BGI 4339.0 BGZ 382.0 THA 171.15

ORBIT DETERMINATION ACCURACY

ST 2197.8 SR 594.1 SS 693.6
CRT -.9657 CRS .9989 CST -.9756
LSA 2371.4 NSA 200.9 SSA 9.2
EL1 2271.7 EL2 149.3 ALF 165.31

LAUNCH DATE SEP 27 1970 FLIGHT TIME 148.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 436.481

RL 149.95 LAL -.00 LOL 3.47 VL 26.892 GAL -4.57 AZL 94.26 HCA 211.73 SHA 126.76 ECC .19903 INC 4.2642 V1 29.715
RP 100.13 LAP 2.24 LOP 215.13 VP 37.321 GAP 7.80 AZP 86.37 TAL 199.04 TAP 50.77 RCA 101.53 APO 151.99 V2 35.047
RC 137.063 GL -30.33 GP 37.48 ZAL 114.75 ZAP 137.59 ETS 53.01 ZAE 121.95 ETE 153.21 ZAC 137.50 ETC 254.88 CLP-158.51

PLANETOCENTRIC CONIC

C3 15.501 VHL 3.947 DLA -50.64 RAL 234.08 RAD 6567.6 VEL 11.703 PTH 2.06 VHP 6.575 DPA 17.76 RAP 245.05 ECC 1.2564

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.09	4 21 10	1600.64	35.72	30.30	107.92	128.63	4 47 51	1000.6	40.44	22.60
133.91	12 50 2	5356.23	35.73	247.15	107.93	128.62	14 19 18	4756.2	40.45	239.35
46.09	4 21 10	1600.64	35.72	30.30	107.92	128.63	4 47 51	1000.6	40.44	22.60
133.91	12 50 2	5356.23	35.73	247.15	107.93	128.62	14 19 18	4756.2	40.45	239.35
46.09	4 21 10	1600.64	35.72	30.30	107.92	128.63	4 47 51	1000.6	40.44	22.60
133.91	12 50 2	5356.23	35.73	247.15	107.93	128.62	14 19 18	4756.2	40.45	239.35

DIFFERENTIAL CORRECTIONS

TDE-1.4212 TRA -.7130 TC3-4.4434 BAU .0343
RDE .3000 RRA -.0196 RC3 .0102 FAU .04580
FDE -.7735 FRA .0119 FC3-2.5450 BGP 13912
BDE 1.4714 BRA .7141 BC3 4.4851 FBP -652

MID-COURSE EXECUTION ACCURACY

BGT 4365.1 BGR 734.7 BGS 196.9
RRT -.8550 RRF -.9401 RTF .9233
BGB 4446.3 RZS .2785 R13 -.9260
BGI 4430.5 BGZ 376.2 THA 171.78

ORBIT DETERMINATION ACCURACY

ST 2123.0 SR 553.3 SS 638.7
CRT -.9668 CRS .9995 CST -.9713
LSA 2276.7 NSA 193.3 SSA 11.2
EL1 2189.6 EL2 137.1 ALF 165.80

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LAUNCH DATE  SEP 27 1970                          FLIGHT TIME 150.00                          ARRIVAL DATE  FEB 24 1971

 HELIOCENTRIC CONIC                                DISTANCE 442.343
  RL  149.95 LAL   -.00 LOL   3.47 VL  26.838 GAL  -4.25 AZL  93.66 HCA 214.92 SMA 126.41 ECC .19996 INC 3.6613 V1  29.715
  RP  108.17 LAP   2.09 LOP 218.34 VP  37.470 GAP   8.04 AZP  87.00 TAL 197.52 TAP  52.43 RCA 101.13 APO 151.69 V2  35.034
  RC 139.266 GL  -26.99 GP   34.45 ZAL 113.45 ZAP 140.50 ETS  52.35 ZAE 123.12 ETE 155.04 ZAC 134.87 ETC 256.14 CLP-159.35
 PLANETOCENTRIC CONIC
  C3  14.178 VHL  3.765 DLA -47.96 RAL 230.61 RAD 6567.6 VEL 11.643 PTH   2.04 VHP  6.485 DPA  14.32 RAP 246.11 ECC 1.2333
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     49.53     4 50 34   1552.39      34.94     24.84     109.54      125.22    5 16 26     952.4       39.27      16.82
    130.47    12 56 46   5362.37      34.95    247.05     109.55      125.21   14 26  9    4762.4       39.28     239.02
     49.53     4 50 34   1552.39      34.94     24.84     109.54      125.22    5 16 26     952.4       39.27      16.82
    130.47    12 56 46   5362.37      34.95    247.05     109.55      125.21   14 26  9    4762.4       39.28     239.02
     49.53     4 50 34   1552.39      34.94     24.84     109.54      125.22    5 16 26     952.4       39.27      16.82
    130.47    12 56 46   5362.37      34.95    247.05     109.55      125.21   14 26  9    4762.4       39.28     239.02
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE-1.3014 TRA -.6029 TC3-5.0143 BAU  .9576      SGT 4478.5 SGR  699.9 SGS  203.9            ST  2025.6 SR   518.0 SS   577.5
  RDE  .3399 RRA -.0350 RC3  .6166 FAU .04598      RRT -.0506 RRF -.0264 RTF  .9208            CRT -.9681 CRS  .9993 CST -.9650
  FDE -.6749 FRA  .0981 FC3-2.8077 BSP  14206      SGB 4532.9 RZS  .2824 R13 -.9237            LSA 2161.0 MSA  186.5 SSA   13.6
  BDE 1.3450 BRA  .6039 BC3 5.0521 FSP   -668      SGI 4518.2 SGZ  364.7 THA 172.38            EL1 2066.9 EL2  126.0 ALF 166.04

LAUNCH DATE  SEP 27 1970                          FLIGHT TIME 152.00                          ARRIVAL DATE  FEB 26 1971

 HELIOCENTRIC CONIC                                DISTANCE 448.191
  RL  149.95 LAL   -.00 LOL   3.47 VL  26.784 GAL  -3.92 AZL  93.15 HCA 218.11 SMA 126.06 ECC .20102 INC 3.1480 V1  29.715
  RP  106.21 LAP   1.94 LOP 221.54 VP  37.419 GAP   8.28 AZP  87.52 TAL 195.97 TAP  54.08 RCA 100.72 APO 151.40 V2  35.021
  RC 141.459 GL  -23.89 GP   31.80 ZAL 111.70 ZAP 143.11 ETS  51.82 ZAE 124.02 ETE 156.73 ZAC 132.57 ETC 257.20 CLP-160.23
 PLANETOCENTRIC CONIC
  C3  13.132 VHL  3.624 DLA -45.44 RAL 243.01 RAD 6567.5 VEL 11.598 PTH   2.03 VHP  6.444 DPA  11.26 RAP 247.33 ECC 1.2161
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     52.85     5 20  0   1505.68      33.95     19.80     111.48      122.24    5 45  5     905.7       37.92      11.43
    127.15    13  2 28   5375.59      33.96    247.50     111.49      122.23   14 32  4    4775.6       37.93     239.33
     52.85     5 20  0   1505.68      33.95     19.80     111.48      122.24    5 45  5     905.7       37.92      11.43
    127.15    13  2 28   5375.59      33.96    247.50     111.49      122.23   14 32  4    4775.6       37.93     239.33
     52.85     5 20  0   1505.68      33.95     19.80     111.48      122.24    5 45  5     905.7       37.92      11.43
    127.15    13  2 28   5375.59      33.96    247.50     111.49      122.23   14 32  4    4775.6       37.93     239.33
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE-1.1063 TRA -.4061 TC3-5.5455 BAU  .9795      SGT 4568.5 SGR  699.2 SGS  206.7            ST  1908.1 SR   488.5 SS   513.4
  RDE  .3081 RRA -.0302 RC3  .6134 FAU .04559      RRT -.0429 RRF -.0096 RTF  .9189            CRT -.9700 CRS  .9975 CST -.9557
  FDE -.5772 FRA  .1707 FC3-3.0056 BSP  14488      SGB 4617.2 RZS  .2422 R13 -.9213            LSA 2027.4 MSA  180.2 SSA   16.4
  BDE 1.2257 BRA  .4887 BC3 5.5793 FSP   -677      SGI 4603.4 SGZ  357.4 THA 172.92            EL1 1966.3 EL2  115.2 ALF 166.00

LAUNCH DATE  SEP 27 1970                          FLIGHT TIME 154.00                          ARRIVAL DATE  FEB 28 1971

 HELIOCENTRIC CONIC                                DISTANCE 454.024
  RL  149.95 LAL   -.00 LOL   3.47 VL  26.731 GAL  -3.58 AZL  92.70 HCA 221.30 SMA 125.72 ECC .20221 INC 2.7031 V1  29.715
  RP  106.25 LAP   1.76 LOP 224.74 VP  37.368 GAP   8.53 AZP  87.97 TAL 194.41 TAP  55.71 RCA 100.30 APO 151.14 V2  35.008
  RC 143.643 GL  -20.98 GP   29.48 ZAL 109.58 ZAP 145.47 ETS  51.41 ZAE 124.73 ETE 158.28 ZAC 130.56 ETC 258.13 CLP-161.14
 PLANETOCENTRIC CONIC
  C3  12.349 VHL  3.514 DLA -43.05 RAL 247.33 RAD 6567.5 VEL 11.564 PTH   2.02 VHP  6.440 DPA   8.53 RAP 248.71 ECC 1.2032
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     56.11     5 49 53   1459.08      32.79     14.54     113.71      119.63    6 14 12     859.1       36.45       6.30
    123.89    13  7  2   5395.85      32.80    248.51     113.72      119.61   14 36 58    4795.9       36.46     240.28
     56.11     5 49 53   1459.08      32.79     14.54     113.71      119.63    6 14 12     859.1       36.45       6.30
    123.89    13  7  2   5395.85      32.80    248.51     113.72      119.61   14 36 58    4795.9       36.46     240.28
     56.11     5 49 53   1459.08      32.79     14.54     113.71      119.63    6 14 12     859.1       36.45       6.30
    123.89    13  7  2   5395.85      32.80    248.51     113.72      119.61   14 36 58    4795.9       36.46     240.28
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE-1.0758 TRA -.3650 TC3-6.0332 BAU 1.0010      SGT 4660.4 SGR  643.6 SGS  208.1            ST  1775.5 SR   464.8 SS   449.7
  RDE  .2838 RRA -.0828 RC3  .6045 FAU .04483      RRT -.0351 RRF -.0903 RTF  .9180            CRT -.9730 CRS  .9920 CST -.9418
  FDE -.4837 FRA  .2453 FC3-3.1427 BSP  14800      SGB 4704.7 RZS  .2189 R13 -.9199            LSA 1881.4 MSA  174.3 SSA   19.8
  BDE 1.1126 BRA  .3703 BC3 6.0654 FSP   -683      SGI 4691.4 SGZ  353.6 THA 173.40            EL1 1832.4 EL2  104.0 ALF 165.66

LAUNCH DATE  SEP 27 1970                          FLIGHT TIME 156.00                          ARRIVAL DATE  MAR  2 1971

 HELIOCENTRIC CONIC                                DISTANCE 459.844
  RL  149.95 LAL   -.00 LOL   3.47 VL  26.677 GAL  -3.23 AZL  92.31 HCA 224.49 SMA 125.39 ECC .20354 INC 2.3116 V1  29.715
  RP  108.29 LAP   1.62 LOP 227.94 VP  37.318 GAP   8.78 AZP  88.35 TAL 192.84 TAP  57.32 RCA  99.86 APO 150.91 V2  34.995
  RC 145.816 GL  -18.25 GP   27.44 ZAL 107.13 ZAP 147.60 ETS  51.13 ZAE 125.28 ETE 159.68 ZAC 128.81 ETC 258.96 CLP-162.06
 PLANETOCENTRIC CONIC
  C3  11.772 VHL  3.431 DLA -40.76 RAL 251.59 RAD 6567.4 VEL 11.539 PTH   2.01 VHP  6.464 DPA   6.10 RAP 250.22 ECC 1.1937
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     59.36     6 20 41   1411.10      31.52      9.53     116.23      117.32    6 44 12     811.1       34.90       1.28
    120.64    13 10 10   5423.66      31.52    250.12     116.24      117.31   14 40 34    4823.7       34.90     241.87
     59.36     6 20 41   1411.10      31.52      9.53     116.23      117.32    6 44 12     811.1       34.90       1.28
    120.64    13 10 10   5423.66      31.52    250.12     116.24      117.31   14 40 34    4823.7       34.90     241.87
     59.36     6 20 41   1411.10      31.52      9.53     116.23      117.32    6 44 12     811.1       34.90       1.28
    120.64    13 10 10   5423.66      31.52    250.12     116.24      117.31   14 40 34    4823.7       34.90     241.87
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE -.9652 TRA -.2388 TC3-6.4595 BAU 1.0209      SGT 4745.3 SGR  621.7 SGS  207.8            ST  1624.9 SR   445.2 SS   387.2
  RDE  .2640 RRA -.0747 RC3  .5990 FAU .04369      RRT -.0206 RRF -.0885 RTF  .9173            CRT -.9770 CRS  .9783 CST -.9194
  FDE -.3936 FRA  .3173 FC3-3.2130 BSP  15085      SGB 4785.9 RZS  .1950 R13 -.9189            LSA 1720.2 MSA  169.1 SSA   24.0
  BDE 1.0009 BRA  .2480 BC3 6.4964 FSP   -683      SGI 4772.8 SGZ  353.2 THA 173.83            EL1 1682.2 EL2   91.6 ALF 164.97
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LAUNCH DATE SEP 27 1970 FLIGHT TIME 158.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 465.647

RL 149.95 LAL -.00 LOL 3.47 VL 26.625 GAL -2.87 AZL 91.96 HCA 227.68 SHA 125.05 ECC .20503 INC 1.9624 V1 29.715
RP 106.33 LAP 1.45 LOP 231.14 VP 37.268 GAP 9.02 AZP 88.68 TAL 101.25 TAP 58.92 RCA 99.41 APO 150.69 V2 34.982
RC 147.979 GL -15.67 GP 25.65 ZAL 104.41 ZAP 149.54 ETS 50.99 ZAE 125.72 ETE 160.93 ZAC 127.28 ETC 259.74 CLP-162.98

PLANETOCENTRIC CONIC

C3 11.365 VHL 3.371 DLA -38.55 RAL 255.79 RAD 6567.4 VEL 11.522 PTH 2.01 VHP 6.509 DPA 3.91 RAP 251.85 ECC 1.1870

LNCH AZNTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZNTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.67	6 52 51	1360.00	30.14	4.44	118.99	115.26	7 15 31	760.1	33.27	356.20
117.33	13 11 32	5460.00	30.15	252.39	119.00	115.25	14 42 32	4060.0	33.28	244.15
62.67	6 52 51	1360.00	30.14	4.44	118.99	115.26	7 15 31	760.1	33.27	356.20
117.33	13 11 32	5460.00	30.15	252.39	119.00	115.25	14 42 32	4060.0	33.28	244.15
62.67	6 52 51	1360.00	30.14	4.44	118.99	115.26	7 15 31	760.1	33.27	356.20
117.33	13 11 32	5460.00	30.15	252.39	119.00	115.25	14 42 32	4060.0	33.28	244.15

DIFFERENTIAL CORRECTIONS
TDE -.0540 TRA -.1007 TC3-6.0200 BAU 1.0399
RDE .2901 RRA -.0002 RC3 .5718 FAU .04233
FDE -.3063 FRA .3063 FC3-3.2245 BSP 15360
BDE .0000 BRA .1325 BC3 6.0439 FSP -679

MID-COURSE EXECUTION ACCURACY
SGT 4826.9 SGR 603.7 SGS 206.4
RRT -.0061 RRF -.0448 RTF .9171
SGB 4864.5 RZS .1715 RIS -.9184
SGI 4851.5 SGZ 355.5 THA 174.21

ORBIT DETERMINATION ACCURACY
ST 1459.4 SR 429.0 SS 329.0
CRT -.9822 CRS .9470 CST -.0019
LSA 1547.3 HSA 164.8 SSA 29.2
EL1 1519.2 EL2 77.3 ALF 163.85

LAUNCH DATE SEP 27 1970 FLIGHT TIME 160.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 471.435

RL 149.95 LAL -.00 LOL 3.47 VL 26.572 GAL -2.49 AZL 91.65 HCA 230.86 SHA 124.72 ECC .20667 INC 1.6471 V1 29.715
RP 108.37 LAP 1.28 LOP 234.33 VP 37.218 GAP 9.27 AZP 88.96 TAL 109.65 TAP 60.51 RCA 98.95 APO 150.50 V2 34.969
RC 150.132 GL -13.24 GP 24.06 ZAL 101.47 ZAP 151.31 ETS 50.97 ZAE 126.06 ETE 162.06 ZAC 125.92 ETC 260.47 CLP-163.88

PLANETOCENTRIC CONIC

C3 11.104 VHL 3.332 DLA -36.39 RAL 259.93 RAD 6567.4 VEL 11.511 PTH 2.00 VHP 6.573 DPA 1.96 RAP 253.58 ECC 1.1827

LNCH AZNTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZNTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
66.12	7 27 3	1303.65	28.60	359.09	121.97	113.42	7 48 47	703.7	31.60	350.88
113.88	13 10 25	5506.81	28.70	255.45	121.98	113.40	14 42 12	4906.8	31.60	247.25
66.12	7 27 3	1303.65	28.60	359.09	121.97	113.42	7 48 47	703.7	31.60	350.88
113.88	13 10 25	5506.81	28.70	255.45	121.98	113.40	14 42 12	4906.8	31.60	247.25
66.12	7 27 3	1303.65	28.60	359.09	121.97	113.42	7 48 47	703.7	31.60	350.88
113.88	13 10 25	5506.81	28.70	255.45	121.98	113.40	14 42 12	4906.8	31.60	247.25

DIFFERENTIAL CORRECTIONS
TDE -.7410 TRA .0480 TC3-7.1065 BAU 1.0581
RDE .2380 RRA -.0073 RC3 .5513 FAU .04081
FDE -.2280 FRA .4516 FC3-3.1821 BSP 15624
BDE .7786 BRA .1060 BC3 7.1279 FSP -673

MID-COURSE EXECUTION ACCURACY
SGT 4908.5 SGR 589.0 SGS 204.1
RRT -.7086 RRF -.0197 RTF .9173
SGB 4940.5 RZS .1480 RIS -.9183
SGI 4927.4 SGZ 359.7 THA 174.55

ORBIT DETERMINATION ACCURACY
ST 1282.3 SR 415.7 SS 279.1
CRT -.9081 CRS .8803 CST -.0194
LSA 1366.5 HSA 162.8 SSA 35.3
EL1 1346.6 EL2 60.9 ALF 162.20

LAUNCH DATE SEP 27 1970 FLIGHT TIME 162.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 477.205

RL 149.95 LAL -.00 LOL 3.47 VL 26.520 GAL -2.10 AZL 91.36 HCA 234.05 SHA 124.40 ECC .20848 INC 1.3593 V1 29.715
RP 108.41 LAP 1.10 LOP 237.52 VP 37.160 GAP 9.53 AZP 89.20 TAL 108.03 TAP 62.08 RCA 98.47 APO 150.34 V2 34.956
RC 152.275 GL -10.94 GP 22.66 ZAL 98.35 ZAP 152.93 ETS 51.10 ZAE 126.34 ETE 163.06 ZAC 124.73 ETC 261.17 CLP-164.78

PLANETOCENTRIC CONIC

C3 10.974 VHL 3.313 DLA -34.28 RAL 264.02 RAD 6567.4 VEL 11.505 PTH 2.00 VHP 6.653 DPA .19 RAP 255.40 ECC 1.1806

LNCH AZNTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZNTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.82	8 4 18	1230.30	27.17	353.20	125.15	111.75	8 24 56	638.3	29.88	345.04
110.18	13 5 47	5367.31	27.18	259.54	125.15	111.74	14 38 34	4967.3	29.88	251.38
69.82	8 4 18	1230.30	27.17	353.20	125.15	111.75	8 24 56	638.3	29.88	345.04
110.18	13 5 47	5367.31	27.18	259.54	125.15	111.74	14 38 34	4967.3	29.88	251.38
69.82	8 4 18	1230.30	27.17	353.20	125.15	111.75	8 24 56	638.3	29.88	345.04
110.18	13 5 47	5367.31	27.18	259.54	125.15	111.74	14 38 34	4967.3	29.88	251.38

DIFFERENTIAL CORRECTIONS
TDE -.6313 TRA .1882 TC3-7.3333 BAU 1.0787
RDE .2315 RRA -.1075 RC3 .5325 FAU .03941
FDE -.1575 FRA .5080 FC3-3.1080 BSP 16043
BDE .6724 BRA .2190 BC3 7.3526 FSP -676

MID-COURSE EXECUTION ACCURACY
SGT 4984.0 SGR 579.1 SGS 201.7
RRT -.7730 RRF -.7053 RTF .9192
SGB 5028.4 RZS .1264 RIS -.9201
SGI 5015.1 SGZ 365.3 THA 174.84

ORBIT DETERMINATION ACCURACY
ST 1107.7 SR 406.2 SS 244.0
CRT -.9926 CRS .7616 CST -.7312
LSA 1192.7 HSA 164.6 SSA 41.8
EL1 1178.9 EL2 46.4 ALF 159.97

LAUNCH DATE SEP 27 1970 FLIGHT TIME 164.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 482.959

RL 149.95 LAL -.00 LOL 3.47 VL 26.468 GAL -1.70 AZL 91.00 HCA 237.23 SHA 124.08 ECC .21048 INC 1.0941 V1 29.715
RP 108.45 LAP .92 LOP 240.70 VP 37.120 GAP 9.79 AZP 88.41 TAL 106.41 TAP 63.64 RCA 97.97 APO 150.20 V2 34.943
RC 154.408 GL -8.78 GP 21.41 ZAL 95.09 ZAP 154.43 ETS 51.36 ZAE 126.56 ETE 163.96 ZAC 123.66 ETC 261.66 CLP-165.67

PLANETOCENTRIC CONIC

C3 10.966 VHL 3.312 DLA -32.21 RAL 268.06 RAD 6567.4 VEL 11.505 PTH 2.00 VHP 6.746 DPA -1.39 RAP 257.30 ECC 1.1805

LNCH AZNTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZNTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.97	8 46 35	1157.35	25.61	346.28	128.49	110.23	9 5 52	557.3	28.13	338.18
106.03	12 55 36	5647.90	25.62	265.09	128.49	110.22	14 29 44	5048.0	28.13	256.99
73.97	8 46 35	1157.35	25.61	346.28	128.49	110.23	9 5 52	557.3	28.13	338.18
106.03	12 55 36	5647.90	25.62	265.09	128.49	110.22	14 29 44	5048.0	28.13	256.99
110.00	11 53 6	5041.56	19.17	276.77	125.31	118.06	13 30 28	5241.6	22.87	269.58
110.00	14 40 15	5290.81	32.43	240.92	130.70	101.46	16 16 35	4699.8	33.67	231.50

DIFFERENTIAL CORRECTIONS
TDE -.4980 TRA .3868 TC3-7.4086 BAU 1.0888
RDE .2231 RRA -.1208 RC3 .5003 FAU .03725
FDE -.0760 FRA .5773 FC3-2.9406 BSP 16007
BDE .5473 BRA .3764 BC3 7.4265 FSP -647

MID-COURSE EXECUTION ACCURACY
SGT 5036.0 SGR 568.6 SGS 197.1
RRT -.7513 RRF -.7660 RTF .9168
SGB 5067.7 RZS .1112 RIS -.9175
SGI 5054.0 SGZ 371.9 THA 175.15

ORBIT DETERMINATION ACCURACY
ST 904.0 SR 393.3 SS 223.1
CRT -.9888 CRS .5195 CST -.5811
LSA 992.9 HSA 183.3 SSA 47.2
EL1 984.3 EL2 53.9 ALF 156.65

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LAUNCH DATE  SEP 27 1970                          FLIGHT TIME 166.00                          ARRIVAL DATE  MAR 12 1971

 HELIOCENTRIC CONIC                                DISTANCE 488.693
  RL  149.95 LAL    -.00 LOL   3.47 VL  26.417 GAL  -1.29 AZL  90.85 HCA 240.41 SHA 123.77 ECC .21266 INC  .8473 V1  29.715
  RP  108.49 LAP     .74 LOP 243.89 VP  37.072 GAP  10.05 AZP  89.58 TAL 184.77 TAP  65.19 RCA  97.45 APO 150.09 V2  34.931
  RC 156.530 GL    -6.74 GP   20.29 ZAL  91.73 ZAP 155.81 ETS  51.77 ZAE 126.75 ETE 164.76 ZAC 122.70 ETC 262.53 CLP-166.54
 PLANETOCENTRIC CONIC
  C3  11.078 VHL  3.328 DLA -30.17 RAL 271.99 RAD 6567.4 VEL 11.509 PTH   2.00 VHP  6.851 DPA  -2.82 RAP 259.28 ECC 1.1823
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     79.12     9 38 46   1044.46      24.00     337.14     131.97     108.85    9 56 11     444.5      26.35     329.11
    100.88    12 34 51   5765.06      24.02     273.29     131.97     108.83   14 10 56    5165.1      26.36     265.25
     79.12     9 38 46   1044.46      24.00     337.14     131.97     108.85    9 56 11     444.5      26.35     329.11
    100.88    12 34 51   5765.06      24.02     273.29     131.97     108.83   14 10 56    5165.1      26.36     265.25
    110.00    11 32 12    674.74      15.04     308.83     127.55     121.06   11 43 27      74.7      19.05     299.01
    110.00    15 40 35   5182.78      33.66     231.61     134.43      96.32   17  6 58    4582.8      34.17     222.40
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE -.3755 TRA  .5236 TC3-7.4390 BAU 1.1040       SGT 5101.7 SGR  557.6 SG3  193.2            ST   733.3 SR   384.9 SS   226.8
  RDE  .2187 RRA -.1325 RC3  .4740 FAU .03848       RRT -.7315 RRF -.7395 RTF  .9176            CRT -.9551 CRS  .2525 CST -.4920
  FDE -.0104 FRA  .6339 FC3-2.7723 BSP  16229       SGB 5132.1 RZ3  .0948 R13 -.9181            LSA  828.5 MSA  220.4 SSA   48.7
  BDE  .4346 BRA  .5401 BC3 7.4541 FSP   -635       SG1 5118.1 SG2  379.0 THA 175.40            EL1  821.9 EL2  101.8 ALF 152.93

LAUNCH DATE  SEP 27 1970                          FLIGHT TIME 168.00                          ARRIVAL DATE  MAR 14 1971

 HELIOCENTRIC CONIC                                DISTANCE 494.405
  RL  149.95 LAL    -.00 LOL   3.47 VL  26.366 GAL   -.86 AZL  90.62 HCA 243.60 SHA 123.46 ECC .21506 INC  .6158 V1  29.715
  RP  108.53 LAP     .55 LOP 247.07 VP  37.085 GAP  10.32 AZP  89.73 TAL 183.13 TAP  66.72 RCA  96.91 APO 150.01 V2  34.919
  RC 158.641 GL    -4.84 GP   19.29 ZAL  88.33 ZAP 157.09 ETS  52.33 ZAE 126.90 ETE 165.48 ZAC 121.84 ETC 263.19 CLP-167.40
 PLANETOCENTRIC CONIC
  C3  11.310 VHL  3.363 DLA -28.17 RAL 275.83 RAD 6567.4 VEL 11.519 PTH   2.01 VHP  6.968 DPA  -4.10 RAP 261.32 ECC 1.1861
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     90.00    10 57  8    846.13      20.72     321.32     136.96     109.74   11 11 15     246.1      23.23     313.54
     90.00    11 47  8    663.91      24.07     310.61     136.11     105.39   11 58 32      83.9      25.95     302.45
    100.00    11 18 33    776.88      16.65     314.47     133.19     115.19   11 31 29     176.9      19.91     307.19
    100.00    14  6 25   5516.43      28.37     256.07     137.18      99.84   15 40 22    4916.4      29.44     247.43
    110.00    11 20 22    771.14      11.59     311.17     130.32     122.39   11 33 13     171.1      15.78     304.57
    110.00    16 28  5   5094.94      34.11     224.79     137.90      92.31   17 48  0    4494.9      34.06     215.55
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE -.2545 TRA  .6011 TC3-7.4100 BAU 1.1225       SGT 5178.1 SGR  582.6 SG3  189.3            ST   609.0 SR   379.1 SS   244.8
  RDE  .2170 RRA -.1453 RC3  .4508 FAU .03597       RRT -.7134 RRF -.7152 RTF  .9203            CRT -.8445 CRS  .0264 CST -.5328
  FDE  .0465 FRA  .6818 FC3-2.6003 BSP  16625       SGB 5207.5 RZ3  .0784 R13 -.9208            LSA  703.1 MSA  279.3 SSA   46.3
  BDE  .3345 BRA  .7058 BC3 7.4237 FSP   -635       SG1 5195.2 SG2  386.1 THA 175.62            EL1  694.9 EL2  177.9 ALF 150.11

LAUNCH DATE  SEP 27 1970                          FLIGHT TIME 170.00                          ARRIVAL DATE  MAR 16 1971

 HELIOCENTRIC CONIC                                DISTANCE 500.098
  RL  149.95 LAL    -.00 LOL   3.47 VL  26.316 GAL   -.41 AZL  90.40 HCA 246.77 SHA 123.16 ECC .21767 INC  .3969 V1  29.715
  RP  108.56 LAP     .37 LOP 250.25 VP  36.978 GAP  10.60 AZP  89.84 TAL 181.47 TAP  68.25 RCA  96.35 APO 149.96 V2  34.907
  RC 160.740 GL    -3.06 GP   18.39 ZAL  84.90 ZAP 158.28 ETS  53.04 ZAE 127.02 ETE 166.12 ZAC 121.06 ETC 263.85 CLP-168.25
 PLANETOCENTRIC CONIC
  C3  11.664 VHL  3.415 DLA -26.22 RAL 279.57 RAD 6567.4 VEL 11.535 PTH   2.01 VHP  7.096 DPA  -5.26 RAP 263.41 ECC 1.1920
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     90.00    10  1 34   1084.93      14.55     336.12     138.83     114.56   10 19 39     484.9      17.75     328.90
     90.00    13 12 31   5745.98      27.22     272.74     140.80      98.11   14 48 17    5146.0      28.07     264.18
    100.00    10 54 32    913.68      12.51     322.54     135.81     117.37   11  9 46     313.9      16.08     315.56
    100.00    15  2 15   5392.25      29.48     247.02     141.09      95.20   16 32  7    4792.3      29.89     238.23
    110.00    11 13  2    855.84       8.46     315.73     133.40     123.24   11 27 18     255.8      12.78     309.30
    110.00    17  0 14   5023.06      34.17     219.18     141.30      88.99   18 23 57    4423.1      33.65     209.98
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE -.1166 TRA  .8805 TC3-7.2534 BAU 1.1330       SGT 5224.7 SGR  545.6 SG3  184.6            ST   551.7 SR   371.4 SS   278.2
  RDE  .2151 RRA -.1363 RC3  .4194 FAU .03200       RRT -.6915 RRF -.6883 RTF  .9204            CRT -.5620 CRS -.1698 CST -.7031
  FDE  .1078 FRA  .7366 FC3-2.3753 BSP  16707       SGB 5253.1 RZ3  .0667 R13 -.9207            LSA  623.9 MSA  358.8 SSA   41.7
  BDE  .2446 BRA  .8943 BC3 7.2655 FSP   -616       SG1 5238.3 SG2  393.1 THA 175.85            EL1  602.6 EL2  281.2 ALF 152.93

LAUNCH DATE  SEP 27 1970                          FLIGHT TIME 172.00                          ARRIVAL DATE  MAR 18 1971

 HELIOCENTRIC CONIC                                DISTANCE 505.766
  RL  149.95 LAL    -.00 LOL   3.47 VL  26.266 GAL    .05 AZL  90.19 HCA 249.95 SHA 122.86 ECC .22053 INC  .1879 V1  29.715
  RP  108.60 LAP     .18 LOP 253.42 VP  36.931 GAP  10.88 AZP  89.94 TAL 179.81 TAP  69.76 RCA  95.76 APO 149.95 V2  34.896
  RC 162.826 GL    -1.42 GP   17.58 ZAL  81.48 ZAP 159.39 ETS  53.92 ZAE 127.13 ETE 166.70 ZAC 120.34 ETC 264.50 CLP-169.08
 PLANETOCENTRIC CONIC
  C3  12.147 VHL  3.485 DLA -24.32 RAL 283.18 RAD 6567.5 VEL 11.556 PTH   2.02 VHP  7.234 DPA  -6.29 RAP 265.56 ECC 1.1999
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     90.00     9 38 49   1217.09      10.68     343.00     139.70     116.38   10  0  6     617.1      14.14     336.92
     90.00    14  3  8   5630.84      28.05     264.43     144.68      94.02   15 36 58    5030.8      28.32     255.77
    100.00    10 40 31   1021.14       9.08     328.65     138.86     118.60   10 57 32     421.1      12.83     321.87
    100.00    15 45  7   5302.02      29.85     240.34     144.78      91.70   17 13 29    4702.0      29.77     231.53
    110.00    11  8 25    933.62       5.53     319.06     136.68     123.79   11 23 59     333.6       9.93     313.53
    110.00    17 33 42   4962.30      34.00     214.44     144.69      86.20   18 56 24    4362.3      33.10     205.32
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE  .0277 TRA 1.0791 TC3-7.0238 BAU 1.1423       SGT 5268.9 SGR  540.1 SG3  180.2            ST   603.9 SR   364.5 SS   319.5
  RDE  .2144 RRA -.1706 RC3  .3968 FAU .02999       RRT -.6688 RRF -.6633 RTF  .9189            CRT -.1776 CRS -.2998 CST -.8755
  FDE  .1656 FRA  .7951 FC3-2.1374 BSP  16527       SGB 5296.5 RZ3  .0608 R13 -.9192            LSA  669.8 MSA  386.8 SSA   37.3
  BDE  .2162 BRA 1.0925 BC3 7.0345 FSP   -564       SG1 5281.3 SG2  400.6 THA 176.06            EL1  609.2 EL2  355.6 ALF 170.68
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LAUNCH DATE SEP 27 1970 FLIGHT TIME 174.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 511.410

RL	149.95	LAL	-.00	LOL	3.47	VL	26.216	GAL	.53	AZL	89.99	HCA	253.12	SHA	122.56	ECC	.22364	INC	.0000	V1	29.715
RP	108.63	LAP	-.01	LOP	256.60	VP	36.886	GAP	11.18	AZP	90.00	TAL	178.14	TAP	71.27	RCA	95.15	APO	149.97	V2	34.885
RC	164.900	GL	.08	GP	16.85	ZAL	78.10	ZAP	160.43	ETS	54.97	ZAE	127.22	ETE	167.22	ZAC	119.67	ETC	265.15	CLP	-169.91

PLANETOCENTRIC CONIC

C3	12.764	VHL	3.573	DLA	-22.47	RAL	286.67	RAD	6567.5	VEL	11.582	PTH	2.03	VHP	7.384	DPA	-7.21	RAP	267.76	ECC	1.2101

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 26 25	1323.83	7.30	350.01	142.90	117.41	9 48 29	723.8	11.00	343.19
90.00	14 44 21	5545.23	28.30	258.18	148.41	90.90	16 16 46	4945.2	28.13	249.52
100.00	10 31 17	1114.43	6.00	353.87	142.15	119.34	10 49 52	514.4	9.87	327.21
100.00	16 22 9	5229.06	29.87	234.97	148.40	88.88	17 49 19	4629.9	29.40	226.20
110.00	11 5 38	1006.77	2.75	323.09	140.13	124.09	11 22 25	406.8	7.21	317.44
110.00	18 4 18	4910.28	33.00	210.41	148.12	83.83	19 26 8	4310.3	32.47	201.39

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1646	TRA	1.2794	TC3	-6.7623	BAU	1.1556	BGT	5324.3	BGR	534.8	BGS	175.4	ST	731.0	SR	359.1	SS	355.7
RDE	.2159	RRA	-.1886	RC3	.3587	FAU	.02836	RRT	-.6489	RRF	-.6387	RTF	.9215	CRT	.1028	CRS	-.3881	CST	-.9507
FDE	.2152	FRA	.8374	FC3	-1.9232	BSP	17007	BGB	5391.1	RZS	.0477	R13	-.9217	LSA	809.3	NSA	366.0	SSA	32.8
BDE	.2715	BRA	1.2983	BC3	6.7718	FSP	-562	BG1	5335.7	BG2	405.5	THA	176.24	EL1	732.3	EL2	356.6	ALF	3.79

LAUNCH DATE SEP 27 1970 FLIGHT TIME 176.00 ARRIVAL DATE MAR 22 1971

HELIOCENTRIC CONIC DISTANCE 517.026

RL	149.95	LAL	-.00	LOL	3.47	VL	26.167	GAL	1.03	AZL	89.80	HCA	256.30	SHA	122.27	ECC	.22703	INC	.2043	V1	29.715
RP	108.66	LAP	-.20	LOP	259.77	VP	36.841	GAP	11.40	AZP	90.05	TAL	176.47	TAP	72.77	RCA	94.51	APO	150.03	V2	34.874
RC	166.961	GL	1.46	GP	16.19	ZAL	74.80	ZAP	161.40	ETS	56.19	ZAE	127.30	ETE	167.70	ZAC	119.05	ETC	265.81	CLP	-170.72

PLANETOCENTRIC CONIC

C3	13.929	VHL	3.678	DLA	-20.70	RAL	290.02	RAD	6567.5	VEL	11.615	PTH	2.04	VHP	7.544	DPA	-8.02	RAP	270.00	ECC	1.2226

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 17 18	1417.02	4.41	355.30	146.30	118.00	9 40 56	817.6	8.13	348.58
90.00	15 20 10	5476.58	28.27	253.16	152.08	88.38	16 51 26	4876.6	27.75	244.53
100.00	10 24 57	1190.28	3.15	330.55	145.80	119.74	10 44 57	590.3	7.09	331.98
100.00	16 55 11	5170.14	29.71	230.54	152.00	86.56	18 21 22	4570.1	28.92	221.83
110.00	11 4 7	1076.53	.09	327.33	143.00	124.18	11 22 4	476.5	4.57	321.12
110.00	18 38 36	4865.68	33.31	206.99	151.50	81.83	19 53 36	4265.7	31.82	196.07

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.3108	TRA	1.4982	TC3	-6.4372	BAU	1.1658	BGT	5300.6	BGR	529.6	BGS	170.7	ST	900.1	SR	354.1	SS	393.0
RDE	.2184	RRA	-.1968	RC3	.3285	FAU	.02661	RRT	-.6294	RRF	-.6151	RTF	.9226	CRT	.2847	CRS	-.4480	CST	-.9810
FDE	.2625	FRA	.8690	FC3	-1.7027	BSP	17181	BGB	5395.7	RZS	.0390	R13	-.9228	LSA	906.7	NSA	340.1	SSA	29.2
BDE	.3799	BRA	1.5090	BC3	6.4456	FSP	-570	BG1	5380.0	BG2	410.8	THA	176.43	EL1	906.7	EL2	337.0	ALF	7.42

LAUNCH DATE SEP 27 1970 FLIGHT TIME 178.00 ARRIVAL DATE MAR 24 1971

HELIOCENTRIC CONIC DISTANCE 522.613

RL	149.95	LAL	-.00	LOL	3.47	VL	26.119	GAL	1.56	AZL	89.61	HCA	259.47	SHA	121.99	ECC	.23072	INC	.3926	V1	29.715
RP	108.69	LAP	-.39	LOP	262.94	VP	36.797	GAP	11.81	AZP	90.07	TAL	174.80	TAP	74.27	RCA	93.84	APO	150.13	V2	34.864
RC	169.007	GL	2.70	GP	15.59	ZAL	71.58	ZAP	162.30	ETS	57.60	ZAE	127.37	ETE	168.12	ZAC	118.47	ETC	266.46	CLP	-171.52

PLANETOCENTRIC CONIC

C3	14.452	VHL	3.802	DLA	-18.99	RAL	293.22	RAD	6567.6	VEL	11.655	PTH	2.05	VHP	7.716	DPA	-8.74	RAP	272.27	ECC	1.2378

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 10 52	1503.23	1.66	.09	140.83	118.27	9 35 55	903.2	5.43	353.43
90.00	15 52 9	5419.98	28.10	249.02	155.73	86.31	17 22 29	4820.0	27.29	240.45
100.00	10 20 33	1278.33	.48	342.80	149.17	119.89	10 41 52	678.3	4.45	336.36
100.00	17 25 9	5120.11	29.45	226.84	155.61	84.63	18 50 29	4520.1	28.39	218.20
110.00	11 3 33	1143.62	-2.48	330.83	147.32	124.10	11 22 36	543.6	2.01	324.63
110.00	18 56 30	4827.58	32.90	204.09	155.07	80.16	20 19 6	4227.6	31.20	195.28

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.4603	TRA	1.7149	TC3	-6.0728	BAU	1.1747	BGT	5410.3	BGR	524.4	BGS	166.0	ST	1003.0	SR	349.6	SS	427.6
RDE	.2222	RRA	-.2082	RC3	.2968	FAU	.02490	RRT	-.6092	RRF	-.5925	RTF	.9239	CRT	.3944	CRS	-.4898	CST	-.9920
FDE	.3061	FRA	.9290	FC3	-1.4918	BSP	17329	BGB	5435.7	RZS	.0333	R13	-.9241	LSA	1172.7	NSA	319.5	SSA	28.4
BDE	.5111	BRA	1.7276	BC3	6.0801	FSP	-556	BG1	5419.8	BG2	415.2	THA	176.60	EL1	1092.6	EL2	318.4	ALF	7.93

LAUNCH DATE SEP 27 1970 FLIGHT TIME 180.00 ARRIVAL DATE MAR 26 1971

HELIOCENTRIC CONIC DISTANCE 528.165

RL	149.95	LAL	-.00	LOL	3.47	VL	26.071	GAL	2.10	AZL	89.42	HCA	262.64	SHA	121.71	ECC	.23475	INC	.5770	V1	29.715
RP	108.72	LAP	-.57	LOP	266.11	VP	36.754	GAP	12.14	AZP	90.07	TAL	173.12	TAP	75.76	RCA	93.14	APO	150.28	V2	34.855
RC	171.030	GL	3.82	GP	15.04	ZAL	68.47	ZAP	163.15	ETS	59.21	ZAE	127.43	ETE	168.51	ZAC	117.92	ETC	267.11	CLP	-172.32

PLANETOCENTRIC CONIC

C3	15.549	VHL	3.943	DLA	-17.37	RAL	296.28	RAD	6567.6	VEL	11.702	PTH	2.06	VHP	7.901	DPA	-9.36	RAP	274.57	ECC	1.2559

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 6 15	1583.06	-.91	4.54	153.46	118.30	9 32 38	983.1	2.88	357.91
90.00	16 21 9	5372.90	27.84	245.60	159.38	84.62	17 50 42	4772.9	26.80	237.09
100.00	10 17 32	1353.03	-2.06	346.99	152.82	119.83	10 40 5	753.0	1.93	340.47
100.00	17 52 33	5078.16	29.14	223.76	159.22	83.03	19 17 12	4478.2	27.87	215.19
110.00	11 3 40	1208.50	-4.95	334.23	151.02	123.07	11 23 48	608.5	-.47	328.01
110.00	19 22 55	4795.46	32.50	201.87	158.60	78.78	20 42 50	4195.5	30.62	192.96

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.6033	TRA	1.9377	TC3	-5.7097	BAU	1.1883	BGT	5454.1	BGR	519.7	BGS	161.3	ST	1253.0	SR	346.6	SS	454.2
RDE	.2281	RRA	-.2218	RC3	.2725	FAU	.02352	RRT	-.5804	RRF	-.5722	RTF	.9265	CRT	.4605	CRS	-.5182	CST	-.9962
FDE	.3416	FRA	.9679	FC3	-1.3007	BSP	17724	BGB	5478.0	RZS	.0272	R13	-.9267	LSA	1342.6	NSA	305.4	SSA	24.0
BDE	.6450	BRA	1.9503	BC3	5.7162	FSP	-554	BG1	5462.8	BG2	418.8	THA	176.76	EL1	1263.7	EL2	305.1	ALF	7.71

LAUNCH DATE SEP 27 1970 FLIGHT TIME 182.00 ARRIVAL DATE MAR 28 1971

HELIOCENTRIC CONIC DISTANCE 533.682

RL	149.95	LAL	-.00	LOL	3.47	VL	26.024	GAL	2.67	AZL	89.24	HCA	265.81	SMA	121.44	ECC	.23913	INC	.7586
RP	108.75	LAP	-.76	LOP	269.28	VP	36.712	GAP	12.49	AZP	90.06	TAL	171.45	TAP	77.25	RCA	92.40	APO	150.47
RC	173.056	GL	4.81	GP	14.55	ZAL	65.48	ZAP	163.93	ETS	61.03	ZAE	127.49	ETE	168.86	ZAC	117.39	ETC	267.76

V1	29.715	V2	34.846	CLP	-173.11														

PLANETOCENTRIC CONIC

C3	16.840	VHL	4.104	DLA	-15.83	RAL	299.19	RAD	6567.7	VEL	11.757	PTH	2.08	VHP	8.099	DPA	-9.90	RAP	276.90

ECC	1.2772	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	9 2 57	1658.50	-3.34	8.75	157.16	118.14	9 30 35	1058.5	.45	2.12							
		90.00	16 47 41	5333.80	27.56	242.78	163.04	83.23	18 16 34	4733.8	26.34	234.32							
		100.00	10 15 32	1424.30	-4.46	350.92	156.54	119.59	10 39 16	824.3	-.49	344.38							
		100.00	18 17 47	5043.23	28.83	221.21	162.85	81.73	19 41 50	4443.2	27.38	212.71							
		110.00	11 4 19	1271.48	-7.33	337.56	154.77	123.48	11 25 30	671.5	-2.87	331.30							
		110.00	19 45 29	4768.82	32.13	199.68	162.16	77.66	21 4 58	4168.8	30.10	191.05							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.7696	TRA	2.1911	TC3	-5.2791	BAU	1.1898	SGT	5480.7	SGR	512.9	SG3	156.9	ST	1442.7	SR	341.7	SS	487.2
RDE	.2334	RRA	-.2361	RC3	.2420	FAU	.02186	RRT	-.5693	RRF	-.5496	RTF	.9269	CRT	.5096	CRS	-.5435	CST	-.9980
FDE	.3846	FRA	1.0161	FC3	-1.1136	BSP	17660	SGB	5504.7	RZS	.0229	RIS	-.9270	LSA	1532.9	MSA	291.9	SSA	22.1
BDE	.8042	BRA	2.2038	BC3	5.2846	FSP	-532	SG1	5488.6	SG2	421.1	THA	176.93	EL1	1453.6	EL2	291.8	ALF	7.17

LAUNCH DATE SEP 27 1970 FLIGHT TIME 184.00 ARRIVAL DATE MAR 30 1971

HELIOCENTRIC CONIC DISTANCE 539.158

RL	149.95	LAL	-.00	LOL	3.47	VL	25.977	GAL	3.26	AZL	89.06	HCA	268.97	SMA	121.17	ECC	.24390	INC	.9386
RP	106.78	LAP	-.94	LOP	272.45	VP	36.671	GAP	12.86	AZP	90.02	TAL	169.77	TAP	78.74	RCA	91.61	APO	150.72
RC	175.059	GL	5.69	GP	14.10	ZAL	62.62	ZAP	164.66	ETS	63.08	ZAE	127.53	ETE	169.19	ZAC	116.89	ETC	268.41

V1	29.715	V2	34.837	CLP	-173.90														

PLANETOCENTRIC CONIC

C3	18.347	VHL	4.283	DLA	-14.38	RAL	301.95	RAD	6567.7	VEL	11.821	PTH	2.09	VHP	8.311	DPA	-10.35	RAP	279.24

ECC	1.3019	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	9 0 38	1730.38	-5.64	12.79	160.91	117.80	9 29 28	1130.4	-1.87	6.13							
		90.00	17 12 2	5301.68	27.28	240.47	166.71	82.10	18 40 24	4701.7	25.91	232.07							
		100.00	10 14 18	1492.70	-6.75	354.71	160.31	119.19	10 39 10	892.7	-2.81	348.14							
		100.00	18 41 4	5014.59	28.53	219.14	166.49	80.67	20 4 38	4414.6	26.95	210.69							
		110.00	11 5 21	1332.77	-9.61	340.83	158.56	122.96	11 27 34	732.8	-5.20	334.51							
		110.00	20 6 20	4747.29	31.81	198.08	165.74	76.77	21 25 37	4147.3	29.66	189.53							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.9330	TRA	2.4493	TC3	-4.8618	BAU	1.1937	SGT	5508.5	SGR	506.1	SG3	152.6	ST	1613.3	SR	337.9	SS	513.5
RDE	.2404	RRA	-.2498	RC3	.2147	FAU	.02005	RRT	-.5491	RRF	-.5286	RTF	.9285	CRT	.5426	CRS	-.5621	CST	-.9988
FDE	.4216	FRA	1.0601	FC3	-.9462	BSP	17745	SGB	5531.7	RZS	.0188	RIS	-.9285	LSA	1703.1	MSA	281.9	SSA	20.5
BDE	.9634	BRA	2.4620	BC3	4.8666	FSP	-516	SG1	5515.5	SG2	422.4	THA	177.10	EL1	1624.0	EL2	281.9	ALF	6.69

LAUNCH DATE SEP 27 1970 FLIGHT TIME 186.00 ARRIVAL DATE APR 1 1971

HELIOCENTRIC CONIC DISTANCE 544.588

RL	149.95	LAL	-.00	LOL	3.47	VL	25.931	GAL	3.89	AZL	88.88	HCA	272.14	SMA	120.90	ECC	.24910	INC	1.1181
RP	108.80	LAP	-1.12	LOP	275.61	VP	36.831	GAP	13.25	AZP	89.96	TAL	168.10	TAP	80.24	RCA	90.78	APO	151.02
RC	177.047	GL	6.47	GP	13.68	ZAL	59.88	ZAP	165.34	ETS	65.36	ZAE	127.57	ETE	169.48	ZAC	116.40	ETC	269.05

V1	29.715	V2	34.829	CLP	-174.68														

PLANETOCENTRIC CONIC

C3	20.095	VHL	4.483	DLA	-13.01	RAL	304.57	RAD	6567.8	VEL	11.894	PTH	2.11	VHP	8.938	DPA	-10.72	RAP	281.61

ECC	1.3307	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	8 59 4	1799.30	-7.81	16.69	164.71	117.30	9 29 3	1199.3	-4.09	9.98							
		90.00	17 34 30	5275.76	27.03	238.61	170.37	81.21	19 2 26	4675.8	25.53	230.27							
		100.00	10 13 39	1558.64	-8.92	358.40	164.11	118.65	10 39 38	958.6	-5.03	351.77							
		100.00	19 2 36	4991.65	28.26	217.48	170.14	79.84	20 25 47	4391.6	26.57	209.09							
		110.00	11 6 42	1392.51	-11.81	344.07	162.39	122.31	11 29 54	792.5	-7.46	337.67							
		110.00	20 26 2	4730.54	31.54	196.85	169.33	76.08	21 44 53	4130.5	29.31	188.36							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.0995	TRA	2.7184	TC3	-4.4498	BAU	1.1965	SGT	5532.4	SGR	498.5	SG3	148.3	ST	1770.2	SR	334.3	SS	536.5
RDE	.2487	RRA	-.2627	RC3	.1892	FAU	.01852	RRT	-.5209	RRF	-.5079	RTF	.9303	CRT	.5669	CRS	-.5773	CST	-.9992
FDE	.4562	FRA	1.1031	FC3	-.7978	BSP	17852	SGB	5554.8	RZS	.0153	RIS	-.9304	LSA	1859.6	MSA	273.8	SSA	19.2
BDE	1.1273	BRA	2.7310	BC3	4.4536	FSP	-503	SG1	5538.7	SG2	422.6	THA	177.26	EL1	1780.6	EL2	273.8	ALF	6.26

LAUNCH DATE SEP 27 1970 FLIGHT TIME 188.00 ARRIVAL DATE APR 3 1971

HELIOCENTRIC CONIC DISTANCE 549.906

RL	149.95	LAL	-.00	LOL	3.47	VL	25.886	GAL	4.54	AZL	88.70	HCA	275.30	SMA	120.64	ECC	.25477	INC	1.2983
RP	108.83	LAP	-1.29	LOP	278.78	VP	36.592	GAP	13.67	AZP	89.88	TAL	166.44	TAP	81.74	RCA	89.91	APO	151.38
RC	179.021	GL	7.14	GP	13.30	ZAL	57.29	ZAP	165.96	ETS	67.89	ZAE	127.60	ETE	169.76	ZAC	115.92	ETC	269.70

V1	29.715	V2	34.822	CLP	-175.46														

PLANETOCENTRIC CONIC

C3	22.117	VHL	4.703	DLA	-11.73	RAL	307.05	RAD	6567.9	VEL	11.979	PTH	2.13	VHP	8.783	DPA	-11.02	RAP	283.98

ECC	1.3640	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	8 58 5	1868.66	-9.86	20.48	168.54	116.68	9 29 11	1265.7	-6.20	13.71							
		90.00	17 55 14	5255.45	26.81	237.17	174.04	80.51	19 22 50	4655.5	25.22	228.86							
		100.00	10 13 29	1622.43	-10.98	2.01	167.95	117.98	10 40 31	1022.4	-7.15	355.31							
		100.00	19 22 32	4975.92	28.05	216.21	173.79	79.21	20 45 26	4373.9	26.27	207.86							
		110.00	11 8 16	1450.85	-13.91	347.28	166.24	121.34	11 32 27	850.8	-9.63	340.79							
		110.00	20 44 14	4718.26	31.34	195.95	172.95	75.59	22 2 52	4118.3	29.04	187.50							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.2705	TRA	3.0086	TC3	-4.0463	BAU	1.1974	SGT	5581.8	SGR	490.3	SG3	144.1	ST	1914.1	SR	330.9	SS	556.9
RDE	.2581	RRA	-.2753	RC3	.1692	FAU	.01702	RRT	-.5083	RRF	-.4874	RTF	.9323	CRT	.5860	CRS	-.5903	CST	-.9994
FDE	.4891	FRA	1.1463	FC3	-.6664	BSP	17948	SGB	5573.5	RZS	.0125	RIS	-.9323	LSA	2002.9	MSA	266.8	SSA	18.1
BDE	1.2964	BRA	3.0134	BC3	4.0497	FSP	-490	SG1	5557.5	SG2	421.8	THA	177.42	EL1	1924.1	EL2	266.7	ALF	5.90

LAUNCH DATE SEP 27 1970 FLIGHT TIME 190.00 ARRIVAL DATE APR 5 1971

HELIOCENTRIC CONIC DISTANCE 555.285

RL	149.95	LAL	-.00	LOL	3.47	VL	25.841	GAL	5.25	AZL	88.52	HCA	278.46	SMA	120.39	ECC	.26097	INC	1.4803
RP	108.85	LAP	-1.46	LOP	281.94	VP	36.554	GAP	14.11	AZP	89.78	TAL	164.78	TAP	83.24	RCA	88.97	APO	151.81
RC	180.980	GL	7.73	GP	12.96	ZAL	54.83	ZAP	166.52	ETS	70.68	ZAE	127.62	ETE	170.01	ZAC	115.45	ETC	270.33

V1	29.715	V2	34.815	CLP	-176.25														

PLANETOCENTRIC CONIC

C3	24.448	VHL	4.945	DLA	-10.54	RAL	309.39	RAD	6568.0	VEL	12.076	PTH	2.16	VHP	9.047	DPA	-11.24	RAP	286.36

ECC	1.4024	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	8 57 35	1929.76	-11.80	24.20	172.39	115.93	9 29 44	1329.8	-8.21	17.35							
		90.00	18 14 26	5240.24	26.63	236.09	177.71	80.00	19 41 46	4640.2	24.98	227.81							
		100.00	10 13 40	1684.27	-12.93	5.57	171.81	117.19	10 41 45	1084.3	-9.18	358.78							
		100.00	19 41 1	4980.97	27.88	215.29	177.45	78.75	21 3 42	4361.0	26.04	206.97							
		110.00	11 10 0	1507.86	-15.91	350.48	170.11	120.66	11 35 8	907.9	-11.73	343.87							
		110.00	21 1 10	4710.15	31.20	195.36	176.57	75.26	22 19 41	4110.1	28.86	186.94							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.4463	TRA	3.2975	TC3	-3.6565	BAU	1.1961	SGT	5566.9	SGR	481.1	SG3	140.1	ST	2044.5	SR	327.5	SS	575.0
RDE	.2687	RRA	-.2872	RC3	.1429	FAU	.01557	RRT	-.4871	RRF	-.4667	RTF	.9345	CRT	.6017	CRS	-.6018	CST	-.9995
FDE	.5205	FRA	1.1888	FC3	-.3515	BSP	18041	SGB	5587.6	RZS	.0101	R13	-.9346	LSA	2133.0	NSA	260.4	SSA	17.1
BDE	1.4711	BRA	3.5100	BC3	3.6503	FSP	-477	SG1	5571.8	SG2	419.8	THA	177.58	EL1	2054.2	EL2	260.4	ALF	5.60

LAUNCH DATE SEP 27 1970 FLIGHT TIME 192.00 ARRIVAL DATE APR 7 1971

HELIOCENTRIC CONIC DISTANCE 560.537

RL	149.95	LAL	-.00	LOL	3.47	VL	25.796	GAL	5.96	AZL	88.33	HCA	281.62	SMA	120.14	ECC	.26775	INC	1.6652
RP	108.87	LAP	-1.63	LOP	285.10	VP	36.516	GAP	14.59	AZP	89.66	TAL	163.14	TAP	84.76	RCA	87.97	APO	152.31
RC	182.925	GL	8.23	GP	12.64	ZAL	52.50	ZAP	167.02	ETS	73.74	ZAE	127.63	ETE	170.24	ZAC	114.98	ETC	270.97

V1	29.715	V2	34.809	CLP	-177.03														

PLANETOCENTRIC CONIC

C3	27.135	VHL	5.209	DLA	-9.43	RAL	311.60	RAD	6568.1	VEL	12.186	PTH	2.19	VHP	9.332	DPA	-11.39	RAP	288.75

ECC	1.4466	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	8 57 26	1991.84	-13.62	27.85	176.27	115.07	9 30 38	1391.8	-10.13	20.91							
		90.00	18 32 11	5229.71	26.50	235.34	181.37	79.65	19 59 21	4629.7	24.80	227.09							
		100.00	10 14 9	1744.35	-14.77	9.08	175.70	116.29	10 43 14	1144.3	-11.12	2.19							
		100.00	19 58 9	4952.43	27.76	214.08	181.10	78.45	21 20 42	4352.4	25.89	206.38							
		110.00	11 11 52	1563.62	-17.82	353.66	174.01	119.66	11 37 56	963.6	-13.74	346.94							
		110.00	21 18 56	4705.92	31.12	195.05	180.19	75.10	22 35 22	4105.9	28.77	186.65							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.6875	TRA	3.6080	TC3	-3.2847	BAU	1.1924	SGT	5577.3	SGR	471.1	SG3	136.1	ST	2161.3	SR	324.2	SS	591.2
RDE	.2804	RRA	-.2982	RC3	.1224	FAU	.01418	RRT	-.4652	RRF	-.4456	RTF	.9370	CRT	.6154	CRS	-.6127	CST	-.9996
FDE	.5500	FRA	1.2339	FC3	-.4525	BSP	18143	SGB	5597.2	RZS	.0081	R13	-.9371	LSA	2249.7	NSA	254.5	SSA	16.2
BDE	1.6512	BRA	3.6213	BC3	3.2870	FSP	-465	SG1	5581.6	SG2	416.7	THA	177.74	EL1	2170.6	EL2	254.4	ALF	5.35

LAUNCH DATE SEP 27 1970 FLIGHT TIME 194.00 ARRIVAL DATE APR 9 1971

HELIOCENTRIC CONIC DISTANCE 565.711

RL	149.95	LAL	-.00	LOL	3.47	VL	25.753	GAL	6.73	AZL	88.15	HCA	284.78	SMA	119.89	ECC	.27517	INC	1.8542
RP	108.88	LAP	-1.79	LOP	288.27	VP	36.480	GAP	15.10	AZP	89.53	TAL	161.52	TAP	86.30	RCA	86.90	APO	152.89
RC	184.854	GL	8.66	GP	12.35	ZAL	50.31	ZAP	167.46	ETS	77.08	ZAE	127.63	ETE	170.47	ZAC	114.53	ETC	271.59

V1	29.715	V2	34.804	CLP	-177.83														

PLANETOCENTRIC CONIC

C3	30.230	VHL	5.490	DLA	-8.41	RAL	313.68	RAD	6568.2	VEL	12.313	PTH	2.22	VHP	9.640	DPA	-11.48	RAP	291.13

ECC	1.4975	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	8 57 36	2052.05	-15.32	31.45	180.16	114.11	9 31 48	1452.0	-11.94	24.40							
		90.00	18 48 38	5223.45	26.43	234.90	185.03	79.44	20 15 41	4623.4	24.70	226.66							
		100.00	10 14 52	1802.78	-16.50	12.55	179.59	115.28	10 44 55	1202.8	-12.96	5.55							
		100.00	20 14 3	4947.95	27.70	214.36	184.74	78.29	21 36 31	4348.0	25.80	206.07							
		110.00	11 13 49	1618.19	-19.63	356.88	177.92	118.56	11 40 47	1018.2	-15.66	350.00							
		110.00	21 31 35	4705.31	31.11	195.01	183.82	75.07	22 50 0	4105.3	28.75	186.60							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.8136	TRA	3.9362	TC3	-2.9340	BAU	1.1865	SGT	5583.3	SGR	480.2	SG3	132.3	ST	2264.6	SR	320.8	SS	605.9
RDE	.2933	RRA	-.3081	RC3	.1037	FAU	.01285	RRT	-.4423	RRF	-.4238	RTF	.9398	CRT	.6279	CRS	-.6232	CST	-.9996
FDE	.5803	FRA	1.2787	FC3	-.3680	BSP	18254	SGB	5602.3	RZS	.0065	R13	-.9399	LSA	2352.9	NSA	248.8	SSA	15.4
BDE	1.8371	BRA	3.9482	BC3	2.9358	FSP	-454	SG1	5587.1	SG2	412.5	THA	177.90	EL1	2273.6	EL2	248.7	ALF	5.14

LAUNCH DATE SEP 27 1970 FLIGHT TIME 196.00 ARRIVAL DATE APR 11 1971

HELIOCENTRIC CONIC DISTANCE 570.795

RL	149.95	LAL	-.00	LOL	3.47	VL	25.710	GAL	7.55	AZL	87.95	HCA	287.94	SMA	119.66	ECC	.28330	INC	2.0488
RP	108.90	LAP	-1.95	LOP	291.43	VP	36.446	GAP	15.65	AZP	89.37	TAL	159.91	TAP	87.86	RCA	85.76	APO	153.55
RC	186.768	GL	9.02	GP	12.08	ZAL	48.25	ZAP	167.84	ETS	80.70	ZAE	127.61	ETE	170.67	ZAC	114.07	ETC	272.20

V1	29.715	V2	34.799	CLP	-178.63														

PLANETOCENTRIC CONIC

C3	35.797	VHL	5.814	DLA	-7.46	RAL	315.63	RAD	6568.3	VEL	12.457	PTH	2.25	VHP	9.975	DPA	-11.50	RAP	293.50

ECC	1.5562	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	8 58 0	2110.52	-16.91	35.00	184.05	113.05	9 33 10	1510.5	-13.65	27.84							
		90.00	19 3 51	5221.12	26.40	234.74	188.67	79.36	20 30 52	4621.1	24.66	226.50							
		100.00	10 15 45	1859.65	-18.12	16.00	183.50	114.19	10 46 45	1259.7	-14.70	8.88							
		100.00	20 28 46	4947.21	27.69	214.31	188.38	78.26	21 51 13	4347.2	25.79	206.02							
		110.00	11 15 49	1671.58	-21.33	.08	181.85	117.36	11 43 41	1071.6	-17.50	353.05							
		110.00	21 48 11	4708.05	31.16	195.21	187.44	75.18	23 3 39	4108.0	28.81	186.79							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.0053	TRA	4.2884	TC3	-2.6053	BAU	1.1778	SGT	5584.2	SGR	448.4	SG3	128.5	ST	2354.4	SR	317.3	SS	619.3
RDE	.3074	RRA	-.3187	RC3	.0888	FAU	.01157	RRT	-.4180	RRF	-.4010	RTF	.9429	CRT	.6396	CRS	-.6336	CST	-.9997
FDE	.6090	FRA	1.3246	FC3	-.2963	BSP	18380	SGB	5602.2	RZS	.0052	R13	-.9429	LSA	2443.0	NSA	243.2	SSA	14.7
BDE	2.0287	BRA	4.2921	BC3	2.6067	FSP	-444	SG1	5587.3	SG2	407.1	THA	178.07	EL1	2363.2	EL2	243.0	ALF	4.98

LAUNCH DATE SEP 27 1970 FLIGHT TIME 198.00 ARRIVAL DATE APR 13 1971

HELIOCENTRIC CONIC DISTANCE 575.773

RL	149.95	LAL	-.00	LOL	3.47	VL	25.668	GAL	8.42	AZL	87.75	HCA	291.10	SMA	119.42	ECC	.29224	INC	2.2505
RP	108.91	LAP	-2.10	LOP	294.59	VP	36.412	GAP	16.25	AZP	89.19	TAL	158.34	TAP	89.44	RCA	84.52	APO	154.32
RC	188.667	GL	9.32	GP	11.84	ZAL	46.32	ZAP	168.15	ETS	84.59	ZAE	127.58	ETE	170.87	ZAC	113.62	ETC	272.81

V1	29.715	V2	34.795	CLP	-179.44														

PLANETOCENTRIC CONIC

C3	37.915	VHL	6.157	DLA	-6.59	RAL	317.47	RAD	6560.5	VEL	12.621	PTH	2.29	VHP	10.339	DPA	-11.46	RAP	295.86

ECC	1.6240	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	8 58 35	2167.33	-18.39	38.51	187.85	111.92	9 34 43	1567.3	-15.26	31.24							
		90.00	19 17 55	5222.38	26.41	234.83	192.29	79.40	20 44 57	4622.4	24.68	226.59							
		100.00	10 16 48	1915.04	-19.63	19.42	187.41	113.01	10 48 43	1315.0	-16.35	12.17							
		100.00	20 42 24	4949.91	27.73	214.50	192.00	78.36	22 4 54	4349.9	25.84	206.20							
		110.00	11 17 52	1723.83	-22.93	3.29	185.79	116.07	11 46 36	1123.8	-19.24	356.10							
		110.00	21 57 49	4713.87	31.26	195.63	191.05	75.41	23 16 23	4113.9	28.94	187.20							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.2039	TRA	4.6430	TC3	-2.2991	BAU	1.1660	SGT	5580.0	SGR	435.7	SG3	124.8	ST	2432.1	SR	313.7	SS	632.0
RDE	.3227	RRA	-.3236	RC3	.0718	FAU	.01033	RRT	-.3919	RRF	-.3766	RTF	.9461	CRT	.6512	CRS	-.6443	CST	-.9997
FDE	.6375	FRA	1.3720	FC3	-.2358	BSP	18534	SGB	5597.0	RZ3	.0042	R13	-.9461	LSA	2521.2	MSA	237.5	SSA	14.1
BDE	2.2274	BRA	4.6542	BC3	2.3003	FSP	-435	SG1	5582.6	SG2	400.7	THA	178.24	EL1	2440.7	EL2	237.2	ALF	4.85

LAUNCH DATE SEP 27 1970 FLIGHT TIME 200.00 ARRIVAL DATE APR 15 1971

HELIOCENTRIC CONIC DISTANCE 580.629

RL	149.95	LAL	-.00	LOL	3.47	VL	25.626	GAL	9.36	AZL	87.54	HCA	294.26	SMA	119.19	ECC	.30208	INC	2.4608
RP	109.92	LAP	-2.24	LOP	297.75	VP	36.380	GAP	16.89	AZP	88.99	TAL	156.79	TAP	91.05	RCA	83.19	APO	155.20
RC	190.549	GL	9.57	GP	11.61	ZAL	44.51	ZAP	168.38	ETS	88.73	ZAE	127.52	ETE	171.06	ZAC	113.16	ETC	273.40

V1	29.715	V2	34.791	CLP	179.73														

PLANETOCENTRIC CONIC

C3	42.677	VHL	6.533	DLA	-5.78	RAL	319.19	RAD	6560.6	VEL	12.808	PTH	2.33	VHP	10.737	DPA	-11.37	RAP	298.20

ECC	1.7024	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	8 59 20	2222.52	-19.76	41.98	191.84	110.78	9 36 23	1622.5	-16.77	34.59							
		90.00	19 30 55	5220.94	26.47	235.15	195.89	79.56	20 58 2	4626.9	24.76	226.90							
		100.00	10 17 56	1968.95	-21.03	22.81	191.32	111.75	10 50 45	1368.9	-17.89	15.42							
		100.00	20 55 0	4955.75	27.81	214.91	195.60	78.56	22 17 35	4355.7	25.95	206.61							
		110.00	11 19 55	1774.92	-24.43	6.51	189.74	114.69	11 49 30	1174.9	-20.89	359.15							
		110.00	22 9 34	4722.54	31.41	196.26	194.65	75.76	23 28 13	4122.5	29.13	187.80							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.4108	TRA	5.0278	TC3	-2.0136	BAU	1.1494	SGT	5571.1	SGR	422.2	SG3	121.3	ST	2499.0	SR	309.9	SS	644.7
RDE	.3392	RRA	-.3296	RC3	.0584	FAU	.00911	RRT	-.3638	RRF	-.3503	RTF	.9495	CRT	.6627	CRS	-.6554	CST	-.9997
FDE	.6664	FRA	1.4219	FC3	-.1849	BSP	18669	SGB	5587.1	RZ3	.0034	R13	-.9496	LSA	2589.0	MSA	231.6	SSA	13.4
BDE	2.4346	BRA	5.0385	BC3	2.0145	FSP	-426	SG1	5573.2	SG2	393.1	THA	178.41	EL1	2507.5	EL2	231.3	ALF	4.74

LAUNCH DATE SEP 27 1970 FLIGHT TIME 202.00 ARRIVAL DATE APR 17 1971

HELIOCENTRIC CONIC DISTANCE 585.339

RL	149.95	LAL	-.00	LOL	3.47	VL	25.586	GAL	10.36	AZL	87.32	HCA	297.41	SMA	118.97	ECC	.31293	INC	2.6819
RP	108.93	LAP	-2.38	LOP	300.91	VP	36.348	GAP	17.60	AZP	88.76	TAL	155.29	TAP	92.70	RCA	81.74	APO	156.20
RC	192.414	GL	9.77	GP	11.41	ZAL	42.82	ZAP	168.54	ETS	93.12	ZAE	127.45	ETE	171.25	ZAC	112.71	ETC	273.98

V1	29.715	V2	34.789	CLP	178.89														

PLANETOCENTRIC CONIC

C3	48.202	VHL	6.943	DLA	-5.05	RAL	320.80	RAD	6568.8	VEL	13.022	PTH	2.38	VHP	11.173	DPA	-11.23	RAP	300.52

ECC	1.7933	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	9 0 13	2276.10	-21.01	45.42	195.72	109.43	9 38 9	1676.1	-18.17	37.89							
		90.00	19 42 53	5254.52	26.56	235.68	199.46	79.81	21 10 8	4634.5	24.88	227.42							
		100.00	10 19 10	2021.37	-22.31	26.18	195.21	110.42	10 52 52	1421.4	-19.33	18.65							
		100.00	21 6 37	4964.47	27.92	215.54	199.17	78.87	22 29 21	4364.5	26.10	207.21							
		110.00	11 21 58	1824.80	-25.81	9.73	193.68	113.24	11 52 23	1224.8	-22.44	2.19							
		110.00	22 20 19	4753.81	31.60	197.09	198.23	76.22	23 39 12	4133.8	29.38	188.58							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.6294	TRA	5.4372	TC3	-1.7489	BAU	1.1274	SGT	5558.6	SGR	407.9	SG3	117.9	ST	2557.4	SR	306.0	SS	658.0
RDE	.3571	RRA	-.3314	RC3	.0465	FAU	.00790	RRT	-.3327	RRF	-.3215	RTF	.9532	CRT	.6747	CRS	-.6670	CST	-.9997
FDE	.6962	FRA	1.4749	FC3	-.1420	BSP	18790	SGB	5573.5	RZ3	.0030	R13	-.9532	LSA	2648.7	MSA	225.4	SSA	12.8
BDE	2.6535	BRA	5.4473	BC3	1.7495	FSP	-417	SG1	5560.2	SG2	384.6	THA	178.59	EL1	2565.7	EL2	225.1	ALF	4.65

LAUNCH DATE SEP 27 1970 FLIGHT TIME 204.00 ARRIVAL DATE APR 19 1971

HELIOCENTRIC CONIC DISTANCE 589.875

RL	149.95	LAL	-.00	LOL	3.47	VL	25.546	GAL	11.43	AZL	87.08	HCA	300.57	SMA	118.76	ECC	.32494	INC	2.9159
RP	108.94	LAP	-2.51	LOP	304.08	VP	36.319	GAP	18.38	AZP	88.52	TAL	153.84	TAP	94.40	RCA	80.17	APO	157.34
RC	194.261	GL	9.92	GP	11.21	ZAL	41.26	ZAP	168.81	ETS	97.70	ZAE	127.35	ETE	171.43	ZAC	112.26	ETC	274.54

V1	29.715	V2	34.787	CLP	178.02														

PLANETOCENTRIC CONIC

C3	54.633	VHL	7.391	DLA	-4.39	RAL	322.30	RAD	6569.0	VEL	13.266	PTH	2.42	VHP	11.652	DPA	-11.04	RAP	302.81

ECC	1.8991	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	9 1 11	2328.04	-22.15	48.80	199.56	108.11	9 39 59	1728.0	-19.47	41.15							
		90.00	19 53 53	5244.84	26.68	236.42	202.99	80.16	21 21 18	4644.8	25.05	228.13							
		100.00	10 20 28	2072.28	-23.48	29.51	199.08	109.05	10 55 1	1472.3	-20.67	21.84							
		100.00	21 17 17	4975.83	28.07	216.35	202.70	79.27	22 40 13	4375.8	26.30	207.99							
		110.00	11 23 59	1873.42	-27.07	12.94	197.60	111.72	11 55 13	1273.4	-23.88	5.23							
		110.00	22 30 15	4747.45	31.81	198.09	201.79	76.78	23 49 22	4147.5	29.67	189.54							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.8595	TRA	5.8748	TC3	-1.5037	BAU	1.0986	SGT	5542.2	SGR	392.9	SG3	114.6	ST	2606.8	SR	301.8	SS	672.1
RDE	.3763	RRA	-.3316	RC3	.0361	FAU	.00668	RRT	-.2983	RRF	-.2894	RTF	.9569	CRT	.6871	CRS	-.6793	CST	-.9998
FDE	.7275	FRA	1.5318	FC3	-.1058	BSP	18883	SGB	5556.1	RZ3	.0027	R13	-.9569	LSA	2700.0	MSA	218.9	SSA	12.3
BDE	2.8842	BRA	5.8842	BC3	1.5042	FSP	-407	SG1	5543.4	SG2	375.0	THA	178.78	EL1	2615.1	EL2	218.6	ALF	4.58

LAUNCH DATE SEP 27 1970 FLIGHT TIME 206.00 ARRIVAL DATE APR 21 1971

HELIOCENTRIC CONIC DISTANCE 594.201

RL	149.95	LAL	-.00	LOL	3.47	VL	25.507	GAL	12.60	AZL	86.83	HCA	303.72	SMA	118.55	ECC	.33826	INC	3.1657
RP	108.94	LAP	-2.63	LOP	307.24	VP	36.290	GAP	19.24	AZP	88.24	TAL	152.44	TAP	96.16	RCA	78.45	APO	158.65
RC	196.090	GL	10.04	GP	11.04	ZAL	39.81	ZAP	168.60	ETS	102.44	ZAE	127.21	ETE	171.61	ZAC	111.80	ETC	275.09

V1	29.715	V2	34.786	CLP	177.12														

PLANETOCENTRIC CONIC

C3	62.151	VHL	7.884	DLA	-3.79	RAL	323.70	RAD	6569.2	VEL	13.546	PTH	2.48	VHP	12.182	DPA	-10.80	RAP	305.07
ECC	2.0229																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 2 15	2378.26	-23.17	52.12	203.36	106.74	9 41 53	1778.3	-20.66	44.35
90.00	20 3 55	5257.67	26.83	237.33	206.47	80.59	21 31 33	4657.7	25.26	229.01
100.00	10 21 49	2121.59	-24.54	32.79	202.90	107.63	10 57 10	1521.6	-21.90	24.99
100.00	21 27 2	4909.57	28.24	217.33	206.19	79.77	22 50 12	4309.6	26.54	208.95
110.00	11 25 50	1920.68	-28.22	16.14	201.50	110.14	11 58 0	1320.7	-25.22	8.25
110.00	22 39 21	4763.24	32.05	199.26	205.30	77.43	23 58 44	4163.2	29.99	190.66

DIFFERENTIAL CORRECTIONS

TDE	3.1054	TRA	6.3450	TC3	-1.2768	BAU	1.0611
RDE	.3970	RRA	-.3287	RC3	.0272	FAU	.00540
FDE	.7612	FRA	1.5036	FC3	-.0753	BSP	18099
BDE	3.1307	BRA	6.3535	BC3	1.2770	FSP	-396

MID-COURSE EXECUTION ACCURACY

SGT	5523.1	SGR	377.4	SG3	111.6		
RRT	-.2599	RRF	-.2532	RTF	.9607		
SGB	5535.9	RZS	.0025	R13	-.9607		
SG1	5523.9	SG2	364.4	THA	178.98		

ORBIT DETERMINATION ACCURACY

ST	2649.4	SR	297.3	SS	688.0
CRT	.7001	CRS	-.6925	CST	-.9998
LSA	2745.2	NSA	212.0	SSA	11.7
EL1	2657.7	EL2	211.7	ALF	4.52

LAUNCH DATE SEP 27 1970 FLIGHT TIME 208.00 ARRIVAL DATE APR 23 1971

HELIOCENTRIC CONIC DISTANCE 598.275

RL	149.95	LAL	-.00	LOL	3.47	VL	25.470	GAL	13.87	AZL	86.57	HCA	306.88	SMA	118.34	ECC	.35307	INC	3.4345
RP	108.94	LAP	-2.75	LOP	310.40	VP	36.263	GAP	20.19	AZP	87.94	TAL	151.12	TAP	98.00	RCA	76.56	APO	160.13
RC	197.900	GL	10.13	GP	10.87	ZAL	38.48	ZAP	168.48	ETS	107.29	ZAE	127.04	ETE	171.78	ZAC	111.35	ETC	275.62

V1	29.715	V2	34.785	CLP	176.18														

PLANETOCENTRIC CONIC

C3	70.983	VHL	8.425	DLA	-3.26	RAL	324.90	RAD	6569.4	VEL	13.868	PTH	2.53	VHP	12.769	DPA	-10.53	RAP	307.28
ECC	2.1682																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 3 22	2426.66	-24.09	55.38	207.10	105.36	9 43 48	1826.7	-21.75	47.49
90.00	20 13 2	5272.77	26.99	238.40	209.89	81.10	21 40 55	4672.8	25.49	230.06
100.00	10 23 11	2169.17	-25.48	36.01	206.67	106.18	10 59 20	1569.2	-23.02	28.08
100.00	21 35 54	5005.49	28.43	218.48	209.63	80.34	22 59 19	4405.5	26.80	210.06
110.00	11 27 56	1966.46	-29.25	19.30	205.34	108.53	12 0 43	1366.5	-26.44	11.24
110.00	22 47 38	4780.97	32.31	200.58	208.77	78.17	24 7 19	4181.0	30.34	191.92

DIFFERENTIAL CORRECTIONS

TDE	3.3083	TRA	6.8824	TC3	-1.0671	BAU	1.0129
RDE	.4195	RRA	-.3222	RC3	.0197	FAU	.00406
FDE	.7976	FRA	1.6619	FC3	-.0495	BSP	18839
BDE	3.3953	BRA	6.8800	BC3	1.0673	FSP	-384

MID-COURSE EXECUTION ACCURACY

SGT	5501.8	SGR	361.4	SG3	108.7		
RRT	-.2164	RRF	-.2121	RTF	.9646		
SGB	5513.6	RZS	.0025	R13	-.9646		
SG1	5502.3	SG2	352.8	THA	179.18		

ORBIT DETERMINATION ACCURACY

ST	2685.8	SR	292.8	SS	706.0
CRT	.7139	CRS	-.7066	CST	-.9998
LSA	2784.9	NSA	204.7	SSA	11.2
EL1	2694.0	EL2	204.4	ALF	4.48

LAUNCH DATE SEP 27 1970 FLIGHT TIME 210.00 ARRIVAL DATE APR 25 1971

HELIOCENTRIC CONIC DISTANCE 602.039

RL	149.95	LAL	-.00	LOL	3.47	VL	25.433	GAL	15.25	AZL	86.27	HCA	310.03	SMA	118.15	ECC	.36961	INC	3.7265
RP	108.94	LAP	-2.85	LOP	313.56	VP	36.238	GAP	21.25	AZP	87.60	TAL	149.88	TAP	99.91	RCA	74.48	APO	161.82
RC	199.690	GL	10.18	GP	10.72	ZAL	37.26	ZAP	168.27	ETS	112.19	ZAE	126.82	ETE	171.96	ZAC	110.90	ETC	276.12

V1	29.715	V2	34.785	CLP	175.20														

PLANETOCENTRIC CONIC

C3	81.417	VHL	9.025	DLA	-2.79	RAL	326.15	RAD	6569.6	VEL	14.240	PTH	2.59	VHP	13.423	DPA	-10.22	RAP	309.44
ECC	2.3399																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 4 31	2473.08	-24.89	58.54	210.75	103.96	9 45 44	1873.1	-22.72	50.54
90.00	20 21 12	5289.94	27.17	239.63	213.24	81.70	21 49 22	4689.9	25.74	231.25
100.00	10 24 34	2214.88	-26.31	39.15	210.35	104.72	11 1 29	1614.9	-24.03	31.10
100.00	21 43 51	5023.38	28.62	219.77	212.99	81.00	23 7 34	4423.4	27.08	211.31
110.00	11 29 50	2010.58	-30.17	22.41	209.11	106.90	12 3 20	1410.6	-27.56	14.19
110.00	22 55 4	4800.45	32.57	202.04	212.18	79.00	24 15 5	4200.4	30.71	193.32

DIFFERENTIAL CORRECTIONS

TDE	3.6547	TRA	7.4025	TC3	-.8740	BAU	.9514
RDE	.4440	RRA	-.3113	RC3	.0135	FAU	.00260
FDE	.8375	FRA	1.7363	FC3	-.0277	BSP	18656
BDE	3.6815	BRA	7.4080	BC3	.8741	FSP	-370

MID-COURSE EXECUTION ACCURACY

SGT	5479.1	SGR	345.3	SG3	106.0		
RRT	-.1668	RRF	-.1647	RTF	.9686		
SGB	5489.9	RZS	.0026	R13	-.9686		
SG1	5479.4	SG2	340.4	THA	179.40		

ORBIT DETERMINATION ACCURACY

ST	2716.8	SR	288.1	SS	726.6
CRT	.7287	CRS	-.7217	CST	-.9998
LSA	2820.1	NSA	197.0	SSA	10.7
EL1	2724.9	EL2	196.7	ALF	4.44

LAUNCH DATE SEP 27 1970 FLIGHT TIME 212.00 ARRIVAL DATE APR 27 1971

HELIOCENTRIC CONIC DISTANCE 605.422

RL	149.95	LAL	-.00	LOL	3.47	VL	25.398	GAL	16.77	AZL	85.95	HCA	313.18	SMA	117.96	ECC	.38812	INC	4.0468
RP	108.94	LAP	-2.95	LOP	316.73	VP	36.214	GAP	22.43	AZP	87.23	TAL	148.76	TAP	101.94	RCA	72.18	APO	163.74
RC	201.461	GL	10.21	GP	10.58	ZAL	36.18	ZAP	167.94	ETS	117.10	ZAE	126.55	ETE	172.15	ZAC	110.46	ETC	276.61

V1	29.715	V2	34.786	CLP	174.17														

PLANETOCENTRIC CONIC

C3	93.821	VHL	9.686	DLA	-2.38	RAL	327.20	RAD	6569.8	VEL	14.668	PTH	2.66	VHP	14.156	DPA	-9.88	RAP	311.54
ECC	2.5441																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 5 43	2517.32	-25.58	61.60	214.29	102.58	9 47 40	1917.3	-23.59	53.49
90.00	20 28 25	5309.01	27.35	240.99	216.49	82.36	21 56 54	4709.0	26.01	232.58
100.00	10 25 57	2258.50	-27.03	42.20	213.82	103.27	11 3 35	1658.5	-24.93	34.02
100.00	21 50 52	5043.06	28.83	221.20	216.26	81.72	23 14 56	4443.1	27.38	212.70
110.00	11 31 30	2052.84	-30.96	25.44	212.77	105.26	12 5 52	1452.8	-28.56	17.07
110.00	23 1 40	4821.49	32.83	203.63	215.50	79.90	24 22 1	4221.5	31.09	194.84

DIFFERENTIAL CORRECTIONS

TDE	3.9645	TRA	8.0811	TC3	-.8967	BAU	.8740
RDE	.4700	RRA	-.2982	RC3	.0086	FAU	.00101
FDE	.8816	FRA	1.8195	FC3	-.0093	BSP	18353
BDE	3.9923	BRA	8.0065	BC3	.8860	FSP	-354

MID-COURSE EXECUTION ACCURACY

SGT	5455.2	SGR	329.2	SG3	103.4		
RRT	-.1000	RRF	-.1000	RTF	.9725		
SGB	5465.2	RZS	.0027	R13	-.9725		
SG1	5455.4	SG2	327.2	THA	179.62		

ORBIT DETERMINATION ACCURACY

ST	2742.3	SR	283.4	SS	750.4
CRT	.7445	CRS	-.7379	CST	-.9999
LSA	2851.0	NSA	189.0	SSA	10.2
EL1	2750.5	EL2	188.7	ALF	4.42

LAUNCH DATE SEP 27 1970 FLIGHT TIME 214.00 ARRIVAL DATE APR 29 1971

HELIOCENTRIC CONIC DISTANCE 608.331

```
RL  149.95 LAL   -.00 LOL   3.47 VL  25.365 GAL  18.44 AZL  85.60 HCA 316.33 SMA 117.78 ECC .40892 INC 4.4021 V1  29.715
RP  108.93 LAP  -3.04 LOP 319.89 VP  36.192 GAP  23.77 AZP  86.81 TAL 147.76 TAP 104.09 RCA  69.62 APO 165.95 V2  34.788
RC 203.212 GL   10.20 GP   10.44 ZAL  35.21 ZAP 167.49 ETS 121.96 ZAE 126.21 ETE 172.34 ZAC 110.01 ETC 277.06 CLP 173.07
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PLANETOCENTRIC CONIC

```
C3 108.673 VHL 10.425 DLA  -2.04 RAL 328.14 RAD 6570.1 VEL 15.166 PTH   2.72 VHP 14.981 DPA  -9.53 RAP 313.57 ECC 2.7885
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 6 56	2559.10	-26.16	64.52	217.69	101.23	9 49 35	1959.1	-24.35	56.32
90.00	20 34 39	5329.82	27.53	242.49	219.64	83.09	22 3 29	4729.8	26.28	234.04
100.00	10 27 19	2299.78	-27.64	45.11	217.35	101.86	11 5 39	1699.8	-25.73	36.83
100.00	21 56 57	5064.38	29.02	222.76	219.42	82.52	23 21 21	4464.4	27.69	214.21
110.00	11 33 23	2092.98	-31.65	28.37	216.31	103.65	12 8 16	1493.0	-29.45	19.85
110.00	23 7 23	4843.94	33.09	205.33	218.73	80.88	24 28 7	4243.9	31.47	196.48

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 4.3016 TRA 8.6539 TC3 -.5353 BAU  .7778   SGT 5430.2 SGR  313.6 SG3  101.0     ST  2762.1 SR   278.9 SS   777.7
 RDE  .5007 RRA -.2728 RC3  .0050 FAU-.00077   RRT -.0440 RRF -.0460 RTF  .9763     CRT  .7613 CRS -.7552 CST -.9999
 FDE  .9304 FRA 1.9121 FC3  .0062 BSP  17929   SGB 5439.2 RZS  .0029 R13 -.9763     LSA 2877.4 MSA  180.6 SSA    9.7
 BDE 4.3306 BRA 8.6582 BC3  .5353 FSP   -337   SG1 5430.2 SG2  313.3 THA 179.85     EL1 2770.3 EL2  180.3 ALF   4.41
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LAUNCH DATE SEP 27 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAY 1 1971

HELIOCENTRIC CONIC DISTANCE 610.643

```
RL  149.95 LAL   -.00 LOL   3.47 VL  25.333 GAL  20.31 AZL  85.20 HCA 319.48 SMA 117.62 ECC .43236 INC 4.8009 V1  29.715
RP  108.92 LAP  -3.12 LOP 323.06 VP  36.173 GAP  25.29 AZP  86.35 TAL 146.91 TAP 106.40 RCA  66.76 APO 168.47 V2  34.790
RC 204.943 GL   10.18 GP   10.32 ZAL  34.39 ZAP 166.91 ETS 126.72 ZAE 125.79 ETE 172.54 ZAC 109.58 ETC 277.49 CLP 171.89
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PLANETOCENTRIC CONIC

```
C3 126.598 VHL 11.252 DLA  -1.78 RAL 328.94 RAD 6570.3 VEL 15.746 PTH   2.79 VHP 15.915 DPA  -9.16 RAP 315.52 ECC 3.0835
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 8 9	2598.11	-26.65	67.27	220.91	99.94	9 51 27	1998.1	-25.01	58.99
90.00	20 39 50	5352.26	27.70	244.11	222.65	83.88	22 9 3	4752.3	26.56	235.63
100.00	10 28 39	2338.39	-28.15	47.87	220.60	100.49	11 7 38	1738.4	-26.42	39.50
100.00	22 2 1	5087.21	29.22	224.43	222.46	83.38	23 26 48	4487.2	27.99	215.84
110.00	11 35 0	2130.70	-32.22	31.16	219.66	102.09	12 10 31	1530.7	-30.22	22.52
110.00	23 12 9	4867.67	33.33	207.14	221.84	81.92	24 33 17	4267.7	31.85	198.22

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 4.6700 TRA 9.3684 TC3 -.3887 BAU  .6579   SGT 5403.8 SGR  298.9 SG3   98.8     ST  2776.0 SR   274.6 SS   809.4
 RDE  .5343 RRA -.2428 RC3  .0025 FAU-.00281   RRT  .0320 RRF  .0282 RTF  .9800     CRT  .7791 CRS -.7735 CST -.9999
 FDE  .9649 FRA 2.0161 FC3  .0192 BSP  17349   SGB 5412.1 RZS -.0032 R13  .9800     LSA 2899.5 MSA  172.0 SSA    9.1
 BDE 4.7005 BRA 9.3716 BC3  .3887 FSP   -318   SG1 5403.8 SG2  298.8 THA   .10     EL1 2784.3 EL2  171.6 ALF   4.42
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LAUNCH DATE SEP 27 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAY 3 1971

HELIOCENTRIC CONIC DISTANCE 612.194

```
RL  149.95 LAL   -.00 LOL   3.47 VL  25.303 GAL  22.40 AZL  84.75 HCA 322.63 SMA 117.46 ECC .45888 INC 5.2547 V1  29.715
RP  108.91 LAP  -3.19 LOP 326.22 VP  36.155 GAP  27.02 AZP  85.82 TAL 146.27 TAP 108.90 RCA  63.56 APO 171.36 V2  34.793
RC 206.655 GL   10.13 GP   10.19 ZAL  33.72 ZAP 166.18 ETS 131.36 ZAE 125.27 ETE 172.76 ZAC 109.15 ETC 277.89 CLP 170.61
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PLANETOCENTRIC CONIC

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C3 148.416 VHL 12.183 DLA  -1.59 RAL 329.59 RAD 6570.6 VEL 16.424 PTH   2.87 VHP 16.978 DPA  -8.80 RAP 317.37 ECC 3.4425
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 9 21	2633.95	-27.05	69.82	223.91	98.72	9 53 15	2033.9	-25.56	61.47
90.00	20 43 53	5376.26	27.86	245.85	225.50	84.74	22 13 29	4776.3	26.84	237.33
100.00	10 29 57	2373.93	-28.57	50.43	223.64	99.20	11 9 31	1773.9	-27.00	41.98
100.00	22 5 57	5111.51	29.39	226.21	225.33	84.30	23 31 9	4511.5	28.29	217.58
110.00	11 36 30	2165.60	-32.69	33.78	222.80	100.61	12 12 36	1565.6	-30.88	25.03
110.00	23 15 54	4892.60	33.55	209.05	224.79	83.03	24 37 26	4292.6	32.22	200.07

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 5.0148 TRA10.0934 TC3 -.2726 BAU  .5408   SGT 5343.7 SGR  285.7 SG3   96.0     ST  2755.5 SR   270.7 SS   836.7
 RDE  .5723 RRA -.2035 RC3  .0012 FAU-.00456   RRT  .1168 RRF  .1115 RTF  .9833     CRT  .7962 CRS -.7909 CST -.9999
 FDE 1.0325 FRA 2.1196 FC3  .0266 BSP  18024   SGB 5351.3 RZS -.0036 R13  .9833     LSA 2887.7 MSA  163.6 SSA    8.6
 BDE 5.0473 BRA10.0955 BC3  .2726 FSP   -325   SG1 5343.8 SG2  283.8 THA   .36     EL1 2763.9 EL2  163.3 ALF   4.49
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LAUNCH DATE SEP 27 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAY 5 1971

HELIOCENTRIC CONIC DISTANCE 612.782

```
RL  149.95 LAL   -.00 LOL   3.47 VL  25.277 GAL  24.75 AZL  84.22 HCA 325.78 SMA 117.32 ECC .48895 INC 5.7791 V1  29.715
RP  108.90 LAP  -3.25 LOP 329.39 VP  36.140 GAP  29.01 AZP  85.22 TAL 145.85 TAP 111.63 RCA  59.96 APO 174.68 V2  34.797
RC 208.346 GL   10.06 GP   10.07 ZAL  33.22 ZAP 165.29 ETS 135.84 ZAE 124.64 ETE 173.00 ZAC 108.74 ETC 278.26 CLP 169.22
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PLANETOCENTRIC CONIC

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C3 175.226 VHL 13.237 DLA  -1.48 RAL 330.09 RAD 6570.9 VEL 17.221 PTH   2.94 VHP 18.196 DPA  -8.44 RAP 319.09 ECC 3.8838
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 10 32	2666.14	-27.36	72.12	226.65	97.60	9 54 59	2066.1	-26.02	63.71
90.00	20 46 39	5401.82	28.01	247.70	228.16	85.66	22 16 41	4801.8	27.11	239.15
100.00	10 31 12	2405.97	-28.89	52.75	226.41	98.02	11 11 18	1806.0	-27.48	44.23
100.00	22 8 41	5137.23	29.55	228.11	228.02	85.28	23 34 18	4537.2	28.58	219.44
110.00	11 37 52	2197.29	-33.06	36.18	225.67	99.24	12 14 29	1597.3	-31.43	27.33
110.00	23 18 31	4918.68	33.75	211.06	227.57	84.21	24 40 29	4318.7	32.58	202.02

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 5.4244 TRA10.9818 TC3 -.1597 BAU  .3742   SGT 5296.5 SGR  274.6 SG3   93.8     ST  2743.2 SR   267.2 SS   874.4
 RDE  .6196 RRA -.1535 RC3  .0007 FAU-.00706   RRT  .2134 RRF  .2072 RTF  .9864     CRT  .8149 CRS -.8100 CST -.9999
 FDE 1.0942 FRA 2.2480 FC3  .0349 BSP  17924   SGB 5303.6 RZS -.0039 R13  .9864     LSA 2887.4 MSA  154.7 SSA    8.0
 BDE 5.4592 BRA10.9226 BC3  .1598 FSP   -317   SG1 5296.8 SG2  268.3 THA   .64     EL1 2751.8 EL2  154.4 ALF   4.55
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LAUNCH DATE SEP 28 1970 FLIGHT TIME 70.00 ARRIVAL DATE DEC 7 1970

HELIOCENTRIC CONIC DISTANCE 191.621

RL	149.91	LAL	-.00	LOL	4.46	VL	27.476	GAL	-10.88	AZL	89.18	HCA	85.96	SHA	130.66	ECC	.23777	INC	.8244	V1	29.724
RP	107.65	LAP	.02	LOP	90.42	VP	38.078	GAP	-9.34	AZP	89.94	TAL	221.65	TAP	307.62	RCA	99.59	APO	161.73	V2	35.202
RC	52.948	GL	4.09	GP	-18.19	ZAL	149.46	ZAP	27.51	ETS	35.60	ZAE	146.36	ETE	327.56	ZAC	83.75	ETC	261.52	CLP	-20.99

PLANETOCENTRIC CONIC

C3	29.672	VHL	5.447	DLA	-9.25	RAL	213.86	RAD	6568.2	VEL	12.290	PTH	2.21	VHP	6.792	DPA	-39.19	RAP	243.05	ECC	1.4883

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 22 10	2020.09	-14.42	29.53	79.96	114.63	2 55 50	1420.1	-10.98	22.54
90.00	11 59 50	5246.08	26.70	236.50	85.23	80.20	13 27 16	4646.1	25.07	228.21
100.00	3 38 50	1772.27	-15.61	10.73	79.39	115.82	4 8 31	1172.3	-12.01	3.79
100.00	13 25 42	4980.12	27.98	215.87	84.96	79.04	14 48 31	4360.1	26.19	207.53
110.00	4 36 55	1500.85	-18.73	355.26	77.69	119.13	5 3 26	990.9	-14.71	348.46
110.00	14 44 15	4723.31	31.42	196.32	84.06	75.79	16 2 58	4123.3	29.15	187.85

DIFFERENTIAL CORRECTIONS

TDE	.0718	TRA	-.3316	TC3	.3913	BAU	.1918
RDE	-.2000	RRA	-.1988	RC3	-.2839	FAU	.04801
FDE	.4606	FRA	-.3482	FC3	-1.4009	BSP	1309
BDE	.2958	BRA	.3841	BC3	.4834	FSP	-350

MID-COURSE EXECUTION ACCURACY

SGT	558.8	SGR	478.9	SG3	142.2		
RRT	-.3050	RRF	.5072	RTF	-.5242		
SGB	736.0	RZ3	-.1270	R13	.6258		
SG1	602.0	SG2	423.4	THA	148.46		

ORBIT DETERMINATION ACCURACY

ST	130.8	SR	308.2	SS	297.7
CRT	-.4054	CRS	.9044	CST	-.7300
LSA	425.4	MSA	137.7	SSA	29.1
EL1	313.5	EL2	117.5	ALF	101.38

LAUNCH DATE SEP 28 1970 FLIGHT TIME 72.00 ARRIVAL DATE DEC 9 1970

HELIOCENTRIC CONIC DISTANCE 198.428

RL	149.91	LAL	-.00	LOL	4.46	VL	27.582	GAL	-10.79	AZL	88.99	HCA	89.20	SHA	131.49	ECC	.23236	INC	1.0071	V1	29.724
RP	107.63	LAP	1.01	LOP	93.65	VP	38.170	GAP	-8.48	AZP	89.99	TAL	222.91	TAP	312.10	RCA	100.94	APO	162.05	V2	35.210
RC	54.707	GL	5.08	GP	-19.44	ZAL	150.33	ZAP	30.78	ETS	32.78	ZAE	146.05	ETE	324.78	ZAC	82.50	ETC	261.46	CLP	-24.34

PLANETOCENTRIC CONIC

C3	28.934	VHL	5.379	DLA	-7.90	RAL	213.22	RAD	6568.2	VEL	12.260	PTH	2.21	VHP	6.386	DPA	-40.37	RAP	242.51	ECC	1.4762

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 9 34	2054.94	-15.40	31.02	79.04	114.06	2 43 49	1454.9	-12.02	24.57
90.00	12 7 22	5100.62	26.10	233.16	83.57	78.62	13 34 1	4598.6	24.27	224.97
100.00	3 27 4	1804.94	-16.56	12.68	78.49	115.24	3 57 9	1204.9	-13.03	5.68
100.00	13 32 33	4923.06	27.36	212.65	83.27	77.45	14 54 37	4323.9	25.35	204.42
110.00	4 26 32	1618.75	-19.65	356.91	76.84	118.55	4 53 30	1018.8	-15.68	350.03
110.00	14 40 36	4682.81	30.71	193.38	82.31	74.19	16 7 38	4082.8	28.23	185.06

DIFFERENTIAL CORRECTIONS

TDE	.0883	TRA	-.3848	TC3	.4001	BAU	.1996
RDE	-.2053	RRA	-.2086	RC3	-.3280	FAU	.05291
FDE	.5606	FRA	-.4092	FC3	-1.5032	BSP	1426
BDE	.2735	BRA	.3844	BC3	.5161	FSP	-408

MID-COURSE EXECUTION ACCURACY

SGT	550.8	SGR	501.8	SG3	160.5		
RRT	-.3340	RRF	.5640	RTF	-.5179		
SGB	751.1	RZ3	-.1365	R13	.6494		
SG1	616.8	SG2	428.5	THA	143.95		

ORBIT DETERMINATION ACCURACY

ST	127.0	SR	290.5	SS	330.5
CRT	-.3561	CRS	.8947	CST	-.7095
LSA	441.0	MSA	140.7	SSA	29.4
EL1	294.7	EL2	117.0	ALF	100.53

LAUNCH DATE SEP 28 1970 FLIGHT TIME 74.00 ARRIVAL DATE DEC 11 1970

HELIOCENTRIC CONIC DISTANCE 205.210

RL	149.91	LAL	-.00	LOL	4.46	VL	27.693	GAL	-10.72	AZL	88.81	HCA	92.43	SHA	132.22	ECC	.22772	INC	1.1896	V1	29.724
RP	107.60	LAP	1.19	LOP	96.89	VP	38.250	GAP	-7.67	AZP	90.05	TAL	224.03	TAP	316.47	RCA	102.11	APO	162.33	V2	35.218
RC	56.533	GL	6.09	GP	-20.80	ZAL	151.03	ZAP	34.29	ETS	30.28	ZAE	145.86	ETE	321.58	ZAC	81.12	ETC	261.35	CLP	-27.89

PLANETOCENTRIC CONIC

C3	28.332	VHL	5.323	DLA	-6.73	RAL	212.72	RAD	6568.1	VEL	12.235	PTH	2.20	VHP	6.015	DPA	-41.61	RAP	241.68	ECC	1.4663

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 57 53	2089.56	-16.35	33.72	78.36	113.44	2 32 42	1489.6	-13.04	26.60
90.00	12 15 4	5153.49	25.46	230.01	82.16	77.17	13 40 57	4553.5	23.44	221.92
100.00	3 16 1	1837.49	-17.50	14.65	77.82	114.63	3 46 38	1237.5	-14.03	7.57
100.00	13 39 37	4880.79	26.68	209.63	81.84	76.00	15 0 57	4280.8	24.49	201.51
110.00	4 16 56	1646.79	-20.55	358.58	76.23	117.94	4 44 22	1046.8	-16.65	351.63
110.00	14 55 11	4644.26	29.96	190.63	80.80	72.72	16 12 36	4044.3	27.30	182.44

DIFFERENTIAL CORRECTIONS

TDE	.0824	TRA	-.3218	TC3	.3999	BAU	.2070
RDE	-.2410	RRA	-.2182	RC3	-.3724	FAU	.05823
FDE	.6653	FRA	-.4719	FC3	-1.7794	BSP	1532
BDE	.2489	BRA	.3888	BC3	.5465	FSP	-472

MID-COURSE EXECUTION ACCURACY

SGT	554.5	SGR	529.5	SG3	180.5		
RRT	-.3532	RRF	.6205	RTF	-.5008		
SGB	766.7	RZ3	-.1463	R13	.6739		
SG1	631.3	SG2	435.1	THA	138.71		

ORBIT DETERMINATION ACCURACY

ST	125.0	SR	269.2	SS	381.7
CRT	-.3016	CRS	.8809	CST	-.6908
LSA	460.7	MSA	143.7	SSA	29.3
EL1	272.4	EL2	117.8	ALF	99.83

LAUNCH DATE SEP 28 1970 FLIGHT TIME 76.00 ARRIVAL DATE DEC 13 1970

HELIOCENTRIC CONIC DISTANCE 211.966

RL	149.91	LAL	-.00	LOL	4.46	VL	27.779	GAL	-10.65	AZL	88.63	HCA	95.67	SHA	132.85	ECC	.22372	INC	1.3730	V1	29.724
RP	107.58	LAP	1.37	LOP	100.13	VP	38.319	GAP	-6.89	AZP	90.14	TAL	225.03	TAP	320.70	RCA	103.13	APO	162.58	V2	35.225
RC	58.419	GL	7.12	GP	-22.28	ZAL	151.55	ZAP	36.02	ETS	27.98	ZAE	145.75	ETE	317.89	ZAC	79.61	ETC	261.19	CLP	-31.64

PLANETOCENTRIC CONIC

C3	27.830	VHL	5.276	DLA	-5.50	RAL	212.35	RAD	6568.1	VEL	12.215	PTH	2.19	VHP	5.678	DPA	-42.91	RAP	240.53	ECC	1.4582

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 47 3	2123.91	-17.27	35.82	77.89	112.79	2 22 27	1523.9	-14.03	28.64
90.00	12 22 57	5110.39	24.77	227.04	80.99	75.83	13 48 8	4510.4	22.58	219.05
100.00	3 5 47	1869.89	-18.41	16.63	77.37	113.98	3 36 57	1269.9	-15.01	9.48
100.00	13 46 54	4839.64	25.97	206.78	80.64	74.66	15 7 33	4239.6	23.61	198.77
110.00	4 8 5	1674.87	-21.44	.28	75.82	117.29	4 36 0	1074.9	-17.61	353.24
110.00	15 1 5	4607.43	29.19	188.04	79.53	71.36	16 17 53	4007.4	26.36	179.99

DIFFERENTIAL CORRECTIONS

TDE	.0809	TRA	-.3231	TC3	.3894	BAU	.2140
RDE	-.2138	RRA	-.2315	RC3	-.4232	FAU	.06391
FDE	.7833	FRA	-.5376	FC3	-1.9874	BSP	1627
BDE	.2218	BRA	.3975	BC3	.5751	FSP	-542

MID-COURSE EXECUTION ACCURACY

SGT	545.4	SGR	562.9	SG3	202.0		
RRT	-.3577	RRF	.6746	RTF	-.4695		
SGB	783.8	RZ3	-.1522	R13	.7011		
SG1	646.0	SG2	443.8	THA	132.48		

ORBIT DETERMINATION ACCURACY

ST	125.4	SR	244.0	SS	427.3
CRT	-.2445	CRS	.8602	CST	-.6789
LSA	485.4	MSA	146.2	SSA	29.0
EL1	246.5	EL2	120.3	ALF	99.42

LAUNCH DATE SEP 28 1970 FLIGHT TIME 78.00 ARRIVAL DATE DEC 15 1970

HELIOCENTRIC CONIC DISTANCE 218.693

RL	149.91	LAL	-.00	LOL	4.46	VL	27.852	GAL	-10.58	AZL	88.44	HCA	98.91	SMA	133.39	ECC	.22029	INC	1.5586	V1	29.724
RP	107.56	LAP	1.54	LOP	103.36	VP	38.377	GAP	-6.14	AZP	90.24	TAL	225.88	TAP	324.79	RCA	104.01	APO	162.78	V2	35.232
RC	60.358	GL	8.17	GP	-23.86	ZAL	151.90	ZAP	41.97	ETS	25.80	ZAE	145.66	ETE	313.69	ZAC	77.97	ETC	260.98	CLP	-35.62

PLANETOCENTRIC CONIC

C3	27.436	VHL	5.238	DLA	-4.30	RAL	212.11	RAD	6568.1	VEL	12.199	PTH	2.19	VHP	5.376	DPA	-44.24	RAP	239.02	ECC	1.4515

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 37 0	2158.03	-18.16	37.93	77.62	112.11	2 12 58	1558.0	-15.00	30.68
90.00	12 31 6	5069.00	24.06	224.22	80.04	74.59	13 55 35	4469.0	21.71	216.33
100.00	2 56 19	1902.14	-19.29	18.62	77.12	113.29	3 28 2	1302.1	-15.97	11.39
100.00	13 54 27	4800.13	25.23	204.07	79.67	73.42	15 14 27	4200.1	22.72	196.18
110.00	3 59 57	1702.95	-22.30	2.00	75.62	116.60	4 28 20	1103.0	-18.55	354.87
110.00	15 7 19	4572.07	28.39	185.59	78.50	70.11	16 23 31	3972.1	25.42	177.68

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0629	TRA	-.3292	TC3	.3675	BAU	.2213	SGT	532.3	SGR	602.6	SG3	224.8	ST	128.9	SR	215.2
RDE	-.1818	RRA	-.2452	RC3	-.4784	FAU	.06985	RRT	-.3412	RRF	.7249	RTF	-.4194	CRT	-.1845	CRS	.8269
FDE	.9140	FRA	-.6037	FC3	-2.2042	BSP	1720	SGB	804.0	RZS	-.1486	RIS	.7327	LSA	515.2	MSA	148.1
BDE	.1924	BRA	.4105	BC3	.6032	FSP	-618	SG1	663.1	SG2	454.7	THA	124.99	EL1	217.2	EL2	125.5

SS 474.6 CST -.6799 SSA 28.6 ALF 99.51

LAUNCH DATE SEP 28 1970 FLIGHT TIME 80.00 ARRIVAL DATE DEC 17 1970

HELIOCENTRIC CONIC DISTANCE 225.390

RL	149.91	LAL	-.00	LOL	4.46	VL	27.912	GAL	-10.51	AZL	88.25	HCA	102.14	SMA	133.84	ECC	.21733	INC	1.7476	V1	29.724
RP	107.54	LAP	1.71	LOP	106.61	VP	38.426	GAP	-5.43	AZP	90.37	TAL	226.59	TAP	328.74	RCA	104.75	APO	162.93	V2	35.238
RC	62.346	GL	9.25	GP	-25.55	ZAL	152.08	ZAP	46.14	ETS	23.65	ZAE	145.54	ETE	308.94	ZAC	76.21	ETC	260.70	CLP	-39.83

PLANETOCENTRIC CONIC

C3	27.105	VHL	5.206	DLA	-3.11	RAL	212.00	RAD	6568.1	VEL	12.185	PTH	2.19	VHP	5.109	DPA	-45.59	RAP	237.14	ECC	1.4461

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 27 40	2192.02	-19.01	40.06	77.55	111.39	2 4 12	1592.0	-15.94	32.73
90.00	12 39 32	5028.98	23.31	221.53	79.30	73.44	14 3 21	4429.0	20.82	213.74
100.00	2 47 34	1934.30	-20.14	20.32	77.07	112.57	3 19 48	1334.3	-16.91	13.32
100.00	14 2 20	4761.93	24.46	201.49	78.90	72.27	15 21 41	4161.9	21.81	193.70
110.00	3 52 29	1731.09	-23.15	3.74	75.81	115.88	4 21 20	1131.1	-19.48	356.53
110.00	15 13 54	4537.91	27.58	183.27	77.69	68.95	16 29 32	3937.9	24.47	175.48

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0094	TRA	-.3405	TC3	.3529	BAU	.2292	SGT	516.6	SGR	648.8	SG3	248.4	ST	136.4	SR	183.1
RDE	-.1483	RRA	-.2591	RC3	-.5378	FAU	.07591	RRT	-.2962	RRF	.7700	RTF	-.3437	CRT	-.1129	CRS	.7691
FDE	1.0566	FRA	-.6672	FC3	-2.4247	BSP	1819	SGB	829.3	RZS	-.1289	RIS	.7687	LSA	550.6	MSA	149.1
BDE	.1619	BRA	.4278	BC3	.6325	FSP	-696	SG1	685.3	SG2	467.2	THA	116.09	EL1	184.5	EL2	134.5

SS 523.5 CST -.6973 SSA 27.9 ALF 100.35

LAUNCH DATE SEP 28 1970 FLIGHT TIME 82.00 ARRIVAL DATE DEC 19 1970

HELIOCENTRIC CONIC DISTANCE 232.055

RL	149.91	LAL	-.00	LOL	4.46	VL	27.960	GAL	-10.45	AZL	88.06	HCA	105.38	SMA	134.21	ECC	.21476	INC	1.9413	V1	29.724
RP	107.53	LAP	1.87	LOP	109.85	VP	38.466	GAP	-4.75	AZP	90.52	TAL	227.17	TAP	332.55	RCA	105.39	APO	163.03	V2	35.243
RC	64.375	GL	10.36	GP	-27.32	ZAL	152.09	ZAP	50.51	ETS	21.47	ZAE	145.33	ETE	303.66	ZAC	74.33	ETC	260.35	CLP	-44.29

PLANETOCENTRIC CONIC

C3	26.835	VHL	5.180	DLA	-1.94	RAL	212.02	RAD	6568.1	VEL	12.174	PTH	2.18	VHP	4.877	DPA	-46.94	RAP	234.84	ECC	1.4416

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 18 59	2226.02	-19.84	42.21	77.66	110.62	1 56 5	1626.0	-16.86	34.80
90.00	12 48 20	4990.00	22.53	218.93	78.75	72.37	14 11 30	4390.0	19.90	211.24
100.00	2 39 26	1966.53	-20.97	22.66	77.20	111.81	3 12 12	1366.5	-17.82	15.28
100.00	14 10 34	4724.72	23.67	199.02	78.34	71.19	15 29 19	4124.7	20.88	191.33
110.00	3 45 36	1759.37	-23.98	5.52	75.78	115.12	4 14 56	1159.4	-20.39	358.21
110.00	15 20 53	4504.65	26.75	181.04	77.07	67.87	16 35 58	3904.6	23.51	173.38

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0816	TRA	-.3573	TC3	.2849	BAU	.2385	SGT	501.6	SGR	701.5	SG3	272.2	ST	149.3	SR	149.6
RDE	-.1064	RRA	-.2725	RC3	-.6007	FAU	.08189	RRT	-.2135	RRF	.8092	RTF	-.2341	CRT	-.0029	CRS	.6583
FDE	1.2084	FRA	-.7252	FC3	-2.6419	BSP	1934	SGB	862.4	RZS	-.0908	RIS	.8066	LSA	591.9	MSA	149.3
BDE	.1341	BRA	.4493	BC3	.6649	FSP	-775	SG1	716.7	SG2	479.6	THA	105.99	EL1	149.7	EL2	149.2

SS 573.3 CST -.7310 SSA 27.1 ALF 118.28

LAUNCH DATE SEP 28 1970 FLIGHT TIME 84.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 238.689

RL	149.91	LAL	-.00	LOL	4.46	VL	27.998	GAL	-10.38	AZL	87.86	HCA	108.62	SMA	134.50	ECC	.21254	INC	2.1412	V1	29.724
RP	107.51	LAP	2.03	LOP	113.09	VP	38.498	GAP	-4.10	AZP	90.68	TAL	227.60	TAP	336.22	RCA	105.91	APO	163.08	V2	35.247
RC	66.441	GL	11.50	GP	-29.17	ZAL	151.93	ZAP	55.05	ETS	19.19	ZAE	144.94	ETE	297.88	ZAC	72.35	ETC	259.95	CLP	-49.00

PLANETOCENTRIC CONIC

C3	26.616	VHL	5.159	DLA	-.77	RAL	212.15	RAD	6568.1	VEL	12.165	PTH	2.18	VHP	4.681	DPA	-48.27	RAP	232.14	ECC	1.4380

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 10 51	2260.26	-20.65	44.40	77.96	109.82	1 48 31	1660.3	-17.76	36.91
90.00	12 57 33	4951.69	21.71	216.42	78.38	71.36	14 20 4	4351.7	18.97	208.82
100.00	2 31 50	1999.02	-21.78	24.74	77.51	111.00	3 5 9	1399.0	-18.73	17.27
100.00	14 19 15	4688.16	22.85	196.61	77.95	70.18	15 37 23	4088.2	19.94	189.02
110.00	3 39 16	1787.95	-24.79	7.34	76.13	114.32	4 9 4	1188.0	-21.30	359.94
110.00	15 28 18	4471.99	25.89	178.89	76.64	66.86	16 42 50	3872.0	22.53	171.34

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1012	TRA	-.3794	TC3	.2227	BAU	.2500	SGT	493.0	SGR	759.9	SG3	295.2	ST	169.3	SR	119.2
RDE	-.0622	RRA	-.2848	RC3	-.6662	FAU	.08753	RRT	-.0865	RRF	.8424	RTF	-.0845	CRT	.2029	CRS	.4273
FDE	1.3658	FRA	-.7742	FC3	-2.8472	BSP	2079	SGB	905.8	RZS	-.0403	RIS	.8415	LSA	639.1	MSA	148.7
BDE	.1188	BRA	.4745	BC3	.7025	FSP	-852	SG1	761.9	SG2	489.8	THA	95.49	EL1	172.5	EL2	114.6

SS 623.2 CST -.7760 SSA 26.3 ALF 14.76

LAUNCH DATE SEP 28 1970 FLIGHT TIME 86.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 245.289

RL	149.91	LAL	-.00	LOL	4.46	VL	28.027	GAL	-10.31	AZL	87.65	HCA	111.86	SMA	134.72	ECC	.21059	INC	2.3488	V1	29.724
RP	107.50	LAP	2.18	LOP	116.34	VP	38.522	GAP	-3.48	AZP	90.88	TAL	227.90	TAP	339.76	RCA	106.35	APO	163.09	V2	35.251
RC	68.539	GL	12.70	GP	-31.08	ZAL	151.60	ZAP	59.72	ETS	16.79	ZAE	144.33	ETE	291.71	ZAC	70.30	ETC	259.47	CLP	-53.94

PLANETOCENTRIC CONIC

C3	26.441	VHL	5.142	DLA	.41	RAL	212.41	RAD	6568.1	VEL	12.158	PTH	2.18	VHP	4.519	DPA	-49.53	RAP	229.03	ECC	1.4352

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 3 10	2295.02	-21.44	46.64	78.42	108.96	1 41 25	1695.0	-18.65	39.07
90.00	13 7 16	4913.67	20.87	213.95	78.19	70.41	14 29 10	4313.7	18.01	206.45
100.00	2 24 42	2032.02	-22.57	26.87	77.99	110.14	2 58 34	1432.0	-19.62	19.31
100.00	14 28 25	4651.90	21.99	194.26	77.75	69.23	15 45 57	4051.9	18.97	186.77
110.00	3 33 23	1817.04	-25.60	9.22	76.66	113.47	4 3 40	1217.0	-22.20	1.71
110.00	15 36 14	4439.64	25.01	176.79	76.39	65.90	16 50 13	3839.6	21.54	169.36

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1292	TRA	-.4070	TC3	.1460	BAU	.2642	SGT	499.0	SGR	822.8	SG3	316.5	ST	190.2	SR	102.5	SS	672.1
RDE	-.0141	RRA	-.2955	RC3	-.7330	FAU	.09259	RRT	.0825	RRF	.0600	RTF	.1019	CRT	.5454	CRS	-.0131	CST	-.8235
FDE	1.5230	FRA	-.8112	FC3	-3.0315	BSP	2269	SGB	962.2	RZS	.0109	RIS	.8702	LSA	692.1	MSA	147.5	SSA	25.4
BDE	.1300	BRA	.5050	BC3	.7474	FSP	-926	SG1	824.4	SG2	496.3	THA	85.50	EL1	207.5	EL2	82.1	ALF	18.81

LAUNCH DATE SEP 28 1970 FLIGHT TIME 88.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 251.056

RL	149.91	LAL	-.00	LOL	4.46	VL	28.046	GAL	-10.24	AZL	87.43	HCA	115.10	SMA	134.87	ECC	.20887	INC	2.5662	V1	29.724
RP	107.49	LAP	2.32	LOP	119.58	VP	38.530	GAP	-2.89	AZP	91.09	TAL	228.07	TAP	343.17	RCA	106.70	APO	163.04	V2	35.254
RC	70.866	GL	13.94	GP	-33.00	ZAL	151.11	ZAP	64.49	ETS	14.21	ZAE	143.42	ETE	285.29	ZAC	68.19	ETC	258.94	CLP	-59.10

PLANETOCENTRIC CONIC

C3	26.309	VHL	5.129	DLA	1.60	RAL	212.78	RAD	6568.1	VEL	12.153	PTH	2.18	VHP	4.394	DPA	-50.71	RAP	225.55	ECC	1.4330

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 55 51	2330.63	-22.21	48.97	79.06	108.04	1 34 41	1730.6	-19.53	41.32
90.00	13 17 34	4875.57	19.98	211.51	78.18	69.50	14 38 50	4275.6	17.01	204.09
100.00	2 17 56	2065.86	-23.34	29.08	78.65	109.22	2 52 22	1465.9	-20.50	21.44
100.00	14 38 10	4615.57	21.10	191.93	77.72	68.32	15 55 6	4015.6	17.97	184.54
110.00	3 27 53	1846.91	-26.39	11.18	77.36	112.56	3 58 40	1246.9	-23.10	3.56
110.00	15 44 48	4407.29	24.09	174.72	76.32	64.98	16 58 10	3807.3	20.52	167.40

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1073	TRA	-.4305	TC3	.0553	BAU	.2817	SGT	528.6	SGR	880.0	SG3	334.9	ST	238.0	SR	112.7	SS	718.8
RDE	.0375	RRA	-.3033	RC3	-.7980	FAU	.09675	RRT	.2723	RRF	.0919	RTF	.3031	CRT	.8489	CRS	-.5112	CST	-.8665
FDE	1.6743	FRA	-.8323	FC3	-3.1836	BSP	2507	SGB	1033.4	RZS	.0535	RIS	.8925	LSA	751.2	MSA	145.8	SSA	24.5
BDE	.1715	BRA	.5340	BC3	.8009	FSP	-992	SG1	904.9	SG2	499.1	THA	76.67	EL1	257.5	EL2	55.1	ALF	23.01

LAUNCH DATE SEP 28 1970 FLIGHT TIME 90.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 258.390

RL	149.91	LAL	-.00	LOL	4.46	VL	28.058	GAL	-10.16	AZL	87.20	HCA	118.34	SMA	134.96	ECC	.20735	INC	2.7955	V1	29.724
RP	107.48	LAP	2.46	LOP	122.83	VP	38.550	GAP	-2.31	AZP	91.53	TAL	228.11	TAP	346.46	RCA	106.97	APO	162.94	V2	35.256
RC	72.818	GL	15.25	GP	-34.93	ZAL	150.47	ZAP	69.28	ETS	11.43	ZAE	142.20	ETE	278.79	ZAC	66.05	ETC	258.36	CLP	-64.44

PLANETOCENTRIC CONIC

C3	26.218	VHL	5.120	DLA	2.81	RAL	213.27	RAD	6568.1	VEL	12.149	PTH	2.18	VHP	4.304	DPA	-51.76	RAP	221.77	ECC	1.4315

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 48 46	2367.92	-22.96	51.41	79.88	107.04	1 28 14	1767.5	-20.41	43.66
90.00	13 28 34	4836.97	19.04	209.07	78.33	68.63	14 49 11	4237.0	15.97	201.74
100.00	2 11 26	2100.91	-24.11	31.41	79.49	108.23	2 46 26	1500.9	-21.39	23.66
100.00	14 48 36	4578.80	20.15	189.61	77.85	67.44	16 4 55	3978.8	16.92	182.31
110.00	3 22 41	1877.88	-27.18	13.24	78.25	111.57	3 53 59	1277.9	-24.01	5.51
110.00	15 53 50	4374.80	23.14	172.86	76.41	64.10	17 6 45	3774.6	19.46	165.45

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2162	TRA	-.4764	TC3	-.0499	BAU	.3025	SGT	588.1	SGR	952.9	SG3	349.5	ST	290.1	SR	148.0	SS	762.8
RDE	.0917	RRA	-.3075	RC3	-.8617	FAU	.09973	RRT	.4513	RRF	.9096	RTF	.4872	CRT	.9643	CRS	-.7900	CST	-.9008
FDE	1.8137	FRA	-.8348	FC3	-3.2930	BSP	2796	SGB	1119.8	RZS	.0861	RIS	.9096	LSA	816.5	MSA	143.8	SSA	23.5
BDE	.2348	BRA	.5670	BC3	.8631	FSP	-1046	SG1	1002.5	SG2	498.9	THA	69.01	EL1	323.8	EL2	35.1	ALF	26.53

LAUNCH DATE SEP 28 1970 FLIGHT TIME 92.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 264.092

RL	149.91	LAL	-.00	LOL	4.46	VL	28.062	GAL	-10.07	AZL	86.96	HCA	121.59	SMA	134.99	ECC	.20600	INC	3.0393	V1	29.724
RP	107.48	LAP	2.59	LOP	126.08	VP	38.554	GAP	-1.77	AZP	91.59	TAL	229.04	TAP	349.62	RCA	107.18	APO	162.79	V2	35.258
RC	74.992	GL	16.64	GP	-36.84	ZAL	149.65	ZAP	74.04	ETS	8.45	ZAE	140.66	ETE	272.39	ZAC	63.91	ETC	257.73	CLP	-69.90

PLANETOCENTRIC CONIC

C3	26.170	VHL	5.116	DLA	4.07	RAL	213.89	RAD	6568.1	VEL	12.147	PTH	2.18	VHP	4.249	DPA	-52.70	RAP	217.78	ECC	1.4307

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 41 50	2406.15	-23.71	53.89	80.89	105.95	1 21 56	1806.2	-21.29	46.15
90.00	13 40 24	4797.42	18.04	206.80	78.66	67.80	15 0 21	4197.4	14.87	199.35
100.00	2 5 5	2137.63	-24.87	33.87	80.51	107.15	2 40 43	1537.6	-22.28	26.02
100.00	14 59 50	4541.17	19.15	187.26	78.16	66.80	16 15 31	3941.2	15.82	180.05
110.00	3 17 42	1910.35	-27.98	15.43	79.33	110.49	3 49 32	1310.4	-24.93	7.58
110.00	16 3 42	4341.22	22.13	170.80	76.68	63.26	17 16 3	3741.2	18.36	163.49

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2742	TRA	-.5198	TC3	-.1089	BAU	.3237	SGT	682.0	SGR	1004.7	SG3	357.4	ST	353.5	SR	201.7	SS	812.7
RDE	.1537	RRA	-.3007	RC3	-.9084	FAU	.10018	RRT	.6007	RRF	.9824	RTF	.6318	CRT	.9922	CRS	-.9133	CST	-.9217
FDE	1.9603	FRA	-.7916	FC3	-3.3139	BSP	3018	SGB	1214.3	RZS	.1202	RIS	.9197	LSA	897.3	MSA	143.5	SSA	21.7
BDE	.3143	BRA	.6005	BC3	.9252	FSP	-1033	SG1	1109.4	SG2	493.8	THA	61.73	EL1	406.4	EL2	21.8	ALF	29.60

LAUNCH DATE SEP 28 1970 FLIGHT TIME 94.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 271.359

RL	149.91	LAL	-.00	LOL	4.46	VL	28.059	GAL	-9.98	AZL	86.70	HCA	124.83	SMA	134.97	ECC	.20478	INC	3.3006	V1	29.724
RP	107.48	LAP	2.71	LOP	129.33	VP	38.553	GAP	-1.24	AZP	91.89	TAL	227.85	TAP	352.68	RCA	107.33	APO	162.61	V2	35.259
RC	77.186	GL	18.12	GP	-38.70	ZAL	148.68	ZAP	78.70	ETS	5.27	ZAE	138.83	ETE	266.23	ZAC	61.80	ETC	257.07	CLP	-75.46

PLANETOCENTRIC CONIC

C3	26.177	VHL	5.116	DLA	5.38	RAL	214.62	RAD	6568.1	VEL	12.147	PTH	2.18	VHP	4.229	DPA	-53.50	RAP	213.65	ECC	1.4308

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 34 53	2447.19	-24.45	56.77	82.10	104.75	1 15 40	1847.2	-22.19	48.83
90.00	13 53 10	4756.51	16.97	204.07	79.16	66.98	15 12 27	4156.5	13.71	196.91
100.00	1 58 46	2176.64	-25.62	36.52	81.74	105.95	2 35 2	1576.6	-23.19	28.57
100.00	15 11 58	4502.30	18.08	184.87	78.65	65.78	16 27 1	3902.3	14.66	177.75
110.00	3 12 49	1944.86	-28.78	17.80	80.62	109.30	3 45 14	1344.9	-25.87	9.82
110.00	16 14 24	4306.84	21.06	168.50	77.12	62.43	17 26 11	3706.8	17.20	161.50

DIFFERENTIAL CORRECTIONS

TDE	.3506	TRA	-.5588	TC3	-.2896	BAU	.3530
RDE	.2042	RRA	-.3003	RC3	-.9661	FAU	.10127
FDE	2.0356	FRA	-.7767	FC3	-3.3492	BSP	3502
BDE	.4058	BRA	.6343	BC3	1.0086	FSP	-1103

MID-COURSE EXECUTION ACCURACY

SGT	798.1	SGR	1069.4	SG3	363.5		
RRT	.6972	RRF	.9343	RTF	.7325		
SGB	1334.4	RZ3	.1285	R13	.9324		
SG1	1239.8	SG2	493.6	THA	56.53		

ORBIT DETERMINATION ACCURACY

ST	435.7	SR	251.9	SS	839.2
CRT	.9948	CRS	-.9522	CST	-.9448
LSA	968.3	MSA	139.4	SSA	21.2
EL1	502.7	EL2	22.3	ALF	29.97

LAUNCH DATE SEP 28 1970 FLIGHT TIME 96.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 277.794

RL	149.91	LAL	-.00	LOL	4.46	VL	28.051	GAL	-9.89	AZL	86.42	HCA	128.07	SMA	134.90	ECC	.20368	INC	3.5834	V1	29.724
RP	107.48	LAP	2.82	LOP	132.58	VP	38.547	GAP	-.74	AZP	92.21	TAL	227.56	TAP	355.63	RCA	107.42	APO	162.38	V2	35.259
RC	79.396	GL	19.70	GP	-40.52	ZAL	147.54	ZAP	83.19	ETS	1.89	ZAE	136.73	ETE	260.43	ZAC	59.71	ETC	256.39	CLP	-81.02

PLANETOCENTRIC CONIC

C3	26.245	VHL	5.123	DLA	6.75	RAL	215.47	RAD	6568.1	VEL	12.150	PTH	2.18	VHP	4.243	DPA	-54.21	RAP	209.49	ECC	1.4319

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 27 47	2491.32	-25.18	59.80	83.53	103.40	1 9 18	1891.3	-23.09	51.75
90.00	14 7 5	4713.67	15.81	201.46	79.86	66.20	15 25 39	4113.7	12.46	194.39
100.00	1 52 20	2218.57	-26.38	39.41	83.20	104.60	2 29 19	1618.6	-24.11	31.34
100.00	15 25 13	4461.65	16.93	182.40	79.33	64.99	16 39 34	3861.7	13.42	175.37
110.00	3 7 57	1981.94	-29.58	20.38	82.14	107.96	3 40 59	1381.9	-26.84	12.27
110.00	16 26 5	4271.05	19.92	166.35	77.75	61.63	17 37 17	3671.0	15.97	159.45

DIFFERENTIAL CORRECTIONS

TDE	.4378	TRA	-.6008	TC3	-.4193	BAU	.3820
RDE	.2591	RRA	-.2991	RC3	-1.0049	FAU	.09991
FDE	2.1049	FRA	-.7232	FC3	-3.2958	BSP	3933
BDE	.5087	BRA	.6668	BC3	1.0889	FSP	-1115

MID-COURSE EXECUTION ACCURACY

SGT	939.3	SGR	1118.1	SG3	362.6		
RRT	.7661	RRF	.9430	RTF	.8004		
SGB	1460.2	RZ3	.1414	R13	.9402		
SG1	1375.3	SG2	490.7	THA	51.44		

ORBIT DETERMINATION ACCURACY

ST	530.2	SR	307.4	SS	868.4
CRT	.9948	CRS	-.9740	CST	-.9582
LSA	1053.9	MSA	136.9	SSA	20.1
EL1	612.3	EL2	27.1	ALF	30.04

LAUNCH DATE SEP 28 1970 FLIGHT TIME 98.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 284.198

RL	149.91	LAL	-.00	LOL	4.46	VL	28.036	GAL	-9.78	AZL	86.11	HCA	131.30	SMA	134.79	ECC	.20267	INC	3.8924	V1	29.724
RP	107.48	LAP	2.92	LOP	135.83	VP	38.536	GAP	-.26	AZP	92.57	TAL	227.18	TAP	358.48	RCA	107.47	APO	162.11	V2	35.258
RC	81.621	GL	21.41	GP	-42.30	ZAL	146.22	ZAP	87.44	ETS	358.34	ZAE	134.42	ETE	255.07	ZAC	57.67	ETC	255.71	CLP	-86.54

PLANETOCENTRIC CONIC

C3	26.391	VHL	5.137	DLA	8.22	RAL	216.46	RAD	6568.1	VEL	12.156	PTH	2.18	VHP	4.292	DPA	-54.84	RAP	205.39	ECC	1.4343

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 20 20	2539.44	-25.90	63.14	85.20	101.87	1 2 39	1939.4	-24.00	54.99
90.00	14 22 23	4668.31	14.54	198.73	80.78	65.43	15 40 11	4068.3	11.11	191.74
100.00	1 45 39	2264.27	-27.12	42.60	84.90	103.08	2 23 23	1664.3	-25.05	34.41
100.00	15 39 45	4418.71	15.68	179.83	80.23	64.22	16 53 24	3818.7	12.08	172.88
110.00	3 2 58	2022.33	-30.40	23.25	83.92	106.45	3 36 40	1422.3	-27.84	14.98
110.00	16 38 56	4233.42	18.68	164.13	78.59	60.84	17 49 29	3633.4	14.65	157.33

DIFFERENTIAL CORRECTIONS

TDE	.5385	TRA	-.6420	TC3	-.5512	BAU	.4122
RDE	.3136	RRA	-.2708	RC3	-1.0300	FAU	.09696
FDE	2.1503	FRA	-.6507	FC3	-3.1805	BSP	4379
BDE	.6231	BRA	.6968	BC3	1.1682	FSP	-1104

MID-COURSE EXECUTION ACCURACY

SGT	1097.6	SGR	1155.6	SG3	355.9		
RRT	.8122	RRF	.9497	RTF	.8452		
SGB	1593.8	RZ3	.1531	R13	.9458		
SG1	1517.3	SG2	487.7	THA	46.81		

ORBIT DETERMINATION ACCURACY

ST	638.8	SR	362.9	SS	893.8
CRT	.9940	CRS	-.9855	CST	-.9675
LSA	1148.9	MSA	134.9	SSA	18.8
EL1	733.9	EL2	34.4	ALF	29.53

LAUNCH DATE SEP 28 1970 FLIGHT TIME 100.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 290.570

RL	149.91	LAL	-.00	LOL	4.46	VL	28.017	GAL	-9.67	AZL	85.77	HCA	134.54	SMA	134.64	ECC	.20174	INC	4.2537	V1	29.724
RP	107.48	LAP	3.02	LOP	139.08	VP	38.520	GAP	.21	AZP	92.97	TAL	226.70	TAP	1.24	RCA	107.48	APO	161.81	V2	35.256
RC	83.861	GL	23.27	GP	-44.06	ZAL	144.71	ZAP	91.40	ETS	354.64	ZAE	131.93	ETE	250.19	ZAC	55.65	ETC	255.01	CLP	-91.95

PLANETOCENTRIC CONIC

C3	26.639	VHL	5.161	DLA	9.79	RAL	217.58	RAD	6568.1	VEL	12.166	PTH	2.18	VHP	4.376	DPA	-55.45	RAP	201.40	ECC	1.4384

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 12 20	2592.68	-26.59	66.89	87.16	100.12	0 55 32	1992.7	-24.92	58.61
90.00	14 39 20	4619.70	13.15	195.85	81.94	64.69	15 56 20	4019.7	9.63	188.93
100.00	1 38 30	2314.77	-27.85	46.18	86.90	101.33	2 17 4	1714.8	-26.00	37.86
100.00	15 55 52	4372.84	14.30	177.12	81.36	63.47	17 8 44	3772.8	10.62	170.26
110.00	2 57 42	2066.90	-31.21	26.46	86.00	104.70	3 32 9	1466.9	-28.88	18.04
110.00	16 53 8	4193.48	17.34	161.81	79.67	60.07	18 3 2	3593.5	13.23	155.11

DIFFERENTIAL CORRECTIONS

TDE	.6548	TRA	-.6797	TC3	-.6795	BAU	.4407
RDE	.3709	RRA	-.2416	RC3	-1.0342	FAU	.09198
FDE	2.1837	FRA	-.5511	FC3	-2.9892	BSP	4755
BDE	.7526	BRA	.7213	BC3	1.2375	FSP	-1047

MID-COURSE EXECUTION ACCURACY

SGT	1267.5	SGR	1176.2	SG3	343.2		
RRT	.8428	RRF	.9548	RTF	.8741		
SGB	1729.2	RZ3	.1664	R13	.9489		
SG1	1660.3	SG2	483.2	THA	42.46		

ORBIT DETERMINATION ACCURACY

ST	762.7	SR	421.0	SS	920.0
CRT	.9928	CRS	-.9922	CST	-.9738
LSA	1259.7	MSA	134.8	SSA	17.1
EL1	870.0	EL2	44.3	ALF	28.80

LAUNCH DATE SEP 28 1970 FLIGHT TIME 102.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 296.911

RL	149.91	LAL	-.00	LOL	4.46	VL	27.993	GAL	-9.55	AZL	85.38	HCA	137.78	SMA	134.46	ECC	.20090	INC	4.6152	V1	29.724
RP	107.49	LAP	3.10	LOP	142.33	VP	38.501	GAP	.65	AZP	93.42	TAL	226.13	TAP	3.91	RCA	107.45	APO	161.48	V2	35.254
RC	86.111	GL	25.30	GP	-45.83	ZAL	143.00	ZAP	95.01	ETS	350.78	ZAE	129.31	ETE	245.78	ZAC	53.63	ETC	254.31	CLP	-97.21

PLANETOCENTRIC CONIC

C3	27.025	VHL	5.199	DLA	11.49	RAL	218.85	RAD	6568.1	VEL	12.182	PTH	2.19	VHP	4.497	DPA	-56.09	RAP	197.52	ECC	1.4448

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 3 28	2652.48	-27.23	71.14	89.45	98.08	0 47 41	2052.5	-25.83	62.76
90.00	14 58 19	4567.04	11.59	192.76	83.39	63.98	16 14 26	3967.0	8.00	185.92
100.00	1 30 37	2371.42	-28.54	50.25	89.23	99.30	2 10 8	1771.4	-26.96	41.80
100.00	16 13 52	4323.33	12.78	174.23	82.78	62.74	17 25 55	3723.3	9.02	167.45
110.00	2 52 0	2116.77	-32.02	30.13	88.45	102.67	3 27 16	1516.8	-29.94	21.53
110.00	17 8 50	4150.75	15.87	159.37	81.01	59.32	18 18 9	3550.7	11.69	152.77

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.7859	TRA	-.7135	TC3	-.8009	BAU	.4732	SGT	1444.8	SGR	1196.4	SG3	327.9	ST	899.4	SR	467.4	SS	930.0
RDE	.4179	RRA	-.2146	RC3	-1.0363	FAU	.08715	RRT	.8619	RRF	.9591	RTF	.8953	CRT	.9925	CRS	-.9955	CST	-.9791
FDE	2.1655	FRA	-.4706	FC3	-2.7918	BSP	5313	SGB	1875.9	R23	.1737	R13	.9529	LSA	1369.2	MSA	132.2	SSA	16.0
BDE	.8901	BRA	.7450	BC3	1.3097	FSP	-1034	SG1	1812.5	SG2	483.6	THA	38.79	EL1	1012.3	EL2	50.6	ALF	27.36

LAUNCH DATE SEP 28 1970 FLIGHT TIME 104.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 303.222

RL	149.91	LAL	-.00	LOL	4.46	VL	27.966	GAL	-9.42	AZL	84.95	HCA	141.01	SMA	134.25	ECC	.20011	INC	5.0474	V1	29.724
RP	107.50	LAP	3.17	LOP	145.58	VP	38.478	GAP	1.08	AZP	93.93	TAL	225.48	TAP	6.50	RCA	107.39	APO	161.12	V2	35.251
RC	88.372	GL	27.52	GP	-47.66	ZAL	141.06	ZAP	98.24	ETS	346.78	ZAE	126.58	ETE	241.83	ZAC	51.58	ETC	253.58	CLP	-102.28

PLANETOCENTRIC CONIC

C3	27.594	VHL	5.253	DLA	13.35	RAL	220.28	RAD	6568.1	VEL	12.205	PTH	2.19	VHP	4.658	DPA	-56.81	RAP	193.72	ECC	1.4541

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 49 26	2720.73	-27.79	76.06	92.12	95.67	24 34 47	2120.7	-26.71	67.56
90.00	15 19 51	4509.16	9.84	189.41	85.19	63.32	16 35 0	3909.2	6.19	182.64
100.00	1 21 41	2435.91	-29.16	54.94	91.95	96.90	2 2 17	1835.9	-27.90	46.36
100.00	16 34 13	4269.22	11.07	171.12	84.55	62.05	17 45 22	3669.2	7.24	164.42
110.00	2 45 37	2173.32	-32.78	34.36	91.31	100.28	3 21 50	1573.3	-31.02	25.58
110.00	17 26 47	4104.57	14.25	156.77	82.69	58.60	18 35 11	3504.6	9.99	150.26

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.9363	TRA	-.7407	TC3	-.9091	BAU	.5030	SGT	1626.2	SGR	1199.7	SG3	308.0	ST	1051.6	SR	514.7	SS	941.2
RDE	.4678	RRA	-.1768	RC3	-1.0161	FAU	.08076	RRT	.8741	RRF	.9623	RTF	.9094	CRT	.9918	CRS	-.9977	CST	-.9828
FDE	2.1398	FRA	-.3714	FC3	-2.5339	BSP	5804	SGB	2020.9	R23	.1835	R13	.9550	LSA	1496.3	MSA	131.7	SSA	14.5
BDE	1.0466	BRA	.7615	BC3	1.3635	FSP	-982	SG1	1962.3	SG2	483.0	THA	35.27	EL1	1169.5	EL2	59.1	ALF	25.96

LAUNCH DATE SEP 28 1970 FLIGHT TIME 106.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 309.503

RL	149.91	LAL	-.00	LOL	4.46	VL	27.934	GAL	-9.29	AZL	84.46	HCA	144.25	SMA	134.01	ECC	.19938	INC	5.5443	V1	29.724
RP	107.51	LAP	3.24	LOP	148.83	VP	38.451	GAP	1.49	AZP	94.50	TAL	224.76	TAP	9.01	RCA	107.29	APO	160.73	V2	35.247
RC	90.641	GL	29.98	GP	-49.60	ZAL	138.87	ZAP	101.02	ETS	342.63	ZAE	123.74	ETE	238.29	ZAC	49.45	ETC	252.81	CLP	-107.16

PLANETOCENTRIC CONIC

C3	28.419	VHL	5.331	DLA	15.39	RAL	221.89	RAD	6568.1	VEL	12.239	PTH	2.20	VHP	4.864	DPA	-57.65	RAP	189.95	ECC	1.4677

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 37 33	2800.03	-28.19	81.83	95.24	92.81	24 24 13	2200.0	-27.50	73.23
90.00	15 44 38	4444.55	7.85	185.71	87.44	62.71	16 58 42	3844.6	4.13	179.00
100.00	1 11 15	2510.55	-29.64	60.43	95.14	94.05	1 53 5	1910.5	-28.77	51.74
100.00	16 57 33	4209.27	9.13	167.72	86.75	61.41	18 7 42	3609.3	5.25	161.09
110.00	2 38 15	2238.35	-33.46	39.31	94.69	97.42	3 15 33	1638.3	-32.08	30.36
110.00	17 47 2	4054.23	12.45	153.99	84.77	57.90	18 54 37	3454.2	8.12	147.57

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.1101	TRA	-.7592	TC3	-.9979	BAU	.5307	SGT	1808.8	SGR	1190.2	SG3	285.0	ST	1220.2	SR	558.7	SS	949.3
RDE	.5175	RRA	-.1310	RC3	-.9774	FAU	.07351	RRT	.8807	RRF	.9645	RTF	.9193	CRT	.9910	CRS	-.9989	CST	-.9856
FDE	2.0991	FRA	-.2677	FC3	-2.2393	BSP	6266	SGB	2165.2	R23	.1937	R13	.9563	LSA	1638.5	MSA	132.2	SSA	12.9
BDE	1.2247	BRA	.7704	BC3	1.3968	FSP	-913	SG1	2110.6	SG2	483.2	THA	31.96	EL1	1340.3	EL2	68.1	ALF	24.48

LAUNCH DATE SEP 28 1970 FLIGHT TIME 108.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 315.756

RL	149.91	LAL	-.00	LOL	4.46	VL	27.899	GAL	-9.14	AZL	83.87	HCA	147.48	SMA	133.75	ECC	.19870	INC	6.1256	V1	29.724
RP	107.53	LAP	3.29	LOP	152.08	VP	38.422	GAP	1.89	AZP	95.17	TAL	223.96	TAP	11.44	RCA	107.17	APO	160.32	V2	35.243
RC	92.917	GL	32.70	GP	-51.71	ZAL	136.40	ZAP	103.34	ETS	338.30	ZAE	120.79	ETE	235.10	ZAC	47.19	ETC	251.96	CLP	-111.85

PLANETOCENTRIC CONIC

C3	29.606	VHL	5.441	DLA	17.65	RAL	223.72	RAD	6568.2	VEL	12.287	PTH	2.21	VHP	5.124	DPA	-58.64	RAP	186.00	ECC	1.4872

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 23 1	2894.12	-28.31	88.70	98.87	89.36	24 11 15	2294.1	-28.10	80.05
90.00	16 13 44	4370.93	5.53	181.54	90.26	62.18	17 26 35	3770.9	1.76	174.89
100.00	0 58 36	2598.55	-29.89	66.96	98.87	90.62	1 41 55	1998.6	-29.48	58.18
100.00	17 24 46	4141.73	6.91	163.94	89.50	60.85	18 33 47	3541.7	2.97	157.37
110.00	2 29 29	2314.25	-33.98	45.18	98.67	93.99	3 8 3	1714.2	-33.05	36.06
110.00	18 10 23	3998.79	10.43	150.97	87.37	57.26	19 17 2	3398.8	6.04	144.63

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.3158	TRA	-.7847	TC3	-1.0588	BAU	.5538	SGT	1990.3	SGR	1185.0	SG3	259.4	ST	1409.0	SR	601.2	SS	957.6
RDE	.5698	RRA	-.0732	RC3	-.9146	FAU	.06528	RRT	.8826	RRF	.9657	RTF	.9259	CRT	.9898	CRS	-.9996	CST	-.9877
FDE	2.0527	FRA	-.1558	FC3	-1.9088	BSP	6618	SGB	2306.2	R23	.2055	R13	.9565	LSA	1801.5	MSA	134.7	SSA	11.1
BDE	1.4339	BRA	.7682	BC3	1.3991	FSP	-816	SG1	2254.9	SG2	483.4	THA	28.77	EL1	1529.9	EL2	78.7	ALF	22.96

LAUNCH DATE SEP 28 1970 FLIGHT TIME 110.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 321.978

```
RL  149.91 LAL   -.00 LOL   4.46 VL  27.861 GAL  -8.99 AZL  83.18 HCA 150.70 SMA 133.46 ECC .19808 INC 6.8195 V1  29.724
RP  107.54 LAP   3.33 LOP 155.33 VP  38.390 GAP   2.27 AZP  95.95 TAL 223.11 TAP  13.81 RCA 107.03 APO 159.90 V2  35.238
RC  95.197 GL   35.72 GP  -54.05 ZAL 133.62 ZAP 105.13 ETS 333.74 ZAE 117.70 ETE 232.17 ZAC  44.72 ETC 250.96 CLP-116.40
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PLANETOCENTRIC CONIC

```
C3  31.326 VHL  5.597 DLA  20.15 RAL 225.79 RAD 6568.2 VEL 12.357 PTH   2.23 VHP  5.452 DPA -59.81 RAP 181.75 ECC 1.5155
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 4 23	3008.94	-27.94	97.08	103.05	85.18	23 54 32	2408.9	-28.31	88.43
90.00	16 48 54	4284.44	2.76	176.69	93.86	61.81	18 0 18	3684.4	-1.03	170.06
100.00	0 42 39	2704.76	-29.70	74.85	103.20	86.48	1 27 44	2104.8	-29.88	66.05
100.00	17 57 15	4063.85	4.31	159.62	93.01	60.39	19 4 59	3463.9	.34	153.09
110.00	2 18 41	2404.30	-34.18	52.20	103.37	89.84	2 58 46	1804.3	-33.83	42.97
110.00	18 37 42	3937.08	8.13	147.66	90.65	56.68	19 43 19	3337.1	3.70	141.38

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.5529 TRA -.7838 TC3-1.0969 BAU  .5804   SGT 2174.5 SGR 1135.1 SG3  233.1     ST  1609.6 SR   624.4 SS   950.4
 RDE  .6093 RRA -.0173 RC3 -.8470 FAU .05785   RRT  .8798 RRF  .9655 RTF  .9326     CRT  .9890 CRS -.9998 CST -.9897
 FDE 1.9700 FRA -.0735 FC3-1.5987 BSP   7239   SGB 2452.9 RZS  .2125 R13  .9579     LSA 1966.1 MSA  134.6 SSA     9.8
 BDE 1.6681 BRA  .7640 BC3 1.3859 FSP   -764   SG1 2403.8 SG2  488.1 THA  25.81     EL1 1724.3 EL2   86.2 ALF  21.04
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LAUNCH DATE SEP 28 1970 FLIGHT TIME 112.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 328.171

```
RL  149.91 LAL   -.00 LOL   4.46 VL  27.821 GAL  -8.83 AZL  82.33 HCA 153.92 SMA 133.16 ECC .19750 INC 7.6679 V1  29.724
RP  107.56 LAP   3.36 LOP 158.58 VP  38.355 GAP   2.64 AZP  96.90 TAL 222.18 TAP  16.10 RCA 106.86 APO 159.46 V2  35.232
RC  97.481 GL   39.09 GP  -56.69 ZAL 130.49 ZAP 106.37 ETS 328.89 ZAE 114.43 ETE 229.36 ZAC  41.99 ETC 249.73 CLP-120.88
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PLANETOCENTRIC CONIC

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C3  33.848 VHL  5.818 DLA  22.94 RAL 228.16 RAD 6568.3 VEL 12.459 PTH   2.25 VHP  5.872 DPA -61.14 RAP 176.89 ECC 1.5570
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 38 41	3155.57	-26.65	107.61	107.75	80.06	23 31 17	2555.6	-27.75	99.12
90.00	17 33 30	4176.82	-.71	170.69	98.59	61.69	18 43 7	3576.8	-4.49	164.05
100.00	0 21 19	2837.35	-28.75	84.59	108.14	81.44	1 8 36	2237.4	-29.63	75.89
100.00	18 37 30	3970.27	1.15	154.48	97.56	60.13	19 43 40	3370.3	-2.84	147.95
110.00	2 4 54	2513.25	-33.84	60.69	108.86	84.83	2 46 47	1913.3	-34.18	51.46
110.00	19 10 84	3867.13	5.50	143.95	94.85	56.21	20 14 51	3267.1	1.03	137.73

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.8473 TRA -.7425 TC3-1.0919 BAU  .5995   SGT 2356.7 SGR 1082.6 SG3  205.2     ST  1835.1 SR   638.4 SS   944.4
 RDE  .6475 RRA  .0555 RC3 -.7501 FAU .04957   RRT  .8709 RRF  .9628 RTF  .9375     CRT  .9873 CRS -.9995 CST -.9912
 FDE 1.8898 FRA  .0154 FC3-1.2679 BSP   7706   SGB 2593.5 RZS  .2212 R13  .9584     LSA 2156.0 MSA  137.0 SSA     8.3
 BDE 1.9574 BRA  .7446 BC3 1.3247 FSP   -680   SG1 2546.3 SG2  492.5 THA  22.70     EL1 1940.7 EL2   95.8 ALF  19.00
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LAUNCH DATE SEP 28 1970 FLIGHT TIME 114.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 334.333

```
RL  149.91 LAL   -.00 LOL   4.46 VL  27.778 GAL  -8.66 AZL  81.26 HCA 157.13 SMA 132.84 ECC .19695 INC 8.7358 V1  29.724
RP  107.58 LAP   3.38 LOP 161.83 VP  38.318 GAP   2.99 AZP  98.06 TAL 221.20 TAP  18.33 RCA 106.68 APO 159.01 V2  35.226
RC  99.767 GL   42.83 GP  -59.73 ZAL 126.96 ZAP 106.99 ETS 323.60 ZAE 110.90 ETE 226.47 ZAC  38.88 ETC 248.12 CLP-125.43
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PLANETOCENTRIC CONIC

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C3  37.644 VHL  6.136 DLA  26.01 RAL 230.90 RAD 6568.5 VEL 12.610 PTH   2.29 VHP  6.420 DPA -62.58 RAP 171.04 ECC 1.6195
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	21 57 11	3363.76	-23.40	121.98	112.58	73.58	22 53 14	2763.8	-25.43	113.89
90.00	18 36 52	4022.34	-5.67	162.04	105.18	62.21	19 43 54	3422.3	-9.34	155.29
100.00	23 45 42	3013.88	-26.31	97.13	113.48	75.28	24 35 56	2413.9	-28.08	88.77
100.00	19 31 1	3847.45	-3.01	147.73	103.72	60.25	20 35 9	3247.4	-6.95	141.16
110.00	1 46 22	2648.64	-32.52	71.03	115.11	78.85	2 30 31	2048.6	-33.72	62.00
110.00	19 50 47	3785.45	2.39	139.67	100.35	55.89	20 53 52	3185.4	-2.10	133.47

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 2.2213 TRA -.6949 TC3-1.0385 BAU  .6108   SGT 2539.3 SGR 1004.7 SG3  176.9     ST  2086.0 SR   628.6 SS   935.3
 RDE  .6709 RRA  .1456 RC3 -.6280 FAU .04104   RRT  .8516 RRF  .9548 RTF  .9419     CRT  .9843 CRS -.9984 CST -.9925
 FDE 1.8050 FRA  .0995 FC3 -.9439 BSP   8077   SGB 2730.8 RZS  .2296 R13  .9588     LSA 2366.7 MSA  140.8 SSA     6.9
 BDE 2.3204 BRA  .7100 BC3 1.2136 FSP   -583   SG1 2685.0 SG2  498.1 THA  19.31     EL1 2176.0 EL2  106.3 ALF  16.56
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LAUNCH DATE SEP 28 1970 FLIGHT TIME 116.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 340.463

```
RL  149.91 LAL   -.00 LOL   4.46 VL  27.733 GAL  -8.48 AZL  79.87 HCA 160.33 SMA 132.51 ECC .19644 INC10.1306 V1  29.724
RP  107.60 LAP   3.39 LOP 165.07 VP  38.279 GAP   3.32 AZP  99.55 TAL 220.16 TAP  20.49 RCA 106.48 APO 158.55 V2  35.218
RC 102.053 GL   46.95 GP  -63.24 ZAL 123.00 ZAP 106.95 ETS 317.62 ZAE 107.04 ETE 223.17 ZAC  35.30 ETC 245.84 CLP-130.34
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PLANETOCENTRIC CONIC

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C3  43.590 VHL  6.602 DLA  29.37 RAL 234.10 RAD 6568.7 VEL 12.843 PTH   2.34 VHP  7.160 DPA -63.98 RAP 163.66 ECC 1.7174
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.88	19 23 5	3045.60	-15.03	161.21	115.62	64.47	20 28 51	3345.6	-18.34	154.02
90.12	21 36 31	3514.52	-15.02	129.56	115.61	64.47	22 35 5	2914.5	-18.33	122.37
100.00	22 38 17	3316.68	-19.55	117.05	117.76	66.93	23 33 33	2716.7	-22.51	109.50
100.00	21 4 1	3618.67	-10.39	134.97	113.32	61.88	22 4 19	3018.7	-14.27	128.11
110.00	1 19 11	2824.93	-29.47	83.84	121.85	71.84	2 6 16	2224.9	-31.67	75.32
110.00	20 43 32	3683.19	-1.51	134.34	107.81	55.85	21 44 55	3083.2	-5.99	128.11

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 2.7037 TRA -.6189 TC3 -.9381 BAU  .6166   SGT 2723.4 SGR  881.3 SG3  148.8     ST  2353.9 SR   566.4 SS   916.6
 RDE  .6468 RRA  .2503 RC3 -.4893 FAU .03300   RRT  .8090 RRF  .9318 RTF  .9475     CRT  .9777 CRS -.9949 CST -.9938
 FDE 1.7059 FRA  .1645 FC3 -.6554 BSP   8616   SGB 2865.6 RZS  .2343 R13  .9601     LSA 2584.7 MSA  144.0 SSA     5.6
 BDE 2.7799 BRA  .6657 BC3 1.0581 FSP   -504   SG1 2820.6 SG2  505.9 THA  15.33     EL1 2418.3 EL2  115.8 ALF  13.27
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LAUNCH DATE SEP 28 1970 FLIGHT TIME 118.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 346.555

RL	149.91	LAL	-.00	LOL	4.46	VL	27.686	GAL	-8.29	AZL	77.96	HCA	163.52	SMA	132.17	ECC	.19595	INC	12.0404	V1	29.724		
RP	107.63	LAP	3.39	LOP	168.32	VP	38.238	GAP	3.65	AZP	101.56	TAL	219.06	TAP	22.58	RCA	106.27	APO	158.07	V2	35.211		
RC	104.339	GL	51.42	GP	-67.30	ZAL	118.57	ZAP	106.18	ETS	310.36	ZAE	102.69	ETE	218.76	ZAC	31.10	ETC	242.35	CLP	-136.23		

PLANETOCENTRIC CONIC

C3	53.445	VHL	7.311	DLA	32.94	RAL	237.92	RAD	6568.9	VEL	13.221	PTH	2.42	VHP	8.209	DPA	-65.06	RAP	154.18	ECC	1.8796		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
72.43	18 30 31	4210.65	-15.02	181.14	123.48	60.33	19 40 42	3610.7	-18.85	174.21
107.57	22 59 30	3351.35	-15.00	117.29	123.47	60.33	23 55 21	2751.3	-18.84	110.37
72.43	18 30 31	4210.65	-15.02	181.14	123.48	60.33	19 40 42	3610.7	-18.85	174.21
107.57	22 59 30	3351.35	-15.00	117.29	123.47	60.33	23 55 21	2751.3	-18.84	110.37
110.00	0 28 9	3090.87	-22.54	101.38	127.70	63.59	1 19 39	2490.9	-25.90	93.83
110.00	22 4 59	3519.13	-7.74	125.71	118.92	56.60	23 3 38	2919.1	-12.08	119.31

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	3.3667	TRA	-.4725	TC3	-.7771	BAU	.6028	SGT	2906.5	SGR	722.7	SG3	121.9	ST	2642.1	SR	417.1	SS	897.7
RDE	.5138	RRA	.3851	RC3	-.3285	FAU	.02491	RRT	.6902	RRF	.8514	RTF	.9544	CRT	.9516	CRS	-.9774	CST	-.9950
FDE	1.6127	FRA	.2247	FC3	-.4035	BSP	8986	SG8	2995.0	RZS	.2367	R13	.9621	LSA	2817.5	MSA	149.3	SSA	4.4
BDE	3.4057	BRA	.6096	BC3	.8437	FSP	-414	SG1	2950.4	SG2	515.2	THA	10.05	EL1	2671.9	EL2	126.8	ALF	8.56

LAUNCH DATE SEP 28 1970 FLIGHT TIME 120.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 352.600

RL	149.91	LAL	-.00	LOL	4.46	VL	27.638	GAL	-8.08	AZL	75.17	HCA	166.68	SMA	131.82	ECC	.19546	INC	14.8292	V1	29.724		
RP	107.65	LAP	3.38	LOP	171.56	VP	38.195	GAP	3.95	AZP	104.45	TAL	217.90	TAP	24.58	RCA	106.06	APO	157.59	V2	35.202		
RC	106.824	GL	56.08	GP	-71.97	ZAL	113.69	ZAP	104.65	ETS	300.37	ZAE	97.65	ETE	211.64	ZAC	26.09	ETC	236.37	CLP	-144.79		

PLANETOCENTRIC CONIC

C3	71.224	VHL	8.439	DLA	36.54	RAL	242.54	RAD	6569.4	VEL	13.877	PTH	2.53	VHP	9.792	DPA	-65.27	RAP	142.23	ECC	2.1722		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.88	18 10 34	4396.45	-13.86	194.99	133.11	55.85	19 23 51	3796.5	-18.24	188.44
114.12	0 0 14	3304.58	-13.84	112.87	133.09	55.84	0 55 18	2704.6	-18.23	106.33
65.88	18 10 34	4396.45	-13.86	194.99	133.11	55.85	19 23 51	3796.5	-18.24	188.44
114.12	0 0 14	3304.58	-13.84	112.87	133.09	55.84	0 55 18	2704.6	-18.23	106.33
65.88	18 10 34	4396.45	-13.86	194.99	133.11	55.85	19 23 51	3796.5	-18.24	188.44
114.12	0 0 14	3304.58	-13.84	112.87	133.09	55.84	0 55 18	2704.6	-18.23	106.33

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	4.2908	TRA	-.2103	TC3	-.5645	BAU	.5596	SGT	3069.7	SGR	537.0	SG3	97.0	ST	2913.3	SR	145.2	SS	881.4
RDE	.0675	RRA	.5426	RC3	-.1634	FAU	.01730	RRT	.1909	RRF	.4177	RTF	.9648	CRT	.2987	CRS	-.3786	CST	-.9964
FDE	1.5312	FRA	.2744	FC3	-.2103	BSP	9430	SG8	3116.3	RZS	.2322	R13	.9661	LSA	3043.2	MSA	155.7	SSA	3.2
BDE	4.2908	BRA	.5819	BC3	.5877	FSP	-334	SG1	3071.5	SG2	526.8	THA	1.97	EL1	2913.6	EL2	138.6	ALF	.85

LAUNCH DATE SEP 28 1970 FLIGHT TIME 122.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 358.574

RL	149.91	LAL	-.00	LOL	4.46	VL	27.588	GAL	-7.86	AZL	70.71	HCA	169.79	SMA	131.46	ECC	.19492	INC	19.2916	V1	29.724		
RP	107.68	LAP	3.36	LOP	174.81	VP	38.151	GAP	4.23	AZP	109.01	TAL	216.67	TAP	26.45	RCA	105.84	APO	157.09	V2	35.193		
RC	108.906	GL	60.48	GP	-76.98	ZAL	108.41	ZAP	102.33	ETS	283.41	ZAE	91.51	ETE	197.46	ZAC	19.95	ETC	224.61	CLP	-161.52		

PLANETOCENTRIC CONIC

C3	107.667	VHL	10.376	DLA	39.68	RAL	248.22	RAD	6570.1	VEL	15.133	PTH	2.72	VHP	12.400	DPA	-63.72	RAP	128.38	ECC	2.7719		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.95	18 8 42	4559.67	-11.04	206.31	144.63	51.64	19 24 42	3959.7	-15.93	200.21
119.05	0 47 28	3325.39	-11.03	112.47	144.62	51.63	1 42 54	2725.4	-15.92	106.37
60.95	18 8 42	4559.67	-11.04	206.31	144.63	51.64	19 24 42	3959.7	-15.93	200.21
119.05	0 47 28	3325.39	-11.03	112.47	144.62	51.63	1 42 54	2725.4	-15.92	106.37
60.95	18 8 42	4559.67	-11.04	206.31	144.63	51.64	19 24 42	3959.7	-15.93	200.21
119.05	0 47 28	3325.39	-11.03	112.47	144.62	51.63	1 42 54	2725.4	-15.92	106.37

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	5.4854	TRA	.3323	TC3	-.3065	BAU	.4427	SGT	3104.2	SGR	873.8	SG3	75.7	ST	3029.8	SR	753.4	SS	890.5
RDE	-1.3413	RRA	.6424	RC3	-.0248	FAU	.00981	RRT	-.7744	RRF	-.6474	RTF	.9907	CRT	-.9784	CRS	.9637	CST	-.9981
FDE	1.4998	FRA	.3298	FC3	-.0789	BSP	9749	SG8	3224.8	RZS	-.2145	R13	-.9733	LSA	3242.4	MSA	164.0	SSA	2.3
BDE	5.6470	BRA	.7232	BC3	.3075	FSP	-260	SG1	3179.3	SG2	539.8	THA	167.33	EL1	3118.4	EL2	151.4	ALF	166.29

LAUNCH DATE SEP 28 1970 FLIGHT TIME 124.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 364.412

RL	149.91	LAL	-.00	LOL	4.46	VL	27.537	GAL	-7.60	AZL	62.51	HCA	172.78	SMA	131.10	ECC	.19418	INC	27.4906	V1	29.724		
RP	107.71	LAP	3.32	LOP	178.05	VP	38.106	GAP	4.47	AZP	117.30	TAL	215.32	TAP	28.10	RCA	105.64	APO	156.56	V2	35.184		
RC	111.186	GL	63.28	GP	-79.85	ZAL	102.90	ZAP	99.30	ETS	249.09	ZAE	85.30	ETE	165.69	ZAC	12.10	ETC	202.57	CLP	156.39		

PLANETOCENTRIC CONIC

C3	190.982	VHL	14.106	DLA	41.13	RAL	255.22	RAD	6571.1	VEL	17.897	PTH	3.00	VHP	17.294	DPA	-58.92	RAP	114.66	ECC	4.2747		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.83	18 27 2	4090.40	-6.45	214.29	157.79	49.29	19 45 21	4090.4	-11.63	208.52
121.17	1 24 56	3410.47	-6.44	115.88	157.78	49.29	2 21 47	2810.5	-11.61	110.12
58.83	18 27 2	4090.40	-6.45	214.29	157.79	49.29	19 45 21	4090.4	-11.63	208.52
121.17	1 24 56	3410.47	-6.44	115.88	157.78	49.29	2 21 47	2810.5	-11.61	110.12
58.83	18 27 2	4090.40	-6.45	214.29	157.79	49.29	19 45 21	4090.4	-11.63	208.52
121.17	1 24 56	3410.47	-6.44	115.88	157.78	49.29	2 21 47	2810.5	-11.61	110.12

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	5.7180	TRA	1.3674	TC3	-.0584	BAU	.1585	SGT	2441.9	SGR	2221.6	SG3	59.7	ST	2332.6	SR	2221.2	SS	978.7
RDE	-5.4888	RRA	.0357	RC3	-.0118	FAU	.00116	RRT	-.9472	RRF	-.8585	RTF	.9983	CRT	-.9952	CRS	.9941	CST	-.9999
FDE	1.6035	FRA	.4301	FC3	-.0050	BSP	9963	SG8	3301.2	RZS	-.1683	R13	-.9843	LSA	3382.3	MSA	186.0	SSA	1.6
BDE	7.9113	BRA	1.3678	BC3	.0596	FSP	-202	SG1	3257.7	SG2	534.1	THA	137.86	EL1	3217.2	EL2	156.9	ALF	136.41

LAUNCH DATE SEP 28 1970 FLIGHT TIME 126.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 369.883

```
RL  149.91 LAL   -.00 LOL   4.46 VL  27.486 GAL  -7.26 AZL  43.98 HCA 175.44 SMA 130.73 ECC .19276 INC46.0151 V1  29.724
RP  107.74 LAP   3.28 LOP 181.28 VP  38.059 GAP   4.60 AZP 135.92 TAL 213.72 TAP  29.16 RCA 105.53 APO 155.93 V2  35.174
RC 113.462 GL   60.30 GP  -71.76 ZAL  97.59 ZAP  95.82 ETS 206.17 ZAE  69.99 ETE 125.24 ZAC   7.18 ETC 244.44 CLP 108.90
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PLANETOCENTRIC CONIC

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C3 510.068 VHL 22.585 DLA  37.12 RAL 263.19 RAD 6572.4 VEL 25.127 PTH   3.34 VHP 28.272 DPA -47.58 RAP 103.92 ECC 9.3944
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.93	19 27 59	4724.03	-1.46	212.39	171.28	52.91	20 46 43	4124.0	-6.27	206.39
115.07	1 27 37	3602.77	-1.45	127.89	171.26	52.91	2 27 39	3002.8	-6.25	121.90
64.93	19 27 59	4724.03	-1.46	212.39	171.28	52.91	20 46 43	4124.0	-6.27	206.39
115.07	1 27 37	3602.77	-1.45	127.89	171.26	52.91	2 27 39	3002.8	-6.25	121.90
64.93	19 27 59	4724.03	-1.46	212.39	171.28	52.91	20 46 43	4124.0	-6.27	206.39
115.07	1 27 37	3602.77	-1.45	127.89	171.26	52.91	2 27 39	3002.8	-6.25	121.90

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.1795 TRA 1.8895 TC3 -.0143 BAU 1.0768   SGT  674.6 SGR 3191.4 SG3   50.6     ST   349.4 SR  2998.3 SS  1282.2
 RD-11.7732 RRA-2.7388 RC3 -.1573 FAU-.01672   RRT -.6371 RRF -.9904 RTF  .7322     CRT -.8981 CRS  .9989 CST -.9181
 FDE 2.0501 FRA  .7411 FC3  .0284 BSP   9602   SGB 3261.9 R23 -.1093 R13 -.9931     LSA 3275.6 MSA  160.8 SSA    1.7
 BDE11.8322 BRA 3.3273 BC3  .1579 FSP   -161   SG1 3220.9 SG2  515.2 THA  97.87     EL1 3014.7 EL2  152.8 ALF  95.99
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LAUNCH DATE SEP 28 1970 FLIGHT TIME 128.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 380.606

```
RL  149.91 LAL   -.00 LOL   4.46 VL  27.433 GAL  -7.99 AZL 178.88 HCA 183.23 SMA 130.36 ECC .20345 INC88.8603 V1  29.724
RP  107.77 LAP   3.23 LOP 184.52 VP  38.011 GAP   6.21 AZP   1.12 TAL 215.13 TAP  38.36 RCA 103.84 APO 156.88 V2  35.164
RG 115.736 GL  -42.76 GP   46.93 ZAL  94.76 ZAP  94.35 ETS 179.97 ZAE  52.03 ETE 256.91 ZAC 124.17 ETC 272.27 CLP  96.38
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PLANETOCENTRIC CONIC

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C31600.192 VHL 40.002 DLA -66.18 RAL 266.29 RAD 6573.2 VEL 41.491 PTH   3.57 VHP 51.727 DPA  71.28 RAP 105.59 ECC27.3351
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.31	5 35 59	2441.64	-1.47	76.14	176.93	156.17	6 16 41	1841.6	5.85	73.32
152.69	15 44 20	715.03	-1.46	290.88	176.95	156.17	15 56 15	115.0	5.85	288.05
27.31	5 35 59	2441.64	-1.47	76.14	176.93	156.17	6 16 41	1841.6	5.85	73.32
152.69	15 44 20	715.03	-1.46	290.88	176.95	156.17	15 56 15	115.0	5.85	288.05
27.31	5 35 59	2441.64	-1.47	76.14	176.93	156.17	6 16 41	1841.6	5.85	73.32
152.69	15 44 20	715.03	-1.46	290.88	176.95	156.17	15 56 15	115.0	5.85	288.05

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 6.3376 TRA  .3516 TC3 -.0981 BAU 4.3243   SGT 1206.5 SGR 2403.3 SG3   48.9     ST   908.8 SR  1733.8 SS  1872.3
 RD-11.9466 RRA 2.5975 RC3  .1767 FAU-.07301   RRT -.8788 RRF  .9993 RTF -.8717     CRT -.9798 CRS-1.0000 CST  .9797
 FDE-2.8966 FRA  .6292 FC3  .0395 BSP   7690   SGB 2689.1 R23 -.1052 R13  .9939     LSA 2703.4 MSA  171.7 SSA    2.3
 BDE13.5235 BRA 2.6212 BC3  .2021 FSP   -148   SG1 2637.5 SG2  524.6 THA 114.85     EL1 1950.9 EL2  161.5 ALF 117.39
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LAUNCH DATE SEP 28 1970 FLIGHT TIME 130.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 384.705

```
RL  149.91 LAL   -.00 LOL   4.46 VL  27.379 GAL  -7.37 AZL 133.84 HCA 184.57 SMA 129.99 ECC .19887 INC43.8405 V1  29.724
RP  107.80 LAP   3.16 LOP 187.75 VP  37.963 GAP   5.95 AZP  46.25 TAL 212.79 TAP  37.36 RCA 104.14 APO 155.84 V2  35.153
RC 118.005 GL  -60.65 GP   70.92 ZAL  98.04 ZAP  97.60 ETS 165.60 ZAE  77.57 ETE 245.02 ZAC 149.08 ETC 265.93 CLP 113.86
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PLANETOCENTRIC CONIC

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C3 465.557 VHL 21.577 DLA -82.03 RAL 222.03 RAD 6572.3 VEL 24.225 PTH   3.32 VHP 28.244 DPA  79.62 RAP 229.71 ECC 8.6619
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
9.06	2 1 48	2413.41	2.90	84.64	131.62	172.02	2 42 2	1813.4	10.82	83.93
170.94	13 25 26	610.09	2.90	280.83	131.64	172.02	13 35 36	10.1	10.82	280.12
9.06	2 1 48	2413.41	2.90	84.64	131.62	172.02	2 42 2	1813.4	10.82	83.93
170.94	13 25 26	610.09	2.90	280.83	131.64	172.02	13 35 36	10.1	10.82	280.12
9.06	2 1 48	2413.41	2.90	84.64	131.62	172.02	2 42 2	1813.4	10.82	83.93
170.94	13 25 26	610.09	2.90	280.83	131.64	172.02	13 35 36	10.1	10.82	280.12

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .6597 TRA  .3027 TC3 -.0374 BAU 1.0103   SGT  626.9 SGR 3378.6 SG3   55.7     ST   246.9 SR  2965.8 SS  1445.3
 RD-11.0324 RRA -.8032 RC3  .1580 FAU-.01236   RRT -.7155 RRF  .9949 RTF -.6453     CRT -.8106 CRS -.9995 CST  .7912
 FDE-2.2133 FRA -.1275 FC3  .0230 BSP  10567   SGB 3436.3 R23 -.1124 R13  .9931     LSA 3305.0 MSA  151.5 SSA    1.4
 BDE11.0521 BRA  .8584 BC3  .1623 FSP   -176   SG1 3408.7 SG2  434.1 THA  97.69     EL1 2972.6 EL2  144.3 ALF  93.87
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LAUNCH DATE SEP 28 1970 FLIGHT TIME 132.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 390.127

```
RL  149.91 LAL   -.00 LOL   4.46 VL  27.326 GAL  -7.01 AZL 115.38 HCA 187.22 SMA 129.61 ECC .19759 INC25.3787 V1  29.724
RP  107.84 LAP   3.09 LOP 190.99 VP  37.913 GAP   6.06 AZP  64.80 TAL 211.12 TAP  38.34 RCA 104.00 APO 155.22 V2  35.141
RC 120.271 GL  -62.94 GP   76.49 ZAL 102.57 ZAP 102.62 ETS 109.93 ZAE  90.98 ETE 190.31 ZAC 159.59 ETC 229.96 CLP 159.31
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PLANETOCENTRIC CONIC

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C3 170.394 VHL 13.054 DLA -79.17 RAL 188.17 RAD 6570.8 VEL 17.080 PTH   2.93 VHP 17.369 DPA  65.99 RAP 244.70 ECC 3.8043
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
12.32	23 49 8	2283.13	11.33	81.81	95.97	168.96	24 27 11	1683.1	19.18	80.61
167.68	11 4 1	5775.46	11.33	259.04	95.99	168.96	12 40 16	5175.5	19.18	257.84
12.32	23 49 8	2283.13	11.33	81.81	95.97	168.96	24 27 11	1683.1	19.18	80.61
167.68	11 4 1	5775.46	11.33	259.04	95.99	168.96	12 40 16	5175.5	19.18	257.84
12.32	23 49 8	2283.13	11.33	81.81	95.97	168.96	24 27 11	1683.1	19.18	80.61
167.68	11 4 1	5775.46	11.33	259.04	95.99	168.96	12 40 16	5175.5	19.18	257.84

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-3.3494 TRA-1.0545 TC3 -.0805 BAU  .1873   SGT 2877.2 SGR 2507.6 SG3   68.2     ST  1645.6 SR   891.9 SS   698.2
 RDE-1.3434 RRA -.9545 RC3 -.0167 FAU .00741   RRT  .9598 RRF  .9475 RTF  .9982     CRT  .9277 CRS -.9178 CST -.9997
 FDE -.9588 FRA -.2828 FC3 -.0377 BSP  11596   SGB 3688.2 R23 -.1478 R13  .9880     LSA 1974.3 MSA  304.8 SSA    1.5
 BDE 3.6087 BRA 1.4223 BC3  .0822 FSP   -221   SG1 3652.8 SG2  509.9 THA  38.48     EL1 1848.1 EL2  296.5 ALF  27.46
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LAUNCH DATE SEP 28 1970 FLIGHT TIME 134.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 395.878

RL 149.91 LAL -.00 LOL 4.46 VL 27.271 GAL -6.71 AZL 107.20 HCA 190.21 SMA 129.24 ECC .19719 INC17.2007 V1 29.724
RP 107.87 LAP 3.00 LOP 194.21 VP 37.863 GAP 6.26 AZP 73.06 TAL 209.62 TAP 39.83 RCA 103.75 APO 154.72 V2 35.130
RC 122.531 GL -59.62 GP 71.69 ZAL 106.86 ZAP 108.12 ETS 74.09 ZAE 99.27 ETE 155.87 ZAC 161.76 ETC 220.70 CLP-171.89

PLANETOCENTRIC CONIC

C3 86.198 VHL 9.284 DLA -74.75 RAL 192.39 RAD 6569.7 VEL 14.406 PTH 2.62 VHP 12.596 DPA 56.17 RAP 244.97 ECC 2.4186

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.39	0 19 59	2139.85	19.96	76.38	96.69	163.75	0 55 39	1539.9	27.62	74.28
162.61	11 10 43	5648.97	19.96	258.62	96.71	163.75	12 44 52	5049.0	27.63	256.52
17.39	0 19 59	2139.85	19.96	76.38	96.69	163.75	0 55 39	1539.9	27.62	74.28
162.61	11 10 43	5648.97	19.96	258.62	96.71	163.75	12 44 52	5049.0	27.63	256.52
17.39	0 19 59	2139.85	19.96	76.38	96.69	163.75	0 55 39	1539.9	27.62	74.28
162.61	11 10 43	5648.97	19.96	258.62	96.71	163.75	12 44 52	5049.0	27.63	256.52

DIFFERENTIAL CORRECTIONS
TDE-2.6104 TRA-1.3913 TC3 -.4550 BAU .5250
RDE .6188 RRA -.1637 RC3 .0234 FAU .01719
FDE -.9244 FRA -.3173 FC3 -.1726 BSP 11401
BDE 2.6828 BRA 1.4009 BC3 .4556 FSP -270

MID-COURSE EXECUTION ACCURACY
SGT 3736.5 SGR 543.3 SG3 85.6
RRT .2962 RRF .1003 RTF .9773
SGB 3775.8 R23 -.2040 R13 .9761
SG1 3740.0 SG2 518.4 THA 2.51

ORBIT DETERMINATION ACCURACY
ST 1885.3 SR 398.9 SS 666.8
CRT -.6681 CRS .7862 CST -.9851
LSA 2015.7 MSA 308.6 SSA 2.3
EL1 1904.5 EL2 293.8 ALF 171.76

LAUNCH DATE SEP 28 1970 FLIGHT TIME 136.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 401.725

RL 149.91 LAL -.00 LOL 4.46 VL 27.216 GAL -6.43 AZL 102.75 HCA 193.30 SMA 128.86 ECC .19714 INC12.7470 V1 29.724
RP 107.91 LAP 2.91 LOP 197.44 VP 37.813 GAP 6.49 AZP 77.58 TAL 208.16 TAP 41.46 RCA 103.46 APO 154.26 V2 35.118
RC 124.786 GL -54.83 GP 65.13 ZAL 110.47 ZAP 113.59 ETS 63.77 ZAE 105.35 ETE 147.58 ZAC 159.37 ETC 231.45 CLP-162.08

PLANETOCENTRIC CONIC

C3 53.288 VHL 7.300 DLA -70.45 RAL 200.70 RAD 6568.9 VEL 13.215 PTH 2.41 VHP 10.134 DPA 48.08 RAP 244.22 ECC 1.8770

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
22.34	1 3 28	2014.37	26.71	69.71	100.40	158.00	1 37 2	1414.4	34.08	66.52
157.66	11 33 35	5546.18	26.72	257.02	100.42	158.00	13 6 1	4946.2	34.09	253.83
22.34	1 3 28	2014.37	26.71	69.71	100.40	158.00	1 37 2	1414.4	34.08	66.52
157.66	11 33 35	5546.18	26.72	257.02	100.42	158.00	13 6 1	4946.2	34.09	253.83
22.34	1 3 28	2014.37	26.71	69.71	100.40	158.00	1 37 2	1414.4	34.08	66.52
157.66	11 33 35	5546.18	26.72	257.02	100.42	158.00	13 6 1	4946.2	34.09	253.83

DIFFERENTIAL CORRECTIONS
TDE-2.3078 TRA-1.3190 TC3 -.9446 BAU .6829
RDE .7969 RRA .0353 RC3 .1628 FAU .02507
FDE-1.0081 FRA -.3247 FC3 -.4073 BSP 11973
BDE 2.4416 BRA 1.3194 BC3 .9586 FSP -348

MID-COURSE EXECUTION ACCURACY
SGT 3840.9 SGR 674.2 SG3 107.9
RRT -.6629 RRF -.8305 RTF .9609
SGB 3899.7 R23 .2436 R13 -.9648
SG1 3867.3 SG2 501.3 THA 173.25

ORBIT DETERMINATION ACCURACY
ST 2035.7 SR 626.0 SS 721.2
CRT -.9074 CRS .9709 CST -.9816
LSA 2231.7 MSA 275.3 SSA 3.1
EL1 2114.7 EL2 253.3 ALF 164.18

LAUNCH DATE SEP 28 1970 FLIGHT TIME 138.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 407.605

RL 149.91 LAL -.00 LOL 4.46 VL 27.161 GAL -6.14 AZL 99.96 HCA 196.44 SMA 128.49 ECC .19729 INC 9.9628 V1 29.724
RP 107.95 LAP 2.81 LOP 200.66 VP 37.762 GAP 6.73 AZP 80.44 TAL 206.71 TAP 43.15 RCA 103.14 APO 153.84 V2 35.105
RC 127.036 GL -49.82 GP 58.83 ZAL 113.24 ZAP 118.81 ETS 59.65 ZAE 110.09 ETE 146.00 ZAC 155.27 ETC 240.20 CLP-158.58

PLANETOCENTRIC CONIC

C3 37.397 VHL 6.115 DLA -66.29 RAL 208.37 RAD 6568.5 VEL 12.600 PTH 2.29 VHP 8.717 DPA 41.06 RAP 243.65 ECC 1.6155

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.18	1 44 39	1911.10	31.27	62.32	102.89	151.94	2 16 30	1311.1	38.25	57.95
152.82	11 53 35	5471.66	31.28	254.81	102.91	151.94	13 24 46	4871.7	38.25	250.44
27.18	1 44 39	1911.10	31.27	62.32	102.89	151.94	2 16 30	1311.1	38.25	57.95
152.82	11 53 35	5471.66	31.28	254.81	102.91	151.94	13 24 46	4871.7	38.25	250.44
27.18	1 44 39	1911.10	31.27	62.32	102.89	151.94	2 16 30	1311.1	38.25	57.95
152.82	11 53 35	5471.66	31.28	254.81	102.91	151.94	13 24 46	4871.7	38.25	250.44

DIFFERENTIAL CORRECTIONS
TDE-2.1091 TRA-1.2204 TC3-1.5054 BAU .7674
RDE .7373 RRA .0674 RC3 .2994 FAU .03157
FDE-1.0471 FRA -.3039 FC3 -.7309 BSP 12384
BDE 2.2342 BRA 1.2222 BC3 1.5348 FSP -424

MID-COURSE EXECUTION ACCURACY
SGT 3921.9 SGR 797.4 SG3 130.0
RRT -.7949 RRF -.9305 RTF .9489
SGB 4002.2 R23 .2717 R13 -.9544
SG1 3973.6 SG2 477.6 THA 170.68

ORBIT DETERMINATION ACCURACY
ST 2153.1 SR 692.5 SS 756.3
CRT -.9429 CRS .9894 CST -.9812
LSA 2371.7 MSA 249.8 SSA 4.0
EL1 2250.9 EL2 220.6 ALF 162.96

LAUNCH DATE SEP 28 1970 FLIGHT TIME 140.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 413.495

RL 149.91 LAL -.00 LOL 4.46 VL 27.106 GAL -5.86 AZL 98.06 HCA 199.61 SMA 128.12 ECC .19758 INC 8.0557 V1 29.724
RP 107.99 LAP 2.70 LOP 203.88 VP 37.710 GAP 6.97 AZP 82.41 TAL 205.24 TAP 44.85 RCA 102.80 APO 153.43 V2 35.093
RC 129.278 GL -44.99 GP 53.13 ZAL 115.16 ZAP 123.64 ETS 57.42 ZAE 113.83 ETE 146.63 ZAC 150.86 ETC 245.81 CLP-157.41

PLANETOCENTRIC CONIC

C3 28.571 VHL 5.345 DLA -62.36 RAL 214.99 RAD 6568.1 VEL 12.245 PTH 2.20 VHP 7.849 DPA 34.86 RAP 243.43 ECC 1.4702

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.80	2 21 50	1826.15	34.01	54.75	104.29	145.97	2 52 16	1226.2	40.50	49.29
148.20	12 9 13	5421.09	34.02	252.50	104.31	145.97	13 39 34	4821.1	40.51	247.03
31.80	2 21 50	1826.15	34.01	54.75	104.29	145.97	2 52 16	1226.2	40.50	49.29
148.20	12 9 13	5421.09	34.02	252.50	104.31	145.97	13 39 34	4821.1	40.51	247.03
31.80	2 21 50	1826.15	34.01	54.75	104.29	145.97	2 52 16	1226.2	40.50	49.29
148.20	12 9 13	5421.09	34.02	252.50	104.31	145.97	13 39 34	4821.1	40.51	247.03

DIFFERENTIAL CORRECTIONS
TDE-1.9327 TRA-1.1245 TC3-2.1133 BAU .8224
RDE .6396 RRA .0576 RC3 .4121 FAU .03682
FDE-1.0354 FRA -.2619 FC3-1.1157 BSP 12779
BDE 2.0358 BRA 1.1260 BC3 2.1531 FSP -494

MID-COURSE EXECUTION ACCURACY
SGT 4018.5 SGR 825.7 SG3 150.2
RRT -.8322 RRF -.9525 RTF .9402
SGB 4102.5 R23 .2886 R13 -.9459
SG1 4077.6 SG2 451.2 THA 170.17

ORBIT DETERMINATION ACCURACY
ST 2214.6 SR 686.9 SS 763.1
CRT -.9548 CRS .9945 CST -.9805
LSA 2429.9 MSA 231.9 SSA 5.1
EL1 2310.4 EL2 195.7 ALF 163.38

LAUNCH DATE SEP 28 1970 FLIGHT TIME 142.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 419.386

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RL  149.91 LAL   -.00 LOL   4.46 VL  27.051 GAL  -5.56 AZL  96.66 HCA 202.78 SMA 127.75 ECC .19801 INC 6.6628 V1  29.724
RP  108.03 LAP   2.58 LOP 207.10 VP  37.659 GAP   7.21 AZP  83.85 TAL 203.76 TAP  46.54 RCA 102.45 APO 153.04 V2  35.080
RC 131.513 GL  -40.47 GP   48.09 ZAL 116.27 ZAP 128.03 ETS  55.93 ZAE 116.79 ETE 148.14 ZAC 146.69 ETC 249.49 CLP-157.25
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PLANETOCENTRIC CONIC

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C3  23.163 VHL  4.813 DLA -58.72 RAL 220.79 RAD 6567.9 VEL 12.023 PTH   2.15 VHP  7.298 DPA  29.39 RAP 243.57 ECC 1.3812
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.15	2 55 50	1754.65	35.40	47.43	105.19	140.42	3 25 5	1154.6	41.39	41.06
143.85	12 21 30	5388.93	35.41	250.46	105.21	140.42	13 51 19	4788.9	41.40	244.08
36.15	2 55 50	1754.65	35.40	47.43	105.19	140.42	3 25 5	1154.6	41.39	41.06
143.85	12 21 30	5388.93	35.41	250.46	105.21	140.42	13 51 19	4788.9	41.40	244.08
36.15	2 55 50	1754.65	35.40	47.43	105.19	140.42	3 25 5	1154.6	41.39	41.06
143.85	12 21 30	5388.93	35.41	250.46	105.21	140.42	13 51 19	4788.9	41.40	244.08

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.7669 TRA-1.0250 TC3-2.7352 BAU  .8607   SGT 4108.3 SGR  809.4 SG3  166.5     ST  2219.9 SR   650.8 SS   743.0
 RDE  .5462 RRA  .0360 RC3  .4934 FAU .04063   RRT -.8456 RRF -.9566 RTF  .9331     CRT -.9595 CRS  .9967 CST -.9789
 FDE -.9823 FRA -.2006 FC3-1.5186 BSP  13038   SGB 4187.2 R23  .2979 R13 -.9383     LSA 2419.8 MSA  218.9 SSA    6.4
 BDE 1.8494 BRA 1.0256 BC3 2.7793 FSP   -546   SG1 4165.5 SG2  426.1 THA 170.44     EL1 2306.6 EL2  176.4 ALF 164.19
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LAUNCH DATE SEP 28 1970 FLIGHT TIME 144.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 425.269

```
RL  149.91 LAL   -.00 LOL   4.46 VL  26.996 GAL  -5.27 AZL  95.60 HCA 205.97 SMA 127.38 ECC .19856 INC 5.5962 V1  29.724
RP  108.07 LAP   2.45 LOP 210.32 VP  37.607 GAP   7.45 AZP  84.97 TAL 202.26 TAP  48.23 RCA 102.09 APO 152.68 V2  35.067
RC 133.740 GL  -36.30 GP   43.67 ZAL 116.62 ZAP 131.97 ETS  54.78 ZAE 119.11 ETE 149.99 ZAC 142.92 ETC 252.04 CLP-157.60
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PLANETOCENTRIC CONIC

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C3  19.605 VHL  4.428 DLA -55.36 RAL 226.02 RAD 6567.8 VEL 11.874 PTH   2.11 VHP  6.944 DPA  24.55 RAP 244.02 ECC 1.3226
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.22	3 27 39	1692.58	35.87	40.56	106.04	135.46	3 55 51	1092.6	41.34	33.50
139.78	12 31 25	5370.74	35.88	248.89	106.05	135.45	14 0 55	4770.7	41.35	241.84
40.22	3 27 39	1692.58	35.87	40.56	106.04	135.46	3 55 51	1092.6	41.34	33.50
139.78	12 31 25	5370.74	35.88	248.89	106.05	135.45	14 0 55	4770.7	41.35	241.84
40.22	3 27 39	1692.58	35.87	40.56	106.04	135.46	3 55 51	1092.6	41.34	33.50
139.78	12 31 25	5370.74	35.88	248.89	106.05	135.45	14 0 55	4770.7	41.35	241.84

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.6220 TRA -.9306 TC3-3.3702 BAU  .8951   SGT 4219.0 SGR  782.1 SG3  180.6     ST  2194.8 SR   609.5 SS   709.1
 RDE  .4708 RRA  .0159 RC3  .5524 FAU .04347   RRT -.8532 RRF -.9542 RTF  .9287     CRT -.9620 CRS  .9980 CST -.9767
 FDE -.9098 FRA -.1338 FC3-1.9196 BSP  13460   SGB 4290.9 R23  .2961 R13 -.9333     LSA 2376.5 MSA  208.4 SSA    8.0
 BDE 1.6889 BRA  .9307 BC3 3.4152 FSP   -598   SG1 4271.9 SG2  402.9 THA 170.93     EL1 2272.2 EL2  160.7 ALF 164.97
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LAUNCH DATE SEP 28 1970 FLIGHT TIME 146.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 431.145

```
RL  149.91 LAL   -.00 LOL   4.46 VL  26.941 GAL  -4.96 AZL  94.75 HCA 209.15 SMA 127.02 ECC .19922 INC 4.7490 V1  29.724
RP  108.11 LAP   2.31 LOP 213.53 VP  37.556 GAP   7.69 AZP  85.85 TAL 200.75 TAP  49.90 RCA 101.72 APO 152.33 V2  35.054
RC 135.957 GL  -32.47 GP   39.81 ZAL 116.31 ZAP 135.51 ETS  53.83 ZAE 120.92 ETE 151.94 ZAC 139.58 ETC 253.93 CLP-158.22
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PLANETOCENTRIC CONIC

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C3  17.136 VHL  4.140 DLA -52.27 RAL 230.87 RAD 6567.7 VEL 11.769 PTH   2.08 VHP  6.717 DPA  20.29 RAP 244.73 ECC 1.2820
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.03	3 58 4	1636.98	35.71	34.20	107.07	131.10	4 25 21	1037.0	40.71	26.66
135.97	12 39 40	5363.34	35.72	247.88	107.09	131.09	14 9 4	4763.3	40.72	240.35
44.03	3 58 4	1636.98	35.71	34.20	107.07	131.10	4 25 21	1037.0	40.71	26.66
135.97	12 39 40	5363.34	35.72	247.88	107.09	131.09	14 9 4	4763.3	40.72	240.35
44.03	3 58 4	1636.98	35.71	34.20	107.07	131.10	4 25 21	1037.0	40.71	26.66
135.97	12 39 40	5363.34	35.72	247.88	107.09	131.09	14 9 4	4763.3	40.72	240.35

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.4806 TRA -.8240 TC3-3.9724 BAU  .9198   SGT 4300.0 SGR  741.6 SG3  189.3     ST  2126.5 SR   564.3 SS   655.9
 RDE  .4076 RRA -.0057 RC3  .5812 FAU .04482   RRT -.8513 RRF -.9458 RTF  .9234     CRT -.9628 CRS  .9990 CST -.9727
 FDE -.8151 FRA -.0528 FC3-2.2645 BSP  13653   SGB 4363.4 R23  .2923 R13 -.9273     LSA 2287.0 MSA  200.3 SSA    9.8
 BDE 1.5357 BRA  .8240 BC3 4.0147 FSP   -621   SG1 4346.4 SG2  384.9 THA 171.58     EL1 2195.1 EL2  147.8 ALF 165.60
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LAUNCH DATE SEP 28 1970 FLIGHT TIME 148.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 437.009

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RL  149.91 LAL   -.00 LOL   4.46 VL  26.886 GAL  -4.64 AZL  94.06 HCA 212.34 SMA 126.66 ECC .20001 INC 4.0562 V1  29.724
RP  108.15 LAP   2.17 LOP 216.74 VP  37.504 GAP   7.93 AZP  86.57 TAL 199.22 TAP  51.56 RCA 101.33 APO 152.00 V2  35.041
RC 138.166 GL  -28.93 GP   36.45 ZAL 115.42 ZAP 138.66 ETS  53.05 ZAE 122.33 ETE 153.83 ZAC 136.66 ETC 255.40 CLP-158.97
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PLANETOCENTRIC CONIC

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C3  15.357 VHL  3.919 DLA -49.43 RAL 235.47 RAD 6567.6 VEL 11.694 PTH   2.06 VHP  6.579 DPA  16.52 RAP 245.67 ECC 1.2527
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.63	4 27 44	1585.66	35.13	28.31	108.40	127.32	4 54 10	985.7	39.71	20.45
132.37	12 46 41	5364.69	35.14	247.45	108.42	127.31	14 16 6	4764.7	39.72	239.59
47.63	4 27 44	1585.66	35.13	28.31	108.40	127.32	4 54 10	985.7	39.71	20.45
132.37	12 46 41	5364.69	35.14	247.45	108.42	127.31	14 16 6	4764.7	39.72	239.59
47.63	4 27 44	1585.66	35.13	28.31	108.40	127.32	4 54 10	985.7	39.71	20.45
132.37	12 46 41	5364.69	35.14	247.45	108.42	127.31	14 16 6	4764.7	39.72	239.59

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.3553 TRA -.7186 TC3-4.5634 BAU  .9449   SGT 4396.4 SGR  706.9 SG3  196.3     ST  2042.8 SR   527.0 SS   599.2
 RDE  .3602 RRA -.0228 RC3  .5981 FAU .04556   RRT -.8487 RRF -.9544 RTF  .9202     CRT -.9638 CRS  .9994 CST -.9675
 FDE -.7198 FRA  .0255 FC3-2.5683 BSP  13942   SGB 4452.8 R23  .2795 R13 -.9235     LSA 2184.5 MSA  193.0 SSA   11.9
 BDE 1.4023 BRA  .7189 BC3 4.6025 FSP   -644   SG1 4437.4 SG2  370.4 THA 172.17     EL1 2105.2 EL2  136.4 ALF 165.98
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LAUNCH DATE SEP 28 1970 FLIGHT TIME 150.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 442.861

RL 149.91 LAL -.00 LOL 4.46 VL 26.831 GAL -4.31 AZL 93.48 HCA 215.53 SMA 126.31 ECC .20093 INC 3.4759 V1 29.724
RP 108.19 LAP 2.02 LOP 219.94 VP 37.452 GAP 8.17 AZP 87.17 TAL 197.68 TAP 53.21 RCA 100.93 APO 151.69 V2 35.028
RC 140.364 GL -25.65 GP 33.52 ZAL 114.02 ZAP 141.48 ETS 52.39 ZAE 123.43 ETE 155.62 ZAC 134.11 ETC 256.59 CLP-159.81

PLANETOCENTRIC CONIC

C3 14.042 VHL 3.747 DLA -46.78 RAL 239.90 RAD 6567.6 VEL 11.637 PTH 2.04 VHP 6.502 DPA 13.18 RAP 246.80 ECC 1.2311

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
51.06	4 57 10	1536.86	34.28	22.79	110.06	124.03	5 22 47	936.9	38.47	14.74
128.94	12 52 38	5373.63	34.29	247.58	110.07	124.02	14 22 12	4773.6	38.48	239.52
51.06	4 57 10	1536.86	34.28	22.79	110.06	124.03	5 22 47	936.9	38.47	14.74
128.94	12 52 38	5373.63	34.29	247.58	110.07	124.02	14 22 12	4773.6	38.48	239.52
51.06	4 57 10	1536.86	34.28	22.79	110.06	124.03	5 22 47	936.9	38.47	14.74
128.94	12 52 38	5373.63	34.29	247.58	110.07	124.02	14 22 12	4773.6	38.48	239.52

DIFFERENTIAL CORRECTIONS
TDE-1.2369 TRA -.6072 TC3-5.1191 BAU .9676
RDE .3233 RRA -.0380 RC3 .6020 FAU .04555
FDE -.6230 FRA .1042 FC3-2.8085 BSP 14226
BDE 1.2785 BRA .6084 BC3 5.1544 FSP -657

MID-COURSE EXECUTION ACCURACY
SGT 4487.1 SGR 674.7 SG3 200.6
RRT -.8427 RRF -.9194 RTF .9177
SGB 4537.5 R23 .2620 R13 -.9204
SG1 4523.2 SG2 380.4 THA 172.73

ORBIT DETERMINATION ACCURACY
ST 1938.0 SR 495.2 SS 537.7
CRT -.9651 CRS .9990 CST -.9598
LSA 2062.8 MSA 186.5 SSA 14.4
EL1 1996.3 EL2 125.9 ALF 166.09

LAUNCH DATE SEP 28 1970 FLIGHT TIME 152.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 448.700

RL 149.91 LAL -.00 LOL 4.46 VL 26.777 GAL -3.98 AZL 92.98 HCA 218.72 SMA 125.96 ECC .20198 INC 2.9800 V1 29.724
RP 108.23 LAP 1.86 LOP 223.14 VP 37.401 GAP 8.41 AZP 87.67 TAL 196.11 TAP 54.84 RCA 100.52 APO 151.40 V2 35.014
RC 142.552 GL -22.60 GP 30.97 ZAL 112.19 ZAP 144.02 ETS 51.88 ZAE 124.28 ETE 157.27 ZAC 131.90 ETC 257.61 CLP-160.69

PLANETOCENTRIC CONIC

C3 13.056 VHL 3.613 DLA -44.30 RAL 244.23 RAD 6567.5 VEL 11.595 PTH 2.03 VHP 6.470 DPA 10.22 RAP 248.09 ECC 1.2149

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.39	5 26 47	1489.15	33.23	17.55	112.04	121.17	5 51 36	889.2	37.08	9.38
125.61	12 57 33	5389.61	33.24	248.26	112.05	121.16	14 27 23	4789.6	37.09	240.09
54.39	5 26 47	1489.15	33.23	17.55	112.04	121.17	5 51 36	889.2	37.08	9.38
125.61	12 57 33	5389.61	33.24	248.26	112.05	121.16	14 27 23	4789.6	37.09	240.09
54.39	5 26 47	1489.15	33.23	17.55	112.04	121.17	5 51 36	889.2	37.08	9.38
125.61	12 57 33	5389.61	33.24	248.26	112.05	121.16	14 27 23	4789.6	37.09	240.09

DIFFERENTIAL CORRECTIONS
TDE-1.1244 TRA -.4911 TC3-5.6377 BAU .9895
RDE .2951 RRA -.0512 RC3 .5984 FAU .04508
FDE -.5288 FRA .1801 FC3-2.9891 BSP 14524
BDE 1.1625 BRA .4937 BC3 5.6694 FSP -666

MID-COURSE EXECUTION ACCURACY
SGT 4578.3 SGR 647.2 SG3 203.1
RRT -.8345 RRF -.9015 RTF .9161
SGB 4623.8 R23 .2403 R13 -.9183
SG1 4610.2 SG2 354.2 THA 173.23

ORBIT DETERMINATION ACCURACY
ST 1816.7 SR 469.4 SS 474.9
CRT -.9673 CRS .9964 CST -.9485
LSA 1927.0 MSA 180.2 SSA 17.5
EL1 1872.8 EL2 115.5 ALF 165.91

LAUNCH DATE SEP 28 1970 FLIGHT TIME 154.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 454.525

RL 149.91 LAL -.00 LOL 4.46 VL 26.722 GAL -3.63 AZL 92.55 HCA 221.91 SMA 125.61 ECC .20316 INC 2.5489 V1 29.724
RP 108.27 LAP 1.70 LOP 226.34 VP 37.350 GAP 8.66 AZP 88.10 TAL 194.54 TAP 56.45 RCA 100.09 APO 151.13 V2 35.001
RC 144.730 GL -19.75 GP 28.74 ZAL 109.99 ZAP 146.30 ETS 51.49 ZAE 124.94 ETE 158.77 ZAC 129.97 ETC 258.51 CLP-161.59

PLANETOCENTRIC CONIC

C3 12.317 VHL 3.510 DLA -41.94 RAL 248.49 RAD 6567.5 VEL 11.563 PTH 2.02 VHP 6.472 DPA 7.58 RAP 249.53 ECC 1.2027

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.66	5 57 1	1441.03	32.04	12.45	114.33	118.66	6 21 2	841.0	35.59	4.23
122.34	13 1 16	5412.79	32.05	249.51	114.33	118.65	14 31 29	4812.8	35.60	241.29
57.66	5 57 1	1441.03	32.04	12.45	114.33	118.66	6 21 2	841.0	35.59	4.23
122.34	13 1 16	5412.79	32.05	249.51	114.33	118.65	14 31 29	4812.8	35.60	241.29
57.66	5 57 1	1441.03	32.04	12.45	114.33	118.66	6 21 2	841.0	35.59	4.23
122.34	13 1 16	5412.79	32.05	249.51	114.33	118.65	14 31 29	4812.8	35.60	241.29

DIFFERENTIAL CORRECTIONS
TDE-1.0152 TRA -.3690 TC3-6.1073 BAU 1.0103
RDE .2735 RRA -.0633 RC3 .5886 FAU .04419
FDE -.4388 FRA .2532 FC3-3.1064 BSP 14819
BDE 1.0514 BRA .3744 BC3 6.1356 FSP -670

MID-COURSE EXECUTION ACCURACY
SGT 4666.8 SGR 624.0 SG3 204.0
RRT -.8236 RRF -.8808 RTF .9151
SGB 4708.3 R23 .2166 R13 -.9169
SG1 4695.2 SG2 351.8 THA 173.68

ORBIT DETERMINATION ACCURACY
ST 1680.1 SR 448.7 SS 412.9
CRT -.9705 CRS .9890 CST -.9312
LSA 1778.6 MSA 174.4 SSA 21.2
EL1 1735.8 EL2 104.6 ALF 165.42

LAUNCH DATE SEP 28 1970 FLIGHT TIME 156.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 460.335

RL 149.91 LAL -.00 LOL 4.46 VL 26.668 GAL -3.28 AZL 92.17 HCA 225.10 SMA 125.27 ECC .20449 INC 2.1684 V1 29.724
RP 108.31 LAP 1.54 LOP 229.54 VP 37.299 GAP 8.90 AZP 88.47 TAL 192.95 TAP 58.05 RCA 99.65 APO 150.89 V2 34.988
RC 146.899 GL -17.07 GP 26.77 ZAL 107.48 ZAP 148.37 ETS 51.23 ZAE 125.47 ETE 160.12 ZAC 128.28 ETC 259.33 CLP-162.49

PLANETOCENTRIC CONIC

C3 11.773 VHL 3.431 DLA -39.69 RAL 252.69 RAD 6567.4 VEL 11.540 PTH 2.01 VHP 6.501 DPA 5.22 RAP 251.10 ECC 1.1938

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.94	6 28 20	1390.96	30.75	7.36	116.88	116.44	6 51 31	791.0	34.02	359.14
119.06	13 3 30	5443.82	30.76	251.38	116.89	116.43	14 34 13	4843.8	34.03	243.15
60.94	6 28 20	1390.96	30.75	7.36	116.88	116.44	6 51 31	791.0	34.02	359.14
119.06	13 3 30	5443.82	30.76	251.38	116.89	116.43	14 34 13	4843.8	34.03	243.15
60.94	6 28 20	1390.96	30.75	7.36	116.88	116.44	6 51 31	791.0	34.02	359.14
119.06	13 3 30	5443.82	30.76	251.38	116.89	116.43	14 34 13	4843.8	34.03	243.15

DIFFERENTIAL CORRECTIONS
TDE -.9061 TRA -.2396 TC3-6.5176 BAU 1.0298
RDE .2567 RRA -.0748 RC3 .5743 FAU .04300
FDE -.3525 FRA .3235 FC3-3.1620 BSP 15101
BDE .9418 BRA .2510 BC3 6.5429 FSP -669

MID-COURSE EXECUTION ACCURACY
SGT 4750.2 SGR 604.5 SG3 203.5
RRT -.8103 RRF -.8579 RTF .9144
SGB 4788.5 R23 .1926 R13 -.9159
SG1 4775.5 SG2 352.4 THA 174.08

ORBIT DETERMINATION ACCURACY
ST 1527.1 SR 431.6 SS 353.1
CRT -.9750 CRS .9708 CST -.9028
LSA 1616.7 MSA 169.1 SSA 25.8
EL1 1584.2 EL2 92.4 ALF 164.54

LAUNCH DATE SEP 28 1970 FLIGHT TIME 158.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 466.130

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RL  149.91 LAL   -.00 LOL   4.46 VL  26.615 GAL  -2.91 AZL  91.83 HCA 228.29 SMA 124.93 ECC .20598 INC 1.8282 V1  29.724
RP  108.35 LAP   1.36 LOP 232.73 VP  37.248 GAP   9.14 AZP  88.78 TAL 191.35 TAP  59.64 RCA  99.20 APO 150.67 V2  34.975
RC 149.057 GL  -14.55 GP   25.05 ZAL 104.70 ZAP 150.25 ETS  51.11 ZAE 125.88 ETE 161.33 ZAC 126.80 ETC 260.09 CLP-163.39
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PLANETOCENTRIC CONIC

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C3  11.391 VHL  3.375 DLA -37.51 RAL 256.85 RAD 6567.4 VEL 11.523 PTH   2.01 VHP  6.550 DPA   3.11 RAP 252.78 ECC 1.1875
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.31	7 1 18	1336.96	29.37	2.13	119.69	114.46	7 23 35	737.0	32.40	353.92
115.69	13 3 43	5484.07	29.38	253.96	119.69	114.45	14 35 7	4884.1	32.41	245.74
64.31	7 1 18	1336.96	29.37	2.13	119.69	114.46	7 23 35	737.0	32.40	353.92
115.69	13 3 43	5484.07	29.38	253.96	119.69	114.45	14 35 7	4884.1	32.41	245.74
64.31	7 1 18	1336.96	29.37	2.13	119.69	114.46	7 23 35	737.0	32.40	353.92
115.69	13 3 43	5484.07	29.38	253.96	119.69	114.45	14 35 7	4884.1	32.41	245.74

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.7960 TRA -.1035 TC3-6.8628 BAU 1.0486   SGT 4830.7 SGR  586.6 SG3  202.0     ST  1360.1 SR   417.6 SS   298.5
RDE  .2437 RRA -.0859 RC3  .5573 FAU .04161   RRT -.7952 RRF -.8333 RTF  .9143    CRT -.9808 CRS  .9296 CST -.8552
FDE -.2708 FRA  .3902 FC3-3.1627 BSP  15372   SGB 4866.4 R23  .1687 R13 -.9155   LSA 1444.0 MSA  164.7 SSA   31.5
BDE  .8325 BRA  .1345 BC3 6.8854 FSP   -665   SG1 4853.4 SG2  355.3 THA 174.44   EL1 1420.6 EL2   77.9 ALF 163.19
```

LAUNCH DATE SEP 28 1970 FLIGHT TIME 160.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 471.908

```
RL  149.91 LAL   -.00 LOL   4.46 VL  26.562 GAL  -2.53 AZL  91.52 HCA 231.48 SMA 124.60 ECC .20762 INC 1.5204 V1  29.724
RP  108.39 LAP   1.19 LOP 235.92 VP  37.198 GAP   9.39 AZP  89.05 TAL 189.73 TAP  61.21 RCA  98.73 APO 150.47 V2  34.962
RC 151.205 GL  -12.17 GP   23.52 ZAL 101.71 ZAP 151.97 ETS  51.13 ZAE 126.21 ETE 162.41 ZAC 125.49 ETC 260.82 CLP-164.29
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PLANETOCENTRIC CONIC

```
C3  11.151 VHL  3.339 DLA -35.38 RAL 260.97 RAD 6567.4 VEL 11.513 PTH   2.01 VHP  6.617 DPA   1.22 RAP 254.55 ECC 1.1835
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.84	7 36 43	1276.26	27.91	356.53	122.71	112.68	7 57 59	676.3	30.73	348.35
112.16	13 1 8	5535.94	27.92	257.41	122.71	112.67	14 33 24	4935.9	30.74	249.23
67.84	7 36 43	1276.26	27.91	356.53	122.71	112.68	7 57 59	676.3	30.73	348.35
112.16	13 1 8	5535.94	27.92	257.41	122.71	112.67	14 33 24	4935.9	30.74	249.23
67.84	7 36 43	1276.26	27.91	356.53	122.71	112.68	7 57 59	676.3	30.73	348.35
112.16	13 1 8	5535.94	27.92	257.41	122.71	112.67	14 33 24	4935.9	30.74	249.23

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.6850 TRA  .0399 TC3-7.1355 BAU 1.0667   SGT 4909.0 SGR  576.2 SG3  199.8     ST  1184.3 SR   406.3 SS   254.1
RDE  .2340 RRA -.0969 RC3  .5381 FAU .04010   RRT -.7784 RRF -.8077 RTF  .9146    CRT -.9872 CRS  .8435 CST -.7766
FDE -.1947 FRA  .4538 FC3-3.1132 BSP  15648   SGB 4942.7 R23  .1465 R13 -.9156   LSA 1266.6 MSA  162.8 SSA   38.4
BDE  .7239 BRA  .1048 BC3 7.1558 FSP   -659   SG1 4929.5 SG2  360.2 THA 174.75   EL1 1250.5 EL2   61.4 ALF 161.24
```

LAUNCH DATE SEP 28 1970 FLIGHT TIME 162.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 477.670

```
RL  149.91 LAL   -.00 LOL   4.46 VL  26.509 GAL  -2.13 AZL  91.24 HCA 234.66 SMA 124.28 ECC .20944 INC 1.2389 V1  29.724
RP  108.43 LAP   1.01 LOP 239.11 VP  37.149 GAP   9.64 AZP  89.28 TAL 188.10 TAP  62.76 RCA  98.25 APO 150.30 V2  34.949
RC 153.343 GL   -9.93 GP   22.16 ZAL  98.54 ZAP 153.54 ETS  51.28 ZAE 126.47 ETE 163.38 ZAC 124.33 ETC 261.52 CLP-165.17
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PLANETOCENTRIC CONIC

```
C3  11.038 VHL  3.322 DLA -33.30 RAL 265.03 RAD 6567.4 VEL 11.508 PTH   2.00 VHP  6.699 DPA   -.48 RAP 256.41 ECC 1.1817
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
71.70	8 15 55	1204.25	26.40	350.21	125.91	111.07	8 35 59	604.3	29.02	342.09
108.30	12 54 21	5603.78	26.41	262.03	125.92	111.05	14 27 45	5003.8	29.03	253.91
71.70	8 15 55	1204.25	26.40	350.21	125.91	111.07	8 35 59	604.3	29.02	342.09
108.30	12 54 21	5603.78	26.41	262.03	125.92	111.05	14 27 45	5003.8	29.03	253.91
110.00	12 5 57	5752.31	22.01	271.40	123.77	116.84	13 41 49	5152.3	25.43	263.92
110.00	14 3 29	5391.75	30.98	247.29	127.63	105.22	15 33 21	4791.8	32.76	238.52

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.5708 TRA  .1897 TC3-7.3296 BAU 1.0843   SGT 4984.2 SGR  566.0 SG3  196.9     ST  1002.0 SR   396.8 SS   223.8
RDE  .2267 RRA -.1077 RC3  .5172 FAU .03850   RRT -.7605 RRF -.7814 RTF  .9154    CRT -.9915 CRS  .6830 CST -.6583
FDE -.1231 FRA  .5130 FC3-3.0196 BSP  15932   SGB 5016.3 R23  .1254 R13 -.9162   LSA 1087.0 MSA  166.7 SSA   45.6
BDE  .6142 BRA  .2182 BC3 7.3478 FSP   -653   SG1 5002.9 SG2  366.1 THA 175.04   EL1 1076.6 EL2   48.0 ALF 158.52
```

LAUNCH DATE SEP 28 1970 FLIGHT TIME 164.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 483.414

```
RL  149.91 LAL   -.00 LOL   4.46 VL  26.457 GAL  -1.73 AZL  90.98 HCA 237.84 SMA 123.95 ECC .21144 INC  .9790 V1  29.724
RP  108.47 LAP    .83 LOP 242.30 VP  37.100 GAP   9.90 AZP  89.48 TAL 186.47 TAP  64.31 RCA  97.75 APO 150.16 V2  34.937
RC 155.470 GL   -7.81 GP   20.96 ZAL  95.24 ZAP 155.00 ETS  51.58 ZAE 126.69 ETE 164.25 ZAC 123.30 ETC 262.20 CLP-166.05
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PLANETOCENTRIC CONIC

```
C3  11.047 VHL  3.324 DLA -31.25 RAL 269.03 RAD 6567.4 VEL 11.508 PTH   2.00 VHP  6.794 DPA  -2.01 RAP 258.35 ECC 1.1818
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
76.19	9 1 43	1111.42	24.85	342.49	129.29	109.60	9 20 15	511.4	27.29	334.42
103.81	12 40 27	5696.94	24.86	268.50	129.29	109.59	14 15 24	5096.9	27.29	260.43
76.19	9 1 43	1111.42	24.85	342.49	129.29	109.60	9 20 15	511.4	27.29	334.42
103.81	12 40 27	5696.94	24.86	268.50	129.29	109.59	14 15 24	5096.9	27.29	260.43
110.00	11 34 17	615.59	17.09	302.47	125.45	120.07	11 44 33	15.6	20.95	295.48
110.00	15 7 3	5240.77	33.14	236.06	131.69	98.91	16 34 24	4640.8	34.01	226.93

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.4455 TRA  .3558 TC3-7.4107 BAU 1.0969   SGT 5037.1 SGR  555.7 SG3  192.8     ST   811.1 SR   386.8 SS   213.3
RDE  .2203 RRA -.1201 RC3  .4898 FAU .03655   RRT -.7392 RRF -.7530 RTF  .9144    CRT -.9841 CRS  .4186 CST -.5092
FDE -.0504 FRA  .5756 FC3-2.8645 BSP  16010   SGB 5067.7 R23  .1090 R13 -.9151   LSA  902.9 MSA  187.6 SSA   50.9
BDE  .4970 BRA  .3755 BC3 7.4269 FSP   -633   SG1 5053.9 SG2  373.1 THA 175.31   EL1  896.4 EL2   62.2 ALF 154.73
```

LAUNCH DATE SEP 28 1970 FLIGHT TIME 166.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 489.139

RL	149.91	LAL	-.00	LOL	4.46	VL	26.405	GAL	-1.31	AZL	90.74	HCA	241.02	SMA	123.64	ECC	.21364	INC	.7367
RP	108.51	LAP	.64	LOP	245.48	VP	37.051	GAP	10.16	AZP	89.64	TAL	184.82	TAP	65.84	RCA	97.22	APO	150.05
RC	157.587	GL	-5.83	GP	19.88	ZAL	91.86	ZAP	156.34	ETS	52.03	ZAE	126.86	ETE	165.02	ZAC	122.37	ETC	262.87

V1	29.724	V2	34.925	CLP	-166.91														

PLANETOCENTRIC CONIC

C3	11.175	VHL	3.343	DLA	-29.25	RAL	272.95	RAD	6567.4	VEL	11.514	PTH	2.01	VHP	6.901	DPA	-3.38	RAP	260.36
ECC	1.1839																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.37	10 3 42	966.24	23.26	331.07	132.80	108.25	10 19 49	366.2	25.53	323.06
97.63	12 9 45	5846.86	23.27	279.08	132.60	108.24	13 47 12	5246.9	25.54	271.08
100.00	11 35 53	667.48	19.69	307.77	131.36	112.95	11 47 0	67.5	22.63	300.21
100.00	13 20 16	5620.85	26.93	263.50	133.95	103.49	14 53 57	5020.8	28.52	255.06
110.00	11 18 49	721.21	13.39	308.43	127.96	121.75	11 30 50	121.2	17.49	301.72
110.00	15 53 49	5139.89	33.94	228.29	135.23	94.38	17 19 29	4539.9	34.17	219.05

DIFFERENTIAL CORRECTIONS

TDE	-.3222	TRA	.5240	TC3	-7.4276	BAU	1.1118
RDE	.2167	RRA	-.1318	RC3	.4647	FAU	.03480
FDE	.0128	FRA	.6311	FC3	-2.6960	BSP	16226
BDE	.3883	BRA	.5403	BC3	7.4421	FSP	-621

MID-COURSE EXECUTION ACCURACY

SGT	5101.5	SGR	549.1	SG3	189.0		
RRT	-.7191	RRF	-.7265	RTF	.9152		
SGB	5130.9	R23	.0931	R13	-.9158		
SG1	5116.8	SG2	380.4	THA	175.55		

ORBIT DETERMINATION ACCURACY

ST	650.0	SR	379.5	SS	224.5
CRT	-.9342	CRS	.1484	CST	-.4525
LSA	748.6	MSA	231.9	SSA	51.4
EL1	743.3	EL2	118.4	ALF	150.57

LAUNCH DATE SEP 28 1970 FLIGHT TIME 168.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 494.843

RL	149.91	LAL	-.00	LOL	4.46	VL	26.353	GAL	-.87	AZL	90.51	HCA	244.20	SMA	123.33	ECC	.21604	INC	.5092
RP	108.54	LAP	.46	LOP	248.66	VP	37.003	GAP	10.43	AZP	89.78	TAL	183.16	TAP	67.36	RCA	96.68	APO	149.97
RC	159.692	GL	-3.97	GP	18.92	ZAL	88.42	ZAP	157.59	ETS	52.63	ZAE	127.01	ETE	165.71	ZAC	121.53	ETC	263.53

V1	29.724	V2	34.913	CLP	-167.76		

PLANETOCENTRIC CONIC

C3	11.422	VHL	3.380	DLA	-27.28	RAL	276.78	RAD	6567.4	VEL	11.524	PTH	2.01	VHP	7.019	DPA	-4.62	RAP	262.43
ECC	1.1880																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 14 39	986.85	17.24	330.17	134.73	112.82	10 31 5	386.9	20.18	322.74
90.00	12 29 22	5835.31	26.21	279.08	137.68	101.13	14 6 38	5235.3	27.48	270.65
100.00	10 58 40	844.63	14.64	318.50	133.50	116.35	11 12 44	244.6	18.07	311.38
100.00	14 28 3	5452.76	29.02	251.46	138.20	97.49	15 58 55	4852.8	29.76	242.73
110.00	11 9 36	810.29	10.15	313.29	130.89	122.82	11 23 6	210.3	14.40	306.77
110.00	16 33 36	5059.87	34.18	222.06	138.63	90.70	17 57 56	4459.9	33.90	212.82

DIFFERENTIAL CORRECTIONS

TDE	-.2001	TRA	.6940	TC3	-7.3839	BAU	1.1296
RDE	.2152	RRA	-.1429	RC3	.4415	FAU	.03326
FDE	.0686	FRA	.6794	FC3	-2.5206	BSP	16588
BDE	.2939	BRA	.7086	BC3	7.3971	FSP	-618

MID-COURSE EXECUTION ACCURACY

SGT	5174.7	SGR	544.5	SG3	185.2		
RRT	-.7005	RRF	-.7018	RTF	.9176		
SGB	5203.3	R23	.0775	R13	-.9181		
SG1	5188.8	SG2	387.5	THA	175.76		

ORBIT DETERMINATION ACCURACY

ST	543.3	SR	374.1	SS	248.0
CRT	-.7755	CRS	-.0668	CST	-.5515
LSA	635.5	MSA	300.8	SSA	47.8
EL1	627.1	EL2	204.6	ALF	148.11

LAUNCH DATE SEP 28 1970 FLIGHT TIME 170.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 500.527

RL	149.91	LAL	-.00	LOL	4.46	VL	26.303	GAL	-.42	AZL	90.29	HCA	247.38	SMA	123.02	ECC	.21868	INC	.2934
RP	108.58	LAP	.27	LOP	251.84	VP	36.956	GAP	10.71	AZP	89.89	TAL	181.49	TAP	68.87	RCA	96.12	APO	149.92
RC	161.784	GL	-2.25	GP	18.05	ZAL	84.97	ZAP	158.75	ETS	53.39	ZAE	127.14	ETE	166.33	ZAC	120.76	ETC	264.19

V1	29.724	V2	34.901	CLP	-168.59		

PLANETOCENTRIC CONIC

C3	11.792	VHL	3.434	DLA	-25.35	RAL	280.51	RAD	6567.4	VEL	11.540	PTH	2.01	VHP	7.148	DPA	-5.72	RAP	264.56
ECC	1.1941																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 43 22	1148.38	12.72	339.88	137.28	115.51	10 2 30	548.4	16.06	332.79
90.00	13 30 23	5687.09	27.72	268.51	141.78	96.04	15 5 10	5087.1	28.27	259.88
100.00	10 40 35	963.64	10.94	325.39	136.36	117.99	10 56 38	363.6	14.60	318.51
100.00	15 15 51	5347.06	29.71	243.68	141.96	93.46	16 44 58	4747.1	29.87	234.88
110.00	11 3 52	890.56	7.16	317.58	134.08	123.51	11 18 43	290.6	11.52	311.20
110.00	17 9 3	4992.90	34.11	216.83	142.01	87.60	18 32 16	4392.9	33.40	207.66

DIFFERENTIAL CORRECTIONS

TDE	-.0633	TRA	.8829	TC3	-7.2176	BAU	1.1397
RDE	.2138	RRA	-.1556	RC3	.4107	FAU	.03128
FDE	.1276	FRA	.7316	FC3	-2.2968	BSP	16665
BDE	.2230	BRA	.8965	BC3	7.2292	FSP	-598

MID-COURSE EXECUTION ACCURACY

SGT	5219.2	SGR	537.9	SG3	180.4		
RRT	-.6783	RRF	-.6742	RTF	.9177		
SGB	5246.9	R23	.0656	R13	-.9180		
SG1	5232.0	SG2	394.3	THA	175.98		

ORBIT DETERMINATION ACCURACY

ST	521.9	SR	367.0	SS	284.2
CRT	-.4233	CRS	-.2405	CST	-.7606
LSA	587.0	MSA	376.3	SSA	42.4
EL1	556.7	EL2	311.8	ALF	155.17

LAUNCH DATE SEP 28 1970 FLIGHT TIME 172.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 506.186

RL	149.91	LAL	-.00	LOL	4.46	VL	26.252	GAL	.05	AZL	90.09	HCA	250.56	SMA	122.72	ECC	.22155	INC	.0868
RP	108.61	LAP	.08	LOP	255.01	VP	36.910	GAP	10.99	AZP	89.97	TAL	179.82	TAP	70.38	RCA	95.53	APO	149.91
RC	163.865	GL	-.66	GP	17.27	ZAL	81.53	ZAP	159.83	ETS	54.31	ZAE	127.25	ETE	166.89	ZAC	120.06	ETC	264.85

V1	29.724	V2	34.890	CLP	-169.41		

PLANETOCENTRIC CONIC

C3	12.292	VHL	3.506	DLA	-23.47	RAL	284.12	RAD	6567.5	VEL	11.562	PTH	2.02	VHP	7.287	DPA	-6.71	RAP	266.74
ECC	1.2023																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 26 26	1265.66	9.19	346.69	140.33	116.90	9 47 32	665.7	12.73	339.80
90.00	14 16 6	5587.30	28.22	261.25	145.56	92.43	15 49 13	4987.3	28.26	252.59
100.00	10 29 17	1062.79	7.72	330.99	139.54	118.97	10 47 0	462.8	11.52	324.27
100.00	15 55 56	5265.39	29.89	237.61	145.61	90.27	17 23 41	4665.4	29.61	228.82
110.00	11 0 23	965.31	4.33	321.52	137.46	123.94	11 16 28	365.3	8.76	315.23
110.00	17 41 20	4935.64	33.86	212.37	145.41	84.98	19 3 36	4335.6	32.79	203.30

DIFFERENTIAL CORRECTIONS

TDE	.0833	TRA	1.0856	TC3	-7.0004	BAU	1.1521
RDE	.2123	RRA	-.1699	RC3	.3819	FAU	.02952
FDE	.1898	FRA	.7886	FC3	-2.0790	BSP	16822
BDE	.2281	BRA	1.0988	BC3	7.0108	FSP	-578

MID-COURSE EXECUTION ACCURACY

SGT	5277.7	SGR	532.7	SG3	177.0		
RRT	-.6590	RRF	-.6490	RTF	.9172		
SGB	5304.5	R23	.0545	R13	-.9175		
SG1	5289.4	SG2	399.8	THA	176.17		

ORBIT DETERMINATION ACCURACY

ST	613.9	SR	358.8	SS	330.6
CRT	-.0301	CRS	-.3661	CST	-.9096
LSA	686.8	MSA	376.6	SSA	37.4
EL1	614.1	EL2	358.5	ALF	178.47

LAUNCH DATE SEP 28 1970 FLIGHT TIME 174.00 ARRIVAL DATE MAR 21 1971

HELIOCENTRIC CONIC DISTANCE 511.821
RL 149.91 LAL -.00 LOL 4.46 VL 26.202 GAL .54 AZL 89.89 HCA 253.73 SMA 122.42 ECC .22469 INC .1084 V1 29.724
RP 108.65 LAP -.11 LOP 258.19 VP 36.864 GAP 11.29 AZP 90.03 TAL 178.14 TAP 71.87 RCA 94.92 APO 149.93 V2 34.880
RC 165.932 GL .80 GP 16.56 ZAL 78.14 ZAP 160.84 ETS 55.40 ZAE 127.34 ETE 167.39 ZAC 119.41 ETC 265.50 CLP-170.23
PLANETOCENTRIC CONIC
C3 12.928 VHL 3.596 DLA -21.65 RAL 287.60 RAD 6567.5 VEL 11.589 PTH 2.03 VHP 7.438 DPA -7.58 RAP 268.96 ECC 1.2128

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 15 27	1365.12	6.08	352.34	143.65	117.71	9 38 12	765.1	9.75	345.58
90.00	14 54 51	5509.41	28.31	255.56	149.26	89.58	16 26 40	4909.4	27.96	246.91
100.00	10 21 43	1151.26	4.77	335.91	142.93	119.54	10 40 54	551.3	8.67	329.29
100.00	16 31 16	5198.51	29.81	232.64	149.22	87.66	17 57 55	4598.5	29.17	223.90
110.00	10 58 25	1036.23	1.63	325.23	140.97	124.15	11 15 41	436.2	6.10	319.00
110.00	18 11 4	4886.30	33.50	208.57	148.85	82.75	19 32 30	4286.3	32.13	199.60

DIFFERENTIAL CORRECTIONS
TDE .2178 TRA 1.2847 TC3-6.7152 BAU 1.1622
RDE .2154 RRA -.1820 RC3 .3522 FAU .02774
FDE .2308 FRA .8309 FC3-1.8576 BSP 16982
BDE .3063 BRA 1.2975 BC3 6.7244 FSP -569

MID-COURSE EXECUTION ACCURACY
SGT 5319.0 SGR 528.6 SG3 171.7
RRT -.6372 RRF -.6251 RTF .9192
SGB 5345.2 R23 .0467 R13 -.9194
SG1 5329.7 SG2 406.6 THA 176.36

ORBIT DETERMINATION ACCURACY
ST 760.3 SR 355.9 SS 363.3
CRT .2075 CRS -.4272 CST -.9676
LSA 844.1 MSA 350.8 SSA 32.8
EL1 764.8 EL2 346.1 ALF 6.99

LAUNCH DATE SEP 28 1970 FLIGHT TIME 176.00 ARRIVAL DATE MAR 23 1971

HELIOCENTRIC CONIC DISTANCE 517.428
RL 149.91 LAL -.00 LOL 4.46 VL 26.153 GAL 1.04 AZL 89.70 HCA 256.90 SMA 122.13 ECC .22811 INC .3003 V1 29.724
RP 108.68 LAP -.29 LOP 261.36 VP 36.819 GAP 11.59 AZP 90.07 TAL 176.46 TAP 73.36 RCA 94.27 APO 149.99 V2 34.869
RC 167.985 GL 2.12 GP 15.92 ZAL 74.82 ZAP 161.78 ETS 56.68 ZAE 127.42 ETE 167.85 ZAC 118.80 ETC 266.16 CLP-171.03
PLANETOCENTRIC CONIC
C3 13.713 VHL 3.703 DLA -19.90 RAL 290.94 RAD 6567.5 VEL 11.623 PTH 2.04 VHP 7.599 DPA -8.36 RAP 271.22 ECC 1.2257

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 7 52	1454.43	3.23	357.36	147.13	118.15	9 32 6	854.4	6.97	350.68
90.00	15 29 7	5445.69	28.19	250.90	152.92	87.25	16 59 53	4845.7	27.51	242.30
100.00	10 16 31	1232.85	2.02	340.40	146.46	119.83	10 37 4	632.8	5.97	333.84
100.00	17 3 9	5142.50	29.58	228.50	152.82	85.49	18 28 51	4542.5	28.64	219.82
110.00	10 57 33	1104.27	-.97	328.78	144.59	124.17	11 15 58	504.3	3.52	322.57
110.00	18 38 36	4843.85	33.09	205.32	152.33	80.87	19 59 20	4243.8	31.47	196.47

DIFFERENTIAL CORRECTIONS
TDE .3629 TRA 1.4986 TC3-6.3862 BAU 1.1723
RDE .2184 RRA -.1953 RC3 .3229 FAU .02604
FDE .2756 FRA .8767 FC3-1.6441 BSP 17159
BDE .4236 BRA 1.5112 BC3 6.3944 FSP -558

MID-COURSE EXECUTION ACCURACY
SGT 5363.5 SGR 524.1 SG3 167.2
RRT -.6168 RRF -.6021 RTF .9206
SGB 5389.0 R23 .0393 R13 -.9208
SG1 5373.3 SG2 411.8 THA 176.53

ORBIT DETERMINATION ACCURACY
ST 939.5 SR 351.5 SS 399.6
CRT .3556 CRS -.4772 CST -.9877
LSA 1028.8 MSA 326.7 SSA 29.2
EL1 948.9 EL2 325.3 ALF 8.60

LAUNCH DATE SEP 28 1970 FLIGHT TIME 178.00 ARRIVAL DATE MAR 25 1971

HELIOCENTRIC CONIC DISTANCE 523.004
RL 149.91 LAL -.00 LOL 4.46 VL 26.104 GAL 1.57 AZL 89.51 HCA 260.07 SMA 121.85 ECC .23184 INC .4868 V1 29.724
RP 108.71 LAP -.48 LOP 264.53 VP 36.776 GAP 11.91 AZP 90.08 TAL 174.78 TAP 74.85 RCA 93.60 APO 150.09 V2 34.859
RC 170.025 GL 3.32 GP 15.34 ZAL 71.59 ZAP 162.66 ETS 58.15 ZAE 127.49 ETE 168.26 ZAC 118.22 ETC 266.81 CLP-171.83
PLANETOCENTRIC CONIC
C3 14.660 VHL 3.829 DLA -18.22 RAL 294.14 RAD 6567.6 VEL 11.664 PTH 2.05 VHP 7.773 DPA -9.03 RAP 273.51 ECC 1.2413

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 2 29	1536.95	.58	1.97	150.74	118.31	9 28 6	937.0	4.36	355.33
90.00	16 0 2	5392.61	27.96	247.03	156.59	85.33	17 29 55	4792.6	27.02	238.49
100.00	10 12 58	1309.51	-.58	344.60	150.09	119.89	10 34 48	709.5	3.40	338.08
100.00	17 32 15	5095.28	29.28	225.02	156.44	83.68	18 57 10	4495.3	28.09	216.41
110.00	10 57 30	1169.98	-3.48	332.21	148.28	124.03	11 17 0	570.0	1.01	326.01
110.00	19 4 12	4807.58	32.66	202.58	155.85	79.30	20 24 20	4207.6	30.84	193.83

DIFFERENTIAL CORRECTIONS
TDE .5122 TRA 1.7225 TC3-6.0205 BAU 1.1814
RDE .2226 RRA -.2087 RC3 .2939 FAU .02439
FDE .3175 FRA .9211 FC3-1.4402 BSP 17326
BDE .5584 BRA 1.7351 BC3 6.0277 FSP -546

MID-COURSE EXECUTION ACCURACY
SGT 5404.4 SGR 519.3 SG3 162.7
RRT -.5967 RRF -.5798 RTF .9221
SGB 5429.2 R23 .0328 R13 -.9223
SG1 5413.3 SG2 416.0 THA 176.70

ORBIT DETERMINATION ACCURACY
ST 1126.6 SR 347.4 SS 433.3
CRT .4446 CRS -.5132 CST -.9947
LSA 1217.3 MSA 308.5 SSA 26.3
EL1 1138.0 EL2 308.1 ALF 8.43

LAUNCH DATE SEP 28 1970 FLIGHT TIME 180.00 ARRIVAL DATE MAR 27 1971

HELIOCENTRIC CONIC DISTANCE 528.546
RL 149.91 LAL -.00 LOL 4.46 VL 26.056 GAL 2.12 AZL 89.33 HCA 263.24 SMA 121.57 ECC .23590 INC .6694 V1 29.724
RP 108.74 LAP -.66 LOP 267.70 VP 36.733 GAP 12.25 AZP 90.08 TAL 173.09 TAP 76.33 RCA 92.89 APO 150.24 V2 34.850
RC 172.049 GL 4.39 GP 14.82 ZAL 68.47 ZAP 163.48 ETS 59.82 ZAE 127.55 ETE 168.64 ZAC 117.68 ETC 267.46 CLP-172.62
PLANETOCENTRIC CONIC
C3 15.785 VHL 3.973 DLA -16.62 RAL 297.20 RAD 6567.6 VEL 11.712 PTH 2.06 VHP 7.959 DPA -9.62 RAP 275.83 ECC 1.2598

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 58 40	1614.51	-1.93	6.29	154.43	118.26	9 25 34	1014.5	1.87	359.66
90.00	16 28 15	5348.25	27.67	243.82	160.26	83.74	17 57 23	4748.2	26.52	235.34
100.00	10 10 36	1382.39	-3.05	348.61	153.81	119.75	10 33 38	782.4	.93	342.08
100.00	17 59 0	5055.59	28.94	222.11	160.08	82.19	19 23 15	4455.6	27.56	213.58
110.00	10 58 3	1233.73	-5.90	335.56	152.03	123.73	11 18 37	633.7	-1.43	329.33
110.00	19 28 2	4777.02	32.25	200.29	159.41	78.00	20 47 39	4177.0	30.26	191.64

DIFFERENTIAL CORRECTIONS
TDE .6568 TRA 1.9485 TC3-5.6500 BAU 1.1936
RDE .2286 RRA -.2214 RC3 .2674 FAU .02298
FDE .3523 FRA .9803 FC3-1.2604 BSP 17680
BDE .6955 BRA 1.9610 BC3 5.6563 FSP -542

MID-COURSE EXECUTION ACCURACY
SGT 5445.4 SGR 514.7 SG3 158.1
RRT -.5778 RRF -.5593 RTF .9247
SGB 5469.6 R23 .0270 R13 -.9248
SG1 5453.5 SG2 419.5 THA 176.86

ORBIT DETERMINATION ACCURACY
ST 1299.7 SR 344.6 SS 459.8
CRT .4990 CRS -.5381 CST -.9974
LSA 1389.7 MSA 296.0 SSA 23.9
EL1 1311.7 EL2 295.9 ALF 7.94

LAUNCH DATE SEP 28 1970 FLIGHT TIME 182.00 ARRIVAL DATE MAR 29 1971

HELIOCENTRIC CONIC DISTANCE 534.052

RL	149.91	LAL	-.00	LOL	4.46	VL	26.009	GAL	2.70	AZL	89.15	HCA	266.41	SMA	121.29	ECC	.24033	INC	.8495
RP	108.77	LAP	-.85	LOP	270.86	VP	36.690	GAP	12.60	AZP	90.05	TAL	171.40	TAP	77.81	RCA	92.14	APO	150.44
RC	174.060	GL	5.34	GP	14.34	ZAL	65.46	ZAP	164.25	ETS	61.70	ZAE	127.61	ETE	168.98	ZAC	117.15	ETC	268.11

V1	29.724	V2	34.841	CLP	-173.40														

PLANETOCENTRIC CONIC

C3	17.107	VHL	4.136	DLA	-15.11	RAL	300.11	RAD	6567.7	VEL	11.768	PTH	2.08	VHP	8.158	DPA	-10.12	RAP	278.17
ECC	1.2815																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 55 59	1688.18	-4.29	10.41	158.19	118.02	9 24 7	1088.2	-.51	3.77
90.00	16 54 9	5311.34	27.37	241.16	163.94	82.44	18 22 40	4711.3	26.04	232.75
100.00	10 9 7	1452.21	-5.40	352.46	157.58	119.45	10 33 19	852.2	-1.43	345.91
100.00	18 23 42	5022.55	28.62	219.71	163.73	80.96	19 47 24	4422.5	27.07	211.25
110.00	10 59 4	1295.78	-8.24	338.85	155.84	123.29	11 20 40	695.8	-3.80	332.57
110.00	19 50 14	4751.75	31.88	198.41	163.00	76.95	21 9 26	4151.7	29.76	189.84

DIFFERENTIAL CORRECTIONS

TDE	.8224	TRA	2.2023	TC3	-5.2225	BAU	1.1956
RDE	.2343	RRA	-.2355	RC3	.2377	FAU	.02120
FDE	.3936	FRA	1.0073	FC3	-1.0728	BSP	17632
BDE	.8551	BRA	2.2148	BC3	5.2279	FSP	-521

MID-COURSE EXECUTION ACCURACY

SGT	5472.3	SGR	508.1	SG3	153.9		
RRT	-.5566	RRF	-.5369	RTF	.9254		
SGB	5495.9	RZ3	.0225	R13	-.9255		
SG1	5479.7	SG2	421.6	THA	177.02		

ORBIT DETERMINATION ACCURACY

ST	1487.7	SR	340.0	SS	491.4
CRT	.5393	CRS	-.5603	CST	-.9986
LSA	1577.7	MSA	284.1	SSA	22.0
EL1	1499.4	EL2	284.1	ALF	7.29

LAUNCH DATE SEP 28 1970 FLIGHT TIME 184.00 ARRIVAL DATE MAR 31 1971

HELIOCENTRIC CONIC DISTANCE 539.517

RL	149.91	LAL	-.00	LOL	4.46	VL	25.962	GAL	3.30	AZL	88.97	HCA	269.57	SMA	121.02	ECC	.24515	INC	1.0283
RP	108.79	LAP	-1.03	LOP	274.03	VP	36.649	GAP	12.97	AZP	90.01	TAL	169.72	TAP	79.29	RCA	91.35	APO	150.69
RC	176.055	GL	6.18	GP	13.90	ZAL	62.59	ZAP	164.95	ETS	63.81	ZAE	127.66	ETE	169.29	ZAC	116.65	ETC	268.76

V1	29.724	V2	34.833	CLP	-174.18														

PLANETOCENTRIC CONIC

C3	18.649	VHL	4.318	DLA	-13.68	RAL	302.87	RAD	6567.8	VEL	11.833	PTH	2.10	VHP	8.372	DPA	-10.53	RAP	280.53
ECC	1.3069																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 54 10	1758.67	-6.53	14.38	161.99	117.61	9 23 29	1158.7	-2.79	7.71
90.00	17 18 1	5281.04	27.08	238.99	167.63	81.39	18 46 2	4681.0	25.61	230.63
100.00	10 8 19	1519.43	-7.63	356.20	161.40	118.99	10 33 39	919.4	-3.71	349.61
100.00	18 46 33	4995.51	28.31	217.76	167.40	79.98	20 9 48	4395.5	26.64	209.36
110.00	11 0 25	1356.27	-10.48	342.10	159.68	122.72	11 23 1	756.3	-6.09	335.75
110.00	20 10 56	4731.44	31.56	196.92	166.61	76.12	21 29 48	4131.4	29.33	188.42

DIFFERENTIAL CORRECTIONS

TDE	.9061	TRA	2.4616	TC3	-4.8054	BAU	1.1992
RDE	.2416	RRA	-.2489	RC3	.2108	FAU	.01961
FDE	.4297	FRA	1.0509	FC3	-.9105	BSP	17719
BDE	1.0153	BRA	2.4742	BC3	4.8101	FSP	-507

MID-COURSE EXECUTION ACCURACY

SGT	5498.7	SGR	501.4	SG3	149.7		
RRT	-.5363	RRF	-.5158	RTF	.9270		
SGB	5521.5	RZ3	.0185	R13	-.9271		
SG1	5505.3	SG2	422.7	THA	177.18		

ORBIT DETERMINATION ACCURACY

ST	1656.5	SR	336.4	SS	517.0
CRT	.5668	CRS	-.5769	CST	-.9991
LSA	1746.0	MSA	275.3	SSA	20.4
EL1	1667.8	EL2	275.3	ALF	6.75

LAUNCH DATE SEP 28 1970 FLIGHT TIME 186.00 ARRIVAL DATE APR 2 1971

HELIOCENTRIC CONIC DISTANCE 544.933

RL	149.91	LAL	-.00	LOL	4.46	VL	25.915	GAL	3.93	AZL	88.79	HCA	272.74	SMA	120.75	ECC	.25042	INC	1.2069
RP	108.82	LAP	-1.21	LOP	277.20	VP	36.609	GAP	13.37	AZP	89.94	TAL	168.04	TAP	80.78	RCA	90.52	APO	150.99
RC	178.036	GL	6.92	GP	13.50	ZAL	59.85	ZAP	165.61	ETS	66.16	ZAE	127.70	ETE	169.58	ZAC	116.16	ETC	269.41

V1	29.724	V2	34.825	CLP	-174.96														

PLANETOCENTRIC CONIC

C3	20.438	VHL	4.521	DLA	-12.33	RAL	305.49	RAD	6567.8	VEL	11.909	PTH	2.12	VHP	8.602	DPA	-10.87	RAP	282.91
ECC	1.3364																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 53 1	1826.42	-8.65	18.23	165.84	117.07	9 23 28	1226.4	-4.96	11.50
90.00	17 40 3	5256.70	26.82	237.26	171.32	80.56	19 7 40	4656.7	25.24	228.95
100.00	10 8 3	1584.38	-9.76	359.85	165.25	118.40	10 34 27	984.4	-5.89	353.20
100.00	19 7 43	4973.98	28.05	216.22	171.07	79.21	20 30 37	4374.0	26.27	207.86
110.00	11 2 2	1415.32	-12.63	345.32	163.54	122.03	11 25 37	815.3	-8.31	338.89
110.00	20 30 14	4715.80	31.30	195.77	170.23	75.49	21 48 50	4115.8	28.99	187.33

DIFFERENTIAL CORRECTIONS

TDE	1.1396	TRA	2.7194	TC3	-4.4199	BAU	1.2088
RDE	.2512	RRA	-.2608	RC3	.1875	FAU	.01839
FDE	.4574	FRA	1.0880	FC3	-.7788	BSP	18141
BDE	1.1670	BRA	2.7319	BC3	4.4239	FSP	-506

MID-COURSE EXECUTION ACCURACY

SGT	5523.0	SGR	494.5	SG3	145.2		
RRT	-.5168	RRF	-.4963	RTF	.9299		
SGB	5545.1	RZ3	.0151	R13	-.9300		
SG1	5528.9	SG2	422.9	THA	177.34		

ORBIT DETERMINATION ACCURACY

ST	1794.6	SR	334.2	SS	533.7
CRT	.5865	CRS	-.5893	CST	-.9993
LSA	1882.7	MSA	269.1	SSA	19.1
EL1	1805.6	EL2	269.0	ALF	6.37

LAUNCH DATE SEP 28 1970 FLIGHT TIME 188.00 ARRIVAL DATE APR 4 1971

HELIOCENTRIC CONIC DISTANCE 550.299

RL	149.91	LAL	-.00	LOL	4.46	VL	25.869	GAL	4.60	AZL	88.61	HCA	275.90	SMA	120.49	ECC	.25616	INC	1.3863
RP	108.84	LAP	-1.38	LOP	280.36	VP	36.570	GAP	13.79	AZP	89.86	TAL	166.37	TAP	82.27	RCA	89.63	APO	151.36
RC	180.002	GL	7.56	GP	13.13	ZAL	57.25	ZAP	166.20	ETS	68.76	ZAE	127.73	ETE	169.85	ZAC	115.68	ETC	270.05

V1	29.724	V2	34.818	CLP	-175.73														

PLANETOCENTRIC CONIC

C3	22.507	VHL	4.744	DLA	-11.08	RAL	307.97	RAD	6567.9	VEL	11.995	PTH	2.14	VHP	8.849	DPA	-11.13	RAP	285.29
ECC	1.3704																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 52 24	1891.83	-10.66	21.99	169.72	116.39	9 23 56	1291.8	-7.03	15.19
90.00	18 0 28	5237.76	26.60	235.91	175.01	79.92	19 27 46	4637.8	24.94	227.64
100.00	10 8 11	1647.34	-11.77	3.44	169.14	117.68	10 35 38	1047.3	-7.97	356.71
100.00	19 27 22	4957.48	27.83	215.04	174.75	78.62	20 50 0	4357.5	25.98	206.73
110.00	11 3 50	1473.07	-14.70	348.52	167.44	121.22	11 28 23	873.1	-10.45	341.99
110.00	20 48 13	4704.52	31.10	194.95	173.87	75.04	22 6 37	4104.5	28.73	186.55

DIFFERENTIAL CORRECTIONS

TDE	1.3247	TRA	3.0172	TC3	-3.9919	BAU	1.2021
RDE	.2599	RRA	-.2742	RC3	.1617	FAU	.01664
FDE	.4956	FRA	1.1370	FC3	-.6399	BSP	17920
BDE	1.3499	BRA	3.0296	BC3	3.9951	FSP	-481

MID-COURSE EXECUTION ACCURACY

SGT	5540.1	SGR	485.7	SG3	141.6		
RRT	-.4950	RRF	-.4743	RTF	.9312		
SGB	5561.3	RZ3	.0123	R13	-.9312		
SG1	5545.3	SG2	421.6	THA	177.50		

ORBIT DETERMINATION ACCURACY

ST	1952.7	SR	329.8	SS	559.1
CRT	.6037	CRS	-.6023	CST	-.9994
LSA	2041.0	MSA	261.7	SSA	18.0
EL1	1963.0	EL2	261.5	ALF	5.93

LAUNCH DATE SEP 28 1970 FLIGHT TIME 190.00 ARRIVAL DATE APR 6 1971

HELIOCENTRIC CONIC DISTANCE 555.604

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RL  149.91 LAL   -.00 LOL   4.46 VL  25.824 GAL   5.30 AZL  88.43 HCA 279.06 SMA 120.24 ECC .26244 INC 1.5677 V1  29.724
RP  108.86 LAP  -1.55 LOP 283.52 VP  36.532 GAP  14.23 AZP  89.75 TAL 164.71 TAP  83.77 RCA  88.68 APO 151.80 V2  34.812
RC 181.954 GL    8.11 GP   12.80 ZAL  54.79 ZAP 166.74 ETS  71.63 ZAE 127.75 ETE 170.09 ZAC 115.21 ETC 270.69 CLP-176.51
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PLANETOCENTRIC CONIC

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C3  24.894 VHL  4.989 DLA  -9.90 RAL 310.32 RAD 6568.0 VEL 12.094 PTH   2.16 VHP  9.115 DPA -11.31 RAP 287.68 ECC 1.4097
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 52 12	1955.12	-12.55	25.68	173.62	115.59	9 24 47	1355.1	-9.00	18.80
90.00	18 19 22	5223.77	26.43	234.93	178.70	79.45	19 46 26	4623.8	24.71	226.68
100.00	10 8 39	1708.47	-13.68	6.97	173.05	116.84	10 37 7	1108.5	-9.97	.15
100.00	19 45 36	4945.65	27.67	214.20	178.43	78.21	21 8 2	4345.7	25.76	205.91
110.00	11 5 47	1529.56	-16.66	351.72	171.36	120.29	11 31 16	929.6	-12.52	345.06
110.00	21 4 57	4697.33	30.97	194.43	177.52	74.76	22 23 15	4097.3	28.57	186.05

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.5017 TRA 3.3161 TC3-3.6038 BAU 1.2003   SGT 5554.3 SGR  476.6 SG3  137.7     ST  2081.0 SR   326.6 SS   576.9
 RDE  .2707 RRA -.2859 RC3  .1396 FAU .01521   RRT -.4735 RRF -.4534 RTF  .9335    CRT  .6175 CRS -.6131 CST -.9995
 FDE  .5267 FRA 1.1807 FC3 -.5289 BSP  18010   SGB 5574.7 R23  .0100 R13 -.9336    LSA 2168.9 MSA  255.8 SSA   17.0
 BDE 1.5260 BRA 3.3284 BC3 3.6065 FSP   -469   SG1 5558.9 SG2  419.4 THA 177.66    EL1 2090.9 EL2  255.6 ALF   5.62
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LAUNCH DATE SEP 28 1970 FLIGHT TIME 192.00 ARRIVAL DATE APR 8 1971

HELIOCENTRIC CONIC DISTANCE 560.840

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RL  149.91 LAL   -.00 LOL   4.46 VL  25.780 GAL   6.03 AZL  88.25 HCA 282.22 SMA 119.99 ECC .26931 INC 1.7524 V1  29.724
RP  108.87 LAP  -1.71 LOP 286.69 VP  36.495 GAP  14.71 AZP  89.63 TAL 163.06 TAP  85.28 RCA  87.68 APO 152.31 V2  34.806
RC 183.891 GL    8.58 GP   12.49 ZAL  52.46 ZAP 167.22 ETS  74.77 ZAE 127.76 ETE 170.32 ZAC 114.74 ETC 271.32 CLP-177.29
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PLANETOCENTRIC CONIC

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C3  27.645 VHL  5.258 DLA  -8.82 RAL 312.53 RAD 6568.1 VEL 12.207 PTH   2.19 VHP  9.403 DPA -11.43 RAP 290.07 ECC 1.4550
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 52 19	2016.48	-14.32	29.31	177.54	114.69	9 25 56	1416.5	-10.87	22.33
90.00	18 36 53	5214.33	26.31	234.26	182.39	79.14	20 3 47	4614.3	24.55	226.04
100.00	10 9 22	1767.91	-15.48	10.47	176.97	115.90	10 38 50	1167.9	-11.87	3.54
100.00	20 2 31	4938.13	27.56	213.66	182.10	77.95	21 24 49	4338.1	25.62	205.40
110.00	11 7 50	1584.85	-18.53	354.91	175.31	119.25	11 34 15	984.9	-14.49	348.13
110.00	21 20 33	4693.96	30.91	194.19	181.17	74.62	22 38 47	4094.0	28.49	185.82

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.6832 TRA 3.6297 TC3-3.2349 BAU 1.1964   SGT 5563.9 SGR  466.6 SG3  133.9     ST  2194.7 SR   323.4 SS   592.7
 RDE  .2827 RRA -.2967 RC3  .1194 FAU .01385   RRT -.4512 RRF -.4320 RTF  .9362    CRT  .6297 CRS -.6233 CST -.9996
 FDE  .5565 FRA 1.2248 FC3 -.4337 BSP  18110   SGB 5583.5 R23  .0081 R13 -.9362    LSA 2282.5 MSA  250.4 SSA   16.1
 BDE 1.7068 BRA 3.6418 BC3 3.2371 FSP   -457   SG1 5567.9 SG2  416.1 THA 177.82    EL1 2204.3 EL2  250.1 ALF   5.37
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LAUNCH DATE SEP 28 1970 FLIGHT TIME 194.00 ARRIVAL DATE APR 10 1971

HELIOCENTRIC CONIC DISTANCE 565.996

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RL  149.91 LAL   -.00 LOL   4.46 VL  25.736 GAL   6.82 AZL  88.06 HCA 285.38 SMA 119.75 ECC .27684 INC 1.9413 V1  29.724
RP  108.89 LAP  -1.87 LOP 289.85 VP  36.459 GAP  15.23 AZP  89.48 TAL 161.43 TAP  86.81 RCA  86.60 APO 152.90 V2  34.801
RC 185.813 GL    8.97 GP   12.21 ZAL  50.27 ZAP 167.64 ETS  78.18 ZAE 127.76 ETE 170.54 ZAC 114.28 ETC 271.94 CLP-178.08
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PLANETOCENTRIC CONIC

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C3  30.815 VHL  5.551 DLA  -7.81 RAL 314.61 RAD 6568.2 VEL 12.336 PTH   2.22 VHP  9.715 DPA -11.49 RAP 292.46 ECC 1.5071
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 52 42	2076.07	-15.98	32.90	181.47	113.69	9 27 18	1476.1	-12.65	25.81
90.00	18 53 6	5209.06	26.24	233.89	186.06	78.96	20 19 55	4609.1	24.45	225.68
100.00	10 10 17	1825.79	-17.17	13.94	180.91	114.85	10 40 43	1225.8	-13.67	6.89
100.00	20 18 13	4934.57	27.51	213.41	185.77	77.82	21 40 27	4334.6	25.56	205.15
110.00	11 9 57	1638.99	-20.30	358.11	179.26	118.11	11 37 16	1039.0	-16.38	351.18
110.00	21 35 2	4694.13	30.92	194.20	184.81	74.63	22 53 17	4094.1	28.50	185.83

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.8707 TRA 3.9591 TC3-2.8864 BAU 1.1899   SGT 5568.7 SGR  455.7 SG3  130.1     ST  2295.3 SR   320.1 SS   607.1
 RDE  .2960 RRA -.3062 RC3  .1009 FAU .01253   RRT -.4276 RRF -.4097 RTF  .9391    CRT  .6411 CRS -.6334 CST -.9996
 FDE  .5857 FRA 1.2697 FC3 -.3521 BSP  18220   SGB 5587.3 R23  .0065 R13 -.9392    LSA 2383.1 MSA  245.0 SSA   15.4
 BDE 1.8940 BRA 3.9709 BC3 2.8882 FSP   -447   SG1 5572.1 SG2  411.7 THA 177.98    EL1 2304.6 EL2  244.7 ALF   5.17
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LAUNCH DATE SEP 28 1970 FLIGHT TIME 196.00 ARRIVAL DATE APR 12 1971

HELIOCENTRIC CONIC DISTANCE 571.060

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RL  149.91 LAL   -.00 LOL   4.46 VL  25.693 GAL   7.65 AZL  87.86 HCA 288.54 SMA 119.51 ECC .28509 INC 2.1360 V1  29.724
RP  108.90 LAP  -2.03 LOP 293.01 VP  36.425 GAP  15.78 AZP  89.32 TAL 159.82 TAP  88.36 RCA  85.44 APO 153.58 V2  34.797
RC 187.719 GL    9.30 GP   11.95 ZAL  48.21 ZAP 168.00 ETS  81.87 ZAE 127.75 ETE 170.74 ZAC 113.82 ETC 272.55 CLP-178.88
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PLANETOCENTRIC CONIC

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C3  34.472 VHL  5.871 DLA  -6.88 RAL 316.57 RAD 6568.4 VEL 12.484 PTH   2.26 VHP 10.054 DPA -11.48 RAP 294.84 ECC 1.5673
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 53 19	2133.97	-17.53	36.44	185.41	112.60	9 28 53	1534.0	-14.32	29.24
90.00	19 8 8	5207.63	26.22	233.79	189.72	78.92	20 34 55	4607.6	24.43	225.58
100.00	10 11 22	1882.16	-18.74	17.38	184.86	113.72	10 42 44	1282.2	-15.38	10.21
100.00	20 32 45	4934.68	27.51	213.42	189.42	77.83	21 55 0	4334.7	25.56	205.16
110.00	11 12 6	1692.00	-21.97	1.33	183.24	116.87	11 40 18	1092.0	-18.19	354.23
110.00	21 48 31	4697.61	30.98	194.45	188.46	74.77	23 6 48	4097.6	28.58	186.07

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 2.0637 TRA 4.3059 TC3-2.5605 BAU 1.1806   SGT 5568.6 SGR  443.9 SG3  126.5     ST  2382.5 SR   316.8 SS   620.3
 RDE  .3104 RRA -.3143 RC3  .0844 FAU .01128   RRT -.4027 RRF -.3863 RTF  .9423    CRT  .6520 CRS -.6435 CST -.9996
 FDE  .6142 FRA 1.3158 FC3 -.2833 BSP  18361   SGB 5586.3 R23  .0052 R13 -.9424    LSA 2470.6 MSA  239.6 SSA   14.6
 BDE 2.0869 BRA 4.3174 BC3 2.5619 FSP   -438   SG1 5571.5 SG2  406.1 THA 178.15    EL1 2391.5 EL2  239.3 ALF   5.01
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LAUNCH DATE SEP 28 1970 FLIGHT TIME 198.00 ARRIVAL DATE APR 14 1971

HELIOCENTRIC CONIC DISTANCE 576.016

RL 149.91 LAL -.00 LOL 4.46 VL 25.650 GAL 8.53 AZL 87.66 HCA 291.70 SMA 119.27 ECC .29417 INC 2.3381 V1 29.724
RP 108.92 LAP -2.17 LOP 296.17 VP 36.391 GAP 16.39 AZP 89.14 TAL 158.24 TAP 89.94 RCA 84.19 APO 154.36 V2 34.793
RC 189.610 GL 9.58 GP 11.71 ZAL 46.27 ZAP 168.28 ETS 85.83 ZAE 127.71 ETE 170.94 ZAC 113.36 ETC 273.15 CLP-179.69

PLANETOCENTRIC CONIC

C3 38.694 VHL 6.220 DLA -6.02 RAL 318.41 RAD 6568.5 VEL 12.652 PTH 2.30 VHP 10.423 DPA -11.41 RAP 297.20 ECC 1.6368

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 54 5	2190.26	-18.97	39.95	189.34	111.42	9 30 36	1590.3	-15.89	32.62
90.00	19 22 2	5209.73	26.25	233.94	195.36	78.98	20 48 52	4609.7	24.47	225.72
100.00	10 12 34	1937.07	-20.21	20.80	188.81	112.50	10 44 52	1337.1	-16.99	13.49
100.00	20 46 14	4938.16	27.56	213.66	195.06	77.95	22 8 32	4338.2	25.62	205.40
110.00	11 14 17	1743.88	-23.53	4.54	187.22	115.54	11 43 21	1143.9	-19.90	357.29
110.00	22 1 1	4704.12	31.09	194.92	192.09	75.02	23 19 25	4104.1	28.73	186.52

DIFFERENTIAL CORRECTIONS
TDE 2.2640 TRA 4.6713 TC3-2.2539 BAU 1.1665
RDE .3261 RRA -.3208 RC3 .0695 FAU .01006
FDE .6427 FRA 1.3637 FC3 -.2250 BSP 18531
BDE 2.2874 BRA 4.6823 BC3 2.2550 FSP -429

MID-COURSE EXECUTION ACCURACY
SGT 5561.5 SGR 431.2 SG3 122.9
RRT -.3759 RRF -.3613 RTF .9459
SGB 5578.2 R23 .0042 R13 -.9459
SG1 5563.9 SG2 399.5 THA 178.32

ORBIT DETERMINATION ACCURACY
ST 2457.7 SR 313.3 SS 633.0
CRT .6629 CRS -.6539 CST -.9997
LSA 2546.4 MSA 234.1 SSA 14.0
EL1 2466.6 EL2 233.8 ALF 4.87

LAUNCH DATE SEP 28 1970 FLIGHT TIME 200.00 ARRIVAL DATE APR 16 1971

HELIOCENTRIC CONIC DISTANCE 580.845

RL 149.91 LAL -.00 LOL 4.46 VL 25.609 GAL 9.48 AZL 87.45 HCA 294.85 SMA 119.04 ECC .30417 INC 2.5492 V1 29.724
RP 108.93 LAP -2.31 LOP 299.33 VP 36.359 GAP 17.04 AZP 88.93 TAL 156.69 TAP 91.55 RCA 82.84 APO 155.25 V2 34.790
RC 191.483 GL 9.80 GP 11.49 ZAL 44.46 ZAP 168.50 ETS 90.00 ZAE 127.66 ETE 171.13 ZAC 112.90 ETC 273.74 CLP 179.49

PLANETOCENTRIC CONIC

C3 43.582 VHL 6.602 DLA -5.24 RAL 320.13 RAD 6568.7 VEL 12.843 PTH 2.34 VHP 10.826 DPA -11.29 RAP 299.54 ECC 1.7173

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 55 0	2244.97	-20.29	43.42	193.27	110.18	9 32 25	1645.0	-17.36	35.97
90.00	19 34 52	5215.06	26.32	234.31	196.98	79.16	21 1 47	4615.1	24.56	226.09
100.00	10 13 53	1990.54	-21.57	24.19	192.75	111.21	10 47 3	1390.5	-18.49	16.75
100.00	20 58 41	4944.73	27.66	214.13	196.68	78.18	22 21 6	4344.7	25.75	205.85
110.00	11 16 28	1794.61	-24.98	7.77	191.20	114.13	11 46 22	1194.6	-21.51	.34
110.00	22 12 36	4713.42	31.25	195.60	195.71	75.40	23 31 9	4113.4	28.93	187.16

DIFFERENTIAL CORRECTIONS
TDE 2.4728 TRA 5.0599 TC3-1.9743 BAU 1.1508
RDE .3431 RRA -.3252 RC3 .0563 FAU .00886
FDE .6717 FRA 1.4141 FC3 -.1761 BSP 18644
BDE 2.4965 BRA 5.0703 BC3 1.9751 FSP -420

MID-COURSE EXECUTION ACCURACY
SGT 5554.1 SGR 417.8 SG3 119.5
RRT -.3468 RRF -.3341 RTF .9493
SGB 5569.8 R23 .0035 R13 -.9493
SG1 5556.0 SG2 391.7 THA 178.50

ORBIT DETERMINATION ACCURACY
ST 2522.3 SR 309.7 SS 645.7
CRT .6739 CRS -.6648 CST -.9997
LSA 2612.0 MSA 228.3 SSA 13.4
EL1 2531.0 EL2 228.0 ALF 4.77

LAUNCH DATE SEP 28 1970 FLIGHT TIME 202.00 ARRIVAL DATE APR 18 1971

HELIOCENTRIC CONIC DISTANCE 585.524

RL 149.91 LAL -.00 LOL 4.46 VL 25.568 GAL 10.50 AZL 87.23 HCA 298.01 SMA 118.82 ECC .31521 INC 2.7713 V1 29.724
RP 108.93 LAP -2.45 LOP 302.49 VP 36.328 GAP 17.76 AZP 88.70 TAL 155.19 TAP 93.20 RCA 81.37 APO 156.28 V2 34.788
RC 193.340 GL 9.97 GP 11.29 ZAL 42.78 ZAP 168.63 ETS 94.46 ZAE 127.59 ETE 171.31 ZAC 112.45 ETC 274.31 CLP 178.64

PLANETOCENTRIC CONIC

C3 49.257 VHL 7.018 DLA -4.52 RAL 321.74 RAD 6568.8 VEL 13.062 PTH 2.38 VHP 11.269 DPA -11.12 RAP 301.86 ECC 1.8106

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 56 2	2298.08	-21.50	46.84	197.17	108.88	9 34 20	1698.1	-18.73	39.27
90.00	19 46 41	5223.35	26.43	234.90	200.56	79.44	21 13 45	4623.3	24.70	226.65
100.00	10 15 15	2042.54	-22.81	27.55	196.68	109.86	10 49 18	1442.5	-19.90	19.97
100.00	21 10 9	4954.13	27.78	214.80	200.26	78.51	22 32 44	4354.1	25.92	206.49
110.00	11 18 37	1844.14	-26.32	11.00	195.18	112.64	11 49 22	1244.1	-23.02	3.39
110.00	22 23 16	4725.29	31.46	196.47	199.30	75.87	23 42 2	4125.3	29.19	187.99

DIFFERENTIAL CORRECTIONS
TDE 2.6929 TRA 5.4731 TC3-1.7121 BAU 1.1278
RDE .3614 RRA -.3274 RC3 .0446 FAU .00767
FDE .7017 FRA 1.4678 FC3 -.1347 BSP 18759
BDE 2.7171 BRA 5.4829 BC3 1.7127 FSP -411

MID-COURSE EXECUTION ACCURACY
SGT 5540.5 SGR 403.5 SG3 116.2
RRT -.3147 RRF -.3042 RTF .9530
SGB 5555.2 R23 .0030 R13 -.9530
SG1 5542.0 SG2 382.9 THA 178.68

ORBIT DETERMINATION ACCURACY
ST 2578.1 SR 305.8 SS 659.1
CRT .6854 CRS -.6763 CST -.9997
LSA 2669.2 MSA 222.3 SSA 12.8
EL1 2586.6 EL2 221.9 ALF 4.68

LAUNCH DATE SEP 28 1970 FLIGHT TIME 204.00 ARRIVAL DATE APR 20 1971

HELIOCENTRIC CONIC DISTANCE 590.024

RL 149.91 LAL -.00 LOL 4.46 VL 25.528 GAL 11.59 AZL 86.99 HCA 301.17 SMA 118.61 ECC .32743 INC 3.0068 V1 29.724
RP 108.94 LAP -2.57 LOP 305.66 VP 36.299 GAP 18.55 AZP 88.44 TAL 153.73 TAP 94.90 RCA 79.77 APO 157.44 V2 34.786
RC 195.178 GL 10.11 GP 11.11 ZAL 41.21 ZAP 168.67 ETS 99.08 ZAE 127.48 ETE 171.48 ZAC 111.99 ETC 274.87 CLP 177.77

PLANETOCENTRIC CONIC

C3 55.868 VHL 7.475 DLA -3.88 RAL 323.24 RAD 6569.0 VEL 13.313 PTH 2.43 VHP 11.756 DPA -10.90 RAP 304.14 ECC 1.9195

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 57 9	2349.56	-22.60	50.22	201.05	107.53	9 36 19	1749.6	-19.99	42.52
90.00	19 57 32	5234.33	26.56	235.67	204.10	79.80	21 24 47	4634.3	24.88	227.40
100.00	10 16 41	2093.02	-23.94	30.88	200.57	108.46	10 51 34	1493.0	-21.19	23.16
100.00	21 20 42	4966.11	27.94	215.65	203.81	78.93	22 43 28	4366.1	26.13	207.32
110.00	11 20 46	1892.41	-27.54	14.22	199.13	111.09	11 52 18	1292.4	-24.42	6.43
110.00	22 33 6	4739.49	31.69	197.51	202.87	76.45	23 52 6	4139.5	29.50	188.98

DIFFERENTIAL CORRECTIONS
TDE 2.9258 TRA 5.9151 TC3-1.4693 BAU 1.0977
RDE .3811 RRA -.3268 RC3 .0345 FAU .00645
FDE .7334 FRA 1.5255 FC3 -.0999 BSP 18842
BDE 2.9505 BRA 5.9241 BC3 1.4697 FSP -402

MID-COURSE EXECUTION ACCURACY
SGT 5523.3 SGR 388.6 SG3 113.1
RRT -.2791 RRF -.2709 RTF .9569
SGB 5537.0 R23 .0027 R13 -.9569
SG1 5524.4 SG2 373.1 THA 178.87

ORBIT DETERMINATION ACCURACY
ST 2625.4 SR 301.7 SS 673.5
CRT .6974 CRS -.6885 CST -.9998
LSA 2718.6 MSA 215.9 SSA 12.2
EL1 2633.9 EL2 215.5 ALF 4.61

LAUNCH DATE SEP 28 1970 FLIGHT TIME 206.00 ARRIVAL DATE APR 22 1971

HELIOCENTRIC CONIC DISTANCE 594.307

RL 149.91 LAL -.00 LOL 4.46 VL 25.489 GAL 12.78 AZL 86.74 HCA 304.32 SMA 118.40 ECC .34099 INC 3.2585 V1 29.724
RP 108.94 LAP -2.69 LOP 308.82 VP 36.270 GAP 19.42 AZP 88.16 TAL 152.34 TAP 96.66 RCA 78.02 APO 158.77 V2 34.785
RC 196.997 GL 10.20 GP 10.93 ZAL 39.76 ZAP 168.63 ETS 103.84 ZAE 127.34 ETE 171.66 ZAC 111.53 ETC 275.41 CLP 176.87

PLANETOCENTRIC CONIC

C3 63.605 VHL 7.975 DLA -3.29 RAL 324.63 RAD 6569.2 VEL 13.600 PTH 2.49 VHP 12.294 DPA -10.64 RAP 306.39 ECC 2.0468

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 58 20	2399.32	-23.58	53.53	204.87	106.15	9 38 19	1799.3	-21.14	45.71
90.00	20 7 26	5247.77	26.72	236.62	207.59	80.25	21 34 54	4647.8	25.10	228.33
100.00	10 18 8	2141.89	-24.95	34.16	204.42	107.02	10 53 50	1541.9	-22.39	26.30
100.00	21 30 19	4980.44	28.13	216.68	207.31	79.44	22 53 20	4380.4	26.38	208.31
110.00	11 22 51	1939.30	-28.65	17.41	203.05	109.50	11 55 10	1339.3	-25.72	9.46
110.00	22 42 6	4755.79	31.94	198.71	206.39	77.12	24 1 22	4155.8	29.84	190.13

DIFFERENTIAL CORRECTIONS
TDE 3.1749 TRA 6.3908 TC3-1.2444 BAU 1.0584
RDE .4024 RRA -.3230 RC3 .0258 FAU .00518
FDE .7676 FRA 1.5886 FC3 -.0704 BSP 18842
BDE 3.2003 BRA 6.3990 BC3 1.2447 FSP -391

MID-COURSE EXECUTION ACCURACY
SGT 5503.8 SGR 373.2 SG3 110.1
RRT -.2592 RRF -.2533 RTF .9608
SGB 5516.5 R23 .0026 R13 -.9608
SG1 5504.6 SG2 362.3 THA 179.07

ORBIT DETERMINATION ACCURACY
ST 2666.4 SR 297.4 SS 689.8
CRT .7101 CRS -.7016 CST -.9998
LSA 2762.2 MSA 209.1 SSA 11.7
EL1 2674.8 EL2 208.7 ALF 4.56

LAUNCH DATE SEP 28 1970 FLIGHT TIME 208.00 ARRIVAL DATE APR 24 1971

HELIOCENTRIC CONIC DISTANCE 598.328

RL 149.91 LAL -.00 LOL 4.46 VL 25.452 GAL 14.07 AZL 86.47 HCA 307.47 SMA 118.19 ECC .35609 INC 3.5299 V1 29.724
RP 108.94 LAP -2.80 LOP 311.98 VP 36.244 GAP 20.39 AZP 87.85 TAL 151.03 TAP 98.50 RCA 76.11 APO 160.28 V2 34.785
RC 198.798 GL 10.27 GP 10.78 ZAL 38.44 ZAP 168.49 ETS 108.69 ZAE 127.17 ETE 171.84 ZAC 111.08 ETC 275.93 CLP 175.93

PLANETOCENTRIC CONIC

C3 72.704 VHL 8.527 DLA -2.78 RAL 325.91 RAD 6569.4 VEL 13.930 PTH 2.54 VHP 12.892 DPA -10.35 RAP 308.60 ECC 2.1965

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 59 34	2447.24	-24.45	56.78	208.62	104.75	9 40 22	1847.2	-22.19	48.84
90.00	20 16 24	5263.45	26.89	237.74	211.02	80.79	21 44 8	4663.5	25.34	229.41
100.00	10 19 37	2189.02	-25.85	37.37	208.20	105.55	10 56 6	1589.0	-23.47	29.38
100.00	21 39 3	4996.91	28.33	217.86	210.75	80.03	23 2 20	4396.9	26.66	209.46
110.00	11 24 54	1984.68	-29.64	20.58	206.92	107.86	11 57 58	1384.7	-26.91	12.45
110.00	22 50 16	4774.01	32.21	200.06	209.87	77.88	24 9 50	4174.0	30.20	191.42

DIFFERENTIAL CORRECTIONS
TDE 3.4426 TRA 6.9042 TC3-1.0371 BAU 1.0082
RDE .4255 RRA -.3155 RC3 .0185 FAU .00383
FDE .8047 FRA 1.6576 FC3 -.0456 BSP 18761
BDE 3.4688 BRA 6.9114 BC3 1.0372 FSP -379

MID-COURSE EXECUTION ACCURACY
SGT 5482.1 SGR 357.5 SG3 107.3
RRT -.1940 RRF -.1905 RTF .9648
SGB 5493.7 R23 .0026 R13 -.9648
SG1 5482.5 SG2 350.6 THA 179.27

ORBIT DETERMINATION ACCURACY
ST 2701.1 SR 292.9 SS 708.2
CRT .7237 CRS -.7156 CST -.9998
LSA 2800.4 MSA 201.9 SSA 11.1
EL1 2709.4 EL2 201.5 ALF 4.51

LAUNCH DATE SEP 28 1970 FLIGHT TIME 210.00 ARRIVAL DATE APR 26 1971

HELIOCENTRIC CONIC DISTANCE 602.029

RL 149.91 LAL -.00 LOL 4.46 VL 25.415 GAL 15.47 AZL 86.17 HCA 310.63 SMA 118.00 ECC .37296 INC 3.8252 V1 29.724
RP 108.94 LAP -2.90 LOP 315.15 VP 36.219 GAP 21.47 AZP 87.51 TAL 149.80 TAP 100.43 RCA 73.99 APO 162.01 V2 34.786
RC 200.578 GL 10.30 GP 10.63 ZAL 37.23 ZAP 168.25 ETS 113.58 ZAE 126.94 ETE 172.02 ZAC 110.62 ETC 276.43 CLP 174.95

PLANETOCENTRIC CONIC

C3 83.467 VHL 9.136 DLA -2.32 RAL 327.08 RAD 6569.6 VEL 14.311 PTH 2.60 VHP 13.559 DPA -10.02 RAP 310.75 ECC 2.3736

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 0 51	2493.15	-25.21	59.93	212.28	103.34	9 42 24	1893.1	-23.12	51.88
90.00	20 24 26	5281.17	27.08	239.00	214.37	81.39	21 52 27	4681.2	25.61	230.64
100.00	10 21 7	2234.24	-26.64	40.50	211.89	104.09	10 58 21	1634.2	-24.44	32.39
100.00	21 46 52	5015.31	28.54	219.19	214.11	80.70	23 10 27	4415.3	26.96	210.74
110.00	11 26 52	2028.38	-30.51	23.68	210.70	106.22	12 0 41	1428.4	-27.99	15.39
110.00	22 57 35	4793.94	32.48	201.55	213.28	78.72	24 17 29	4193.9	30.59	192.85

DIFFERENTIAL CORRECTIONS
TDE 3.7322 TRA 7.4612 TC3 -.8461 BAU .9442
RDE .4506 RRA -.3034 RC3 .0125 FAU .00237
FDE .8454 FRA 1.7339 FC3 -.0246 BSP 18567
BDE 3.7593 BRA 7.4674 BC3 .8462 FSP -365

MID-COURSE EXECUTION ACCURACY
SGT 5458.9 SGR 341.6 SG3 104.7
RRT -.1426 RRF -.1413 RTF .9689
SGB 5469.6 R23 .0026 R13 -.9689
SG1 5459.1 SG2 338.1 THA 179.49

ORBIT DETERMINATION ACCURACY
ST 2730.3 SR 288.3 SS 729.4
CRT .7383 CRS -.7307 CST -.9998
LSA 2834.0 MSA 194.2 SSA 10.6
EL1 2738.6 EL2 193.9 ALF 4.48

LAUNCH DATE SEP 28 1970 FLIGHT TIME 212.00 ARRIVAL DATE APR 28 1971

HELIOCENTRIC CONIC DISTANCE 605.333

RL 149.91 LAL -.00 LOL 4.46 VL 25.380 GAL 17.02 AZL 85.85 HCA 313.78 SMA 117.81 ECC .39185 INC 4.1498 V1 29.724
RP 108.93 LAP -3.00 LOP 318.31 VP 36.196 GAP 22.68 AZP 87.13 TAL 148.68 TAP 102.46 RCA 71.65 APO 163.98 V2 34.787
RC 202.339 GL 10.31 GP 10.49 ZAL 36.15 ZAP 167.89 ETS 118.46 ZAE 126.66 ETE 172.20 ZAC 110.17 ETC 276.90 CLP 173.91

PLANETOCENTRIC CONIC

C3 96.280 VHL 9.812 DLA -1.93 RAL 328.13 RAD 6569.9 VEL 14.752 PTH 2.67 VHP 14.307 DPA -9.66 RAP 312.84 ECC 2.5845

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 2 9	2536.83	-25.86	62.96	215.82	101.96	9 44 26	1936.8	-23.95	54.81
90.00	20 31 30	5300.75	27.27	240.40	217.62	82.07	21 59 51	4700.8	25.89	232.01
100.00	10 22 35	2277.34	-27.32	43.52	215.47	102.63	11 0 33	1677.3	-25.30	35.30
100.00	21 53 45	5035.47	28.75	220.65	217.38	81.44	23 17 40	4435.5	27.27	212.16
110.00	11 28 46	2070.17	-31.27	26.70	214.37	104.57	12 3 16	1470.2	-28.95	18.26
110.00	23 4 3	4815.40	32.76	203.17	216.60	79.64	24 24 19	4215.4	30.98	194.40

DIFFERENTIAL CORRECTIONS
TDE 4.0468 TRA 8.0676 TC3 -.6711 BAU .8639
RDE .4784 RRA -.2859 RC3 .0079 FAU .00076
FDE .8904 FRA 1.8187 FC3 -.0068 BSP 18245
BDE 4.0750 BRA 8.0727 BC3 .6712 FSP -349

MID-COURSE EXECUTION ACCURACY
SGT 5434.7 SGR 325.9 SG3 102.2
RRT -.0835 RRF -.0843 RTF .9728
SGB 5444.5 R23 .0028 R13 -.9728
SG1 5434.8 SG2 324.7 THA 179.71

ORBIT DETERMINATION ACCURACY
ST 2754.1 SR 283.8 SS 753.9
CRT .7538 CRS -.7468 CST -.9998
LSA 2863.4 MSA 186.3 SSA 10.1
EL1 2762.4 EL2 185.9 ALF 4.46

LAUNCH DATE SEP 28 1970 FLIGHT TIME 214.00 ARRIVAL DATE APR 30 1971

HELIOCENTRIC CONIC DISTANCE 608.142

RL	149.91	LAL	-.00	LOL	4.46	VL	25.347	GAL	18.74	AZL	85.49	HCA	316.93	SMA	117.64	ECC	.41310	INC	4.5107	V1	29.724
RP	108.93	LAP	-3.08	LOP	321.48	VP	36.174	GAP	24.05	AZP	86.70	TAL	147.70	TAP	104.63	RCA	69.04	APO	166.23	V2	34.789
RC	204.080	GL	10.29	GP	10.36	ZAL	35.20	ZAP	167.41	ETS	123.27	ZAE	126.31	ETE	172.39	ZAC	109.73	ETC	277.35	CLP	172.80

PLANETOCENTRIC CONIC

C3	111.645	VHL	10.566	DLA	-1.61	RAL	329.05	RAD	6570.1	VEL	15.264	PTH	2.74	VHP	15.149	DPA	-9.29	RAP	314.86	ECC	2.8374

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 3 28	2578.00	-26.41	65.85	219.21	100.61	9 46 26	1978.0	-24.68	57.61
90.00	20 37 34	5322.05	27.46	241.93	220.76	82.81	22 6 16	4722.1	26.18	233.50
100.00	10 24 3	2318.03	-27.89	46.41	218.89	101.22	11 2 41	1718.0	-26.06	38.09
100.00	21 59 40	5057.26	28.96	222.24	220.54	82.25	23 23 57	4457.3	27.59	213.70
110.00	11 30 34	2109.79	-31.91	29.61	217.90	102.96	12 5 44	1509.8	-29.80	21.04
110.00	23 9 38	4838.26	33.02	204.90	219.83	80.63	24 30 16	4238.3	31.38	196.06

DIFFERENTIAL CORRECTIONS

TDE	4.3894	TRA	8.7292	TC3	-.5118	BAU	.7640
RDE	.5092	RRA	-.2620	RC3	.0045	FAU	-.00105
FDE	.9404	FRA	1.9133	FC3	.0081	BSP	17799
BDE	4.4189	BRA	8.7332	BC3	.5118	FSP	-332

MID-COURSE EXECUTION ACCURACY

SGT	5409.1	SGR	310.7	SG3	99.9		
RRT	-.0154	RRF	-.0181	RTF	.9767		
SGB	5418.0	RZ3	.0030	R13	-.9767		
SG1	5409.1	SG2	310.7	THA	179.95		

ORBIT DETERMINATION ACCURACY

ST	2772.1	SR	279.4	SS	782.0
CRT	.7704	CRS	-.7640	CST	-.9999
LSA	2888.3	NSA	178.0	SSA	9.6
EL1	2780.5	EL2	177.6	ALF	4.46

LAUNCH DATE SEP 28 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAY 2 1971

HELIOCENTRIC CONIC DISTANCE 610.326

RL	149.91	LAL	-.00	LOL	4.46	VL	25.315	GAL	20.64	AZL	85.08	HCA	320.08	SMA	117.47	ECC	.43707	INC	4.9168	V1	29.724
RP	108.92	LAP	-3.15	LOP	324.64	VP	36.155	GAP	25.60	AZP	86.23	TAL	146.88	TAP	106.96	RCA	66.13	APO	168.81	V2	34.792
RC	205.802	GL	10.25	GP	10.23	ZAL	34.39	ZAP	166.80	ETS	127.98	ZAE	125.88	ETE	172.60	ZAC	109.29	ETC	277.77	CLP	171.61

PLANETOCENTRIC CONIC

C3	130.219	VHL	11.411	DLA	-1.57	RAL	329.84	RAD	6570.4	VEL	15.860	PTH	2.81	VHP	16.104	DPA	-8.91	RAP	316.79	ECC	3.1431

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 4 46	2616.32	-26.86	68.56	222.42	99.32	9 48 23	2016.3	-25.30	60.24
90.00	20 42 34	5344.98	27.65	243.58	223.76	83.62	22 11 39	4745.0	26.48	235.11
100.00	10 25 29	2355.98	-28.36	49.13	222.13	99.86	11 4 45	1756.0	-26.71	40.72
100.00	22 4 33	5080.55	29.16	223.94	223.56	83.12	23 29 13	4480.6	27.90	215.36
110.00	11 32 16	2146.91	-32.44	32.38	221.24	101.41	12 8 3	1546.9	-30.53	23.68
110.00	23 14 15	4862.38	33.28	206.74	222.82	81.69	24 35 17	4262.4	31.77	197.83

DIFFERENTIAL CORRECTIONS

TDE	4.7293	TRA	9.4189	TC3	-.3782	BAU	.6585
RDE	.5440	RRA	-.2299	RC3	.0023	FAU	-.00274
FDE	.9881	FRA	2.0113	FC3	.0182	BSP	18038
BDE	4.7605	BRA	9.4217	BC3	.3783	FSP	-329

MID-COURSE EXECUTION ACCURACY

SGT	5363.0	SGR	296.6	SG3	97.3		
RRT	.0615	RRF	.0571	RTF	.9803		
SGB	5371.2	RZ3	-.0034	R13	.9803		
SG1	5363.0	SG2	296.0	THA	.20		

ORBIT DETERMINATION ACCURACY

ST	2766.5	SR	275.3	SS	808.9
CRT	.7870	CRS	-.7810	CST	-.9999
LSA	2890.4	NSA	169.7	SSA	9.0
EL1	2775.0	EL2	169.4	ALF	4.50

LAUNCH DATE SEP 28 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAY 4 1971

HELIOCENTRIC CONIC DISTANCE 611.722

RL	149.91	LAL	-.00	LOL	4.46	VL	25.286	GAL	22.78	AZL	84.82	HCA	323.23	SMA	117.32	ECC	.46421	INC	5.3801	V1	29.724
RP	108.91	LAP	-3.22	LOP	327.81	VP	36.138	GAP	27.38	AZP	85.69	TAL	146.26	TAP	109.50	RCA	62.86	APO	171.78	V2	34.795
RC	207.503	GL	10.18	GP	10.11	ZAL	33.73	ZAP	166.03	ETS	132.56	ZAE	125.35	ETE	172.82	ZAC	108.86	ETC	278.16	CLP	170.32

PLANETOCENTRIC CONIC

C3	152.871	VHL	12.364	DLA	-1.20	RAL	330.49	RAD	6570.7	VEL	16.559	PTH	2.88	VHP	17.193	DPA	-8.53	RAP	318.62	ECC	3.5159

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 6 5	2651.39	-27.22	71.07	225.39	98.12	9 50 16	2051.4	-25.82	62.68
90.00	20 46 24	5369.46	27.82	245.35	226.60	84.49	22 15 54	4769.5	26.77	236.85
100.00	10 26 52	2390.80	-28.74	51.65	225.14	98.58	11 6 43	1790.8	-27.26	43.16
100.00	22 8 18	5105.29	29.35	225.75	226.42	84.06	23 33 23	4505.3	28.22	217.13
110.00	11 33 50	2181.16	-32.88	34.95	224.36	99.94	12 10 11	1581.2	-31.16	26.15
110.00	23 17 49	4887.69	33.51	208.67	225.86	82.82	24 39 17	4287.7	32.15	199.71

DIFFERENTIAL CORRECTIONS

TDE	5.1122	TRA	10.1861	TC3	-.2541	BAU	.5194
RDE	.5832	RRA	-.1887	RC3	.0011	FAU	-.00489
FDE	1.0445	FRA	2.1248	FC3	.0277	BSP	17956
BDE	5.1453	BRA	10.1878	BC3	.2541	FSP	-321

MID-COURSE EXECUTION ACCURACY

SGT	5319.6	SGR	284.1	SG3	95.0		
RRT	.1493	RRF	.1436	RTF	.9837		
SGB	5327.1	RZ3	-.0037	R13	.9837		
SG1	5319.7	SG2	280.9	THA	.46		

ORBIT DETERMINATION ACCURACY

ST	2760.2	SR	271.5	SS	842.4
CRT	.8047	CRS	-.7992	CST	-.9999
LSA	2894.1	NSA	161.1	SSA	8.5
EL1	2768.9	EL2	160.7	ALF	4.54

LAUNCH DATE SEP 28 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAY 6 1971

HELIOCENTRIC CONIC DISTANCE 612.106

RL	149.91	LAL	-.00	LOL	4.46	VL	25.260	GAL	25.19	AZL	84.08	HCA	326.38	SMA	117.18	ECC	.49500	INC	5.9172	V1	29.724
RP	108.90	LAP	-3.27	LOP	330.98	VP	36.123	GAP	29.42	AZP	85.07	TAL	145.89	TAP	112.27	RCA	59.18	APO	175.18	V2	34.799
RC	209.184	GL	10.09	GP	9.99	ZAL	33.25	ZAP	165.11	ETS	136.98	ZAE	124.70	ETE	173.06	ZAC	108.45	ETC	278.51	CLP	168.90

PLANETOCENTRIC CONIC

C3	180.758	VHL	13.445	DLA	-1.11	RAL	330.97	RAD	6570.9	VEL	17.380	PTH	2.96	VHP	18.442	DPA	-8.17	RAP	320.32	ECC	3.9748

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 7 21	2682.71	-27.50	73.32	228.09	97.02	9 52 4	2082.7	-26.24	64.87
90.00	20 48 57	5395.52	27.98	247.25	229.24	85.43	22 18 52	4795.5	27.05	238.70
100.00	10 28 11	2421.99	-29.04	53.92	227.87	97.42	11 8 33	1822.0	-27.71	45.37
100.00	22 10 48	5131.48	29.52	227.68	229.09	85.06	23 36 20	4531.5	28.52	219.02
110.00	11 35 15	2212.07	-33.21	37.30	227.19	98.59	12 12 7	1612.1	-31.67	28.41
110.00	23 20 14	4914.16	33.72	210.71	228.62	84.01	24 42 8	4314.2	32.52	201.68

DIFFERENTIAL CORRECTIONS

TDE	5.5286	TRA	11.0297	TC3	-.1434	BAU	.3465
RDE	.6279	RRA	-.1362	RC3	.0008	FAU	-.00746
FDE	1.1078	FRA	2.2530	FC3	.0357	BSP	17860
BDE	5.5841	BRA	11.0265	BC3	.1434	FSP	-314

MID-COURSE EXECUTION ACCURACY

SGT	5271.2	SGR	273.8	SG3	92.8		
RRT	.2471	RRF	.2406	RTF	.9868		
SGB	5278.3	RZ3	-.0040	R13	.9868		
SG1	5271.7	SG2	265.3	THA	.74		

ORBIT DETERMINATION ACCURACY

ST	2745.7	SR	268.2	SS	881.3
CRT	.8229	CRS	-.8180	CST	-.9999
LSA	2892.1	NSA	152.3	SSA	7.9
EL1	2754.6	EL2	151.9	ALF	4.61

LAUNCH DATE SEP 29 1970 FLIGHT TIME 70.00 ARRIVAL DATE DEC 8 1970

HELIOCENTRIC CONIC DISTANCE 192.686

```
RL  149.86 LAL    .00 LOL   5.44 VL  27.609 GAL -11.19 AZL  89.08 HCA  86.60 SMA 131.55 ECC .23725 INC  .9166 V1  29.732
RP  107.64 LAP    .92 LOP  92.04 VP  38.171 GAP  -8.92 AZP  89.95 TAL 223.66 TAP 310.26 RCA 100.34 APO 162.76 V2  35.206
RC  53.818 GL    4.48 GP  -18.65 ZAL 151.11 ZAP  29.26 ETS  33.50 ZAE 146.53 ETE 326.10 ZAC  83.27 ETC 261.44 CLP -22.96
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PLANETOCENTRIC CONIC

```
C3  30.825 VHL  5.552 DLA  -8.64 RAL 213.29 RAD 6568.2 VEL 12.337 PTH   2.22 VHP  6.614 DPA -39.55 RAP 242.49 ECC 1.5073
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 11 7	2049.44	-15.25	31.29	80.06	114.15	2 45 16	1449.4	-11.86	24.25
90.00	11 58 28	5235.85	26.58	235.78	85.11	79.85	13 25 44	4635.9	24.91	227.51
100.00	3 28 15	1800.57	-16.44	12.42	79.49	115.32	3 58 16	1200.6	-12.89	5.42
100.00	13 24 1	4959.96	27.86	215.21	84.83	78.71	14 46 41	4360.0	26.02	206.90
110.00	4 26 56	1616.84	-19.59	356.80	77.81	118.59	4 53 53	1016.8	-15.62	349.92
110.00	14 41 49	4716.45	31.31	195.82	83.93	75.52	16 0 26	4116.4	29.00	187.37

DIFFERENTIAL CORRECTIONS

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TDE  .0801 TRA -.3240 TC3  .3824 BAU  .1976
RDE -.2860 RRA -.2071 RC3 -.2892 FAU .05067
FDE  .5094 FRA -.4028 FC3-1.4230 BSP  1478
BDE  .2970 BRA  .3845 BC3  .4794 FSP  -385
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MID-COURSE EXECUTION ACCURACY

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SGT  549.1 SGR  486.8 SG3  148.4
RRT -.3280 RRF  .5300 RTF -.5145
SGB  733.8 RZS -.1192 RIS  .6299
SG1  602.2 SG2  419.3 THA 145.11
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ORBIT DETERMINATION ACCURACY

```
ST   131.5 SR   302.4 SS   310.1
CRT -.4516 CRS  .8930 CST -.7801
LSA  430.1 MSA  137.9 SSA   28.0
EL1  309.1 EL2  114.8 ALF 102.93
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LAUNCH DATE SEP 29 1970 FLIGHT TIME 72.00 ARRIVAL DATE DEC 10 1970

HELIOCENTRIC CONIC DISTANCE 199.487

```
RL  149.86 LAL    .00 LOL   5.44 VL  27.717 GAL -11.09 AZL  88.90 HCA  89.83 SMA 132.33 ECC .23225 INC 1.0981 V1  29.732
RP  107.61 LAP   1.10 LOP  95.27 VP  38.257 GAP  -8.08 AZP  90.00 TAL 224.85 TAP 314.69 RCA 101.59 APO 163.06 V2  35.214
RC  55.612 GL    5.45 GP  -19.93 ZAL 151.87 ZAP  32.67 ETS  30.86 ZAE 146.31 ETE 323.08 ZAC  81.98 ETC 261.35 CLP -26.44
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PLANETOCENTRIC CONIC

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C3  30.113 VHL  5.487 DLA  -7.41 RAL 212.74 RAD 6568.2 VEL 12.308 PTH   2.22 VHP  6.221 DPA -40.73 RAP 241.78 ECC 1.4956
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 59 19	2082.96	-16.17	33.32	79.27	113.56	2 34 2	1483.0	-12.85	26.22
90.00	12 5 53	5190.59	26.00	232.59	83.59	78.36	13 32 24	4590.6	24.13	224.42
100.00	3 17 6	1832.02	-17.34	14.32	78.72	114.73	3 47 38	1232.0	-13.86	7.25
100.00	13 30 47	4916.76	27.25	212.15	83.29	77.21	14 52 44	4316.8	25.22	203.94
110.00	4 17 13	1643.78	-20.46	358.40	77.09	118.00	4 44 37	1043.8	-16.55	351.45
110.00	14 47 9	4677.76	30.61	193.02	82.30	73.99	16 5 7	4077.8	28.12	184.71

DIFFERENTIAL CORRECTIONS

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TDE  .0647 TRA -.3312 TC3  .3711 BAU  .1993
RDE -.2612 RRA -.2170 RC3 -.3277 FAU .05521
FDE  .6203 FRA -.4532 FC3-1.5872 BSP  1332
BDE  .2691 BRA  .3959 BC3  .4951 FSP  -418
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MID-COURSE EXECUTION ACCURACY

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SGT  540.4 SGR  505.9 SG3  165.8
RRT -.3118 RRF  .5759 RTF -.4815
SGB  740.2 RZS -.1446 RIS  .6417
SG1  600.9 SG2  432.2 THA 140.98
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ORBIT DETERMINATION ACCURACY

```
ST   125.1 SR   281.4 SS   357.6
CRT -.3235 CRS  .8879 CST -.6980
LSA  449.0 MSA  142.6 SSA   28.4
EL1  284.9 EL2  117.0 ALF  99.87
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LAUNCH DATE SEP 29 1970 FLIGHT TIME 74.00 ARRIVAL DATE DEC 12 1970

HELIOCENTRIC CONIC DISTANCE 206.262

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RL  149.86 LAL    .00 LOL   5.44 VL  27.809 GAL -11.01 AZL  88.72 HCA  93.07 SMA 133.01 ECC .22796 INC 1.2798 V1  29.732
RP  107.59 LAP   1.28 LOP  98.51 VP  38.331 GAP  -7.27 AZP  90.07 TAL 225.92 TAP 318.98 RCA 102.69 APO 163.33 V2  35.222
RC  57.469 GL    6.44 GP  -21.32 ZAL 152.46 ZAP  36.31 ETS  28.48 ZAE 146.20 ETE 319.60 ZAC  80.56 ETC 261.21 CLP -30.12
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PLANETOCENTRIC CONIC

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C3  29.529 VHL  5.434 DLA  -6.21 RAL 212.32 RAD 6568.2 VEL 12.284 PTH   2.21 VHP  5.864 DPA -41.96 RAP 240.76 ECC 1.4860
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 48 23	2116.23	-17.07	35.35	78.70	112.94	2 23 39	1516.2	-13.81	28.18
90.00	12 13 28	5147.51	25.37	229.59	82.31	76.98	13 39 15	4547.5	23.32	221.52
100.00	3 6 46	1863.34	-18.22	16.22	78.17	114.11	3 37 50	1263.3	-14.81	9.09
100.00	13 37 45	4875.63	26.60	209.27	81.98	75.83	14 59 1	4275.6	24.39	201.17
110.00	4 8 16	1670.80	-21.31	.03	76.59	117.38	4 36 7	1070.8	-17.47	353.01
110.00	14 52 45	4640.93	29.89	190.39	80.92	72.59	16 10 6	4040.9	27.22	182.22

DIFFERENTIAL CORRECTIONS

```
TDE  .0637 TRA -.3301 TC3  .3667 BAU  .2067
RDE -.2359 RRA -.2303 RC3 -.3737 FAU .06079
FDE  .7300 FRA -.5208 FC3-1.7822 BSP  1451
BDE  .2444 BRA  .4025 BC3  .5236 FSP  -486
```

MID-COURSE EXECUTION ACCURACY

```
SGT  534.7 SGR  535.2 SG3  186.3
RRT -.3251 RRF  .6326 RTF -.4570
SGB  756.6 RZS -.1502 RIS  .6695
SG1  615.8 SG2  439.5 THA 134.92
```

ORBIT DETERMINATION ACCURACY

```
ST   125.2 SR   259.6 SS   400.0
CRT -.2814 CRS  .8715 CST -.6916
LSA  470.2 MSA  145.5 SSA   28.3
EL1  262.6 EL2  118.8 ALF  99.74
```

LAUNCH DATE SEP 29 1970 FLIGHT TIME 76.00 ARRIVAL DATE DEC 14 1970

HELIOCENTRIC CONIC DISTANCE 213.008

```
RL  149.86 LAL    .00 LOL   5.44 VL  27.887 GAL -10.94 AZL  88.54 HCA  96.30 SMA 133.59 ECC .22427 INC 1.4625 V1  29.732
RP  107.57 LAP   1.45 LOP 101.75 VP  38.394 GAP  -6.51 AZP  90.16 TAL 226.84 TAP 323.14 RCA 103.63 APO 163.55 V2  35.229
RC  59.382 GL    7.45 GP  -22.81 ZAL 152.87 ZAP  40.17 ETS  26.25 ZAE 146.15 ETE 315.61 ZAC  79.01 ETC 261.02 CLP -34.01
```

PLANETOCENTRIC CONIC

```
C3  29.047 VHL  5.390 DLA  -5.03 RAL 212.03 RAD 6568.2 VEL 12.265 PTH   2.21 VHP  5.542 DPA -43.23 RAP 239.41 ECC 1.4780
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 38 16	2149.19	-17.93	37.38	78.34	112.29	2 14 5	1549.2	-14.75	30.15
90.00	12 21 15	5106.31	24.71	226.76	81.25	75.71	13 46 21	4506.3	22.50	218.78
100.00	2 57 14	1894.43	-19.08	18.14	77.83	113.46	3 28 49	1294.4	-15.74	10.93
100.00	13 44 58	4836.30	25.91	206.55	80.90	74.55	15 5 34	4236.3	23.54	198.55
110.00	4 0 3	1697.78	-22.15	1.68	76.29	116.73	4 28 21	1097.8	-18.38	354.57
110.00	14 58 38	4605.71	29.15	187.92	79.78	71.30	16 15 24	4005.7	26.32	179.88

DIFFERENTIAL CORRECTIONS

```
TDE  .0652 TRA -.3340 TC3  .3517 BAU  .2138
RDE -.2072 RRA -.2441 RC3 -.4237 FAU .06667
FDE  .8533 FRA -.5892 FC3-1.9871 BSP  1557
BDE  .2172 BRA  .4137 BC3  .5507 FSP  -559
```

MID-COURSE EXECUTION ACCURACY

```
SGT  525.0 SGR  570.0 SG3  208.2
RRT -.3194 RRF  .6860 RTF -.4151
SGB  774.9 RZS -.1497 RIS  .7006
SG1  631.6 SG2  448.9 THA 127.77
```

ORBIT DETERMINATION ACCURACY

```
ST   128.0 SR   234.1 SS   444.7
CRT -.2362 CRS  .8471 CST -.6929
LSA  496.3 MSA  147.8 SSA   28.0
EL1  236.8 EL2  122.9 ALF 100.10
```

LAUNCH DATE SEP 29 1970 FLIGHT TIME 78.00 ARRIVAL DATE DEC 16 1970

HELIOCENTRIC CONIC DISTANCE 219.724

RL	149.86	LAL	.00	LOL	5.44	VL	27.952	GAL	-10.86	AZL	88.35	HCA	99.54	SMA	134.08	ECC	.22109	INC	1.6476
RP	107.55	LAP	1.62	LOP	104.98	VP	38.447	GAP	-5.77	AZP	90.27	TAL	227.62	TAP	327.16	RCA	104.44	APO	163.73
RC	61.346	GL	8.48	GP	-24.41	ZAL	153.12	ZAP	44.26	ETS	24.09	ZAE	146.10	ETE	311.08	ZAC	77.35	ETC	260.77

V1 29.732 V2 35.235 CLP -38.14

PLANETOCENTRIC CONIC

C3	28.647	VHL	5.352	DLA	-3.88	RAL	211.86	RAD	6568.2	VEL	12.248	PTH	2.20	VHP	5.255	DPA	-44.52	RAP	237.69

ECC 1.4715

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 28 54	2181.89	-18.76	39.42	78.17	111.61	2 5 16	1581.9	-15.66	32.12
90.00	12 29 17	5066.68	24.01	224.06	80.41	74.53	13 53 44	4466.7	21.66	216.18
100.00	2 48 26	1925.35	-19.90	20.06	77.67	112.77	3 20 31	1325.3	-16.65	12.78
100.00	13 52 27	4798.46	25.20	203.96	80.03	73.37	15 12 25	4198.5	22.68	196.07
110.00	3 52 31	1724.73	-22.96	3.35	76.18	116.05	4 21 15	1124.7	-19.27	356.15
110.00	15 4 51	4571.83	28.39	185.58	78.85	70.10	16 21 3	3971.8	25.41	177.66

DIFFERENTIAL CORRECTIONS

TDE	.0707	TRA	-.3429	TC3	.3251	BAU	.2213
RDE	-.1747	RRA	-.2582	RC3	-.4778	FAU	.07277
FDE	.9882	FRA	-.6575	FC3	-2.1992	BSP	1662
BDE	.1885	BRA	.4293	BC3	.5780	FSP	-636

MID-COURSE EXECUTION ACCURACY

SGT	512.1	SGR	611.0	SG3	231.2		
RRT	-.2883	RRF	.7350	RTF	-.3501		
SGB	797.3	RZ3	-.1358	R13	.7367		
SG1	651.0	SG2	480.3	THA	119.19		

ORBIT DETERMINATION ACCURACY

ST	134.2	SR	205.3	SS	490.9
CRT	-.1865	CRS	.8075	CST	-.7074
LSA	527.3	MSA	149.4	SSA	27.5
EL1	207.8	EL2	130.3	ALF	101.54

LAUNCH DATE SEP 29 1970 FLIGHT TIME 80.00 ARRIVAL DATE DEC 18 1970

HELIOCENTRIC CONIC DISTANCE 226.409

RL	149.86	LAL	.00	LOL	5.44	VL	28.006	GAL	-10.79	AZL	88.16	HCA	102.78	SMA	134.49	ECC	.21834	INC	1.8363
RP	107.53	LAP	1.79	LOP	108.23	VP	38.491	GAP	-5.07	AZP	90.41	TAL	228.25	TAP	331.03	RCA	105.12	APO	163.85
RC	63.355	GL	9.54	GP	-26.10	ZAL	153.19	ZAP	48.55	ETS	21.94	ZAE	145.98	ETE	305.98	ZAC	75.56	ETC	260.46

V1 29.732 V2 35.240 CLP -42.51

PLANETOCENTRIC CONIC

C3	28.314	VHL	5.321	DLA	-2.74	RAL	211.82	RAD	6568.1	VEL	12.235	PTH	2.20	VHP	5.003	DPA	-45.83	RAP	235.59

ECC 1.4660

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 20 13	2214.46	-19.57	41.47	78.18	110.89	1 57 8	1614.5	-16.55	34.10
90.00	12 37 38	5028.28	23.29	221.48	79.75	73.42	14 1 26	4428.3	20.80	213.69
100.00	2 40 17	1956.18	-20.71	22.00	77.70	112.05	3 12 53	1356.2	-17.53	14.65
100.00	14 0 15	4761.79	24.46	201.49	79.36	72.26	15 19 37	4161.8	21.81	193.69
110.00	3 45 36	1751.71	-23.76	5.04	76.25	115.33	4 14 48	1151.7	-20.15	357.76
110.00	15 11 25	4539.02	27.61	183.34	78.13	68.99	16 27 4	3939.0	24.50	175.55

DIFFERENTIAL CORRECTIONS

TDE	.0811	TRA	-.3576	TC3	.2858	BAU	.2298
RDE	-.1382	RRA	-.2721	RC3	-.5356	FAU	.07889
FDE	1.1338	FRA	-.7212	FC3	-2.4122	BSP	1774
BDE	.1602	BRA	.4494	BC3	.6071	FSP	-715

MID-COURSE EXECUTION ACCURACY

SGT	498.7	SGR	658.1	SG3	254.6		
RRT	-.2233	RRF	.7784	RTF	-.2548		
SGB	825.7	RZ3	-.1034	R13	.7760		
SG1	677.2	SG2	472.4	THA	109.24		

ORBIT DETERMINATION ACCURACY

ST	145.2	SR	173.7	SS	538.3
CRT	-.1178	CRS	.7388	CST	-.7349
LSA	563.7	MSA	150.1	SSA	27.0
EL1	176.2	EL2	142.1	ALF	106.59

LAUNCH DATE SEP 29 1970 FLIGHT TIME 82.00 ARRIVAL DATE DEC 20 1970

HELIOCENTRIC CONIC DISTANCE 233.061

RL	149.86	LAL	.00	LOL	5.44	VL	28.048	GAL	-10.72	AZL	87.97	HCA	106.02	SMA	134.81	ECC	.21595	INC	2.0300
RP	107.52	LAP	1.95	LOP	111.47	VP	38.525	GAP	-4.40	AZP	90.56	TAL	228.74	TAP	334.76	RCA	105.70	APO	163.92
RC	65.403	GL	10.62	GP	-27.87	ZAL	153.11	ZAP	53.03	ETS	19.73	ZAE	145.73	ETE	300.36	ZAC	73.68	ETC	260.08

V1 29.732 V2 35.245 CLP -47.13

PLANETOCENTRIC CONIC

C3	28.037	VHL	5.295	DLA	-1.61	RAL	211.89	RAD	6568.1	VEL	12.223	PTH	2.20	VHP	4.787	DPA	-47.11	RAP	233.09

ECC 1.4614

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 12 8	2247.07	-20.34	43.55	78.36	110.13	1 49 35	1647.1	-17.42	36.10
90.00	12 46 20	4990.76	22.54	218.98	79.29	72.39	14 9 31	4390.8	19.92	211.29
100.00	2 32 44	1987.09	-21.48	23.97	77.90	111.30	3 5 51	1387.1	-18.40	16.53
100.00	14 8 26	4725.97	23.70	199.10	78.87	71.23	15 27 12	4126.0	20.92	191.41
110.00	3 39 15	1778.84	-24.54	6.76	76.50	114.58	4 8 54	1178.8	-21.01	359.38
110.00	15 18 23	4506.99	26.81	181.20	77.59	67.95	16 33 30	3907.0	23.57	173.52

DIFFERENTIAL CORRECTIONS

TDE	.0970	TRA	-.3781	TC3	.2328	BAU	.2399
RDE	-.0975	RRA	-.2853	RC3	-.5961	FAU	.08480
FDE	1.2867	FRA	-.7778	FC3	-2.6185	BSP	1906
BDE	.1381	BRA	.4736	BC3	.6400	FSP	-794

MID-COURSE EXECUTION ACCURACY

SGT	489.4	SGR	710.7	SG3	277.8		
RRT	-.1162	RRF	.8157	RTF	-.1218		
SGB	862.9	RZ3	-.0546	R13	.8143		
SG1	714.9	SG2	483.2	THA	98.47		

ORBIT DETERMINATION ACCURACY

ST	162.3	SR	141.7	SS	586.2
CRT	.0031	CRS	.6071	CST	-.7727
LSA	605.7	MSA	150.1	SSA	26.3
EL1	162.3	EL2	141.7	ALF	.65

LAUNCH DATE SEP 29 1970 FLIGHT TIME 84.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 239.680

RL	149.86	LAL	.00	LOL	5.44	VL	28.079	GAL	-10.64	AZL	87.77	HCA	109.26	SMA	135.05	ECC	.21386	INC	2.2302
RP	107.51	LAP	2.11	LOP	114.71	VP	38.552	GAP	-3.76	AZP	90.74	TAL	229.09	TAP	338.35	RCA	106.17	APO	163.94
RC	67.486	GL	11.75	GP	-29.69	ZAL	152.86	ZAP	57.65	ETS	17.40	ZAE	145.27	ETE	294.29	ZAC	71.71	ETC	259.65

V1 29.732 V2 35.249 CLP -51.98

PLANETOCENTRIC CONIC

C3	27.807	VHL	5.273	DLA	-.48	RAL	212.09	RAD	6568.1	VEL	12.214	PTH	2.19	VHP	4.606	DPA	-48.34	RAP	230.19

ECC 1.4576

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 4 34	2279.96	-21.10	45.67	78.72	109.33	1 42 33	1680.0	-18.27	38.13
90.00	12 55 28	4953.76	21.76	216.55	78.99	71.42	14 18 2	4353.8	19.02	208.95
100.00	2 25 41	2018.30	-22.24	25.98	78.27	110.50	2 59 19	1418.3	-19.25	18.46
100.00	14 17 2	4680.66	22.90	196.77	78.56	70.25	15 35 13	4090.7	20.00	189.18
110.00	3 33 25	1806.28	-25.30	8.52	76.91	113.79	4 3 31	1206.3	-21.87	1.05
110.00	15 25 48	4475.44	25.98	179.11	77.24	66.96	16 40 23	3875.4	22.64	171.56

DIFFERENTIAL CORRECTIONS

TDE	.1222	TRA	-.4041	TC3	.1663	BAU	.2526
RDE	-.0929	RRA	-.2970	RC3	-.6587	FAU	.09029
FDE	1.4422	FRA	-.8239	FC3	-2.8110	BSP	2075
BDE	.1332	BRA	.5015	BC3	.6794	FSP	-870

MID-COURSE EXECUTION ACCURACY

SGT	491.1	SGR	768.1	SG3	299.9		
RRT	.0324	RRF	.8471	RTF	.0476		
SGB	911.7	RZ3	-.0012	R13	.8473		
SG1	768.4	SG2	490.7	THA	88.00		

ORBIT DETERMINATION ACCURACY

ST	187.1	SR	114.5	SS	633.7
CRT	.2338	CRS	.3414	CST	-.8155
LSA	653.3	MSA	149.2	SSA	25.5
EL1	190.0	EL2	109.6	ALF	12.30

LAUNCH DATE SEP 29 1970 FLIGHT TIME 86.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 246.265

RL	149.86	LAL	.00	LOL	5.44	VL	28.102	GAL	-10.57	AZL	87.56	HCA	112.50	SMA	135.23	ECC	.21202	INC	2.4384	V1	29.732
RP	107.50	LAP	2.25	LOP	117.96	VP	38.572	GAP	-3.15	AZP	90.93	TAL	229.31	TAP	341.81	RCA	106.56	APO	163.90	V2	35.253
RC	69.600	GL	12.92	GP	-31.55	ZAL	152.45	ZAP	62.39	ETS	14.93	ZAE	144.55	ETE	287.89	ZAC	69.68	ETC	259.15	CLP	-57.06

PLANETOCENTRIC CONIC

C3	27.619	VHL	5.255	DLA	.65	RAL	212.40	RAD	6568.1	VEL	12.206	PTH	2.19	VHP	4.461	DPA	-49.50	RAP	226.93	ECC	1.4545

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 57 24	2313.42	-21.84	47.84	79.24	108.49	1 35 57	1713.4	-19.11	40.23
90.00	13 5 7	4916.92	20.94	214.16	78.87	70.49	14 27 4	4316.9	18.09	206.65
100.00	2 19 3	2050.06	-22.98	28.05	78.81	109.66	2 53 13	1450.1	-20.09	20.44
100.00	14 26 10	4655.51	22.08	194.49	78.42	69.32	15 43 45	4055.5	19.07	186.99
110.00	3 27 59	1834.27	-26.06	10.35	77.49	112.95	3 58 33	1234.3	-22.72	2.78
110.00	15 33 42	4444.07	25.13	177.07	77.05	66.03	16 47 47	3844.1	21.68	169.63

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1556	TRA	-.4356	TC3	.0860	BAU	.2683	SGT	512.3	SGR	828.6	SG3	319.7	ST	221.6	SR	102.9	SS	679.6
RDE	-.0049	RRA	-.3065	RC3	-.7214	FAU	.09503	RRT	.2103	RRF	.8728	RTF	.2401	CRT	.5837	CRS	-.1150	CST	-.8563
FDE	1.5947	FRA	-.8558	FC3	-2.9788	BSP	2288	SGB	974.2	R23	.0456	R13	.8735	LSA	706.5	MSA	147.8	SSA	24.7
BDE	.1557	BRA	.5326	BC3	.7265	FSP	-940	SG1	839.4	SG2	494.4	THA	78.58	EL1	230.7	EL2	80.2	ALF	17.34

LAUNCH DATE SEP 29 1970 FLIGHT TIME 88.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 252.816

RL	149.86	LAL	.00	LOL	5.44	VL	28.116	GAL	-10.49	AZL	87.34	HCA	115.74	SMA	135.34	ECC	.21039	INC	2.6567	V1	29.732
RP	107.49	LAP	2.39	LOP	121.21	VP	38.585	GAP	-2.57	AZP	91.15	TAL	229.40	TAP	345.15	RCA	106.86	APO	163.81	V2	35.255
RC	71.740	GL	14.15	GP	-33.41	ZAL	151.89	ZAP	67.19	ETS	12.28	ZAE	143.52	ETE	281.33	ZAC	67.61	ETC	258.60	CLP	-62.33

PLANETOCENTRIC CONIC

C3	27.471	VHL	5.241	DLA	1.81	RAL	212.83	RAD	6568.1	VEL	12.200	PTH	2.19	VHP	4.351	DPA	-50.55	RAP	223.35	ECC	1.4521

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 50 33	2347.81	-22.56	50.10	79.93	107.58	1 29 41	1747.8	-19.95	42.41
90.00	13 15 22	4879.85	20.08	211.78	78.90	69.60	14 36 42	4279.9	17.12	204.36
100.00	2 12 44	2082.72	-23.71	30.20	79.52	108.75	2 47 27	1482.7	-20.94	22.50
100.00	14 35 52	4620.17	21.21	192.23	78.44	68.43	15 52 52	4020.2	18.09	184.82
110.00	3 22 55	1863.08	-26.81	12.25	78.24	112.05	3 53 58	1263.1	-23.58	4.58
110.00	15 42 11	4412.58	24.24	175.06	77.03	65.13	16 55 44	3812.6	20.69	167.72

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1990	TRA	-.4719	TC3	-.0078	BAU	.2872	SGT	560.1	SGR	889.7	SG3	336.3	ST	267.0	SR	116.8	SS	723.4
RDE	.0459	RRA	-.3126	RC3	-.7821	FAU	.09871	RRT	.3895	RRF	.8935	RTF	.4271	CRT	.8595	CRS	-.5654	CST	-.8907
FDE	1.7387	FRA	-.8700	FC3	-3.1110	BSP	2547	SGB	1051.3	R23	.0819	R13	.8938	LSA	765.8	MSA	145.9	SSA	23.9
BDE	.2043	BRA	.5660	BC3	.7821	FSP	-1000	SG1	927.6	SG2	494.8	THA	70.45	EL1	286.1	EL2	55.7	ALF	21.46

LAUNCH DATE SEP 29 1970 FLIGHT TIME 90.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 259.334

RL	149.86	LAL	.00	LOL	5.44	VL	28.122	GAL	-10.40	AZL	87.11	HCA	118.98	SMA	135.39	ECC	.20893	INC	2.8873	V1	29.732
RP	107.48	LAP	2.53	LOP	124.45	VP	38.591	GAP	-2.00	AZP	91.40	TAL	229.37	TAP	348.36	RCA	107.10	APO	163.67	V2	35.257
RC	73.903	GL	15.45	GP	-35.26	ZAL	151.17	ZAP	71.99	ETS	9.43	ZAE	142.17	ETE	274.80	ZAC	65.53	ETC	258.01	CLP	-67.74

PLANETOCENTRIC CONIC

C3	27.363	VHL	5.231	DLA	2.99	RAL	213.37	RAD	6568.1	VEL	12.196	PTH	2.19	VHP	4.276	DPA	-51.47	RAP	219.54	ECC	1.4503

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 43 55	2383.54	-23.28	52.48	80.79	106.60	1 23 39	1783.5	-20.78	44.69
90.00	13 26 19	4842.17	19.17	209.40	79.10	68.75	14 47 1	4242.2	16.11	202.06
100.00	2 6 39	2116.67	-24.44	32.46	80.39	107.77	2 41 56	1516.7	-21.78	24.67
100.00	14 46 16	4584.27	20.29	189.95	78.62	67.57	16 2 40	3984.3	17.08	182.64
110.00	3 18 6	1893.06	-27.56	14.26	79.17	111.07	3 49 39	1293.1	-24.44	6.48
110.00	15 51 18	4380.65	23.31	173.04	77.17	64.26	17 4 19	3780.6	19.66	165.81

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2535	TRA	-.5119	TC3	-.1134	BAU	.3096	SGT	637.6	SGR	949.2	SG3	348.8	ST	324.8	SR	151.8	SS	763.7
RDE	.0985	RRA	-.3148	RC3	-.8388	FAU	.10116	RRT	.5418	RRF	.9100	RTF	.5820	CRT	.9630	CRS	-.8051	CST	-.9177
FDE	1.8671	FRA	-.8651	FC3	-3.2006	BSP	2857	SGB	1143.4	R23	.1079	R13	.9097	LSA	831.0	MSA	143.6	SSA	22.9
BDE	.2720	BRA	.6010	BC3	.8464	FSP	-1047	SG1	1031.7	SG2	493.0	THA	63.51	EL1	356.6	EL2	37.3	ALF	24.52

LAUNCH DATE SEP 29 1970 FLIGHT TIME 92.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 265.818

RL	149.86	LAL	.00	LOL	5.44	VL	28.122	GAL	-10.31	AZL	86.87	HCA	122.22	SMA	135.38	ECC	.20762	INC	3.1329	V1	29.732
RP	107.48	LAP	2.65	LOP	127.70	VP	38.592	GAP	-1.47	AZP	91.67	TAL	229.23	TAP	351.45	RCA	107.27	APO	163.49	V2	35.258
RC	76.087	GL	16.82	GP	-37.07	ZAL	150.30	ZAP	76.71	ETS	6.40	ZAE	140.50	ETE	268.45	ZAC	63.47	ETC	257.39	CLP	-73.26

PLANETOCENTRIC CONIC

C3	27.300	VHL	5.225	DLA	4.21	RAL	214.02	RAD	6568.1	VEL	12.193	PTH	2.19	VHP	4.235	DPA	-52.28	RAP	215.58	ECC	1.4493

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 37 22	2421.13	-23.99	55.00	81.83	105.52	1 17 43	1821.1	-21.62	47.13
90.00	13 38 5	4803.43	18.19	206.97	79.46	67.92	14 58 9	4203.4	15.04	199.71
100.00	2 0 41	2152.39	-25.16	34.87	81.46	106.70	2 36 34	1552.4	-22.63	26.98
100.00	14 57 27	4547.40	19.32	187.65	78.97	66.74	16 13 15	3947.4	16.01	180.42
110.00	3 13 28	1924.62	-28.31	16.41	80.29	110.01	3 45 32	1324.6	-25.33	8.50
110.00	16 1 10	4347.93	22.33	171.01	77.47	63.42	17 13 38	3747.9	18.58	163.88

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.3199	TRA	-.8547	TC3	-.2288	BAU	.3351	SGT	743.2	SGR	1004.2	SG3	356.3	ST	395.7	SR	197.6	SS	799.8
RDE	.1517	RRA	-.3120	RC3	-.8891	FAU	.10217	RRT	.6562	RRF	.9230	RTF	.6959	CRT	.9897	CRS	-.9068	CST	-.9378
FDE	1.9749	FRA	-.8401	FC3	-3.2401	BSP	3215	SGB	1249.3	R23	.1267	R13	.9221	LSA	902.7	MSA	141.1	SSA	22.0
BDE	.3540	BRA	.6364	BC3	.9180	FSP	-1080	SG1	1149.2	SG2	490.0	THA	57.49	EL1	441.6	EL2	25.3	ALF	26.39

LAUNCH DATE SEP 29 1970 FLIGHT TIME 94.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 272.269

```
RL  149.86 LAL    .00 LOL   5.44 VL  28.115 GAL -10.21 AZL  86.60 HCA 125.47 SHA 135.33 ECC .20642 INC 3.3966 V1  29.732
RP  107.48 LAP   2.77 LOP 130.95 VP  30.587 GAP   -.95 AZP  91.97 TAL 228.98 TAP 354.44 RCA 107.39 APO 183.26 V2  35.259
RC  78.289 GL   18.29 GP  -38.84 ZAL 149.26 ZAP  81.30 ETS   3.18 ZAE 138.56 ETE 262.44 ZAC  61.45 ETC 256.75 CLP -78.81
```

PLANETOCENTRIC CONIC

```
C3  27.288 VHL  5.224 DLA   5.49 RAL 214.80 RAD 6568.1 VEL 12.193 PTH   2.19 VHP  4.229 DPA -52.98 RAP 211.56 ECC 1.4491
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 30 47	2461.18	-24.69	57.73	83.07	104.33	1 11 48	1861.2	-22.48	49.76
90.00	13 50 51	4763.16	17.14	204.48	80.00	67.11	15 10 14	4163.2	13.90	197.31
100.00	1 54 43	2190.45	-25.88	37.47	82.72	105.51	2 31 14	1590.5	-23.50	29.48
100.00	15 9 35	4509.13	18.27	185.29	79.49	65.92	16 24 44	3909.1	14.87	178.15
110.00	3 8 55	1958.26	-29.07	18.73	81.61	108.82	3 41 33	1358.3	-26.23	10.70
110.00	16 11 53	4314.08	21.29	168.94	77.94	62.60	17 23 47	3714.1	17.45	161.92

DIFFERENTIAL CORRECTIONS

```
TDE  .3981 TRA -.5983 TC3 -.3521 BAU  .3623
RDE  .2060 RRA -.3022 RC3 -.9286 FAU .10140
FDE 2.0638 FRA -.7901 FC3-3.2171 BSP   3589
BDE  .4483 BRA  .6711 BC3  .9931 FSP  -1086
```

MID-COURSE EXECUTION ACCURACY

```
SGT  872.9 SGR 1050.3 SG3  358.1
RRT  .7367 RRF  .9331 RTF  .7738
SGB 1365.7 RZS  .1427 RIS  .9310
SG1 1276.4 SG2  485.8 THA  52.09
```

ORBIT DETERMINATION ACCURACY

```
ST   479.6 SR   248.7 SS   833.4
CRT  .9955 CRS -.9526 CST -.9519
LSA  983.2 MSA  139.0 SSA   20.8
EL1  539.9 EL2   20.9 ALF  27.35
```

LAUNCH DATE SEP 29 1970 FLIGHT TIME 96.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 278.687

```
RL  149.86 LAL    .00 LOL   5.44 VL  28.102 GAL -10.11 AZL  86.32 HCA 128.71 SHA 135.22 ECC .20533 INC 3.6825 V1  29.732
RP  107.48 LAP   2.87 LOP 134.20 VP  30.577 GAP   -.46 AZP  92.30 TAL 228.62 TAP 357.33 RCA 107.46 APO 162.99 V2  35.258
RC  80.507 GL   19.87 GP  -40.56 ZAL 148.06 ZAP  85.70 ETS 359.78 ZAE 136.38 ETE 256.85 ZAC  59.46 ETC 256.09 CLP -84.33
```

PLANETOCENTRIC CONIC

```
C3  27.342 VHL  5.229 DLA   6.85 RAL 215.69 RAD 6568.1 VEL 12.195 PTH   2.19 VHP  4.256 DPA -53.59 RAP 207.59 ECC 1.4500
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 24 0	2504.46	-25.38	60.71	84.53	102.99	1 5 44	1904.5	-23.34	52.63
90.00	14 4 45	4720.86	16.01	201.90	80.73	66.33	15 23 26	4120.9	12.67	194.81
100.00	1 48 36	2231.56	-26.60	40.31	84.20	104.17	2 25 48	1631.6	-24.38	32.21
100.00	15 22 50	4469.00	17.14	182.84	80.20	65.13	16 37 19	3869.0	13.65	175.80
110.00	3 4 20	1994.60	-29.85	21.27	83.16	107.50	3 37 34	1394.6	-27.16	13.11
110.00	16 23 36	4278.72	20.16	166.81	78.60	61.79	17 34 55	3678.7	16.24	159.89

DIFFERENTIAL CORRECTIONS

```
TDE  .4097 TRA -.6426 TC3 -.4779 BAU  .3925
RDE  .2565 RRA -.2801 RC3 -.9615 FAU .09961
FDE 2.1160 FRA -.7324 FC3-3.1541 BSP   4039
BDE  .5528 BRA  .7046 BC3 1.0737 FSP  -1097
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1020.1 SGR 1091.7 SG3  355.3
RRT  .7898 RRF  .9414 RTF  .8262
SGB 1494.2 RZS  .1531 RIS  .9386
SG1 1413.9 SG2  485.1 THA  47.46
```

ORBIT DETERMINATION ACCURACY

```
ST   577.4 SR   298.4 SS   858.1
CRT  .9960 CRS -.9734 CST -.9628
LSA 1067.6 MSA  136.2 SSA   19.8
EL1  649.6 EL2   23.8 ALF  27.28
```

LAUNCH DATE SEP 29 1970 FLIGHT TIME 98.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 285.073

```
RL  149.86 LAL    .00 LOL   5.44 VL  28.083 GAL -10.00 AZL  86.00 HCA 131.94 SHA 135.08 ECC .20432 INC 3.9956 V1  29.732
RP  107.48 LAP   2.97 LOP 137.45 VP  30.562 GAP    .02 AZP  92.67 TAL 228.17 TAP    .12 RCA 107.48 APO 162.68 V2  35.257
RC  82.739 GL   21.57 GP  -42.25 ZAL 146.69 ZAP  89.83 ETS 356.24 ZAE 134.01 ETE 251.74 ZAC  57.50 ETC 255.44 CLP -89.77
```

PLANETOCENTRIC CONIC

```
C3  27.477 VHL  5.242 DLA   8.29 RAL 216.71 RAD 6568.1 VEL 12.201 PTH   2.19 VHP  4.317 DPA -54.16 RAP 203.72 ECC 1.4522
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 16 50	2551.86	-26.07	64.01	86.23	101.47	0 59 22	1951.9	-24.22	55.83
90.00	14 20 4	4675.91	14.76	199.19	81.67	65.56	15 37 59	4075.9	11.34	192.18
100.00	1 42 11	2276.56	-27.31	43.47	85.94	102.66	2 20 8	1676.6	-25.29	35.25
100.00	15 37 23	4426.45	15.91	180.29	81.11	64.35	16 51 10	3826.4	12.32	173.33
110.00	2 59 35	2034.35	-30.63	24.11	84.97	105.98	3 33 30	1434.3	-28.13	15.80
110.00	16 36 29	4241.43	18.95	164.60	79.47	61.00	17 47 10	3641.4	14.94	157.78

DIFFERENTIAL CORRECTIONS

```
TDE  .5942 TRA -.6847 TC3 -.6040 BAU  .4230
RDE  .3068 RRA -.2748 RC3 -.9803 FAU .09616
FDE 2.1473 FRA -.6767 FC3-3.0299 BSP   4490
BDE  .6687 BRA  .7378 BC3 1.1514 FSP  -1081
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1181.0 SGR 1122.9 SG3  347.3
RRT  .8281 RRF  .9479 RTF  .8659
SGB 1629.6 RZS  .1594 RIS  .9450
SG1 1558.2 SG2  477.1 THA  43.26
```

ORBIT DETERMINATION ACCURACY

```
ST   688.2 SR   348.8 SS   880.2
CRT  .9956 CRS -.9845 CST -.9711
LSA 1162.8 MSA  132.8 SSA   18.6
EL1  771.0 EL2   29.0 ALF  26.82
```

LAUNCH DATE SEP 29 1970 FLIGHT TIME 100.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 291.428

```
RL  149.86 LAL    .00 LOL   5.44 VL  28.060 GAL  -9.88 AZL  85.68 HCA 135.18 SHA 134.90 ECC .20339 INC 4.3421 V1  29.732
RP  107.49 LAP   3.06 LOP 140.70 VP  30.544 GAP    .48 AZP  93.08 TAL 227.63 TAP   2.81 RCA 107.47 APO 162.34 V2  35.255
RC  84.985 GL   23.42 GP  -43.93 ZAL 145.13 ZAP  93.64 ETS 352.55 ZAE 131.49 ETE 247.13 ZAC  55.56 ETC 254.79 CLP -95.06
```

PLANETOCENTRIC CONIC

```
C3  27.719 VHL  5.265 DLA   9.85 RAL 217.87 RAD 6568.1 VEL 12.210 PTH   2.19 VHP  4.413 DPA -54.75 RAP 199.98 ECC 1.4562
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 9 4	2604.54	-26.73	67.73	88.22	99.72	0 52 28	2004.5	-25.11	59.43
90.00	14 37 3	4827.60	13.38	196.31	82.85	64.81	15 54 11	4027.6	9.87	189.39
100.00	1 35 16	2326.53	-28.00	47.02	87.96	100.91	2 14 2	1726.5	-26.21	38.67
100.00	15 53 32	4380.84	14.54	177.59	82.27	63.59	17 6 33	3780.8	10.88	170.71
110.00	2 54 33	2078.42	-31.41	27.30	87.09	104.24	3 29 11	1478.4	-29.13	18.84
110.00	16 50 45	4201.72	17.62	162.29	80.56	60.22	18 0 46	3601.7	13.53	155.57

DIFFERENTIAL CORRECTIONS

```
TDE  .7138 TRA -.7821 TC3 -.7250 BAU  .4522
RDE  .3587 RRA -.2385 RC3 -.9814 FAU .09100
FDE 2.1651 FRA -.5556 FC3-2.8421 BSP   4889
BDE  .7989 BRA  .7605 BC3 1.2202 FSP  -1028
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1350.0 SGR 1135.7 SG3  333.3
RRT  .8494 RRF  .9527 RTF  .8841
SGB 1764.2 RZS  .1754 RIS  .9471
SG1 1698.7 SG2  476.3 THA  39.22
```

ORBIT DETERMINATION ACCURACY

```
ST   813.2 SR   399.5 SS   901.7
CRT  .9959 CRS -.9918 CST -.9757
LSA 1271.2 MSA  133.4 SSA   17.0
EL1  905.1 EL2   39.6 ALF  26.08
```

LAUNCH DATE SEP 29 1970 FLIGHT TIME 102.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 297.752

RL	149.86	LAL	.00	LOL	5.44	VL	28.033	GAL	-9.75	AZL	85.27	HCA	138.42	SMA	134.69	ECC	.20253	INC	4.7304	V1	29.732
RP	107.50	LAP	3.14	LOP	143.95	VP	38.521	GAP	.91	AZP	93.54	TAL	227.01	TAP	5.43	RCA	107.41	APO	161.97	V2	35.253
RC	87.241	GL	25.45	GP	-45.65	ZAL	143.36	ZAP	97.10	ETS	348.73	ZAE	128.86	ETE	243.01	ZAC	53.62	ETC	254.12	CLP	-100.18

PLANETOCENTRIC CONIC

C3	28.105	VHL	5.301	DLA	11.54	RAL	219.17	RAD	6568.1	VEL	12.226	PTH	2.20	VHP	4.544	DPA	-55.39	RAP	196.36	ECC	1.4625

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 0 24	2663.98	-27.34	71.97	90.54	97.68	0 44 48	2064.0	-25.99	63.56
90.00	14 56 7	4575.06	11.83	193.22	84.32	64.09	16 12 22	3975.1	8.25	186.38
100.00	1 27 34	2382.82	-28.66	51.07	90.32	98.88	2 7 17	1782.8	-27.14	42.60
100.00	16 11 37	4331.45	13.03	174.70	83.71	62.86	17 23 49	3731.5	9.29	167.91
110.00	2 49 1	2127.95	-32.18	30.96	89.56	102.21	3 24 29	1528.0	-30.16	22.33
110.00	17 6 40	4159.08	16.16	159.84	81.93	59.46	18 15 59	3559.1	11.99	153.22

DIFFERENTIAL CORRECTIONS

TDE	.8478	TRA	-.7557	TC3	-.8385	BAU	.4839
RDE	.4031	RRA	-.2084	RC3	-.9775	FAU	.08570
FDE	2.1418	FRA	-.4685	FC3	-2.6398	BSP	5421
BDE	.9387	BRA	.7839	BC3	1.2878	FSP	-1004

MID-COURSE EXECUTION ACCURACY

SGT	1524.7	SGR	1147.6	SG3	317.0		
RRT	.8643	RRF	.9568	RTF	.9010		
SGB	1908.3	R23	.1835	R13	.9505		
SG1	1847.9	SG2	476.3	THA	35.79		

ORBIT DETERMINATION ACCURACY

ST	950.1	SR	442.2	SS	911.4		
CRT	.9931	CRS	-.9954	CST	-.9801		
LSA	1382.5	MSA	131.2	SSA	15.8		
EL1	1046.9	EL2	46.9	ALF	24.86		

LAUNCH DATE SEP 29 1970 FLIGHT TIME 104.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 304.046

RL	149.86	LAL	.00	LOL	5.44	VL	28.001	GAL	-9.62	AZL	84.83	HCA	141.65	SMA	134.45	ECC	.20172	INC	5.1716	V1	29.732
RP	107.51	LAP	3.21	LOP	147.20	VP	38.496	GAP	1.33	AZP	94.06	TAL	226.31	TAP	7.96	RCA	107.33	APO	161.58	V2	35.249
RC	89.506	GL	27.69	GP	-47.44	ZAL	141.37	ZAP	100.15	ETS	344.76	ZAE	126.12	ETE	239.33	ZAC	51.62	ETC	253.44	CLP	-105.10

PLANETOCENTRIC CONIC

C3	28.687	VHL	5.356	DLA	13.40	RAL	220.64	RAD	6568.2	VEL	12.250	PTH	2.20	VHP	4.715	DPA	-56.14	RAP	192.81	ECC	1.4721

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 46 30	2732.13	-27.86	76.89	93.25	95.27	24 32 2	2132.1	-26.84	68.37
90.00	15 17 46	4517.14	10.09	189.86	86.15	63.40	16 33 3	3917.1	6.44	183.09
100.00	1 18 47	2447.20	-29.25	55.77	93.08	96.47	1 59 34	1847.2	-28.04	47.17
100.00	16 32 7	4277.30	11.33	171.58	85.50	62.15	17 43 24	3677.3	7.51	164.87
110.00	2 42 47	2184.39	-32.91	35.20	92.47	99.80	3 19 11	1584.4	-31.21	26.39
110.00	17 24 36	4112.88	14.55	157.24	83.63	58.72	18 33 9	3512.9	10.30	150.71

DIFFERENTIAL CORRECTIONS

TDE	1.0009	TRA	-.7821	TC3	-.9377	BAU	.5133
RDE	.4493	RRA	-.1690	RC3	-.9548	FAU	.07913
FDE	2.1093	FRA	-.3679	FC3	-2.3881	BSP	5903
BDE	1.0972	BRA	.8002	BC3	1.3383	FSP	-949

MID-COURSE EXECUTION ACCURACY

SGT	1701.5	SGR	1145.3	SG3	296.8		
RRT	.8733	RRF	.9599	RTF	.9126		
SGB	2051.1	R23	.1934	R13	.9525		
SG1	1995.1	SG2	475.8	THA	32.53		

ORBIT DETERMINATION ACCURACY

ST	1101.8	SR	484.8	SS	921.0		
CRT	.9921	CRS	-.9977	CST	-.9833		
LSA	1510.0	MSA	130.8	SSA	14.3		
EL1	1202.5	EL2	55.8	ALF	23.64		

LAUNCH DATE SEP 29 1970 FLIGHT TIME 106.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 310.310

RL	149.86	LAL	.00	LOL	5.44	VL	27.966	GAL	-9.48	AZL	84.32	HCA	144.88	SMA	134.19	ECC	.20096	INC	5.6804	V1	29.732
RP	107.52	LAP	3.26	LOP	150.46	VP	38.467	GAP	1.74	AZP	94.65	TAL	225.54	TAP	10.42	RCA	107.22	APO	161.16	V2	35.245
RC	91.778	GL	30.16	GP	-49.37	ZAL	139.13	ZAP	102.75	ETS	340.65	ZAE	123.29	ETE	236.05	ZAC	49.52	ETC	252.70	CLP	-109.81

PLANETOCENTRIC CONIC

C3	29.541	VHL	5.435	DLA	15.45	RAL	222.29	RAD	6568.2	VEL	12.285	PTH	2.21	VHP	4.931	DPA	-57.04	RAP	189.25	ECC	1.4862

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 34 41	2811.67	-28.22	82.68	96.40	92.39	24 21 32	2211.7	-27.60	74.07
90.00	15 42 46	4452.27	8.09	186.15	88.43	62.77	16 56 58	3852.3	4.38	179.44
100.00	1 8 25	2522.05	-29.69	61.29	96.32	93.60	1 50 27	1922.1	-28.88	52.58
100.00	16 55 39	4217.12	9.39	168.17	87.73	61.49	18 5 56	3617.1	5.51	161.53
110.00	2 35 30	2249.58	-33.56	40.18	95.90	96.92	3 13 0	1649.6	-32.24	31.19
110.00	17 45 3	4062.35	12.74	154.43	85.74	58.01	18 52 45	3462.4	8.42	148.00

DIFFERENTIAL CORRECTIONS

TDE	1.1778	TRA	-.7996	TC3	-1.0174	BAU	.5406
RDE	.4951	RRA	-.1223	RC3	-.9157	FAU	.07184
FDE	2.0631	FRA	-.2648	FC3	-2.1054	BSP	6364
BDE	1.2776	BRA	.8089	BC3	1.3688	FSP	-881

MID-COURSE EXECUTION ACCURACY

SGT	1878.7	SGR	1131.8	SG3	273.9		
RRT	.8775	RRF	.9619	RTF	.9208		
SGB	2193.3	R23	.2036	R13	.9537		
SG1	2140.9	SG2	476.4	THA	29.47		

ORBIT DETERMINATION ACCURACY

ST	1269.4	SR	524.3	SS	927.8		
CRT	.9909	CRS	-.9990	CST	-.9859		
LSA	1652.2	MSA	131.2	SSA	12.7		
EL1	1371.9	EL2	65.3	ALF	22.31		

LAUNCH DATE SEP 29 1970 FLIGHT TIME 108.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 316.545

RL	149.86	LAL	.00	LOL	5.44	VL	27.928	GAL	-9.33	AZL	83.72	HCA	148.11	SMA	133.90	ECC	.20025	INC	6.2779	V1	29.732
RP	107.53	LAP	3.31	LOP	153.71	VP	38.435	GAP	2.13	AZP	95.34	TAL	224.70	TAP	12.81	RCA	107.09	APO	160.71	V2	35.240
RC	94.056	GL	32.90	GP	-51.49	ZAL	136.60	ZAP	104.87	ETS	336.34	ZAE	120.35	ETE	233.10	ZAC	47.27	ETC	251.88	CLP	-114.34

PLANETOCENTRIC CONIC

C3	30.783	VHL	5.548	DLA	17.72	RAL	224.15	RAD	6568.2	VEL	12.335	PTH	2.22	VHP	5.202	DPA	-58.12	RAP	185.51	ECC	1.5066

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 20 7	2906.50	-28.30	89.61	100.08	88.91	24 8 33	2306.5	-28.15	80.95
90.00	16 12 12	4378.09	5.76	181.95	91.30	62.23	17 25 10	3778.1	1.99	175.29
100.00	0 55 46	2610.73	-29.89	67.87	100.10	90.14	1 39 17	2010.7	-29.55	59.08
100.00	17 23 10	4149.09	7.16	164.35	90.53	60.90	18 32 19	3549.1	3.22	157.77
110.00	2 26 46	2326.03	-34.03	46.09	99.95	93.45	3 5 32	1726.0	-33.18	36.96
110.00	18 8 40	4006.56	10.71	151.39	88.38	57.34	19 15 26	3406.6	6.35	145.04

DIFFERENTIAL CORRECTIONS

TDE	1.3872	TRA	-.8040	TC3	-1.0694	BAU	.5635
RDE	.5430	RRA	-.0644	RC3	-.8551	FAU	.06370
FDE	2.0119	FRA	-.1559	FC3	-1.7916	BSP	6730
BDE	1.4897	BRA	.8066	BC3	1.3692	FSP	-789

MID-COURSE EXECUTION ACCURACY

SGT	2054.3	SGR	1104.3	SG3	248.9		
RRT	.8772	RRF	.9629	RTF	.9265		
SGB	2332.3	R23	.2150	R13	.9540		
SG1	2283.0	SG2	477.1	THA	26.49		

ORBIT DETERMINATION ACCURACY

ST	1456.7	SR	561.9	SS	934.5		
CRT	.9894	CRS	-.9997	CST	-.9878		
LSA	1814.6	MSA	133.5	SSA	11.0		
EL1	1559.4	EL2	76.1	ALF	20.94		

LAUNCH DATE SEP 29 1970 FLIGHT TIME 110.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 322.750

RL	149.86	LAL	.00	LOL	5.44	VL	27.888	GAL	-9.17	AZL	83.01	HCA	151.34	SMA	133.59	ECC	.19959	INC	6.9942	V1	29.732
RP	107.55	LAP	3.35	LOP	156.95	VP	38.400	GAP	2.50	AZP	96.14	TAL	223.79	TAP	15.13	RCA	106.95	APO	160.26	V2	35.235
RC	96.339	GL	35.96	GP	-53.87	ZAL	133.76	ZAP	106.47	ETS	331.80	ZAE	117.25	ETE	230.38	ZAC	44.79	ETC	250.90	CLP	-118.74

PLANETOCENTRIC CONIC

C3	32.597	VHL	5.709	DLA	20.25	RAL	226.26	RAD	6568.3	VEL	12.408	PTH	2.24	VHP	5.544	DPA	-59.39	RAP	181.40	ECC	1.5365

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 1 17	3022.84	-27.85	98.09	104.33	84.68	23 51 40	2422.8	-28.30	89.45
90.00	16 47 54	4290.57	2.96	177.04	94.97	61.83	17 59 25	3690.6	-.83	170.41
100.00	0 39 40	2718.29	-29.64	75.85	104.49	85.95	1 24 58	2118.3	-29.89	67.06
100.00	17 56 8	4070.35	4.53	159.98	94.10	60.42	19 3 59	3470.4	.56	153.45
110.00	2 15 55	2417.17	-34.18	53.21	104.72	89.24	2 56 12	1817.2	-33.90	43.97
110.00	18 36 23	3944.24	8.40	148.04	91.72	56.74	19 42 7	3344.2	3.97	141.76

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.6303	TRA	-.8013	TC3	-1.0976	BAU	.5887	SGT	2232.1	SGR	1071.1	SG3	223.0	ST	1656.6	SR	582.2
RDE	.5795	RRA	-.0084	RC3	-.7877	FAU	.05620	RRT	.8720	RRF	.9621	RTF	.9324	CRT	.9882	CRS	-.9998
FDE	1.9304	FRA	-.0727	FC3	-1.4927	BSP	7322	SGB	2475.7	R23	.2225	R13	.9553	LSA	1981.6	MSA	133.8
BDE	1.7302	BRA	.8013	BC3	1.3510	FSP	-734	SG1	2428.4	SG2	482.0	THA	23.70	EL1	1753.9	EL2	84.4

SS	928.3	CST	-.9897
SSA	9.6	ALF	19.20

LAUNCH DATE SEP 29 1970 FLIGHT TIME 112.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 328.927

RL	149.86	LAL	.00	LOL	5.44	VL	27.844	GAL	-9.00	AZL	82.13	HCA	154.55	SMA	133.27	ECC	.19897	INC	7.8746	V1	29.732
RP	107.57	LAP	3.37	LOP	160.20	VP	38.363	GAP	2.86	AZP	97.12	TAL	222.83	TAP	17.38	RCA	106.75	APO	159.79	V2	35.229
RC	98.624	GL	39.37	GP	-56.58	ZAL	130.54	ZAP	107.50	ETS	326.95	ZAE	113.96	ETE	227.74	ZAC	42.01	ETC	249.67	CLP	-123.09

PLANETOCENTRIC CONIC

C3	35.283	VHL	5.940	DLA	23.06	RAL	228.69	RAD	6568.4	VEL	12.516	PTH	2.27	VHP	5.981	DPA	-60.83	RAP	176.61	ECC	1.5807

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 35 3	3172.43	-26.45	108.80	109.09	79.50	23 27 55	2572.4	-27.63	100.34
90.00	17 33 28	4180.93	-.58	170.92	99.81	61.69	18 43 9	3580.9	-4.36	164.28
100.00	0 17 56	2853.38	-28.58	85.75	109.51	80.85	1 5 29	2253.4	-29.55	77.08
100.00	18 37 12	3975.21	1.32	154.75	98.76	60.13	19 43 27	3375.2	-2.67	148.23
110.00	2 1 56	2527.99	-33.74	61.83	110.30	84.16	2 44 4	1928.0	-34.18	52.61
110.00	19 9 41	3873.37	5.74	144.28	96.01	56.24	20 14 14	3273.4	1.26	138.05

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.9337	TRA	-.7774	TC3	-1.0830	BAU	.6066	SGT	2408.0	SGR	1016.5	SG3	196.0	ST	1881.5	SR	592.0
RDE	.6128	RRA	.0680	RC3	-.6935	FAU	.04799	RRT	.8597	RRF	.9581	RTF	.9369	CRT	.9860	CRS	-.9993
FDE	1.8506	FRA	.0150	FC3	-1.1775	BSP	7775	SGB	2613.8	R23	.2311	R13	.9559	LSA	2173.4	MSA	136.3
BDE	2.0284	BRA	.7804	BC3	1.2860	FSP	-651	SG1	2568.0	SG2	486.8	THA	20.73	EL1	1970.2	EL2	94.4

SS	922.8	CST	-.9912
SSA	8.1	ALF	17.27

LAUNCH DATE SEP 29 1970 FLIGHT TIME 114.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 335.073

RL	149.86	LAL	.00	LOL	5.44	VL	27.799	GAL	-8.82	AZL	81.01	HCA	157.77	SMA	132.93	ECC	.19839	INC	8.9903	V1	29.732
RP	107.59	LAP	3.39	LOP	163.45	VP	38.324	GAP	3.20	AZP	98.33	TAL	221.80	TAP	19.57	RCA	106.56	APO	159.31	V2	35.222
RC	100.910	GL	43.17	GP	-59.71	ZAL	126.92	ZAP	107.90	ETS	321.62	ZAE	110.40	ETE	224.98	ZAC	38.82	ETC	248.03	CLP	-127.56

PLANETOCENTRIC CONIC

C3	39.367	VHL	6.274	DLA	26.18	RAL	231.49	RAD	6568.5	VEL	12.678	PTH	2.30	VHP	6.556	DPA	-62.37	RAP	170.72	ECC	1.6479

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	21 51 46	3387.95	-22.92	123.59	113.93	72.91	22 48 14	2788.0	-25.05	115.57
90.00	18 39 6	4020.75	-5.72	161.95	106.63	62.22	19 46 7	3420.7	-9.39	155.20
100.00	23 41 16	3034.96	-25.94	98.58	114.89	74.60	24 31 51	2435.0	-27.80	90.28
100.00	19 32 18	3848.98	-2.96	147.82	105.12	60.24	20 36 27	3249.0	-6.90	141.25
110.00	1 42 58	2666.50	-32.28	72.36	116.66	78.09	2 27 24	2066.5	-33.58	63.37
110.00	19 51 1	3790.20	2.58	139.92	101.67	55.90	20 54 11	3190.2	-1.92	133.72

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.3209	TRA	-.7265	TC3	-1.0206	BAU	.6166	SGT	2584.3	SGR	936.4	SG3	168.5	ST	2131.3	SR	575.9
RDE	.6279	RRA	.1602	RC3	-.5755	FAU	.03958	RRT	.8346	RRF	.9470	RTF	.9412	CRT	.9820	CRS	-.9976
FDE	1.7666	FRA	.0971	FC3	-.8704	BSP	8148	SGB	2748.7	R23	.2390	R13	.9564	LSA	2385.4	MSA	140.1
BDE	2.4044	BRA	.7439	BC3	1.1717	FSP	-558	SG1	2704.2	SG2	493.0	THA	17.42	EL1	2205.3	EL2	105.3

SS	914.1	CST	-.9925
SSA	6.7	ALF	14.89

LAUNCH DATE SEP 29 1970 FLIGHT TIME 116.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 341.185

RL	149.86	LAL	.00	LOL	5.44	VL	27.752	GAL	-8.63	AZL	79.54	HCA	160.96	SMA	132.58	ECC	.19784	INC	10.4594	V1	29.732
RP	107.61	LAP	3.39	LOP	166.70	VP	38.282	GAP	3.53	AZP	99.90	TAL	220.72	TAP	21.69	RCA	106.35	APO	158.81	V2	35.215
RC	103.196	GL	47.37	GP	-63.35	ZAL	122.84	ZAP	107.63	ETS	315.54	ZAE	106.47	ETE	221.71	ZAC	35.12	ETC	245.67	CLP	-132.46

PLANETOCENTRIC CONIC

C3	45.835	VHL	6.770	DLA	29.59	RAL	234.78	RAD	6568.7	VEL	12.931	PTH	2.36	VHP	7.338	DPA	-63.86	RAP	163.17	ECC	1.7543

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.02	19 15 8	3979.81	-14.76	163.61	117.15	64.06	20 21 28	3379.8	-18.13	156.46
98.98	21 42 1	3505.57	-14.75	128.76	117.15	64.05	22 40 27	2905.6	-18.12	121.61
100.00	22 25 23	3366.88	-18.19	120.15	118.82	65.86	23 21 30	2766.9	-21.29	112.73
100.00	21 14 28	3593.73	-11.38	133.55	115.39	62.17	22 14 21	2993.7	-15.02	126.65
110.00	1 14 45	2848.37	-28.96	85.48	123.46	71.00	2 2 14	2248.4	-31.28	77.04
110.00	20 45 30	3685.01	-1.45	134.43	109.40	55.84	21 46 55	3085.0	-5.92	128.20

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.8266	TRA	-.6410	TC3	-.9094	BAU	.6191	SGT	2761.9	SGR	820.0	SG3	141.4	ST	2399.8	SR	504.9
RDE	.5889	RRA	.2695	RC3	-.4402	FAU	.03156	RRT	.7782	RRF	.9148	RTF	.9470	CRT	.9724	CRS	-.9923
FDE	1.6717	FRA	.1620	FC3	-.5961	BSP	8633	SGB	2881.0	R23	.2430	R13	.9581	LSA	2607.4	MSA	143.6
BDE	2.8873	BRA	.6953	BC3	1.0103	FSP	-478	SG1	2837.1	SG2	501.3	THA	13.44	EL1	2449.6	EL2	115.4

SS	897.6	CST	-.9938
SSA	5.4	ALF	11.59

LAUNCH DATE SEP 29 1970 FLIGHT TIME 118.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 347.259

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RL  149.86 LAL    .00 LOL   5.44 VL  27.703 GAL  -8.43 AZL  77.51 HCA 164.15 SMA 132.23 ECC .19730 INC12.4937 V1  29.732
RP  107.64 LAP   3.39 LOP 169.94 VP  38.240 GAP   3.85 AZP 102.03 TAL 219.59 TAP  23.74 RCA 106.14 APO 158.31 V2  35.207
RC 105.482 GL   51.92 GP  -67.57 ZAL 118.29 ZAP 106.61 ETS 308.03 ZAE 102.01 ETE 217.14 ZAC  30.76 ETC 241.98 CLP-138.52
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PLANETOCENTRIC CONIC

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C3  56.725 VHL  7.532 DLA  33.22 RAL 238.72 RAD 6569.0 VEL 13.345 PTH   2.44 VHP  8.458 DPA -64.95 RAP 153.34 ECC 1.9335
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
71.85	18 26 12	4236.49	-14.63	182.90	125.25	59.84	19 36 48	3636.5	-18.53	176.03
108.15	23 2 23	3354.88	-14.62	117.33	125.24	59.83	23 58 18	2754.9	-18.52	110.46
71.85	18 26 12	4236.49	-14.63	182.90	125.25	59.84	19 36 48	3636.5	-18.53	176.03
108.15	23 2 23	3354.88	-14.62	117.33	125.24	59.83	23 58 18	2754.9	-18.52	110.46
110.00	0 19 4	3131.69	-21.28	103.88	129.08	62.60	1 11 15	2531.7	-24.78	96.47
110.00	22 12 38	3507.68	-8.17	125.10	121.17	56.69	23 11 5	2907.7	-12.49	118.68

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 3.5228 TRA -.4883 TC3 -.7408 BAU  .6021    SGT 2936.4 SGR  652.3 SG3  115.4      ST  2683.4 SR   338.3 SS   880.5
 RDE  .4195 RRA  .4088 RC3 -.2859 FAU .02364    RRT  .6115 RRF  .7947 RTF  .9546      CRT  .9263 CRS -.9590 CST -.9951
 FDE 1.5817 FRA  .2195 FC3 -.3607 BSP   9042    SGB 3008.0 R23  .2435 R13  .9607      LSA 2840.5 MSA  148.8 SSA    4.2
 BDE 3.5477 BRA  .6353 BC3  .7940 FSP   -394    SG1 2964.2 SG2  511.3 THA   7.97     EL1 2701.7 EL2  126.6 ALF   6.68
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LAUNCH DATE SEP 29 1970 FLIGHT TIME 120.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 353.283

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RL  149.86 LAL    .00 LOL   5.44 VL  27.652 GAL  -8.22 AZL  74.49 HCA 167.30 SMA 131.86 ECC .19676 INC15.5105 V1  29.732
RP  107.66 LAP   3.37 LOP 173.19 VP  38.195 GAP   4.14 AZP 105.15 TAL 218.39 TAP  25.69 RCA 105.91 APO 157.80 V2  35.198
RC 107.765 GL   56.63 GP  -72.40 ZAL 113.25 ZAP 104.81 ETS 297.37 ZAE  96.79 ETE 209.43 ZAC  25.52 ETC 235.49 CLP-147.73
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PLANETOCENTRIC CONIC

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C3  76.800 VHL  8.764 DLA  36.84 RAL 243.53 RAD 6569.5 VEL 14.077 PTH   2.57 VHP 10.175 DPA -65.05 RAP 140.92 ECC 2.2639
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.38	18 7 58	4421.84	-13.28	196.63	135.19	55.31	19 21 40	3821.8	-17.73	190.15
114.62	0 2 54	3314.39	-13.26	113.26	135.17	55.31	0 58 8	2714.4	-17.72	106.78
65.38	18 7 58	4421.84	-13.28	196.63	135.19	55.31	19 21 40	3821.8	-17.73	190.15
114.62	0 2 54	3314.39	-13.26	113.26	135.17	55.31	0 58 8	2714.4	-17.72	106.78
65.38	18 7 58	4421.84	-13.28	196.63	135.19	55.31	19 21 40	3821.8	-17.73	190.15
114.62	0 2 54	3314.39	-13.26	113.26	135.17	55.31	0 58 8	2714.4	-17.72	106.78

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 4.4973 TRA -.1952 TC3 -.5195 BAU  .5495    SGT 3082.2 SGR  524.9 SG3   91.6      ST  2940.9 SR   162.4 SS   869.6
 RDE -.1255 RRA  .5714 RC3 -.1288 FAU .01608    RRT -.0681 RRF  .1680 RTF  .9661      CRT -.5186 CRS  .4459 CST -.9966
 FDE 1.5095 FRA  .2694 FC3 -.1812 BSP   9450    SGB 3126.6 R23 -.2362 R13 -.9656      LSA 3067.1 MSA  155.6 SSA    3.1
 BDE 4.4991 BRA  .6038 BC3  .5352 FSP   -315    SG1 3082.4 SG2  523.7 THA 179.32      EL1 2942.1 EL2  138.8 ALF 178.36
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LAUNCH DATE SEP 29 1970 FLIGHT TIME 122.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 359.229

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RL  149.86 LAL    .00 LOL   5.44 VL  27.600 GAL  -7.99 AZL  69.55 HCA 170.39 SMA 131.49 ECC .19615 INC20.4499 V1  29.732
RP  107.69 LAP   3.34 LOP 176.43 VP  38.149 GAP   4.41 AZP 110.19 TAL 217.12 TAP  27.52 RCA 105.69 APO 157.28 V2  35.189
RC 110.046 GL   60.96 GP  -77.44 ZAL 107.81 ZAP 102.22 ETS 278.51 ZAE  90.34 ETE 193.38 ZAC  19.05 ETC 222.47 CLP-166.89
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PLANETOCENTRIC CONIC

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C3 119.317 VHL 10.923 DLA  39.89 RAL 249.50 RAD 6570.2 VEL 15.513 PTH   2.77 VHP 13.070 DPA -63.13 RAP 126.72 ECC 2.9637
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.65	18 8 29	4584.52	-10.20	207.72	147.08	51.23	19 24 53	3984.5	-15.14	201.68
119.35	0 50 0	3342.46	-10.18	113.23	147.07	51.23	1 45 42	2742.5	-15.12	107.19
60.65	18 8 29	4584.52	-10.20	207.72	147.08	51.23	19 24 53	3984.5	-15.14	201.68
119.35	0 50 0	3342.46	-10.18	113.23	147.07	51.23	1 45 42	2742.5	-15.12	107.19
60.65	18 8 29	4584.52	-10.20	207.72	147.08	51.23	19 24 53	3984.5	-15.14	201.68
119.35	0 50 0	3342.46	-10.18	113.23	147.07	51.23	1 45 42	2742.5	-15.12	107.19

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 5.6908 TRA  .4190 TC3 -.2574 BAU  .4108    SGT 3051.0 SGR 1061.5 SG3   71.5      ST  2986.3 SR   975.4 SS   890.2
 RDE-1.8426 RRA  .6418 RC3 -.0077 FAU .00855    RRT -.8491 RRF -.7492 RTF  .9837      CRT -.9865 CRS  .9757 CST -.9984
 FDE 1.4974 FRA  .3280 FC3 -.0620 BSP   9768    SGB 3230.4 R23 -.2131 R13 -.9740      LSA 3261.2 MSA  163.9 SSA    2.1
 BDE 5.9817 BRA  .7664 BC3  .2575 FSP   -245    SG1 3185.4 SG2  537.1 THA 163.05      EL1 3137.9 EL2  151.8 ALF 162.10
```

LAUNCH DATE SEP 29 1970 FLIGHT TIME 124.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 365.018

```
RL  149.86 LAL    .00 LOL   5.44 VL  27.548 GAL  -7.72 AZL  60.14 HCA 173.35 SMA 131.11 ECC .19529 INC29.8554 V1  29.732
RP  107.72 LAP   3.30 LOP 179.67 VP  38.102 GAP   4.64 AZP 119.69 TAL 215.73 TAP  29.08 RCA 105.50 APO 156.71 V2  35.179
RC 112.324 GL   63.25 GP  -79.25 ZAL 102.16 ZAP  98.93 ETS 240.75 ZAE  81.46 ETE 158.18 ZAC  10.82 ETC 201.28 CLP 146.31
```

PLANETOCENTRIC CONIC

```
C3 231.583 VHL 15.218 DLA  40.83 RAL 256.86 RAD 6571.3 VEL 18.786 PTH   3.06 VHP 18.689 DPA -57.49 RAP 113.10 ECC 4.8113
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.26	18 31 35	4715.59	-5.42	214.87	160.57	49.47	19 50 10	4115.6	-10.58	209.11
120.74	1 25 39	3438.30	-5.41	117.38	160.56	49.47	2 22 57	2838.3	-10.56	111.62
59.26	18 31 35	4715.59	-5.42	214.87	160.57	49.47	19 50 10	4115.6	-10.58	209.11
120.74	1 25 39	3438.30	-5.41	117.38	160.56	49.47	2 22 57	2838.3	-10.56	111.62
59.26	18 31 35	4715.59	-5.42	214.87	160.57	49.47	19 50 10	4115.6	-10.58	209.11
120.74	1 25 39	3438.30	-5.41	117.38	160.56	49.47	2 22 57	2838.3	-10.56	111.62

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 5.3586 TRA 1.5180 TC3 -.0295 BAU  .1403    SGT 2156.2 SGR 2496.9 SG3   57.0      ST  2030.2 SR  2492.5 SS  1009.0
 RDE-6.6195 RRA -.2223 RC3 -.0344 FAU-.00089    RRT -.9477 RRF -.9548 RTF  .9983      CRT -.9951 CRS  .9956 CST-1.0000
 FDE 1.6500 FRA  .4488 FC3  .0033 BSP   9738    SGB 3299.0 R23 -.1587 R13 -.9860      LSA 3365.3 MSA  163.8 SSA    1.6
 BDE 8.5166 BRA 1.5342 BC3  .0453 FSP   -188    SG1 3256.6 SG2  527.4 THA 130.58      EL1 3211.0 EL2  155.1 ALF 129.14
```

LAUNCH DATE SEP 29 1970 FLIGHT TIME 126.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 370.340

```
RL  149.86 LAL    .00 LOL   5.44 VL  27.494 GAL  -7.35 AZL  37.88 HCA 175.87 SMA 130.73 ECC .19352 INC52.1223 V1  29.732
RP  107.75 LAP   3.26 LOP 182.90 VP  38.054 GAP   4.72 AZP 142.05 TAL 214.03 TAP  29.91 RCA 105.43 APO 156.02 V2  35.169
RC 114.599 GL   58.22 GP  -68.33 ZAL  96.86 ZAP  95.33 ETS 200.86 ZAE  66.34 ETE 120.91 ZAC   9.83 ETC 257.00 CLP 104.56
```

PLANETOCENTRIC CONIC

```
C3 641.032 VHL 25.319 DLA  34.91 RAL 265.09 RAD 6572.6 VEL 27.610 PTH   3.41 VHP 31.753 DPA -44.07 RAP 103.18 ECC11.5498
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
68.67	19 52 8	4679.68	-.73	208.31	174.05	55.10	21 10 7	4079.7	-5.30	202.15
111.33	1 10 43	3680.71	-.72	133.59	174.04	55.10	2 12 4	3080.7	-5.28	127.43
68.67	19 52 8	4679.68	-.73	208.31	174.05	55.10	21 10 7	4079.7	-5.30	202.15
111.33	1 10 43	3680.71	-.72	133.59	174.04	55.10	2 12 4	3080.7	-5.28	127.43
68.67	19 52 8	4679.68	-.73	208.31	174.05	55.10	21 10 7	4079.7	-5.30	202.15
111.33	1 10 43	3680.71	-.72	133.59	174.04	55.10	2 12 4	3080.7	-5.28	127.43

DIFFERENTIAL CORRECTIONS

```
TDE -.0422 TRA 1.8502 TC3 -.0270 BAU 1.5226
RD-12.7287 RRA-3.4256 RC3 -.1756 FAU-.02526
FDE 2.1942 FRA  .8429 FC3  .0314 BSP   9349
BDE12.7288 BRA 3.8933 BC3  .1777 FSP   -155
```

MID-COURSE EXECUTION ACCURACY

```
SGT  528.7 SGR 3159.4 SG3   49.3
RRT -.1996 RRF -.9933 RTF  .3056
SGB 3203.3 RZ3 -.1039 RZ3 -.9939
SG1 3161.2 SG2  517.8 THA  91.97
```

ORBIT DETERMINATION ACCURACY

```
ST   153.5 SR  2894.5 SS  1375.7
CRT -.0356 CRS  .9991 CST -.0770
LSA 3204.4 MSA  161.8 SSA     .0
EL1 2894.5 EL2  153.4 ALF  90.11
```

LAUNCH DATE SEP 29 1970 FLIGHT TIME 128.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 380.645

```
RL  149.86 LAL    .00 LOL   5.44 VL  27.439 GAL  -7.99 AZL 167.67 HCA 183.27 SMA 130.34 ECC .20331 INC77.6690 V1  29.732
RP  107.79 LAP   3.20 LOP 186.14 VP  38.005 GAP   6.22 AZP  12.35 TAL 215.16 TAP  38.43 RCA 103.84 APO 156.84 V2  35.158
RC 116.871 GL  -47.70 GP   52.84 ZAL  95.31 ZAP  94.84 ETS 178.74 ZAE  58.09 ETE 256.12 ZAC 130.18 ETC 271.65 CLP  98.03
```

PLANETOCENTRIC CONIC

```
C31288.130 VHL 35.891 DLA -71.10 RAL 264.87 RAD 6573.1 VEL 37.542 PTH   3.54 VHP 46.503 DPA  76.84 RAP 116.38 ECC22.1994
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.59	5 13 55	2451.27	-1.06	78.95	175.23	161.10	5 54 46	1851.3	6.51	76.76
158.41	15 47 14	691.15	-1.05	287.56	175.25	161.10	15 58 45	91.2	6.51	285.38
21.59	5 13 55	2451.27	-1.06	78.95	175.23	161.10	5 54 46	1851.3	6.51	76.76
158.41	15 47 14	691.15	-1.05	287.56	175.25	161.10	15 58 45	91.2	6.51	285.38
21.59	5 13 55	2451.27	-1.06	78.95	175.23	161.10	5 54 46	1851.3	6.51	76.76
158.41	15 47 14	691.15	-1.05	287.56	175.25	161.10	15 58 45	91.2	6.51	285.38

DIFFERENTIAL CORRECTIONS

```
TDE 6.0381 TRA  .3903 TC3 -.0913 BAU 3.5772
RD-13.0791 RRA 1.7910 RC3  .1866 FAU-.05623
FDE-2.9012 FRA  .4068 FC3  .0378 BSP   8733
BDE14.4056 BRA 1.8348 BC3  .2077 FSP   -156
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1182.1 SGR 2632.9 SG3   49.5
RRT -.8730 RRF  .9991 RTF -.8628
SGB 2886.1 RZ3 -.0963 RZ3  .9947
SG1 2836.1 SG2  535.2 THA 112.24
```

ORBIT DETERMINATION ACCURACY

```
ST   965.9 SR  2105.1 SS  1876.9
CRT -.9825 CRS-1.0000 CST  .9819
LSA 2976.2 MSA  171.8 SSA     2.3
EL1 2310.3 EL2  163.7 ALF 114.40
```

LAUNCH DATE SEP 29 1970 FLIGHT TIME 130.00 ARRIVAL DATE FEB 6 1971

HELIOCENTRIC CONIC DISTANCE 385.152

```
RL  149.86 LAL    .00 LOL   5.44 VL  27.384 GAL  -7.45 AZL 128.54 HCA 185.02 SMA 129.96 ECC .19968 INC38.5374 V1  29.732
RP  107.82 LAP   3.13 LOP 189.37 VP  37.955 GAP   6.07 AZP  51.57 TAL 213.03 TAP  38.05 RCA 104.01 APO 155.91 V2  35.147
RC 119.138 GL  -81.93 GP   73.35 ZAL  99.17 ZAP  98.70 ETS 157.32 ZAE  81.08 ETE 236.61 ZAC 152.18 ETC 260.54 CLP 121.87
```

PLANETOCENTRIC CONIC

```
C3 367.587 VHL 19.173 DLA -82.26 RAL 209.94 RAD 6572.0 VEL 22.111 PTH   3.24 VHP 25.191 DPA  76.07 RAP 236.40 ECC 7.0495
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
8.80	1 9 6	2391.26	4.41	84.67	119.32	172.24	1 48 58	1791.3	12.34	83.98
171.20	12 33 44	5875.47	4.42	258.51	119.35	172.24	14 11 40	5275.5	12.34	257.82
8.80	1 9 6	2391.26	4.41	84.67	119.32	172.24	1 48 58	1791.3	12.34	83.98
171.20	12 33 44	5875.47	4.42	258.51	119.35	172.24	14 11 40	5279.5	12.34	257.82
8.80	1 9 6	2391.26	4.41	84.67	119.32	172.24	1 48 58	1791.3	12.34	83.98
171.20	12 33 44	5875.47	4.42	258.51	119.35	172.24	14 11 40	5275.5	12.34	257.82

DIFFERENTIAL CORRECTIONS

```
TDE-1.2197 TRA  .1048 TC3 -.0194 BAU  .6340
RDE-8.4757 RRA-1.0369 RC3  .1275 FAU-.00634
FDE-1.7825 FRA -.1727 FC3  .0149 BSP  10614
BDE 8.5630 BRA 1.0421 BC3  .1290 FSP   -180
```

MID-COURSE EXECUTION ACCURACY

```
SGT  438.8 SGR 3457.3 SG3   56.9
RRT  .2315 RRF  .9921 RTF  .3483
SGB 3485.1 RZ3 -.1183 RZ3  .9926
SG1 3458.8 SG2  426.7 THA  88.29
```

ORBIT DETERMINATION ACCURACY

```
ST   371.1 SR  2625.4 SS  1186.2
CRT  .8980 CRS -.9986 CST -.9203
LSA 2899.8 MSA  169.4 SSA     1.2
EL1 2646.5 EL2  162.0 ALF  82.74
```

LAUNCH DATE SEP 29 1970 FLIGHT TIME 132.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 390.873

```
RL  149.86 LAL    .00 LOL   5.44 VL  27.329 GAL  -7.10 AZL 113.12 HCA 187.78 SMA 129.57 ECC .19861 INC23.1190 V1  29.732
RP  107.86 LAP   3.05 LOP 192.60 VP  37.904 GAP   6.21 AZP  67.07 TAL 211.41 TAP  39.19 RCA 103.84 APO 155.31 V2  35.136
RC 121.402 GL  -62.31 GP   75.69 ZAL 103.88 ZAP 104.00 ETS  98.03 ZAE  93.08 ETE 178.37 ZAC 160.59 ETC 223.55 CLP 168.02
```

PLANETOCENTRIC CONIC

```
C3 144.620 VHL 12.026 DLA -78.25 RAL 189.08 RAD 6570.6 VEL 16.308 PTH   2.86 VHP 16.081 DPA  63.39 RAP 244.75 ECC 3.3801
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
13.38	23 50 54	2252.71	13.22	80.81	96.27	167.92	24 28 27	1652.7	21.03	79.44
166.62	11 1 36	5748.04	13.22	259.08	96.29	167.92	12 37 24	5148.0	21.04	257.71
13.38	23 50 54	2252.71	13.22	80.81	96.27	167.92	24 28 27	1652.7	21.03	79.44
166.62	11 1 36	5748.04	13.22	259.08	96.29	167.92	12 37 24	5148.0	21.04	257.71
13.38	23 50 54	2252.71	13.22	80.81	96.27	167.92	24 28 27	1652.7	21.03	79.44
166.62	11 1 36	5748.04	13.22	259.08	96.29	167.92	12 37 24	5148.0	21.04	257.71

DIFFERENTIAL CORRECTIONS

```
TDE-3.2084 TRA-1.2989 TC3 -.1496 BAU  .2949
RDE -.5091 RRA -.7142 RC3 -.0298 FAU .01004
FDE -.9163 FRA -.2916 FC3 -.0801 BSP  11466
BDE 3.2485 BRA 1.4309 BC3  .1525 FSP   -231
```

MID-COURSE EXECUTION ACCURACY

```
SGT 3298.5 SGR 1689.9 SG3   71.1
RRT  .9406 RRF  .9035 RTF  .9943
SGB 3706.1 RZ3 -.1622 RZ3  .9854
SG1 3670.1 SG2  515.5 THA  26.29
```

ORBIT DETERMINATION ACCURACY

```
ST  1759.0 SR   556.9 SS   669.9
CRT  .8239 CRS -.7765 CST -.9969
LSA 1937.5 MSA  314.9 SSA     1.7
EL1 1819.6 EL2  305.1 ALF  15.05
```

LAUNCH DATE SEP 29 1970 FLIGHT TIME 134.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 396.446

RL 149.86 LAL .00 LOL 5.44 VL 27.273 GAL -6.81 AZL 105.99 HCA 190.80 SMA 129.19 ECC .19825 INC15.9878 V1 29.732
RP 107.89 LAP 2.96 LOP 195.83 VP 37.853 GAP 6.41 AZP 74.28 TAL 209.90 TAP 40.70 RCA 103.57 APO 154.80 V2 35.124
RC 123.660 GL -58.35 GP 70.02 ZAL 108.21 ZAP 109.61 ETS 71.09 ZAE 100.83 ETE 153.03 ZAC 161.43 ETC 223.19 CLP-169.08

PLANETOCENTRIC CONIC

C3 76.781 VHL 8.762 DLA -73.69 RAL 195.19 RAD 6569.5 VEL 14.076 PTH 2.57 VHP 11.959 DPA 53.95 RAP 244.78 ECC 2.2636

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.61	0 29 44	2111.00	21.56	74.92	98.54	162.42	1 4 55	1511.0	29.16	72.58
161.39	11 15 28	5625.11	21.57	258.39	98.56	162.42	12 49 13	5025.1	29.17	256.04
18.61	0 29 44	2111.00	21.56	74.92	98.54	162.42	1 4 55	1511.0	29.16	72.58
161.39	11 15 28	5625.11	21.57	258.39	98.56	162.42	12 49 13	5025.1	29.17	256.04
18.61	0 29 44	2111.00	21.56	74.92	98.54	162.42	1 4 55	1511.0	29.16	72.58
161.39	11 15 28	5625.11	21.57	258.39	98.56	162.42	12 49 13	5025.1	29.17	256.04

DIFFERENTIAL CORRECTIONS
TDE-2.5144 TRA-1.3858 TC3 -.5578 BAU .5748
RDE .6837 RRA -.1025 RC3 .0492 FAU .01906
FDE -.9336 FRA -.3173 FC3 -.2149 BSP 11454
BDE 2.6056 BRA 1.3895 BC3 .5600 FSP -281

MID-COURSE EXECUTION ACCURACY
SGT 3750.4 SGR 514.0 SG3 89.0
RRT -.0255 RRF -.2439 RTF .9723
SGB 3785.5 R23 .2186 R13 -.9724
SG1 3750.4 SG2 513.9 THA 179.80

ORBIT DETERMINATION ACCURACY
ST 1908.0 SR 452.7 SS 671.1
CRT -.7707 CRS .8742 CST -.9832
LSA 2050.8 MSA 300.4 SSA 2.4
EL1 1940.4 EL2 283.7 ALF 169.41

LAUNCH DATE SEP 29 1970 FLIGHT TIME 136.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 402.295

RL 149.86 LAL .00 LOL 5.44 VL 27.217 GAL -6.52 AZL 101.98 HCA 193.91 SMA 128.80 ECC .19820 INC11.9807 V1 29.732
RP 107.93 LAP 2.86 LOP 199.05 VP 37.801 GAP 6.64 AZP 78.36 TAL 208.43 TAP 42.34 RCA 103.27 APO 154.33 V2 35.112
RC 125.912 GL -53.33 GP 63.38 ZAL 111.77 ZAP 115.11 ETS 62.92 ZAE 106.61 ETE 147.08 ZAC 158.40 ETC 234.17 CLP-161.32

PLANETOCENTRIC CONIC

C3 48.980 VHL 6.999 DLA -69.26 RAL 203.41 RAD 6568.8 VEL 13.052 PTH 2.38 VHP 9.782 DPA 46.06 RAP 244.15 ECC 1.8061

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
23.71	1 13 17	1989.68	27.80	67.86	101.89	156.41	1 46 27	1389.7	35.08	64.37
156.29	11 37 31	5528.94	27.81	256.61	101.91	156.40	13 9 40	4928.9	35.09	253.12
23.71	1 13 17	1989.68	27.80	67.86	101.89	156.41	1 46 27	1389.7	35.08	64.37
156.29	11 37 31	5528.94	27.81	256.61	101.91	156.40	13 9 40	4928.9	35.09	253.12
23.71	1 13 17	1989.68	27.80	67.86	101.89	156.41	1 46 27	1389.7	35.08	64.37
156.29	11 37 31	5528.94	27.81	256.61	101.91	156.40	13 9 40	4928.9	35.09	253.12

DIFFERENTIAL CORRECTIONS
TDE-2.2432 TRA-1.3102 TC3-1.0695 BAU .7113
RDE .7683 RRA .0400 RC3 .1896 FAU .02660
FDE-1.0039 FRA -.3192 FC3 -.4702 BSP 12014
BDE 2.3711 BRA 1.3108 BC3 1.0862 FSP -359

MID-COURSE EXECUTION ACCURACY
SGT 3846.1 SGR 688.9 SG3 111.1
RRT -.6916 RRF -.8578 RTF .9566
SGB 3907.3 R23 .2562 R13 -.9608
SG1 3876.0 SG2 493.8 THA 172.82

ORBIT DETERMINATION ACCURACY
ST 2049.5 SR 629.7 SS 719.6
CRT -.9149 CRS .9760 CST -.9808
LSA 2245.6 MSA 268.6 SSA 3.3
EL1 2130.1 EL2 244.6 ALF 164.08

LAUNCH DATE SEP 29 1970 FLIGHT TIME 138.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 408.171

RL 149.86 LAL .00 LOL 5.44 VL 27.161 GAL -6.23 AZL 99.42 HCA 197.05 SMA 128.42 ECC .19834 INC 9.4239 V1 29.732
RP 107.97 LAP 2.75 LOP 202.27 VP 37.749 GAP 6.88 AZP 80.98 TAL 206.96 TAP 44.01 RCA 102.95 APO 153.89 V2 35.099
RC 128.158 GL -48.23 GP 57.17 ZAL 114.47 ZAP 120.30 ETS 59.38 ZAE 111.12 ETE 146.22 ZAC 154.09 ETC 242.07 CLP-158.52

PLANETOCENTRIC CONIC

C3 35.132 VHL 5.927 DLA -65.03 RAL 210.74 RAD 6568.4 VEL 12.510 PTH 2.27 VHP 8.513 DPA 39.18 RAP 243.73 ECC 1.5782

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.65	1 53 31	1890.20	31.86	60.20	103.90	150.20	2 25 2	1290.2	38.71	55.54
151.35	11 55 43	5460.99	31.87	254.34	103.92	150.19	13 26 44	4861.0	38.71	249.67
28.65	1 53 31	1890.20	31.86	60.20	103.90	150.20	2 25 2	1290.2	38.71	55.54
151.35	11 55 43	5460.99	31.87	254.34	103.92	150.19	13 26 44	4861.0	38.71	249.67
28.65	1 53 31	1890.20	31.86	60.20	103.90	150.20	2 25 2	1290.2	38.71	55.54
151.35	11 55 43	5460.99	31.87	254.34	103.92	150.19	13 26 44	4861.0	38.71	249.67

DIFFERENTIAL CORRECTIONS
TDE-2.0427 TRA-1.2182 TC3-1.6460 BAU .7876
RDE .6939 RRA .0607 RC3 .3198 FAU .03280
FDE-1.0247 FRA -.2946 FC3 -.8083 BSP 12451
BDE 2.1574 BRA 1.2197 BC3 1.6768 FSP -434

MID-COURSE EXECUTION ACCURACY
SGT 3935.5 SGR 782.9 SG3 132.6
RRT -.7957 RRF -.9335 RTF .9452
SGB 4012.6 R23 .2816 R13 -.9506
SG1 3985.2 SG2 468.3 THA 170.88

ORBIT DETERMINATION ACCURACY
ST 2145.4 SR 672.2 SS 744.0
CRT -.9431 CRS .9902 CST -.9802
LSA 2355.4 MSA 245.5 SSA 4.3
EL1 2238.0 EL2 214.2 ALF 163.38

LAUNCH DATE SEP 29 1970 FLIGHT TIME 140.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 414.054

RL 149.86 LAL .00 LOL 5.44 VL 27.104 GAL -5.94 AZL 97.65 HCA 200.22 SMA 128.04 ECC .19862 INC 7.6476 V1 29.732
RP 108.01 LAP 2.64 LOP 205.49 VP 37.697 GAP 7.12 AZP 82.82 TAL 205.47 TAP 45.69 RCA 102.61 APO 153.48 V2 35.086
RC 130.397 GL -43.39 GP 51.60 ZAL 116.28 ZAP 125.06 ETS 57.33 ZAE 114.68 ETE 147.13 ZAC 149.68 ETC 247.09 CLP-157.64

PLANETOCENTRIC CONIC

C3 27.271 VHL 5.222 DLA -61.07 RAL 217.05 RAD 6568.1 VEL 12.192 PTH 2.19 VHP 7.730 DPA 33.12 RAP 243.66 ECC 1.4488

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.33	2 29 50	1808.02	34.19	52.52	104.98	144.21	2 59 58	1208.0	40.53	46.79
146.67	12 9 44	5416.01	34.20	252.10	105.00	144.21	13 40 0	4816.0	40.54	246.36
33.33	2 29 50	1808.02	34.19	52.52	104.98	144.21	2 59 58	1208.0	40.53	46.79
146.67	12 9 44	5416.01	34.20	252.10	105.00	144.21	13 40 0	4816.0	40.54	246.36
33.33	2 29 50	1808.02	34.19	52.52	104.98	144.21	2 59 58	1208.0	40.53	46.79
146.67	12 9 44	5416.01	34.20	252.10	105.00	144.21	13 40 0	4816.0	40.54	246.36

DIFFERENTIAL CORRECTIONS
TDE-1.8610 TRA-1.1233 TC3-2.2564 BAU .8369
RDE .5970 RRA .0482 RC3 .4224 FAU .03761
FDE -.9968 FRA -.2475 FC3-1.1940 BSP 12779
BDE 1.9545 BRA 1.1244 BC3 2.2956 FSP -497

MID-COURSE EXECUTION ACCURACY
SGT 4026.7 SGR 797.3 SG3 151.3
RRT -.8273 RRF -.9512 RTF .9363
SGB 4104.9 R23 .2974 R13 -.9418
SG1 4081.0 SG2 442.0 THA 170.59

ORBIT DETERMINATION ACCURACY
ST 2181.4 SR 656.0 SS 739.4
CRT -.9529 CRS .9946 CST -.9790
LSA 2383.9 MSA 229.4 SSA 5.4
EL1 2269.9 EL2 191.3 ALF 163.89

LAUNCH DATE SEP 29 1970 FLIGHT TIME 142.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 419.938

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RL  149.86 LAL    .00 LOL   5.44 VL  27.048 GAL  -5.65 AZL  96.34 HCA 203.40 SMA 127.67 ECC .19903 INC 6.3370 V1  29.732
RP  108.05 LAP   2.51 LOP 208.71 VP  37.644 GAP   7.35 AZP  84.18 TAL 203.98 TAP  47.37 RCA 102.26 APO 153.08 V2  35.074
RC 132.627 GL  -38.91 GP   46.69 ZAL 117.26 ZAP 129.36 ETS  55.90 ZAE 117.48 ETE 148.76 ZAC 145.57 ETC 250.42 CLP-157.61
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PLANETOCENTRIC CONIC

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C3  22.374 VHL  4.730 DLA -57.42 RAL 222.60 RAD 6567.9 VEL 11.990 PTH   2.14 VHP  7.231 DPA  27.78 RAP 243.93 ECC 1.3682
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
37.71	3 3 13	1738.26	35.27	45.19	105.72	138.74	3 32 11	1138.3	41.09	38.61
142.29	12 20 42	5388.46	35.28	250.20	105.74	138.73	13 50 30	4788.5	41.10	243.63
37.71	3 3 13	1738.26	35.27	45.19	105.72	138.74	3 32 11	1138.3	41.09	38.61
142.29	12 20 42	5388.46	35.28	250.20	105.74	138.73	13 50 30	4788.5	41.10	243.63
37.71	3 3 13	1738.26	35.27	45.19	105.72	138.74	3 32 11	1138.3	41.09	38.61
142.29	12 20 42	5388.46	35.28	250.20	105.74	138.73	13 50 30	4788.5	41.10	243.63

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.6786 TRA-1.0096 TC3-2.8470 BAU  .8638   SGT 4067.8 SGR  762.6 SG3  163.4     ST  2145.9 SR   609.2 SS   700.3
 RDE  .5027 RRA  .0210 RC3  .4828 FAU .04040   RRT -.8302 RRF -.9515 RTF  .9254    CRT -.9552 CRS  .9967 CST -.9758
 FDE -.9198 FRA -.1700 FC3-1.5633 BSP  12620   SGB 4138.7 RZS  .3137 RIS -.9306   LSA 2327.8 MSA  218.5 SSA    6.8
 BDE 1.7522 BRA 1.0098 BC3 2.8877 FSP   -516   SG1 4117.3 SG2  420.0 THA 171.06   EL1 2223.9 EL2  173.9 ALF 164.73
```

LAUNCH DATE SEP 29 1970 FLIGHT TIME 144.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 425.811

```
RL  149.86 LAL    .00 LOL   5.44 VL  26.992 GAL  -5.34 AZL  95.33 HCA 206.58 SMA 127.30 ECC .19957 INC 5.3255 V1  29.732
RP  108.09 LAP   2.38 LOP 211.92 VP  37.592 GAP   7.59 AZP  85.23 TAL 202.46 TAP  49.05 RCA 101.89 APO 152.70 V2  35.061
RC 134.850 GL  -34.79 GP   42.41 ZAL 117.50 ZAP 133.21 ETS  54.77 ZAE 119.67 ETE 150.65 ZAC 141.89 ETC 252.77 CLP-158.02
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PLANETOCENTRIC CONIC

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C3  19.112 VHL  4.372 DLA -54.08 RAL 227.64 RAD 6567.8 VEL 11.853 PTH   2.10 VHP  6.911 DPA  23.08 RAP 244.48 ECC 1.3145
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.79	3 34 37	1677.12	35.51	38.36	106.51	133.90	4 2 34	1077.1	40.82	31.16
138.21	12 29 30	5374.16	35.52	248.84	106.53	133.89	13 59 4	4774.2	40.83	241.64
41.79	3 34 37	1677.12	35.51	38.36	106.51	133.90	4 2 34	1077.1	40.82	31.16
138.21	12 29 30	5374.16	35.52	248.84	106.53	133.89	13 59 4	4774.2	40.83	241.64
41.79	3 34 37	1677.12	35.51	38.36	106.51	133.90	4 2 34	1077.1	40.82	31.16
138.21	12 29 30	5374.16	35.52	248.84	106.53	133.89	13 59 4	4774.2	40.83	241.64

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.5489 TRA -.9310 TC3-3.4991 BAU  .9049   SGT 4219.9 SGR  748.1 SG3  178.9     ST  2125.6 SR   576.6 SS   671.1
 RDE  .4398 RRA  .0096 RC3  .5450 FAU .04348   RRT -.8451 RRF -.9499 RTF  .9245    CRT -.9586 CRS  .9981 CST -.9758
 FDE -.8547 FRA -.1150 FC3-1.9694 BSP  13399   SGB 4285.7 RZS  .3023 RIS -.9288   LSA 2293.0 MSA  207.8 SSA    8.4
 BDE 1.6101 BRA  .9310 BC3 3.5413 FSP   -588   SG1 4267.4 SG2  395.5 THA 171.41   EL1 2196.7 EL2  158.8 ALF 165.35
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LAUNCH DATE SEP 29 1970 FLIGHT TIME 146.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 431.678

```
RL  149.86 LAL    .00 LOL   5.44 VL  26.936 GAL  -5.03 AZL  94.52 HCA 209.77 SMA 126.93 ECC .20022 INC 4.5171 V1  29.732
RP  108.13 LAP   2.24 LOP 215.13 VP  37.539 GAP   7.83 AZP  86.08 TAL 200.93 TAP  50.70 RCA 101.51 APO 152.34 V2  35.047
RC 137.063 GL  -31.01 GP   38.68 ZAL 117.07 ZAP 136.85 ETS  53.84 ZAE 121.37 ETE 152.58 ZAC 138.65 ETC 254.52 CLP-158.66
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PLANETOCENTRIC CONIC

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C3  16.826 VHL  4.102 DLA -51.03 RAL 232.35 RAD 6567.7 VEL 11.756 PTH   2.08 VHP  6.708 DPA  18.94 RAP 245.29 ECC 1.2769
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.60	4 4 50	1621.80	35.19	32.06	107.55	129.68	4 31 52	1021.8	40.04	24.43
134.40	12 36 49	5370.11	35.20	248.06	107.56	129.67	14 6 19	4770.1	40.05	240.43
45.60	4 4 50	1621.80	35.19	32.06	107.55	129.68	4 31 52	1021.8	40.04	24.43
134.40	12 36 49	5370.11	35.20	248.06	107.56	129.67	14 6 19	4770.1	40.05	240.43
45.60	4 4 50	1621.80	35.19	32.06	107.55	129.68	4 31 52	1021.8	40.04	24.43
134.40	12 36 49	5370.11	35.20	248.06	107.56	129.67	14 6 19	4770.1	40.05	240.43

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.4129 TRA -.8289 TC3-4.0978 BAU  .9307   SGT 4311.0 SGR  712.7 SG3  187.4     ST  2051.9 SR   536.4 SS   617.8
 RDE  .3838 RRA -.0100 RC3  .5716 FAU .04473   RRT -.8443 RRF -.9408 RTF  .9200    CRT -.9594 CRS  .9990 CST -.9692
 FDE -.7618 FRA -.0379 FC3-2.3012 BSP  13663   SGB 4369.5 RZS  .2947 RIS -.9237   LSA 2199.9 MSA  199.9 SSA   10.4
 BDE 1.4642 BRA  .8289 BC3 4.1375 FSP   -614   SG1 4353.1 SG2  378.2 THA 171.99   EL1 2115.7 EL2  146.7 ALF 165.85
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LAUNCH DATE SEP 29 1970 FLIGHT TIME 148.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 437.532

```
RL  149.86 LAL    .00 LOL   5.44 VL  26.880 GAL  -4.71 AZL  93.85 HCA 212.96 SMA 126.56 ECC .20100 INC 3.8527 V1  29.732
RP  108.17 LAP   2.09 LOP 218.34 VP  37.487 GAP   8.07 AZP  86.77 TAL 199.39 TAP  52.35 RCA 101.12 APO 152.00 V2  35.034
RC 139.286 GL  -27.53 GP   35.44 ZAL 116.07 ZAP 139.71 ETS  53.06 ZAE 122.70 ETE 154.45 ZAC 135.83 ETC 255.90 CLP-159.43
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PLANETOCENTRIC CONIC

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C3  15.165 VHL  3.894 DLA -48.22 RAL 236.83 RAD 6567.6 VEL 11.685 PTH   2.06 VHP  6.586 DPA  15.29 RAP 246.31 ECC 1.2496
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.19	4 34 28	1570.20	34.51	26.21	108.91	126.04	5 0 38	970.2	38.94	18.31
130.81	12 42 59	5374.49	34.52	247.86	108.92	126.03	14 12 33	4774.5	38.95	239.95
49.19	4 34 28	1570.20	34.51	26.21	108.91	126.04	5 0 38	970.2	38.94	18.31
130.81	12 42 59	5374.49	34.52	247.86	108.92	126.03	14 12 33	4774.5	38.95	239.95
49.19	4 34 28	1570.20	34.51	26.21	108.91	126.04	5 0 38	970.2	38.94	18.31
130.81	12 42 59	5374.49	34.52	247.86	108.92	126.03	14 12 33	4774.5	38.95	239.95

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.2889 TRA -.7229 TC3-4.6737 BAU  .9549   SGT 4403.9 SGR  680.1 SG3  193.5     ST  1958.9 SR   502.3 SS   559.5
 RDE  .3411 RRA -.0259 RC3  .5847 FAU .04523   RRT -.8408 RRF -.9280 RTF  .9168    CRT -.9603 CRS  .9994 CST -.9628
 FDE -.6669 FRA  .0396 FC3-2.5821 BSP  13948   SGB 4456.1 RZS  .2803 RIS -.9199   LSA 2089.4 MSA  192.9 SSA   12.7
 BDE 1.3333 BRA  .7233 BC3 4.7102 FSP   -634   SG1 4441.1 SG2  365.1 THA 172.55   EL1 2017.7 EL2  136.0 ALF 166.10
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LAUNCH DATE SEP 29 1970 FLIGHT TIME 150.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 443.375
RL 149.86 LAL .00 LOL 5.44 VL 26.824 GAL -4.38 AZL 93.29 HCA 216.15 SMA 126.20 ECC .20191 INC 3.2938 V1 29.732
RP 108.21 LAP 1.94 LOP 221.54 VP 37.434 GAP 8.30 AZP 87.34 TAL 197.83 TAP 53.98 RCA 100.72 APO 151.69 V2 35.021
RC 141.459 GL -24.32 GP 32.62 ZAL 114.58 ZAP 142.45 ETS 52.43 ZAE 123.73 ETE 156.20 ZAC 133.37 ETC 257.04 CLP-160.26
PLANETOCENTRIC CONIC
C3 13.929 VHL 3.732 DLA -45.61 RAL 241.18 RAD 6567.5 VEL 11.632 PTH 2.04 VHP 6.520 DPA 12.06 RAP 247.52 ECC 1.2292

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.62	5 3 59	1520.65	33.59	20.72	110.62	122.88	5 29 20	920.7	37.65	12.64
127.38	12 48 8	5386.29	33.60	248.22	110.62	122.88	14 17 54	4786.3	37.65	240.15
52.62	5 3 59	1520.65	33.59	20.72	110.62	122.88	5 29 20	920.7	37.65	12.64
127.38	12 48 8	5386.29	33.60	248.22	110.62	122.88	14 17 54	4786.3	37.65	240.15
52.62	5 3 59	1520.65	33.59	20.72	110.62	122.88	5 29 20	920.7	37.65	12.64
127.38	12 48 8	5386.29	33.60	248.22	110.62	122.88	14 17 54	4786.3	37.65	240.15

DIFFERENTIAL CORRECTIONS
TDE-1.1730 TRA -.6121 TC3-5.2156 BAU .9774
RDE .3084 RRA -.0398 RC3 .5870 FAU .04509
FDE -.5729 FRA .1160 FC3-2.8025 BSP 14241
BDE 1.2129 BRA .6134 BC3 5.2485 FSP -646

MID-COURSE EXECUTION ACCURACY
SGT 4494.8 SGR 650.9 SG3 197.3
RRT -.8342 RRF -.9117 RTF .9144
SGB 4541.7 R23 .2612 R13 -.9170
SG1 4527.7 SG2 356.3 THA 173.07

ORBIT DETERMINATION ACCURACY
ST 1849.1 SR 474.3 SS 498.6
CRT -.9617 CRS .9986 CST -.9535
LSA 1964.1 MSA 186.5 SSA 15.4
EL1 1904.8 EL2 126.1 ALF 166.08

LAUNCH DATE SEP 29 1970 FLIGHT TIME 152.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 449.205
RL 149.86 LAL .00 LOL 5.44 VL 26.769 GAL -4.04 AZL 92.81 HCA 219.34 SMA 125.85 ECC .20295 INC 2.8146 V1 29.732
RP 108.25 LAP 1.78 LOP 224.74 VP 37.382 GAP 8.54 AZP 87.82 TAL 196.25 TAP 55.59 RCA 100.31 APO 151.39 V2 35.008
RC 143.643 GL -21.33 GP 30.16 ZAL 112.66 ZAP 144.90 ETS 51.92 ZAE 124.53 ETE 157.80 ZAC 131.24 ETC 258.02 CLP-161.14
PLANETOCENTRIC CONIC
C3 12.998 VHL 3.605 DLA -43.16 RAL 245.44 RAD 6567.5 VEL 11.592 PTH 2.03 VHP 6.497 DPA 9.19 RAP 248.88 ECC 1.2139

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.95	5 33 50	1471.75	32.50	15.46	112.64	120.14	5 58 22	871.8	36.22	7.30
124.05	12 52 14	5405.12	32.51	249.14	112.65	120.13	14 22 19	4805.1	36.23	240.97
55.95	5 33 50	1471.75	32.50	15.46	112.64	120.14	5 58 22	871.8	36.22	7.30
124.05	12 52 14	5405.12	32.51	249.14	112.65	120.13	14 22 19	4805.1	36.23	240.97
55.95	5 33 50	1471.75	32.50	15.46	112.64	120.14	5 58 22	871.8	36.22	7.30
124.05	12 52 14	5405.12	32.51	249.14	112.65	120.13	14 22 19	4805.1	36.23	240.97

DIFFERENTIAL CORRECTIONS
TDE-1.0626 TRA -.4959 TC3-5.7183 BAU .9989
RDE .2833 RRA -.0523 RC3 .5824 FAU .04449
FDE -.4822 FRA .1898 FC3-2.9634 BSP 14538
BDE 1.0997 BRA .4987 BC3 5.7479 FSP -653

MID-COURSE EXECUTION ACCURACY
SGT 4584.8 SGR 626.2 SG3 199.4
RRT -.8252 RRF -.8925 RTF .9129
SGB 4627.4 R23 .2385 R13 -.9150
SG1 4614.0 SG2 351.5 THA 173.53

ORBIT DETERMINATION ACCURACY
ST 1724.0 SR 451.8 SS 437.2
CRT -.9641 CRS .9949 CST -.9396
LSA 1826.0 MSA 180.4 SSA 18.7
EL1 1778.4 EL2 116.2 ALF 165.76

LAUNCH DATE SEP 29 1970 FLIGHT TIME 154.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 455.021
RL 149.86 LAL .00 LOL 5.44 VL 26.714 GAL -3.68 AZL 92.40 HCA 222.53 SMA 125.50 ECC .20413 INC 2.3967 V1 29.732
RP 108.29 LAP 1.62 LOP 227.94 VP 37.331 GAP 8.78 AZP 88.23 TAL 194.66 TAP 57.19 RCA 99.88 APO 151.12 V2 34.995
RC 145.816 GL -18.53 GP 28.01 ZAL 110.39 ZAP 147.12 ETS 51.56 ZAE 125.15 ETE 159.25 ZAC 129.38 ETC 258.89 CLP-162.02
PLANETOCENTRIC CONIC
C3 12.300 VHL 3.507 DLA -40.84 RAL 249.63 RAD 6567.5 VEL 11.562 PTH 2.02 VHP 6.505 DPA 6.64 RAP 250.38 ECC 1.2024

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.24	6 4 30	1421.86	31.28	10.31	114.97	117.73	6 28 12	821.9	34.72	2.11
120.76	12 55 4	5431.38	31.29	250.64	114.97	117.71	14 25 36	4831.4	34.73	242.44
59.24	6 4 30	1421.86	31.28	10.31	114.97	117.73	6 28 12	821.9	34.72	2.11
120.76	12 55 4	5431.38	31.29	250.64	114.97	117.71	14 25 36	4831.4	34.73	242.44
59.24	6 4 30	1421.86	31.28	10.31	114.97	117.73	6 28 12	821.9	34.72	2.11
120.76	12 55 4	5431.38	31.29	250.64	114.97	117.71	14 25 36	4831.4	34.73	242.44

DIFFERENTIAL CORRECTIONS
TDE -.9550 TRA -.3734 TC3-6.1730 BAU 1.0194
RDE .2642 RRA -.0638 RC3 .5730 FAU .04355
FDE -.3957 FRA .2608 FC3-3.0653 BSP 14835
BDE .9909 BRA .3788 BC3 6.1995 FSP -656

MID-COURSE EXECUTION ACCURACY
SGT 4672.5 SGR 605.7 SG3 200.0
RRT -.8137 RRF -.8708 RTF .9120
SGB 4711.6 R23 .2141 R13 -.9137
SG1 4698.6 SG2 350.1 THA 173.95

ORBIT DETERMINATION ACCURACY
ST 1584.2 SR 433.8 SS 377.3
CRT -.9677 CRS .9849 CST -.9179
LSA 1676.1 MSA 174.5 SSA 22.7
EL1 1639.1 EL2 105.6 ALF 165.09

LAUNCH DATE SEP 29 1970 FLIGHT TIME 156.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 460.822
RL 149.86 LAL .00 LOL 5.44 VL 26.659 GAL -3.32 AZL 92.03 HCA 225.71 SMA 125.15 ECC .20545 INC 2.0269 V1 29.732
RP 108.33 LAP 1.45 LOP 231.14 VP 37.279 GAP 9.02 AZP 88.58 TAL 193.06 TAP 58.77 RCA 99.44 APO 150.87 V2 34.982
RC 147.979 GL -15.91 GP 26.12 ZAL 107.81 ZAP 149.12 ETS 51.33 ZAE 125.64 ETE 160.55 ZAC 127.75 ETC 259.70 CLP-162.92
PLANETOCENTRIC CONIC
C3 11.787 VHL 3.433 DLA -38.62 RAL 253.79 RAD 6567.4 VEL 11.540 PTH 2.01 VHP 6.539 DPA 4.37 RAP 252.00 ECC 1.1940

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.56	6 36 28	1369.30	29.97	5.12	117.57	115.59	6 59 17	769.3	33.15	356.91
117.44	12 56 16	5465.96	29.98	252.79	117.57	115.58	14 27 22	4866.0	33.16	244.59
62.56	6 36 28	1369.30	29.97	5.12	117.57	115.59	6 59 17	769.3	33.15	356.91
117.44	12 56 16	5465.96	29.98	252.79	117.57	115.58	14 27 22	4866.0	33.16	244.59
62.56	6 36 28	1369.30	29.97	5.12	117.57	115.59	6 59 17	769.3	33.15	356.91
117.44	12 56 16	5465.96	29.98	252.79	117.57	115.58	14 27 22	4866.0	33.16	244.59

DIFFERENTIAL CORRECTIONS
TDE -.8475 TRA -.2435 TC3-6.5678 BAU 1.0387
RDE .2494 RRA -.0749 RC3 .5593 FAU .04231
FDE -.3132 FRA .3292 FC3-3.1080 BSP 15113
BDE .8834 BRA .2547 BC3 6.5916 FSP -655

MID-COURSE EXECUTION ACCURACY
SGT 4754.8 SGR 588.5 SG3 199.3
RRT -.7996 RRF -.8468 RTF .9114
SGB 4791.1 R23 .1898 R13 -.9128
SG1 4778.2 SG2 351.7 THA 174.32

ORBIT DETERMINATION ACCURACY
ST 1429.3 SR 419.1 SS 320.5
CRT -.9727 CRS .9606 CST -.8818
LSA 1513.9 MSA 169.2 SSA 27.8
EL1 1486.6 EL2 93.5 ALF 164.01

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LAUNCH DATE  SEP 29 1970                          FLIGHT TIME 158.00                          ARRIVAL DATE  MAR  6 1971

 HELIOCENTRIC CONIC                                DISTANCE 466.608
  RL  149.86 LAL    .00 LOL   5.44 VL  26.605 GAL  -2.95 AZL  91.70 HCA 228.90 SMA 124.81 ECC .20693 INC 1.6954 V1  29.732
  RP  108.37 LAP   1.28 LOP 234.33 VP  37.228 GAP   9.26 AZP  88.89 TAL 191.44 TAP  60.34 RCA  98.99 APO 150.64 V2  34.969
  RC 150.132 GL  -13.45 GP   24.46 ZAL 104.98 ZAP 150.94 ETS  51.23 ZAE 126.04 ETE 161.72 ZAC 126.32 ETC 260.45 CLP-163.81
 PLANETOCENTRIC CONIC
  C3  11.429 VHL  3.381 DLA -36.47 RAL 257.01 RAD 6567.4 VEL 11.525 PTH   2.01 VHP  6.592 DPA   2.33 RAP 253.72 ECC 1.1881
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     65.99      7 10 24   1311.76     28.59     359.69     120.41     113.68     7 32 16     711.8      31.53     351.51
    114.01     12 55 13   5510.64     28.60     255.71     120.41     113.67    14 27  3    4910.6      31.54     247.53
     65.99      7 10 24   1311.76     28.59     359.69     120.41     113.68     7 32 16     711.8      31.53     351.51
    114.01     12 55 13   5510.64     28.60     255.71     120.41     113.67    14 27  3    4910.6      31.54     247.53
     65.99      7 10 24   1311.76     28.59     359.69     120.41     113.68     7 32 16     711.8      31.53     351.51
    114.01     12 55 13   5510.64     28.60     255.71     120.41     113.67    14 27  3    4910.6      31.54     247.53
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
  TDE -.7391 TRA -.1071 TC3-6.8981 BAU 1.0572      SGT 4834.6 SGR  574.7 SG3  197.7           ST  1262.2 SR   407.3 SS   270.2
  RDE  .2381 RRA -.0856 RC3  .5435 FAU .04091      RRT -.7830 RRF -.8213 RTF  .9115           CRT -.9791 CRS  .9065 CST -.8212
  FDE -.2355 FRA  .3836 FC3-3.0987 BSP  15385      SGB 4868.6 RZS  .1658 R13 -.9126           LSA 1343.1 HSA  164.5 SSA   34.2
  BDE  .7765 BRA  .1371 BC3 6.9195 FSP   -651      SG1 4855.6 SG2  355.3 THA 174.65           EL1 1324.0 EL2   79.0 ALF 162.40

LAUNCH DATE  SEP 29 1970                          FLIGHT TIME 160.00                          ARRIVAL DATE  MAR  8 1971

 HELIOCENTRIC CONIC                                DISTANCE 472.378
  RL  149.86 LAL    .00 LOL   5.44 VL  26.551 GAL  -2.56 AZL  91.39 HCA 232.09 SMA 124.48 ECC .20858 INC 1.3949 V1  29.732
  RP  108.41 LAP   1.10 LOP 237.52 VP  37.178 GAP   9.51 AZP  89.14 TAL 189.81 TAP  61.90 RCA  98.51 APO 150.44 V2  34.956
  RC 152.275 GL  -11.12 GP   22.99 ZAL 101.93 ZAP 152.61 ETS  51.28 ZAE 126.35 ETE 162.76 ZAC 125.06 ETC 261.17 CLP-164.69
 PLANETOCENTRIC CONIC
  C3  11.208 VHL  3.348 DLA -34.38 RAL 262.00 RAD 6567.4 VEL 11.515 PTH   2.01 VHP  6.662 DPA    .50 RAP 255.54 ECC 1.1845
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     69.64      7 47 17   1245.90     27.14     353.77     123.46     111.96     8  8  3     645.9      29.87     345.63
    110.36     12 50 54   5568.41     27.15     259.61     123.47     111.95    14 23 43    4968.4      29.88     251.46
     69.64      7 47 17   1245.90     27.14     353.77     123.46     111.96     8  8  3     645.9      29.87     345.63
    110.36     12 50 54   5568.41     27.15     259.61     123.47     111.95    14 23 43    4968.4      29.88     251.46
     69.64      7 47 17   1245.90     27.14     353.77     123.46     111.96     8  8  3     645.9      29.87     345.63
    110.36     12 50 54   5568.41     27.15     259.61     123.47     111.95    14 23 43    4968.4      29.88     251.46
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
  TDE -.6804 TRA  .0374 TC3-7.1547 BAU 1.0749      SGT 4910.4 SGR  563.8 SG3  195.4           ST  1065.3 SR   397.6 SS   231.1
  RDE  .2295 RRA -.0864 RC3  .5251 FAU .03937      RRT -.7865 RRF -.7950 RTF  .9118           CRT -.9860 CRS  .7943 CST -.7210
  FDE -.1824 FRA  .4556 FC3-3.0413 BSP  15647      SGB 4942.6 RZS  .1438 R13 -.9127           LSA 1166.6 HSA  162.8 SSA   42.0
  BDE  .6680 BRA  .1034 BC3 7.1740 FSP   -644      SG1 4929.4 SG2  360.7 THA 174.94           EL1 1154.1 EL2   62.3 ALF 160.08

LAUNCH DATE  SEP 29 1970                          FLIGHT TIME 162.00                          ARRIVAL DATE  MAR 10 1971

 HELIOCENTRIC CONIC                                DISTANCE 478.131
  RL  149.86 LAL    .00 LOL   5.44 VL  26.498 GAL  -2.16 AZL  91.12 HCA 235.27 SMA 124.15 ECC .21040 INC 1.1195 V1  29.732
  RP  108.45 LAP    .92 LOP 240.70 VP  37.128 GAP   9.76 AZP  89.36 TAL 188.17 TAP  63.44 RCA  98.03 APO 150.27 V2  34.943
  RC 154.408 GL   -8.93 GP   21.68 ZAL  98.72 ZAP 154.14 ETS  51.47 ZAE 126.60 ETE 163.70 ZAC 123.94 ETC 261.86 CLP-165.56
 PLANETOCENTRIC CONIC
  C3  11.112 VHL  3.334 DLA -32.33 RAL 266.03 RAD 6567.4 VEL 11.511 PTH   2.01 VHP  6.745 DPA  -1.14 RAP 257.44 ECC 1.1829
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     73.72      8 28 58   1165.42     25.63     346.90     126.70     110.40     8 48 23     565.4      28.17     338.81
    106.28     12 41 25   5645.37     25.64     264.90     126.71     110.39    14 15 31    5045.4      28.18     256.81
     73.72      8 28 58   1165.42     25.63     346.90     126.70     110.40     8 48 23     565.4      28.17     338.81
    106.28     12 41 25   5645.37     25.64     264.90     126.71     110.39    14 15 31    5045.4      28.18     256.81
    110.00     11 39 50   5835.93     19.35     276.44     123.60     118.74    13 17  6    5235.9      23.03     260.23
    110.00     14 29 44   5310.88     32.28     241.34     128.90     101.92    15 58 15    4710.9      33.58     232.35
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
  TDE -.5132 TRA  .1907 TC3-7.3288 BAU 1.0911      SGT 4979.0 SGR  554.5 SG3  192.3           ST   901.7 SR   388.8 SS   208.1
  RDE  .2229 RRA -.1076 RC3  .5038 FAU .03769      RRT -.7474 RRF -.7677 RTF  .9120           CRT -.9899 CRS  .5910 CST -.5752
  FDE -.0824 FRA  .5153 FC3-2.9361 BSP  15068      SGB 5009.8 RZS  .1239 R13 -.9128           LSA  988.2 HSA  168.7 SSA   50.0
  BDE  .5595 BRA  .2189 BC3 7.3442 FSP   -634      SG1 4986.3 SG2  367.1 THA 175.22           EL1  980.7 EL2   50.8 ALF 156.82

LAUNCH DATE  SEP 29 1970                          FLIGHT TIME 164.00                          ARRIVAL DATE  MAR 12 1971

 HELIOCENTRIC CONIC                                DISTANCE 483.866
  RL  149.86 LAL    .00 LOL   5.44 VL  26.445 GAL  -1.75 AZL  90.86 HCA 238.45 SMA 123.82 ECC .21241 INC  .8648 V1  29.732
  RP  108.49 LAP    .74 LOP 243.89 VP  37.079 GAP  10.01 AZP  89.55 TAL 186.52 TAP  64.97 RCA  97.52 APO 150.13 V2  34.931
  RC 156.830 GL   -6.87 GP   20.52 ZAL  95.39 ZAP 155.56 ETS  51.80 ZAE 126.81 ETE 164.53 ZAC 122.94 ETC 262.54 CLP-166.42
 PLANETOCENTRIC CONIC
  C3  11.137 VHL  3.337 DLA -30.31 RAL 270.01 RAD 6567.4 VEL 11.512 PTH   2.01 VHP  6.842 DPA  -2.61 RAP 259.42 ECC 1.1833
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     78.71      9 19 59   1055.24     24.09     337.88     130.11     108.98     9 37 34     455.2      26.45     329.95
    101.29     12 22 12   5756.26     24.10     272.66     130.11     108.96    13 58  9    5156.3      26.46     264.63
     78.71      9 19 59   1055.24     24.09     337.88     130.11     108.98     9 37 34     455.2      26.45     329.95
    101.29     12 22 12   5756.26     24.10     272.66     130.11     108.96    13 58  9    5156.3      26.46     264.63
    110.00     11 18 35    868.77     15.25     305.50     125.74     120.97    11 29 44     68.8      19.24     298.65
    110.00     15 22 44   5190.88     33.60     232.24     132.58      96.69    16 49 15    4590.9      34.16     223.04
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
  TDE -.3908 TRA  .3980 TC3-7.4043 BAU 1.1047      SGT 5037.0 SGR  546.2 SG3  188.6           ST   719.1 SR   380.5 SS   206.7
  RDE  .2176 RRA -.1184 RC3  .4793 FAU .03585      RRT -.7267 RRF -.7395 RTF  .9118           CRT -.9767 CRS  .3041 CST -.4323
  FDE -.0242 FRA  .5744 FC3-2.7866 BSP  16016      SGB 5066.5 RZS  .1067 R13 -.9124           LSA  814.9 HSA  193.7 SSA   55.0
  BDE  .4473 BRA  .3746 BC3 7.4198 FSP   -619      SG1 5052.7 SG2  374.1 THA 175.47           EL1  810.3 EL2   72.5 ALF 152.43
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LAUNCH DATE SEP 29 1970 FLIGHT TIME 166.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 489.582

RL	149.86	LAL	.00	LOL	5.44	VL	26.393	GAL	-1.32	AZL	90.63	HCA	241.63	SMA	123.51	ECC	.21461	INC	.6269
RP	108.53	LAP	.55	LOP	247.07	VP	37.030	GAP	10.27	AZP	89.70	TAL	184.86	TAP	66.49	RCA	97.00	APO	150.01
RC	158.641	GL	-4.93	GP	19.48	ZAL	91.97	ZAP	156.86	ETS	52.29	ZAE	126.98	ETE	165.27	ZAC	122.04	ETC	263.21

PLANETOCENTRIC CONIC

C3	11.279	VHL	3.358	DLA	-28.33	RAL	273.92	RAD	6567.4	VEL	11.518	PTH	2.01	VHP	6.950	DPA	-3.93	RAP	261.46

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
89.13	10 59 17	788.33	22.51	317.75	133.65	107.67	11 12 25	188.3	24.72	309.77
90.87	11 14 1	740.58	22.52	314.26	133.66	107.65	11 26 21	140.6	24.73	306.28
100.00	11 6 57	763.42	17.04	313.66	131.39	114.94	11 19 41	163.4	20.26	306.35
100.00	13 49 1	5528.75	28.22	256.96	135.22	100.29	15 21 10	4928.8	29.35	248.34
110.00	11 6 48	763.93	11.85	310.77	128.46	122.30	11 19 32	163.9	16.03	304.16
110.00	16 5 40	5101.01	34.10	225.27	136.00	92.59	17 30 41	4501.0	34.08	216.02

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.2683	TRA	.5238	TC3	-7.4092	BAU	1.1194	SGT	5099.8	SGR	540.5	SG3	184.8	ST	569.8	SR	374.3
RDE	.2147	RRA	-.1310	RC3	.4551	FAU	.03410	RRT	-.7063	RRF	-.7127	RTF	.9128	CRT	-.9016	CRS	.0412
FDE	.0360	FRA	.6278	FC3	-2.6175	BSP	16223	SGB	5128.4	R23	.0909	R13	-.9133	LSA	671.9	MSA	246.6
BDE	.3437	BRA	.5400	BC3	7.4232	FSP	-608	SG1	5114.2	SG2	381.5	THA	175.70	EL1	667.5	EL2	138.2

SS	224.5		
CST	-.4267		
SSA	54.1		
ALF	147.82		

LAUNCH DATE SEP 29 1970 FLIGHT TIME 168.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 495.277

RL	149.86	LAL	.00	LOL	5.44	VL	26.341	GAL	-.88	AZL	90.40	HCA	244.81	SMA	123.19	ECC	.21704	INC	.4032
RP	108.56	LAP	.37	LOP	250.25	VP	36.982	GAP	10.54	AZP	89.83	TAL	183.19	TAP	68.00	RCA	96.45	APO	149.93
RC	160.740	GL	-3.13	GP	18.55	ZAL	88.51	ZAP	158.08	ETS	52.93	ZAE	127.13	ETE	165.94	ZAC	121.22	ETC	263.88

PLANETOCENTRIC CONIC

C3	11.542	VHL	3.397	DLA	-26.39	RAL	277.73	RAD	6567.4	VEL	11.530	PTH	2.01	VHP	7.070	DPA	-5.11	RAP	263.57

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 50 14	1069.82	14.98	335.22	134.99	114.31	10 8 4	469.8	18.14	327.96
90.00	12 53 30	5756.67	27.12	273.51	138.81	98.48	14 29 27	5156.7	28.01	264.96
100.00	10 42 10	902.10	12.88	321.86	133.95	117.21	10 57 12	302.1	16.43	314.86
100.00	14 44 15	5399.62	29.43	247.56	139.13	95.48	16 14 15	4799.6	29.88	238.78
110.00	10 59 37	847.31	8.78	315.28	131.52	123.17	11 13 45	247.3	13.08	308.83
110.00	16 43 17	5027.18	34.17	219.50	139.36	89.18	18 7 5	4427.2	33.68	210.29

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.1463	TRA	.6967	TC3	-7.3529	BAU	1.1365	SGT	5171.2	SGR	537.0	SG3	181.3	ST	488.0	SR	369.5
RDE	.2137	RRA	-.1426	RC3	.4326	FAU	.03256	RRT	-.6876	RRF	-.6883	RTF	.9149	CRT	-.6762	CRS	-.1521
FDE	.0896	FRA	.6769	FC3	-2.4426	BSP	16573	SGB	5199.0	R23	.0765	R13	-.9154	LSA	574.9	MSA	325.1
BDE	.2590	BRA	.7111	BC3	7.3656	FSP	-604	SG1	5184.5	SG2	388.9	THA	175.89	EL1	565.2	EL2	235.0

SS	253.0		
CST	-.5968		
SSA	49.2		
ALF	146.31		

LAUNCH DATE SEP 29 1970 FLIGHT TIME 170.00 ARRIVAL DATE MAR 18 1971

HELIOCENTRIC CONIC DISTANCE 500.952

RL	149.86	LAL	.00	LOL	5.44	VL	26.289	GAL	-.43	AZL	90.19	HCA	247.99	SMA	122.88	ECC	.21968	INC	.1908
RP	108.60	LAP	.18	LOP	253.42	VP	36.935	GAP	10.82	AZP	89.93	TAL	181.51	TAP	69.50	RCA	95.89	APO	149.88
RC	162.826	GL	-1.46	GP	17.71	ZAL	85.03	ZAP	159.21	ETS	53.73	ZAE	127.25	ETE	166.54	ZAC	120.47	ETC	264.54

PLANETOCENTRIC CONIC

C3	11.928	VHL	3.454	DLA	-24.49	RAL	281.45	RAD	6567.5	VEL	11.546	PTH	2.02	VHP	7.200	DPA	-6.17	RAP	265.72

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 27 49	1203.60	11.08	343.11	137.82	116.22	9 47 53	603.6	14.52	336.12
90.00	13 45 34	5636.65	28.03	264.85	142.70	94.23	15 19 31	5036.7	28.32	256.19
100.00	10 28 2	1009.24	9.47	327.98	136.98	118.49	10 44 51	409.2	13.20	321.18
100.00	15 28 3	5306.25	29.84	240.65	142.81	91.87	16 56 29	4706.2	29.78	231.84
110.00	10 55 15	923.88	5.90	319.34	134.80	123.73	11 10 38	323.9	10.29	313.00
110.00	17 17 19	4964.37	34.01	214.61	142.73	86.29	18 40 4	4364.4	33.12	205.48

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0117	TRA	.8862	TC3	-7.1845	BAU	1.1475	SGT	5218.9	SGR	532.0	SG3	176.8	ST	507.4	SR	363.8
RDE	.2132	RRA	-.1552	RC3	.4041	FAU	.03071	RRT	-.6659	RRF	-.6618	RTF	.9157	CRT	-.2667	CRS	-.2965
FDE	.1439	FRA	.7274	FC3	-2.2288	BSP	16680	SGB	5246.0	R23	.0650	R13	-.9161	LSA	569.7	MSA	384.0
BDE	.2135	BRA	.8997	BC3	7.1959	FSP	-589	SG1	5231.0	SG2	395.9	THA	176.09	EL1	523.9	EL2	339.6

SS	290.0		
CST	-.8245		
SSA	42.9		
ALF	160.89		

LAUNCH DATE SEP 29 1970 FLIGHT TIME 172.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 506.602

RL	149.86	LAL	.00	LOL	5.44	VL	26.239	GAL	.05	AZL	89.99	HCA	251.16	SMA	122.58	ECC	.22258	INC	.0000
RP	108.63	LAP	-.01	LOP	256.60	VP	36.888	GAP	11.10	AZP	90.00	TAL	179.83	TAP	70.99	RCA	95.30	APO	149.86
RC	164.900	GL	.09	GP	16.96	ZAL	81.57	ZAP	160.26	ETS	54.70	ZAE	127.36	ETE	167.08	ZAC	119.78	ETC	265.19

PLANETOCENTRIC CONIC

C3	12.444	VHL	3.528	DLA	-22.63	RAL	285.05	RAD	6567.5	VEL	11.569	PTH	2.02	VHP	7.340	DPA	-7.11	RAP	267.92

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 14 18	1310.55	7.80	349.25	141.02	117.31	9 36 8	710.5	11.40	342.42
90.00	14 27 50	5547.64	28.30	258.35	146.42	90.98	16 0 17	4947.6	28.14	249.69
100.00	10 18 52	1102.11	6.41	333.18	140.27	119.26	10 37 14	502.1	10.27	326.51
100.00	16 5 56	5231.31	29.88	235.08	146.42	88.94	17 33 7	4631.3	29.41	226.31
110.00	10 52 43	996.00	3.16	323.13	138.26	124.05	11 9 19	396.0	7.61	316.87
110.00	17 48 35	4910.18	33.69	210.41	146.14	83.83	19 10 25	4310.2	32.47	201.39

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1376	TRA	1.0000	TC3	-6.9283	BAU	1.1542	SGT	5254.4	SGR	523.9	SG3	171.7	ST	633.6	SR	355.4
RDE	.2117	RRA	-.1097	RC3	.3672	FAU	.02828	RRT	-.6398	RRF	-.6309	RTF	.9105	CRT	.1075	CRS	-.4101
FDE	.2067	FRA	.7851	FC3	-1.9678	BSP	16792	SGB	5280.5	R23	.0585	R13	-.9108	LSA	715.1	MSA	360.6
BDE	.2524	BRA	1.1012	BC3	6.9380	FSP	-569	SG1	5265.2	SG2	401.9	THA	176.33	EL1	635.2	EL2	352.4

SS	339.3		
CST	-.9417		
SSA	38.0		
ALF	4.99		

LAUNCH DATE SEP 29 1970 FLIGHT TIME 174.00 ARRIVAL DATE MAR 22 1971

HELIOCENTRIC CONIC DISTANCE 512.228

RL 149.86 LAL .00 LOL 5.44 VL 26.188 GAL .54 AZL 89.79 HCA 254.33 SMA 122.28 ECC .22574 INC .2063 V1 29.732
RP 108.66 LAP -.20 LOP 259.77 VP 36.843 GAP 11.40 AZP 90.06 TAL 178.14 TAP 72.47 RCA 94.68 APO 149.89 V2 34.874
RC 166.961 GL 1.50 GP 16.28 ZAL 78.16 ZAP 161.24 ETS 55.85 ZAE 127.45 ETE 167.56 ZAC 119.14 ETC 265.85 CLP-170.55

PLANETOCENTRIC CONIC

C3 13.099 VHL 3.619 DLA -20.84 RAL 288.53 RAD 6567.5 VEL 11.597 PTH 2.03 VHP 7.492 DPA -7.95 RAP 270.17 ECC 1.2156

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 5 14	1404.26	4.84	354.55	144.44	117.93	9 28 38	804.3	8.54	347.82
90.00	15 4 37	5475.95	28.27	253.11	150.10	88.36	16 35 53	4875.9	27.75	244.48
100.00	10 12 41	1186.56	3.58	337.85	143.74	119.70	10 32 28	586.6	7.51	331.27
100.00	16 39 50	5168.88	29.71	230.45	150.03	86.51	18 5 59	4568.9	28.91	221.73
110.00	10 51 30	1064.94	.53	326.73	141.84	124.18	11 9 15	464.9	5.01	320.51
110.00	18 17 31	4863.27	33.29	206.80	149.60	81.73	19 36 35	4263.3	31.79	197.90

DIFFERENTIAL CORRECTIONS
TDE .2892 TRA 1.2886 TC3-6.6679 BAU 1.1693
RDE .2154 RRA -.1815 RC3 .3463 FAU .02717
FDE .2441 FRA .8245 FC3-1.7957 BSP 16967
BDE .3448 BRA 1.3024 BC3 6.6768 FSP -557

MID-COURSE EXECUTION ACCURACY
SGT 5315.1 SGR 523.1 SG3 168.2
RRT -.6244 RRF -.6122 RTF .9171
SGB 5340.8 R23 .0463 R13 -.9174
SG1 5325.2 SG2 407.8 THA 176.46

ORBIT DETERMINATION ACCURACY
ST 795.1 SR 353.4 SS 369.8
CRT .2983 CRS -.4599 CST -.9795
LSA 883.2 MSA 335.7 SSA 32.8
EL1 803.5 EL2 333.7 ALF 9.14

LAUNCH DATE SEP 29 1970 FLIGHT TIME 176.00 ARRIVAL DATE MAR 24 1971

HELIOCENTRIC CONIC DISTANCE 517.825

RL 149.86 LAL .00 LOL 5.44 VL 26.139 GAL 1.06 AZL 89.60 HCA 257.51 SMA 121.99 ECC .22919 INC .3956 V1 29.732
RP 108.69 LAP -.39 LOP 262.94 VP 36.798 GAP 11.70 AZP 90.09 TAL 176.44 TAP 73.95 RCA 94.03 APO 149.95 V2 34.864
RC 169.007 GL 2.78 GP 15.66 ZAL 74.83 ZAP 162.16 ETS 57.18 ZAE 127.54 ETE 168.00 ZAC 118.54 ETC 266.51 CLP-171.34

PLANETOCENTRIC CONIC

C3 13.906 VHL 3.729 DLA -19.12 RAL 291.87 RAD 6567.5 VEL 11.631 PTH 2.04 VHP 7.655 DPA -8.68 RAP 272.45 ECC 1.2288

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 58 55	1489.80	2.10	359.34	148.00	118.25	9 23 45	889.8	5.86	352.67
90.00	15 37 35	5416.42	28.08	248.77	153.77	86.19	17 7 51	4816.4	27.26	240.20
100.00	10 8 29	1265.32	.92	342.18	147.35	119.88	10 29 34	665.3	4.89	335.64
100.00	17 10 42	5116.12	29.42	226.55	153.65	84.47	18 35 58	4516.1	28.35	217.91
110.00	10 51 13	1131.41	-2.01	330.20	145.52	124.13	11 10 5	531.4	2.48	323.99
110.00	18 44 27	4822.80	32.85	203.73	153.10	79.96	20 4 50	4222.8	31.11	194.93

DIFFERENTIAL CORRECTIONS
TDE .4148 TRA 1.5043 TC3-6.3341 BAU 1.1790
RDE .2186 RRA -.1947 RC3 .3177 FAU .02551
FDE .2878 FRA .8688 FC3-1.5883 BSP 17157
BDE .4687 BRA 1.5168 BC3 6.3421 FSP -547

MID-COURSE EXECUTION ACCURACY
SGT 5357.8 SGR 518.8 SG3 163.8
RRT -.6042 RRF -.5890 RTF .9188
SGB 5382.8 R23 .0382 R13 -.9190
SG1 5367.0 SG2 412.7 THA 176.63

ORBIT DETERMINATION ACCURACY
ST 982.0 SR 349.1 SS 405.8
CRT .4179 CRS -.5043 CST -.9921
LSA 1073.1 MSA 313.9 SSA 29.1
EL1 994.0 EL2 313.4 ALF 9.39

LAUNCH DATE SEP 29 1970 FLIGHT TIME 178.00 ARRIVAL DATE MAR 26 1971

HELIOCENTRIC CONIC DISTANCE 523.391

RL 149.86 LAL .00 LOL 5.44 VL 26.089 GAL 1.59 AZL 89.42 HCA 260.67 SMA 121.70 ECC .23296 INC .5801 V1 29.732
RP 108.72 LAP -.57 LOP 266.11 VP 36.754 GAP 12.02 AZP 90.09 TAL 174.75 TAP 75.42 RCA 93.35 APO 150.06 V2 34.855
RC 171.039 GL 3.93 GP 15.10 ZAL 71.59 ZAP 163.02 ETS 58.70 ZAE 127.61 ETE 168.40 ZAC 117.97 ETC 267.16 CLP-172.13

PLANETOCENTRIC CONIC

C3 14.876 VHL 3.857 DLA -17.46 RAL 295.07 RAD 6567.6 VEL 11.673 PTH 2.05 VHP 7.829 DPA -9.32 RAP 274.76 ECC 1.2448

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 54 28	1569.63	-.48	3.79	151.67	118.31	9 20 38	969.6	3.31	357.16
90.00	16 7 53	5366.45	27.80	245.14	157.45	84.39	17 37 0	4766.5	26.73	236.63
100.00	10 5 41	1339.88	-1.61	346.27	151.04	119.85	10 28 1	739.9	2.37	339.75
100.00	17 39 2	5071.44	29.09	223.27	157.29	82.78	19 3 34	4471.4	27.78	214.71
110.00	10 51 39	1195.86	-4.47	333.57	149.26	123.93	11 11 35	595.9	.02	327.35
110.00	19 9 34	4788.22	32.41	201.13	156.65	78.48	20 29 22	4188.2	30.48	192.44

DIFFERENTIAL CORRECTIONS
TDE .5639 TRA 1.7301 TC3-5.9647 BAU 1.1877
RDE .2231 RRA -.2082 RC3 .2889 FAU .02387
FDE .3282 FRA .9135 FC3-1.3889 BSP 17308
BDE .6064 BRA 1.7426 BC3 5.9717 FSP -534

MID-COURSE EXECUTION ACCURACY
SGT 5397.4 SGR 514.4 SG3 159.5
RRT -.5840 RRF -.5669 RTF .9202
SGB 5421.8 R23 .0324 R13 -.9204
SG1 5405.8 SG2 416.9 THA 176.80

ORBIT DETERMINATION ACCURACY
ST 1172.2 SR 345.4 SS 438.8
CRT .4891 CRS -.5347 CST -.9965
LSA 1263.5 MSA 298.1 SSA 26.2
EL1 1185.1 EL2 298.0 ALF 8.76

LAUNCH DATE SEP 29 1970 FLIGHT TIME 180.00 ARRIVAL DATE MAR 28 1971

HELIOCENTRIC CONIC DISTANCE 528.923

RL 149.86 LAL .00 LOL 5.44 VL 26.041 GAL 2.15 AZL 89.24 HCA 263.84 SMA 121.42 ECC .23706 INC .7611 V1 29.732
RP 108.75 LAP -.76 LOP 269.28 VP 36.711 GAP 12.36 AZP 90.08 TAL 173.05 TAP 76.90 RCA 92.64 APO 150.21 V2 34.846
RC 173.056 GL 4.95 GP 14.59 ZAL 68.46 ZAP 163.81 ETS 60.43 ZAE 127.68 ETE 168.77 ZAC 117.43 ETC 267.81 CLP-172.91

PLANETOCENTRIC CONIC

C3 16.028 VHL 4.004 DLA -15.89 RAL 298.12 RAD 6567.6 VEL 11.722 PTH 2.07 VHP 8.017 DPA -9.86 RAP 277.10 ECC 1.2638

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 51 22	1645.16	-2.91	8.00	155.42	118.18	9 18 47	1045.2	.88	1.37
90.00	16 35 3	5324.54	27.48	242.11	161.14	82.90	18 3 47	4724.5	26.22	233.67
100.00	10 3 54	1411.11	-4.02	350.19	154.81	119.65	10 27 25	811.1	-.04	343.66
100.00	18 5 12	5033.82	28.73	220.53	160.95	81.38	19 29 5	4433.8	27.24	212.05
110.00	10 52 36	1258.57	-6.84	336.87	153.07	123.57	11 13 34	658.6	-2.38	330.63
110.00	19 32 59	4759.12	31.99	198.96	160.23	77.26	20 52 18	4159.1	29.91	190.37

DIFFERENTIAL CORRECTIONS
TDE .7101 TRA 1.9901 TC3-5.5885 BAU 1.1988
RDE .2293 RRA -.2210 RC3 .2623 FAU .02244
FDE .3625 FRA .9531 FC3-1.2122 BSP 17625
BDE .7462 BRA 1.9715 BC3 5.5947 FSP -530

MID-COURSE EXECUTION ACCURACY
SGT 5436.3 SGR 509.8 SG3 155.1
RRT -.5647 RRF -.5464 RTF .9227
SGB 5460.2 R23 .0269 R13 -.9228
SG1 5444.0 SG2 420.2 THA 176.95

ORBIT DETERMINATION ACCURACY
ST 1347.5 SR 342.7 SS 465.2
CRT .5335 CRS -.5564 CST -.9981
LSA 1437.5 MSA 287.1 SSA 23.8
EL1 1360.4 EL2 287.1 ALF 8.09

LAUNCH DATE SEP 29 1970 FLIGHT TIME 182.00 ARRIVAL DATE MAR 30 1971

HELIOCENTRIC CONIC DISTANCE 534.419

RL	149.86	LAL	.00	LOL	5.44	VL	25.993	GAL	2.73	AZL	89.06	HCA	267.01	SMA	121.15	ECC	.24154	INC	.9398
RP	108.78	LAP	-.94	LOP	272.45	VP	36.669	GAP	12.71	AZP	90.05	TAL	171.36	TAP	78.37	RCA	91.88	APO	150.41
RC	175.059	GL	5.86	GP	14.12	ZAL	65.44	ZAP	164.55	ETS	62.38	ZAE	127.73	ETE	169.10	ZAC	116.91	ETC	268.47

V1 29.732 V2 34.837 CLP-173.68

PLANETOCENTRIC CONIC

C3	17.381	VHL	4.169	DLA	-14.39	RAL	301.03	RAD	6567.7	VEL	11.780	PTH	2.08	VHP	8.218	DPA	-10.32	RAP	279.45

ECC 1.2861

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 49 15	1717.24	-5.22	12.05	159.24	117.87	9 17 52	1117.2	-1.45	5.39
90.00	17 0 23	5289.64	27.17	239.61	164.84	81.69	18 28 33	4689.6	25.74	231.23
100.00	10 2 54	1479.60	-6.31	353.98	158.64	119.28	10 27 34	879.6	-2.36	347.42
100.00	18 29 25	5002.52	28.39	218.27	164.62	80.23	19 52 47	4402.5	26.75	209.85
110.00	10 53 57	1319.74	-9.13	340.13	156.92	123.09	11 15 56	719.7	-4.71	333.83
110.00	19 54 52	4735.15	31.62	197.19	163.85	76.27	21 13 47	4135.1	29.41	188.68

DIFFERENTIAL CORRECTIONS

TDE	.8748	TRA	2.2129	TC3	-5.1639	BAU	1.2012
RDE	.2353	RRA	-.2349	RC3	.2333	FAU	.02072
FDE	.4022	FRA	.9989	FC3	-1.0321	BSP	17604
BDE	.9059	BRA	2.2253	BC3	5.1691	FSP	-511

MID-COURSE EXECUTION ACCURACY

SGT	5462.8	SGR	503.5	SG3	151.0		
RRT	-.5437	RRF	-.5240	RTF	.9237		
SGB	5486.0	RZ3	.0223	RI3	-.9238		
SG1	5469.7	SG2	422.0	THA	177.11		

ORBIT DETERMINATION ACCURACY

ST	1532.8	SR	338.5	SS	495.5
CRT	.5663	CRS	-.5760	CST	-.9988
LSA	1622.4	HSA	276.8	SSA	21.9
EL1	1545.1	EL2	276.8	ALF	7.37

LAUNCH DATE SEP 29 1970 FLIGHT TIME 184.00 ARRIVAL DATE APR 1 1971

HELIOCENTRIC CONIC DISTANCE 539.872

RL	149.86	LAL	.00	LOL	5.44	VL	25.946	GAL	3.34	AZL	88.88	HCA	270.17	SMA	120.87	ECC	.24642	INC	1.1174
RP	108.80	LAP	-1.12	LOP	275.61	VP	36.628	GAP	13.09	AZP	90.00	TAL	169.66	TAP	79.84	RCA	91.09	APO	150.66
RC	177.047	GL	6.66	GP	13.70	ZAL	62.57	ZAP	165.24	ETS	64.56	ZAE	127.78	ETE	169.40	ZAC	116.40	ETC	269.12

V1 29.732 V2 34.829 CLP-174.46

PLANETOCENTRIC CONIC

C3	18.959	VHL	4.354	DLA	-12.98	RAL	303.80	RAD	6567.8	VEL	11.847	PTH	2.10	VHP	8.433	DPA	-10.70	RAP	281.83

ECC 1.3120

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 47 54	1786.44	-7.41	15.95	163.10	117.41	9 17 40	1186.4	-3.68	9.26
90.00	17 23 48	5261.05	26.87	237.57	168.55	80.70	18 51 29	4661.0	25.31	229.25
100.00	10 2 30	1545.72	-8.50	357.67	162.51	118.77	10 28 16	945.7	-4.59	351.06
100.00	18 51 53	4976.99	28.08	216.43	168.31	79.32	20 14 50	4377.0	26.32	208.07
110.00	10 55 35	1379.48	-11.33	343.36	160.81	122.47	11 18 35	779.5	-6.97	336.98
110.00	20 18 17	4716.01	31.30	195.79	167.49	75.50	21 33 53	4116.0	28.99	187.34

DIFFERENTIAL CORRECTIONS

TDE	1.0390	TRA	2.4739	TC3	-4.7479	BAU	1.2046
RDE	.2429	RRA	-.2481	RC3	.2067	FAU	.01918
FDE	.4373	FRA	1.0420	FC3	-.8757	BSP	17694
BDE	1.0670	BRA	2.4863	BC3	4.7524	FSP	-497

MID-COURSE EXECUTION ACCURACY

SGT	5488.7	SGR	496.8	SG3	147.0		
RRT	-.5233	RRF	-.5028	RTF	.9256		
SGB	5511.1	RZ3	.0183	RI3	-.9257		
SG1	5494.9	SG2	422.9	THA	177.27		

ORBIT DETERMINATION ACCURACY

ST	1699.7	SR	335.1	SS	520.3
CRT	.5891	CRS	-.5908	CST	-.9992
LSA	1788.6	HSA	269.0	SSA	20.4
EL1	1711.4	EL2	268.9	ALF	6.79

LAUNCH DATE SEP 29 1970 FLIGHT TIME 186.00 ARRIVAL DATE APR 3 1971

HELIOCENTRIC CONIC DISTANCE 545.277

RL	149.86	LAL	.00	LOL	5.44	VL	25.899	GAL	3.98	AZL	88.70	HCA	273.34	SMA	120.61	ECC	.25175	INC	1.2950
RP	108.83	LAP	-1.29	LOP	278.78	VP	36.587	GAP	13.48	AZP	89.92	TAL	167.97	TAP	81.31	RCA	90.25	APO	150.97
RC	179.021	GL	7.36	GP	13.31	ZAL	59.82	ZAP	165.87	ETS	66.98	ZAE	127.83	ETE	169.68	ZAC	115.91	ETC	269.76

V1 29.732 V2 34.822 CLP-175.23

PLANETOCENTRIC CONIC

C3	20.790	VHL	4.560	DLA	-11.66	RAL	306.42	RAD	6567.8	VEL	11.924	PTH	2.12	VHP	8.665	DPA	-11.00	RAP	284.22

ECC 1.3422

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 47 8	1853.14	-9.48	19.76	166.99	116.81	9 18 2	1253.1	-5.81	13.01
90.00	17 45 29	5238.17	26.61	235.94	172.27	79.93	19 12 47	4638.2	24.94	227.67
100.00	10 2 34	1609.82	-10.57	1.29	166.41	118.12	10 29 24	1009.8	-6.73	354.61
100.00	19 12 44	4956.78	27.82	214.99	172.01	78.60	20 35 21	4356.8	25.97	206.68
110.00	10 57 27	1437.90	-13.45	346.56	164.72	121.73	11 21 25	837.9	-9.15	340.09
110.00	20 34 20	4701.42	31.05	194.73	171.14	74.92	21 52 42	4101.4	28.66	186.33

DIFFERENTIAL CORRECTIONS

TDE	1.2058	TRA	2.7463	TC3	-4.3390	BAU	1.2071
RDE	.2518	RRA	-.2809	RC3	.1818	FAU	.01771
FDE	.4699	FRA	1.0847	FC3	-.7374	BSP	17815
BDE	1.2318	BRA	2.7587	BC3	4.3428	FSP	-486

MID-COURSE EXECUTION ACCURACY

SGT	5510.8	SGR	489.5	SG3	143.0		
RRT	-.5027	RRF	-.4821	RTF	.9278		
SGB	5532.5	RZ3	.0150	RI3	-.9278		
SG1	5516.4	SG2	422.8	THA	177.43		

ORBIT DETERMINATION ACCURACY

ST	1851.3	SR	332.0	SS	541.6
CRT	.6063	CRS	-.6029	CST	-.9993
LSA	1939.5	HSA	262.6	SSA	19.0
EL1	1862.4	EL2	262.4	ALF	6.33

LAUNCH DATE SEP 29 1970 FLIGHT TIME 188.00 ARRIVAL DATE APR 5 1971

HELIOCENTRIC CONIC DISTANCE 550.629

RL	149.86	LAL	.00	LOL	5.44	VL	25.853	GAL	4.65	AZL	88.53	HCA	276.50	SMA	120.35	ECC	.25757	INC	1.4736
RP	108.85	LAP	-1.46	LOP	281.94	VP	36.548	GAP	13.90	AZP	89.83	TAL	166.29	TAP	82.80	RCA	89.35	APO	151.34
RC	180.980	GL	7.96	GP	12.96	ZAL	57.22	ZAP	166.45	ETS	69.66	ZAE	127.86	ETE	169.94	ZAC	115.43	ETC	270.40

V1 29.732 V2 34.815 CLP-176.00

PLANETOCENTRIC CONIC

C3	22.908	VHL	4.786	DLA	-10.43	RAL	308.90	RAD	6567.9	VEL	12.012	PTH	2.14	VHP	8.914	DPA	-11.22	RAP	286.61

ECC 1.3770

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 46 51	1917.64	-11.43	23.49	170.92	116.08	9 18 48	1317.6	-7.84	16.66
90.00	18 5 34	5220.53	26.39	234.70	175.99	79.34	19 32 35	4620.5	24.65	226.46
100.00	10 3 0	1671.94	-12.54	4.85	170.35	117.36	10 30 52	1071.9	-8.78	358.09
100.00	19 32 6	4941.47	27.61	213.90	175.71	78.06	20 54 27	4341.5	25.69	205.63
110.00	10 59 29	1495.07	-15.47	349.76	168.67	120.87	11 24 24	895.1	-11.26	343.18
110.00	20 52 6	4691.10	30.86	193.98	174.80	74.51	22 10 17	4091.1	28.43	185.62

DIFFERENTIAL CORRECTIONS

TDE	1.3789	TRA	3.0335	TC3	-3.9372	BAU	1.2068
RDE	.2617	RRA	-.2751	RC3	.1582	FAU	.01625
FDE	.5020	FRA	1.1290	FC3	-.6142	BSP	17893
BDE	1.4035	BRA	3.0456	BC3	3.9404	FSP	-473

MID-COURSE EXECUTION ACCURACY

SGT	5528.2	SGR	481.3	SG3	139.1		
RRT	-.4815	RRF	-.4611	RTF	.9300		
SGB	5549.1	RZ3	.0122	RI3	-.9300		
SG1	5533.1	SG2	421.4	THA	177.59		

ORBIT DETERMINATION ACCURACY

ST	1991.1	SR	328.8	SS	561.3
CRT	.6204	CRS	-.6139	CST	-.9994
LSA	2078.8	HSA	256.8	SSA	17.9
EL1	2001.7	EL2	256.5	ALF	5.95

LAUNCH DATE SEP 29 1970 FLIGHT TIME 190.00 ARRIVAL DATE APR 7 1971

HELIOCENTRIC CONIC DISTANCE 555.919

RL	149.86	LAL	.00	LOL	5.44	VL	25.807	GAL	5.36	AZL	88.35	HCA	279.66	SMA	120.09	ECC	.26393	INC	1.6545	V1	29.732
RP	108.87	LAP	-1.63	LOP	285.10	VP	36.511	GAP	14.35	AZP	89.72	TAL	164.63	TAP	84.29	RCA	88.40	APO	151.79	V2	34.809
RC	182.925	GL	8.47	GP	12.63	ZAL	54.75	ZAP	166.97	ETS	72.60	ZAE	127.89	ETE	170.18	ZAC	114.96	ETC	271.04	CLP	-176.77

PLANETOCENTRIC CONIC

C3	25.351	VHL	5.035	DLA	-9.27	RAL	311.25	RAD	6568.0	VEL	12.113	PTH	2.17	VHP	9.184	DPA	-11.38	RAP	289.01	ECC	1.4172

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 46 55	1980.16	-13.28	27.16	174.86	115.24	9 19 55	1380.2	-9.77	20.24
90.00	18 24 12	5207.70	26.23	233.79	179.70	78.92	19 51 0	4607.7	24.43	225.58
100.00	10 3 43	1732.39	-14.41	8.37	174.30	116.48	10 32 36	1132.4	-10.74	1.51
100.00	19 50 5	4930.71	27.46	213.14	179.42	77.69	21 12 16	4330.7	25.48	204.89
110.00	11 1 38	1551.06	-17.40	352.95	172.63	119.90	11 27 29	951.1	-13.29	346.25
110.00	21 8 40	4684.80	30.74	193.52	178.48	74.27	22 26 45	4084.8	28.28	185.19

DIFFERENTIAL CORRECTIONS

TDE	1.5564	TRA	3.3344	TC3	-3.5511	BAU	1.2044
RDE	.2729	RRA	-.2846	RC3	.1363	FAU	.01485
FDE	.5324	FRA	1.1717	FC3	-.5072	BSP	17979
BDE	1.5801	BRA	3.3465	BC3	3.5537	FSP	-461

MID-COURSE EXECUTION ACCURACY

SGT	5541.2	SGR	472.2	SG3	135.3		
RRT	-.4596	RRF	-.4399	RTF	.9326		
SGB	5561.3	RZS	.0099	R13	-.9326		
SG1	5545.5	SG2	419.0	THA	177.74		

ORBIT DETERMINATION ACCURACY

ST	2116.3	SR	325.8	SS	578.5
CRT	.6324	CRS	-.6238	CST	-.9995
LSA	2203.6	MSA	251.5	SSA	16.9
EL1	2126.4	EL2	251.2	ALF	5.64

LAUNCH DATE SEP 29 1970 FLIGHT TIME 192.00 ARRIVAL DATE APR 9 1971

HELIOCENTRIC CONIC DISTANCE 561.139

RL	149.86	LAL	.00	LOL	5.44	VL	25.763	GAL	6.11	AZL	88.16	HCA	282.82	SMA	119.84	ECC	.27089	INC	1.8387	V1	29.732
RP	108.88	LAP	-1.79	LOP	288.27	VP	36.474	GAP	14.84	AZP	89.59	TAL	162.97	TAP	85.79	RCA	87.38	APO	152.31	V2	34.804
RC	184.854	GL	8.91	GP	12.34	ZAL	52.42	ZAP	167.43	ETS	75.82	ZAE	127.90	ETE	170.40	ZAC	114.49	ETC	271.66	CLP	-177.55

PLANETOCENTRIC CONIC

C3	28.168	VHL	5.307	DLA	-8.21	RAL	313.46	RAD	6568.1	VEL	12.229	PTH	2.20	VHP	9.475	DPA	-11.46	RAP	291.41	ECC	1.4636

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 47 18	2040.85	-15.01	30.77	178.83	114.30	9 21 19	1440.9	-11.60	23.75
90.00	18 41 29	5199.30	26.11	233.20	183.41	78.64	20 8 8	4599.3	24.28	225.01
100.00	10 4 40	1791.24	-16.16	11.86	178.27	115.49	10 34 31	1191.2	-12.60	4.88
100.00	20 6 48	4924.15	27.36	212.67	183.11	77.46	21 28 52	4324.2	25.36	204.44
110.00	11 3 52	1605.90	-19.23	356.15	176.82	118.82	11 30 37	1005.9	-15.23	349.31
110.00	21 24 6	4682.25	30.70	193.34	182.15	74.17	22 42 8	4082.3	28.22	185.02

DIFFERENTIAL CORRECTIONS

TDE	1.7392	TRA	3.6502	TC3	-3.1849	BAU	1.2002
RDE	.2852	RRA	-.2950	RC3	.1163	FAU	.01352
FDE	.5619	FRA	1.2158	FC3	-.4154	BSP	18079
BDE	1.7624	BRA	3.6621	BC3	3.1870	FSP	-450

MID-COURSE EXECUTION ACCURACY

SGT	5550.2	SGR	462.2	SG3	131.6		
RRT	-.4368	RRF	-.4181	RTF	.9354		
SGB	5569.4	RZS	.0080	R13	-.9354		
SG1	5553.9	SG2	415.5	THA	177.90		

ORBIT DETERMINATION ACCURACY

ST	2227.5	SR	322.7	SS	594.0
CRT	.6433	CRS	-.6335	CST	-.9995
LSA	2314.7	MSA	246.4	SSA	16.1
EL1	2237.3	EL2	246.0	ALF	5.39

LAUNCH DATE SEP 29 1970 FLIGHT TIME 194.00 ARRIVAL DATE APR 11 1971

HELIOCENTRIC CONIC DISTANCE 566.277

RL	149.86	LAL	.00	LOL	5.44	VL	25.719	GAL	6.90	AZL	87.97	HCA	285.98	SMA	119.60	ECC	.27853	INC	2.0276	V1	29.732
RP	108.90	LAP	-1.95	LOP	291.43	VP	36.438	GAP	15.36	AZP	89.44	TAL	161.33	TAP	87.31	RCA	86.29	APO	152.91	V2	34.799
RC	186.768	GL	9.27	GP	12.06	ZAL	50.22	ZAP	167.82	ETS	79.31	ZAE	127.90	ETE	170.61	ZAC	114.02	ETC	272.28	CLP	-178.33

PLANETOCENTRIC CONIC

C3	31.418	VHL	5.605	DLA	-7.22	RAL	315.55	RAD	6568.3	VEL	12.361	PTH	2.23	VHP	9.790	DPA	-11.49	RAP	293.80	ECC	1.5170

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 47 54	2099.84	-16.63	34.35	182.80	113.25	9 22 54	1499.8	-13.34	27.21
90.00	18 57 30	5194.99	26.06	232.90	187.10	78.50	20 24 5	4595.0	24.21	224.72
100.00	10 5 47	1848.58	-17.81	15.32	182.25	114.41	10 36 36	1248.6	-14.37	8.22
100.00	20 22 18	4921.49	27.32	212.48	186.80	77.37	21 44 20	4321.5	25.31	204.26
110.00	11 6 8	1659.63	-20.96	359.36	180.62	117.64	11 33 48	1059.6	-17.09	352.36
110.00	21 38 27	4683.20	30.72	193.41	185.82	74.20	22 56 30	4083.2	28.24	185.08

DIFFERENTIAL CORRECTIONS

TDE	1.9274	TRA	3.9820	TC3	-2.8395	BAU	1.1933
RDE	.2988	RRA	-.3042	RC3	.0982	FAU	.01223
FDE	.5908	FRA	1.2809	FC3	-.3371	BSP	18196
BDE	1.9504	BRA	3.9936	BC3	2.8412	FSP	-440

MID-COURSE EXECUTION ACCURACY

SGT	5554.1	SGR	451.3	SG3	128.0		
RRT	-.4129	RRF	-.3953	RTF	.9385		
SGB	5572.4	RZS	.0064	R13	-.9385		
SG1	5557.3	SG2	410.8	THA	178.07		

ORBIT DETERMINATION ACCURACY

ST	2325.0	SR	319.6	SS	608.1
CRT	.6536	CRS	-.6432	CST	-.9996
LSA	2412.3	MSA	241.3	SSA	15.3
EL1	2334.5	EL2	240.9	ALF	5.19

LAUNCH DATE SEP 29 1970 FLIGHT TIME 196.00 ARRIVAL DATE APR 13 1971

HELIOCENTRIC CONIC DISTANCE 571.320

RL	149.86	LAL	.00	LOL	5.44	VL	25.675	GAL	7.75	AZL	87.78	HCA	289.14	SMA	119.36	ECC	.28691	INC	2.2224	V1	29.732
RP	108.91	LAP	-2.10	LOP	294.59	VP	36.404	GAP	15.92	AZP	89.27	TAL	159.72	TAP	88.86	RCA	85.11	APO	153.60	V2	34.795
RC	188.667	GL	9.58	GP	11.81	ZAL	48.16	ZAP	168.15	ETS	83.07	ZAE	127.89	ETE	170.81	ZAC	113.56	ETC	272.89	CLP	-179.13

PLANETOCENTRIC CONIC

C3	35.164	VHL	5.930	DLA	-6.30	RAL	317.51	RAD	6568.4	VEL	12.511	PTH	2.27	VHP	10.133	DPA	-11.45	RAP	296.17	ECC	1.5787

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 48 42	2157.21	-18.14	37.88	186.77	112.13	9 24 40	1557.2	-14.98	30.63
90.00	19 12 21	5194.44	26.05	232.86	190.78	78.48	20 38 55	4594.4	24.20	224.68
100.00	10 7 3	1904.47	-19.35	18.76	186.24	113.24	10 38 48	1304.5	-16.04	11.53
100.00	20 36 41	4922.41	27.33	212.55	190.48	77.40	21 58 44	4322.4	25.32	204.33
110.00	11 8 26	1712.26	-22.59	2.57	184.64	116.37	11 36 59	1112.3	-18.86	355.42
110.00	21 51 47	4687.38	30.79	193.71	189.48	74.37	23 9 55	4087.4	28.34	185.37

DIFFERENTIAL CORRECTIONS

TDE	2.1218	TRA	4.3315	TC3	-2.5166	BAU	1.1837
RDE	.3136	RRA	-.3119	RC3	.0818	FAU	.01100
FDE	.6192	FRA	1.3074	FC3	-.2707	BSP	18327
BDE	2.1448	BRA	4.3427	BC3	2.5179	FSP	-431

MID-COURSE EXECUTION ACCURACY

SGT	5553.4	SGR	439.5	SG3	124.5		
RRT	-.3871	RRF	-.3713	RTF	.9418		
SGB	5570.8	RZS	.0052	R13	-.9418		
SG1	5556.0	SG2	405.0	THA	178.24		

ORBIT DETERMINATION ACCURACY

ST	2409.7	SR	316.4	SS	621.2
CRT	.6638	CRS	-.6530	CST	-.9996
LSA	2497.3	MSA	236.1	SSA	14.6
EL1	2418.9	EL2	235.7	ALF	5.03

LAUNCH DATE SEP 29 1970 FLIGHT TIME 198.00 ARRIVAL DATE APR 15 1971

HELIOCENTRIC CONIC DISTANCE 576.253

RL	149.86	LAL	.00	LOL	5.44	VL	25.633	GAL	8.65	AZL	87.58	HCA	292.30	SMA	119.12	ECC	.29613	INC	2.4249	V1	29.732
RP	108.92	LAP	-2.24	LOP	297.75	VP	36.370	GAP	16.53	AZP	89.08	TAL	158.14	TAP	90.43	RCA	83.85	APO	154.40	V2	34.791
RC	190.549	GL	9.82	GP	11.58	ZAL	46.22	ZAP	168.42	ETS	87.09	ZAE	127.85	ETE	171.01	ZAC	113.10	ETC	273.49	CLP	-179.93

PLANETOCENTRIC CONIC

C3	39.495	VHL	6.284	DLA	-5.47	RAL	319.35	RAD	6568.5	VEL	12.683	PTH	2.30	VHP	10.507	DPA	-11.35	RAP	298.54	ECC	1.6500

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 49 40	2213.00	-19.53	41.38	190.75	110.92	9 26 33	1613.0	-16.51	34.01
90.00	19 26 5	5197.34	26.09	233.07	194.44	78.58	20 52 42	4597.3	24.25	224.88
100.00	10 8 25	1958.93	-20.78	22.18	190.23	111.99	10 41 4	1358.9	-17.61	14.81
100.00	20 50 1	4926.65	27.40	212.85	194.13	77.55	22 12 7	4326.7	25.41	204.61
110.00	11 10 45	1763.78	-24.11	5.80	188.66	115.00	11 40 9	1163.8	-20.53	358.48
110.00	22 4 10	4694.56	30.92	194.23	193.13	74.65	23 22 25	4094.6	28.51	185.86

DIFFERENTIAL CORRECTIONS

TDE	2.3242	TRA	4.6974	TC3	-2.2151	BAU	1.1701
RDE	.3297	RRA	-.3179	RC3	.0671	FAU	.00980
FDE	.6477	FRA	1.3556	FC3	-.2148	BSP	18467
BDE	2.3475	BRA	4.7081	BC3	2.2161	FSP	-422

MID-COURSE EXECUTION ACCURACY

SGT	5545.3	SGR	426.9	SG3	121.1		
RRT	-.3592	RRF	-.3456	RTF	.9453		
SGB	5561.7	R23	.0045	R13	-.9453		
SG1	5547.4	SG2	398.2	THA	178.41		

ORBIT DETERMINATION ACCURACY

ST	2482.5	SR	313.1	SS	633.9
CRT	.6743	CRS	-.6632	CST	-.9996
LSA	2570.8	MSA	230.7	SSA	13.9
EL1	2491.5	EL2	230.3	ALF	4.90

LAUNCH DATE SEP 29 1970 FLIGHT TIME 200.00 ARRIVAL DATE APR 17 1971

HELIOCENTRIC CONIC DISTANCE 581.055

RL	149.86	LAL	.00	LOL	5.44	VL	25.591	GAL	9.61	AZL	87.36	HCA	295.45	SMA	118.90	ECC	.30629	INC	2.6366	V1	29.732
RP	108.93	LAP	-2.38	LOP	300.91	VP	36.338	GAP	17.20	AZP	88.87	TAL	156.59	TAP	92.04	RCA	82.48	APO	155.31	V2	34.789
RC	192.414	GL	10.02	GP	11.37	ZAL	44.42	ZAP	168.60	ETS	91.35	ZAE	127.80	ETE	171.19	ZAC	112.64	ETC	274.07	CLP	179.24

PLANETOCENTRIC CONIC

C3	44.512	VHL	6.672	DLA	-4.70	RAL	321.07	RAD	6568.7	VEL	12.879	PTH	2.35	VHP	10.916	DPA	-11.20	RAP	300.88	ECC	1.7325

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 50 44	2267.24	-20.81	44.84	194.71	109.65	9 28 31	1667.2	-17.94	37.34
90.00	19 38 46	5203.42	26.17	233.49	198.07	78.78	21 5 29	4603.4	24.36	225.29
100.00	10 9 52	2011.96	-22.09	25.57	194.20	110.67	10 43 24	1412.0	-19.08	18.07
100.00	21 2 19	4933.92	27.50	213.36	197.76	77.80	22 24 33	4333.9	25.54	205.11
110.00	11 13 3	1814.16	-25.52	9.03	192.68	113.56	11 43 17	1214.2	-22.11	1.54
110.00	22 18 38	4704.49	31.10	194.95	196.77	75.04	23 34 2	4104.5	28.73	186.55

DIFFERENTIAL CORRECTIONS

TDE	2.5347	TRA	5.0922	TC3	-1.9347	BAU	1.1517
RDE	.3471	RRA	-.3217	RC3	.0541	FAU	.00861
FDE	.6768	FRA	1.4067	FC3	-.1675	BSP	18601
BDE	2.5583	BRA	5.1024	BC3	1.9354	FSP	-414

MID-COURSE EXECUTION ACCURACY

SGT	5536.8	SGR	413.4	SG3	117.7		
RRT	-.3294	RRF	-.3175	RTF	.9491		
SGB	5552.2	R23	.0036	R13	-.9491		
SG1	5538.5	SG2	390.2	THA	178.58		

ORBIT DETERMINATION ACCURACY

ST	2545.0	SR	309.5	SS	646.7
CRT	.6846	CRS	-.6739	CST	-.9997
LSA	2634.4	MSA	225.2	SSA	13.3
EL1	2553.9	EL2	224.8	ALF	4.80

LAUNCH DATE SEP 29 1970 FLIGHT TIME 202.00 ARRIVAL DATE APR 19 1971

HELIOCENTRIC CONIC DISTANCE 585.702

RL	149.86	LAL	.00	LOL	5.44	VL	25.550	GAL	10.64	AZL	87.14	HCA	298.61	SMA	118.67	ECC	.31752	INC	2.8598	V1	29.732
RP	108.94	LAP	-2.51	LOP	304.08	VP	36.308	GAP	17.92	AZP	88.63	TAL	155.08	TAP	93.69	RCA	80.99	APO	156.35	V2	34.787
RC	194.261	GL	10.17	GP	11.18	ZAL	42.73	ZAP	168.71	ETS	95.83	ZAE	127.72	ETE	171.37	ZAC	112.17	ETC	274.64	CLP	178.40

PLANETOCENTRIC CONIC

C3	50.341	VHL	7.095	DLA	-4.00	RAL	322.68	RAD	6568.9	VEL	13.104	PTH	2.39	VHP	11.365	DPA	-11.01	RAP	303.19	ECC	1.8285

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 51 55	2319.90	-21.98	48.27	198.64	108.32	9 30 35	1719.9	-19.27	40.64
90.00	19 50 27	5212.39	26.29	234.12	201.67	79.07	21 17 19	4612.4	24.51	225.90
100.00	10 11 23	2063.54	-23.29	28.93	198.16	109.29	10 45 46	1463.5	-20.44	21.29
100.00	21 13 40	4943.98	27.64	214.08	201.36	78.15	22 36 4	4344.0	25.73	205.80
110.00	11 15 20	1863.35	-26.82	12.27	196.69	112.04	11 46 23	1263.4	-23.59	4.59
110.00	22 26 12	4716.93	31.31	195.85	200.38	75.54	23 44 49	4116.9	29.01	187.41

DIFFERENTIAL CORRECTIONS

TDE	2.7564	TRA	5.5091	TC3	-1.6754	BAU	1.1279
RDE	.3659	RRA	-.3232	RC3	.0427	FAU	.00743
FDE	.7071	FRA	1.4610	FC3	-.1278	BSP	18727
BDE	2.7805	BRA	5.5186	BC3	1.6759	FSP	-406

MID-COURSE EXECUTION ACCURACY

SGT	5522.3	SGR	399.2	SG3	114.5		
RRT	-.2962	RRF	-.2866	RTF	.9529		
SGB	5536.7	R23	.0031	R13	-.9529		
SG1	5523.5	SG2	381.2	THA	178.77		

ORBIT DETERMINATION ACCURACY

ST	2598.0	SR	305.7	SS	660.1
CRT	.6957	CRS	-.6853	CST	-.9997
LSA	2689.0	MSA	219.3	SSA	12.7
EL1	2606.7	EL2	218.9	ALF	4.71

LAUNCH DATE SEP 29 1970 FLIGHT TIME 204.00 ARRIVAL DATE APR 21 1971

HELIOCENTRIC CONIC DISTANCE 590.164

RL	149.86	LAL	.00	LOL	5.44	VL	25.510	GAL	11.75	AZL	86.90	HCA	301.76	SMA	118.46	ECC	.32996	INC	3.0968	V1	29.732
RP	108.94	LAP	-2.63	LOP	307.24	VP	36.279	GAP	18.73	AZP	88.37	TAL	153.63	TAP	95.39	RCA	79.37	APO	157.54	V2	34.786
RC	196.090	GL	10.28	GP	11.00	ZAL	41.16	ZAP	168.73	ETS	100.47	ZAE	127.62	ETE	171.54	ZAC	111.71	ETC	275.19	CLP	177.53

PLANETOCENTRIC CONIC

C3	57.138	VHL	7.559	DLA	-3.37	RAL	324.18	RAD	6569.0	VEL	13.360	PTH	2.44	VHP	11.860	DPA	-10.76	RAP	305.48	ECC	1.9404

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 53 10	2370.92	-23.03	51.64	202.54	106.95	9 32 41	1770.9	-20.49	43.88
90.00	20 1 9	5224.02	26.43	234.94	205.22	79.46	21 28 13	4624.0	24.71	226.70
100.00	10 12 56	2113.60	-24.38	32.25	202.08	107.86	10 48 10	1513.6	-21.70	24.47
100.00	21 24 4	4956.57	27.82	214.97	204.92	78.59	22 46 41	4356.6	25.96	206.66
110.00	11 17 34	1911.26	-28.00	15.49	200.68	110.46	11 49 25	1311.3	-24.96	7.64
110.00	22 35 56	4751.67	31.56	196.93	203.95	76.13	23 54 47	4131.7	29.33	188.44

DIFFERENTIAL CORRECTIONS

TDE	2.9918	TRA	5.9558	TC3	-1.4350	BAU	1.0965
RDE	.3861	RRA	-.3218	RC3	.0328	FAU	.00625
FDE	.7392	FRA	1.5196	FC3	-.0843	BSP	18798
BDE	3.0166	BRA	5.9645	BC3	1.4354	FSP	-396

MID-COURSE EXECUTION ACCURACY

SGT	5504.5	SGR	384.5	SG3	111.5		
RRT	-.2594	RRF	-.2520	RTF	.9569		
SGB	5517.9	R23	.0028	R13	-.9569		
SG1	5505.4	SG2	371.2	THA	178.96		

ORBIT DETERMINATION ACCURACY

ST	2643.4	SR	301.7	SS	674.9
CRT	.7074	CRS	-.6975	CST	-.9997
LSA	2736.5	MSA	213.0	SSA	12.1
EL1	2652.0	EL2	212.6	ALF	4.65

LAUNCH DATE SEP 29 1970 FLIGHT TIME 206.00 ARRIVAL DATE APR 23 1971

HELIOCENTRIC CONIC DISTANCE 594.403

RL	149.86	LAL	.00	LOL	5.44	VL	25.471	GAL	12.96	AZL	86.65	HCA	304.92	SMA	118.25	ECC	.34377	INC	3.3505	V1	29.732
RP	108.94	LAP	-2.75	LOP	310.40	VP	36.251	GAP	19.61	AZP	88.08	TAL	152.24	TAP	97.16	RCA	77.60	APO	158.90	V2	34.785
RC	197.900	GL	10.36	GP	10.83	ZAL	39.72	ZAP	168.66	ETS	105.25	ZAE	127.48	ETE	171.72	ZAC	111.25	ETC	275.72	CLP	176.63

PLANETOCENTRIC CONIC

C3	65.101	VHL	8.069	DLA	-2.80	RAL	325.57	RAD	6569.2	VEL	13.655	PTH	2.50	VHP	12.408	DPA	-10.48	RAP	307.72	ECC	2.0714

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 54 29	2420.22	-23.97	54.94	206.38	105.55	9 34 49	1820.2	-21.61	47.07
90.00	20 10 55	5238.06	26.60	235.94	208.72	79.93	21 38 13	4638.1	24.94	227.66
100.00	10 14 31	2162.04	-25.35	35.52	205.95	106.40	10 50 33	1562.0	-22.86	27.61
100.00	21 33 34	4971.47	28.01	216.04	208.43	79.12	22 56 26	4371.5	26.23	207.69
110.00	11 19 45	1957.79	-29.06	18.69	204.62	108.84	11 52 23	1357.8	-26.22	10.67
110.00	22 44 49	4748.49	31.83	198.17	207.49	76.82	24 3 57	4148.5	29.69	189.62

DIFFERENTIAL CORRECTIONS

TDE	3.2439	TRA	6.4368	TC3	-1.2124	BAU	1.0554
RDE	.4079	RRA	-.3172	RC3	.0244	FAU	.00495
FDE	.7738	FRA	1.5837	FC3	-.0659	BSP	18789
BDE	3.2695	BRA	6.4446	BC3	1.2127	FSP	-385

MID-COURSE EXECUTION ACCURACY

SGT	5484.3	SGR	369.2	SG3	108.6		
RRT	-.2181	RRF	-.2130	RTF	.9610		
SGB	5496.7	R23	.0026	R13	-.9610		
SG1	5484.9	SG2	360.3	THA	179.16		

ORBIT DETERMINATION ACCURACY

ST	2682.3	SR	297.5	SS	691.5
CRT	.7198	CRS	-.7105	CST	-.9998
LSA	2778.2	MSA	206.2	SSA	11.6
EL1	2690.9	EL2	205.8	ALF	4.59

LAUNCH DATE SEP 29 1970 FLIGHT TIME 208.00 ARRIVAL DATE APR 25 1971

HELIOCENTRIC CONIC DISTANCE 598.370

RL	149.86	LAL	.00	LOL	5.44	VL	25.434	GAL	14.27	AZL	86.38	HCA	308.07	SMA	118.05	ECC	.35917	INC	3.6244	V1	29.732
RP	108.94	LAP	-2.85	LOP	313.56	VP	36.225	GAP	20.60	AZP	87.76	TAL	150.93	TAP	99.00	RCA	75.65	APO	160.44	V2	34.785
RC	199.690	GL	10.40	GP	10.68	ZAL	38.40	ZAP	168.49	ETS	110.10	ZAE	127.30	ETE	171.89	ZAC	110.79	ETC	276.23	CLP	175.68

PLANETOCENTRIC CONIC

C3	74.477	VHL	8.630	DLA	-2.30	RAL	326.85	RAD	6569.4	VEL	13.994	PTH	2.55	VHP	13.017	DPA	-10.16	RAP	309.92	ECC	2.2257

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 55 50	2467.66	-24.80	58.17	210.15	104.13	9 36 58	1867.7	-22.61	50.18
90.00	20 19 45	5254.30	26.79	237.09	212.15	80.48	21 47 19	4654.3	25.20	228.78
100.00	10 16 6	2208.72	-26.21	38.73	209.74	104.92	10 52 55	1608.7	-23.90	30.69
100.00	21 42 10	4988.47	28.23	217.26	211.87	79.73	23 5 18	4388.5	26.52	208.87
110.00	11 21 53	2002.78	-30.01	21.85	208.50	107.19	11 55 16	1402.8	-27.37	13.66
110.00	22 52 52	4767.18	32.11	199.56	210.97	77.59	24 12 19	4167.2	30.07	190.94

DIFFERENTIAL CORRECTIONS

TDE	3.5157	TRA	6.9567	TC3	-1.0071	BAU	1.0029
RDE	.4317	RRA	-.3086	RC3	.0173	FAU	.00360
FDE	.8117	FRA	1.6540	FC3	-.0419	BSP	18687
BDE	3.5421	BRA	6.9635	BC3	1.0072	FSP	-373

MID-COURSE EXECUTION ACCURACY

SGT	5462.2	SGR	353.6	SG3	105.9		
RRT	-.1712	RRF	-.1685	RTF	.9651		
SGB	5473.7	R23	.0026	R13	-.9651		
SG1	5462.6	SG2	348.4	THA	179.36		

ORBIT DETERMINATION ACCURACY

ST	2715.5	SR	293.1	SS	710.5
CRT	.7332	CRS	-.7245	CST	-.9998
LSA	2815.1	MSA	199.1	SSA	11.0
EL1	2724.0	EL2	198.7	ALF	4.55

LAUNCH DATE SEP 29 1970 FLIGHT TIME 210.00 ARRIVAL DATE APR 27 1971

HELIOCENTRIC CONIC DISTANCE 602.004

RL	149.86	LAL	.00	LOL	5.44	VL	25.397	GAL	15.71	AZL	86.08	HCA	311.22	SMA	117.85	ECC	.37637	INC	3.9232	V1	29.732
RP	108.94	LAP	-2.95	LOP	316.73	VP	36.200	GAP	21.70	AZP	87.41	TAL	149.71	TAP	100.94	RCA	73.50	APO	162.21	V2	34.786
RC	201.461	GL	10.42	GP	10.53	ZAL	37.19	ZAP	168.22	ETS	114.97	ZAE	127.07	ETE	172.07	ZAC	110.33	ETC	276.72	CLP	174.69

PLANETOCENTRIC CONIC

C3	85.581	VHL	9.251	DLA	-1.86	RAL	328.01	RAD	6569.7	VEL	14.385	PTH	2.61	VHP	13.697	DPA	-9.81	RAP	312.06	ECC	2.4085

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 57 13	2513.05	-25.51	61.30	213.62	102.72	9 39 6	1913.0	-23.51	53.21
90.00	20 27 38	5272.55	26.99	238.39	215.51	81.10	21 55 31	4672.6	25.48	230.04
100.00	10 17 42	2253.45	-26.95	41.84	213.44	103.44	10 55 15	1653.5	-24.83	33.68
100.00	21 49 51	5007.38	28.45	218.62	215.24	80.41	23 13 18	4407.4	26.83	210.19
110.00	11 23 57	2046.05	-30.84	24.95	212.30	105.53	11 58 3	1446.1	-28.40	16.60
110.00	23 0 5	4787.55	32.40	201.07	214.38	78.45	24 19 52	4187.5	30.47	192.39

DIFFERENTIAL CORRECTIONS

TDE	3.8092	TRA	7.5205	TC3	-.8186	BAU	.9367
RDE	.4576	RRA	-.2953	RC3	.0116	FAU	.00214
FDE	.8532	FRA	1.7317	FC3	-.0216	BSP	18479
BDE	3.8366	BRA	7.5263	BC3	.8187	FSP	-359

MID-COURSE EXECUTION ACCURACY

SGT	5438.5	SGR	338.0	SG3	103.4		
RRT	-.1179	RRF	-.1174	RTF	.9692		
SGB	5449.0	R23	.0027	R13	-.9692		
SG1	5438.7	SG2	335.7	THA	179.58		

ORBIT DETERMINATION ACCURACY

ST	2742.7	SR	288.7	SS	732.2
CRT	.7475	CRS	-.7395	CST	-.9998
LSA	2847.0	MSA	191.6	SSA	10.5
EL1	2751.2	EL2	191.2	ALF	4.52

LAUNCH DATE SEP 29 1970 FLIGHT TIME 212.00 ARRIVAL DATE APR 29 1971

HELIOCENTRIC CONIC DISTANCE 605.226

RL	149.86	LAL	.00	LOL	5.44	VL	25.362	GAL	17.29	AZL	85.75	HCA	314.38	SMA	117.67	ECC	.39566	INC	4.2522	V1	29.732
RP	108.93	LAP	-3.04	LOP	319.89	VP	36.177	GAP	22.94	AZP	87.02	TAL	148.61	TAP	102.99	RCA	71.11	APO	164.22	V2	34.788
RC	203.212	GL	10.41	GP	10.40	ZAL	36.12	ZAP	167.83	ETS	119.81	ZAE	126.78	ETE	172.26	ZAC	109.88	ETC	277.19	CLP	173.65

PLANETOCENTRIC CONIC

C3	90.820	VHL	9.941	DLA	-1.49	RAL	329.05	RAD	6569.9	VEL	14.838	PTH	2.68	VHP	14.460	DPA	-9.44	RAP	314.14	ECC	2.6263

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 58 37	2556.17	-26.13	64.31	217.36	101.33	9 41 14	1956.2	-24.30	56.12
90.00	20 34 33	5292.64	27.20	239.82	218.76	81.79	22 2 46	4692.6	25.78	231.44
100.00	10 19 16	2296.01	-27.59	44.84	217.02	101.99	10 57 32	1696.0	-25.66	36.57
100.00	21 56 35	5028.02	28.67	220.11	218.51	81.17	23 20 23	4428.0	27.15	211.64
110.00	11 25 55	2087.37	-31.56	27.96	215.97	103.88	12 0 43	1487.4	-29.33	19.46
110.00	23 6 25	4809.43	32.68	202.72	217.71	79.38	24 26 35	4209.4	30.88	193.96

DIFFERENTIAL CORRECTIONS

TDE	4.1290	TRA	8.1350	TC3	-.6459	BAU	.8534
RDE	.4802	RRA	-.2764	RC3	.0072	FAU	.00051
FDE	.8993	FRA	1.8183	FC3	-.0045	BSP	18139
BDE	4.1575	BRA	8.1397	BC3	.6459	FSP	-343

MID-COURSE EXECUTION ACCURACY

SGT	5414.0	SGR	322.7	SG3	101.0		
RRT	-.0567	RRF	-.0583	RTF	.9732		
SGB	5423.7	R23	.0029	R13	-.9732		
SG1	5414.1	SG2	322.2	THA	179.81		

ORBIT DETERMINATION ACCURACY

ST	2765.0	SR	284.3	SS	757.4
CRT	.7628	CRS	-.7555	CST	-.9998
LSA	2875.0	MSA	183.6	SSA	10.0
EL1	2773.5	EL2	183.2	ALF	4.50

LAUNCH DATE SEP 29 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAY 1 1971

HELIOCENTRIC CONIC DISTANCE 607.935

RL 149.86 LAL .00 LOL 5.44 VL 25.329 GAL 19.03 AZL 85.38 HCA 317.53 SMA 117.49 ECC .41738 INC 4.6188 V1 29.732
RP 108.92 LAP -3.12 LOP 323.06 VP 36.156 GAP 24.33 AZP 86.59 TAL 147.65 TAP 105.17 RCA 68.45 APO 166.53 V2 34.790
RC 204.943 GL 10.37 GP 10.27 ZAL 35.18 ZAP 167.32 ETS 124.58 ZAE 126.42 ETE 172.45 ZAC 109.43 ETC 277.63 CLP 172.53

PLANETOCENTRIC CONIC

C3 114.721 VHL 10.711 DLA -1.19 RAL 329.97 RAD 6570.2 VEL 15.364 PTH 2.75 VHP 15.321 DPA -9.05 RAP 316.15 ECC 2.8880

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 0 2	2596.72	-26.64	67.17	220.74	99.98	9 43 19	1996.7	-24.99	58.89
90.00	20 40 27	5314.43	27.40	241.38	221.89	82.55	22 9 2	4714.4	26.08	232.96
100.00	10 20 50	2336.12	-28.12	47.70	220.44	100.57	10 59 46	1736.1	-26.38	39.34
100.00	22 2 21	5050.27	28.90	221.73	221.66	81.99	23 26 31	4450.3	27.49	213.21
110.00	11 27 48	2126.46	-32.16	30.85	219.50	102.27	12 3 15	1526.5	-30.13	22.22
110.00	23 11 52	4832.69	32.96	204.47	220.93	80.39	24 32 24	4232.7	31.28	195.65

DIFFERENTIAL CORRECTIONS
TDE 4.4770 TRA 8.8056 TC3 -.4888 BAU .7497
RDE .5180 RRA -.2508 RC3 .0040 FAU-.00132
FDE .9503 FRA 1.9149 FC3 .0099 BSP 17675
BDE 4.5069 BRA 8.8091 BC3 .4888 FSP -326

MID-COURSE EXECUTION ACCURACY
SGT 5387.9 SGR 308.0 SG3 98.8
RRT .0135 RRF .0101 RTF .9771
SGB 5396.7 RZ3 -.0031 RI3 .9771
SG1 5387.9 SG2 308.0 THA .04

ORBIT DETERMINATION ACCURACY
ST 2781.1 SR 280.0 SS 786.5
CRT .7791 CRS -.7725 CST -.9999
LSA 2898.3 MSA 175.4 SSA 9.5
EL1 2789.6 EL2 175.0 ALF 4.50

LAUNCH DATE SEP 29 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAY 3 1971

HELIOCENTRIC CONIC DISTANCE 609.986

RL 149.86 LAL .00 LOL 5.44 VL 25.298 GAL 20.98 AZL 84.97 HCA 320.68 SMA 117.33 ECC .44189 INC 5.0322 V1 29.732
RP 108.91 LAP -3.19 LOP 326.23 VP 36.137 GAP 25.92 AZP 86.10 TAL 146.85 TAP 107.53 RCA 65.48 APO 169.17 V2 34.793
RC 206.655 GL 10.31 GP 10.15 ZAL 34.38 ZAP 166.68 ETS 129.24 ZAE 125.98 ETE 172.66 ZAC 108.99 ETC 278.04 CLP 171.33

PLANETOCENTRIC CONIC

C3 133.974 VHL 11.575 DLA -.96 RAL 330.75 RAD 6570.4 VEL 15.978 PTH 2.82 VHP 16.298 DPA -8.65 RAP 318.06 ECC 3.2049

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 1 27	2634.35	-27.05	69.85	223.93	98.70	9 45 21	2034.4	-25.57	61.49
90.00	20 45 16	5337.83	27.59	243.07	224.88	83.37	22 14 14	4737.8	26.39	234.61
100.00	10 22 20	2373.40	-28.56	50.39	223.66	99.22	11 1 54	1773.4	-26.99	41.94
100.00	22 7 3	5074.01	29.11	223.46	224.67	82.88	23 31 37	4474.0	27.82	214.89
110.00	11 29 34	2162.98	-32.65	33.58	222.82	100.72	12 5 37	1563.0	-30.83	24.84
110.00	23 16 19	4857.19	33.23	206.34	224.01	81.46	24 37 16	4257.2	31.69	197.45

DIFFERENTIAL CORRECTIONS
TDE 4.8190 TRA 9.5020 TC3 -.3581 BAU .6415
RDE .5539 RRA -.2169 RC3 .0020 FAU-.00302
FDE .9986 FRA 2.0144 FC3 .0195 BSP 17976
BDE 4.8516 BRA 9.5045 BC3 .3582 FSP -326

MID-COURSE EXECUTION ACCURACY
SGT 5339.4 SGR 294.5 SG3 96.2
RRT .0922 RRF .0873 RTF .9807
SGB 5347.6 RZ3 -.0034 RI3 .9807
SG1 5339.5 SG2 293.2 THA .29

ORBIT DETERMINATION ACCURACY
ST 2772.1 SR 276.1 SS 813.6
CRT .7954 CRS -.7892 CST -.9999
LSA 2897.4 MSA 167.2 SSA 8.9
EL1 2780.8 EL2 166.8 ALF 4.55

LAUNCH DATE SEP 29 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAY 5 1971

HELIOCENTRIC CONIC DISTANCE 611.216

RL 149.86 LAL .00 LOL 5.44 VL 25.269 GAL 23.17 AZL 84.49 HCA 323.83 SMA 117.17 ECC .46966 INC 5.5054 V1 29.732
RP 108.90 LAP -3.25 LOP 329.39 VP 36.120 GAP 27.74 AZP 85.55 TAL 146.27 TAP 110.10 RCA 62.14 APO 172.21 V2 34.797
RC 208.346 GL 10.23 GP 10.03 ZAL 33.74 ZAP 165.89 ETS 133.76 ZAE 125.43 ETE 172.88 ZAC 108.56 ETC 278.42 CLP 170.02

PLANETOCENTRIC CONIC

C3 157.497 VHL 12.550 DLA -.81 RAL 331.38 RAD 6570.7 VEL 16.698 PTH 2.89 VHP 17.414 DPA -8.27 RAP 319.87 ECC 3.5920

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 2 50	2668.64	-27.38	72.30	226.88	97.51	9 47 19	2068.6	-26.06	63.89
90.00	20 48 53	5362.79	27.78	244.87	227.70	84.26	22 18 16	4762.8	26.69	236.37
100.00	10 23 48	2407.46	-28.91	52.86	226.64	97.97	11 3 56	1807.5	-27.50	44.34
100.00	22 10 36	5099.20	29.31	225.31	227.51	83.83	23 35 36	4499.2	28.14	216.70
110.00	11 31 11	2196.54	-33.05	36.12	225.91	99.27	12 7 48	1596.5	-31.42	27.28
110.00	23 19 43	4882.89	33.47	208.31	226.93	82.60	24 41 6	4282.9	32.08	199.35

DIFFERENTIAL CORRECTIONS
TDE 5.2094 TRA10.2801 TC3 -.2360 BAU .4970
RDE .5944 RRA -.1735 RC3 .0010 FAU-.00522
FDE 1.0566 FRA 2.1305 FC3 .0287 BSP 17890
BDE 5.2432 BRA10.2816 BC3 .2360 FSP -318

MID-COURSE EXECUTION ACCURACY
SGT 5293.2 SGR 282.7 SG3 94.0
RRT .1817 RRF .1756 RTF .9841
SGB 5302.8 RZ3 -.0038 RI3 .9841
SG1 5295.5 SG2 278.0 THA .56

ORBIT DETERMINATION ACCURACY
ST 2764.0 SR 272.4 SS 848.2
CRT .8127 CRS -.8072 CST -.9999
LSA 2899.7 MSA 158.6 SSA 8.4
EL1 2772.9 EL2 158.2 ALF 4.59

LAUNCH DATE SEP 29 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAY 7 1971

HELIOCENTRIC CONIC DISTANCE 611.386

RL 149.86 LAL .00 LOL 5.44 VL 25.243 GAL 25.64 AZL 83.94 HCA 326.98 SMA 117.04 ECC .50119 INC 6.0558 V1 29.732
RP 108.89 LAP -3.30 LOP 332.56 VP 36.106 GAP 29.84 AZP 84.92 TAL 145.94 TAP 112.92 RCA 58.38 APO 175.70 V2 34.802
RC 210.017 GL 10.12 GP 9.91 ZAL 33.28 ZAP 164.92 ETS 138.12 ZAE 124.75 ETE 173.12 ZAC 108.15 ETC 278.76 CLP 168.58

PLANETOCENTRIC CONIC

C3 186.514 VHL 13.657 DLA -.75 RAL 331.84 RAD 6571.0 VEL 17.545 PTH 2.97 VHP 18.695 DPA -7.89 RAP 321.55 ECC 4.0696

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 4 13	2699.06	-27.63	74.49	229.54	96.44	9 49 12	2099.1	-26.45	66.03
90.00	20 51 11	5389.35	27.94	246.80	230.31	85.21	22 21 0	4789.4	26.98	238.26
100.00	10 25 12	2437.79	-29.17	55.08	229.33	96.83	11 5 50	1837.8	-27.92	46.50
100.00	22 12 52	5125.85	29.49	227.27	230.16	84.85	23 38 18	4525.9	28.46	218.61
110.00	11 32 30	2226.66	-33.36	38.42	228.70	97.94	12 9 46	1626.7	-31.90	29.49
110.00	23 21 55	4909.75	33.68	210.37	229.67	83.81	24 43 44	4309.7	32.46	201.35

DIFFERENTIAL CORRECTIONS
TDE 5.6332 TRA11.1317 TC3 -.1273 BAU .3173
RDE .6407 RRA -.1185 RC3 .0010 FAU-.00787
FDE 1.1216 FRA 2.2617 FC3 .0365 BSP 17791
BDE 5.6695 BRA11.1324 BC3 .1273 FSP -310

MID-COURSE EXECUTION ACCURACY
SGT 5245.9 SGR 273.4 SG3 91.9
RRT .2804 RRF .2736 RTF .9872
SGB 5253.1 RZ3 -.0041 RI3 .9872
SG1 5246.5 SG2 262.4 THA .84

ORBIT DETERMINATION ACCURACY
ST 2747.5 SR 269.2 SS 888.3
CRT .8306 CRS -.8256 CST -.9999
LSA 2896.2 MSA 149.8 SSA 7.8
EL1 2756.6 EL2 149.4 ALF 4.67

LAUNCH DATE SEP 30 1970 FLIGHT TIME 70.00 ARRIVAL DATE DEC 9 1970

HELIOCENTRIC CONIC DISTANCE 193.759

RL	149.82	LAL	.00	LOL	6.42	VL	27.741	GAL	-11.49	AZL	88.99	HCA	87.23	SMA	132.44	ECC	.23710	INC	1.0082	V1	29.741
RP	107.63	LAP	1.01	LOP	93.65	VP	38.264	GAP	-8.51	AZP	89.95	TAL	225.66	TAP	312.90	RCA	101.04	APO	163.84	V2	35.210
RC	54.707	GL	4.85	GP	-19.10	ZAL	152.67	ZAP	31.10	ETS	31.48	ZAE	146.78	ETE	324.49	ZAC	82.78	ETC	261.34	CLP	-25.02

PLANETOCENTRIC CONIC

C3	32.066	VHL	5.663	DLA	-8.07	RAL	212.79	RAD	6568.3	VEL	12.387	PTH	2.24	VHP	6.442	DPA	-39.88	RAP	241.81	ECC	1.5277

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	2 0 44	2077.60	-16.03	32.99	80.27	113.66	2 35 22	1477.6	-12.69	25.90
90.00	11 57 1	5227.53	26.48	235.19	85.10	79.57	13 24 8	4627.5	24.77	226.94
100.00	3 18 11	1827.76	-17.22	14.06	79.70	114.82	3 48 39	1227.8	-13.73	7.00
100.00	13 22 15	4952.60	27.76	214.69	84.82	78.45	14 44 48	4352.6	25.89	206.39
110.00	4 17 32	1641.93	-20.40	358.29	78.04	118.04	4 44 54	1041.9	-16.49	351.35
110.00	14 39 24	4711.19	31.22	195.44	83.90	75.31	15 57 55	4111.2	28.88	187.01

DIFFERENTIAL CORRECTIONS

TDE	.0803	TRA	-.3281	TC3	.3588	BAU	.1982
RDE	-.2834	RRA	-.2186	RC3	-.2914	FAU	.05300
FDE	.5621	FRA	-.4490	FC3	-1.4309	BSP	1427
BDE	.2946	BRA	.3943	BC3	.4623	FSP	-401

MID-COURSE EXECUTION ACCURACY

SGT	533.1	SGR	491.0	SG3	153.6		
RRT	-.3152	RRF	.5434	RTF	-.4838		
SGB	724.8	RZ3	-.1270	RI3	.6226		
SG1	589.8	SG2	421.2	THA	142.32		

ORBIT DETERMINATION ACCURACY

ST	129.9	SR	294.7	SS	326.8		
CRT	-.4356	CRS	.8865	CST	-.7796		
LSA	436.1	MSA	139.7	SSA	28.0		
EL1	301.0	EL2	114.4	ALF	102.74		

LAUNCH DATE SEP 30 1970 FLIGHT TIME 72.00 ARRIVAL DATE DEC 11 1970

HELIOCENTRIC CONIC DISTANCE 200.553

RL	149.82	LAL	.00	LOL	6.42	VL	27.840	GAL	-11.39	AZL	88.81	HCA	90.47	SMA	133.17	ECC	.23249	INC	1.1886	V1	29.741
RP	107.60	LAP	1.19	LOP	96.89	VP	38.343	GAP	-7.68	AZP	90.01	TAL	226.79	TAP	317.26	RCA	102.21	APO	164.13	V2	35.218
RC	56.533	GL	5.80	GP	-20.41	ZAL	153.32	ZAP	34.66	ETS	28.99	ZAE	146.66	ETE	321.21	ZAC	81.45	ETC	261.22	CLP	-28.63

PLANETOCENTRIC CONIC

C3	31.376	VHL	5.601	DLA	-6.89	RAL	212.32	RAD	6568.2	VEL	12.359	PTH	2.23	VHP	6.063	DPA	-41.05	RAP	240.92	ECC	1.5164

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 49 42	2109.84	-16.90	34.96	79.60	113.07	2 24 51	1509.8	-13.63	27.80
90.00	12 4 18	5184.36	25.91	232.16	83.72	76.16	13 30 43	4584.4	24.02	224.00
100.00	3 7 45	1858.04	-18.08	15.90	79.06	114.22	3 38 43	1258.0	-14.66	8.78
100.00	13 28 56	4911.36	27.17	211.77	83.41	77.03	14 50 48	4311.4	25.11	203.58
110.00	4 8 28	1667.93	-21.22	359.86	77.44	117.45	4 36 16	1067.9	-17.38	352.84
110.00	14 44 48	4674.28	30.55	192.77	82.41	73.86	16 2 37	4074.3	28.03	184.47

DIFFERENTIAL CORRECTIONS

TDE	.0797	TRA	-.3280	TC3	.3549	BAU	.2039
RDE	-.2598	RRA	-.2313	RC3	-.3323	FAU	.05830
FDE	.6672	FRA	-.5142	FC3	-1.6086	BSP	1477
BDE	.2706	BRA	.4020	BC3	.4862	FSP	-459

MID-COURSE EXECUTION ACCURACY

SGT	528.1	SGR	515.8	SG3	172.7		
RRT	-.3228	RRF	.5974	RTF	-.4588		
SGB	738.2	RZ3	-.1415	RI3	.6449		
SG1	600.5	SG2	429.4	THA	137.10		

ORBIT DETERMINATION ACCURACY

ST	128.3	SR	275.5	SS	368.2		
CRT	-.3803	CRS	.8751	CST	-.7578		
LSA	454.5	MSA	143.4	SSA	28.0		
EL1	280.7	EL2	116.5	ALF	102.18		

LAUNCH DATE SEP 30 1970 FLIGHT TIME 74.00 ARRIVAL DATE DEC 13 1970

HELIOCENTRIC CONIC DISTANCE 207.319

RL	149.82	LAL	.00	LOL	6.42	VL	27.924	GAL	-11.31	AZL	88.63	HCA	93.70	SMA	133.80	ECC	.22852	INC	1.3692	V1	29.741
RP	107.58	LAP	1.37	LOP	100.13	VP	38.411	GAP	-6.88	AZP	90.09	TAL	227.78	TAP	321.48	RCA	103.23	APO	164.38	V2	35.225
RC	58.419	GL	6.77	GP	-21.82	ZAL	153.79	ZAP	38.43	ETS	26.70	ZAE	146.62	ETE	317.43	ZAC	79.99	ETC	261.05	CLP	-32.45

PLANETOCENTRIC CONIC

C3	30.801	VHL	5.550	DLA	-5.74	RAL	211.98	RAD	6568.2	VEL	12.336	PTH	2.22	VHP	5.721	DPA	-42.26	RAP	239.71	ECC	1.5069

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 39 30	2141.67	-17.74	36.92	79.14	112.44	2 15 12	1541.7	-14.54	29.70
90.00	12 11 46	5143.22	25.30	229.30	82.56	76.85	13 37 30	4543.2	23.24	221.23
100.00	2 58 8	1888.03	-18.90	17.74	78.61	113.60	3 29 36	1288.0	-15.55	10.55
100.00	13 35 50	4872.10	26.54	209.02	82.22	75.71	14 57 2	4272.1	24.31	200.03
110.00	4 0 9	1693.84	-22.02	1.44	77.05	116.83	4 28 23	1093.8	-18.25	354.34
110.00	14 50 18	4639.06	29.85	190.26	81.15	72.52	16 7 37	4039.1	27.17	182.09

DIFFERENTIAL CORRECTIONS

TDE	.0664	TRA	-.3413	TC3	.3321	BAU	.2059
RDE	-.2307	RRA	-.2422	RC3	-.3739	FAU	.06339
FDE	.7979	FRA	-.5082	FC3	-1.7816	BSP	1366
BDE	.2401	BRA	.4185	BC3	.5001	FSP	-498

MID-COURSE EXECUTION ACCURACY

SGT	515.7	SGR	540.5	SG3	192.0		
RRT	-.2883	RRF	.6436	RTF	-.4043		
SGB	747.1	RZ3	-.1495	RI3	.6664		
SG1	600.4	SG2	444.6	THA	130.37		

ORBIT DETERMINATION ACCURACY

ST	126.9	SR	250.2	SS	417.5		
CRT	-.2667	CRS	.8619	CST	-.6964		
LSA	480.1	MSA	147.3	SSA	27.3		
EL1	253.1	EL2	120.9	ALF	100.01		

LAUNCH DATE SEP 30 1970 FLIGHT TIME 76.00 ARRIVAL DATE DEC 15 1970

HELIOCENTRIC CONIC DISTANCE 214.055

RL	149.82	LAL	.00	LOL	6.42	VL	27.995	GAL	-11.22	AZL	88.45	HCA	96.94	SMA	134.34	ECC	.22510	INC	1.5512	V1	29.741
RP	107.56	LAP	1.54	LOP	103.36	VP	38.468	GAP	-6.13	AZP	90.19	TAL	228.62	TAP	325.57	RCA	104.10	APO	164.58	V2	35.232
RC	60.358	GL	7.76	GP	-23.33	ZAL	154.11	ZAP	42.43	ETS	24.53	ZAE	146.61	ETE	313.11	ZAC	78.42	ETC	260.82	CLP	-36.50

PLANETOCENTRIC CONIC

C3	30.324	VHL	5.507	DLA	-4.61	RAL	211.76	RAD	6568.2	VEL	12.317	PTH	2.22	VHP	5.413	DPA	-43.50	RAP	238.15	ECC	1.4991

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 30 5	2173.22	-18.54	38.88	78.87	111.79	2 6 18	1573.2	-15.42	31.59
90.00	12 19 27	5103.83	24.66	226.59	81.61	75.63	13 44 31	4503.8	22.45	218.62
100.00	2 49 16	1917.81	-19.71	19.59	78.36	112.94	3 21 13	1317.8	-16.43	12.33
100.00	13 42 58	4834.48	25.88	206.42	81.25	74.49	15 3 32	4234.5	23.50	198.43
110.00	3 52 32	1719.70	-22.81	3.03	76.84	116.18	4 21 12	1119.7	-19.11	355.86
110.00	14 56 10	4605.35	29.14	187.89	80.12	71.29	16 12 56	4005.3	26.31	179.86

DIFFERENTIAL CORRECTIONS

TDE	.0718	TRA	-.3478	TC3	.3129	BAU	.2134
RDE	-.2012	RRA	-.2565	RC3	-.4232	FAU	.06949
FDE	.9248	FRA	-.6409	FC3	-1.9639	BSP	1490
BDE	.2135	BRA	.4320	BC3	.5263	FSP	-575

MID-COURSE EXECUTION ACCURACY

SGT	505.9	SGR	578.9	SG3	214.2		
RRT	-.2709	RRF	.6964	RTF	-.3497		
SGB	767.3	RZ3	-.1391	RI3	.7026		
SG1	618.3	SG2	454.4	THA	122.05		

ORBIT DETERMINATION ACCURACY

ST	132.3	SR	224.6	SS	460.8		
CRT	-.2349	CRS	.8332	CST	-.7120		
LSA	507.2	MSA	149.4	SSA	27.0		
EL1	227.8	EL2	126.8	ALF	101.47		

LAUNCH DATE SEP 30 1970 FLIGHT TIME 78.00 ARRIVAL DATE DEC 17 1970

HELIOCENTRIC CONIC DISTANCE 220.759

```
RL  149.82 LAL    .00 LOL   6.42 VL  28.053 GAL -11.14 AZL  88.26 HCA 100.18 SMA 134.78 ECC .22215 INC 1.7358 V1  29.741
RP  107.54 LAP   1.71 LOP 106.61 VP  38.516 GAP  -5.41 AZP  90.31 TAL 229.32 TAP 329.50 RCA 104.84 APO 164.72 V2  35.238
RC  62.346 GL    8.77 GP  -24.94 ZAL 154.25 ZAP  46.64 ETS  22.38 ZAE 146.58 ETE 308.22 ZAC  76.73 ETC 260.54 CLP -40.79
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PLANETOCENTRIC CONIC

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C3  29.922 VHL  5.470 DLA  -3.50 RAL 211.66 RAD 6568.2 VEL 12.300 PTH   2.22 VHP  5.142 DPA -44.75 RAP 236.23 ECC 1.4924
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	-1-21 23	2204.51	-19.32	40.84	78.78	111.11	1 58 7	1604.5	-16.28	33.49
90.00	12 27 23	5065.86	24.00	224.01	80.86	74.50	13 51 49	4465.9	21.64	216.13
100.00	2 41 5	1947.39	-20.48	21.45	78.29	112.26	3 13 32	1347.4	-17.28	14.11
100.00	13 50 22	4798.21	25.19	203.94	80.48	73.36	15 10 20	4198.2	22.67	196.05
110.00	3 45 34	1745.50	-23.58	4.65	76.82	115.50	4 14 40	1145.5	-19.95	357.38
110.00	15 2 22	4572.86	28.41	185.65	79.29	70.14	16 18 35	3972.9	25.44	177.73

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .0807 TRA -.3599 TC3  .2818 BAU  .2213   SGT  494.8 SGR  618.7 SG3  237.2     ST   141.7 SR   195.9 SS   505.7
RDE -.1678 RRA -.2707 RC3 -.4760 FAU .07569   RRT -.2225 RRF  .7440 RTF -.2673     CRT -.1927 CRS  .7872 CST -.7369
FDE 1.0834 FRA -.7096 FC3-2.1900 BSP  1609    SGB  792.2 R23 -.1125 R13  .7428     LSA  539.3 MSA  150.6 SSA   26.6
BDE  .1862 BRA  .4503 BC3  .5531 FSP  -654    SG1  640.9 SG2  465.7 THA 112.31     EL1  199.6 EL2  136.5 ALF 105.15
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LAUNCH DATE SEP 30 1970 FLIGHT TIME 80.00 ARRIVAL DATE DEC 19 1970

HELIOCENTRIC CONIC DISTANCE 227.430

```
RL  149.82 LAL    .00 LOL   6.42 VL  28.099 GAL -11.07 AZL  88.08 HCA 103.42 SMA 135.13 ECC .21959 INC 1.9243 V1  29.741
RP  107.53 LAP   1.87 LOP 109.85 VP  38.554 GAP  -4.72 AZP  90.45 TAL 229.87 TAP 333.29 RCA 105.46 APO 164.81 V2  35.243
RC  64.375 GL    9.80 GP  -26.62 ZAL 154.23 ZAP  51.05 ETS  20.21 ZAE 146.44 ETE 302.78 ZAC  74.93 ETC 260.20 CLP -45.31
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PLANETOCENTRIC CONIC

```
C3  29.582 VHL  5.439 DLA  -2.41 RAL 211.69 RAD 6568.2 VEL 12.286 PTH   2.21 VHP  4.906 DPA -45.99 RAP 233.92 ECC 1.4868
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 13 19	2235.68	-20.07	42.82	78.87	110.40	1 50 34	1635.7	-17.12	35.40
90.00	12 35 38	5028.96	23.30	221.52	80.29	73.44	13 59 27	4429.0	20.81	213.74
100.00	2 33 32	1976.90	-21.23	23.32	78.40	111.55	3 6 29	1376.9	-18.11	15.91
100.00	13 58 6	4762.97	24.49	201.56	79.89	72.30	15 17 29	4163.0	21.83	193.77
110.00	3 39 12	1771.33	-24.32	6.28	76.96	114.79	4 8 44	1171.3	-20.77	358.93
110.00	15 8 55	4541.31	27.66	183.50	78.65	69.07	16 24 37	3941.3	24.56	175.70

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .0984 TRA -.3780 TC3  .2380 BAU  .2305   SGT  485.8 SGR  666.2 SG3  260.3     ST   156.4 SR   165.2 SS   551.3
RDE -.1305 RRA -.2846 RC3 -.5320 FAU .08184   RRT -.1361 RRF  .7857 RTF -.1513     CRT -.1234 CRS  .7068 CST -.7708
FDE 1.2104 FRA -.7734 FC3-2.3950 BSP  1739    SGB  824.5 R23 -.0677 R13  .7840     LSA  576.3 MSA  151.1 SSA   26.1
BDE  .1617 BRA  .4731 BC3  .5828 FSP  -733    SG1  672.8 SG2  476.5 THA 101.49     EL1  171.4 EL2  149.6 ALF 122.99
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LAUNCH DATE SEP 30 1970 FLIGHT TIME 82.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 234.068

```
RL  149.82 LAL    .00 LOL   6.42 VL  28.134 GAL -10.99 AZL  87.88 HCA 106.66 SMA 135.41 ECC .21735 INC 2.1180 V1  29.741
RP  107.51 LAP   2.03 LOP 113.09 VP  38.584 GAP  -4.06 AZP  90.61 TAL 230.28 TAP 336.94 RCA 105.98 APO 164.84 V2  35.247
RC  66.441 GL   10.87 GP  -28.37 ZAL 154.05 ZAP  55.62 ETS  17.96 ZAE 146.12 ETE 296.83 ZAC  73.05 ETC 259.79 CLP -50.08
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PLANETOCENTRIC CONIC

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C3  29.293 VHL  5.412 DLA  -1.32 RAL 211.83 RAD 6568.2 VEL 12.275 PTH   2.21 VHP  4.705 DPA -47.19 RAP 231.22 ECC 1.4821
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 5 48	2266.93	-20.80	44.82	79.12	109.66	1 43 35	1666.9	-17.94	37.32
90.00	12 44 16	4992.80	22.58	219.12	79.90	72.45	14 7 29	4392.8	19.97	211.42
100.00	2 26 32	2006.52	-21.96	25.22	78.66	110.81	2 59 58	1406.5	-18.93	17.73
100.00	14 6 13	4728.44	23.75	199.26	79.48	71.30	15 25 2	4128.4	20.98	191.56
110.00	3 33 22	1797.31	-25.05	7.94	77.27	114.05	4 3 19	1197.3	-21.59	.51
110.00	15 15 52	4510.42	26.89	181.42	78.19	68.06	16 31 3	3910.4	23.68	173.74

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .1168 TRA -.4023 TC3  .1809 BAU  .2417   SGT  484.9 SGR  718.3 SG3  282.8     ST   177.9 SR   135.0 SS   597.0
RDE -.0894 RRA -.2972 RC3 -.5900 FAU .08765   RRT -.0077 RRF  .8211 RTF  .0017     CRT  .0107 CRS  .5548 CST -.8093
FDE 1.3625 FRA -.8278 FC3-2.5904 BSP  1891    SGB  866.6 R23 -.0133 R13  .8211     LSA  618.8 MSA  150.8 SSA   25.5
BDE  .1471 BRA  .5002 BC3  .6171 FSP  -811    SG1  718.3 SG2  484.8 THA  90.55     EL1  177.9 EL2  135.0 ALF   1.09
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LAUNCH DATE SEP 30 1970 FLIGHT TIME 84.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 240.672

```
RL  149.82 LAL    .00 LOL   6.42 VL  28.160 GAL -10.91 AZL  87.68 HCA 109.90 SMA 135.61 ECC .21538 INC 2.3184 V1  29.741
RP  107.50 LAP   2.18 LOP 116.34 VP  38.606 GAP  -3.43 AZP  90.79 TAL 230.55 TAP 340.45 RCA 106.40 APO 164.82 V2  35.251
RC  68.539 GL   11.98 GP  -30.15 ZAL 153.72 ZAP  60.32 ETS  15.58 ZAE 145.57 ETE 290.49 ZAC  71.10 ETC 259.33 CLP -55.07
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PLANETOCENTRIC CONIC

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C3  29.048 VHL  5.390 DLA   -.23 RAL 212.08 RAD 6568.2 VEL 12.265 PTH   2.21 VHP  4.540 DPA -48.32 RAP 228.16 ECC 1.4781
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 58 45	2298.50	-21.51	46.87	79.53	108.87	1 37 4	1698.5	-18.74	39.29
90.00	12 53 19	4957.02	21.83	216.77	79.67	71.50	14 15 57	4357.0	19.10	209.16
100.00	2 19 59	2036.47	-22.67	27.16	79.09	110.02	2 53 56	1436.5	-19.74	19.59
100.00	14 14 47	4694.29	22.99	197.01	79.23	70.35	15 33 1	4094.3	20.10	189.41
110.00	3 27 59	1823.63	-25.77	9.65	77.74	113.27	3 58 23	1223.6	-22.40	2.12
110.00	15 23 16	4479.89	26.10	179.41	77.90	67.10	16 37 56	3879.9	22.77	171.83

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .1462 TRA -.4322 TC3  .1104 BAU  .2557   SGT  499.4 SGR  773.9 SG3  303.6     ST   207.8 SR   111.1 SS   641.9
RDE -.0447 RRA -.3079 RC3 -.6490 FAU .09288   RRT  .1547 RRF  .8507 RTF  .1823     CRT  .2630 CRS  .2610 CST -.8476
FDE 1.5147 FRA -.8695 FC3-2.7681 BSP  2082    SGB  921.0 R23  .0372 R13  .8514     LSA  666.8 MSA  149.7 SSA   24.8
BDE  .1529 BRA  .5307 BC3  .6583 FSP  -885    SG1  780.3 SG2  489.4 THA  80.56     EL1  210.5 EL2  105.8 ALF  10.75
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LAUNCH DATE SEP 30 1970 FLIGHT TIME 86.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 247.242

RL	149.82	LAL	.00	LOL	6.42	VL	28.177	GAL	-10.82	AZL	87.47	HCA	113.14	SMA	135.74	ECC	.21363	INC	2.5272	V1	29.741
RP	107.49	LAP	2.32	LOP	119.58	VP	38.621	GAP	-2.83	AZP	90.99	TAL	230.69	TAP	343.83	RCA	106.74	APO	164.74	V2	35.254
RC	70.666	GL	13.13	GP	-31.95	ZAL	153.24	ZAP	65.11	ETS	13.04	ZAE	144.73	ETE	283.90	ZAC	69.10	ETC	258.82	CLP	-60.26

PLANETOCENTRIC CONIC

C3	28.843	VHL	5.371	DLA	.86	RAL	212.44	RAD	6568.2	VEL	12.256	PTH	2.20	VHP	4.411	DPA	-49.35	RAP	224.78	ECC	1.4747

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 52 5	2330.71	-22.21	48.97	80.10	108.04	1 30 56	1730.7	-19.53	41.32
90.00	13 2 54	4921.26	21.04	214.44	79.59	70.60	14 24 55	4321.3	18.20	206.92
100.00	2 13 50	2067.03	-23.37	29.16	79.67	109.19	2 48 17	1467.0	-20.53	21.51
100.00	14 23 51	4660.17	22.19	194.79	79.14	69.44	15 41 31	4060.2	19.19	187.28
110.00	3 23 0	1850.54	-26.49	11.42	78.37	112.44	3 53 50	1250.5	-23.21	3.79
110.00	15 31 10	4449.43	25.28	177.42	77.77	66.18	16 45 20	3849.4	21.84	169.95

DIFFERENTIAL CORRECTIONS

TDE	.1848	TRA	-.4674	TC3	.0269	BAU	.2729
RDE	.0027	RRA	-.3160	RC3	-.7072	FAU	.09722
FDE	1.6607	FRA	-.8955	FC3	-2.9182	BSP	2318
BDE	.1848	BRA	.5642	BC3	.7077	FSP	-950

MID-COURSE EXECUTION ACCURACY

SGT	537.0	SGR	831.0	SG3	321.9		
RRT	.3289	RRF	.8748	RTF	.3676		
SGB	989.5	R23	.0769	R13	.8755		
SG1	859.4	SG2	490.4	THA	71.94		

ORBIT DETERMINATION ACCURACY

ST	247.5	SR	103.7	SS	684.9
CRT	.6109	CRS	-.1945	CST	-.8815
LSA	720.2	MSA	148.0	SSA	24.1
EL1	256.4	EL2	79.3	ALF	15.92

LAUNCH DATE SEP 30 1970 FLIGHT TIME 88.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 253.777

RL	149.82	LAL	.00	LOL	6.42	VL	28.185	GAL	-10.73	AZL	87.25	HCA	116.38	SMA	135.81	ECC	.21206	INC	2.7464	V1	29.741
RP	107.48	LAP	2.46	LOP	122.83	VP	38.630	GAP	-2.25	AZP	91.22	TAL	230.71	TAP	347.09	RCA	107.01	APO	164.61	V2	35.256
RC	72.818	GL	14.35	GP	-33.74	ZAL	152.61	ZAP	69.93	ETS	10.32	ZAE	143.57	ETE	277.26	ZAC	67.09	ETC	258.26	CLP	-65.62

PLANETOCENTRIC CONIC

C3	28.675	VHL	5.355	DLA	1.98	RAL	212.92	RAD	6568.2	VEL	12.249	PTH	2.20	VHP	4.316	DPA	-50.28	RAP	221.15	ECC	1.4719

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 45 42	2363.90	-22.89	51.17	80.83	107.14	1 25 5	1763.9	-20.33	43.43
90.00	13 13 5	4885.16	20.20	212.12	79.68	69.73	14 34 30	4285.2	17.26	204.68
100.00	2 7 57	2090.55	-24.06	31.25	80.42	108.30	2 42 56	1498.6	-21.33	23.51
100.00	14 33 31	4625.74	21.35	192.58	79.21	68.57	15 50 36	4025.7	18.25	185.16
110.00	3 18 19	1878.33	-27.19	13.27	79.16	111.56	3 49 37	1278.3	-24.02	5.54
110.00	15 30 36	4410.73	24.42	175.45	77.79	65.30	16 53 17	3818.7	20.88	168.09

DIFFERENTIAL CORRECTIONS

TDE	.2336	TRA	-.5071	TC3	-.0688	BAU	.2935
RDE	.0522	RRA	-.3202	RC3	-.7626	FAU	.10043
FDE	1.7950	FRA	-.9026	FC3	-3.0321	BSP	2602
BDE	.2394	BRA	.5997	BC3	.7657	FSP	-1004

MID-COURSE EXECUTION ACCURACY

SGT	602.2	SGR	887.5	SG3	336.5		
RRT	.4870	RRF	.8942	RTF	.5304		
SGB	1072.5	R23	.1056	R13	.8946		
SG1	954.6	SG2	489.0	THA	64.62		

ORBIT DETERMINATION ACCURACY

ST	298.3	SR	119.6	SS	725.3
CRT	.8625	CRS	-.5998	CST	-.9091
LSA	779.4	MSA	145.9	SSA	23.3
EL1	316.3	EL2	57.1	ALF	19.74

LAUNCH DATE SEP 30 1970 FLIGHT TIME 90.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 260.277

RL	149.82	LAL	.00	LOL	6.42	VL	28.187	GAL	-10.64	AZL	87.02	HCA	119.62	SMA	135.82	ECC	.21064	INC	2.9783	V1	29.741
RP	107.48	LAP	2.59	LOP	126.08	VP	38.632	GAP	-1.70	AZP	91.47	TAL	230.60	TAP	350.23	RCA	107.21	APO	164.43	V2	35.258
RC	74.992	GL	15.63	GP	-35.50	ZAL	151.82	ZAP	74.71	ETS	7.43	ZAE	142.08	ETE	270.75	ZAC	65.09	ETC	257.67	CLP	-71.09

PLANETOCENTRIC CONIC

C3	28.547	VHL	5.343	DLA	3.13	RAL	213.50	RAD	6568.1	VEL	12.244	PTH	2.20	VHP	4.256	DPA	-51.08	RAP	217.35	ECC	1.4698

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 39 28	2398.52	-23.57	53.48	81.72	106.17	1 19 27	1798.5	-21.12	45.66
90.00	13 23 59	4848.30	19.32	209.78	79.91	68.88	14 44 47	4248.3	16.28	202.43
100.00	2 2 16	2131.44	-24.74	33.45	81.34	107.33	2 37 48	1531.4	-22.14	25.62
100.00	14 43 52	4590.62	20.46	190.35	79.43	67.72	16 0 23	3990.6	17.26	183.02
110.00	3 13 52	1907.34	-27.90	15.23	80.12	110.60	3 45 39	1307.3	-24.85	7.39
110.00	15 48 45	4387.48	23.52	173.47	77.97	64.45	17 1 53	3787.5	19.88	166.22

DIFFERENTIAL CORRECTIONS

TDE	.2933	TRA	-.5502	TC3	-.1750	BAU	.3174
RDE	.1026	RRA	-.3201	RC3	-.8132	FAU	.10229
FDE	1.9110	FRA	-.8901	FC3	-3.1022	BSP	2935
BDE	.3108	BRA	.6366	BC3	.8318	FSP	-1046

MID-COURSE EXECUTION ACCURACY

SGT	695.1	SGR	940.9	SG3	346.7		
RRT	.6119	RRF	.9096	RTF	.6559		
SGB	1169.8	R23	.1259	R13	.9096		
SG1	1064.0	SG2	486.1	THA	58.34		

ORBIT DETERMINATION ACCURACY

ST	361.1	SR	153.0	SS	761.8
CRT	.9597	CRS	-.8126	CST	-.9304
LSA	844.5	MSA	143.4	SSA	22.5
EL1	390.2	EL2	39.8	ALF	22.38

LAUNCH DATE SEP 30 1970 FLIGHT TIME 92.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 266.744

RL	149.82	LAL	.00	LOL	6.42	VL	28.181	GAL	-10.54	AZL	86.77	HCA	122.86	SMA	135.77	ECC	.20935	INC	3.2257	V1	29.741
RP	107.48	LAP	2.71	LOP	129.33	VP	38.628	GAP	-1.17	AZP	91.75	TAL	230.39	TAP	353.25	RCA	107.35	APO	164.20	V2	35.259
RC	77.186	GL	16.99	GP	-37.22	ZAL	150.89	ZAP	79.38	ETS	4.35	ZAE	140.30	ETE	264.52	ZAC	63.11	ETC	257.06	CLP	-76.62

PLANETOCENTRIC CONIC

C3	28.464	VHL	5.335	DLA	4.33	RAL	214.20	RAD	6568.1	VEL	12.241	PTH	2.20	VHP	4.230	DPA	-51.77	RAP	213.47	ECC	1.4684

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 33 18	2435.09	-24.24	55.95	82.80	105.11	1 13 53	1835.1	-21.93	48.04
90.00	13 35 43	4810.28	18.37	207.40	80.31	68.06	14 55 53	4210.3	15.23	200.13
100.00	1 56 40	2186.17	-25.43	35.81	82.43	106.27	2 32 46	1566.2	-22.95	27.88
100.00	14 55 2	4554.43	19.51	188.08	79.81	66.89	16 10 56	3954.4	16.21	180.84
110.00	3 9 34	1938.01	-28.82	17.33	81.27	109.54	3 41 52	1338.0	-25.69	9.37
110.00	15 58 37	4355.35	22.56	171.47	78.31	63.61	17 11 13	3755.3	18.83	164.32

DIFFERENTIAL CORRECTIONS

TDE	.3645	TRA	-.5954	TC3	-.2893	BAU	.3442
RDE	.1530	RRA	-.3148	RC3	-.8569	FAU	.10270
FDE	2.0050	FRA	-.8572	FC3	-3.1237	BSP	3308
BDE	.3953	BRA	.6735	BC3	.9044	FSP	-1071

MID-COURSE EXECUTION ACCURACY

SGT	812.2	SGR	988.9	SG3	352.0		
RRT	.7021	RRF	.9219	RTF	.7445		
SGB	1279.7	R23	.1410	R13	.9212		
SG1	1185.2	SG2	482.6	THA	52.88		

ORBIT DETERMINATION ACCURACY

ST	436.3	SR	195.1	SS	794.3
CRT	.9881	CRS	-.9069	CST	-.9462
LSA	915.9	MSA	140.7	SSA	21.6
EL1	477.1	EL2	27.4	ALF	23.93

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LAUNCH DATE  SEP 30 1970                          FLIGHT TIME  94.00                          ARRIVAL DATE  JAN  2 1971

  HELIOCENTRIC CONIC                                  DISTANCE 273.178
   RL  149.82 LAL     .00 LOL    6.42 VL  28.169 GAL -10.44 AZL  86.51 HCA 126.10 SMA 135.68 ECC .20817 INC 3.4918 V1  29.741
   RP  107.48 LAP    2.82 LOP 132.58 VP  38.620 GAP   -.66 AZP  92.06 TAL 230.06 TAP 356.17 RCA 107.44 APO 163.93 V2  35.259
   RC  79.396 GL    18.45 GP  -38.89 ZAL 149.80 ZAP  83.89 ETS   1.11 ZAE 138.25 ETE 258.70 ZAC  61.18 ETC 256.44 CLP -82.14
  PLANETOCENTRIC CONIC
   C3  28.433 VHL  5.332 DLA    5.58 RAL 215.01 RAD 6568.1 VEL 12.240 PTH   2.20 VHP  4.237 DPA -52.36 RAP 209.61 ECC 1.4679
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      90.00     0 27  3   2474.21     -24.90     58.62      84.07      103.93    1  8 17    1874.2     -22.74      50.62
      90.00    13 48 27   4770.61      17.34    204.94      80.88       67.26   15  7 58    4170.6      14.11     197.75
     100.00     1 51  1   2203.34     -26.11     38.36      83.72      105.10    2 27 45    1603.3     -23.78      30.33
     100.00    15  7  9   4516.72      18.48    185.75      80.36       66.08   16 22 26    3916.7      15.10     178.60
     110.00     3  5 19   1970.84     -29.35     19.60      82.62      108.37    3 38 10    1370.8     -26.56      11.53
     110.00    16  9 21   4321.98      21.53    169.42      78.81       62.79   17 21 23    3722.0      17.71     162.37
  DIFFERENTIAL CORRECTIONS                        MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
   TDE  .4472 TRA -.6416 TC3 -.4097 BAU  .3719     SGT  949.5 SGR 1025.7 SG3  351.4      ST   523.6 SR   242.5 SS   825.6
   RDE  .2048 RRA -.3014 RC3 -.8884 FAU .10115     RRT  .7652 RRF  .9313 RTF  .8044      CRT  .9957 CRS -.9521 CST -.9571
   FDE 2.0832 FRA -.7961 FC3-3.0800 BSP   3673     SG8 1397.7 RZ3  .1551 R13  .9293      LSA  997.5 MSA  130.7 SSA   20.4
   BDE  .4918 BRA  .7089 BC3  .9783 FSP  -1062     SG1 1313.7 SG2  477.3 THA  47.88      EL1  576.7 EL2   20.4 ALF  24.78

LAUNCH DATE  SEP 30 1970                          FLIGHT TIME  96.00                          ARRIVAL DATE  JAN  4 1971

  HELIOCENTRIC CONIC                                  DISTANCE 279.578
   RL  149.82 LAL     .00 LOL    6.42 VL  28.152 GAL -10.33 AZL  86.22 HCA 129.34 SMA 135.55 ECC .20708 INC 3.7809 V1  29.741
   RP  107.48 LAP    2.92 LOP 135.83 VP  38.806 GAP   -.17 AZP  92.40 TAL 229.65 TAP 358.99 RCA 107.48 APO 163.61 V2  35.258
   RC  81.621 GL    20.02 GP  -40.51 ZAL 148.55 ZAP  88.17 ETS 357.72 ZAE 136.00 ETE 253.36 ZAC  59.28 ETC 255.82 CLP -87.60
  PLANETOCENTRIC CONIC
   C3  28.470 VHL  5.336 DLA    6.91 RAL 215.94 RAD 6568.1 VEL 12.241 PTH   2.20 VHP  4.276 DPA -52.91 RAP 205.84 ECC 1.4685
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      90.00     0 20 33   2516.68     -25.57     61.56      85.55      102.60    1  2 30    1916.7     -23.58      53.45
      90.00    14  2 21   4728.79      16.22    202.38      81.63       66.47   15 21 10    4128.8      12.90     195.28
     100.00     1 45 12   2243.67     -26.79     41.16      85.23      103.77    2 22 36    1643.7     -24.63      33.02
     100.00    15 20 24   4477.03      17.37    183.33      81.09       65.28   16 35  1    3877.0      13.89     176.26
     110.00     3  1  0   2006.47     -30.09     22.12      84.20      107.05    3 34 26    1406.5     -27.46      13.91
     110.00    16 21  8   4287.00      20.43    167.31      79.49       61.98   17 32 32    3687.0      16.52     160.36
  DIFFERENTIAL CORRECTIONS                        MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
   TDE  .5424 TRA -.6860 TC3 -.5309 BAU  .4030     SGT 1100.4 SGR 1080.5 SG3  347.0      ST   623.8 SR   286.3 SS   845.8
   RDE  .2507 RRA -.2868 RC3 -.9162 FAU .09900     RRT  .8063 RRF  .9393 RTF  .8454      CRT  .9966 CRS -.9724 CST -.9662
   FDE 2.1182 FRA -.7361 FC3-3.0104 BSP   4146     SG8 1528.2 RZ3  .1636 R13  .9368      LSA 1080.6 MSA  135.5 SSA   19.5
   BDE  .5975 BRA  .7435 BC3 1.0589 FSP  -1074     SG1 1452.4 SG2  475.2 THA  43.69      EL1  686.0 EL2   21.3 ALF  24.61

LAUNCH DATE  SEP 30 1970                          FLIGHT TIME  98.00                          ARRIVAL DATE  JAN  6 1971

  HELIOCENTRIC CONIC                                  DISTANCE 285.946
   RL  149.82 LAL     .00 LOL    6.42 VL  28.129 GAL -10.21 AZL  85.90 HCA 132.58 SMA 135.37 ECC .20606 INC 4.0980 V1  29.741
   RP  107.48 LAP    3.02 LOP 139.08 VP  38.589 GAP    .29 AZP  92.78 TAL 229.14 TAP   1.72 RCA 107.48 APO 163.27 V2  35.256
   RC  83.861 GL    21.71 GP  -42.12 ZAL 147.13 ZAP  92.17 ETS 354.19 ZAE 133.59 ETE 248.52 ZAC  57.41 ETC 255.21 CLP -92.93
  PLANETOCENTRIC CONIC
   C3  28.592 VHL  5.347 DLA    8.34 RAL 217.00 RAD 6568.1 VEL 12.246 PTH   2.20 VHP  4.349 DPA -53.44 RAP 202.21 ECC 1.4705
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      90.00     0 13 39   2563.40     -26.22     64.82      87.28      101.09    0 56 22    1963.4     -24.43      56.61
      90.00    14 17 40   4684.20      14.99    199.68      82.59       65.69   15 35 45    4084.2      11.58     192.66
     100.00     1 39  2   2288.02     -27.48     44.28      86.99      102.26    2 17 10    1688.0     -25.51      36.03
     100.00    15 34 58   4434.82      16.15    180.79      82.03       64.50   16 48 53    3834.8      12.59     173.81
     110.00     2 56 29   2045.61     -30.83     24.92      86.04      105.55    3 30 35    1445.6     -28.39      16.57
     110.00    16 34  0   4249.98      19.23    165.11      80.37       61.18   17 44 50    3650.0      15.24     158.26
  DIFFERENTIAL CORRECTIONS                        MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
   TDE  .6500 TRA -.7282 TC3 -.6510 BAU  .4339     SGT 1261.6 SGR 1082.6 SG3  337.3      ST   735.9 SR   331.0 SS   864.7
   RDE  .2970 RRA -.2642 RC3 -.9298 FAU .09514     RRT  .8343 RRF  .9454 RTF  .8729      CRT  .9960 CRS -.9843 CST -.9725
   FDE 2.1369 FRA -.6546 FC3-2.8809 BSP   4600     SG8 1662.4 RZ3  .1753 R13  .9418      LSA 1175.0 MSA  133.2 SSA   18.3
   BDE  .7147 BRA  .7746 BC3 1.1351 FSP  -1055     SG1 1593.9 SG2  472.3 THA  39.78      EL1  806.5 EL2   26.8 ALF  24.16

LAUNCH DATE  SEP 30 1970                          FLIGHT TIME 100.00                          ARRIVAL DATE  JAN  8 1971

  HELIOCENTRIC CONIC                                  DISTANCE 292.284
   RL  149.82 LAL     .00 LOL    6.42 VL  28.102 GAL -10.09 AZL  85.55 HCA 135.82 SMA 135.16 ECC .20511 INC 4.4500 V1  29.741
   RP  107.49 LAP    3.10 LOP 142.33 VP  38.567 GAP    .74 AZP  93.19 TAL 228.54 TAP   4.36 RCA 107.44 APO 162.88 V2  35.254
   RC  86.111 GL    23.57 GP  -43.73 ZAL 145.52 ZAP  95.84 ETS 350.53 ZAE 131.05 ETE 244.20 ZAC  55.56 ETC 254.60 CLP -98.09
  PLANETOCENTRIC CONIC
   C3  28.626 VHL  5.360 DLA    9.89 RAL 218.19 RAD 6568.2 VEL 12.256 PTH   2.20 VHP  4.454 DPA -54.01 RAP 198.73 ECC 1.4744
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      90.00     0  6  6   2615.57     -26.85     68.51      89.29       99.35    0 49 42    2015.6     -25.29      60.19
      90.00    14 34 43   4836.11      13.62    196.82      83.79       64.93   15 51 59    4036.1      10.13     189.88
     100.00     1 32 19   2337.48     -28.14     47.80      89.04      100.52    2 11 17    1737.5     -26.40      39.43
     100.00    15 51 10   4380.42      14.80    178.09      83.20       63.73   17  4 20    3789.4      11.15     171.20
     110.00     2 51 39   2089.23     -31.59     28.10      88.18      103.81    3 26 28    1489.2     -29.37      19.59
     110.00    16 48 20   4210.45      17.92    162.79      81.48       60.39   17 58 30    3610.4      13.84     156.05
  DIFFERENTIAL CORRECTIONS                        MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
   TDE  .7721 TRA -.7888 TC3 -.7649 BAU  .4635     SGT 1428.9 SGR 1091.9 SG3  322.9      ST   861.1 SR   376.1 SS   882.6
   RDE  .3441 RRA -.2335 RC3 -.9283 FAU .08981     RRT  .8530 RRF  .9502 RTF  .8914      CRT  .9947 CRS -.9914 CST -.9771
   FDE 2.1408 FRA -.5556 FC3-2.6972 BSP   5018     SG8 1798.3 RZ3  .1842 R13  .9449      LSA 1282.3 MSA  132.1 SSA   16.8
   BDE  .8453 BRA  .8005 BC3 1.2028 FSP  -1005     SG1 1736.1 SG2  469.0 THA  36.15      EL1  939.0 EL2   35.5 ALF  23.52
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LAUNCH DATE SEP 30 1970 FLIGHT TIME 102.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 298.590

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RL  149.82 LAL    .00 LOL   6.42 VL  28.071 GAL  -9.95 AZL  85.15 HCA 139.06 SMA 134.92 ECC .20422 INC 4.8453 V1  29.741
RP  107.50 LAP   3.17 LOP 145.58 VP  38.542 GAP   1.17 AZP  93.66 TAL 227.86 TAP   6.92 RCA 107.37 APO 162.47 V2  35.251
RC  88.372 GL   25.60 GP  -45.40 ZAL 143.71 ZAP  99.13 ETS 346.74 ZAE 128.41 ETE 240.36 ZAC  53.67 ETC 253.98 CLP-103.05
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PLANETOCENTRIC CONIC

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C3  29.212 VHL  5.405 DLA  11.57 RAL 219.52 RAD 6568.2 VEL 12.271 PTH   2.21 VHP  4.595 DPA -54.68 RAP 195.37 ECC 1.4808
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 53 40	2674.69	-27.43	72.74	91.64	97.30	24 38 15	2074.7	-26.14	64.31
90.00	14 53 51	4583.65	12.08	193.73	85.28	84.20	16 10 15	3983.6	8.52	186.87
100.00	1 24 48	2393.47	-28.77	51.84	91.43	98.48	2 4 42	1793.5	-27.30	43.35
100.00	16 9 20	4340.11	13.30	175.21	84.67	82.98	17 21 40	3740.1	9.57	168.40
110.00	2 46 17	2138.47	-32.33	31.74	90.69	101.77	3 21 56	1538.5	-30.37	23.08
110.00	17 4 20	4167.86	16.47	160.34	82.87	59.61	18 13 48	3567.9	12.31	153.70

DIFFERENTIAL CORRECTIONS

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TDE  .9083 TRA -.7980 TC3 -.8705 BAU  .4947
RDE  .3856 RRA -.2008 RC3 -.9202 FAU .08417
FDE 2.1120 FRA -.4640 FC3-2.4945 BSP   5532
BDE  .9068 BRA  .8237 BC3 1.2867 FSP   -975
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MID-COURSE EXECUTION ACCURACY

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SGT 1599.9 SGR 1097.1 SGS  305.9
RRT  .8844 RRF  .9542 RTF  .9051
SGB 1940.0 RZS  .1930 RIS  .9480
SGI 1882.5 SGZ  468.8 THA  32.96
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ORBIT DETERMINATION ACCURACY

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ST   997.6 SR   415.0 SS   891.5
CRT  .9936 CRS -.9952 CST -.9809
LSA 1394.7 NSA  130.3 SSA   15.6
EL1 1079.6 EL2   43.5 ALF  22.50
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LAUNCH DATE SEP 30 1970 FLIGHT TIME 104.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 304.866

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RL  149.82 LAL    .00 LOL   6.42 VL  28.036 GAL  -9.81 AZL  84.70 HCA 142.29 SMA 134.65 ECC .20338 INC 5.2957 V1  29.741
RP  107.51 LAP   3.24 LOP 148.83 VP  38.513 GAP   1.58 AZP  94.19 TAL 227.11 TAP   9.40 RCA 107.27 APO 162.04 V2  35.247
RC  90.641 GL   27.84 GP  -47.17 ZAL 141.67 ZAP 102.00 ETS 342.82 ZAE 125.68 ETE 236.96 ZAC  51.72 ETC 253.33 CLP-107.81
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PLANETOCENTRIC CONIC

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C3  29.806 VHL  5.459 DLA  13.43 RAL 221.02 RAD 6568.2 VEL 12.296 PTH   2.21 VHP  4.776 DPA -58.48 RAP 192.06 ECC 1.4905
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 43 30	2742.79	-27.93	77.66	94.38	94.88	24 29 33	2142.8	-26.96	69.13
90.00	15 15 39	4525.63	10.35	190.36	87.13	83.49	16 31 4	3925.6	6.71	183.57
100.00	1 16 8	2497.79	-29.33	56.54	94.23	96.07	1 57 6	1857.8	-28.18	47.93
100.00	16 29 56	4285.06	11.60	172.07	86.48	82.26	17 41 24	3685.9	7.79	165.35
110.00	2 40 10	2194.84	-33.03	35.99	93.64	99.34	3 16 45	1594.8	-31.39	27.15
110.00	17 22 25	4121.50	14.85	157.72	84.59	58.85	18 31 6	3521.6	10.62	151.18

DIFFERENTIAL CORRECTIONS

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TDE 1.0643 TRA -.8241 TC3 -.9608 BAU  .5234
RDE  .4287 RRA -.1908 RC3 -.8855 FAU .07744
FDE 2.0748 FRA -.3619 FC3-2.2494 BSP   5906
BDE 1.1474 BRA  .8385 BC3 1.3135 FSP   -915
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MID-COURSE EXECUTION ACCURACY

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SGT 1771.7 SGR 1080.1 SGS  285.6
RRT  .8708 RRF  .9571 RTF  .9146
SGB 2080.2 RZS  .2033 RIS  .9497
SGI 2026.7 SGZ  468.5 THA  29.94
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ORBIT DETERMINATION ACCURACY

```
ST  1148.7 SR   453.8 SS   900.3
CRT  .9921 CRS -.9977 CST -.9837
LSA 1522.8 NSA  129.9 SSA   14.0
EL1 1234.0 EL2   52.9 ALF  21.44
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LAUNCH DATE SEP 30 1970 FLIGHT TIME 106.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 311.113

```
RL  149.82 LAL    .00 LOL   6.42 VL  27.998 GAL  -9.66 AZL  84.18 HCA 145.52 SMA 134.36 ECC .20259 INC 5.8169 V1  29.741
RP  107.53 LAP   3.29 LOP 152.08 VP  38.481 GAP   1.98 AZP  94.80 TAL 226.29 TAP  11.81 RCA 107.14 APO 161.58 V2  35.243
RC  92.917 GL   30.33 GP  -49.10 ZAL 139.37 ZAP 104.42 ETS 338.74 ZAE 122.86 ETE 233.94 ZAC  49.65 ETC 252.63 CLP-112.36
```

PLANETOCENTRIC CONIC

```
C3  30.090 VHL  5.540 DLA  15.40 RAL 222.70 RAD 6568.2 VEL 12.331 PTH   2.22 VHP  5.002 DPA -56.45 RAP 188.71 ECC 1.5051
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 32 3	2822.63	-28.25	83.48	97.58	91.98	24 19 6	2222.6	-27.68	74.86
90.00	15 40 51	4460.45	8.34	186.81	89.44	82.84	16 55 12	3860.5	4.64	179.90
100.00	1 5 49	2532.92	-29.74	62.09	97.50	93.18	1 48 2	1932.9	-28.98	53.37
100.00	16 53 42	4225.39	9.66	168.65	88.73	81.57	18 4 8	3625.4	5.79	161.98
110.00	2 32 58	2280.25	-33.64	41.00	97.11	96.44	3 10 38	1680.3	-32.39	31.99
110.00	17 43 3	4070.82	13.05	154.90	86.73	58.12	18 50 54	3470.8	8.74	148.45

DIFFERENTIAL CORRECTIONS

```
TDE 1.2440 TRA -.8405 TC3-1.0319 BAU  .5502
RDE  .4712 RRA -.1121 RC3 -.8584 FAU .07013
FDE 2.0248 FRA -.2598 FC3-1.9782 BSP   6454
BDE 1.3303 BRA  .8479 BC3 1.3410 FSP   -848
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1943.2 SGR 1073.5 SGS  283.0
RRT  .8727 RRF  .9590 RTF  .9216
SGB 2220.0 RZS  .2135 RIS  .9509
SGI 2169.8 SGZ  469.4 THA  27.11
```

ORBIT DETERMINATION ACCURACY

```
ST  1315.2 SR   489.5 SS   906.1
CRT  .9906 CRS -.9991 CST -.9860
LSA 1665.3 NSA  130.3 SSA   12.5
EL1 1401.9 EL2   62.7 ALF  20.28
```

LAUNCH DATE SEP 30 1970 FLIGHT TIME 108.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 317.331

```
RL  149.82 LAL    .00 LOL   6.42 VL  27.957 GAL  -9.51 AZL  83.57 HCA 148.75 SMA 134.05 ECC .20184 INC 6.4313 V1  29.741
RP  107.54 LAP   3.33 LOP 155.33 VP  38.446 GAP   2.36 AZP  95.50 TAL 225.40 TAP  14.15 RCA 106.99 APO 161.11 V2  35.238
RC  95.197 GL   33.10 GP  -51.24 ZAL 136.78 ZAP 106.36 ETS 334.46 ZAE 119.92 ETE 231.22 ZAC  47.39 ETC 251.83 CLP-116.73
```

PLANETOCENTRIC CONIC

```
C3  31.988 VHL  5.656 DLA  17.77 RAL 224.60 RAD 6568.3 VEL 12.384 PTH   2.24 VHP  5.284 DPA -57.62 RAP 185.15 ECC 1.5265
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 17 25	2918.27	-28.28	90.47	101.31	88.48	24 6 5	2318.3	-28.19	81.81
90.00	16 10 38	4365.66	6.00	182.37	92.35	82.27	17 23 43	3785.7	2.24	175.71
100.00	0 53 8	2622.34	-29.88	68.73	101.34	89.60	1 36 51	2022.3	-29.61	59.94
100.00	17 21 33	4186.83	7.41	164.78	91.57	80.96	18 30 50	3556.8	3.48	158.20
110.00	2 24 14	2337.32	-34.07	46.97	101.22	92.93	3 3 12	1737.3	-33.29	37.82
110.00	18 6 58	4014.61	11.01	151.83	89.41	57.43	19 13 51	3414.6	6.63	145.46

DIFFERENTIAL CORRECTIONS

```
TDE 1.4871 TRA -.8440 TC3-1.0756 BAU  .5728
RDE  .5151 RRA -.0541 RC3 -.7981 FAU .06210
FDE 1.9700 FRA -.1540 FC3-1.6805 BSP   6832
BDE 1.5455 BRA  .8457 BC3 1.3393 FSP   -762
```

MID-COURSE EXECUTION ACCURACY

```
SGT 2113.1 SGR 1044.3 SGS  258.6
RRT  .8702 RRF  .9596 RTF  .9265
SGB 2357.1 RZS  .2248 RIS  .9512
SGI 2309.6 SGZ  470.7 THA  24.35
```

ORBIT DETERMINATION ACCURACY

```
ST  1500.9 SR   522.8 SS   911.7
CRT  .9888 CRS -.9997 CST -.9879
LSA 1827.4 NSA  132.5 SSA   10.8
EL1 1587.6 EL2   73.8 ALF  19.05
```

LAUNCH DATE SEP 30 1970 FLIGHT TIME 110.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 323.519

```
RL  149.82 LAL    .00 LOL   6.42 VL  27.914 GAL  -9.34 AZL  82.83 HCA 151.97 SMA 133.72 ECC .20114 INC 7.1712 V1  29.741
RP  107.56 LAP   3.36 LOP 158.58 VP  38.409 GAP   2.73 AZP  96.34 TAL 224.46 TAP  16.43 RCA 106.82 APO 160.62 V2  35.232
RC  97.481 GL   36.19 GP  -53.67 ZAL 133.87 ZAP 107.76 ETS 329.94 ZAE 116.82 ETE 228.69 ZAC  44.89 ETC 250.86 CLP-120.99
```

PLANETOCENTRIC CONIC

```
C3  33.906 VHL  5.823 DLA  20.33 RAL 226.76 RAD 6568.3 VEL 12.461 PTH   2.25 VHP  5.639 DPA -58.99 RAP 181.15 ECC 1.5580
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 58 23	3036.23	-27.77	99.06	105.61	84.21	23 49 0	2436.2	-28.28	90.43
90.00	16 46 53	4297.03	3.17	177.40	96.09	61.85	17 58 30	3697.0	-.62	170.77
100.00	0 36 52	2731.35	-29.58	76.82	105.80	85.45	1 22 24	2131.3	-29.89	68.03
100.00	17 55 1	4077.14	4.76	160.36	95.21	60.45	19 2 58	3477.1	.79	153.82
110.00	2 13 19	2429.63	-34.16	54.18	106.08	88.67	2 53 48	1829.6	-33.97	44.94
110.00	18 35 4	3951.63	8.68	148.43	92.80	56.81	19 40 56	3351.6	4.25	142.15

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE 1.7066 TRA -.8390 TC3-1.0943 BAU  .5966   SGT 2284.5 SGR 1008.4 SG3  213.3          ST  1700.3 SR   540.6 SS   906.6
 RDE  .5488 RRA  .0059 RC3 -.7313 FAU .05455   RRT  .8624 RRF  .9581 RTF  .9317          CRT  .9870 CRS -.9997 CST -.9896
 FDE 1.8902 FRA -.0701 FC3-1.3929 BSP   7393   SGB 2497.2 R23  .2327 R13  .9524          LSA 1996.8 MSA  133.1 SSA    9.3
 BDE 1.7927 BRA  .8390 BC3 1.3162 FSP   -704   SG1 2451.5 SG2  475.8 THA  21.70         EL1 1782.3 EL2   82.8 ALF  17.46
```

LAUNCH DATE SEP 30 1970 FLIGHT TIME 112.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 329.679

```
RL  149.82 LAL    .00 LOL   6.42 VL  27.868 GAL  -9.17 AZL  81.91 HCA 155.19 SMA 133.38 ECC .20048 INC 8.0856 V1  29.741
RP  107.58 LAP   3.38 LOP 161.83 VP  38.370 GAP   3.08 AZP  97.35 TAL 223.45 TAP  18.64 RCA 106.64 APO 160.12 V2  35.226
RC  99.767 GL   39.65 GP  -56.46 ZAL 130.57 ZAP 108.58 ETS 325.07 ZAE 113.51 ETE 226.22 ZAC  42.04 ETC 249.63 CLP-125.22
```

PLANETOCENTRIC CONIC

```
C3  36.770 VHL  6.064 DLA  23.18 RAL 229.23 RAD 6568.4 VEL 12.575 PTH   2.28 VHP  6.095 DPA -60.54 RAP 176.40 ECC 1.6051
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 31 34	3188.95	-26.24	109.97	110.44	78.95	23 24 43	2588.9	-27.50	101.53
90.00	17 33 28	4185.27	-.44	171.16	101.05	61.69	18 43 11	3585.3	-4.22	164.52
100.00	0 14 42	2869.09	-28.41	86.88	110.88	80.28	1 2 31	2269.1	-29.46	78.24
100.00	18 36 55	3980.35	1.49	155.03	99.98	60.14	19 43 15	3380.4	-2.49	148.51
110.00	1 59 7	2542.45	-33.64	62.94	111.75	83.51	2 41 29	1942.4	-34.17	53.74
110.00	19 9 0	3879.76	5.98	144.62	97.19	56.28	20 13 40	3279.8	1.51	138.39

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE 2.0189 TRA -.8129 TC3-1.0714 BAU  .6136   SGT 2454.7 SGR  952.5 SG3  187.1          ST  1924.4 SR   546.1 SS   901.4
 RDE  .5769 RRA  .0818 RC3 -.6404 FAU .04645   RRT  .8462 RRF  .9524 RTF  .9360          CRT  .9842 CRS -.9989 CST -.9911
 FDE 1.8109 FRA  .0154 FC3-1.0937 BSP   7843   SGB 2633.0 R23  .2410 R13  .9532          LSA 2189.9 MSA  135.6 SSA    7.9
 BDE 2.0997 BRA  .8170 BC3 1.2482 FSP   -624   SG1 2588.7 SG2  481.2 THA  18.86         EL1 1998.2 EL2   93.2 ALF  15.64
```

LAUNCH DATE SEP 30 1970 FLIGHT TIME 114.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 335.807

```
RL  149.82 LAL    .00 LOL   6.42 VL  27.820 GAL  -8.98 AZL  80.75 HCA 158.40 SMA 133.02 ECC .19986 INC 9.2523 V1  29.741
RP  107.60 LAP   3.39 LOP 165.07 VP  38.329 GAP   3.42 AZP  98.61 TAL 222.39 TAP  20.79 RCA 106.43 APO 159.80 V2  35.218
RC 102.053 GL   43.52 GP  -59.70 ZAL 126.85 ZAP 108.76 ETS 319.70 ZAE 109.91 ETE 223.57 ZAC  38.76 ETC 247.95 CLP-129.61
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PLANETOCENTRIC CONIC

```
C3  41.187 VHL  6.416 DLA  26.35 RAL 232.11 RAD 6568.6 VEL 12.749 PTH   2.32 VHP  6.697 DPA -62.20 RAP 170.44 ECC 1.6775
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	21 46 23	3412.43	-22.43	125.21	115.28	72.24	22 43 15	2812.4	-24.65	117.24
90.00	18 41 32	4018.86	-5.78	161.84	108.12	62.23	19 48 31	3418.9	-9.45	155.09
100.00	23 36 55	3056.07	-25.55	100.03	116.32	73.93	24 27 51	2456.1	-27.51	91.78
100.00	19 33 41	3850.45	-2.91	147.90	106.54	60.24	20 37 52	3250.5	-6.85	141.33
110.00	1 39 40	2684.29	-32.02	73.69	118.21	77.35	2 24 24	2084.3	-33.43	84.74
110.00	19 51 21	3795.00	2.76	140.17	103.01	55.91	20 54 36	3195.0	-1.73	133.97

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE 2.4198 TRA -.7591 TC3-1.0009 BAU  .6225   SGT 2625.1 SGR  871.0 SG3  160.5          ST  2173.1 SR   523.6 SS   893.1
 RDE  .5829 RRA  .1756 RC3 -.5268 FAU .03819   RRT  .8138 RRF  .9371 RTF  .9404          CRT  .9788 CRS -.9964 CST -.9925
 FDE 1.7277 FRA  .0944 FC3 -.8032 BSP   8234   SGB 2765.9 R23  .2481 R13  .9541          LSA 2403.0 MSA  139.4 SSA    6.4
 BDE 2.4891 BRA  .7792 BC3 1.1311 FSP   -536   SG1 2722.5 SG2  488.1 THA  15.63         EL1 2232.9 EL2  104.3 ALF  13.30
```

LAUNCH DATE SEP 30 1970 FLIGHT TIME 116.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 341.902

```
RL  149.82 LAL    .00 LOL   6.42 VL  27.770 GAL  -8.79 AZL  79.20 HCA 161.59 SMA 132.65 ECC .19926 INC10.8022 V1  29.741
RP  107.63 LAP   3.39 LOP 168.32 VP  38.285 GAP   3.74 AZP 100.26 TAL 221.27 TAP  22.87 RCA 106.22 APO 159.08 V2  35.211
RC 104.339 GL   47.79 GP  -63.48 ZAL 122.66 ZAP 108.25 ETS 313.49 ZAE 105.90 ETE 220.30 ZAC  34.93 ETC 245.50 CLP-134.52
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PLANETOCENTRIC CONIC

```
C3  48.220 VHL  6.944 DLA  29.82 RAL 235.49 RAD 6568.8 VEL 13.022 PTH   2.38 VHP  7.524 DPA -63.76 RAP 162.68 ECC 1.7936
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.22	19 7 55	4012.07	-14.49	165.86	118.72	63.64	20 14 47	3412.1	-17.91	158.75
99.78	21 47 1	3498.73	-14.47	128.11	118.71	63.64	22 45 20	2898.7	-17.90	121.00
100.00	22 5 45	3438.93	-16.13	124.50	119.54	64.48	23 3 4	2838.9	-19.43	117.27
100.00	21 31 53	3547.10	-12.85	130.87	117.87	62.78	22 31 0	2947.1	-16.40	123.87
110.00	1 10 20	2872.18	-28.42	87.12	125.08	70.16	1 58 13	2272.2	-30.86	78.77
110.00	20 47 42	3686.62	-1.38	134.52	111.03	55.84	21 49 9	3086.6	-5.86	128.29

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE 2.9402 TRA -.6886 TC3 -.8804 BAU  .6221   SGT 2796.1 SGR  752.5 SG3  134.3          ST  2441.1 SR   443.1 SS   878.6
 RDE  .5272 RRA  .2896 RC3 -.3952 FAU .03023   RRT  .7390 RRF  .8916 RTF  .9464          CRT  .9647 CRS -.9879 CST -.9938
 FDE 1.6368 FRA  .1585 FC3 -.5427 BSP   8694   SGB 2895.6 R23  .2513 R13  .9560          LSA 2628.0 MSA  143.2 SSA    5.2
 BDE 2.9959 BRA  .7268 BC3  .9650 FSP   -456   SG1 2852.6 SG2  496.9 THA  11.61         EL1 2478.3 EL2  115.0 ALF   9.95
```

LAUNCH DATE SEP 30 1970 FLIGHT TIME 118.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 347.958

RL 149.82 LAL .00 LOL 6.42 VL 27.718 GAL -8.58 AZL 77.03 HCA 164.77 SMA 132.28 ECC .19867 INC12.9739 V1 29.741
RP 107.65 LAP 3.38 LOP 171.56 VP 38.241 GAP 4.05 AZP 102.53 TAL 220.10 TAP 24.87 RCA 106.00 APO 158.55 V2 35.202
RC 106.624 GL 52.42 GP -67.87 ZAL 117.96 ZAP 106.98 ETS 305.68 ZAE 101.32 ETE 215.54 ZAC 30.39 ETC 241.58 CLP-140.79

PLANETOCENTRIC CONIC

C3 60.287 VHL 7.764 DLA 33.51 RAL 239.57 RAD 6569.1 VEL 13.478 PTH 2.46 VHP 8.723 DPA -64.86 RAP 152.46 ECC 1.9922

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
71.29	18 22 5	4262.28	-14.23	184.65	127.06	59.34	19 33 7	3662.3	-18.19	177.83
108.71	23 5 22	3358.87	-14.22	117.40	127.05	59.33	24 1 21	2758.9	-18.18	110.58
71.29	18 22 5	4262.28	-14.23	184.65	127.06	59.34	19 33 7	3662.3	-18.19	177.83
108.71	23 5 22	3358.87	-14.22	117.40	127.05	59.33	24 1 21	2758.9	-18.18	110.58
110.00	0 8 38	3177.19	-19.83	106.61	130.38	61.57	1 1 35	2577.2	-23.47	99.36
110.00	22 21 55	3491.96	-8.75	124.26	123.58	56.82	23 20 7	2892.0	-13.06	117.81

DIFFERENTIAL CORRECTIONS

TDE 3.6829 TRA -.4987 TC3 -.7030 BAU .6004
RDE .3166 RRA .4351 RC3 -.2463 FAU .02239
FDE 1.5522 FRA .2146 FC3 -.3215 BSP 9094
BDE 3.6965 BRA .6618 BC3 .7449 FSP -374

MID-COURSE EXECUTION ACCURACY

SGT 2961.8 SGR 590.9 SG3 109.2
RRT .5043 RRF .7120 RTF .9548
SGB 3020.2 RZS .2500 R13 .9594
SG1 2977.2 SG2 507.6 THA 5.92

ORBIT DETERMINATION ACCURACY

ST 2721.1 SR 260.9 SS 864.4
CRT .8734 CRS -.9169 CST -.9952
LSA 2863.1 MSA 148.5 SSA 4.0
EL1 2730.6 EL2 126.6 ALF 4.80

LAUNCH DATE SEP 30 1970 FLIGHT TIME 120.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 353.980

RL 149.82 LAL .00 LOL 6.42 VL 27.666 GAL -8.36 AZL 73.75 HCA 167.92 SMA 131.89 ECC .19807 INC16.2485 V1 29.741
RP 107.68 LAP 3.36 LOP 174.81 VP 38.194 GAP 4.34 AZP 105.91 TAL 218.87 TAP 26.79 RCA 105.77 APO 158.02 V2 35.193
RC 108.906 GL 57.18 GP -72.86 ZAL 112.77 ZAP 104.91 ETS 294.23 ZAE 95.90 ETE 207.11 ZAC 24.91 ETC 234.52 CLP-150.81

PLANETOCENTRIC CONIC

C3 83.058 VHL 9.114 DLA 37.14 RAL 244.58 RAD 6569.6 VEL 14.297 PTH 2.60 VHP 10.592 DPA -64.81 RAP 139.54 ECC 2.3669

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.89	18 5 39	4447.30	-12.67	198.26	137.33	54.79	19 19 47	3847.3	-17.19	191.84
115.11	0 5 42	3324.80	-12.66	113.67	137.32	54.79	1 1 7	2724.8	-17.18	107.25
64.89	18 5 39	4447.30	-12.67	198.26	137.33	54.79	19 19 47	3847.3	-17.19	191.84
115.11	0 5 42	3324.80	-12.66	113.67	137.32	54.79	1 1 7	2724.8	-17.18	107.25
64.89	18 5 39	4447.30	-12.67	198.26	137.33	54.79	19 19 47	3847.3	-17.19	191.84
115.11	0 5 42	3324.80	-12.66	113.67	137.32	54.79	1 1 7	2724.8	-17.18	107.25

DIFFERENTIAL CORRECTIONS

TDE 4.7097 TRA -.1736 TC3 -.4735 BAU .5369
RDE -.3469 RRA .6018 RC3 -.0980 FAU .01488
FDE 1.4904 FRA .2647 FC3 -.1551 BSP 9469
BDE 4.7224 BRA .6263 BC3 .4835 FSP -298

MID-COURSE EXECUTION ACCURACY

SGT 3087.2 SGR 552.0 SG3 86.5
RRT -.3267 RRF -.0992 RTF .9677
SGB 3136.1 RZS -.2393 R13 -.9654
SG1 3092.8 SG2 520.8 THA 176.56

ORBIT DETERMINATION ACCURACY

ST 2961.3 SR 260.5 SS 859.4
CRT -.8445 CRS .7987 CST -.9968
LSA 3090.6 MSA 155.5 SSA 2.9
EL1 2969.5 EL2 139.2 ALF 175.74

LAUNCH DATE SEP 30 1970 FLIGHT TIME 122.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 359.876

RL 149.82 LAL .00 LOL 6.42 VL 27.612 GAL -8.12 AZL 68.25 HCA 170.99 SMA 131.50 ECC .19738 INC21.7459 V1 29.741
RP 107.71 LAP 3.32 LOP 178.05 VP 38.147 GAP 4.60 AZP 111.50 TAL 217.56 TAP 28.56 RCA 105.55 APO 157.46 V2 35.184
RC 111.186 GL 61.40 GP -77.86 ZAL 107.16 ZAP 102.04 ETS 273.13 ZAE 89.08 ETE 188.84 ZAC 18.10 ETC 220.12 CLP-172.93

PLANETOCENTRIC CONIC

C3 133.046 VHL 11.535 DLA 40.05 RAL 250.85 RAD 6570.4 VEL 15.949 PTH 2.82 VHP 13.823 DPA -62.45 RAP 125.01 ECC 3.1896

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.41	18 8 50	4608.91	-9.33	209.07	149.60	50.87	19 25 39	4008.9	-14.31	203.09
119.59	0 52 34	3360.62	-9.31	114.04	149.59	50.87	1 48 34	2760.6	-14.29	108.06
60.41	18 8 50	4608.91	-9.33	209.07	149.60	50.87	19 25 39	4008.9	-14.31	203.09
119.59	0 52 34	3360.62	-9.31	114.04	149.59	50.87	1 48 34	2760.6	-14.29	108.06
60.41	18 8 50	4608.91	-9.33	209.07	149.60	50.87	19 25 39	4008.9	-14.31	203.09
119.59	0 52 34	3360.62	-9.31	114.04	149.59	50.87	1 48 34	2760.6	-14.29	108.06

DIFFERENTIAL CORRECTIONS

TDE 5.8661 TRA .5252 TC3 -.2087 BAU .3712
RDE-2.4358 RRA .6271 RC3 .0031 FAU .00723
FDE 1.5015 FRA .3284 FC3 -.0471 BSP 9738
BDE 6.3517 BRA .8180 BC3 .2087 FSP -231

MID-COURSE EXECUTION ACCURACY

SGT 2973.0 SGR 1276.6 SG3 67.7
RRT -.8933 RRF -.8166 RTF .9869
SGB 3235.5 RZS -.2099 R13 -.9752
SG1 3191.0 SG2 534.5 THA 158.38

ORBIT DETERMINATION ACCURACY

ST 2915.7 SR 1216.1 SS 894.0
CRT -.9908 CRS .9827 CST -.9987
LSA 3279.2 MSA 163.6 SSA 1.9
EL1 3155.5 EL2 152.0 ALF 157.49

LAUNCH DATE SEP 30 1970 FLIGHT TIME 124.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 365.606

RL 149.82 LAL .00 LOL 6.42 VL 27.557 GAL -7.83 AZL 57.37 HCA 173.91 SMA 131.11 ECC .19638 INC32.6321 V1 29.741
RP 107.74 LAP 3.28 LOP 181.28 VP 38.098 GAP 4.80 AZP 122.49 TAL 216.12 TAP 30.03 RCA 105.36 APO 156.86 V2 35.174
RC 113.462 GL 63.03 GP -78.25 ZAL 101.38 ZAP 98.50 ETS 232.35 ZAE 79.41 ETE 150.61 ZAC 9.58 ETC 202.52 CLP 136.59

PLANETOCENTRIC CONIC

C3 272.858 VHL 16.518 DLA 40.35 RAL 258.61 RAD 6571.6 VEL 19.854 PTH 3.13 VHP 20.327 DPA -55.81 RAP 111.62 ECC 5.4906

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.97	18 37 46	4728.85	-4.40	215.14	163.43	49.85	19 56 35	4128.9	-9.52	209.36
120.03	1 25 35	3469.16	-4.39	119.15	163.42	49.85	2 23 22	2869.2	-9.51	113.38
59.97	18 37 46	4728.85	-4.40	215.14	163.43	49.85	19 56 35	4128.9	-9.52	209.36
120.03	1 25 35	3469.16	-4.39	119.15	163.42	49.85	2 23 22	2869.2	-9.51	113.38
59.97	18 37 46	4728.85	-4.40	215.14	163.43	49.85	19 56 35	4128.9	-9.52	209.36
120.03	1 25 35	3469.16	-4.39	119.15	163.42	49.85	2 23 22	2869.2	-9.51	113.38

DIFFERENTIAL CORRECTIONS

TDE 4.7928 TRA 1.8465 TC3 -.0114 BAU .2255
RDE-7.8313 RRA -.5390 RC3 -.0608 FAU-.00517
FDE 1.7094 FRA .4724 FC3 .0101 BSP 9774
BDE 9.1812 BRA 1.7325 BC3 .0618 FSP -180

MID-COURSE EXECUTION ACCURACY

SGT 1825.7 SGR 2734.8 SG3 54.6
RRT -.9406 RRF -.9689 RTF .9945
SGB 3287.1 RZS -.1484 R13 -.9877
SG1 3245.5 SG2 521.6 THA 123.06

ORBIT DETERMINATION ACCURACY

ST 1677.4 SR 2717.4 SS 1047.5
CRT -.9942 CRS .9967 CST -.9997
LSA 3356.9 MSA 161.6 SSA 1.6
EL1 3189.7 EL2 153.2 ALF 121.62

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LAUNCH DATE  SEP 30 1970                          FLIGHT TIME 126.00                          ARRIVAL DATE  FEB  3 1971

  HELIOCENTRIC CONIC                                  DISTANCE 370.737
   RL  149.82 LAL     .00 LOL   6.42 VL  27.502 GAL  -7.42 AZL  30.47 HCA 176.26 SHA 130.72 ECC .19415 INC59.5337 V1  29.741
   RP  107.77 LAP    3.23 LOP 184.52 VP  38.048 GAP   4.63 AZP 149.48 TAL 214.29 TAP  30.55 RCA 105.34 APO 156.10 V2  35.164
   RC 115.736 GL    55.43 GP  -64.21 ZAL  96.15 ZAP  94.82 ETS 196.46 ZAE  62.08 ETE 117.62 ZAC  13.59 ETC 263.51 CLP 101.14
  PLANETOCENTRIC CONIC
   C3 814.985 VHL 28.548 DLA  32.03 RAL 267.02 RAD 6572.8 VEL 30.599 PTH   3.46 VHP 35.873 DPA -39.90 RAP 102.70 ECC14.4126
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      74.37    20 31 30   4584.72       -.16      200.59      176.79       57.97   21 47 55     3984.7       -4.39      194.21
     105.63     0 38 53   3804.71       -.14      142.80      176.78       57.97    1 42 18     3204.7       -4.37      136.43
      74.37    20 31 30   4584.72       -.16      200.59      176.79       57.97   21 47 55     3984.7       -4.39      194.21
     105.63     0 38 53   3804.71       -.14      142.80      176.78       57.97    1 42 18     3204.7       -4.37      136.43
     110.00     2 38  9   3435.59     -10.84      121.23      183.56       57.38    3 35 25     2835.6      -15.06      114.68
     110.00    23 31 24   4001.83      10.54      151.13      170.00       57.29   24 38  6     3401.8        6.15      144.79
  DIFFERENTIAL CORRECTIONS                        MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
   TDE-1.3012 TRA 1.7878 TC3 -.0410 BAU 2.0899     SGT  549.6 SGR 3071.8 SG3   48.4          ST   290.5 SR  2719.0 SS  1478.6
   RD-13.4651 RRA-4.1992 RC3 -.1874 FAU-.03190     RRT  .3170 RRF -.9953 RTF -.2293          CRT  .8459 CRS  .9993 CST  .8261
   FDE 2.3514 FRA  .9772 FC3  .0339 BSP   8961     SGB 3120.6 RZ3 -.1008 R13 -.9944          LSA 3104.4 MSA  163.3 SSA    1.7
   BDE13.5278 BRA 4.5639 BC3  .1918 FSP   -149     SG1 3076.9 SG2  520.3 THA  86.66          EL1 2730.2 EL2  154.3 ALF  84.82

LAUNCH DATE  SEP 30 1970                          FLIGHT TIME 128.00                          ARRIVAL DATE  FEB  5 1971

  HELIOCENTRIC CONIC                                  DISTANCE 380.801
   RL  149.82 LAL     .00 LOL   6.42 VL  27.446 GAL  -8.01 AZL 157.16 HCA 183.43 SHA 130.32 ECC .20346 INC67.1618 V1  29.741
   RP  107.80 LAP    3.16 LOP 187.75 VP  37.997 GAP   6.26 AZP  22.87 TAL 215.24 TAP  38.68 RCA 103.81 APO 156.84 V2  35.153
   RC 118.005 GL   -52.13 GP   58.41 ZAL  96.03 ZAP  95.49 ETS 176.79 ZAE  63.91 ETE 254.44 ZAC 135.91 ETC 270.65 CLP 100.53
  PLANETOCENTRIC CONIC
   C31006.640 VHL 31.728 DLA -75.48 RAL 261.58 RAD 6573.0 VEL 33.585 PTH   3.50 VHP 41.214 DPA  81.23 RAP 138.72 ECC17.5668
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      16.55     4 46 28   2452.26       -.43       81.30      171.68      165.48    5 27 20     1852.3        7.32       79.70
     163.45    15 40 35    670.13       -.42      284.79      171.71      165.48   15 51 45       70.1        7.32      283.19
      16.55     4 46 28   2452.26       -.43       81.30      171.68      165.48    5 27 20     1852.3        7.32       79.70
     163.45    15 40 35    670.13       -.42      284.79      171.71      165.48   15 51 45       70.1        7.32      283.19
      16.55     4 46 28   2452.26       -.43       81.30      171.68      165.48    5 27 20     1852.3        7.32       79.70
     163.45    15 40 36    670.13       -.42      284.79      171.71      165.48   15 51 45       70.1        7.32      283.19
  DIFFERENTIAL CORRECTIONS                        MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
   TDE 5.3156 TRA  .4213 TC3 -.0815 BAU 2.7869     SGT 1131.7 SGR 2838.6 SG3   50.5          ST   964.4 SR  2475.2 SS  1837.7
   RD-13.6524 RRA 1.0012 RC3  .1904 FAU-.04119     RRT -.8630 RRF  .9988 RTF -.8468          CRT -.9835 CRS-1.0000 CST  .9821
   FDE-2.8447 FRA  .2270 FC3  .0354 BSP   9157     SGB 3055.9 RZ3 -.0938 R13  .9948          LSA 3225.7 MSA  169.7 SSA    2.2
   BDE14.6507 BRA 1.0862 BC3  .2071 FSP   -156     SG1 3007.9 SG2  539.5 THA 109.64          EL1 2651.4 EL2  163.0 ALF 111.05

LAUNCH DATE  SEP 30 1970                          FLIGHT TIME 130.00                          ARRIVAL DATE  FEB  7 1971

  HELIOCENTRIC CONIC                                  DISTANCE 385.631
   RL  149.82 LAL     .00 LOL   6.42 VL  27.389 GAL  -7.53 AZL 124.13 HCA 185.51 SHA 129.93 ECC .20057 INC34.1309 V1  29.741
   RP  107.84 LAP    3.09 LOP 190.99 VP  37.946 GAP   6.20 AZP  55.99 TAL 213.27 TAP  38.78 RCA 103.87 APO 155.98 V2  35.141
   RC 120.271 GL   -62.61 GP   74.96 ZAL 100.39 ZAP  99.90 ETS 146.10 ZAE  84.20 ETE 225.27 ZAC 154.77 ETC 252.86 CLP 131.52
  PLANETOCENTRIC CONIC
   C3 294.399 VHL 17.158 DLA -81.87 RAL 201.15 RAD 6571.7 VEL 20.389 PTH   3.16 VHP 22.638 DPA  72.72 RAP 239.72 ECC 5.8451
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
       9.25     0 31  0   2365.91       6.09       84.28      110.27      171.82    1 10 26     1765.9       14.00       83.53
     170.75    11 53 55   5851.00       6.09      258.55      110.29      171.82   13 31 26     5251.0       14.01      257.80
       9.25     0 31  0   2365.91       6.09       84.28      110.27      171.82    1 10 26     1765.9       14.00       83.53
     170.75    11 53 55   5851.00       6.09      258.55      110.29      171.82   13 31 26     5251.0       14.01      257.80
       9.25     0 31  0   2365.91       6.09       84.28      110.27      171.82    1 10 26     1765.9       14.00       83.53
     170.75    11 53 55   5851.00       6.09      258.55      110.29      171.82   13 31 26     5251.0       14.01      257.80
  DIFFERENTIAL CORRECTIONS                        MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
   TDE-2.5562 TRA -.1744 TC3 -.0093 BAU  .3396     SGT  948.3 SGR 3422.1 SG3   59.0          ST   862.5 SR  2154.2 SS   971.4
   RDE-5.9517 RRA-1.1733 RC3  .0858 FAU-.00140     RRT  .8714 RRF  .9873 RTF  .9369          CRT  .9683 CRS -.9955 CST -.9877
   FDE-1.4204 FRA -.2079 FC3  .0041 BSP  11048     SGB 3551.0 RZ3 -.1249 R13  .9917          LSA 2507.0 MSA  208.0 SSA    1.1
   BDE 6.4774 BRA 1.1862 BC3  .0863 FSP   -191     SG1 3522.2 SG2  451.9 THA  76.19          EL1 2311.8 EL2  200.7 ALF  68.64

LAUNCH DATE  SEP 30 1970                          FLIGHT TIME 132.00                          ARRIVAL DATE  FEB  9 1971

  HELIOCENTRIC CONIC                                  DISTANCE 391.224
   RL  149.82 LAL     .00 LOL   6.42 VL  27.332 GAL  -7.20 AZL 111.15 HCA 188.35 SHA 129.53 ECC .19966 INC21.1537 V1  29.741
   RP  107.87 LAP    3.00 LOP 194.21 VP  37.894 GAP   6.36 AZP  69.05 TAL 211.68 TAP  40.03 RCA 103.67 APO 155.39 V2  35.130
   RC 122.531 GL   -61.44 GP   74.51 ZAL 105.25 ZAP 105.43 ETS  88.97 ZAE  95.04 ETE 169.32 ZAC 161.25 ETC 220.39 CLP 175.09
  PLANETOCENTRIC CONIC
   C3 124.120 VHL 11.141 DLA -77.25 RAL 190.83 RAD 6570.3 VEL 15.667 PTH   2.79 VHP 14.975 DPA  60.87 RAP 244.75 ECC 3.0427
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      14.52     0  0  8   2221.89      15.09       79.67       97.32      166.79    0 37 10     1621.9       22.87       78.11
     165.48    11  2 25   5720.73      15.10      259.06       97.34      166.79   12 37 46     5120.7       22.88      257.50
      14.52     0  0  8   2221.89      15.09       79.67       97.32      166.79    0 37 10     1621.9       22.87       78.11
     165.48    11  2 25   5720.73      15.10      259.06       97.34      166.79   12 37 46     5120.7       22.88      257.50
      14.52     0  0  8   2221.89      15.09       79.67       97.32      166.79    0 37 10     1621.9       22.87       78.11
     165.48    11  2 25   5720.73      15.10      259.06       97.34      166.79   12 37 46     5120.7       22.88      257.50
  DIFFERENTIAL CORRECTIONS                        MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
   TDE-3.0224 TRA-1.3449 TC3 -.2332 BAU  .3898     SGT 3557.1 SGR 1197.0 SG3   74.3          ST  1816.7 SR   358.6 SS   657.7
   RDE  .0004 RRA -.5129 RC3 -.0277 FAU .01248     RRT  .8925 RRF  .8224 RTF  .9893          CRT  .5171 CRS -.4117 CST -.9929
   FDE -.9005 FRA -.2996 FC3 -.0870 BSP  11654     SGB 3734.1 RZ3 -.1766 R13  .9826          LSA 1939.4 MSA  316.7 SSA    1.8
   BDE 3.0224 BRA 1.4393 BC3  .2349 FSP   -244     SG1 3698.3 SG2  516.4 THA  17.15          EL1 1826.4 EL2  305.3 ALF   6.00
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LAUNCH DATE SEP 30 1970 FLIGHT TIME 134.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 397.013

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RL  149.82 LAL    .00 LOL   6.42 VL  27.275 GAL  -6.90 AZL 104.89 HCA 191.39 SHA 129.14 ECC .19933 INC14.8919 V1  29.741
RP  107.91 LAP   2.91 LOP 197.44 VP  37.842 GAP   6.57 AZP  75.39 TAL 210.18 TAP  41.57 RCA 103.39 APO 154.88 V2  35.118
RC 124.786 GL  -56.96 GP   68.28 ZAL 109.59 ZAP 111.13 ETS  68.85 ZAE 102.33 ETE 151.01 ZAC 160.89 ETC 226.10 CLP-166.92
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PLANETOCENTRIC CONIC

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C3  68.902 VHL  8.301 DLA -72.56 RAL 198.04 RAD 6569.3 VEL 13.793 PTH   2.52 VHP 11.398 DPA  51.76 RAP 244.64 ECC 2.1340
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
19.91	0 39 52	2082.75	23.06	73.32	100.34	160.99	1 14 35	1482.8	30.59	70.72
160.09	11 20 13	5602.61	23.07	258.11	100.36	160.98	12 53 36	5002.6	30.60	255.50
19.91	0 39 52	2082.75	23.06	73.32	100.34	160.99	1 14 35	1482.8	30.59	70.72
160.09	11 20 13	5602.61	23.07	258.11	100.36	160.98	12 53 36	5002.6	30.60	255.50
19.91	0 39 52	2082.75	23.06	73.32	100.34	160.99	1 14 35	1482.8	30.59	70.72
160.09	11 20 13	5602.61	23.07	258.11	100.36	160.98	12 53 36	5002.6	30.60	255.50

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.4326 TRA-1.3805 TC3 -.6675 BAU  .6188   SGT 3761.9 SGR  526.7 SGS   92.3     ST  1931.3 SR   493.1 SS   674.9
RDE  .7117 RRA -.0615 RC3  .0761 FAU .02006   RRT -.2597 RRF -.4809 RTF  .9674    CRT -.8237 CRS  .9166 CST -.9817
FDE -.9408 FRA -.3166 FC3 -.2621 BSP  11538   SGB 3798.6 RZS  .2330 R13 -.9686   LSA 2084.0 NSA  292.2 SSA    2.6
BDE 2.5346 BRA 1.3819 BC3  .6718 FSP   -293   SG1 3764.4 SG2  508.3 THA 177.88   EL1 1974.4 EL2  273.5 ALF 167.89
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LAUNCH DATE SEP 30 1970 FLIGHT TIME 136.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 402.062

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RL  149.82 LAL    .00 LOL   6.42 VL  27.217 GAL  -6.61 AZL 101.27 HCA 194.51 SHA 128.74 ECC .19928 INC11.2706 V1  29.741
RP  107.95 LAP   2.81 LOP 200.66 VP  37.700 GAP   6.79 AZP  79.08 TAL 208.69 TAP  43.20 RCA 103.09 APO 154.40 V2  35.105
RC 127.036 GL  -51.76 GP   61.63 ZAL 113.10 ZAP 116.65 ETS  62.24 ZAE 107.82 ETE 146.80 ZAC 157.33 ETC 236.69 CLP-160.76
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PLANETOCENTRIC CONIC

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C3  45.265 VHL  6.728 DLA -68.02 RAL 206.04 RAD 6568.7 VEL 12.909 PTH   2.35 VHP  9.469 DPA  44.04 RAP 244.13 ECC 1.7450
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
25.16	1 23 0	1965.69	28.76	65.88	103.23	154.73	1 55 46	1365.7	35.93	62.09
154.84	11 40 55	5513.41	28.77	256.18	103.25	154.72	13 12 49	4913.4	35.94	252.39
25.16	1 23 0	1965.69	28.76	65.88	103.23	154.73	1 55 46	1365.7	35.93	62.09
154.84	11 40 55	5513.41	28.77	256.18	103.25	154.72	13 12 49	4913.4	35.94	252.39
25.16	1 23 0	1965.69	28.76	65.88	103.23	154.73	1 55 46	1365.7	35.93	62.09
154.84	11 40 55	5513.41	28.77	256.18	103.25	154.72	13 12 49	4913.4	35.94	252.39

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.1760 TRA-1.3045 TC3-1.1989 BAU  .7371   SGT 3853.0 SGR  695.6 SGS  114.2     ST  2056.5 SR   626.2 SS   714.7
RDE  .7345 RRA  .0413 RC3  .2151 FAU .02806   RRT -.7107 RRF -.8765 RTF  .9523    CRT -.9199 CRS  .9796 CST -.9799
FDE -.9943 FRA -.3130 FC3 -.5367 BSP  12064   SGB 3915.3 RZS  .2683 R13 -.9568   LSA 2250.1 NSA  262.5 SSA    3.5
BDE 2.2966 BRA 1.3051 BC3 1.2180 FSP   -370   SG1 3885.1 SG2  485.3 THA 172.57   EL1 2136.7 EL2  236.4 ALF 164.15
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LAUNCH DATE SEP 30 1970 FLIGHT TIME 138.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 408.733

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RL  149.82 LAL    .00 LOL   6.42 VL  27.160 GAL  -6.32 AZL  98.92 HCA 197.66 SHA 128.35 ECC .19941 INC 8.9158 V1  29.741
RP  107.99 LAP   2.70 LOP 203.88 VP  37.736 GAP   7.03 AZP  81.50 TAL 207.20 TAP  44.86 RCA 102.76 APO 153.85 V2  35.093
RC 129.278 GL  -46.81 GP   55.52 ZAL 115.69 ZAP 121.79 ETS  59.14 ZAE 112.12 ETE 146.52 ZAC 152.88 ETC 243.77 CLP-158.54
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PLANETOCENTRIC CONIC

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C3  33.145 VHL  5.757 DLA -63.72 RAL 213.01 RAD 6568.3 VEL 12.430 PTH   2.25 VHP  8.331 DPA  37.31 RAP 243.87 ECC 1.5455
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.19	2 2 14	1869.84	32.33	58.01	104.79	148.41	2 33 24	1269.8	39.03	53.04
149.81	11 57 18	5451.97	32.34	253.89	104.81	148.40	13 28 10	4852.0	39.04	248.92
30.19	2 2 14	1869.84	32.33	-58.01	104.79	148.41	2 33 24	1269.8	39.03	53.04
149.81	11 57 18	5451.97	32.34	253.89	104.81	148.40	13 28 10	4852.0	39.04	248.92
30.19	2 2 14	1869.84	32.33	58.01	104.79	148.41	2 33 24	1269.8	39.03	53.04
149.81	11 57 18	5451.97	32.34	253.89	104.81	148.40	13 28 10	4852.0	39.04	248.92

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.9715 TRA-1.2158 TC3-1.7860 BAU  .8054   SGT 3943.3 SGR  764.6 SGS  134.7     ST  2127.4 SR   648.8 SS   727.6
RDE  .6508 RRA  .0530 RC3  .3575 FAU .03380   RRT -.7944 RRF -.9352 RTF  .9411    CRT -.9425 CRS  .9908 CST -.9790
FDE -.9969 FRA -.2834 FC3 -.8854 BSP  12464   SGB 4016.8 RZS  .2919 R13 -.9465   LSA 2327.6 NSA  241.7 SSA    4.5
BDE 2.0762 BRA 1.2170 BC3 1.8176 FSP   -441   SG1 3990.5 SG2  458.9 THA 171.12   EL1 2214.4 EL2  208.4 ALF 163.82
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LAUNCH DATE SEP 30 1970 FLIGHT TIME 140.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 414.609

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RL  149.82 LAL    .00 LOL   6.42 VL  27.102 GAL  -6.03 AZL  97.26 HCA 200.83 SHA 127.97 ECC .19968 INC 7.2582 V1  29.741
RP  108.03 LAP   2.58 LOP 207.10 VP  37.683 GAP   7.26 AZP  83.21 TAL 205.70 TAP  46.53 RCA 102.42 APO 153.52 V2  35.080
RC 131.513 GL  -41.78 GP   50.08 ZAL 117.38 ZAP 128.48 ETS  57.24 ZAE 115.50 ETE 147.68 ZAC 148.49 ETC 248.28 CLP-157.90
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PLANETOCENTRIC CONIC

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C3  28.120 VHL  5.111 DLA -59.75 RAL 219.03 RAD 6568.1 VEL 12.145 PTH   2.18 VHP  7.624 DPA  31.40 RAP 243.94 ECC 1.4299
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.91	2 37 44	1790.16	34.26	50.25	105.60	142.44	3 7 34	1190.2	40.44	44.27
145.09	12 9 45	5412.47	34.27	251.74	105.62	142.43	13 39 58	4812.5	40.45	245.76
34.91	2 37 44	1790.16	34.26	50.25	105.60	142.44	3 7 34	1190.2	40.44	44.27
145.09	12 9 45	5412.47	34.27	251.74	105.62	142.43	13 39 58	4812.5	40.45	245.76
34.91	2 37 44	1790.16	34.26	50.25	105.60	142.44	3 7 34	1190.2	40.44	44.27
145.09	12 9 45	5412.47	34.27	251.74	105.62	142.43	13 39 58	4812.5	40.45	245.76

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.7090 TRA-1.1880 TC3-2.4015 BAU  .8521   SGT 4041.0 SGR  770.9 SGS  152.5     ST  2144.1 SR   626.2 SS   714.8
RDE  .5970 RRA  .0404 RC3  .4320 FAU .03840   RRT -.8232 RRF -.9498 RTF  .9328    CRT -.9507 CRS  .9947 CST -.9775
FDE -.9572 FRA -.2346 FC3-1.2726 BSP  12829   SGB 4113.9 RZS  .3047 R13 -.9381   LSA 2334.2 NSA  227.0 SSA    5.8
BDE 1.8749 BRA 1.1287 BC3 2.4401 FSP   -502   SG1 4091.1 SG2  432.3 THA 170.97   EL1 2225.8 EL2  187.1 ALF 164.37
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LAUNCH DATE SEP 30 1970 FLIGHT TIME 142.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 420.485

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RL  149.82 LAL    .00 LOL   6.42 VL  27.045 GAL  -5.73 AZL  96.02 HCA 204.01 SMA 127.59 ECC .20007 INC 6.0231 V1  29.741
RP  108.07 LAP   2.45 LOP 210.32 VP  37.629 GAP   7.50 AZP  84.49 TAL 204.19 TAP  48.20 RCA 102.06 APO 153.11 V2  35.067
RC 133.740 GL  -37.34 GP   45.32 ZAL 118.24 ZAP 130.68 ETS  55.86 ZAE 118.15 ETE 149.39 ZAC 144.46 ETC 251.29 CLP-157.98
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PLANETOCENTRIC CONIC

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C3  21.675 VHL  4.656 DLA -56.11 RAL 224.35 RAD 6567.9 VEL 11.961 PTH   2.13 VHP  7.173 DPA  26.20 RAP 244.32 ECC 1.3567
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.30	3 10 35	1721.87	35.05	42.93	106.23	137.07	3 39 17	1121.9	40.70	36.16
140.70	12 19 26	5389.50	35.06	250.03	106.24	137.06	13 49 15	4789.5	40.71	243.27
39.30	3 10 35	1721.87	35.05	42.93	106.23	137.07	3 39 17	1121.9	40.70	36.16
140.70	12 19 26	5389.50	35.06	250.03	106.24	137.06	13 49 15	4789.5	40.71	243.27
39.30	3 10 35	1721.87	35.05	42.93	106.23	137.07	3 39 17	1121.9	40.70	36.16
140.70	12 19 26	5389.50	35.06	250.03	106.24	137.06	13 49 15	4789.5	40.71	243.27

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE-1.6106 TRA-1.0167 TC3-2.9918 BAU  .8783   SGT 4089.6 SGR  736.3 SG3  163.9          ST  2094.9 SR   580.0 SS   670.8
 RDE  .4711 RRA  .0156 RC3  .4861 FAU .04093   RRT -.8260 RRF -.9488 RTF  .9225          CRT -.9524 CRS  .9967 CST -.9735
 FDF -.8746 FRA -.1577 FC3-1.6349 BSP  12737   SGB 4155.3 R23  .3177 R13 -.9273          LSA 2264.5 MSA  216.8 SSA    7.2
 BDE 1.6781 BRA 1.0169 BC3 3.0310 FSP   -522   SG1 4135.0 SG2  410.4 THA 171.46          EL1 2167.0 EL2  171.0 ALF 165.13
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LAUNCH DATE SEP 30 1970 FLIGHT TIME 144.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 426.349

```
RL  149.82 LAL    .00 LOL   6.42 VL  26.988 GAL  -5.42 AZL  95.06 HCA 207.20 SMA 127.21 ECC .20059 INC 5.0629 V1  29.741
RP  106.11 LAP   2.31 LOP 213.53 VP  37.576 GAP   7.73 AZP  85.49 TAL 202.66 TAP  49.85 RCA 101.69 APO 152.72 V2  35.054
RC 135.957 GL  -33.27 GP   41.17 ZAL 118.35 ZAP 134.43 ETS  54.75 ZAE 120.21 ETE 151.31 ZAC 140.87 ETC 253.45 CLP-158.44
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PLANETOCENTRIC CONIC

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C3  18.678 VHL  4.322 DLA -52.80 RAL 229.22 RAD 6567.8 VEL 11.835 PTH   2.10 VHP  6.885 DPA  21.64 RAP 244.99 ECC 1.3074
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.38	3 41 39	1661.45	35.08	36.15	106.99	132.37	4 9 21	1061.5	40.23	28.83
136.62	12 27 11	5379.01	35.10	248.89	107.00	132.36	13 56 50	4779.0	40.25	241.56
43.38	3 41 39	1661.45	35.08	36.15	106.99	132.37	4 9 21	1061.5	40.23	28.83
136.62	12 27 11	5379.01	35.10	248.89	107.00	132.36	13 56 50	4779.0	40.25	241.56
43.38	3 41 39	1661.45	35.08	36.15	106.99	132.37	4 9 21	1061.5	40.23	28.83
136.62	12 27 11	5379.01	35.10	248.89	107.00	132.36	13 56 50	4779.0	40.25	241.56

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE-1.4810 TRA -.9376 TC3-3.6327 BAU  .9171   SGT 4235.6 SGR  720.1 SG3  178.0          ST  2060.1 SR   548.2 SS   636.5
 RDE  .4134 RRA  .0038 RC3  .5403 FAU .04364   RRT -.8392 RRF -.9458 RTF  .9215          CRT -.9553 CRS  .9981 CST -.9709
 FDE -.8047 FRA -.1012 FC3-2.0225 BSP  13465   SGB 4296.4 R23  .3051 R13 -.9255          LSA 2215.1 MSA  207.0 SSA    9.0
 BDE 1.5376 BRA  .9376 BC3 3.6727 FSP   -588   SG1 4278.9 SG2  387.6 THA 171.81          EL1 2126.0 EL2  157.1 ALF 165.66
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LAUNCH DATE SEP 30 1970 FLIGHT TIME 146.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 432.206

```
RL  149.82 LAL    .00 LOL   6.42 VL  26.931 GAL  -5.10 AZL  94.29 HCA 210.38 SMA 126.83 ECC .20123 INC 4.2910 V1  29.741
RP  108.15 LAP   2.17 LOP 216.74 VP  37.523 GAP   7.97 AZP  86.30 TAL 201.11 TAP  51.50 RCA 101.31 APO 152.36 V2  35.041
RC 138.166 GL  -29.55 GP   37.57 ZAL 117.81 ZAP 137.77 ETS  53.84 ZAE 121.81 ETE 153.23 ZAC 137.74 ETC 255.08 CLP-159.10
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PLANETOCENTRIC CONIC

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C3  16.556 VHL  4.069 DLA -49.78 RAL 233.79 RAD 6567.7 VEL 11.745 PTH   2.07 VHP  6.703 DPA  17.62 RAP 245.89 ECC 1.2725
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.18	4 11 43	1606.23	34.63	29.90	108.04	128.30	4 38 29	1006.2	39.32	22.21
132.82	12 33 36	5378.25	34.64	248.34	108.06	128.29	14 3 14	4778.2	39.34	240.64
47.18	4 11 43	1606.23	34.63	29.90	108.04	128.30	4 38 29	1006.2	39.32	22.21
132.82	12 33 36	5378.25	34.64	248.34	108.06	128.29	14 3 14	4778.2	39.34	240.64
47.18	4 11 43	1606.23	34.63	29.90	108.04	128.30	4 38 29	1006.2	39.32	22.21
132.82	12 33 36	5378.25	34.64	248.34	108.06	128.29	14 3 14	4778.2	39.34	240.64

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE-1.3462 TRA -.8345 TC3-4.2169 BAU  .9416   SGT 4322.2 SGR  685.7 SG3  185.4          ST  1975.3 SR   510.7 SS   580.3
 RDE  .3625 RRA -.0137 RC3  .5614 FAU .04459   RRT -.8371 RRF -.9352 RTF  .9167          CRT -.9557 CRS  .9990 CST -.9652
 FDE -.7103 FRA -.0235 FC3-2.3315 BSP  13697   SGB 4376.3 R23  .2964 R13 -.9201          LSA 2111.7 MSA  199.7 SSA   11.0
 BDE 1.3941 BRA  .8346 BC3 4.2541 FSP   -608   SG1 4360.4 SG2  371.8 THA 172.38          EL1 2035.0 EL2  146.0 ALF 166.05
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LAUNCH DATE SEP 30 1970 FLIGHT TIME 148.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 438.052

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RL  149.82 LAL    .00 LOL   6.42 VL  26.874 GAL  -4.77 AZL  93.65 HCA 213.57 SMA 126.46 ECC .20199 INC 3.6535 V1  29.741
RP  108.19 LAP   2.02 LOP 219.94 VP  37.469 GAP   8.20 AZP  86.95 TAL 199.55 TAP  53.12 RCA 100.92 APO 152.01 V2  35.028
RC 140.364 GL  -26.14 GP   34.45 ZAL 116.70 ZAP 140.74 ETS  53.07 ZAE 123.05 ETE 155.06 ZAC 135.02 ETC 256.38 CLP-159.88
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PLANETOCENTRIC CONIC

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C3  15.002 VHL  3.873 DLA -47.01 RAL 238.17 RAD 6567.6 VEL 11.678 PTH   2.05 VHP  6.596 DPA  14.09 RAP 246.99 ECC 1.2469
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.77	4 41 20	1554.22	33.86	24.10	109.45	124.80	5 7 14	954.2	38.15	16.16
129.23	12 38 56	5385.63	33.87	248.38	109.46	124.79	14 8 41	4785.6	38.16	240.44
50.77	4 41 20	1554.22	33.86	24.10	109.45	124.80	5 7 14	954.2	38.15	16.16
129.23	12 38 56	5385.63	33.87	248.38	109.46	124.79	14 8 41	4785.6	38.16	240.44
50.77	4 41 20	1554.22	33.86	24.10	109.45	124.80	5 7 14	954.2	38.15	16.16
129.23	12 38 56	5385.63	33.87	248.38	109.46	124.79	14 8 41	4785.6	38.16	240.44

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE-1.2239 TRA -.7287 TC3-4.7774 BAU  .9650   SGT 4412.8 SGR  655.2 SG3  190.6          ST  1874.8 SR   479.9 SS   521.1
 RDE  .3240 RRA -.0285 RC3  .5710 FAU .04487   RRT -.8325 RRF -.9210 RTF  .9134          CRT -.9564 CRS  .9993 CST -.9573
 FDE -.6163 FRA  .0528 FC3-2.5896 BSP  13970   SGB 4461.2 R23  .2807 R13 -.9163          LSA 1994.8 MSA  193.0 SSA   13.5
 BDE 1.2660 BRA  .7293 BC3 4.8115 FSP   -624   SG1 4446.6 SG2  360.2 THA 172.91          EL1 1930.5 EL2  136.1 ALF 166.17
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LAUNCH DATE SEP 30 1970 FLIGHT TIME 150.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 443.885

RL 149.82 LAL .00 LOL 6.42 VL 26.817 GAL -4.44 AZL 93.12 HCA 216.76 SMA 126.10 ECC .20289 INC 3.1151 V1 29.741
RP 108.23 LAP 1.86 LOP 223.14 VP 37.417 GAP 8.43 AZP 87.50 TAL 197.97 TAP 54.74 RCA 100.51 APO 151.68 V2 35.014
RC 142.552 GL -22.99 GP 31.73 ZAL 115.11 ZAP 143.39 ETS 52.45 ZAE 124.01 ETE 156.76 ZAC 132.65 ETC 257.47 CLP-160.71

PLANETOCENTRIC CONIC

C3 13.839 VHL 3.720 DLA -44.44 RAL 242.44 RAD 6567.5 VEL 11.629 PTH 2.04 VHP 6.541 DPA 10.96 RAP 248.26 ECC 1.2278

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.20	5 11 0	1503.78	32.87	18.62	111.19	121.78	5 36 4	903.8	36.80	10.54
125.80	12 43 16	5400.32	32.89	248.97	111.20	121.76	14 13 16	4800.3	36.81	240.89
54.20	5 11 0	1503.78	32.87	18.62	111.19	121.78	5 36 4	903.8	36.80	10.54
125.80	12 43 16	5400.32	32.89	248.97	111.20	121.76	14 13 16	4800.3	36.81	240.89
54.20	5 11 0	1503.78	32.87	18.62	111.19	121.78	5 36 4	903.8	36.80	10.54
125.80	12 43 16	5400.32	32.89	248.97	111.20	121.76	14 13 16	4800.3	36.81	240.89

DIFFERENTIAL CORRECTIONS
TDE-1.1102 TRA -.6179 TC3-5.3056 BAU .9873
RDE .2949 RRA -.0414 RC3 .5722 FAU .04462
FDE -.5251 FRA .1272 FC3-2.7911 BSP 14263
BDE 1.1487 BRA .6193 BC3 5.3364 FSP -635

MID-COURSE EXECUTION ACCURACY
SGT 4503.6 SGR 628.9 SG3 194.0
RRT -.8254 RRF -.9035 RTF .9112
SGB 4547.3 R23 .2600 R13 -.9136
SG1 4533.6 SG2 352.7 THA 173.38

ORBIT DETERMINATION ACCURACY
ST 1760.0 SR 455.2 SS 460.8
CRT -.9579 CRS .9979 CST -.9459
LSA 1866.0 MSA 186.7 SSA 16.4
EL1 1813.5 EL2 126.8 ALF 166.01

LAUNCH DATE SEP 30 1970 FLIGHT TIME 152.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 449.706

RL 149.82 LAL .00 LOL 6.42 VL 26.761 GAL -4.09 AZL 92.65 HCA 219.95 SMA 125.74 ECC .20392 INC 2.6518 V1 29.741
RP 108.27 LAP 1.70 LOP 226.34 VP 37.364 GAP 8.67 AZP 87.97 TAL 196.38 TAP 56.33 RCA 100.10 APO 151.38 V2 35.001
RC 144.730 GL -20.06 GP 29.37 ZAL 113.11 ZAP 145.77 ETS 51.97 ZAE 124.77 ETE 158.32 ZAC 130.59 ETC 258.42 CLP-161.57

PLANETOCENTRIC CONIC

C3 12.960 VHL 3.600 DLA -42.03 RAL 246.63 RAD 6567.5 VEL 11.591 PTH 2.03 VHP 6.526 DPA 8.19 RAP 249.69 ECC 1.2133

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.53	5 41 11	1453.37	31.75	13.34	113.27	119.14	6 5 25	853.4	35.36	5.18
122.47	12 46 30	5422.21	31.76	250.14	113.28	119.13	14 16 53	4822.2	35.37	241.99
57.53	5 41 11	1453.37	31.75	13.34	113.27	119.14	6 5 25	853.4	35.36	5.18
122.47	12 46 30	5422.21	31.76	250.14	113.28	119.13	14 16 53	4822.2	35.37	241.99
57.53	5 41 11	1453.37	31.75	13.34	113.27	119.14	6 5 25	853.4	35.36	5.18
122.47	12 46 30	5422.21	31.76	250.14	113.28	119.13	14 16 53	4822.2	35.37	241.99

DIFFERENTIAL CORRECTIONS
TDE-1.0014 TRA -.5014 TC3-5.7923 BAU 1.0084
RDE .2728 RRA -.0531 RC3 .5671 FAU .04392
FDE -.4376 FRA .1991 FC3-2.9341 BSP 14556
BDE 1.0379 BRA .5043 BC3 5.8200 FSP -641

MID-COURSE EXECUTION ACCURACY
SGT 4592.1 SGR 606.8 SG3 195.7
RRT -.8156 RRF -.8830 RTF .9097
SGB 4632.0 R23 .2363 R13 -.9117
SG1 4618.8 SG2 349.1 THA 173.81

ORBIT DETERMINATION ACCURACY
ST 1630.9 SR 435.7 SS 400.9
CRT -.9605 CRS .9928 CST -.9286
LSA 1725.5 MSA 180.6 SSA 20.0
EL1 1684.0 EL2 117.4 ALF 165.54

LAUNCH DATE SEP 30 1970 FLIGHT TIME 154.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 455.513

RL 149.82 LAL .00 LOL 6.42 VL 26.705 GAL -3.73 AZL 92.25 HCA 223.14 SMA 125.38 ECC .20509 INC 2.2466 V1 29.741
RP 108.31 LAP 1.54 LOP 229.54 VP 37.312 GAP 8.91 AZP 88.36 TAL 194.78 TAP 57.92 RCA 99.67 APO 151.10 V2 34.988
RC 146.899 GL -17.33 GP 27.30 ZAL 110.77 ZAP 147.92 ETS 51.62 ZAE 125.36 ETE 159.72 ZAC 128.80 ETC 259.27 CLP-162.45

PLANETOCENTRIC CONIC

C3 12.298 VHL 3.507 DLA -39.75 RAL 250.77 RAD 6567.5 VEL 11.562 PTH 2.02 VHP 6.540 DPA 5.72 RAP 251.25 ECC 1.2024

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.85	6 12 22	1401.41	30.51	8.11	115.64	116.82	6 35 43	801.4	33.84	359.93
119.15	12 48 24	5451.78	30.52	251.91	115.64	116.81	14 19 15	4851.8	33.85	243.73
60.85	6 12 22	1401.41	30.51	8.11	115.64	116.82	6 35 43	801.4	33.84	359.93
119.15	12 48 24	5451.78	30.52	251.91	115.64	116.81	14 19 15	4851.8	33.85	243.73
60.85	6 12 22	1401.41	30.51	8.11	115.64	116.82	6 35 43	801.4	33.84	359.93
119.15	12 48 24	5451.78	30.52	251.91	115.64	116.81	14 19 15	4851.8	33.85	243.73

DIFFERENTIAL CORRECTIONS
TDE -.8954 TRA -.3706 TC3-6.2309 BAU 1.0286
RDE .2559 RRA -.0641 RC3 .5577 FAU .04291
FDE -.3547 FRA .2679 FC3-3.0204 BSP 14852
BDE .9313 BRA .3840 BC3 6.2558 FSP -643

MID-COURSE EXECUTION ACCURACY
SGT 4678.3 SGR 588.5 SG3 196.0
RRT -.8033 RRF -.8601 RTF .9089
SGB 4715.2 R23 .2114 R13 -.9105
SG1 4702.3 SG2 348.7 THA 174.20

ORBIT DETERMINATION ACCURACY
ST 1488.5 SR 420.3 SS 343.2
CRT -.9645 CRS .9793 CST -.9012
LSA 1574.5 MSA 174.7 SSA 24.4
EL1 1543.0 EL2 107.1 ALF 164.69

LAUNCH DATE SEP 30 1970 FLIGHT TIME 156.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 461.305

RL 149.82 LAL .00 LOL 6.42 VL 26.650 GAL -3.37 AZL 91.89 HCA 226.33 SMA 125.04 ECC .20642 INC 1.8870 V1 29.741
RP 108.35 LAP 1.36 LOP 232.73 VP 37.260 GAP 9.14 AZP 88.70 TAL 193.16 TAP 59.48 RCA 99.23 APO 150.85 V2 34.975
RC 149.057 GL -14.77 GP 25.48 ZAL 108.12 ZAP 149.86 ETS 51.42 ZAE 125.82 ETE 160.98 ZAC 127.23 ETC 260.06 CLP-163.33

PLANETOCENTRIC CONIC

C3 11.813 VHL 3.437 DLA -37.56 RAL 254.88 RAD 6567.5 VEL 11.541 PTH 2.01 VHP 6.577 DPA 3.53 RAP 252.92 ECC 1.1944

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.21	6 45 6	1345.94	29.19	2.77	118.28	114.77	7 7 32	745.9	32.27	354.59
115.79	12 48 28	5490.28	29.20	254.37	118.28	114.76	14 19 58	4890.3	32.28	246.19
64.21	6 45 6	1345.94	29.19	2.77	118.28	114.77	7 7 32	745.9	32.27	354.59
115.79	12 48 28	5490.28	29.20	254.37	118.28	114.76	14 19 58	4890.3	32.28	246.19
64.21	6 45 6	1345.94	29.19	2.77	118.28	114.77	7 7 32	745.9	32.27	354.59
115.79	12 48 28	5490.28	29.20	254.37	118.28	114.76	14 19 58	4890.3	32.28	246.19

DIFFERENTIAL CORRECTIONS
TDE -.7894 TRA -.2481 TC3-6.6105 BAU 1.0476
RDE .2429 RRA -.0748 RC3 .5450 FAU .04164
FDE -.2758 FRA .3542 FC3-3.0516 BSP 15123
BDE .8259 BRA .2591 BC3 6.6330 FSP -640

MID-COURSE EXECUTION ACCURACY
SGT 4759.5 SGR 573.6 SG3 195.2
RRT -.7887 RRF -.8352 RTF .9085
SGB 4794.0 R23 .1867 R13 -.9098
SG1 4781.1 SG2 351.1 THA 174.54

ORBIT DETERMINATION ACCURACY
ST 1332.2 SR 407.8 SS 289.6
CRT -.9700 CRS .9469 CST -.8550
LSA 1412.6 MSA 169.2 SSA 30.1
EL1 1389.9 EL2 95.0 ALF 163.38

LAUNCH DATE SEP 30 1970 FLIGHT TIME 158.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 467.082

RL	149.82	LAL	.00	LOL	6.42	VL	26.595	GAL	-2.99	AZL	91.56	HCA	229.51	SMA	124.69	ECC	.20790	INC	1.5641	V1	29.741		
RP	108.39	LAP	1.19	LOP	235.92	VP	37.209	GAP	9.38	AZP	88.98	TAL	191.53	TAP	61.04	RCA	98.77	APO	150.62	V2	34.962		
RC	151.205	GL	-12.36	GP	23.88	ZAL	105.24	ZAP	151.63	ETS	51.35	ZAE	126.19	ETE	162.10	ZAC	125.85	ETC	260.80	CLP	-164.21		

PLANETOCENTRIC CONIC

C3	11.478	VHL	3.388	DLA	-35.45	RAL	258.97	RAD	6567.4	VEL	11.527	PTH	2.01	VHP	6.634	DPA	1.56	RAP	254.69	ECC	1.1889		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.73	7 20 12	1284.24	27.81	357.11	121.15	112.93	7 41 36	684.2	30.66	348.96
112.27	12 45 57	5539.93	27.82	257.67	121.16	112.92	14 18 17	4939.9	30.67	249.52
67.73	7 20 12	1284.24	27.81	357.11	121.15	112.93	7 41 36	684.2	30.66	348.96
112.27	12 45 57	5539.93	27.82	257.67	121.16	112.92	14 18 17	4939.9	30.67	249.52
67.73	7 20 12	1284.24	27.81	357.11	121.15	112.93	7 41 36	684.2	30.66	348.96
112.27	12 45 57	5539.93	27.82	257.67	121.16	112.92	14 18 17	4939.9	30.67	249.52

DIFFERENTIAL CORRECTIONS

TDE	-.6825	TRA	-.1107	TC3	-6.9256	BAU	1.0658
RDE	.2331	RRA	-.0853	RC3	.5297	FAU	.04021
FDE	-.2018	FRA	.3972	FC3	-3.0326	BSP	15392
BDE	.7212	BRA	.1398	BC3	6.9459	FSP	-636

MID-COURSE EXECUTION ACCURACY

SGT	4838.0	SGR	561.8	SG3	193.6		
RRT	-.7722	RRF	-.8090	RTF	.9085		
SGB	4870.5	R23	.1631	R13	-.9096		
SG1	4857.5	SG2	355.5	THA	174.85		

ORBIT DETERMINATION ACCURACY

ST	1164.9	SR	397.9	SS	244.2
CRT	-.9770	CRS	.8752	CST	-.7770
LSA	1243.6	MSA	164.5	SSA	37.3
EL1	1228.3	EL2	80.4	ALF	161.46

LAUNCH DATE SEP 30 1970 FLIGHT TIME 160.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 472.843

RL	149.82	LAL	.00	LOL	6.42	VL	26.541	GAL	-2.60	AZL	91.27	HCA	232.70	SMA	124.35	ECC	.20954	INC	1.2707	V1	29.741		
RP	108.43	LAP	1.01	LOP	239.11	VP	37.158	GAP	9.63	AZP	89.23	TAL	189.88	TAP	62.58	RCA	98.30	APO	150.41	V2	34.949		
RC	153.343	GL	-10.08	GP	22.46	ZAL	102.14	ZAP	153.25	ETS	51.43	ZAE	126.49	ETE	163.11	ZAC	124.64	ETC	261.52	CLP	-165.08		

PLANETOCENTRIC CONIC

C3	11.275	VHL	3.358	DLA	-33.38	RAL	263.02	RAD	6567.4	VEL	11.518	PTH	2.01	VHP	6.706	DPA	-.20	RAP	256.55	ECC	1.1856		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
71.53	7 58 57	1211.91	26.36	350.78	124.24	111.27	8 19 9	611.9	29.01	342.67
108.47	12 39 32	5604.87	26.37	262.10	124.25	111.25	14 12 56	5004.9	29.02	253.99
71.53	7 58 57	1211.91	26.36	350.78	124.24	111.27	8 19 9	611.9	29.01	342.67
108.47	12 39 32	5604.87	26.37	262.10	124.25	111.25	14 12 56	5004.9	29.02	253.99
110.00	11 52 58	5747.62	22.15	271.11	122.19	116.73	13 28 46	5147.6	25.55	263.61
110.00	13 44 41	5405.20	30.74	248.26	125.91	105.75	15 14 46	4805.2	32.59	239.53

DIFFERENTIAL CORRECTIONS

TDE	-.5734	TRA	.0338	TC3	-7.1708	BAU	1.0837
RDE	.2257	RRA	-.0958	RC3	.5131	FAU	.03869
FDE	-.1322	FRA	.4567	FC3	-2.9710	BSP	15666
BDE	.6162	BRA	.1016	BC3	7.1891	FSP	-631

MID-COURSE EXECUTION ACCURACY

SGT	4914.5	SGR	552.6	SG3	191.3		
RRT	-.7547	RRF	-.7822	RTF	.9092		
SGB	4945.5	R23	.1407	R13	-.9101		
SG1	4932.3	SG2	361.3	THA	175.12		

ORBIT DETERMINATION ACCURACY

ST	989.2	SR	389.7	SS	211.2
CRT	-.9844	CRS	.7317	CST	-.6521
LSA	1070.7	MSA	162.7	SSA	46.1
EL1	1061.2	EL2	63.8	ALF	158.72

LAUNCH DATE SEP 30 1970 FLIGHT TIME 162.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 478.587

RL	149.82	LAL	.00	LOL	6.42	VL	26.487	GAL	-2.19	AZL	91.00	HCA	235.88	SMA	124.02	ECC	.21137	INC	1.0012	V1	29.741		
RP	108.47	LAP	.83	LOP	242.30	VP	37.107	GAP	9.88	AZP	89.44	TAL	188.23	TAP	64.11	RCA	97.81	APO	150.24	V2	34.937		
RC	155.470	GL	-7.95	GP	21.20	ZAL	98.89	ZAP	154.74	ETS	51.66	ZAE	126.73	ETE	164.01	ZAC	123.55	ETC	262.21	CLP	-165.94		

PLANETOCENTRIC CONIC

C3	11.196	VHL	3.346	DLA	-31.36	RAL	267.03	RAD	6567.4	VEL	11.514	PTH	2.01	VHP	6.792	DPA	-1.78	RAP	258.49	ECC	1.1843		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
75.92	8 44 0	1120.05	24.86	343.15	127.52	109.76	9 2 41	520.1	27.33	335.09
104.08	12 26 29	5693.81	24.88	268.27	127.52	109.74	14 1 22	5093.8	27.34	260.21
75.92	8 44 0	1120.05	24.86	343.15	127.52	109.76	9 2 41	520.1	27.33	335.09
104.08	12 26 29	5693.81	24.88	268.27	127.52	109.74	14 1 22	5093.8	27.34	260.21
110.00	11 20 24	611.98	17.21	302.27	123.72	120.00	11 30 36	12.0	21.07	295.26
110.00	14 49 16	5249.88	33.04	236.75	129.93	99.31	16 16 45	4649.9	33.97	227.63

DIFFERENTIAL CORRECTIONS

TDE	-.4571	TRA	.1899	TC3	-7.3226	BAU	1.0985
RDE	.2197	RRA	-.1072	RC3	.4920	FAU	.03695
FDE	-.0640	FRA	.5163	FC3	-2.8570	BSP	15834
BDE	.5072	BRA	.2180	BC3	7.3391	FSP	-617

MID-COURSE EXECUTION ACCURACY

SGT	4977.0	SGR	544.2	SG3	188.1		
RRT	-.7346	RRF	-.7540	RTF	.9090		
SGB	5006.6	R23	.1217	R13	-.9097		
SG1	4993.1	SG2	368.1	THA	175.38		

ORBIT DETERMINATION ACCURACY

ST	804.6	SR	381.8	SS	196.2
CRT	-.9873	CRS	.4844	CST	-.4822
LSA	894.2	MSA	170.8	SSA	54.9
EL1	888.9	EL2	55.0	ALF	154.79

LAUNCH DATE SEP 30 1970 FLIGHT TIME 164.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 484.314

RL	149.82	LAL	.00	LOL	6.42	VL	26.433	GAL	-1.77	AZL	90.75	HCA	239.06	SMA	123.69	ECC	.21338	INC	.7515	V1	29.741		
RP	108.51	LAP	.64	LOP	245.48	VP	37.058	GAP	10.13	AZP	89.61	TAL	186.57	TAP	65.63	RCA	97.30	APO	150.09	V2	34.925		
RC	157.587	GL	-5.94	GP	20.08	ZAL	95.53	ZAP	156.11	ETS	52.03	ZAE	126.94	ETE	164.81	ZAC	122.58	ETC	262.89	CLP	-166.79		

PLANETOCENTRIC CONIC

C3	11.235	VHL	3.352	DLA	-29.38	RAL	270.99	RAD	6567.4	VEL	11.516	PTH	2.01	VHP	6.890	DPA	-3.20	RAP	260.50	ECC	1.1849		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.84	9 43 51	900.70	23.33	332.16	130.95	108.37	10 0 11	380.7	25.62	324.16
98.16	11 58 13	5034.61	23.34	278.20	130.95	108.36	13 35 28	5234.6	25.63	270.20
100.00	11 25 42	650.76	20.13	306.72	129.66	112.57	11 36 33	50.8	23.02	299.11
100.00	12 59 3	5639.78	26.62	264.82	132.01	104.13	14 33 3	5039.8	28.30	256.42
110.00	11 4 54	716.28	13.57	308.15	126.15	121.68	11 16 50	116.3	17.66	301.43
110.00	15 36 20	5147.02	33.90	228.85	133.40	94.70	17 2 7	4547.0	34.18	219.61

DIFFERENTIAL CORRECTIONS

TDE	-.3577	TRA	.3839	TC3	-7.3927	BAU	1.1126
RDE	.2156	RRA	-.1189	RC3	.4692	FAU	.03516
FDE	-.0008	FRA	.5732	FC3	-2.7093	BSP	16015
BDE	.4007	BRA	.3734	BC3	7.4076	FSP	-605

MID-COURSE EXECUTION ACCURACY

SGT	5037.4	SGR	537.7	SG3	184.6		
RRT	-.7138	RRF	-.7261	RTF	.9091		
SGB	5066.0	R23	.1051	R13	-.9097		
SG1	5052.1	SG2	375.5	THA	175.62		

ORBIT DETERMINATION ACCURACY

ST	631.5	SR	375.2	SS	203.4
CRT	-.9653	CRS	.1922	CST	-.3669
LSA	732.9	MSA	201.0	SSA	59.2
EL1	729.7	EL2	84.8	ALF	149.71

LAUNCH DATE SEP 30 1970 FLIGHT TIME 166.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 490.021

RL 149.82 LAL .00 LOL 6.42 VL 26.380 GAL -1.34 AZL 90.52 HCA 242.24 SMA 123.37 ECC .21560 INC .5182 V1 29.741
RP 108.54 LAP .46 LOP 248.66 VP 37.009 GAP 10.39 AZP 89.76 TAL 184.89 TAP 67.13 RCA 96.77 APO 149.97 V2 34.913
RC 159.692 GL -4.05 GP 19.08 ZAL 92.08 ZAP 157.38 ETS 52.56 ZAE 127.10 ETE 165.52 ZAC 121.70 ETC 263.56 CLP-167.62

PLANETOCENTRIC CONIC

C3 11.392 VHL 3.375 DLA -27.42 RAL 274.88 RAD 6567.4 VEL 11.523 PTH 2.01 VHP 7.000 DPA -4.46 RAP 262.58 ECC 1.1875

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	10 4 7	970.02	17.68	329.14	132.96	112.49	10 20 17	370.0	20.58	321.66
90.00	12 8 59	5851.04	26.00	280.19	135.70	101.64	13 46 30	5251.0	27.34	271.78
100.00	10 46 10	834.13	14.96	317.88	131.68	116.18	11 0 4	234.1	18.36	310.74
100.00	14 9 37	5462.16	28.94	252.14	136.27	97.85	15 40 39	4862.2	29.72	243.42
110.00	10 55 50	803.79	10.39	312.94	129.03	122.75	11 9 13	203.8	14.63	306.41
110.00	16 16 26	5065.26	34.17	222.48	136.75	90.95	17 40 52	4465.3	33.93	213.24

DIFFERENTIAL CORRECTIONS
TDE -.2157 TRA .5232 TC3-7.3892 BAU 1.1274
RDE .2132 RRA -.1304 RC3 .4466 FAU .03347
FDE .0573 FRA .6249 FC3-2.5433 BSP 16234
BDE .3032 BRA .5392 BC3 7.4026 FSP -595

MID-COURSE EXECUTION ACCURACY
SGT 5100.5 SGR 532.9 SG3 180.9
RRT -.6930 RRF -.6992 RTF .9104
SGB 5128.3 RZS .0809 R13 -.9109
SG1 5114.0 SG2 382.8 THA 175.83

ORBIT DETERMINATION ACCURACY
ST 496.5 SR 369.6 SS 226.8
CRT -.8516 CRS -.0573 CST -.4279
LSA 601.3 MSA 264.2 SSA 56.6
EL1 597.7 EL2 161.0 ALF 144.69

LAUNCH DATE SEP 30 1970 FLIGHT TIME 168.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 495.708

RL 149.82 LAL .00 LOL 6.42 VL 26.328 GAL -.89 AZL 90.30 HCA 245.42 SMA 123.06 ECC .21803 INC .2979 V1 29.741
RP 108.58 LAP .27 LOP 251.84 VP 36.961 GAP 10.65 AZP 89.88 TAL 183.21 TAP 68.63 RCA 96.23 APO 149.89 V2 34.901
RC 161.784 GL -2.30 GP 18.19 ZAL 88.59 ZAP 158.56 ETS 53.24 ZAE 127.25 ETE 166.17 ZAC 120.91 ETC 264.22 CLP-168.45

PLANETOCENTRIC CONIC

C3 11.669 VHL 3.416 DLA -25.51 RAL 278.68 RAD 6567.4 VEL 11.553 PTH 2.01 VHP 7.121 DPA -5.60 RAP 264.71 ECC 1.1920

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 31 15	1135.77	13.09	330.14	135.42	115.33	9 50 11	535.8	16.40	332.02
90.00	13 12 11	5605.29	27.66	280.10	139.81	96.33	14 47 6	5095.3	28.25	280.48
100.00	10 27 49	953.14	11.27	324.79	134.49	117.87	10 43 42	353.1	14.92	317.90
100.00	14 58 19	5353.15	29.68	244.13	140.01	93.69	16 27 32	4753.2	29.88	235.33
110.00	10 50 19	882.56	7.46	317.16	132.20	123.46	11 5 1	282.6	11.81	310.76
110.00	16 52 18	4996.49	34.12	217.11	140.08	87.77	18 15 35	4396.5	33.43	207.93

DIFFERENTIAL CORRECTIONS
TDE -.0932 TRA .6978 TC3-7.3172 BAU 1.1434
RDE .2126 RRA -.1419 RC3 .4241 FAU .03189
FDE .1090 FRA .6726 FC3-2.3659 BSP 16538
BDE .2321 BRA .7121 BC3 7.3294 FSP -590

MID-COURSE EXECUTION ACCURACY
SGT 5166.9 SGR 529.8 SG3 177.3
RRT -.6745 RRF -.6743 RTF .9126
SGB 5194.0 RZS .0748 R13 -.9130
SG1 5179.3 SG2 380.2 THA 176.02

ORBIT DETERMINATION ACCURACY
ST 445.3 SR 365.4 SS 258.4
CRT -.5398 CRS -.2287 CST -.6662
LSA 522.6 MSA 350.6 SSA 50.3
EL1 509.4 EL2 268.8 ALF 145.13

LAUNCH DATE SEP 30 1970 FLIGHT TIME 170.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 501.374

RL 149.82 LAL .00 LOL 6.42 VL 26.276 GAL -.43 AZL 90.09 HCA 248.59 SMA 122.75 ECC .22070 INC .0885 V1 29.741
RP 108.61 LAP .08 LOP 255.01 VP 36.913 GAP 10.93 AZP 89.97 TAL 181.52 TAP 70.11 RCA 95.66 APO 149.84 V2 34.890
RC 163.865 GL -.68 GP 17.38 ZAL 85.09 ZAP 159.66 ETS 54.09 ZAE 127.37 ETE 166.74 ZAC 120.17 ETC 264.88 CLP-169.26

PLANETOCENTRIC CONIC

C3 12.070 VHL 3.474 DLA -23.63 RAL 282.39 RAD 6567.5 VEL 11.552 PTH 2.02 VHP 7.252 DPA -6.61 RAP 266.89 ECC 1.1986

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 14 5	1253.35	9.57	345.98	138.45	116.78	9 34 59	653.4	13.09	339.07
90.00	13 58 56	5591.91	28.21	261.59	143.59	92.60	15 32 8	4991.9	28.27	252.92
100.00	10 16 34	1051.69	8.08	330.37	137.65	118.88	10 34 5	451.7	11.88	323.63
100.00	15 39 8	5268.81	29.89	237.87	143.64	90.41	17 6 57	4668.8	29.63	229.07
110.00	10 47 2	955.99	4.69	321.04	135.57	123.90	11 2 58	356.0	9.11	314.74
110.00	17 25 7	4937.27	33.87	212.50	143.45	85.05	18 47 24	4337.3	32.81	203.42

DIFFERENTIAL CORRECTIONS
TDE .0413 TRA .8881 TC3-7.1409 BAU 1.1541
RDE .2123 RRA -.1546 RC3 .3963 FAU .03005
FDE .1619 FRA .7223 FC3-2.1551 BSP 16646
BDE .2163 BRA .9014 BC3 7.1519 FSP -572

MID-COURSE EXECUTION ACCURACY
SGT 5213.5 SGR 525.2 SG3 172.9
RRT -.6527 RRF -.6476 RTF .9132
SGB 5239.9 RZS .0634 R13 -.9135
SG1 5224.8 SG2 397.0 THA 176.22

ORBIT DETERMINATION ACCURACY
ST 506.8 SR 360.1 SS 297.5
CRT -.0954 CRS -.3542 CST -.8808
LSA 574.4 MSA 378.4 SSA 43.3
EL1 509.1 EL2 356.8 ALF 172.34

LAUNCH DATE SEP 30 1970 FLIGHT TIME 172.00 ARRIVAL DATE MAR 21 1971

HELIOCENTRIC CONIC DISTANCE 507.015

RL 149.82 LAL .00 LOL 6.42 VL 26.225 GAL .05 AZL 89.89 HCA 251.76 SMA 122.44 ECC .22362 INC .1095 V1 29.741
RP 108.65 LAP -.11 LOP 258.19 VP 36.867 GAP 11.21 AZP 90.03 TAL 179.83 TAP 71.59 RCA 95.06 APO 149.82 V2 34.880
RC 165.932 GL .82 GP 16.65 ZAL 81.61 ZAP 160.68 ETS 55.11 ZAE 127.48 ETE 167.26 ZAC 119.50 ETC 265.54 CLP-170.07

PLANETOCENTRIC CONIC

C3 12.603 VHL 3.550 DLA -21.81 RAL 285.98 RAD 6567.5 VEL 11.575 PTH 2.02 VHP 7.394 DPA -7.51 RAP 269.12 ECC 1.2074

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 3 7	1352.58	6.48	351.64	141.76	117.63	9 25 39	752.6	10.13	344.86
90.00	14 38 35	5511.04	28.31	255.68	147.28	89.64	16 10 26	4911.0	27.97	247.03
100.00	10 9 8	1139.50	5.17	335.26	141.04	119.48	10 28 7	539.5	9.06	328.63
100.00	16 15 15	5199.35	29.81	232.71	147.24	87.69	17 41 54	4599.4	29.17	223.96
110.00	10 45 24	1025.80	2.03	324.69	139.09	124.13	11 2 30	425.8	6.49	318.45
110.00	17 55 28	4885.82	33.49	208.53	148.87	82.73	19 16 54	4285.8	32.13	199.57

DIFFERENTIAL CORRECTIONS
TDE .1094 TRA 1.0934 TC3-6.8757 BAU 1.1601
RDE .2112 RRA -.1694 RC3 .3617 FAU .02776
FDE .2228 FRA .7803 FC3-1.9066 BSP 16689
BDE .2837 BRA 1.1064 BC3 6.8852 FSP -548

MID-COURSE EXECUTION ACCURACY
SGT 5247.7 SGR 518.5 SG3 168.5
RRT -.6202 RRF -.6178 RTF .9086
SGB 5273.3 RZS .0561 R13 -.9089
SG1 5257.9 SG2 402.6 THA 176.43

ORBIT DETERMINATION ACCURACY
ST 663.3 SR 352.2 SS 347.8
CRT .2255 CRS -.4499 CST -.9631
LSA 752.2 MSA 343.2 SSA 38.0
EL1 669.7 EL2 339.8 ALF 9.22

LAUNCH DATE SEP 30 1970 FLIGHT TIME 174.00 ARRIVAL DATE MAR 23 1971

HELIOCENTRIC CONIC DISTANCE 512.631

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RL  149.82 LAL    .00 LOL   6.42 VL  26.174 GAL    .55 AZL  89.70 HCA 254.94 SMA 122.14 ECC .22681 INC  .3031 V1  29.741
RP  108.68 LAP   -.29 LOP 261.36 VP  36.821 GAP  11.50 AZP  90.08 TAL 178.13 TAP  73.06 RCA  94.44 APO 149.85 V2  34.869
RC 167.985 GL    2.18 GP   15.99 ZAL  78.18 ZAP 161.64 ETS  56.30 ZAE 127.57 ETE 167.73 ZAC 118.87 ETC 266.20 CLP-170.86
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PLANETOCENTRIC CONIC

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C3  13.278 VHL  3.644 DLA -20.04 RAL 289.45 RAD 6567.5 VEL 11.604 PTH   2.03 VHP  7.546 DPA  -8.30 RAP 271.39 ECC 1.2185
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 55 38	1441.59	3.65	356.64	145.27	118.10	9 19 40	841.6	7.38	349.95
90.00	15 13 45	5444.47	28.19	250.81	150.95	87.21	16 44 29	4844.5	27.50	242.21
100.00	10 4 8	1220.55	2.44	339.72	144.60	119.80	10 24 28	620.6	6.38	333.16
100.00	16 47 56	5140.74	29.57	228.37	150.85	85.42	18 13 37	4540.7	28.62	219.69
110.00	10 44 51	1092.95	-.54	328.19	142.74	124.18	11 3 4	493.0	3.95	321.98
110.00	18 23 43	4841.10	33.06	205.11	150.35	80.75	19 44 24	4241.1	31.43	196.27

DIFFERENTIAL CORRECTIONS

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TDE  .3210 TRA 1.2939 TC3-6.6148 BAU 1.1757
RDE  .2154 RRA -.1810 RC3  .3402 FAU .02659
FDE  .2575 FRA  .8178 FC3-1.7337 BSP  16984
BDE  .3866 BRA 1.3065 BC3 6.6235 FSP   -549
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MID-COURSE EXECUTION ACCURACY

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SGT 5308.8 SGR  517.7 SG3  164.7
RRT -.6114 RRF -.5987 RTF  .9150
SGB 5334.0 R23  .0454 R13 -.9152
SG1 5318.3 SG2  408.9 THA 176.57
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ORBIT DETERMINATION ACCURACY

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ST   835.4 SR   350.8 SS   376.8
CRT  .3783 CRS -.4910 CST -.9873
LSA  926.8 MSA  320.6 SSA   32.8
EL1  847.6 EL2  320.0 ALF  10.55
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LAUNCH DATE SEP 30 1970 FLIGHT TIME 176.00 ARRIVAL DATE MAR 25 1971

HELIOCENTRIC CONIC DISTANCE 518.218

```
RL  149.82 LAL    .00 LOL   6.42 VL  26.124 GAL   1.07 AZL  89.51 HCA 258.11 SMA 121.85 ECC .23029 INC  .4901 V1  29.741
RP  108.71 LAP   -.48 LOP 264.53 VP  36.776 GAP  11.81 AZP  90.10 TAL 176.42 TAP  74.53 RCA  93.79 APO 149.91 V2  34.859
RC 170.025 GL    3.41 GP   15.39 ZAL  74.83 ZAP 162.53 ETS  57.69 ZAE 127.66 ETE 168.16 ZAC 118.27 ETC 266.86 CLP-171.65
```

PLANETOCENTRIC CONIC

```
C3  14.105 VHL  3.756 DLA -18.34 RAL 292.79 RAD 6567.6 VEL 11.640 PTH   2.04 VHP  7.710 DPA  -8.99 RAP 273.69 ECC 1.2321
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 50 25	1523.91	1.00	1.24	148.90	118.30	9 15 49	923.9	4.77	354.59
90.00	15 45 35	5388.57	27.94	246.74	154.63	85.18	17 15 24	4788.6	26.98	238.21
100.00	10 0 47	1296.84	-.15	343.91	148.26	119.89	10 22 24	696.8	3.83	337.38
100.00	17 17 54	5090.87	29.24	224.69	154.48	83.51	18 42 45	4490.9	28.04	216.10
110.00	10 45 6	1158.00	-3.03	331.59	146.47	124.07	11 4 24	558.0	1.46	325.38
110.00	18 50 5	4802.47	32.60	202.19	153.88	79.08	20 10 8	4202.5	30.75	193.46

DIFFERENTIAL CORRECTIONS

```
TDE  .4660 TRA 1.5104 TC3-6.2772 BAU 1.1852
RDE  .2190 RRA -.1943 RC3  .3118 FAU .02493
FDE  .2993 FRA  .8621 FC3-1.5303 BSP  17131
BDE  .5149 BRA 1.5228 BC3 6.2849 FSP   -535
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5350.7 SGR  513.7 SG3  160.5
RRT -.5910 RRF -.5757 RTF  .9165
SGB 5375.3 R23  .0381 R13 -.9166
SG1 5359.3 SG2  413.7 THA 176.73
```

ORBIT DETERMINATION ACCURACY

```
ST  1027.5 SR   347.0 SS   412.0
CRT  .4720 CRS -.5282 CST -.9949
LSA 1119.8 MSA  301.8 SSA   29.1
EL1 1041.7 EL2  301.8 ALF   9.90
```

LAUNCH DATE SEP 30 1970 FLIGHT TIME 178.00 ARRIVAL DATE MAR 27 1971

HELIOCENTRIC CONIC DISTANCE 523.772

```
RL  149.82 LAL    .00 LOL   6.42 VL  26.074 GAL   1.61 AZL  89.33 HCA 261.28 SMA 121.56 ECC .23409 INC  .6726 V1  29.741
RP  108.74 LAP   -.66 LOP 267.70 VP  36.732 GAP  12.13 AZP  90.10 TAL 174.72 TAP  76.00 RCA  93.10 APO 150.02 V2  34.850
RC 172.049 GL    4.52 GP   14.85 ZAL  71.58 ZAP 163.37 ETS  59.27 ZAE 127.73 ETE 168.54 ZAC 117.71 ETC 267.51 CLP-172.42
```

PLANETOCENTRIC CONIC

```
C3  15.100 VHL  3.886 DLA -16.71 RAL 295.99 RAD 6567.6 VEL 11.683 PTH   2.05 VHP  7.886 DPA  -9.58 RAP 276.02 ECC 1.2485
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 46 47	1601.36	-1.50	5.56	152.63	118.28	9 13 29	1001.4	2.29	358.93
90.00	16 14 44	5341.40	27.62	243.33	158.32	83.50	17 43 45	4741.4	26.43	234.86
100.00	9 58 39	1369.48	-2.61	347.90	152.02	119.79	10 21 28	769.5	1.37	341.37
100.00	17 45 33	5048.51	28.88	221.60	158.14	81.92	19 9 41	4448.5	27.46	213.08
110.00	10 45 57	1221.28	-5.43	334.90	150.27	123.80	11 6 19	621.3	-.96	328.68
110.00	19 14 44	4769.48	32.14	199.73	157.45	77.69	20 34 13	4169.5	30.12	191.10

DIFFERENTIAL CORRECTIONS

```
TDE  .5896 TRA 1.7111 TC3-5.9748 BAU 1.2076
RDE  .2261 RRA -.2053 RC3  .2904 FAU .02400
FDE  .3247 FRA  .8919 FC3-1.3763 BSP  17902
BDE  .6315 BRA 1.7234 BC3 5.9819 FSP   -552
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5409.0 SGR  511.8 SG3  156.0
RRT -.5746 RRF -.5582 RTF  .9217
SGB 5433.1 R23  .0310 R13 -.9219
SG1 5417.0 SG2  418.2 THA 176.87
```

ORBIT DETERMINATION ACCURACY

```
ST  1183.1 SR   346.6 SS   430.9
CRT  .5217 CRS -.5490 CST -.9974
LSA 1272.6 MSA  292.1 SSA   26.1
EL1 1197.8 EL2  292.1 ALF   9.24
```

LAUNCH DATE SEP 30 1970 FLIGHT TIME 180.00 ARRIVAL DATE MAR 29 1971

HELIOCENTRIC CONIC DISTANCE 529.297

```
RL  149.82 LAL    .00 LOL   6.42 VL  26.026 GAL   2.17 AZL  89.15 HCA 264.44 SMA 121.28 ECC .23824 INC  .8519 V1  29.741
RP  108.77 LAP   -.85 LOP 270.86 VP  36.689 GAP  12.47 AZP  90.08 TAL 173.01 TAP  77.46 RCA  92.38 APO 150.17 V2  34.841
RC 174.060 GL    5.50 GP   14.36 ZAL  68.44 ZAP 164.14 ETS  61.07 ZAE 127.80 ETE 168.89 ZAC 117.17 ETC 268.17 CLP-173.20
```

PLANETOCENTRIC CONIC

```
C3  16.279 VHL  4.035 DLA -15.16 RAL 299.05 RAD 6567.7 VEL 11.733 PTH   2.07 VHP  8.075 DPA -10.09 RAP 278.37 ECC 1.2679
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 44 19	1675.09	-3.87	9.68	156.44	118.07	9 12 14	1075.1	-.09	3.04
90.00	16 41 35	5301.69	27.28	240.47	162.03	82.10	18 9 57	4701.7	25.91	232.07
100.00	9 57 25	1439.23	-4.96	351.74	155.84	119.52	10 21 24	839.2	-.99	345.20
100.00	18 11 11	5012.78	28.51	219.01	161.82	80.61	19 34 43	4412.8	26.92	210.57
110.00	10 47 18	1283.03	-7.76	338.17	154.12	123.40	11 8 41	683.0	-3.31	331.90
110.00	19 37 48	4741.75	31.72	197.67	161.07	76.54	20 56 50	4141.7	29.55	189.14

DIFFERENTIAL CORRECTIONS

```
TDE  .7633 TRA 1.9889 TC3-5.5265 BAU 1.2041
RDE  .2300 RRA -.2205 RC3  .2573 FAU .02193
FDE  .3725 FRA  .9453 FC3-1.1663 BSP  17572
BDE  .7972 BRA 1.9812 BC3 5.5325 FSP   -518
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5427.1 SGR  505.0 SG3  152.1
RRT -.5516 RRF -.5330 RTF  .9209
SGB 5450.6 R23  .0263 R13 -.9210
SG1 5434.3 SG2  420.7 THA 177.04
```

ORBIT DETERMINATION ACCURACY

```
ST  1395.7 SR   340.8 SS   470.4
CRT  .5646 CRS -.5742 CST -.9985
LSA 1485.7 MSA  278.7 SSA   23.7
EL1 1409.4 EL2  278.6 ALF   8.17
```

LAUNCH DATE SEP 30 1970 FLIGHT TIME 182.00 ARRIVAL DATE MAR 31 1971

HELIOCENTRIC CONIC DISTANCE 534.782

```
RL  149.82 LAL    .00 LOL   6.42 VL  25.977 GAL   2.76 AZL  88.97 HCA 267.61 SMA 121.00 ECC .24276 INC 1.0292 V1  29.741
RP  108.79 LAP  -1.03 LOP 274.03 VP  36.647 GAP  12.82 AZP  90.04 TAL 171.31 TAP  78.92 RCA  91.63 APO 150.37 V2  34.833
RC 176.055 GL    6.37 GP   13.91 ZAL  65.42 ZAP 164.86 ETS  63.08 ZAE 127.86 ETE 169.21 ZAC 116.66 ETC 268.82 CLP-173.97
```

PLANETOCENTRIC CONIC

```
C3  17.664 VHL  4.203 DLA -13.68 RAL 301.96 RAD 6567.7 VEL 11.792 PTH   2.08 VHP  8.277 DPA -10.51 RAP 280.74 ECC 1.2907
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 42 43	1745.72	-6.12	13.65	160.31	117.70	9 11 49	1145.7	-2.37	6.98
90.00	17 6 25	5268.66	26.95	238.11	165.76	80.96	18 34 14	4668.7	25.42	229.77
100.00	9 56 52	1506.50	-7.20	355.48	159.72	119.09	10 21 59	906.5	-3.27	348.90
100.00	18 34 58	4983.11	28.16	216.87	165.52	79.53	19 58 1	4383.1	26.43	208.50
110.00	10 48 57	1343.37	-10.01	341.40	158.02	122.86	11 11 20	743.4	-5.61	335.07
110.00	19 59 22	4719.00	31.35	196.01	164.71	75.62	21 18 1	4119.0	29.06	187.55

DIFFERENTIAL CORRECTIONS

```
TDE  .9275 TRA 2.2238 TC3-5.1045 BAU 1.2067
RDE  .2364 RRA -.2343 RC3  .2290 FAU .02027
FDE  .4106 FRA  .9907 FC3 -.9934 BSP  17576
BDE  .9571 BRA 2.2361 BC3 5.1097 FSP   -501
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5453.9 SGR  499.0 SG3  148.2
RRT -.5308 RRF -.5110 RTF  .9222
SGB 5476.6 RZ3  .0219 R13 -.9223
SG1 5460.3 SG2  422.4 THA 177.20
```

ORBIT DETERMINATION ACCURACY

```
ST  1578.4 SR   337.0 SS   499.5
CRT  .5909 CRS -.5909 CST -.9989
LSA 1667.7 MSA  269.9 SSA   21.8
EL1 1591.3 EL2  269.7 ALF   7.40
```

LAUNCH DATE SEP 30 1970 FLIGHT TIME 184.00 ARRIVAL DATE APR 2 1971

HELIOCENTRIC CONIC DISTANCE 540.223

```
RL  149.82 LAL    .00 LOL   6.42 VL  25.930 GAL   3.38 AZL  88.79 HCA 270.77 SMA 120.73 ECC .24770 INC 1.2057 V1  29.741
RP  108.82 LAP  -1.21 LOP 277.20 VP  36.606 GAP  13.20 AZP  89.98 TAL 169.60 TAP  80.38 RCA  90.82 APO 150.63 V2  34.825
RC 178.036 GL    7.13 GP   13.50 ZAL  62.54 ZAP 165.52 ETS  65.33 ZAE 127.91 ETE 169.51 ZAC 116.15 ETC 269.47 CLP-174.73
```

PLANETOCENTRIC CONIC

```
C3  19.279 VHL  4.391 DLA -12.30 RAL 304.72 RAD 6567.8 VEL 11.860 PTH   2.10 VHP  8.495 DPA -10.85 RAP 283.13 ECC 1.3173
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 41 48	1813.73	-8.26	17.51	164.22	117.18	9 12 2	1213.7	-4.55	10.79
90.00	17 29 25	5241.65	26.65	236.19	169.49	80.05	18 56 47	4641.7	25.00	227.91
100.00	9 56 51	1571.61	-9.34	359.13	163.64	118.52	10 23 2	971.6	-5.46	352.49
100.00	18 57 4	4959.00	27.85	215.15	169.24	78.68	20 19 43	4359.0	26.01	206.83
110.00	10 50 52	1402.41	-12.17	344.61	161.96	122.19	11 14 15	802.4	-7.83	338.20
110.00	20 19 31	4700.97	31.04	194.69	168.38	74.90	21 37 52	4101.0	28.65	186.30

DIFFERENTIAL CORRECTIONS

```
TDE 1.0916 TRA 2.4864 TC3-4.6895 BAU 1.2098
RDE  .2443 RRA -.2474 RC3  .2027 FAU .01875
FDE  .4447 FRA 1.0355 FC3 -.8418 BSP  17666
BDE 1.1186 BRA 2.4987 BC3 4.6939 FSP   -488
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5478.6 SGR  492.4 SG3  144.3
RRT -.5101 RRF -.4897 RTF  .9241
SGB 5500.7 RZ3  .0180 R13 -.9242
SG1 5484.4 SG2  423.1 THA 177.36
```

ORBIT DETERMINATION ACCURACY

```
ST  1742.6 SR   333.9 SS   523.4
CRT  .6096 CRS -.6039 CST -.9992
LSA 1831.0 MSA  263.1 SSA   20.3
EL1 1754.8 EL2  262.8 ALF   6.81
```

LAUNCH DATE SEP 30 1970 FLIGHT TIME 186.00 ARRIVAL DATE APR 4 1971

HELIOCENTRIC CONIC DISTANCE 545.615

```
RL  149.82 LAL    .00 LOL   6.42 VL  25.883 GAL   4.03 AZL  88.62 HCA 273.94 SMA 120.46 ECC .25309 INC 1.3823 V1  29.741
RP  108.84 LAP  -1.38 LOP 280.36 VP  36.566 GAP  13.60 AZP  89.91 TAL 167.91 TAP  81.84 RCA  89.97 APO 150.95 V2  34.818
RC 180.002 GL    7.78 GP   13.13 ZAL  59.79 ZAP 166.13 ETS  67.82 ZAE 127.96 ETE 169.78 ZAC 115.66 ETC 270.11 CLP-175.50
```

PLANETOCENTRIC CONIC

```
C3  21.152 VHL  4.599 DLA -11.00 RAL 307.35 RAD 6567.9 VEL 11.939 PTH   2.12 VHP  8.728 DPA -11.12 RAP 285.53 ECC 1.3481
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 41 24	1879.44	-10.28	21.28	168.16	116.53	9 12 43	1279.4	-6.64	14.49
90.00	17 50 45	5220.16	26.39	234.67	173.23	79.33	19 17 45	4620.2	24.64	226.43
100.00	9 57 14	1634.80	-11.37	2.72	167.59	117.83	10 24 28	1034.8	-7.56	356.00
100.00	19 17 37	4940.04	27.59	213.80	172.96	78.01	20 39 57	4340.0	25.66	205.53
110.00	10 52 59	1460.21	-14.24	347.80	165.92	121.41	11 17 19	860.2	-9.98	341.29
110.00	20 38 21	4687.39	30.79	193.71	172.06	74.37	21 56 28	4087.4	28.34	185.37

DIFFERENTIAL CORRECTIONS

```
TDE 1.2551 TRA 2.7567 TC3-4.2891 BAU 1.2139
RDE  .2538 RRA -.2597 RC3  .1785 FAU .01738
FDE  .4748 FRA 1.0743 FC3 -.7114 BSP  17872
BDE 1.2805 BRA 2.7689 BC3 4.2928 FSP   -480
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5499.9 SGR  485.3 SG3  140.3
RRT -.4895 RRF -.4693 RTF  .9267
SGB 5521.3 RZ3  .0149 R13 -.9267
SG1 5505.1 SG2  422.8 THA 177.51
```

ORBIT DETERMINATION ACCURACY

```
ST  1886.8 SR   331.3 SS   542.5
CRT  .6238 CRS -.6145 CST -.9993
LSA 1974.2 MSA  257.7 SSA   18.9
EL1 1898.3 EL2  257.3 ALF   6.37
```

LAUNCH DATE SEP 30 1970 FLIGHT TIME 188.00 ARRIVAL DATE APR 6 1971

HELIOCENTRIC CONIC DISTANCE 550.954

```
RL  149.82 LAL    .00 LOL   6.42 VL  25.836 GAL   4.71 AZL  88.44 HCA 277.10 SMA 120.20 ECC .25898 INC 1.5601 V1  29.741
RP  108.86 LAP  -1.55 LOP 283.52 VP  36.527 GAP  14.02 AZP  89.81 TAL 166.22 TAP  83.32 RCA  89.07 APO 151.33 V2  34.812
RC 181.954 GL    8.35 GP   12.78 ZAL  57.18 ZAP 166.69 ETS  70.58 ZAE 128.00 ETE 170.03 ZAC 115.18 ETC 270.75 CLP-176.26
```

PLANETOCENTRIC CONIC

```
C3  23.319 VHL  4.829 DLA  -9.78 RAL 309.83 RAD 6567.9 VEL 12.029 PTH   2.15 VHP  8.980 DPA -11.31 RAP 287.93 ECC 1.3838
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 41 25	1943.11	-12.19	24.98	172.13	115.76	9 13 48	1343.1	-8.63	18.11
90.00	18 10 34	5203.75	26.17	233.52	176.97	78.79	19 37 17	4603.7	24.36	225.31
100.00	9 57 56	1696.24	-13.30	6.26	171.57	117.02	10 26 12	1096.2	-9.57	359.46
100.00	19 36 43	4925.86	27.38	212.79	176.69	77.52	20 58 49	4325.9	25.39	204.56
110.00	10 55 13	1516.85	-16.23	350.99	169.91	120.51	11 20 30	916.9	-12.06	344.37
110.00	20 55 56	4678.00	30.62	193.03	175.75	74.00	22 13 54	4078.0	28.12	184.73

DIFFERENTIAL CORRECTIONS

```
TDE 1.4329 TRA 3.0498 TC3-3.8817 BAU 1.2111
RDE  .2837 RRA -.2721 RC3  .1546 FAU .01587
FDE  .5079 FRA 1.1193 FC3 -.5892 BSP  17856
BDE 1.4570 BRA 3.0619 BC3 3.8847 FSP   -464
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5516.2 SGR  477.0 SG3  136.7
RRT -.4677 RRF -.4477 RTF  .9288
SGB 5536.8 RZ3  .0121 R13 -.9289
SG1 5520.7 SG2  421.2 THA 177.67
```

ORBIT DETERMINATION ACCURACY

```
ST  2028.9 SR   328.0 SS   563.2
CRT  .6359 CRS -.6248 CST -.9994
LSA 2116.0 MSA  252.2 SSA   17.8
EL1 2039.8 EL2  251.8 ALF   5.96
```

LAUNCH DATE SEP 30 1970 FLIGHT TIME 190.00 ARRIVAL DATE APR 8 1971

HELIOCENTRIC CONIC DISTANCE 556.229

```
RL  149.82 LAL    .00 LOL   6.42 VL  25.791 GAL   5.43 AZL  88.26 HCA 280.26 SMA 119.94 ECC .26543 INC 1.7404 V1  29.741
RP  108.87 LAP  -1.71 LOP 286.69 VP  36.489 GAP  14.47 AZP  89.69 TAL 164.54 TAP  84.80 RCA  88.11 APO 151.78 V2  34.806
RC 183.891 GL    8.83 GP   12.47 ZAL  54.70 ZAP 167.19 ETS  73.59 ZAE 128.02 ETE 170.27 ZAC 114.70 ETC 271.38 CLP-177.03
```

PLANETOCENTRIC CONIC

```
C3  25.821 VHL  5.081 DLA  -8.65 RAL 312.18 RAD 6568.0 VEL 12.132 PTH   2.17 VHP  9.252 DPA -11.43 RAP 290.34 ECC 1.4249
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 41 45	2004.90	-13.99	28.62	176.12	114.87	9 15 10	1404.9	-10.52	21.66
90.00	18 28 57	5192.02	26.02	232.69	180.71	78.40	19 55 29	4592.0	24.15	224.52
100.00	9 58 54	1756.05	-15.12	9.77	175.57	116.10	10 28 10	1156.0	-11.49	2.86
100.00	19 54 29	4916.11	27.24	212.10	180.41	77.19	21 16 26	4316.1	25.20	203.90
110.00	10 57 33	1572.36	-18.12	354.18	173.92	119.50	11 23 46	972.4	-14.05	347.43
110.00	21 12 19	4672.56	30.52	192.64	179.44	73.79	22 30 12	4072.6	27.99	184.36

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE 1.6111 TRA 3.3526 TC3-3.4987 BAU 1.2086    SGT 5528.4 SGR  467.9 SG3  133.0    ST  2151.1 SR   325.1 SS   580.0
RDE  .2752 RRA -.2832 RC3  .1331 FAU .01451    RRT -.4455 RRF -.4262 RTF  .9316   CRT  .6465 CRS -.6342 CST -.9994
FDE  .5379 FRA 1.1627 FC3 -.4865 BSP  17948    SGB 5548.2 R23  .0097 R13 -.9316   LSA 2237.9 MSA  247.3 SSA   16.8
BDE 1.6344 BRA 3.3645 BC3 3.5012 FSP   -453    SG1 5532.4 SG2  418.6 THA 177.83   EL1 2161.5 EL2  246.8 ALF   5.65
```

LAUNCH DATE SEP 30 1970 FLIGHT TIME 192.00 ARRIVAL DATE APR 10 1971

HELIOCENTRIC CONIC DISTANCE 561.433

```
RL  149.82 LAL    .00 LOL   6.42 VL  25.746 GAL   6.19 AZL  88.08 HCA 283.42 SMA 119.69 ECC .27249 INC 1.9243 V1  29.741
RP  108.89 LAP  -1.87 LOP 289.85 VP  36.453 GAP  14.96 AZP  89.55 TAL 162.88 TAP  86.30 RCA  87.08 APO 152.31 V2  34.801
RC 185.813 GL    9.23 GP   12.18 ZAL  52.37 ZAP 167.62 ETS  76.89 ZAE 128.04 ETE 170.48 ZAC 114.23 ETC 272.01 CLP-177.80
```

PLANETOCENTRIC CONIC

```
C3  28.705 VHL  5.358 DLA  -7.60 RAL 314.40 RAD 6568.2 VEL 12.251 PTH   2.20 VHP  9.547 DPA -11.48 RAP 292.74 ECC 1.4724
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 42 22	2064.96	-15.68	32.22	180.13	113.88	9 16 47	1465.0	-12.32	25.16
90.00	18 46 0	5184.63	25.91	232.18	184.44	78.16	20 12 25	4584.6	24.02	224.02
100.00	10 0 3	1814.33	-16.84	13.25	179.58	115.07	10 30 18	1214.3	-13.32	6.22
100.00	20 11 0	4910.49	27.15	211.71	184.13	77.00	21 32 51	4310.5	25.09	203.52
110.00	10 59 57	1626.78	-19.91	357.39	177.95	118.38	11 27 4	1026.8	-15.96	350.49
110.00	21 27 35	4670.81	30.48	192.52	183.14	73.72	22 45 26	4070.8	27.95	184.24

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE 1.7947 TRA 3.6709 TC3-3.1345 BAU 1.2037    SGT 5536.2 SGR  457.9 SG3  129.5    ST  2259.5 SR   322.2 SS   595.1
RDE  .2879 RRA -.2933 RC3  .1133 FAU .01319    RRT -.4222 RRF -.4040 RTF  .9346   CRT  .6562 CRS -.6434 CST -.9995
FDE  .5671 FRA 1.2071 FC3 -.3977 BSP  18048    SGB 5555.1 R23  .0079 R13 -.9346   LSA 2346.1 MSA  242.5 SSA   16.0
BDE 1.8176 BRA 3.6826 BC3 3.1365 FSP   -443    SG1 5539.6 SG2  414.8 THA 177.99   EL1 2269.5 EL2  242.0 ALF   5.41
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LAUNCH DATE SEP 30 1970 FLIGHT TIME 194.00 ARRIVAL DATE APR 12 1971

HELIOCENTRIC CONIC DISTANCE 566.552

```
RL  149.82 LAL    .00 LOL   6.42 VL  25.701 GAL   6.99 AZL  87.89 HCA 286.58 SMA 119.45 ECC .28024 INC 2.1130 V1  29.741
RP  108.90 LAP  -2.03 LOP 293.01 VP  36.417 GAP  15.49 AZP  89.40 TAL 161.24 TAP  87.82 RCA  85.97 APO 152.92 V2  34.797
RC 187.719 GL    9.57 GP   11.92 ZAL  50.17 ZAP 168.00 ETS  80.45 ZAE 128.04 ETE 170.69 ZAC 113.76 ETC 272.62 CLP-178.58
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PLANETOCENTRIC CONIC

```
C3  32.033 VHL  5.660 DLA  -6.63 RAL 316.48 RAD 6568.3 VEL 12.386 PTH   2.24 VHP  9.866 DPA -11.47 RAP 295.13 ECC 1.5272
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 43 11	2123.38	-17.26	35.79	184.14	112.81	9 18 34	1523.4	-14.02	28.61
90.00	19 1 50	5181.23	25.87	231.94	188.15	78.05	20 28 11	4581.2	23.96	223.79
100.00	10 1 22	1871.16	-18.44	16.70	183.60	113.95	10 32 33	1271.2	-15.05	9.55
100.00	20 26 20	4908.68	27.13	211.58	187.84	76.93	21 48 9	4308.7	25.06	203.39
110.00	11 2 23	1680.11	-21.60	.60	182.00	117.16	11 30 23	1080.1	-17.79	353.54
110.00	21 41 48	4672.50	30.51	192.64	186.83	73.79	22 59 41	4072.5	27.99	184.35

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE 1.9839 TRA 4.0051 TC3-2.7921 BAU 1.1964    SGT 5539.2 SGR  447.0 SG3  126.0    ST  2354.1 SR   319.2 SS   609.0
RDE  .3018 RRA -.3021 RC3  .0954 FAU .01193    RRT -.3976 RRF -.3808 RTF  .9378   CRT  .6656 CRS -.6527 CST -.9995
FDE  .5957 FRA 1.2524 FC3 -.3225 BSP  18161    SGB 5557.2 R23  .0064 R13 -.9379   LSA 2440.9 MSA  237.7 SSA   15.2
BDE 2.0067 BRA 4.0164 BC3 2.7937 FSP   -433    SG1 5542.1 SG2  409.9 THA 178.15   EL1 2363.8 EL2  237.2 ALF   5.21
```

LAUNCH DATE SEP 30 1970 FLIGHT TIME 196.00 ARRIVAL DATE APR 14 1971

HELIOCENTRIC CONIC DISTANCE 571.575

```
RL  149.82 LAL    .00 LOL   6.42 VL  25.658 GAL   7.85 AZL  87.69 HCA 289.74 SMA 119.21 ECC .28875 INC 2.3080 V1  29.741
RP  108.92 LAP  -2.17 LOP 296.17 VP  36.383 GAP  16.06 AZP  89.22 TAL 159.62 TAP  89.36 RCA  84.79 APO 153.63 V2  34.793
RC 189.610 GL    9.84 GP   11.68 ZAL  48.11 ZAP 168.31 ETS  84.28 ZAE 128.02 ETE 170.89 ZAC 113.29 ETC 273.23 CLP-179.37
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PLANETOCENTRIC CONIC

```
C3  35.874 VHL  5.990 DLA  -5.73 RAL 318.44 RAD 6568.4 VEL 12.540 PTH   2.27 VHP 10.213 DPA -11.41 RAP 297.51 ECC 1.5904
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 44 10	2180.23	-18.72	39.32	188.16	111.64	9 20 31	1580.2	-15.62	32.02
90.00	19 16 30	5181.52	25.87	231.96	191.85	78.06	20 42 52	4581.5	23.96	223.81
100.00	10 2 48	1926.58	-19.94	20.14	187.63	112.74	10 34 55	1326.6	-16.68	12.86
100.00	20 40 34	4910.40	27.15	211.70	191.54	76.99	22 2 24	4310.4	25.09	203.51
110.00	11 4 50	1732.38	-23.19	3.82	186.05	115.85	11 33 42	1132.4	-19.52	356.61
110.00	21 55 1	4677.37	30.61	192.99	190.52	73.98	23 12 59	4077.4	28.11	184.68

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE 2.1797 TRA 4.3571 TC3-2.4720 BAU 1.1862    SGT 5537.5 SGR  435.2 SG3  122.6    ST  2436.1 SR   316.1 SS   622.0
RDE  .3170 RRA -.3093 RC3  .0792 FAU .01072    RRT -.3712 RRF -.3561 RTF  .9413   CRT  .6751 CRS -.6623 CST -.9996
FDE  .6240 FRA 1.2990 FC3 -.2587 BSP  18299    SGB 5554.5 R23  .0052 R13 -.9413   LSA 2523.3 MSA  232.8 SSA   14.5
BDE 2.2026 BRA 4.3680 BC3 2.4732 FSP   -424    SG1 5539.8 SG2  403.9 THA 178.32   EL1 2445.6 EL2  232.3 ALF   5.05
```

LAUNCH DATE SEP 30 1970 FLIGHT TIME 198.00 ARRIVAL DATE APR 16 1971

HELIOCENTRIC CONIC DISTANCE 576.484

RL	149.82	LAL	.00	LOL	6.42	VL	25.615	GAL	8.76	AZL	87.49	HCA	292.89	SMA	118.97	ECC	.29811	INC	2.5108	V1	29.741
RP	108.83	LAP	-2.31	LOP	299.33	VP	36.350	GAP	16.67	AZP	89.02	TAL	158.03	TAP	90.93	RCA	83.51	APO	154.44	V2	34.790
RC	191.483	GL	10.06	GP	11.45	ZAL	46.17	ZAP	168.54	ETS	88.37	ZAE	127.99	ETE	171.07	ZAC	112.83	ETC	273.82	CLP	179.82

PLANETOCENTRIC CONIC

C3	40.316	VHL	6.350	DLA	-4.91	RAL	320.29	RAD	6568.6	VEL	12.715	PTH	2.31	VHP	10.592	DPA	-11.28	RAP	299.88	ECC	1.6635

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 45 18	2235.54	-20.07	42.81	192.17	110.40	9 22 33	1635.5	-17.11	35.39
90.00	19 30 5	5185.20	25.92	232.22	195.53	78.18	20 56 30	4585.2	24.03	224.06
100.00	10 4 20	1980.60	-21.32	23.56	191.65	111.46	10 37 20	1380.6	-18.22	16.14
100.00	20 53 44	4915.37	27.23	212.05	195.21	77.16	22 15 40	4315.4	25.19	203.85
110.00	11 7 16	1783.55	-24.67	7.06	190.11	114.45	11 37 0	1183.5	-21.16	359.67
110.00	22 7 17	4685.20	30.75	193.55	194.18	74.28	23 25 22	4085.2	28.29	185.22

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	2.3830	TRA	4.7318	TC3	-2.1734	BAU	1.1720	SGT	5532.3	SGR	422.6	SGS	119.2	ST	2506.7	SR	312.9	SS	634.6
RDE	.3335	RRA	-.3147	RC3	.0648	FAU	.00954	RRT	-.3428	RRF	-.3295	RTF	.9450	CRT	.6847	CRS	-.6723	CST	-.9996
FDE	.6525	FRA	1.3478	FC3	-.2048	BSP	18440	SGB	5548.4	R23	.0041	R13	-.9451	LSA	2594.7	NSA	227.7	SSA	13.8
BDE	2.4062	BRA	4.7421	BC3	2.1744	FSP	-416	SG1	5534.2	SG2	396.8	THA	178.49	EL1	2515.9	EL2	227.2	ALF	4.92

LAUNCH DATE SEP 30 1970 FLIGHT TIME 200.00 ARRIVAL DATE APR 18 1971

HELIOCENTRIC CONIC DISTANCE 581.258

RL	149.82	LAL	.00	LOL	6.42	VL	25.573	GAL	9.74	AZL	87.28	HCA	296.05	SMA	118.75	ECC	.30844	INC	2.7233	V1	29.741
RP	108.93	LAP	-2.45	LOP	302.49	VP	36.318	GAP	17.35	AZP	88.80	TAL	156.48	TAP	92.53	RCA	82.12	APO	155.37	V2	34.788
RC	193.340	GL	10.23	GP	11.25	ZAL	44.38	ZAP	168.71	ETS	92.69	ZAE	127.94	ETE	171.26	ZAC	112.36	ETC	274.40	CLP	179.00

PLANETOCENTRIC CONIC

C3	45.466	VHL	6.743	DLA	-4.16	RAL	322.01	RAD	6568.7	VEL	12.916	PTH	2.35	VHP	11.007	DPA	-11.10	RAP	302.22	ECC	1.7483

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 46 32	2289.32	-21.31	46.27	196.16	109.10	9 24 41	1689.3	-18.51	38.72
90.00	19 42 37	5192.00	26.01	232.69	199.18	78.40	21 9 9	4592.0	24.15	224.52
100.00	10 5 55	2033.22	-22.59	26.95	195.66	110.11	10 39 48	1433.2	-19.65	19.39
100.00	21 5 55	4923.33	27.35	212.61	198.86	77.44	22 27 58	4323.3	25.34	204.39
110.00	11 9 41	1833.58	-26.04	10.30	194.17	112.97	11 40 15	1233.6	-22.70	2.74
110.00	22 18 38	4695.73	30.94	194.31	197.83	74.69	23 36 54	4095.7	28.53	185.94

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	2.5952	TRA	5.1246	TC3	-1.8961	BAU	1.1530	SGT	5519.4	SGR	409.2	SGS	116.0	ST	2566.0	SR	309.4	SS	647.4
RDE	.3513	RRA	-.3180	RC3	.0520	FAU	.00837	RRT	-.3117	RRF	-.3006	RTF	.9489	CRT	.6949	CRS	-.6829	CST	-.9996
FDE	.6817	FRA	1.3993	FC3	-.1594	BSP	18574	SGB	5534.5	R23	.0035	R13	-.9489	LSA	2655.2	NSA	222.2	SSA	13.2
BDE	2.6189	BRA	5.1345	BC3	1.8968	FSP	-408	SG1	5520.9	SG2	388.7	THA	178.67	EL1	2575.1	EL2	221.7	ALF	4.83

LAUNCH DATE SEP 30 1970 FLIGHT TIME 202.00 ARRIVAL DATE APR 20 1971

HELIOCENTRIC CONIC DISTANCE 585.873

RL	149.82	LAL	.00	LOL	6.42	VL	25.532	GAL	10.79	AZL	87.05	HCA	299.20	SMA	118.52	ECC	.31986	INC	2.9475	V1	29.741
RP	108.94	LAP	-2.57	LOP	305.66	VP	36.288	GAP	18.09	AZP	88.56	TAL	154.98	TAP	94.18	RCA	80.61	APO	156.43	V2	34.786
RC	195.178	GL	10.36	GP	11.06	ZAL	42.68	ZAP	168.79	ETS	97.20	ZAE	127.86	ETE	171.43	ZAC	111.89	ETC	274.96	CLP	178.16

PLANETOCENTRIC CONIC

C3	51.454	VHL	7.173	DLA	-3.48	RAL	323.62	RAD	6568.9	VEL	13.146	PTH	2.40	VHP	11.463	DPA	-10.88	RAP	304.53	ECC	1.8468

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 47 51	2341.53	-22.43	49.69	200.12	107.75	9 26 52	1741.5	-19.80	42.01
90.00	19 54 9	5201.64	26.15	233.37	202.79	78.72	21 20 51	4601.6	24.33	225.17
100.00	10 7 34	2084.39	-23.75	30.31	199.65	108.70	10 42 18	1484.4	-20.98	22.61
100.00	21 17 8	4934.02	27.50	213.37	202.47	77.80	22 39 22	4334.0	25.55	205.12
110.00	11 12 4	1882.43	-27.30	13.54	198.22	111.42	11 43 27	1282.4	-24.14	5.80
110.00	22 29 6	4708.74	31.17	195.26	201.46	75.21	23 47 35	4108.7	28.83	186.84

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	2.8194	TRA	5.5455	TC3	-1.6390	BAU	1.1278	SGT	5504.0	SGR	395.1	SGS	112.9	ST	2617.1	SR	305.7	SS	661.1
RDE	.3705	RRA	-.3188	RC3	.0409	FAU	.00720	RRT	-.2774	RRF	-.2686	RTF	.9528	CRT	.7056	CRS	-.6941	CST	-.9997
FDE	.7123	FRA	1.4544	FC3	-.1212	BSP	18688	SGB	5518.1	R23	.0031	R13	-.9528	LSA	2707.9	NSA	216.4	SSA	12.6
BDE	2.8437	BRA	5.5547	BC3	1.6395	FSP	-400	SG1	5505.1	SG2	379.5	THA	178.85	EL1	2626.0	EL2	215.9	ALF	4.74

LAUNCH DATE SEP 30 1970 FLIGHT TIME 204.00 ARRIVAL DATE APR 22 1971

HELIOCENTRIC CONIC DISTANCE 590.296

RL	149.82	LAL	.00	LOL	6.42	VL	25.492	GAL	11.92	AZL	86.81	HCA	302.36	SMA	118.31	ECC	.33253	INC	3.1859	V1	29.741
RP	108.94	LAP	-2.69	LOP	308.82	VP	36.259	GAP	18.90	AZP	88.29	TAL	153.53	TAP	95.89	RCA	78.97	APO	157.65	V2	34.785
RC	196.997	GL	10.45	GP	10.89	ZAL	41.11	ZAP	168.78	ETS	101.88	ZAE	127.75	ETE	171.61	ZAC	111.43	ETC	275.50	CLP	177.28

PLANETOCENTRIC CONIC

C3	58.444	VHL	7.645	DLA	-2.87	RAL	325.12	RAD	6569.1	VEL	13.409	PTH	2.45	VHP	11.966	DPA	-10.61	RAP	306.81	ECC	1.9618

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 49 14	2392.11	-23.44	53.05	204.04	106.35	9 29 6	1792.1	-20.98	45.25
90.00	20 4 44	5213.09	26.31	234.23	206.35	79.12	21 31 38	4613.9	24.54	226.01
100.00	10 9 14	2134.03	-24.79	33.63	203.60	107.25	10 44 48	1534.0	-22.20	25.79
100.00	21 27 25	4947.21	27.69	214.31	206.04	78.26	22 49 52	4347.2	25.79	206.02
110.00	11 14 25	1929.99	-28.44	16.77	202.23	109.82	11 46 35	1330.0	-25.47	8.85
110.00	22 38 43	4724.01	31.43	196.37	205.05	75.82	23 57 27	4124.0	29.17	187.90

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	3.0577	TRA	5.9072	TC3	-1.4007	BAU	1.0947	SGT	5485.5	SGR	380.4	SGS	110.0	ST	2660.5	SR	301.8	SS	676.2
RDE	.3913	RRA	-.3166	RC3	.0312	FAU	.00600	RRT	-.2593	RRF	-.2328	RTF	.9569	CRT	.7170	CRS	-.7062	CST	-.9997
FDE	.7448	FRA	1.5140	FC3	-.0888	BSP	18745	SGB	5498.7	R23	.0028	R13	-.9569	LSA	2753.6	NSA	210.2	SSA	12.0
BDE	3.0826	BRA	6.0055	BC3	1.4011	FSP	-391	SG1	5486.3	SG2	369.3	THA	179.04	EL1	2669.4	EL2	209.7	ALF	4.68

LAUNCH DATE SEP 30 1970 FLIGHT TIME 206.00 ARRIVAL DATE APR 24 1971

HELIOCENTRIC CONIC DISTANCE 594.488

```
RL  149.82 LAL    .00 LOL   6.42 VL  25.453 GAL  13.14 AZL  86.56 HCA 305.51 SMA 118.10 ECC .34660 INC 3.4416 V1  29.741
RP  108.94 LAP  -2.80 LOP 311.98 VP  36.231 GAP  19.81 AZP  88.00 TAL 152.14 TAP  97.65 RCA  77.17 APO 159.03 V2  34.785
RC 198.798 GL   10.50 GP   10.72 ZAL  39.67 ZAP 168.69 ETS 106.66 ZAE 127.61 ETE 171.78 ZAC 110.96 ETC 276.03 CLP 176.38
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PLANETOCENTRIC CONIC

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C3  66.641 VHL  8.163 DLA  -2.32 RAL 326.51 RAD 6569.3 VEL 13.711 PTH   2.51 VHP 12.523 DPA -10.30 RAP 309.05 ECC 2.0967
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 50 40	2440.95	-24.34	56.55	207.90	104.93	9 31 21	1841.0	-22.05	48.42
90.00	20 14 22	5228.52	26.49	235.26	209.86	79.61	21 41 30	4628.5	24.79	227.01
100.00	10 10 56	2182.04	-25.72	36.89	207.49	105.78	10 47 18	1582.0	-23.31	28.92
100.00	21 36 47	4962.67	27.90	215.41	209.55	78.81	22 59 30	4362.7	26.07	207.08
110.00	11 16 42	1976.15	-29.46	19.98	206.20	108.18	11 49 38	1376.2	-26.70	11.88
110.00	22 47 30	4741.32	31.72	197.64	208.59	76.52	24 6 31	4141.3	29.54	189.11

DIFFERENTIAL CORRECTIONS

```
TDE 3.3130 TRA 6.4836 TC3-1.1807 BAU 1.0521
RDE  .4137 RRA -.3111 RC3  .0230 FAU .00473
FDE  .7800 FRA 1.5791 FC3 -.0615 BSP  18729
BDE 3.3388 BRA 6.4910 BC3 1.1809 FSP   -380
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MID-COURSE EXECUTION ACCURACY

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SGT 5464.8 SGR  365.3 SG3  107.2
RRT -.1965 RRF -.1923 RTF  .9611
SGB 5477.0 R23  .0027 R13 -.9611
SG1 5465.3 SG2  358.2 THA 179.24
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ORBIT DETERMINATION ACCURACY

```
ST  2697.6 SR   297.7 SS   693.2
CRT  .7292 CRS -.7191 CST -.9997
LSA 2793.7 MSA  203.5 SSA   11.5
EL1 2706.4 EL2  203.0 ALF   4.63
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LAUNCH DATE SEP 30 1970 FLIGHT TIME 208.00 ARRIVAL DATE APR 26 1971

HELIOCENTRIC CONIC DISTANCE 598.399

```
RL  149.82 LAL    .00 LOL   6.42 VL  25.416 GAL  14.48 AZL  86.28 HCA 308.67 SMA 117.90 ECC .36230 INC 3.7182 V1  29.741
RP  108.94 LAP  -2.90 LOP 315.15 VP  36.205 GAP  20.81 AZP  87.67 TAL 150.84 TAP  99.50 RCA  75.18 APO 160.61 V2  34.786
RC 200.578 GL   10.53 GP   10.57 ZAL  38.35 ZAP 168.49 ETS 111.51 ZAE 127.42 ETE 171.95 ZAC 110.50 ETC 276.53 CLP 175.44
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PLANETOCENTRIC CONIC

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C3  76.304 VHL  8.735 DLA  -1.83 RAL 327.78 RAD 6569.5 VEL 14.059 PTH   2.56 VHP 13.143 DPA  -9.96 RAP 311.24 ECC 2.2558
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 52 8	2487.91	-25.13	59.56	211.68	103.51	9 33 36	1887.9	-23.02	51.53
90.00	20 23 3	5245.31	26.69	236.45	213.29	80.17	21 50 29	4645.3	25.06	228.16
100.00	10 12 38	2228.26	-26.54	40.08	211.30	104.28	10 49 46	1628.3	-24.32	31.99
100.00	21 45 15	4980.19	28.12	216.66	213.00	79.43	23 8 15	4380.2	26.38	208.30
110.00	11 18 55	2020.75	-30.37	23.13	210.10	106.51	11 52 36	1420.7	-27.81	14.87
110.00	22 58 27	4760.47	32.01	199.06	212.08	77.31	24 14 47	4160.5	29.93	190.46

DIFFERENTIAL CORRECTIONS

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TDE 3.5881 TRA 7.0093 TC3 -.9779 BAU  .9977
RDE  .4381 RRA -.3014 RC3  .0162 FAU .00339
FDE  .8185 FRA 1.6506 FC3 -.0384 BSP  18622
BDE 3.6148 BRA 7.0157 BC3  .9780 FSP   -368
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MID-COURSE EXECUTION ACCURACY

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SGT 5442.1 SGR  350.0 SG3  104.6
RRT -.1480 RRF -.1461 RTF  .9653
SGB 5453.3 R23  .0027 R13 -.9653
SG1 5442.3 SG2  346.1 THA 179.45
```

ORBIT DETERMINATION ACCURACY

```
ST  2728.7 SR   293.4 SS   712.6
CRT  .7423 CRS -.7330 CST -.9998
LSA 2828.6 MSA  196.4 SSA   11.0
EL1 2737.4 EL2  196.0 ALF   4.59
```

LAUNCH DATE SEP 30 1970 FLIGHT TIME 210.00 ARRIVAL DATE APR 28 1971

HELIOCENTRIC CONIC DISTANCE 601.965

```
RL  149.82 LAL    .00 LOL   6.42 VL  25.379 GAL  15.94 AZL  85.98 HCA 311.82 SMA 117.70 ECC .37985 INC 4.0203 V1  29.741
RP  108.93 LAP  -3.00 LOP 318.31 VP  36.181 GAP  21.93 AZP  87.32 TAL 149.63 TAP 101.45 RCA  72.99 APO 162.41 V2  34.787
RC 202.339 GL   10.52 GP   10.43 ZAL  37.16 ZAP 168.19 ETS 116.36 ZAE 127.19 ETE 172.13 ZAC 110.04 ETC 277.02 CLP 174.44
```

PLANETOCENTRIC CONIC

```
C3  87.763 VHL  9.368 DLA  -1.41 RAL 328.94 RAD 6569.7 VEL 14.461 PTH   2.63 VHP 13.837 DPA  -9.59 RAP 313.37 ECC 2.4444
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 53 38	2532.79	-25.80	62.68	215.36	102.09	9 35 51	1932.8	-23.88	54.54
90.00	20 30 48	5264.08	26.90	237.78	216.65	80.81	21 58 32	4664.1	25.35	229.46
100.00	10 14 19	2272.51	-27.25	43.18	215.00	102.80	10 52 12	1672.5	-25.21	34.97
100.00	21 52 48	4999.59	28.36	218.06	216.37	80.13	23 16 7	4399.6	26.70	209.64
110.00	11 21 4	2063.58	-31.15	26.22	213.90	104.84	11 55 27	1463.6	-28.80	17.81
110.00	23 2 32	4781.28	32.31	200.61	215.49	78.18	24 22 14	4181.3	30.35	191.94

DIFFERENTIAL CORRECTIONS

```
TDE 3.8861 TRA 7.5805 TC3 -.7915 BAU  .9287
RDE  .4648 RRA -.2869 RC3  .0107 FAU .00191
FDE  .8609 FRA 1.7299 FC3 -.0188 BSP  18391
BDE 3.9138 BRA 7.5860 BC3  .7915 FSP   -354
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5418.1 SGR  334.7 SG3  102.2
RRT -.0928 RRF -.0930 RTF  .9695
SGB 5428.4 R23  .0028 R13 -.9695
SG1 5418.2 SG2  333.2 THA 179.67
```

ORBIT DETERMINATION ACCURACY

```
ST  2754.4 SR   289.1 SS   735.0
CRT  .7564 CRS -.7479 CST -.9998
LSA 2859.1 MSA  188.9 SSA   10.4
EL1 2763.1 EL2  188.5 ALF   4.56
```

LAUNCH DATE SEP 30 1970 FLIGHT TIME 212.00 ARRIVAL DATE APR 30 1971

HELIOCENTRIC CONIC DISTANCE 605.101

```
RL  149.82 LAL    .00 LOL   6.42 VL  25.344 GAL  17.55 AZL  85.65 HCA 314.97 SMA 117.52 ECC .39955 INC 4.3538 V1  29.741
RP  108.93 LAP  -3.08 LOP 321.48 VP  36.159 GAP  23.19 AZP  86.92 TAL 148.54 TAP 103.51 RCA  70.56 APO 164.48 V2  34.789
RC 204.080 GL   10.49 GP   10.30 ZAL  36.09 ZAP 167.78 ETS 121.16 ZAE 126.89 ETE 172.32 ZAC 109.58 ETC 277.47 CLP 173.39
```

PLANETOCENTRIC CONIC

```
C3 101.445 VHL 10.072 DLA  -1.05 RAL 329.98 RAD 6570.0 VEL 14.926 PTH   2.69 VHP 14.616 DPA  -9.20 RAP 315.44 ECC 2.6695
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 55 8	2575.34	-26.38	65.66	218.90	100.70	9 38 4	1975.3	-24.63	57.43
90.00	20 37 34	5284.67	27.12	239.25	219.89	81.51	22 5 38	4684.7	25.66	230.88
100.00	10 16 0	2314.53	-27.84	46.16	218.58	101.34	10 54 34	1714.5	-26.00	37.85
100.00	21 59 23	5020.71	28.60	219.58	219.64	80.90	23 23 4	4420.7	27.04	211.12
110.00	11 23 7	2104.43	-31.83	29.21	217.58	103.18	11 58 11	1504.4	-29.69	20.66
110.00	23 8 46	4803.58	32.61	202.28	218.81	79.13	24 28 49	4203.6	30.77	193.54

DIFFERENTIAL CORRECTIONS

```
TDE 4.2106 TRA 8.2052 TC3 -.6210 BAU  .8423
RDE  .4942 RRA -.2666 RC3  .0066 FAU .00027
FDE  .9079 FRA 1.8182 FC3 -.0023 BSP  18035
BDE 4.2396 BRA 8.2075 BC3  .6211 FSP   -338
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5393.1 SGR  319.7 SG3   99.9
RRT -.0296 RRF -.0319 RTF  .9736
SGB 5402.6 R23  .0029 R13 -.9736
SG1 5393.1 SG2  319.6 THA 179.90
```

ORBIT DETERMINATION ACCURACY

```
ST  2774.8 SR   284.8 SS   760.9
CRT  .7715 CRS -.7638 CST -.9998
LSA 2885.6 MSA  181.1 SSA    9.9
EL1 2783.5 EL2  180.6 ALF   4.55
```

LAUNCH DATE SEP 30 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAY 2 1971

HELIOCENTRIC CONIC DISTANCE 607.701

```
RL  149.82 LAL    .00 LOL   6.42 VL  25.311 GAL  19.34 AZL  85.27 HCA 318.12 SMA 117.35 ECC .42174 INC 4.7262 V1  29.741
RP  108.92 LAP  -3.15 LOP 324.64 VP  36.138 GAP  24.62 AZP  86.48 TAL 147.60 TAP 105.72 RCA  67.86 APO 166.84 V2  34.792
RC 205.802 GL   10.44 GP   10.18 ZAL  35.16 ZAP 167.24 ETS 125.88 ZAE 126.52 ETE 172.51 ZAC 109.13 ETC 277.90 CLP 172.26
```

PLANETOCENTRIC CONIC

```
C3 117.903 VHL 10.858 DLA   -.77 RAL 330.89 RAD 6570.2 VEL 15.467 PTH   2.76 VHP 15.496 DPA  -8.79 RAP 317.43 ECC 2.9404
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 56 30	2615.27	-26.85	68.49	222.27	99.36	9 40 14	2015.3	-25.28	60.17
90.00	20 43 18	5306.93	27.33	240.85	225.02	82.29	22 11 45	4706.9	25.96	232.44
100.00	10 17 38	2354.03	-28.34	48.99	221.99	99.93	10 56 52	1754.0	-26.68	40.58
100.00	22 5 0	5043.40	28.83	221.23	222.78	81.73	23 29 3	4443.4	27.39	212.72
110.00	11 25 4	2142.98	-32.39	32.08	221.10	101.57	12 0 47	1543.0	-30.46	23.40
110.00	23 14 3	4827.22	32.90	204.06	222.03	80.15	24 34 31	4227.2	31.19	195.26

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 4.5648 TRA 8.8831 TC3 -.4661 BAU  .7348   SGT 5366.7 SGR  305.5 SG3   97.8     ST  2789.3 SR   280.7 SS   790.7
 RDE  .5271 RRA -.2393 RC3  .0036 FAU-.00159   RRT  .0426 RRF  .0386 RTF  .9775    CRT  .7876 CRS -.7807 CST -.9999
 FDE  .9602 FRA 1.9169 FC3  .0117 BSP  17546   SGB 5375.4 R23 -.0032 R13  .9775    LSA 2907.7 MSA  172.8 SSA    9.4
 BDE 4.5951 BRA 8.8863 BC3  .4662 FSP   -321   SG1 5366.7 SG2  305.3 THA   .14     EL1 2798.1 EL2  172.4 ALF   4.55
```

LAUNCH DATE SEP 30 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAY 4 1971

HELIOCENTRIC CONIC DISTANCE 609.619

```
RL  149.82 LAL    .00 LOL   6.42 VL  25.280 GAL  21.33 AZL  84.85 HCA 321.27 SMA 117.18 ECC .44681 INC 5.1473 V1  29.741
RP  108.91 LAP  -3.22 LOP 327.81 VP  36.120 GAP  26.25 AZP  85.98 TAL 146.83 TAP 108.10 RCA  64.82 APO 169.54 V2  34.795
RC 207.503 GL   10.37 GP   10.06 ZAL  34.37 ZAP 166.56 ETS 130.48 ZAE 126.07 ETE 172.72 ZAC 108.69 ETC 278.31 CLP 171.04
```

PLANETOCENTRIC CONIC

```
C3 137.866 VHL 11.742 DLA   -.56 RAL 331.65 RAD 6570.5 VEL 16.100 PTH   2.85 VHP 16.496 DPA  -8.39 RAP 319.33 ECC 3.2689
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 58 9	2652.19	-27.23	71.12	225.44	98.09	9 42 21	2052.2	-25.83	62.74
90.00	20 47 55	5330.81	27.54	242.56	226.00	83.12	22 16 46	4730.8	26.30	234.11
100.00	10 19 14	2380.64	-28.74	51.64	225.19	98.59	10 59 5	1790.6	-27.26	43.15
100.00	22 9 31	5067.59	29.05	222.99	225.78	82.64	23 33 59	4467.6	27.73	214.44
110.00	11 26 53	2178.88	-32.85	34.78	224.40	100.04	12 3 12	1578.9	-31.12	25.99
110.00	23 18 22	4852.11	33.17	205.95	225.10	81.24	24 39 14	4252.1	31.61	197.08

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 4.9108 TRA 9.5866 TC3 -.3383 BAU  .6236   SGT 5315.9 SGR  292.7 SG3   95.2     ST  2777.1 SR   276.9 SS   818.5
 RDE  .5641 RRA -.2036 RC3  .0018 FAU-.00331   RRT  .1230 RRF  .1176 RTF  .9811    CRT  .8034 CRS -.7972 CST -.9999
 FDE 1.0092 FRA 2.0180 FC3  .0208 BSP  17907   SGB 5324.0 R23 -.0035 R13  .9811    LSA 2903.7 MSA  164.7 SSA    8.8
 BDE 4.9429 BRA 9.5888 BC3  .3383 FSP   -322   SG1 5316.0 SG2  290.4 THA   .39     EL1 2786.0 EL2  164.3 ALF   4.60
```

LAUNCH DATE SEP 30 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAY 6 1971

HELIOCENTRIC CONIC DISTANCE 610.675

```
RL  149.82 LAL    .00 LOL   6.42 VL  25.252 GAL  23.57 AZL  84.37 HCA 324.42 SMA 117.03 ECC .47524 INC 5.6307 V1  29.741
RP  108.90 LAP  -3.27 LOP 330.98 VP  36.103 GAP  28.12 AZP  85.42 TAL 146.28 TAP 110.70 RCA  61.41 APO 172.65 V2  34.799
RC 209.184 GL   10.27 GP    9.94 ZAL  33.75 ZAP 165.73 ETS 134.94 ZAE 125.50 ETE 172.94 ZAC 108.26 ETC 278.67 CLP 169.71
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PLANETOCENTRIC CONIC

```
C3 162.303 VHL 12.740 DLA   -.43 RAL 332.27 RAD 6570.8 VEL 16.841 PTH   2.91 VHP 17.639 DPA  -7.99 RAP 321.11 ECC 3.6711
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 59 39	2685.67	-27.53	73.53	228.36	96.92	9 44 24	2085.7	-26.28	65.08
90.00	20 51 20	5356.26	27.73	244.40	228.79	84.02	22 20 36	4756.3	26.61	235.91
100.00	10 20 47	2423.93	-29.06	54.06	228.14	97.35	11 1 11	1823.9	-27.73	45.51
100.00	22 12 52	5093.23	29.26	224.87	228.60	83.60	23 37 45	4493.2	28.07	216.27
110.00	11 28 34	2211.74	-33.21	37.28	227.46	98.60	12 5 26	1611.7	-31.67	28.39
110.00	23 21 34	4878.19	33.43	207.94	228.01	82.39	24 42 52	4278.2	32.01	199.00

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 5.3064 TRA10.3756 TC3 -.2183 BAU  .4737   SGT 5270.7 SGR  281.6 SG3   93.1     ST  2766.8 SR   273.3 SS   854.1
 RDE  .6059 RRA -.1579 RC3  .0010 FAU-.00556   RRT  .2138 RRF  .2073 RTF  .9845    CRT  .8205 CRS -.8148 CST -.9999
 FDE 1.0686 FRA 2.1367 FC3  .0297 BSP  17825   SGB 5278.2 R23 -.0038 R13  .9845    LSA 2904.3 MSA  156.2 SSA    8.3
 BDE 5.3408 BRA10.3768 BC3  .2183 FSP   -315   SG1 5271.1 SG2  275.1 THA   .66     EL1 2775.9 EL2  155.8 ALF   4.65
```

LAUNCH DATE SEP 30 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAY 8 1971

HELIOCENTRIC CONIC DISTANCE 610.621

```
RL  149.82 LAL    .00 LOL   6.42 VL  25.226 GAL  26.11 AZL  83.81 HCA 327.57 SMA 116.90 ECC .50753 INC 6.1948 V1  29.741
RP  108.88 LAP  -3.32 LOP 334.15 VP  36.090 GAP  30.27 AZP  84.77 TAL 145.99 TAP 113.57 RCA  57.57 APO 176.23 V2  34.804
RC 210.844 GL   10.15 GP    9.83 ZAL  33.31 ZAP 164.73 ETS 139.24 ZAE 124.80 ETE 173.19 ZAC 107.84 ETC 279.00 CLP 168.25
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PLANETOCENTRIC CONIC

```
C3 192.507 VHL 13.875 DLA   -.39 RAL 332.71 RAD 6571.0 VEL 17.715 PTH   2.98 VHP 18.954 DPA  -7.61 RAP 322.77 ECC 4.1682
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 1 6	2715.17	-27.75	75.66	230.98	95.87	9 46 21	2115.2	-26.65	67.17
90.00	20 53 22	5383.33	27.91	246.36	231.38	84.99	22 23 5	4783.3	26.92	237.83
100.00	10 22 16	2453.37	-29.29	56.22	230.79	96.24	11 3 9	1853.4	-28.12	47.61
100.00	22 14 53	5120.36	29.45	226.86	231.22	84.64	23 40 14	4520.4	28.40	218.22
110.00	11 30 6	2241.05	-33.49	39.52	230.21	97.30	12 7 27	1641.1	-32.12	30.56
110.00	23 23 33	4905.45	33.65	210.04	230.71	83.61	24 45 19	4305.4	32.40	201.03

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 5.7377 TRA11.2305 TC3 -.1115 BAU  .2869   SGT 5220.4 SGR  273.2 SG3   91.0     ST  2748.3 SR   270.3 SS   895.5
 RDE  .6538 RRA -.1003 RC3  .0011 FAU-.00830   RRT  .3131 RRF  .3061 RTF  .9876    CRT  .8379 CRS -.8329 CST -.9999
 FDE 1.1555 FRA 2.2710 FC3  .0373 BSP  17724   SGB 5227.6 R23 -.0041 R13  .9875    LSA 2899.3 MSA  147.5 SSA    7.7
 BDE 5.7748 BRA11.2400 BC3  .1115 FSP   -308   SG1 5221.1 SG2  259.4 THA   .94     EL1 2757.6 EL2  147.0 ALF   4.72
```

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

HELIOCENTRIC CONIC DISTANCE 194.841

RL	149.78	LAL	.00	LOL	7.40	VL	27.872	GAL	-11.79	AZL	88.90	HCA	87.87	SMA	133.35	ECC	.23732	INC	1.0989	V1	29.749
RP	107.61	LAP	1.10	LOP	95.27	VP	38.357	GAP	-8.09	AZP	89.96	TAL	227.65	TAP	315.52	RCA	101.70	APO	164.99	V2	35.214
RC	55.612	GL	5.20	GP	-19.56	ZAL	154.14	ZAP	33.05	ETS	29.54	ZAE	147.11	ETE	322.72	ZAC	82.28	ETC	261.21	CLP	-27.19

PLANETOCENTRIC CONIC

C3	33.394	VHL	5.779	DLA	-7.55	RAL	212.36	RAD	6568.3	VEL	12.440	PTH	2.25	VHP	6.276	DPA	-40.18	RAP	241.01	ECC	1.5496

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 51 1	2104.57	-16.76	34.63	80.57	113.17	2 26 6	1504.6	-13.48	27.49
90.00	11 55 27	5221.01	26.40	234.73	85.21	79.36	13 22 28	4621.0	24.66	226.49
100.00	3 8 44	1853.86	-17.96	15.65	80.02	114.30	3 39 38	1253.9	-14.53	8.53
100.00	13 20 25	4946.96	27.69	214.29	84.92	78.25	14 42 52	4347.0	25.79	206.00
110.00	4 8 42	1666.12	-21.16	359.75	78.37	117.49	4 36 28	1066.1	-17.31	352.74
110.00	14 36 57	4707.46	31.15	195.16	83.98	75.16	15 55 24	4107.5	28.80	186.75

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0820	TRA	-.3343	TC3	.3340	BAU	.1984	SGT	517.1	SGR	495.5	SG3	158.9	ST	129.6	SR	287.2
RDE	-.2809	RRA	-.2304	RC3	-.2932	FAU	.05546	RRT	-.2982	RRF	.5566	RTF	-.4477	CRT	-.4250	CRS	.8798
FDE	.6167	FRA	-.4965	FC3	-1.4377	BSP	1378	SGB	716.2	RZS	-.1341	R13	.6156	LSA	442.4	MSA	141.5
BDE	.2926	BRA	.4060	BC3	.4445	FSP	-417	SG1	577.6	SG2	423.4	THA	139.09	EL1	293.4	EL2	114.8

SS 342.3 CST -.7829 SSA 27.2 ALF 102.86

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

HELIOCENTRIC CONIC DISTANCE 201.626

RL	149.78	LAL	.00	LOL	7.40	VL	27.963	GAL	-11.69	AZL	88.72	HCA	91.10	SMA	134.03	ECC	.23305	INC	1.2782	V1	29.749
RP	107.59	LAP	1.28	LOP	98.51	VP	38.429	GAP	-7.27	AZP	90.02	TAL	228.71	TAP	319.82	RCA	102.79	APO	165.26	V2	35.222
RC	57.469	GL	6.13	GP	-20.89	ZAL	154.68	ZAP	36.74	ETS	27.16	ZAE	147.08	ETE	319.14	ZAC	80.91	ETC	261.06	CLP	-30.94

PLANETOCENTRIC CONIC

C3	32.719	VHL	5.720	DLA	-6.42	RAL	211.97	RAD	6568.3	VEL	12.413	PTH	2.24	VHP	5.913	DPA	-41.33	RAP	239.93	ECC	1.5385

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 40 43	2135.45	-17.57	36.53	80.02	112.57	2 16 18	1535.5	-14.36	29.33
90.00	12 2 38	5179.83	25.85	231.84	83.95	78.01	13 28 58	4579.8	23.93	223.69
100.00	2 59 0	1882.89	-18.76	17.43	79.48	113.70	3 30 23	1282.9	-15.40	10.25
100.00	13 27 2	4907.62	27.11	211.51	83.63	76.90	14 48 49	4307.6	25.04	203.32
110.00	4 0 16	1691.09	-21.94	1.27	77.88	116.89	4 28 27	1091.1	-18.16	354.18
110.00	14 42 15	4672.19	30.51	192.62	82.62	73.78	16 0 7	4072.2	27.98	184.33

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0794	TRA	-.3380	TC3	.3255	BAU	.2038	SGT	510.9	SGR	521.1	SG3	178.3	ST	130.0	SR	267.4
RDE	-.2564	RRA	-.2434	RC3	-.3333	FAU	.06095	RRT	-.2960	RRF	.6098	RTF	-.4128	CRT	-.3747	CRS	.8670
FDE	.7279	FRA	-.5641	FC3	-1.6128	BSP	1425	SGB	729.8	RZS	-.1458	R13	.6401	LSA	462.3	MSA	145.2
BDE	.2684	BRA	.4165	BC3	.4659	FSP	-477	SG1	587.6	SG2	432.8	THA	133.10	EL1	272.8	EL2	118.1

SS 383.6 CST -.7663 SSA 27.1 ALF 102.75

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

HELIOCENTRIC CONIC DISTANCE 208.382

RL	149.78	LAL	.00	LOL	7.40	VL	28.039	GAL	-11.60	AZL	88.54	HCA	94.34	SMA	134.60	ECC	.22938	INC	1.4578	V1	29.749
RP	107.57	LAP	1.45	LOP	101.75	VP	38.491	GAP	-6.49	AZP	90.11	TAL	229.62	TAP	323.96	RCA	103.73	APO	165.48	V2	35.229
RC	59.382	GL	7.08	GP	-22.32	ZAL	155.05	ZAP	40.65	ETS	24.95	ZAE	147.10	ETE	315.04	ZAC	79.43	ETC	260.86	CLP	-34.91

PLANETOCENTRIC CONIC

C3	32.152	VHL	5.670	DLA	-5.31	RAL	211.70	RAD	6568.3	VEL	12.390	PTH	2.24	VHP	5.585	DPA	-42.52	RAP	238.52	ECC	1.5291

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 31 13	2165.93	-18.36	38.42	79.65	111.94	2 7 19	1565.9	-15.22	31.15
90.00	12 9 59	5140.55	25.26	229.11	82.90	76.76	13 35 40	4540.5	23.19	221.05
100.00	2 50 3	1911.61	-19.54	19.21	79.14	113.08	3 21 55	1311.6	-16.25	11.96
100.00	13 33 50	4870.10	26.50	208.88	82.56	75.64	14 55 0	4270.1	24.27	200.80
110.00	3 52 33	1715.93	-22.70	2.80	77.58	116.27	4 21 9	1115.9	-18.98	355.63
110.00	14 47 49	4638.54	29.84	190.22	81.48	72.50	16 5 8	4038.5	27.16	182.06

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0803	TRA	-.3459	TC3	.3081	BAU	.2093	SGT	501.9	SGR	551.6	SG3	199.2	ST	133.4	SR	244.3
RDE	-.2287	RRA	-.2569	RC3	-.3771	FAU	.06680	RRT	-.2769	RRF	.6616	RTF	-.3605	CRT	-.3270	CRS	.8473
FDE	.8512	FRA	-.6336	FC3	-1.7987	BSP	1479	SGB	745.8	RZS	-.1466	R13	.6710	LSA	486.4	MSA	148.1
BDE	.2424	BRA	.4309	BC3	.4870	FSP	-543	SG1	599.2	SG2	443.9	THA	125.56	EL1	249.5	EL2	123.4

SS 426.4 CST -.7593 SSA 26.9 ALF 103.48

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

HELIOCENTRIC CONIC DISTANCE 215.107

RL	149.78	LAL	.00	LOL	7.40	VL	28.102	GAL	-11.51	AZL	88.36	HCA	97.58	SMA	135.09	ECC	.22621	INC	1.6391	V1	29.749
RP	107.55	LAP	1.62	LOP	104.98	VP	38.542	GAP	-5.75	AZP	90.22	TAL	230.38	TAP	327.96	RCA	104.53	APO	165.64	V2	35.235
RC	61.346	GL	8.05	GP	-23.83	ZAL	155.26	ZAP	44.78	ETS	22.80	ZAE	147.12	ETE	310.37	ZAC	77.83	ETC	260.61	CLP	-39.11

PLANETOCENTRIC CONIC

C3	31.670	VHL	5.628	DLA	-4.23	RAL	211.56	RAD	6568.3	VEL	12.371	PTH	2.23	VHP	5.293	DPA	-43.71	RAP	236.76	ECC	1.5212

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 22 29	2196.03	-19.11	40.31	79.47	111.30	1 59 5	1596.0	-16.05	32.97
90.00	12 17 34	5102.85	24.65	226.52	82.05	75.60	13 42 37	4502.8	22.43	218.55
100.00	2 41 50	1940.03	-20.29	20.96	78.97	112.44	3 14 10	1340.0	-17.07	13.67
100.00	13 40 54	4834.08	25.87	206.39	81.69	74.48	15 1 28	4234.1	23.49	198.40
110.00	3 45 32	1740.62	-23.43	4.34	77.46	115.63	4 14 33	1140.6	-19.79	357.09
110.00	14 53 41	4606.25	29.16	187.96	80.55	71.32	16 10 28	4006.3	26.33	179.91

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0790	TRA	-.3646	TC3	.2731	BAU	.2126	SGT	489.5	SGR	582.7	SG3	219.9	ST	138.4	SR	215.5
RDE	-.1951	RRA	-.2683	RC3	-.4215	FAU	.07229	RRT	-.2105	RRF	.7054	RTF	-.2720	CRT	-.2383	CRS	.8192
FDE	.9987	FRA	-.6901	FC3	-1.9762	BSP	1422	SGB	761.0	RZS	-.1173	R13	.7070	LSA	518.3	MSA	150.7
BDE	.2108	BRA	.4526	BC3	.5022	FSP	-587	SG1	606.3	SG2	459.8	THA	115.12	EL1	219.5	EL2	132.0

SS 475.9 CST -.7333 SSA 26.1 ALF 103.77

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

HELIOCENTRIC CONIC DISTANCE 221.798

RL	149.78	LAL	.00	LOL	7.40	VL	28.152	GAL	-11.42	AZL	88.18	HCA	100.82	SMA	135.48	ECC	.22346	INC	1.8232	V1	29.749
RP	107.83	LAP	1.79	LOP	108.23	VP	38.584	GAP	-5.04	AZP	90.34	TAL	231.00	TAP	351.81	RCA	105.20	APO	165.75	V2	35.240
RC	63.388	GL	9.03	GP	-25.44	ZAL	155.31	ZAP	49.11	ETS	20.66	ZAE	147.08	ETE	305.12	ZAC	76.12	ETC	260.29	CLP	-43.55

PLANETOCENTRIC CONIC

C3	31.261	VHL	5.591	DLA	-3.17	RAL	211.53	RAD	6568.2	VEL	12.354	PTH	2.23	VHP	5.037	DPA	-44.91	RAP	234.63	ECC	1.5145

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 14 24	2225.91	-19.84	42.20	79.46	110.63	1 51 30	1625.9	-16.86	34.80
90.00	12 25 25	5086.42	24.01	224.04	81.39	74.52	13 49 51	4466.4	21.65	216.16
100.00	2 34 16	1988.29	-21.01	22.77	78.98	111.76	3 7 4	1368.3	-17.87	15.38
100.00	13 48 14	4799.28	25.22	204.02	81.01	73.39	15 8 13	4199.3	22.70	196.12
110.00	3 39 7	1765.27	-24.15	5.89	77.51	114.96	4 8 32	1165.3	-20.58	358.57
110.00	14 59 52	4575.07	28.46	185.80	79.81	70.22	16 16 7	3975.1	25.50	177.87

DIFFERENTIAL CORRECTIONS

TDE	.0932	TRA	-.3800	TC3	.2378	BAU	.2212
RDE	-.1611	RRA	-.2886	RC3	-.4728	FAU	.07858
FDE	1.1300	FRA	-.7800	FC3	-2.1762	BSP	1560
BDE	.1861	BRA	.4736	BC3	.5293	FSP	-668

MID-COURSE EXECUTION ACCURACY

SGT	481.6	SGR	625.3	SG3	242.7		
RRT	-.1437	RRF	.7516	RTF	-.1711		
SGB	789.2	R23	-.0767	R13	.7504		
SG1	634.0	SG2	470.0	THA	104.27		

ORBIT DETERMINATION ACCURACY

ST	151.3	SR	187.3	SS	519.0		
CRT	-.2019	CRS	.7663	CST	-.7667		
LSA	551.0	MSA	151.6	SSA	25.7		
EL1	193.2	EL2	143.6	ALF	111.58		

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

HELIOCENTRIC CONIC DISTANCE 228.455

RL	149.78	LAL	.00	LOL	7.40	VL	28.192	GAL	-11.34	AZL	87.99	HCA	104.06	SMA	135.79	ECC	.22106	INC	2.0114	V1	29.749
RP	107.52	LAP	1.95	LOP	111.47	VP	38.817	GAP	-4.36	AZP	90.49	TAL	231.46	TAP	355.52	RCA	105.77	APO	165.80	V2	35.245
RC	65.403	GL	10.05	GP	-27.10	ZAL	155.20	ZAP	53.63	ETS	18.46	ZAE	146.90	ETE	299.32	ZAC	74.33	ETC	259.92	CLP	-48.22

PLANETOCENTRIC CONIC

C3	30.908	VHL	5.560	DLA	-2.12	RAL	211.61	RAD	6568.2	VEL	12.340	PTH	2.23	VHP	4.817	DPA	-46.07	RAP	232.13	ECC	1.5087

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 6 55	2255.71	-20.54	44.10	79.62	109.93	1 44 31	1655.7	-17.64	36.63
90.00	12 33 34	5030.93	23.34	221.66	80.90	73.50	13 57 25	4430.9	20.86	213.86
100.00	2 27 17	1996.50	-21.71	24.57	79.15	111.06	3 0 33	1396.5	-18.66	17.11
100.00	13 55 54	4765.37	24.54	201.73	80.50	72.37	15 15 19	4165.4	21.89	193.93
110.00	3 33 16	1789.94	-24.85	7.47	77.72	114.27	4 3 6	1189.9	-21.36	.06
110.00	15 6 84	4544.69	27.74	183.73	79.25	69.18	16 22 9	3944.7	24.66	175.92

DIFFERENTIAL CORRECTIONS

TDE	.1184	TRA	-.4018	TC3	.1899	BAU	.2313
RDE	-.1233	RRA	-.2980	RC3	-.5287	FAU	.08469
FDE	1.2859	FRA	-.8221	FC3	-2.3721	BSP	1711
BDE	.1669	BRA	.4991	BC3	.5599	FSP	-748

MID-COURSE EXECUTION ACCURACY

SGT	479.3	SGR	672.5	SG3	265.3		
RRT	-.0368	RRF	.7916	RTF	-.0353		
SGB	825.8	R23	-.0237	R13	.7913		
SG1	673.0	SG2	478.6	THA	93.04		

ORBIT DETERMINATION ACCURACY

ST	170.0	SR	157.6	SS	562.6		
CRT	-.1287	CRS	.6746	CST	-.8033		
LSA	588.7	MSA	152.0	SSA	25.3		
EL1	175.7	EL2	151.3	ALF	150.25		

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

HELIOCENTRIC CONIC DISTANCE 235.078

RL	149.78	LAL	.00	LOL	7.40	VL	28.221	GAL	-11.25	AZL	87.79	HCA	107.30	SMA	136.01	ECC	.21895	INC	2.2051	V1	29.749
RP	107.51	LAP	2.11	LOP	114.71	VP	38.642	GAP	-3.71	AZP	90.66	TAL	231.79	TAP	359.08	RCA	106.23	APO	165.79	V2	35.249
RC	67.486	GL	11.10	GP	-28.82	ZAL	154.94	ZAP	58.29	ETS	16.16	ZAE	146.51	ETE	293.06	ZAC	72.46	ETC	259.49	CLP	-53.13

PLANETOCENTRIC CONIC

C3	30.603	VHL	5.532	DLA	-1.07	RAL	211.81	RAD	6568.2	VEL	12.328	PTH	2.22	VHP	4.633	DPA	-47.17	RAP	229.26	ECC	1.5036

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 59 57	2285.63	-21.23	46.03	79.92	109.19	1 38 3	1685.6	-18.41	38.49
90.00	12 42 7	4996.03	22.65	219.33	80.57	72.53	14 5 23	4396.0	20.05	211.63
100.00	2 20 48	2024.84	-22.40	26.40	79.47	110.33	2 54 33	1424.8	-19.43	18.87
100.00	14 3 57	4732.04	23.83	199.50	80.15	71.40	15 22 49	4132.0	21.07	191.79
110.00	3 27 54	1814.80	-25.54	9.08	78.09	113.54	3 58 9	1214.8	-22.13	1.58
110.00	15 13 21	4514.86	27.01	181.72	78.86	68.20	16 28 35	3914.9	23.80	174.02

DIFFERENTIAL CORRECTIONS

TDE	.1386	TRA	-.4297	TC3	.1290	BAU	.2438
RDE	-.0821	RRA	-.3080	RC3	-.5819	FAU	.09033
FDE	1.4352	FRA	-.8737	FC3	-2.5555	BSP	1888
BDE	.1611	BRA	.5287	BC3	.5960	FSP	-825

MID-COURSE EXECUTION ACCURACY

SGT	489.0	SGR	723.5	SG3	286.9		
RRT	.1072	RRF	.8253	RTF	.1310		
SGB	873.3	R23	.0291	R13	.8259		
SG1	726.9	SG2	483.9	THA	82.53		

ORBIT DETERMINATION ACCURACY

ST	196.1	SR	129.5	SS	605.8		
CRT	.0191	CRS	.5043	CST	-.8399		
LSA	631.4	MSA	151.4	SSA	24.8		
EL1	196.1	EL2	129.5	ALF	1.28		

LAUNCH DATE OCT 1 1970 FLIGHT TIME 84.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 241.666

RL	149.78	LAL	.00	LOL	7.40	VL	28.240	GAL	-11.17	AZL	87.59	HCA	110.54	SMA	136.17	ECC	.21707	INC	2.4057	V1	29.749
RP	107.50	LAP	2.25	LOP	117.96	VP	38.860	GAP	-3.09	AZP	90.84	TAL	231.98	TAP	342.51	RCA	106.61	APO	165.73	V2	35.253
RC	69.600	GL	12.19	GP	-30.55	ZAL	154.53	ZAP	63.05	ETS	13.73	ZAE	145.84	ETE	286.48	ZAC	70.54	ETC	259.01	CLP	-58.25

PLANETOCENTRIC CONIC

C3	30.339	VHL	5.508	DLA	-.02	RAL	212.12	RAD	6568.2	VEL	12.317	PTH	2.22	VHP	4.484	DPA	-48.19	RAP	226.07	ECC	1.4993

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 53 25	2315.92	-21.89	48.00	80.38	108.42	1 32 1	1715.9	-19.17	40.39
90.00	12 51 6	4961.38	21.92	217.05	80.40	71.61	14 13 47	4361.4	19.21	209.43
100.00	2 14 45	2053.57	-23.06	28.28	79.95	109.56	2 48 58	1453.6	-20.19	20.66
100.00	14 12 27	4698.96	23.09	197.32	79.96	70.48	15 30 46	4099.0	20.22	189.70
110.00	3 22 58	1840.03	-26.21	10.73	78.61	112.77	3 53 38	1240.0	-22.90	3.14
110.00	15 20 43	4485.26	26.24	179.76	78.62	67.27	16 35 29	3885.3	22.93	172.17

DIFFERENTIAL CORRECTIONS

TDE	.1731	TRA	-.4635	TC3	.0553	BAU	.2594
RDE	-.0379	RRA	-.3174	RC3	-.6371	FAU	.09525
FDE	1.5820	FRA	-.9104	FC3	-2.7179	BSP	2103
BDE	.1772	BRA	.5618	BC3	.6395	FSP	-895

MID-COURSE EXECUTION ACCURACY

SGT	518.3	SGR	776.6	SG3	306.3		
RRT	.2716	RRF	.8532	RTF	.3104		
SGB	933.7	R23	.0719	R13	.8540		
SG1	797.3	SG2	485.8	THA	73.41		

ORBIT DETERMINATION ACCURACY

ST	231.0	SR	108.7	SS	647.9		
CRT	.2862	CRS	.1920	CST	-.8731		
LSA	679.6	MSA	150.0	SSA	24.2		
EL1	233.6	EL2	103.0	ALF	9.54		

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

HELIOCENTRIC CONIC DISTANCE 248.219

RL 149.78 LAL .00 LOL 7.40 VL 28.251 GAL -11.08 AZL 87.38 HCA 113.78 SMA 136.25 ECC .21539 INC 2.6150 V1 29.749
RP 107.49 LAP 2.39 LOP 121.21 VP 38.670 GAP -2.50 AZP 91.06 TAL 232.04 TAP 345.81 RCA 106.91 APO 165.60 V2 35.255
RC 71.740 GL 13.33 GP -32.29 ZAL 153.97 ZAP 67.87 ETS 11.13 ZAE 144.86 ETE 279.77 ZAC 68.59 ETC 258.48 CLP -63.54

PLANETOCENTRIC CONIC

C3 30.111 VHL 5.487 DLA 1.04 RAL 212.53 RAD 6568.2 VEL 12.308 PTH 2.22 VHP 4.370 DPA -49.10 RAP 222.61 ECC 1.4956

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 47 12	2346.90	-22.54	50.04	80.99	107.60	1 26 19	1746.9	-19.93	42.35
90.00	13 0 37	4926.62	21.16	214.79	80.37	70.73	14 22 43	4326.6	18.34	207.25
100.00	2 9 2	2082.97	-23.72	30.21	80.57	108.74	2 43 45	1483.0	-20.94	22.52
100.00	14 21 28	4665.79	22.32	195.16	79.92	69.59	15 39 14	4065.8	19.34	187.63
110.00	3 18 23	1865.89	-26.88	12.44	79.28	111.96	3 49 29	1265.9	-23.66	4.75
110.00	15 28 37	4455.63	25.45	177.82	78.54	66.37	16 42 52	3855.6	22.03	170.33

DIFFERENTIAL CORRECTIONS
TDE .2168 TRA -.5023 TC3 -.0306 BAU .2783
RDE .0084 RRA -.3237 RC3 -.6906 FAU .09915
FDE 1.7196 FRA -.9296 FC3-2.8508 BSP 2363
BDE .2170 BRA .5976 BC3 .6913 FSP -956

MID-COURSE EXECUTION ACCURACY
SGT 572.3 SGR 829.9 SG3 322.8
RRT .4310 RRF .8758 RTF .4774
SGB 1008.1 R23 .1031 R13 .8767
SG1 883.8 SG2 484.9 THA 65.71

ORBIT DETERMINATION ACCURACY
ST 275.7 SR 104.3 SS 687.7
CRT .6250 CRS -.2498 CST -.9009
LSA 733.0 MSA 148.1 SSA 23.5
EL1 284.0 EL2 79.0 ALF 14.45

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

HELIOCENTRIC CONIC DISTANCE 254.737

RL 149.78 LAL .00 LOL 7.40 VL 28.254 GAL -10.98 AZL 87.16 HCA 117.02 SMA 136.28 ECC .21386 INC 2.8351 V1 29.749
RP 107.48 LAP 2.53 LOP 124.45 VP 38.674 GAP -1.93 AZP 91.29 TAL 231.97 TAP 348.99 RCA 107.13 APO 165.42 V2 35.257
RC 73.903 GL 14.53 GP -33.99 ZAL 153.27 ZAP 72.69 ETS 8.36 ZAE 143.56 ETE 273.10 ZAC 66.64 ETC 257.93 CLP -68.97

PLANETOCENTRIC CONIC

C3 29.921 VHL 5.470 DLA 2.12 RAL 213.05 RAD 6568.2 VEL 12.300 PTH 2.22 VHP 4.291 DPA -49.90 RAP 218.97 ECC 1.4924

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 41 14	2378.95	-23.19	52.17	81.76	106.72	1 20 53	1778.9	-20.68	44.40
90.00	13 10 44	4891.40	20.35	212.52	80.50	69.87	14 32 16	4291.4	17.43	205.07
100.00	2 3 34	2113.39	-24.37	32.24	81.36	107.87	2 38 47	1513.4	-21.70	24.46
100.00	14 31 6	4632.19	21.51	192.99	80.03	68.73	15 48 18	4032.2	18.43	185.55
110.00	3 14 5	1892.68	-27.55	14.23	80.11	111.09	3 45 37	1292.7	-24.43	6.45
110.00	15 37 4	4425.65	24.62	175.89	78.60	65.50	16 50 50	3825.7	21.10	168.51

DIFFERENTIAL CORRECTIONS
TDE .2707 TRA -.5452 TC3 -.1273 BAU .3006
RDE .0560 RRA -.3259 RC3 -.7407 FAU .10185
FDE 1.8420 FRA -.9295 FC3-2.9470 BSP 2673
BDE .2764 BRA .6352 BC3 .7516 FSP -1005

MID-COURSE EXECUTION ACCURACY
SGT 653.0 SGR 881.4 SG3 335.4
RRT .5641 RRF .8940 RTF .6126
SGB 1096.9 R23 .1249 R13 .8949
SG1 985.2 SG2 482.4 THA 59.18

ORBIT DETERMINATION ACCURACY
ST 331.4 SR 120.5 SS 724.3
CRT .8586 CRS -.6174 CST -.9230
LSA 792.0 MSA 145.8 SSA 22.8
EL1 347.7 EL2 58.9 ALF 17.87

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

HELIOCENTRIC CONIC DISTANCE 261.220

RL 149.78 LAL .00 LOL 7.40 VL 28.250 GAL -10.88 AZL 86.93 HCA 120.26 SMA 136.25 ECC .21248 INC 3.0684 V1 29.749
RP 107.48 LAP 2.65 LOP 127.70 VP 38.672 GAP -1.39 AZP 91.55 TAL 231.79 TAP 352.06 RCA 107.30 APO 165.20 V2 35.258
RC 76.087 GL 15.79 GP -35.66 ZAL 152.43 ZAP 77.43 ETS 5.43 ZAE 141.94 ETE 266.67 ZAC 64.72 ETC 257.35 CLP -74.47

PLANETOCENTRIC CONIC

C3 29.769 VHL 5.456 DLA 3.24 RAL 213.68 RAD 6568.2 VEL 12.294 PTH 2.21 VHP 4.245 DPA -50.58 RAP 215.22 ECC 1.4899

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 35 24	2412.50	-23.83	54.42	82.69	105.77	1 15 36	1812.5	-21.44	46.57
90.00	13 21 35	4855.30	19.49	210.23	80.77	69.04	14 42 31	4255.3	16.47	202.85
100.00	1 58 15	2145.24	-25.02	34.38	82.30	106.92	2 34 1	1545.2	-22.46	26.52
100.00	14 41 25	4597.79	20.64	190.80	80.29	67.89	15 58 3	3997.8	17.46	183.45
110.00	3 9 58	1920.77	-28.22	16.14	81.10	110.14	3 41 59	1320.8	-25.22	8.26
110.00	15 46 11	4395.03	23.74	173.95	78.82	64.65	16 59 26	3795.0	20.13	166.67

DIFFERENTIAL CORRECTIONS
TDE .3352 TRA -.5910 TC3 -.2331 BAU .3259
RDE .1041 RRA -.3232 RC3 -.7849 FAU .10307
FDE 1.9460 FRA -.9082 FC3-2.9975 BSP 3019
BDE .3510 BRA .6736 BC3 .8188 FSP -1038

MID-COURSE EXECUTION ACCURACY
SGT 758.3 SGR 928.0 SG3 343.3
RRT .6646 RRF .9085 RTF .7120
SGB 1198.4 R23 .1408 R13 .9091
SG1 1098.7 SG2 478.6 THA 53.51

ORBIT DETERMINATION ACCURACY
ST 398.4 SR 151.7 SS 757.7
CRT .9546 CRS -.8142 CST -.9398
LSA 857.3 MSA 143.1 SSA 22.0
EL1 424.2 EL2 42.4 ALF 20.18

LAUNCH DATE OCT 1 1970 FLIGHT TIME 92.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 267.669

RL 149.78 LAL .00 LOL 7.40 VL 28.240 GAL -10.78 AZL 86.68 HCA 123.50 SMA 136.16 ECC .21120 INC 3.3175 V1 29.749
RP 107.48 LAP 2.77 LOP 130.95 VP 38.665 GAP -.87 AZP 91.83 TAL 231.51 TAP 355.01 RCA 107.41 APO 164.92 V2 35.259
RC 78.289 GL 17.14 GP -37.28 ZAL 151.44 ZAP 82.04 ETS 2.33 ZAE 140.04 ETE 260.62 ZAC 62.83 ETC 256.76 CLP -79.98

PLANETOCENTRIC CONIC

C3 29.663 VHL 5.446 DLA 4.41 RAL 214.42 RAD 6568.2 VEL 12.290 PTH 2.21 VHP 4.233 DPA -51.16 RAP 211.47 ECC 1.4882

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 29 35	2448.08	-24.46	56.83	83.79	104.72	1 10 23	1848.1	-22.20	48.89
90.00	13 33 17	4817.92	18.56	207.88	81.20	68.22	14 53 35	4217.9	15.44	200.59
100.00	1 52 59	2179.03	-25.67	36.68	83.43	105.87	2 29 18	1579.0	-23.24	28.72
100.00	14 52 34	4562.20	19.72	188.57	80.69	67.07	16 8 36	3962.2	16.44	181.31
110.00	3 5 59	1950.58	-28.90	18.19	82.28	109.10	3 38 29	1350.6	-26.03	10.20
110.00	15 56 3	4363.42	22.80	171.97	79.18	63.81	17 8 47	3763.4	19.10	164.79

DIFFERENTIAL CORRECTIONS
TDE .4106 TRA -.6381 TC3 -.3456 BAU .3538
RDE .1513 RRA -.3153 RC3 -.8225 FAU .10289
FDE 2.0253 FRA -.8680 FC3-3.0029 BSP 3406
BDE .4376 BRA .7118 BC3 .8921 FSP -1058

MID-COURSE EXECUTION ACCURACY
SGT 884.1 SGR 968.8 SG3 346.4
RRT .7355 RRF .9201 RTF .7809
SGB 1311.6 R23 .1529 R13 .9202
SG1 1222.7 SG2 474.6 THA 48.55

ORBIT DETERMINATION ACCURACY
ST 477.0 SR 189.8 SS 786.4
CRT .9855 CRS -.9045 CST -.9524
LSA 928.4 MSA 140.3 SSA 21.2
EL1 512.5 EL2 29.9 ALF 21.49

LAUNCH DATE OCT 1 1970 FLIGHT TIME 94.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 274.085

RL	149.78	LAL	.00	LOL	7.40	VL	28.223	GAL	-10.66	AZL	86.41	HCA	126.74	SMA	136.03	ECC	.21001	INC	3.5861	V1	29.749
RP	107.48	LAP	2.87	LOP	134.20	VP	38.652	GAP	-.37	AZP	92.15	TAL	231.12	TAP	357.86	RCA	107.47	APO	164.60	V2	35.258
RC	80.507	GL	18.59	GP	-38.85	ZAL	150.30	ZAP	86.45	ETS	359.08	ZAE	137.91	ETE	255.04	ZAC	60.99	ETC	256.17	CLP	-85.45

PLANETOCENTRIC CONIC

C3	29.610	VHL	5.441	DLA	5.64	RAL	215.27	RAD	6568.2	VEL	12.288	PTH	2.21	VHP	4.252	DPA	-51.68	RAP	207.80	ECC	1.4875

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 23 38	2486.32	-25.10	59.46	85.08	103.56	1 5 5	1886.3	-22.99	51.42
90.00	13 46 0	4770.78	17.55	205.44	81.79	67.42	15 5 39	4178.8	14.34	198.24
100.00	1 47 39	2215.35	-26.32	39.19	84.74	104.71	2 24 34	1615.3	-24.04	31.13
100.00	15 4 40	4524.99	18.71	186.26	81.27	66.25	16 20 5	3925.0	15.34	179.09
110.00	3 2 1	1982.64	-29.60	20.43	83.66	107.94	3 35 3	1382.6	-26.86	12.31
110.00	16 6 48	4330.47	21.80	169.94	79.71	62.99	17 18 58	3730.5	18.00	162.87

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.4971	TRA	-.6855	TC3	-.4623	BAU	.3818	SGT	1028.3	SGR	996.5	SG3	343.6	ST	567.1	SR	233.3	SS	816.0
RDE	.2008	RRA	-.2983	RC3	-.8465	FAU	.10058	RRT	.7853	RRF	.9288	RTF	.8270	CRT	.9954	CRS	-.9508	CST	-.9610
FDE	2.0937	FRA	-.7958	FC3	-2.9409	BSP	3760	SGB	1430.5	R23	.1661	R13	.9273	LSA	1011.1	MSA	138.5	SSA	19.9
BDE	.5361	BRA	.7476	BC3	.9645	FSP	-1034	SG1	1351.6	SG2	468.5	THA	43.93	EL1	612.8	EL2	20.7	ALF	22.30

LAUNCH DATE OCT 1 1970 FLIGHT TIME 96.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 280.467

RL	149.78	LAL	.00	LOL	7.40	VL	28.201	GAL	-10.55	AZL	86.12	HCA	129.98	SMA	135.86	ECC	.20891	INC	3.8784	V1	29.749
RP	107.48	LAP	2.97	LOP	137.45	VP	38.636	GAP	.11	AZP	92.49	TAL	230.64	TAP	.62	RCA	107.48	APO	164.25	V2	35.257
RC	82.739	GL	20.15	GP	-40.38	ZAL	149.00	ZAP	90.61	ETS	355.70	ZAE	135.60	ETE	249.96	ZAC	59.19	ETC	255.59	CLP	-90.81

PLANETOCENTRIC CONIC

C3	29.628	VHL	5.443	DLA	6.96	RAL	216.23	RAD	6568.2	VEL	12.288	PTH	2.21	VHP	4.303	DPA	-52.17	RAP	204.26	ECC	1.4876

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 17 26	2528.02	-25.73	62.34	86.59	102.24	0 59 34	1928.0	-23.79	54.21
90.00	13 59 53	4737.39	16.45	202.90	82.56	66.63	15 18 51	4137.4	13.15	195.78
100.00	1 42 6	2254.94	-26.97	41.95	86.27	103.39	2 19 41	1654.9	-24.86	33.78
100.00	15 17 55	4485.71	17.62	183.86	82.02	65.45	16 32 40	3885.7	14.16	176.77
110.00	2 57 56	2017.58	-30.30	22.91	85.26	106.63	3 31 34	1417.6	-27.73	14.66
110.00	16 18 38	4295.83	20.71	167.84	80.41	62.18	17 30 9	3695.8	16.83	160.87

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.5953	TRA	-.7306	TC3	-.5784	BAU	.4139	SGT	1178.7	SGR	1025.6	SG3	337.9	ST	668.6	SR	271.3	SS	831.4
RDE	.2417	RRA	-.2825	RC3	-.8702	FAU	.09815	RRT	.8173	RRF	.9366	RTF	.8595	CRT	.9969	CRS	-.9708	CST	-.9688
FDE	2.1110	FRA	-.7349	FC3	-2.8681	BSP	4257	SGB	1562.5	R23	.1731	R13	.9348	LSA	1092.4	MSA	134.8	SSA	19.2
BDE	.6425	BRA	.7833	BC3	1.0449	FSP	-1050	SG1	1490.9	SG2	467.3	THA	40.15	EL1	721.3	EL2	19.7	ALF	22.04

LAUNCH DATE OCT 1 1970 FLIGHT TIME 98.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 286.817

RL	149.78	LAL	.00	LOL	7.40	VL	28.175	GAL	-10.42	AZL	85.80	HCA	133.22	SMA	135.66	ECC	.20787	INC	4.1998	V1	29.749
RP	107.49	LAP	3.06	LOP	140.70	VP	38.615	GAP	.57	AZP	92.88	TAL	230.07	TAP	3.29	RCA	107.46	APO	163.85	V2	35.255
RC	84.985	GL	21.85	GP	-41.91	ZAL	147.54	ZAP	94.47	ETS	352.20	ZAE	133.15	ETE	245.42	ZAC	57.41	ETC	255.01	CLP	-96.01

PLANETOCENTRIC CONIC

C3	29.734	VHL	5.453	DLA	8.37	RAL	217.32	RAD	6568.2	VEL	12.293	PTH	2.21	VHP	4.386	DPA	-52.68	RAP	200.88	ECC	1.4894

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 10 46	2574.11	-26.36	65.57	88.34	100.74	0 53 40	1974.1	-24.61	57.34
90.00	14 15 14	4893.10	15.24	200.22	83.53	65.84	15 33 27	4093.1	11.85	193.18
100.00	1 36 10	2298.68	-27.63	45.03	88.06	101.89	2 14 28	1698.7	-25.71	36.76
100.00	15 32 31	4443.77	16.41	181.32	82.97	64.66	16 46 35	3843.8	12.87	174.33
110.00	2 53 39	2056.17	-31.02	25.68	87.12	105.13	3 27 55	1456.2	-28.64	17.30
110.00	16 31 31	4259.04	19.53	165.64	81.30	61.37	17 42 30	3659.0	15.55	158.77

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.7055	TRA	-.7728	TC3	-.6922	BAU	.4448	SGT	1339.0	SGR	1040.9	SG3	327.0	ST	781.5	SR	311.4	SS	848.2
RDE	.2846	RRA	-.2576	RC3	-.8791	FAU	.09390	RRT	.8394	RRF	.9425	RTF	.8815	CRT	.9966	CRS	-.9834	CST	-.9741
FDE	2.1193	FRA	-.6491	FC3	-2.7340	BSP	4705	SGB	1696.0	R23	.1826	R13	.9395	LSA	1187.1	MSA	132.5	SSA	18.0
BDE	.7608	BRA	.8146	BC3	1.1189	FSP	-1024	SG1	1631.2	SG2	464.4	THA	36.57	EL1	840.9	EL2	23.8	ALF	21.68

LAUNCH DATE OCT 1 1970 FLIGHT TIME 100.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 293.136

RL	149.78	LAL	.00	LOL	7.40	VL	28.144	GAL	-10.29	AZL	85.44	HCA	136.46	SMA	135.42	ECC	.20689	INC	4.5572	V1	29.749
RP	107.50	LAP	3.14	LOP	143.95	VP	38.590	GAP	1.01	AZP	93.31	TAL	229.41	TAP	5.87	RCA	107.40	APO	163.43	V2	35.253
RC	87.241	GL	23.70	GP	-43.47	ZAL	145.88	ZAP	97.98	ETS	348.58	ZAE	130.60	ETE	241.40	ZAC	55.62	ETC	254.44	CLP	-101.02

PLANETOCENTRIC CONIC

C3	29.959	VHL	5.474	DLA	9.90	RAL	218.54	RAD	6568.2	VEL	12.302	PTH	2.22	VHP	4.501	DPA	-53.26	RAP	197.65	ECC	1.4931

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 3 25	2625.80	-26.96	69.24	90.38	99.00	0 47 11	2025.8	-25.44	60.90
90.00	14 32 18	4645.19	13.88	197.35	84.75	65.07	15 49 44	4045.2	10.41	190.40
100.00	1 29 39	2347.68	-28.27	48.53	90.13	100.16	2 8 46	1747.7	-26.57	40.14
100.00	15 48 46	4398.54	15.08	178.63	84.16	63.88	17 2 4	3798.5	11.44	171.72
110.00	2 49 0	2099.36	-31.75	28.84	89.29	103.39	3 23 59	1499.4	-29.58	20.30
110.00	16 45 54	4219.63	18.22	163.33	82.43	60.57	17 56 13	3619.6	14.17	156.56

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.8294	TRA	-.8104	TC3	-.7992	BAU	.4749	SGT	1503.5	SGR	1046.0	SG3	312.2	ST	906.2	SR	351.1	SS	862.7
RDE	.3271	RRA	-.2263	RC3	-.8758	FAU	.08847	RRT	.8539	RRF	.9472	RTF	.8966	CRT	.9953	CRS	-.9909	CST	-.9781
FDE	2.1108	FRA	-.5518	FC3	-2.5565	BSP	5146	SGB	1831.6	R23	.1929	R13	.9426	LSA	1292.7	MSA	131.0	SSA	16.7
BDE	.8915	BRA	.8414	BC3	1.1856	FSP	-981	SG1	1772.5	SG2	461.7	THA	33.26	EL1	971.3	EL2	31.8	ALF	21.11

LAUNCH DATE OCT 1 1970 FLIGHT TIME 102.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 299.425

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RL  149.78 LAL    .00 LOL   7.40 VL  28.109 GAL -10.15 AZL  85.04 HCA 139.69 SMA 135.15 ECC .20597 INC 4.9597 V1  29.749
RP  107.51 LAP   3.21 LOP 147.21 VP  38.561 GAP   1.43 AZP  93.79 TAL 228.69 TAP   8.38 RCA 107.31 APO 162.98 V2  35.249
RC  89.506 GL   25.74 GP  -45.10 ZAL 144.02 ZAP 101.10 ETS 344.84 ZAE 127.96 ETE 237.84 ZAC  53.79 ETC 253.86 CLP-105.83
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PLANETOCENTRIC CONIC

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C3  30.345 VHL  5.509 DLA  11.59 RAL 219.90 RAD 6568.2 VEL 12.317 PTH   2.22 VHP  4.652 DPA -53.96 RAP 194.54 ECC 1.4994
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 51 9	2684.65	-27.52	73.46	92.75	96.95	24 35 53	2084.7	-26.27	65.01
90.00	14 51 32	4592.76	12.36	194.26	86.26	64.32	16 8 5	3992.8	8.80	187.39
100.00	1 22 17	2403.40	-28.87	52.57	92.55	98.12	2 2 20	1803.4	-27.44	44.05
100.00	16 7 1	4349.24	13.58	175.74	85.64	63.11	17 19 30	3749.2	9.86	168.92
110.00	2 43 47	2148.36	-32.46	32.48	91.83	101.35	3 19 36	1548.4	-30.56	23.78
110.00	17 2 0	4177.05	16.78	160.87	83.83	59.77	18 11 37	3577.0	12.64	154.21

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .9679 TRA -.8425 TC3 -.8966 BAU  .5052   SGT 1670.2 SGR 1045.4 SG3  294.7     ST  1042.3 SR   387.0 SS   871.3
 RDE  .3664 RRA -.1915 RC3 -.8641 FAU .08252   RRT  .8625 RRF  .9511 RTF  .9078    CRT  .9938 CRS -.9951 CST -.9814
 FDE 2.0784 FRA -.4562 FC3-2.3543 BSP   5633   SGB 1970.4 R23  .2025 R13  .9452    LSA 1406.6 MSA  129.4 SSA   15.3
 BDE 1.0349 BRA  .8640 BC3 1.2452 FSP   -940   SG1 1915.6 SG2  461.3 THA  30.30    EL1 1111.1 EL2   40.3 ALF  20.28
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LAUNCH DATE OCT 1 1970 FLIGHT TIME 104.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 305.683

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RL  149.78 LAL    .00 LOL   7.40 VL  28.071 GAL -10.00 AZL  84.58 HCA 142.93 SMA 134.85 ECC .20509 INC 5.4197 V1  29.749
RP  107.52 LAP   3.26 LOP 150.46 VP  38.530 GAP   1.83 AZP  94.33 TAL 227.88 TAP  10.81 RCA 107.19 APO 162.51 V2  35.245
RC  91.778 GL   27.99 GP  -46.86 ZAL 141.94 ZAP 103.80 ETS 340.96 ZAE 125.25 ETE 234.71 ZAC  51.88 ETC 253.25 CLP-110.41
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PLANETOCENTRIC CONIC

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C3  30.951 VHL  5.563 DLA  13.44 RAL 221.43 RAD 6568.2 VEL 12.342 PTH   2.23 VHP  4.841 DPA -54.82 RAP 191.46 ECC 1.5094
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 41 24	2752.74	-27.98	78.38	95.52	94.52	24 27 17	2152.7	-27.06	69.84
90.00	15 13 28	4534.60	10.62	190.87	88.12	63.60	16 29 3	3934.6	6.99	184.08
100.00	1 13 43	2467.71	-29.39	57.27	95.38	95.69	1 54 51	1867.7	-28.30	48.64
100.00	16 27 47	4294.85	11.88	172.59	87.47	62.37	17 39 21	3694.9	8.09	165.85
110.00	2 37 46	2204.70	-33.14	36.74	94.82	98.91	3 14 31	1604.7	-31.55	27.87
110.00	17 20 12	4130.64	15.17	158.23	85.57	59.00	18 29 3	3530.6	10.95	151.67

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.1257 TRA -.8671 TC3 -.9792 BAU  .5336   SGT 1836.9 SGR 1035.2 SG3  274.5     ST  1192.1 SR   421.9 SS   878.7
 RDE  .4061 RRA -.1499 RC3 -.8390 FAU .07576   RRT  .8665 RRF  .9539 RTF  .9158    CRT  .9921 CRS -.9977 CST -.9839
 FDE 2.0358 FRA -.3555 FC3-2.1191 BSP   6099   SGB 2108.5 R23  .2128 R13  .9469    LSA 1534.4 MSA  128.9 SSA   13.8
 BDE 1.1968 BRA  .8800 BC3 1.2895 FSP   -884   SG1 2057.5 SG2  461.3 THA  27.53    EL1 1263.6 EL2   50.0 ALF  19.38
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LAUNCH DATE OCT 1 1970 FLIGHT TIME 106.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 311.913

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RL  149.78 LAL    .00 LOL   7.40 VL  28.030 GAL  -9.85 AZL  84.05 HCA 146.16 SMA 134.53 ECC .20426 INC 5.9537 V1  29.749
RP  107.53 LAP   3.31 LOP 153.71 VP  38.495 GAP   2.22 AZP  94.95 TAL 227.02 TAP  13.17 RCA 107.05 APO 162.01 V2  35.240
RC  94.056 GL   30.49 GP  -48.79 ZAL 139.59 ZAP 106.04 ETS 336.91 ZAE 122.43 ETE 231.94 ZAC  49.82 ETC 252.58 CLP-114.80
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PLANETOCENTRIC CONIC

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C3  31.866 VHL  5.645 DLA  15.51 RAL 223.14 RAD 6568.3 VEL 12.379 PTH   2.23 VHP  5.076 DPA -55.88 RAP 188.30 ECC 1.5244
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 29 40	2832.94	-28.28	84.23	98.76	91.61	24 16 53	2232.9	-27.75	75.60
90.00	15 38 54	4469.05	8.61	187.11	90.46	62.92	16 53 23	3869.1	4.91	180.38
100.00	1 3 27	2543.17	-29.77	62.85	98.69	92.78	1 45 50	1943.2	-29.07	54.12
100.00	16 51 44	4234.05	9.94	169.12	89.75	61.66	18 2 18	3634.1	6.08	162.46
110.00	2 30 38	2270.39	-33.72	41.78	98.34	95.98	3 8 28	1670.4	-32.52	32.75
110.00	17 41 2	4079.60	13.36	155.39	87.73	58.24	18 49 2	3479.6	9.07	148.92

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.3090 TRA -.8818 TC3-1.0414 BAU  .5594   SGT 2002.6 SGR 1015.7 SG3  252.3     ST  1358.0 SR   454.8 SS   884.6
 RDE  .4462 RRA -.1009 RC3 -.7997 FAU .06838   RRT  .8663 RRF  .9556 RTF  .9217    CRT  .9902 CRS -.9991 CST -.9861
 FDE 1.9846 FRA -.2531 FC3-1.8578 BSP   6532   SGB 2245.4 R23  .2235 R13  .9479    LSA 1678.2 MSA  129.5 SSA   12.2
 BDE 1.3830 BRA  .8875 BC3 1.3131 FSP   -815   SG1 2197.3 SG2  462.4 THA  24.90    EL1 1430.8 EL2   60.4 ALF  18.38
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LAUNCH DATE OCT 1 1970 FLIGHT TIME 108.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 318.113

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RL  149.78 LAL    .00 LOL   7.40 VL  27.986 GAL  -9.68 AZL  83.41 HCA 149.38 SMA 134.20 ECC .20347 INC 6.5857 V1  29.749
RP  107.55 LAP   3.35 LOP 156.96 VP  38.458 GAP   2.60 AZP  95.67 TAL 226.09 TAP  15.47 RCA 106.89 APO 161.50 V2  35.235
RC  96.339 GL   33.29 GP  -50.97 ZAL 136.94 ZAP 107.78 ETS 332.66 ZAE 119.50 ETE 229.44 ZAC  47.55 ETC 251.80 CLP-119.01
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PLANETOCENTRIC CONIC

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C3  33.227 VHL  5.764 DLA  17.81 RAL 225.08 RAD 6568.3 VEL 12.434 PTH   2.25 VHP  5.369 DPA -57.15 RAP 184.89 ECC 1.5468
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 14 58	2929.47	-28.26	91.29	102.54	88.07	24 3 48	2329.5	-28.23	82.62
90.00	16 9 2	4393.58	6.25	182.82	93.41	62.32	17 22 15	3793.6	2.49	176.15
100.00	0 50 43	2633.41	-29.88	69.55	102.58	89.26	1 34 36	2033.4	-29.67	60.76
100.00	17 19 54	4164.88	7.68	165.23	92.63	61.02	18 29 19	3564.9	3.76	158.64
110.00	2 21 54	2348.14	-34.11	47.82	102.51	92.43	3 1 2	1748.1	-33.39	38.65
110.00	18 5 13	4022.91	11.31	152.28	90.45	57.53	19 12 16	3422.9	6.95	145.90

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.5261 TRA -.8839 TC3-1.0773 BAU  .5815   SGT 2166.8 SGR  985.3 SG3  228.5     ST  1542.4 SR   484.6 SS   889.6
 RDE  .4867 RRA -.0424 RC3 -.7436 FAU .06045   RRT  .8815 RRF  .9558 RTF  .9260    CRT  .9879 CRS -.9997 CST -.9879
 FDE 1.9280 FRA -.1498 FC3-1.5751 BSP   6908   SGB 2380.3 R23  .2348 R13  .9483    LSA 1840.6 MSA  131.6 SSA   10.6
 BDE 1.6018 BRA  .8849 BC3 1.3090 FSP   -732   SG1 2334.6 SG2  464.3 THA  22.32    EL1 1615.1 EL2   71.7 ALF  17.28
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LAUNCH DATE OCT 1 1970 FLIGHT TIME 110.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 324.284

RL	149.78	LAL	.00	LOL	7.40	VL	27.939	GAL	-9.51	AZL	82.65	HCA	152.61	SMA	133.85	ECC	.20273	INC	7.3505
RP	107.57	LAP	3.37	LOP	160.20	VP	38.418	GAP	2.96	AZP	96.53	TAL	225.10	TAP	17.70	RCA	106.71	APO	160.98
RC	98.624	GL	36.42	GP	-53.46	ZAL	133.96	ZAP	108.99	ETS	328.13	ZAE	116.40	ETE	227.11	ZAC	45.01	ETC	250.85

V1	29.749	V2	35.229	CLP	-123.13														

PLANETOCENTRIC CONIC

C3	35.254	VHL	5.937	DLA	20.40	RAL	227.28	RAD	6568.4	VEL	12.515	PTH	2.27	VHP	5.738	DPA	-58.63	RAP	180.99
ECC	1.5802																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 55 41	3049.16	-27.67	99.99	106.91	83.75	23 46 30	2449.2	-28.25	91.38
90.00	16 45 52	4303.78	3.38	177.77	97.22	61.87	17 57 35	3703.8	-.40	171.14
100.00	0 34 15	2743.98	-29.50	77.75	107.11	84.96	1 19 59	2144.0	-29.89	68.97
100.00	17 53 54	4084.19	4.99	160.75	96.33	60.49	19 1 58	3484.2	1.03	154.21
110.00	2 10 52	2441.72	-34.14	55.12	107.44	88.11	2 51 34	1841.7	-34.02	45.88
110.00	18 33 47	3859.21	8.96	148.84	93.90	56.87	19 39 46	3359.2	4.54	142.54

DIFFERENTIAL CORRECTIONS

TDE	1.7817	TRA	-.8771	TC3	-1.0880	BAU	.6044
RDE	.5172	RRA	.0191	RC3	-.6786	FAU	.05296
FDE	1.8493	FRA	-.0889	FC3	-1.3005	BSP	7458
BDE	1.8553	BRA	.8773	BC3	1.2823	FSP	-675

MID-COURSE EXECUTION ACCURACY

SGT	2332.6	SGR	948.0	SG3	204.0		
RRT	.8508	RRF	.9533	RTF	.9307		
SGB	2517.9	RZS	.2428	R13	.9495		
SG1	2473.7	SG2	489.8	THA	19.82		

ORBIT DETERMINATION ACCURACY

ST	1741.0	SR	499.7	SS	885.1		
CRT	.9856	CRS	-.9995	CST	-.9895		
LSA	2011.6	MSA	132.4	SSA	9.1		
EL1	1809.4	EL2	81.3	ALF	15.83		

LAUNCH DATE OCT 1 1970 FLIGHT TIME 112.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 330.427

RL	149.78	LAL	.00	LOL	7.40	VL	27.890	GAL	-9.33	AZL	81.70	HCA	155.82	SMA	133.48	ECC	.20202	INC	8.3010
RP	107.59	LAP	3.39	LOP	163.45	VP	38.377	GAP	3.30	AZP	97.58	TAL	224.05	TAP	19.87	RCA	106.51	APO	160.45
RC	100.910	GL	39.94	GP	-56.35	ZAL	130.58	ZAP	109.60	ETS	323.25	ZAE	113.07	ETE	224.79	ZAC	42.09	ETC	249.61

V1	29.749	V2	35.222	CLP	-127.25														

PLANETOCENTRIC CONIC

C3	38.310	VHL	6.189	DLA	23.30	RAL	229.80	RAD	6568.5	VEL	12.636	PTH	2.29	VHP	6.213	DPA	-60.30	RAP	176.26
ECC	1.6305																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 28 15	3205.20	-26.02	111.11	111.80	78.42	23 21 40	2605.2	-27.36	102.70
90.00	17 33 27	4189.75	-.29	171.41	102.31	61.68	18 43 16	3589.7	-4.08	164.77
100.00	0 11 38	2884.55	-28.22	88.00	112.28	79.72	0 59 42	2284.5	-29.35	79.37
100.00	18 36 41	3985.63	1.67	155.32	101.22	60.19	19 43 6	3385.6	-2.32	148.80
110.00	1 56 28	2556.69	-33.52	64.04	113.22	82.87	2 39 2	1956.7	-34.14	54.85
110.00	19 8 22	3886.26	6.22	144.96	98.39	56.32	20 13 9	3286.3	1.76	138.73

DIFFERENTIAL CORRECTIONS

TDE	2.1043	TRA	-.8480	TC3	-1.0563	BAU	.6197
RDE	.5405	RRA	.0971	RC3	-.5901	FAU	.04491
FDE	1.7724	FRA	.0175	FC3	-1.0148	BSP	7886
BDE	2.1726	BRA	.8535	BC3	1.2100	FSP	-595

MID-COURSE EXECUTION ACCURACY

SGT	2496.9	SGR	880.8	SG3	178.5		
RRT	.8300	RRF	.9454	RTF	.9348		
SGB	2651.1	RZS	.2511	R13	.9504		
SG1	2608.1	SG2	475.7	THA	17.08		

ORBIT DETERMINATION ACCURACY

ST	1965.1	SR	501.7	SS	881.0		
CRT	.9818	CRS	-.9983	CST	-.9910		
LSA	2207.1	MSA	135.1	SSA	7.6		
EL1	2026.0	EL2	92.3	ALF	14.10		

LAUNCH DATE OCT 1 1970 FLIGHT TIME 114.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 336.538

RL	149.78	LAL	.00	LOL	7.40	VL	27.840	GAL	-9.14	AZL	80.48	HCA	159.03	SMA	133.10	ECC	.20135	INC	9.5225
RP	107.61	LAP	3.39	LOP	166.70	VP	38.333	GAP	3.63	AZP	98.90	TAL	222.95	TAP	21.98	RCA	106.30	APO	159.90
RC	103.196	GL	43.87	GP	-59.70	ZAL	126.76	ZAP	109.56	ETS	317.81	ZAE	109.42	ETE	222.22	ZAC	38.71	ETC	247.89

V1	29.749	V2	35.215	CLP	-131.58														

PLANETOCENTRIC CONIC

C3	43.053	VHL	6.561	DLA	26.52	RAL	232.74	RAD	6568.6	VEL	12.823	PTH	2.33	VHP	6.844	DPA	-62.06	RAP	170.23
ECC	1.7085																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	21 40 56	3437.36	-21.90	126.85	116.65	71.59	22 38 13	2837.4	-24.21	118.94
90.00	18 44 14	4016.51	-5.85	161.71	109.63	62.24	19 51 10	3416.5	-9.52	154.96
100.00	23 32 36	3077.33	-25.14	101.48	117.77	73.28	24 23 54	2477.3	-27.19	93.28
100.00	19 35 14	3851.78	-2.87	147.97	107.99	60.23	20 39 26	3251.8	-6.81	141.40
110.00	1 36 28	2702.09	-31.75	75.00	119.79	76.61	2 21 30	2102.1	-33.26	66.10
110.00	19 51 48	3799.78	2.94	140.42	104.38	55.93	20 55 8	3199.8	-1.55	134.22

DIFFERENTIAL CORRECTIONS

TDE	2.5203	TRA	-.7905	TC3	-.9778	BAU	.6271
RDE	.5371	RRA	.1954	RC3	-.4805	FAU	.03677
FDE	1.6907	FRA	.0938	FC3	-.7394	BSP	8278
BDE	2.5769	BRA	.8138	BC3	1.0895	FSP	-511

MID-COURSE EXECUTION ACCURACY

SGT	2661.8	SGR	808.2	SG3	152.8		
RRT	.7882	RRF	.9243	RTF	.9394		
SGB	2781.7	RZS	.2574	R13	.9516		
SG1	2739.4	SG2	483.3	THA	15.90		

ORBIT DETERMINATION ACCURACY

ST	2213.2	SR	472.8	SS	873.4		
CRT	.9746	CRS	-.9946	CST	-.9924		
LSA	2421.8	MSA	138.9	SSA	6.2		
EL1	2260.8	EL2	103.7	ALF	11.78		

LAUNCH DATE OCT 1 1970 FLIGHT TIME 116.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 342.615

RL	149.78	LAL	.00	LOL	7.40	VL	27.788	GAL	-8.94	AZL	78.84	HCA	162.22	SMA	132.72	ECC	.20070	INC	11.1605
RP	107.64	LAP	3.39	LOP	169.94	VP	38.288	GAP	3.95	AZP	100.64	TAL	221.80	TAP	24.02	RCA	106.08	APO	159.35
RC	105.482	GL	48.22	GP	-63.63	ZAL	122.45	ZAP	108.81	ETS	311.46	ZAE	105.32	ETE	218.94	ZAC	34.73	ETC	245.33

V1	29.749	V2	35.207	CLP	-136.53														

PLANETOCENTRIC CONIC

C3	50.758	VHL	7.124	DLA	30.06	RAL	236.23	RAD	6568.9	VEL	13.119	PTH	2.40	VHP	7.720	DPA	-63.70	RAP	162.19
ECC	1.8353																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
79.47	19 1 14	4043.02	-14.20	168.02	120.31	63.23	20 8 37	3443.0	-17.68	160.94
100.53	21 51 43	3493.38	-14.19	127.57	120.31	63.22	22 49 57	2893.4	-17.67	120.49
79.47	19 1 14	4043.02	-14.20	168.02	120.31	63.23	20 8 37	3443.0	-17.68	160.94
100.53	21 51 43	3493.38	-14.19	127.57	120.31	63.22	22 49 57	2893.4	-17.67	120.49
110.00	1 5 55	2896.48	-27.85	88.78	126.72	69.33	1 54 11	2296.5	-30.40	80.51
110.00	20 50 9	3687.92	-1.33	134.58	112.70	55.84	21 51 37	3087.9	-5.81	128.35

DIFFERENTIAL CORRECTIONS

TDE	3.0743	TRA	-.8817	TC3	-.8494	BAU	.6242
RDE	.4620	RRA	.3115	RC3	-.3532	FAU	.02892
FDE	1.6030	FRA	.1554	FC3	-.4933	BSP	8744
BDE	3.1088	BRA	.7586	BC3	.9199	FSP	-435

MID-COURSE EXECUTION ACCURACY

SGT	2826.7	SGR	689.3	SG3	127.5		
RRT	.6886	RRF	.8599	RTF	.9460		
SGB	2909.6	RZS	.2593	R13	.9541		
SG1	2867.5	SG2	492.7	THA	9.83		

ORBIT DETERMINATION ACCURACY

ST	2480.1	SR	381.9	SS	860.5		
CRT	.9529	CRS	-.9806	CST	-.9938		
LSA	2648.9	MSA	142.7	SSA	5.0		
EL1	2506.7	EL2	114.6	ALF	8.36		

LAUNCH DATE OCT 1 1970 FLIGHT TIME 118.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 348.651

RL	149.78	LAL	.00	LOL	7.40	VL	27.734	GAL	-8.73	AZL	76.52	HCA	165.39	SMA	132.32	ECC	.20007	INC	13.4844
RP	107.66	LAP	3.37	LOP	173.19	VP	38.241	GAP	4.25	AZP	103.06	TAL	220.60	TAP	25.99	RCA	105.85	APO	158.80
RC	107.765	GL	52.93	GP	-68.19	ZAL	117.60	ZAP	107.28	ETS	303.31	ZAE	100.61	ETE	213.93	ZAC	30.00	ETC	241.14

PLANETOCENTRIC CONIC

C3	64.173	VHL	8.011	DLA	33.80	RAL	240.45	RAD	6569.2	VEL	13.621	PTH	2.49	VHP	9.006	DPA	-64.79	RAP	151.52

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
70.73	18 18 14	4287.96	-13.81	186.38	128.92	58.84	19 29 42	3688.0	-17.84	179.61
109.27	23 8 24	3363.42	-13.80	117.49	128.91	58.84	24 4 28	2763.4	-17.82	110.72
70.73	18 18 14	4287.96	-13.81	186.38	128.92	58.84	19 29 42	3688.0	-17.84	179.61
109.27	23 8 24	3363.42	-13.80	117.49	128.91	58.84	24 4 28	2763.4	-17.82	110.72
110.00	23 51 46	3230.96	-18.06	109.77	131.50	60.47	24 45 37	2631.0	-21.85	102.69
110.00	22 34 3	3468.41	-9.63	123.00	126.25	57.04	23 31 51	2868.4	-13.90	116.51

DIFFERENTIAL CORRECTIONS

TDE	3.8481	TRA	-.5085	TC3	-.6638	BAU	.5973
RDE	.2030	RRA	.4637	RC3	-.2099	FAU	.02118
FDE	1.5242	FRA	.2100	FC3	-.2857	BSP	9140
BDE	3.8535	BRA	.6882	BC3	.6962	FSP	-355

MID-COURSE EXECUTION ACCURACY

SGT	2982.9	SGR	541.8	SG3	103.3		
RRT	.3606	RRF	.5932	RTF	.9552		
SGB	3031.7	R23	.2559	R13	.9582		
SG1	2989.5	SG2	504.2	THA	3.86		

ORBIT DETERMINATION ACCURACY

ST	2755.6	SR	188.5	SS	849.4		
CRT	.7399	CRS	-.8017	CST	-.9953		
LSA	2885.9	MSA	148.2	SSA	3.8		
EL1	2759.1	EL2	126.6	ALF	2.90		

LAUNCH DATE OCT 1 1970 FLIGHT TIME 120.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 354.631

RL	149.78	LAL	.00	LOL	7.40	VL	27.679	GAL	-8.50	AZL	72.95	HCA	168.53	SMA	131.92	ECC	.19940	INC	17.0524
RP	107.69	LAP	3.34	LOP	176.43	VP	38.193	GAP	4.53	AZP	106.73	TAL	219.33	TAP	27.86	RCA	105.62	APO	158.23
RC	110.046	GL	57.73	GP	-73.35	ZAL	112.25	ZAP	104.94	ETS	290.93	ZAE	94.96	ETE	204.63	ZAC	24.25	ETC	233.42

PLANETOCENTRIC CONIC

C3	90.132	VHL	9.494	DLA	37.44	RAL	245.68	RAD	6569.8	VEL	14.542	PTH	2.64	VHP	11.049	DPA	-64.54	RAP	138.07

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.42	18 3 42	4472.74	-12.03	199.87	139.53	54.28	19 18 15	3872.7	-16.62	193.51
115.58	0 8 37	3335.96	-12.02	114.11	139.52	54.27	1 4 13	2736.0	-16.60	107.76
64.42	18 3 42	4472.74	-12.03	199.87	139.53	54.28	19 18 15	3872.7	-16.62	193.51
115.58	0 8 37	3335.96	-12.02	114.11	139.52	54.27	1 4 13	2736.0	-16.60	107.76
64.42	18 3 42	4472.74	-12.03	199.87	139.53	54.28	19 18 15	3872.7	-16.62	193.51
115.58	0 8 37	3335.96	-12.02	114.11	139.52	54.27	1 4 13	2736.0	-16.60	107.76

DIFFERENTIAL CORRECTIONS

TDE	4.9252	TRA	-.1452	TC3	-.4273	BAU	.5219
RDE	-.6020	RRA	.6343	RC3	-.0706	FAU	.01370
FDE	1.4744	FRA	.2606	FC3	-.1316	BSP	9505
BDE	4.9619	BRA	.6508	BC3	.4331	FSP	-282

MID-COURSE EXECUTION ACCURACY

SGT	3083.1	SGR	618.4	SG3	81.7		
RRT	-.5373	RRF	-.3324	RTF	.9697		
SGB	3144.5	R23	-.2415	R13	-.9653		
SG1	3101.5	SG2	518.5	THA	173.67		

ORBIT DETERMINATION ACCURACY

ST	2972.7	SR	391.1	SS	851.3		
CRT	-.9330	CRS	.9022	CST	-.9970		
LSA	3112.9	MSA	155.5	SSA	2.7		
EL1	2995.0	EL2	139.7	ALF	172.99		

LAUNCH DATE OCT 1 1970 FLIGHT TIME 122.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 360.514

RL	149.78	LAL	.00	LOL	7.40	VL	27.624	GAL	-8.25	AZL	66.79	HCA	171.59	SMA	131.52	ECC	.19863	INC	23.2078
RP	107.72	LAP	3.30	LOP	179.67	VP	38.144	GAP	4.78	AZP	112.98	TAL	217.98	TAP	29.57	RCA	105.40	APO	157.64
RC	112.324	GL	61.81	GP	-78.21	ZAL	106.47	ZAP	101.79	ETS	267.22	ZAE	87.73	ETE	183.76	ZAC	17.07	ETC	217.59

PLANETOCENTRIC CONIC

C3	149.409	VHL	12.223	DLA	40.16	RAL	252.29	RAD	6570.6	VEL	16.454	PTH	2.87	VHP	14.677	DPA	-61.66	RAP	123.27

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.24	18 9 52	4632.67	-8.42	210.33	152.21	50.58	19 27 4	4032.7	-13.44	204.40
119.76	0 55 9	3379.96	-8.40	114.93	152.19	50.58	1 51 29	2780.0	-13.42	109.01
60.24	18 9 52	4632.67	-8.42	210.33	152.21	50.58	19 27 4	4032.7	-13.44	204.40
119.76	0 55 9	3379.96	-8.40	114.93	152.19	50.58	1 51 29	2780.0	-13.42	109.01
60.24	18 9 52	4632.67	-8.42	210.33	152.21	50.58	19 27 4	4032.7	-13.44	204.40
119.76	0 55 9	3379.96	-8.40	114.93	152.19	50.58	1 51 29	2780.0	-13.42	109.01

DIFFERENTIAL CORRECTIONS

TDE	5.9900	TRA	.6511	TC3	-.1619	BAU	.3237
RDE	-3.1354	RRA	.5921	RC3	.0072	FAU	.00585
FDE	1.5126	FRA	.3309	FC3	-.0339	BSP	9694
BDE	6.7610	BRA	.8801	BC3	.1621	FSP	-218

MID-COURSE EXECUTION ACCURACY

SGT	2863.5	SGR	1514.0	SG3	64.1		
RRT	-.9200	RRF	-.8631	RTF	.9903		
SGB	3239.1	R23	-.2048	R13	-.9766		
SG1	3195.2	SG2	531.8	THA	153.26		

ORBIT DETERMINATION ACCURACY

ST	2810.3	SR	1473.7	SS	902.4		
CRT	-.9932	CRS	.9873	CST	-.9991		
LSA	3295.1	MSA	163.2	SSA	1.8		
EL1	3169.7	EL2	152.2	ALF	152.42		

LAUNCH DATE OCT 1 1970 FLIGHT TIME 124.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 366.174

RL	149.78	LAL	.00	LOL	7.40	VL	27.567	GAL	-7.94	AZL	54.07	HCA	174.45	SMA	131.11	ECC	.19744	INC	35.9296
RP	107.75	LAP	3.26	LOP	182.90	VP	38.093	GAP	4.96	AZP	125.80	TAL	216.49	TAP	30.93	RCA	105.23	APO	157.00
RC	114.599	GL	62.54	GP	-76.81	ZAL	100.58	ZAP	98.02	ETS	224.16	ZAE	77.09	ETE	143.29	ZAC	8.54	ETC	207.96

PLANETOCENTRIC CONIC

C3	325.976	VHL	18.055	DLA	39.63	RAL	260.47	RAD	6571.8	VEL	21.149	PTH	3.20	VHP	22.268	DPA	-53.84	RAP	110.24

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.03	18 46 9	4736.39	-3.41	214.95	166.36	50.49	20 5 6	4136.4	-8.47	209.13
118.97	1 24 8	3504.36	-3.39	121.30	166.35	50.49	2 22 32	2904.4	-8.45	115.49
61.03	18 46 9	4736.39	-3.41	214.95	166.36	50.49	20 5 6	4136.4	-8.47	209.13
118.97	1 24 8	3504.36	-3.39	121.30	166.35	50.49	2 22 32	2904.4	-8.45	115.49
61.03	18 46 9	4736.39	-3.41	214.95	166.36	50.49	20 5 6	4136.4	-8.47	209.13
118.97	1 24 8	3504.36	-3.39	121.30	166.35	50.49	2 22 32	2904.4	-8.45	115.49

DIFFERENTIAL CORRECTIONS

TDE	4.0177	TRA	1.7816	TC3	-.0031	BAU	.3897
RDE	-9.0710	RRA	-.9251	RC3	-.0894	FAU	-.00595
FDE	1.7862	FRA	.5055	FC3	.0158	BSP	9830
BDE	9.9209	BRA	1.9809	BC3	.0894	FSP	-174

MID-COURSE EXECUTION ACCURACY

SGT	1465.1	SGR	2921.6	SG3	52.4		
RRT	-.9208	RRF	-.9759	RTF	.9816		
SGB	3268.4	R23	-.1379	R13	-.9893		
SG1	3227.2	SG2	517.2	THA	115.49		

ORBIT DETERMINATION ACCURACY

ST	1293.3	SR	2880.9	SS	1097.2		
CRT	-.9917	CRS	.9975	CST	-.9983		
LSA	3339.2	MSA	159.6	SSA	1.6		
EL1	3154.2	EL2	151.4	ALF	114.06		

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LAUNCH DATE  OCT  1 1970                          FLIGHT TIME 126.00                          ARRIVAL DATE  FEB  4 1971

  HELIOCENTRIC CONIC                              DISTANCE 371.055
   RL  149.78 LAL     .00 LOL    7.40 VL  27.510 GAL  -7.48 AZL  21.60 HCA 176.56 SMA 130.71 ECC .19462 INC68.4023 V1  29.749
   RP  107.79 LAP    3.20 LOP 186.14 VP  38.042 GAP   4.92 AZP 158.37 TAL 214.50 TAP  31.06 RCA 105.27 APO 156.14 V2  35.158
   RC 118.871 GL    51.82 GP  -90.35 ZAL  95.49 ZAP  94.33 ETS 192.93 ZAE  57.17 ETE 115.41 ZAC  18.28 ETC 266.68 CLP  98.52
  PLANETOCENTRIC CONIC
   C31040.971 VHL 32.264 DLA  28.38 RAL 268.95 RAD 6573.0 VEL 34.092 PTH    3.51 VHP 40.623 DPA -35.01 RAP 102.54 ECC18.1317
   LNCH AZMTH   LNCH TIME   L-I TIME     INJ LAT    INJ LONG   INJ RT ASC   INJ AZMTH   INJ TIME   PO CST TIM   INJ 2 LAT INJ 2 LONG
      80.08     22 20 42    4259.58        .25      176.23      179.43       61.62    23 31 41     3659.6       -3.55      169.60
      91.95     22 53 19    4153.85        .26      168.48      179.42       61.62    24  2 33     3553.8       -3.53      161.85
     100.00      1 22  1    3687.21       -8.36     138.85      184.13       61.20     2 23 29     3087.2      -12.14      132.10
     100.00     22 36 36    4201.45        8.88     167.28      174.75       61.34    23 48 38     3601.4        4.99      160.66
     110.00      3 39 21    3257.36      -17.16     111.30      189.21       59.98     4 33 38     2657.4      -21.03      104.30
     110.00     22 37 47    4204.06       17.70     162.42      169.67       60.27    23 47 51     3604.1       13.61      155.70
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
   TDE-2.5203 TRA 1.7032 TC3 -.0543 BAU 2.7668      SGT  664.3 SGR 2925.7 SG3   47.6          ST   459.4 SR  2471.6 SS  1577.9
   RD-13.8116 RRA-5.0084 RC3 -.1912 FAU-.04296      RRT  .6086 RRF -.9967 RTF -.5465          CRT  .9396 CRS  .9995 CST  .9282
   FDE 2.5011 FRA 1.1490 FC3  .0357 BSP   8861      SGB 3000.2 RZ3 -.1008 R13 -.9945          LSA 2963.6 MSA  165.1 SSA    1.6
   BDE14.0396 BRA 5.2882 BC3  .1988 FSP   -150      SG1 2954.4 SG2  522.0 THA  81.88          EL1 2509.2 EL2  155.0 ALF  80.06

LAUNCH DATE  OCT  1 1970                          FLIGHT TIME 128.00                          ARRIVAL DATE  FEB  6 1971

  HELIOCENTRIC CONIC                              DISTANCE 381.056
   RL  149.78 LAL     .00 LOL    7.40 VL  27.452 GAL  -8.06 AZL 147.87 HCA 183.69 SMA 130.30 ECC .20385 INC57.8669 V1  29.749
   RP  107.82 LAP    3.13 LOP 189.37 VP  37.990 GAP   6.33 AZP  32.19 TAL 215.38 TAP  39.07 RCA 103.74 APO 156.86 V2  35.147
   RC 119.138 GL   -55.79 GP   63.34 ZAL  96.92 ZAP  96.31 ETS 173.75 ZAE  69.24 ETE 251.51 ZAC 141.09 ETC 269.01 CLP 104.18
  PLANETOCENTRIC CONIC
   C3 774.741 VHL 27.834 DLA -78.98 RAL 255.27 RAD 6572.8 VEL 29.934 PTH    3.45 VHP 36.267 DPA  82.69 RAP 177.90 ECC13.7503
   LNCH AZMTH   LNCH TIME   L-I TIME     INJ LAT    INJ LONG   INJ RT ASC   INJ AZMTH   INJ TIME   PO CST TIM   INJ 2 LAT INJ 2 LONG
      12.55      4  9 24    2445.42        .46       83.12      165.17      168.97     4 50  9     1845.4        8.31       82.00
     167.45     15 19 27     650.33        .46      282.68      165.20      168.97    15 30 17       50.3        8.32      281.55
      12.55      4  9 24    2445.42        .46       83.12      165.17      168.97     4 50  9     1845.4        8.31       82.00
     167.45     15 19 27     650.33        .46      282.68      165.20      168.97    15 30 17       50.3        8.32      281.55
      12.55      4  9 24    2445.42        .46       83.12      165.17      168.97     4 50  9     1845.4        8.31       82.00
     167.45     15 19 27     650.33        .46      282.68      165.20      168.97    15 30 17       50.3        8.32      281.55
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
   TDE 4.1393 TRA  .4158 TC3 -.0676 BAU 2.0470      SGT 1032.4 SGR 3017.5 SG3   51.6          ST   861.4 SR  2817.3 SS  1766.3
   RD-13.6769 RRA  .3085 RC3  .1857 FAU-.02855      RRT -.8461 RRF  .9980 RTF -.8185          CRT -.9816 CRS -.9999 CST  .9790
   FDE-2.7350 FRA  .0851 FC3  .0319 BSP   9710      SGB 3189.2 RZ3 -.0985 R13  .9943          LSA 3431.1 MSA  163.6 SSA    2.1
   BDE14.2878 BRA  .5178 BC3  .1976 FSP   -161      SG1 3145.2 SG2  528.0 THA 106.63          EL1 2941.8 EL2  157.3 ALF 106.76

LAUNCH DATE  OCT  1 1970                          FLIGHT TIME 130.00                          ARRIVAL DATE  FEB  8 1971

  HELIOCENTRIC-CONIC                              DISTANCE 386.132
   RL  149.78 LAL     .00 LOL    7.40 VL  27.394 GAL  -7.62 AZL 120.44 HCA 186.02 SMA 129.89 ECC .20153 INC30.4446 V1  29.749
   RP  107.86 LAP    3.05 LOP 192.60 VP  37.937 GAP   6.34 AZP  59.69 TAL 213.53 TAP  39.55 RCA 103.71 APO 156.07 V2  35.136
   RC 121.402 GL   -62.80 GP   75.77 ZAL 101.70 ZAP 101.19 ETS 132.33 ZAE  87.00 ETE 211.41 ZAC 156.90 ETC 243.31 CLP 142.17
  PLANETOCENTRIC CONIC
   C3 239.276 VHL 15.469 DLA -81.12 RAL 196.12 RAD 6571.4 VEL 18.989 PTH    3.08 VHP 20.500 DPA  69.58 RAP 241.58 ECC 4.9379
   LNCH AZMTH   LNCH TIME   L-I TIME     INJ LAT    INJ LONG   INJ RT ASC   INJ AZMTH   INJ TIME   PO CST TIM   INJ 2 LAT INJ 2 LONG
      10.10      0  8 38    2338.08        7.89       83.62      104.87      171.04     0 47 36     1738.1       15.79       82.75
     169.90     11 28 14    5824.97        7.89      258.71      104.89      171.04    13  5 19     5225.0       15.79      257.83
      10.10      0  8 38    2338.08        7.89       83.62      104.87      171.04     0 47 36     1738.1       15.79       82.75
     169.90     11 28 14    5824.97        7.89      258.71      104.89      171.04    13  5 19     5225.0       15.79      257.83
      10.10      0  8 38    2338.08        7.89       83.62      104.87      171.04     0 47 36     1738.1       15.79       82.75
     169.90     11 28 14    5824.97        7.89      258.71      104.89      171.04    13  5 19     5225.0       15.79      257.83
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
   TDE-3.2795 TRA -.5090 TC3 -.0167 BAU  .1445      SGT 1723.5 SGR 3121.5 SG3   60.7          ST  1268.8 SR  1638.5 SS   822.8
   RDE-3.8067 RRA-1.1592 RC3  .0419 FAU .00248      RRT  .9488 RRF  .9774 RTF  .9932          CRT  .9710 CRS -.9856 CST -.9974
   FDE-1.1717 FRA -.2302 FC3 -.0090 BSP  10938      SGB 3565.7 RZ3 -.1364 R13  .9900          LSA 2215.7 MSA  249.1 SSA    1.2
   BDE 5.0245 BRA 1.2660 BC3  .0452 FSP   -195      SG1 3533.1 SG2  481.2 THA  61.78          EL1 2058.2 EL2  241.5 ALF  52.45

LAUNCH DATE  OCT  1 1970                          FLIGHT TIME 132.00                          ARRIVAL DATE  FEB 10 1971

  HELIOCENTRIC CONIC                              DISTANCE 391.779
   RL  149.78 LAL     .00 LOL    7.40 VL  27.335 GAL  -7.30 AZL 109.43 HCA 188.92 SMA 129.49 ECC .20074 INC19.4292 V1  29.749
   RP  107.89 LAP    2.96 LOP 195.83 VP  37.884 GAP   6.51 AZP  70.79 TAL 211.95 TAP  40.88 RCA 103.49 APO 155.48 V2  35.124
   RC 123.660 GL   -60.38 GP   75.09 ZAL 106.67 ZAP 106.91 ETS  82.33 ZAE  96.90 ETE 162.77 ZAC 161.58 ETC 219.88 CLP-179.36
  PLANETOCENTRIC CONIC
   C3 107.632 VHL 10.375 DLA -76.19 RAL 193.12 RAD 6570.1 VEL 15.132 PTH    2.72 VHP 14.020 DPA  58.41 RAP 244.73 ECC 2.7713
   LNCH AZMTH   LNCH TIME   L-I TIME     INJ LAT    INJ LONG   INJ RT ASC   INJ AZMTH   INJ TIME   PO CST TIM   INJ 2 LAT INJ 2 LONG
      15.74      0  7 47    2190.98       16.93       78.40       98.81      165.55     0 44 17     1591.0       24.66       76.62
     164.26     11  5 10    5093.94       16.93      258.99       98.84      165.55    12 40  4     5093.9       24.67      257.21
      15.74      0  7 47    2190.98       16.93       78.40       98.81      165.55     0 44 17     1591.0       24.66       76.62
     164.26     11  5 10    5093.94       16.93      258.99       98.84      165.55    12 40  4     5093.9       24.67      257.21
      15.74      0  7 47    2190.98       16.93       78.40       98.81      165.55     0 44 17     1591.0       24.66       76.62
     164.26     11  5 10    5093.94       16.93      258.99       98.84      165.55    12 40  4     5093.9       24.67      257.21
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
   TDE-2.8429 TRA-1.3878 TC3 -.3220 BAU  .4657      SGT 3635.2 SGR  846.6 SG3   77.1          ST  1841.9 SR   299.6 SS   651.3
   RDE  .3021 RRA -.3587 RC3 -.0136 FAU .01462      RRT  .7862 RRF  .6701 RTF  .9838          CRT -.0403 CRS  .1872 CST -.9891
   FDE -.8958 FRA -.3035 FC3 -.1176 BSP  11560      SGB 3732.5 RZ3 -.1928 R13  .9791          LSA 1951.6 MSA  312.6 SSA    1.9
   BDE 2.8588 BRA 1.4334 BC3  .3223 FSP   -252      SG1 3696.9 SG2  514.5 THA  10.58          EL1 1841.9 EL2  299.4 ALF 179.61
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LAUNCH DATE OCT 1 1970 FLIGHT TIME 134.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 397.579

RL	149.78	LAL	.00	LOL	7.40	VL	27.276	GAL	-7.00	AZL	103.90	HCA	191.99	SMA	129.08	ECC	.20043	INC	13.8959	V1	29.749
RP	107.93	LAP	2.86	LOP	199.05	VP	37.830	GAP	6.72	AZP	76.40	TAL	210.44	TAP	42.43	RCA	103.21	APO	154.95	V2	35.112
RC	125.912	GL	-55.48	GP	66.49	ZAL	110.99	ZAP	112.69	ETS	67.15	ZAE	103.77	ETE	149.59	ZAC	160.16	ETC	229.15	CLP	-165.28

PLANETOCENTRIC CONIC

C3	62.267	VHL	7.891	DLA	-71.35	RAL	200.88	RAD	6569.2	VEL	13.551	PTH	2.48	VHP	10.903	DPA	49.58	RAP	244.57	ECC	2.0248

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.30	0 50 9	2055.18	24.44	71.57	102.05	159.44	1 24 25	1455.2	31.90	68.69
158.70	11 24 43	5581.65	24.45	257.79	102.07	159.44	12 57 44	4981.6	31.90	254.90
21.30	0 50 9	2055.18	24.44	71.57	102.05	159.44	1 24 25	1455.2	31.90	68.69
158.70	11 24 43	5581.65	24.45	257.79	102.07	159.44	12 57 44	4981.6	31.90	254.90
21.30	0 50 9	2055.18	24.44	71.57	102.05	159.44	1 24 25	1455.2	31.90	68.69
158.70	11 24 43	5581.65	24.45	257.79	102.07	159.44	12 57 44	4981.6	31.90	254.90

DIFFERENTIAL CORRECTIONS

TDE	-2.3517	TRA	-1.3712	TC3	-.7803	BAU	.6552														
RDE	.7158	RRA	-.0346	RC3	.1033	FAU	.02253														
FDE	-.9425	FRA	-.3134	FC3	-.3132	BSP	11507														
BDE	2.4582	BRA	1.3717	BC3	.7871	FSP	-302														

MID-COURSE EXECUTION ACCURACY

SGT	3759.0	SGR	550.3	SG3	95.4				
RRT	-.4078	RRF	-.6259	RTF	.9622				
SGB	3799.0	R23	.2479	R13	-.9642				
SG1	3765.8	SG2	501.5	THA	176.52				

ORBIT DETERMINATION ACCURACY

ST	1946.7	SR	520.3	SS	675.5		
CRT	-.8546	CRS	.9401	CST	-.9804		
LSA	2106.2	MSA	284.0	SSA	2.8		
EL1	1997.8	EL2	263.2	ALF	166.90		

LAUNCH DATE OCT 1 1970 FLIGHT TIME 136.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 403.427

RL	149.78	LAL	.00	LOL	7.40	VL	27.218	GAL	-6.71	AZL	100.61	HCA	195.12	SMA	128.68	ECC	.20037	INC	10.6101	V1	29.749
RP	107.97	LAP	2.75	LOP	202.27	VP	37.777	GAP	6.94	AZP	79.75	TAL	208.94	TAP	44.06	RCA	102.90	APO	154.47	V2	35.099
RC	128.158	GL	-50.13	GP	59.88	ZAL	114.43	ZAP	118.20	ETS	61.69	ZAE	109.00	ETE	146.71	ZAC	156.19	ETC	239.01	CLP	-160.37

PLANETOCENTRIC CONIC

C3	42.051	VHL	6.485	DLA	-66.72	RAL	208.58	RAD	6568.6	VEL	12.783	PTH	2.33	VHP	9.189	DPA	42.04	RAP	244.18	ECC	1.6921

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.68	1 32 34	1942.37	29.60	63.79	104.43	152.97	2 4 57	1342.4	36.65	59.69
153.32	11 43 45	5499.63	29.60	255.73	104.45	152.96	13 15 25	4899.6	36.65	251.63
26.68	1 32 34	1942.37	29.60	63.79	104.43	152.97	2 4 57	1342.4	36.65	59.69
153.32	11 43 45	5499.63	29.60	255.73	104.45	152.96	13 15 25	4899.6	36.65	251.63
26.68	1 32 34	1942.37	29.60	63.79	104.43	152.97	2 4 57	1342.4	36.65	59.69
153.32	11 43 45	5499.63	29.60	255.73	104.45	152.96	13 15 25	4899.6	36.65	251.63

DIFFERENTIAL CORRECTIONS

TDE	-2.1046	TRA	-1.2997	TC3	-1.3307	BAU	.7600														
RDE	.6972	RRA	.0397	RC3	.2386	FAU	.02942														
FDE	-.9790	FRA	-.3052	FC3	-.6058	BSP	12073														
BDE	2.2171	BRA	1.3003	BC3	1.3519	FSP	-379														

MID-COURSE EXECUTION ACCURACY

SGT	3857.2	SGR	695.1	SG3	116.9				
RRT	-.7226	RRF	-.8894	RTF	.9478				
SGB	3919.4	R23	.2805	R13	-.9525				
SG1	3890.3	SG2	476.4	THA	172.47				

ORBIT DETERMINATION ACCURACY

ST	2054.3	SR	616.7	SS	706.0		
CRT	-.9229	CRS	.9821	CST	-.9789		
LSA	2243.4	MSA	257.0	SSA	3.7		
EL1	2132.7	EL2	228.7	ALF	164.33		

LAUNCH DATE OCT 1 1970 FLIGHT TIME 138.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 409.292

RL	149.78	LAL	.00	LOL	7.40	VL	27.159	GAL	-6.41	AZL	98.44	HCA	198.27	SMA	128.28	ECC	.20048	INC	8.4355	V1	29.749
RP	108.01	LAP	2.64	LOP	205.49	VP	37.722	GAP	7.17	AZP	81.98	TAL	207.44	TAP	45.71	RCA	102.57	APO	154.00	V2	35.086
RC	130.397	GL	-44.96	GP	53.89	ZAL	116.92	ZAP	123.29	ETS	58.93	ZAE	113.09	ETE	146.90	ZAC	151.65	ETC	245.33	CLP	-158.62

PLANETOCENTRIC CONIC

C3	31.399	VHL	5.603	DLA	-62.38	RAL	215.21	RAD	6568.3	VEL	12.360	PTH	2.23	VHP	8.168	DPA	35.46	RAP	244.06	ECC	1.5167

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.78	2 10 51	1849.88	32.68	55.74	105.59	146.58	2 41 41	1249.9	39.23	50.48
148.22	11 58 19	5444.67	32.69	253.47	105.60	146.58	13 29 4	4844.7	39.24	248.21
31.78	2 10 51	1849.88	32.68	55.74	105.59	146.58	2 41 41	1249.9	39.23	50.48
148.22	11 58 19	5444.67	32.69	253.47	105.60	146.58	13 29 4	4844.7	39.24	248.21
31.78	2 10 51	1849.88	32.68	55.74	105.59	146.58	2 41 41	1249.9	39.23	50.48
148.22	11 58 19	5444.67	32.69	253.47	105.60	146.58	13 29 4	4844.7	39.24	248.21

DIFFERENTIAL CORRECTIONS

TDE	-1.8977	TRA	-1.2148	TC3	-1.9256	BAU	.8218														
RDE	.6090	RRA	.0452	RC3	.3525	FAU	.03488														
FDE	-.9650	FRA	-.2712	FC3	-.9618	BSP	12462														
BDE	1.9930	BRA	1.2156	BC3	1.9576	FSP	-446														

MID-COURSE EXECUTION ACCURACY

SGT	3949.8	SGR	744.1	SG3	136.4				
RRT	-.7920	RRF	-.9360	RTF	.9369				
SGB	4019.3	R23	.3018	R13	-.9422				
SG1	3994.1	SG2	449.3	THA	171.40				

ORBIT DETERMINATION ACCURACY

ST	2101.3	SR	623.5	SS	708.2		
CRT	-.9411	CRS	.9912	CST	-.9775		
LSA	2291.0	MSA	238.4	SSA	4.8		
EL1	2182.4	EL2	203.0	ALF	164.26		

LAUNCH DATE OCT 1 1970 FLIGHT TIME 140.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 415.161

RL	149.78	LAL	.00	LOL	7.40	VL	27.100	GAL	-6.11	AZL	96.89	HCA	201.45	SMA	127.89	ECC	.20073	INC	6.8857	V1	29.749
RP	108.05	LAP	2.51	LOP	208.71	VP	37.668	GAP	7.41	AZP	83.59	TAL	205.92	TAP	47.36	RCA	102.22	APO	153.56	V2	35.074
RC	132.627	GL	-40.15	GP	48.59	ZAL	118.48	ZAP	127.88	ETS	57.15	ZAE	116.29	ETE	148.25	ZAC	147.30	ETC	249.37	CLP	-158.18

PLANETOCENTRIC CONIC

C3	25.103	VHL	5.010	DLA	-58.40	RAL	220.94	RAD	6568.0	VEL	12.103	PTH	2.17	VHP	7.530	DPA	29.70	RAP	244.26	ECC	1.4131

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.53	2 45 36	1772.47	34.23	47.94	106.17	140.67	3 15 8	1172.5	40.24	41.72
143.47	12 9 17	5410.53	34.24	251.45	106.19	140.66	13 39 28	4810.5	40.26	245.23
36.53	2 45 36	1772.47	34.23	47.94	106.17	140.67	3 15 8	1172.5	40.24	41.72
143.47	12 9 17	5410.53	34.24	251.45	106.19	140.66	13 39 28	4810.5	40.26	245.23
36.53	2 45 36	1772.47	34.23	47.94	106.17	140.67	3 15 8	1172.5	40.24	41.72
143.47	12 9 17	5410.53	34.24	251.45	106.19	140.66	13 39 28	4810.5	40.26	245.23

DIFFERENTIAL CORRECTIONS

TDE	-1.7150	TRA	-1.1271	TC3	-2.5401	BAU	.8650														
RDE	.5204	RRA	.0321	RC3	.4377	FAU	.03900														
FDE	-.9136	FRA	-.2192	FC3	-1.3449	BSP	12811														
BDE	1.7922	BRA	1.1276	BC3	2.5775	FSP	-503														

MID-COURSE EXECUTION ACCURACY

SGT	4046.6	SGR	742.6	SG3	153.0				
RRT	-.8173	RRF	-.9477	RTF	.9287				
SGB	4114.1	R23	.3128	R13	-.9337				
SG1	4092.3	SG2	423.1	THA	171.38				

ORBIT DETERMINATION ACCURACY

ST	2096.9	SR	595.6	SS	686.6		
CRT	-.9478	CRS	.9948	CST	-.9752		
LSA	2274.3	MSA	225.0	SSA	6.1		
EL1	2172.1	EL2	183.4	ALF	164.82		

LAUNCH DATE OCT 1 1970 FLIGHT TIME 142.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 421.027

```
RL  149.78 LAL    .00 LOL   7.40 VL  27.042 GAL  -5.80 AZL  95.72 HCA 204.63 SMA 127.50 ECC .20111 INC 5.7205 V1  29.749
RP  108.09 LAP   2.38 LOP 211.92 VP  37.614 GAP   7.64 AZP  84.80 TAL 204.39 TAP  49.01 RCA 101.86 APO 153.14 V2  35.061
RC 134.850 GL  -35.76 GP   43.97 ZAL 119.20 ZAP 131.99 ETS  55.81 ZAE 118.78 ETE 150.04 ZAC 143.35 ETC 252.11 CLP-158.36
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PLANETOCENTRIC CONIC

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C3  21.058 VHL  4.589 DLA -54.78 RAL 226.05 RAD 6567.9 VEL 11.935 PTH   2.12 VHP  7.124 DPA  24.64 RAP 244.76 ECC 1.3466
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.92	3 17 56	1705.49	34.75	40.65	106.71	135.42	3 46 22	1105.5	40.24	33.72
139.08	12 17 46	5391.97	34.77	249.94	106.73	135.41	13 47 38	4792.0	40.25	243.01
40.92	3 17 56	1705.49	34.75	40.65	106.71	135.42	3 46 22	1105.5	40.24	33.72
139.08	12 17 46	5391.97	34.77	249.94	106.73	135.41	13 47 38	4792.0	40.25	243.01
40.92	3 17 56	1705.49	34.75	40.65	106.71	135.42	3 46 22	1105.5	40.24	33.72
139.08	12 17 46	5391.97	34.77	249.94	106.73	135.41	13 47 38	4792.0	40.25	243.01

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.5422 TRA-1.0246 TC3-3.1321 BAU  .8924   SGT 4110.0 SGR  710.5 SG3  164.1      ST  2039.1 SR   551.9 SS   640.1
 RDE  .4419 RRA  .0105 RC3  .4871 FAU .04137   RRT -.8213 RRF -.9457 RTF  .9194     CRT -.9490 CRS  .9967 CST -.9709
 FDE -.8287 FRA -.1449 FC3-1.7008 BSP  12841   SGB 4171.0 RZ3  .3214 R13 -.9240     LSA 2196.8 MSA  215.5 SSA    7.7
 BDE 1.6042 BRA 1.0247 BC3 3.1697 FSP   -526   SG1 4151.6 SG2  401.3 THA 171.84     EL1 2105.7 EL2  168.5 ALF 165.50
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LAUNCH DATE OCT 1 1970 FLIGHT TIME 144.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 426.883

```
RL  149.78 LAL    .00 LOL   7.40 VL  26.983 GAL  -5.49 AZL  94.81 HCA 207.81 SMA 127.12 ECC .20161 INC 4.8080 V1  29.749
RP  108.13 LAP   2.24 LOP 215.13 VP  37.560 GAP   7.87 AZP  85.75 TAL 202.84 TAP  50.65 RCA 101.49 APO 152.74 V2  35.047
RC 137.083 GL  -31.76 GP   39.96 ZAL 119.18 ZAP 135.64 ETS  54.73 ZAE 120.72 ETE 151.96 ZAC 139.88 ETC 254.10 CLP-158.86
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PLANETOCENTRIC CONIC

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C3  18.290 VHL  4.278 DLA -51.51 RAL 230.76 RAD 6567.7 VEL 11.819 PTH   2.09 VHP  6.864 DPA  20.21 RAP 245.53 ECC 1.3011
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.99	3 48 45	1645.56	34.60	33.94	107.47	130.87	4 16 11	1045.6	39.59	26.50
135.01	12 24 29	5385.25	34.62	249.04	107.48	130.86	13 54 14	4785.2	39.60	241.60
44.99	3 48 45	1645.56	34.60	33.94	107.47	130.87	4 16 11	1045.6	39.59	26.50
135.01	12 24 29	5385.25	34.62	249.04	107.48	130.86	13 54 14	4785.2	39.60	241.60
44.99	3 48 45	1645.56	34.60	33.94	107.47	130.87	4 16 11	1045.6	39.59	26.50
135.01	12 24 29	5385.25	34.62	249.04	107.48	130.86	13 54 14	4785.2	39.60	241.60

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.4098 TRA -.9413 TC3-3.7530 BAU  .9272   SGT 4239.9 SGR  690.8 SG3  176.2      ST  1985.7 SR   520.0 SS   599.0
 RDE  .3881 RRA -.0017 RC3  .5317 FAU .04359   RRT -.8313 RRF -.9408 RTF  .9174     CRT -.9511 CRS  .9981 CST -.9671
 FDE -.7520 FRA -.0843 FC3-2.0825 BSP  13442   SGB 4295.8 RZ3  .3093 R13 -.9212     LSA 2128.2 MSA  206.5 SSA    9.5
 BDE 1.4619 BRA  .9413 BC3 3.7905 FSP   -580   SG1 4279.0 SG2  380.4 THA 172.23     EL1 2046.7 EL2  155.8 ALF 165.93
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LAUNCH DATE OCT 1 1970 FLIGHT TIME-146.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 432.731

```
RL  149.78 LAL    .00 LOL   7.40 VL  26.925 GAL  -5.17 AZL  94.07 HCA 211.00 SMA 126.74 ECC .20224 INC 4.0703 V1  29.749
RP  108.17 LAP   2.09 LOP 218.34 VP  37.506 GAP   8.10 AZP  86.51 TAL 201.28 TAP  52.28 RCA 101.11 APO 152.37 V2  35.034
RC 139.266 GL  -28.11 GP   36.49 ZAL 118.52 ZAP 138.87 ETS  53.82 ZAE 122.22 ETE 153.86 ZAC 136.85 ETC 255.62 CLP-159.54
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PLANETOCENTRIC CONIC

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C3  16.324 VHL  4.040 DLA -48.53 RAL 235.21 RAD 6567.7 VEL 11.735 PTH   2.07 VHP  6.702 DPA  16.33 RAP 246.51 ECC 1.2687
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.78	4 18 44	1590.23	34.03	27.74	108.56	126.96	4 45 14	990.2	38.57	19.98
131.22	12 30 0	5387.80	34.04	248.73	108.57	126.95	13 59 48	4787.8	38.58	240.97
48.78	4 18 44	1590.23	34.03	27.74	108.56	126.96	4 45 14	990.2	38.57	19.98
131.22	12 30 0	5387.80	34.04	248.73	108.57	126.95	13 59 48	4787.8	38.58	240.97
48.78	4 18 44	1590.23	34.03	27.74	108.56	126.96	4 45 14	990.2	38.57	19.98
131.22	12 30 0	5387.80	34.04	248.73	108.57	126.95	13 59 48	4787.8	38.58	240.97

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.2778 TRA -.8394 TC3-4.3246 BAU  .9514   SGT 4327.3 SGR  659.0 SG3  182.9      ST  1893.2 SR   486.1 SS   541.6
 RDE  .3425 RRA -.0176 RC3  .5492 FAU .04434   RRT -.8287 RRF -.9289 RTF  .9128     CRT -.9513 CRS  .9990 CST -.9602
 FDE -.6584 FRA -.0082 FC3-2.3513 BSP  13682   SGB 4377.2 RZ3  .2984 R13 -.9161     LSA 2018.4 MSA  199.5 SSA   11.7
 BDE 1.3227 BRA  .8396 BC3 4.3593 FSP   -598   SG1 4361.9 SG2  365.9 THA 172.76     EL1 1949.2 EL2  145.6 ALF 166.20
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LAUNCH DATE OCT 1 1970 FLIGHT TIME 148.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 438.567

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RL  149.78 LAL    .00 LOL   7.40 VL  26.868 GAL  -4.84 AZL  93.46 HCA 214.19 SMA 126.36 ECC .20299 INC 3.4583 V1  29.749
RP  108.21 LAP   1.94 LOP 221.54 VP  37.452 GAP   8.33 AZP  87.14 TAL 199.70 TAP  53.89 RCA 100.71 APO 152.01 V2  35.021
RC 141.459 GL  -24.76 GP   33.48 ZAL 117.31 ZAP 141.75 ETS  53.07 ZAE 123.39 ETE 155.66 ZAC 134.22 ETC 256.85 CLP-160.32
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PLANETOCENTRIC CONIC

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C3  14.868 VHL  3.856 DLA -45.80 RAL 239.49 RAD 6567.6 VEL 11.673 PTH   2.05 VHP  6.609 DPA  12.90 RAP 247.69 ECC 1.2447
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.36	4 48 25	1537.58	33.17	21.97	110.01	123.61	5 14 3	937.6	37.32	14.00
127.64	12 34 29	5388.25	33.18	249.01	110.02	123.59	14 4 27	4798.3	37.33	241.04
52.36	4 48 25	1537.58	33.17	21.97	110.01	123.61	5 14 3	937.6	37.32	14.00
127.64	12 34 29	5388.25	33.18	249.01	110.02	123.59	14 4 27	4798.3	37.33	241.04
52.36	4 48 25	1537.58	33.17	21.97	110.01	123.61	5 14 3	937.6	37.32	14.00
127.64	12 34 29	5388.25	33.18	249.01	110.02	123.59	14 4 27	4798.3	37.33	241.04

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.1595 TRA -.7356 TC3-4.8743 BAU  .9752   SGT 4422.2 SGR  632.1 SG3  187.8      ST  1789.6 SR   459.4 SS   483.6
 RDE  .3080 RRA -.0306 RC3  .5575 FAU .04451   RRT -.8243 RRF -.9136 RTF  .9101     CRT -.9521 CRS  .9991 CST -.9508
 FDE -.5678 FRA  .0850 FC3-2.5919 BSP  14003   SGB 4487.2 RZ3  .2799 R13 -.9128     LSA 1900.0 MSA  193.0 SSA   14.3
 BDE 1.1999 BRA  .7362 BC3 4.9061 FSP   -615   SG1 4453.0 SG2  355.4 THA 173.24     EL1 1842.5 EL2  136.5 ALF 166.19
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LAUNCH DATE OCT 1 1970 FLIGHT TIME 150.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 444.392
RL 149.78 LAL .00 LOL 7.40 VL 26.810 GAL -4.49 AZL 92.94 HCA 217.37 SMA 125.99 ECC .20388 INC 2.9393 V1 29.749
RP 108.85 LAP 1.78 LOP 224.74 VP 37.399 GAP 8.56 AZP 87.66 TAL 198.11 TAP 55.49 RCA 100.31 APO 151.68 V2 35.008
RC 143.643 GL -21.68 GP 30.87 ZAL 115.62 ZAP 144.32 ETS 52.47 ZAE 124.29 ETE 157.32 ZAC 131.94 ETC 257.90 CLP-161.15

PLANETOCENTRIC CONIC
C3 13.771 VHL 3.711 DLA -43.28 RAL 243.68 RAD 6567.5 VEL 11.626 PTH 2.04 VHP 6.564 DPA 9.88 RAP 249.04 ECC 1.2266

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.79	5 18 18	1486.01	32.14	16.49	111.80	120.71	5 43 4	886.0	35.94	8.41
124.21	12 37 59	5415.94	32.15	249.86	111.81	120.69	14 8 15	4815.9	35.96	241.77
55.79	5 18 18	1486.01	32.14	16.49	111.80	120.71	5 43 4	886.0	35.94	8.41
124.21	12 37 59	5415.94	32.15	249.86	111.81	120.69	14 8 15	4815.9	35.96	241.77
55.79	5 18 18	1486.01	32.14	16.49	111.80	120.71	5 43 4	886.0	35.94	8.41
124.21	12 37 59	5415.94	32.15	249.86	111.81	120.69	14 8 15	4815.9	35.96	241.77

DIFFERENTIAL CORRECTIONS
TDE-1.0469 TRA -.6235 TC3-5.3837 BAU .9964
RDE .2827 RRA -.0429 RC3 .5568 FAU .04409
FDE -.4787 FRA .1385 FC3-2.7716 BSP 14263
BDE 1.0844 BRA .6250 BC3 5.4124 FSP -623

MID-COURSE EXECUTION ACCURACY
SGT 4508.5 SGR 608.0 SG3 190.6
RRT -.8159 RRF -.8945 RTF .9077
SGB 4549.3 R23 .2585 R13 -.9099
SG1 4535.9 SG2 349.4 THA 173.68

ORBIT DETERMINATION ACCURACY
ST 1668.7 SR 437.6 SS 423.6
CRT -.9536 CRS .9970 CST -.9365
LSA 1766.4 MSA 187.0 SSA 17.5
EL1 1720.4 EL2 127.8 ALF 165.88

LAUNCH DATE OCT 1 1970 FLIGHT TIME 152.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 450.203
RL 149.78 LAL .00 LOL 7.40 VL 26.753 GAL -4.14 AZL 92.49 HCA 220.56 SMA 125.63 ECC .20490 INC 2.4914 V1 29.749
RP 108.29 LAP 1.62 LOP 227.94 VP 37.345 GAP 8.80 AZP 88.11 TAL 196.50 TAP 57.07 RCA 99.89 APO 151.37 V2 34.995
RC 145.816 GL -18.81 GP 28.59 ZAL 113.54 ZAP 146.63 ETS 52.00 ZAE 125.00 ETE 158.82 ZAC 129.96 ETC 258.82 CLP-162.00

PLANETOCENTRIC CONIC
C3 12.938 VHL 3.597 DLA -40.91 RAL 247.80 RAD 6567.5 VEL 11.590 PTH 2.03 VHP 6.556 DPA 7.21 RAP 250.52 ECC 1.2129

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.14	5 48 53	1433.88	30.98	11.16	113.92	118.18	6 12 47	833.9	34.48	3.02
120.86	12 40 20	5441.00	31.00	251.28	113.93	118.16	14 11 1	4841.0	34.49	243.14
59.14	5 48 53	1433.88	30.98	11.16	113.92	118.18	6 12 47	833.9	34.48	3.02
120.86	12 40 20	5441.00	31.00	251.28	113.93	118.16	14 11 1	4841.0	34.49	243.14
59.14	5 48 53	1433.88	30.98	11.16	113.92	118.18	6 12 47	833.9	34.48	3.02
120.86	12 40 20	5441.00	31.00	251.28	113.93	118.16	14 11 1	4841.0	34.49	243.14

DIFFERENTIAL CORRECTIONS
TDE -.9410 TRA -.5075 TC3-5.8569 BAU 1.0176
RDE .2634 RRA -.0538 RC3 .5518 FAU .04333
FDE -.3953 FRA .2078 FC3-2.8992 BSP 14574
BDE .9772 BRA .5103 BC3 5.8629 FSP -628

MID-COURSE EXECUTION ACCURACY
SGT 4598.3 SGR 588.6 SG3 192.0
RRT -.8055 RRF -.8729 RTF .9065
SGB 4635.8 R23 .2338 R13 -.9084
SG1 4622.8 SG2 347.0 THA 174.08

ORBIT DETERMINATION ACCURACY
ST 1538.1 SR 421.1 SS 366.0
CRT -.9564 CRS .9899 CST -.9150
LSA 1625.9 MSA 181.0 SSA 21.4
EL1 1590.2 EL2 118.9 ALF 165.24

LAUNCH DATE OCT 1 1970 FLIGHT TIME 154.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 456.001
RL 149.78 LAL .00 LOL 7.40 VL 26.697 GAL -3.78 AZL 92.10 HCA 223.75 SMA 125.27 ECC .20607 INC 2.0984 V1 29.749
RP 108.33 LAP 1.45 LOP 231.14 VP 37.293 GAP 9.03 AZP 88.48 TAL 194.88 TAP 58.64 RCA 99.46 APO 151.08 V2 34.982
RC 147.979 GL -16.14 GP 26.60 ZAL 111.12 ZAP 148.70 ETS 51.68 ZAE 125.55 ETE 160.18 ZAC 128.23 ETC 259.65 CLP-162.87

PLANETOCENTRIC CONIC
C3 12.312 VHL 3.509 DLA -38.67 RAL 251.89 RAD 6567.5 VEL 11.563 PTH 2.02 VHP 6.576 DPA 4.83 RAP 252.14 ECC 1.2026

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.49	6 20 41	1379.48	29.73	5.83	116.34	115.95	6 43 40	779.5	32.96	357.67
117.51	12 41 11	5474.16	29.75	253.34	116.34	115.94	14 12 25	4874.2	32.97	245.18
62.49	6 20 41	1379.48	29.73	5.83	116.34	115.95	6 43 40	779.5	32.96	357.67
117.51	12 41 11	5474.16	29.75	253.34	116.34	115.94	14 12 25	4874.2	32.97	245.18
62.49	6 20 41	1379.48	29.73	5.83	116.34	115.95	6 43 40	779.5	32.96	357.67
117.51	12 41 11	5474.16	29.75	253.34	116.34	115.94	14 12 25	4874.2	32.97	245.18

DIFFERENTIAL CORRECTIONS
TDE -.8360 TRA -.3835 TC3-6.2781 BAU 1.0372
RDE .2484 RRA -.0644 RC3 .5425 FAU .04224
FDE -.3153 FRA .2752 FC3-2.9703 BSP 14854
BDE .8721 BRA .3889 BC3 6.3015 FSP -629

MID-COURSE EXECUTION ACCURACY
SGT 4681.6 SGR 572.4 SG3 192.1
RRT -.7923 RRF -.8488 RTF .9056
SGB 4716.4 R23 .2086 R13 -.9072
SG1 4703.6 SG2 347.6 THA 174.44

ORBIT DETERMINATION ACCURACY
ST 1392.4 SR 407.8 SS 310.5
CRT -.9607 CRS .9714 CST -.8797
LSA 1473.2 MSA 175.1 SSA 26.3
EL1 1446.8 EL2 109.0 ALF 164.19

LAUNCH DATE OCT 1 1970 FLIGHT TIME 156.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 461.784
RL 149.78 LAL .00 LOL 7.40 VL 26.641 GAL -3.41 AZL 91.75 HCA 226.94 SMA 124.92 ECC .20738 INC 1.7488 V1 29.749
RP 108.37 LAP 1.28 LOP 234.33 VP 37.240 GAP 9.26 AZP 88.81 TAL 193.25 TAP 60.19 RCA 99.01 APO 150.82 V2 34.969
RC 150.132 GL -13.64 GP 24.85 ZAL 108.42 ZAP 150.59 ETS 51.51 ZAE 125.99 ETE 161.39 ZAC 126.72 ETC 260.42 CLP-163.74

PLANETOCENTRIC CONIC
C3 11.852 VHL 3.443 DLA -36.52 RAL 255.96 RAD 6567.5 VEL 11.543 PTH 2.01 VHP 6.617 DPA 2.70 RAP 253.86 ECC 1.1951

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.91	6 54 21	1320.56	28.41	.31	119.01	113.97	7 16 22	720.6	31.39	352.16
114.09	12 39 59	5517.04	28.42	256.14	119.02	113.96	14 11 56	4917.0	31.40	247.99
65.91	6 54 21	1320.56	28.41	.31	119.01	113.97	7 16 22	720.6	31.39	352.16
114.09	12 39 59	5517.04	28.42	256.14	119.02	113.96	14 11 56	4917.0	31.40	247.99
65.91	6 54 21	1320.56	28.41	.31	119.01	113.97	7 16 22	720.6	31.39	352.16
114.09	12 39 59	5517.04	28.42	256.14	119.02	113.96	14 11 56	4917.0	31.40	247.99

DIFFERENTIAL CORRECTIONS
TDE -.7521 TRA -.2530 TC3-6.6440 BAU 1.0561
RDE .2372 RRA -.0747 RC3 .5307 FAU .04095
FDE -.2405 FRA .3391 FC3-2.9911 BSP 15131
BDE .7695 BRA .2638 BC3 6.6652 FSP -627

MID-COURSE EXECUTION ACCURACY
SGT 4763.1 SGR 559.7 SG3 191.2
RRT -.7771 RRF -.8230 RTF .9054
SGB 4795.9 R23 .1836 R13 -.9067
SG1 4783.0 SG2 350.8 THA 174.75

ORBIT DETERMINATION ACCURACY
ST 1236.1 SR 397.6 SS 261.0
CRT -.9668 CRS .9280 CST -.8206
LSA 1313.2 MSA 169.3 SSA 32.6
EL1 1294.8 EL2 97.0 ALF 162.62

LAUNCH DATE OCT 1 1970 FLIGHT TIME 158.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 467.552

RL	149.78	LAL	.00	LOL	7.40	VL	26.585	GAL	-3.02	AZL	91.43	HCA	230.12	SMA	124.57	ECC	.20886	INC	1.4341
RP	108.41	LAP	1.10	LOP	237.52	VP	37.188	GAP	9.50	AZP	89.08	TAL	191.61	TAP	61.73	RCA	98.55	APO	150.59
RC	152.275	GL	-11.28	GP	23.31	ZAL	105.48	ZAP	152.30	ETS	51.47	ZAE	126.35	ETE	162.48	ZAC	125.39	ETC	261.16

PLANETOCENTRIC CONIC

C3	11.537	VHL	3.397	DLA	-34.43	RAL	260.01	RAD	6567.4	VEL	11.529	PTH	2.01	VHP	6.677	DPA	.81	RAP	255.67

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.54	7 30 54	1253.78	27.02	354.34	121.92	112.20	7 51 47	653.8	29.79	346.22
110.46	12 35 45	5572.55	27.04	259.88	121.93	112.19	14 8 37	4972.6	29.80	251.76
69.54	7 30 54	1253.78	27.02	354.34	121.92	112.20	7 51 47	653.8	29.79	346.22
110.46	12 35 45	5572.55	27.04	259.88	121.93	112.19	14 8 37	4972.6	29.80	251.76
69.54	7 30 54	1253.78	27.02	354.34	121.92	112.20	7 51 47	653.8	29.79	346.22
110.46	12 35 45	5572.55	27.04	259.88	121.93	112.19	14 8 37	4972.6	29.80	251.76

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.6260	TRA	-.1144	TC3	-6.9442	BAU	.0741	SGT	4839.9	SGR	549.6	SG3	189.4	ST	1067.6	SR	389.3	SS	220.3
RDE	.2206	RRA	-.0850	RC3	.5166	FAU	.03950	RRT	-.7601	RRF	-.7961	RTF	.9056	CRT	-.9745	CRS	.8325	CST	-.7195
FDE	-.1696	FRA	.4004	FC3	-2.9641	BSP	15395	SGB	4871.0	R23	.1601	R13	-.9066	LSA	1145.1	MSA	164.3	SSA	40.8
BDE	.6664	BRA	.1426	BC3	6.9634	FSP	-622	SG1	4858.0	SG2	355.8	THA	175.04	EL1	1133.4	EL2	82.3	ALF	160.33

LAUNCH DATE OCT 1 1970 FLIGHT TIME 160.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 473.304

RL	149.78	LAL	.00	LOL	7.40	VL	26.530	GAL	-2.63	AZL	91.15	HCA	233.30	SMA	124.23	ECC	.21051	INC	1.1475
RP	108.45	LAP	.92	LOP	240.70	VP	37.137	GAP	9.74	AZP	89.31	TAL	189.95	TAP	63.26	RCA	98.08	APO	150.38
RC	154.408	GL	-9.06	GP	21.95	ZAL	102.34	ZAP	153.87	ETS	51.59	ZAE	126.63	ETE	163.45	ZAC	124.21	ETC	261.87

PLANETOCENTRIC CONIC

C3	11.352	VHL	3.369	DLA	-32.40	RAL	264.04	RAD	6567.4	VEL	11.521	PTH	2.01	VHP	6.751	DPA	-.89	RAP	257.57

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.55	8 12 3	1173.22	25.59	347.48	125.04	110.59	8 31 36	573.2	28.15	339.40
106.45	12 26 41	5646.38	25.60	264.96	125.05	110.58	14 0 47	5046.4	28.16	256.88
73.55	8 12 3	1173.22	25.59	347.48	125.04	110.59	8 31 36	573.2	28.15	339.40
106.45	12 26 41	5646.38	25.60	264.96	125.05	110.58	14 0 47	5046.4	28.16	256.88
110.00	11 25 45	5834.78	19.39	276.37	121.97	118.72	13 3 0	5234.8	23.07	269.16
110.00	14 12 9	5320.86	32.13	242.09	127.25	102.34	15 40 50	4720.9	33.50	233.12

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5176	TRA	.0311	TC3	-7.1729	BAU	1.0913	SGT	4913.4	SGR	541.8	SG3	187.1	ST	892.2	SR	382.4	SS	194.3
RDE	.2222	RRA	-.0955	RC3	.5006	FAU	.03796	RRT	-.7419	RRF	-.7687	RTF	.9062	CRT	-.9823	CRS	.8504	CST	-.5655
FDE	-.1031	FRA	.4585	FC3	-2.8948	BSP	15655	SGB	4943.2	R23	.1382	R13	-.9070	LSA	975.2	MSA	162.7	SSA	50.9
BDE	.5633	BRA	.1004	BC3	7.1904	FSP	-616	SG1	4929.9	SG2	362.1	THA	175.30	EL1	968.5	EL2	65.9	ALF	157.05

LAUNCH DATE OCT 1 1970 FLIGHT TIME 162.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 479.040

RL	149.78	LAL	.00	LOL	7.40	VL	26.475	GAL	-2.22	AZL	90.88	HCA	236.49	SMA	123.89	ECC	.21234	INC	.8840
RP	108.49	LAP	.74	LOP	243.89	VP	37.087	GAP	9.99	AZP	89.51	TAL	188.29	TAP	64.77	RCA	97.59	APO	150.20
RC	156.530	GL	-6.98	GP	20.74	ZAL	99.05	ZAP	155.32	ETS	51.85	ZAE	126.87	ETE	164.31	ZAC	123.16	ETC	262.56

PLANETOCENTRIC CONIC

C3	11.288	VHL	3.360	DLA	-30.41	RAL	268.02	RAD	6567.4	VEL	11.518	PTH	2.01	VHP	6.839	DPA	-2.41	RAP	259.55

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
78.42	9 2 1	1064.95	24.10	338.71	128.35	109.13	9 19 46	465.0	26.49	330.68
101.58	12 8 33	5752.29	24.11	272.37	128.35	109.11	13 44 25	5152.3	26.50	264.34
78.42	9 2 1	1064.95	24.10	338.71	128.35	109.13	9 19 46	465.0	26.49	330.68
101.58	12 8 33	5752.29	24.11	272.37	128.35	109.11	13 44 25	5152.3	26.50	264.34
110.00	11 4 21	666.38	15.33	305.36	124.00	120.93	11 15 27	66.4	19.32	298.51
110.00	15 5 22	5198.86	33.54	232.85	130.85	97.05	16 32 1	4598.9	34.15	223.66

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4018	TRA	.1888	TC3	-7.3108	BAU	1.1056	SGT	4974.0	SGR	534.6	SG3	183.9	ST	709.8	SR	375.6	SS	188.1
RDE	.2170	RRA	-.1069	RC3	.4803	FAU	.03620	RRT	-.7213	RRF	-.7400	RTF	.9059	CRT	-.9832	CRS	.3655	CST	-.3828
FDE	-.0376	FRA	.5172	FC3	-2.7765	BSP	15814	SGB	5002.7	R23	.1198	R13	-.9066	LSA	804.1	MSA	173.4	SSA	60.5
BDE	.4567	BRA	.2169	BC3	7.3265	FSP	-602	SG1	4989.0	SG2	369.2	THA	175.54	EL1	800.8	EL2	60.8	ALF	152.34

LAUNCH DATE OCT 1 1970 FLIGHT TIME 164.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 484.758

RL	149.78	LAL	.00	LOL	7.40	VL	26.421	GAL	-1.80	AZL	90.64	HCA	239.67	SMA	123.56	ECC	.21436	INC	.6393
RP	108.53	LAP	.55	LOP	247.07	VP	37.037	GAP	10.24	AZP	89.68	TAL	186.61	TAP	66.27	RCA	97.08	APO	150.05
RC	158.641	GL	-5.02	GP	19.66	ZAL	95.65	ZAP	156.65	ETS	52.26	ZAE	127.06	ETE	165.08	ZAC	122.22	ETC	263.23

PLANETOCENTRIC CONIC

C3	11.341	VHL	3.368	DLA	-28.45	RAL	271.96	RAD	6567.4	VEL	11.521	PTH	2.01	VHP	6.939	DPA	-3.77	RAP	261.60

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
87.11	10 26 41	844.32	22.58	321.87	131.81	107.78	10 40 46	244.3	24.80	313.89
92.89	11 15 17	686.85	22.59	310.35	131.81	107.77	11 26 44	86.8	24.81	302.37
100.00	10 54 31	753.95	17.31	313.09	129.63	114.76	11 7 5	154.0	20.50	305.75
100.00	13 30 8	5540.48	28.08	257.80	133.35	100.71	15 2 29	4940.5	29.27	249.20
110.00	10 52 40	759.77	12.00	310.55	126.65	122.25	11 5 20	159.8	16.17	303.92
110.00	15 48 28	5107.43	34.08	225.77	134.19	92.89	17 13 36	4507.4	34.10	216.52

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.2842	TRA	.3925	TC3	-7.3748	BAU	1.1203	SGT	5037.1	SGR	529.6	SG3	180.6	ST	545.8	SR	370.1	SS	202.8
RDE	.2137	RRA	-.1183	RC3	.4597	FAU	.03449	RRT	-.7009	RRF	-.7124	RTF	.9065	CRT	-.9467	CRS	.0766	CST	-.3122
FDE	.0221	FRA	.5717	FC3	-2.6331	BSP	16010	SGB	5064.8	R23	.1029	R13	-.9071	LSA	653.9	MSA	210.7	SSA	63.6
BDE	.3556	BRA	.3719	BC3	7.3892	FSP	-591	SG1	5050.8	SG2	376.7	THA	175.76	EL1	651.9	EL2	99.8	ALF	146.41

LAUNCH DATE OCT 1 1970 FLIGHT TIME 166.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 490.454

```
RL  149.78 LAL    .00 LOL   7.40 VL  26.368 GAL  -1.36 AZL  90.41 HCA 242.84 SMA 123.24 ECC .21659 INC  .4099 V1  29.749
RP  108.58 LAP    .37 LOP 250.25 VP  36.988 GAP  10.50 AZP  89.81 TAL 184.92 TAP  67.77 RCA  96.55 APO 149.93 V2  34.907
RC 160.740 GL   -3.19 GP   18.69 ZAL  92.18 ZAP 157.89 ETS  52.83 ZAE 127.23 ETE 165.77 ZAC 121.37 ETC 263.90 CLP-167.97
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PLANETOCENTRIC CONIC

```
C3  11.512 VHL  3.393 DLA -26.53 RAL 275.83 RAD 6567.4 VEL 11.528 PTH   2.01 VHP  7.050 DPA  -4.99 RAP 263.71 ECC 1.1895
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 38 11	1057.94	15.31	334.50	133.17	114.11	9 55 48	457.9	18.44	327.22
90.00	12 34 41	5767.49	27.01	274.28	136.88	98.85	14 10 48	5167.5	27.95	265.74
100.00	10 29 9	893.30	13.15	321.34	132.11	117.09	10 44 2	293.3	16.68	314.33
100.00	14 26 23	5407.37	29.38	248.13	137.22	95.78	15 56 30	4807.4	29.87	239.36
110.00	10 45 42	841.38	9.00	314.96	129.65	123.12	10 59 43	241.4	13.30	308.50
110.00	16 26 20	5032.05	34.18	219.88	137.48	89.41	17 50 12	4432.0	33.72	210.67

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.1844 TRA  .5015 TC3-7.4355 BAU 1.1465   SGT 5143.1 SGR  530.6 SG3  178.2     ST   447.8 SR   369.7 SS   221.7
RDE  .2147 RRA -.1271 RC3  .4484 FAU .03352   RRT -.6871 RRF -.6918 RTF  .9129    CRT -.8136 CRS -.0992 CST -.4442
FDE  .0630 FRA  .6080 FC3-2.5210 BSP  16750   SGB 5170.4 RZ3  .0839 RI3 -.9134   LSA  557.1 MSA  269.1 SSA   59.6
BDE  .2830 BRA  .5174 BC3 7.4490 FSP   -613   SG1 5156.1 SG2  384.6 THA 175.92   EL1  554.1 EL2  173.7 ALF 141.66
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LAUNCH DATE OCT 1 1970 FLIGHT TIME 168.00 ARRIVAL DATE MAR 18 1971

HELIOCENTRIC CONIC DISTANCE 496.135

```
RL  149.78 LAL    .00 LOL   7.40 VL  26.315 GAL   -.91 AZL  90.19 HCA 246.02 SMA 122.92 ECC .21904 INC  .1933 V1  29.749
RP  108.60 LAP    .18 LOP 253.42 VP  36.939 GAP  10.76 AZP  89.92 TAL 183.23 TAP  69.25 RCA  96.00 APO 149.85 V2  34.896
RC 162.826 GL   -1.49 GP   17.83 ZAL  88.66 ZAP 159.04 ETS  53.55 ZAE 127.37 ETE 166.39 ZAC 120.59 ETC 264.57 CLP-168.79
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PLANETOCENTRIC CONIC

```
C3  11.803 VHL  3.436 DLA -24.64 RAL 279.63 RAD 6567.4 VEL 11.541 PTH   2.01 VHP  7.172 DPA  -6.07 RAP 265.87 ECC 1.1943
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 15 15	1192.54	11.42	342.47	135.96	116.09	9 35 8	592.5	14.83	335.46
90.00	13 27 53	5643.31	27.99	265.33	140.75	94.47	15 1 56	5043.3	28.32	256.68
100.00	10 15 0	999.68	9.78	327.44	135.10	118.39	10 31 40	399.7	13.50	320.62
100.00	15 10 49	5311.41	29.83	241.03	140.87	92.07	16 39 21	4711.4	29.80	232.23
110.00	10 41 34	916.33	6.19	318.94	132.92	123.69	10 56 51	316.3	10.57	312.60
110.00	17 0 44	4967.53	34.02	214.85	140.80	86.44	18 23 32	4367.5	33.15	205.72

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.0400 TRA  .6998 TC3-7.2755 BAU 1.1499   SGT 5161.8 SGR  523.0 SG3  173.4     ST   418.7 SR   361.5 SS   265.4
RDE  .2116 RRA -.1416 RC3  .4156 FAU .03121   RRT -.6610 RRF -.6602 RTF  .9098    CRT -.3622 CRS -.2972 CST -.7521
FDE  .1277 FRA  .6697 FC3-2.2888 BSP  16504   SGB 5188.2 RZ3  .0738 RI3 -.9102   LSA  484.1 MSA  373.5 SSA   51.1
BDE  .2154 BRA  .7140 BC3 7.2873 FSP   -575   SG1 5173.4 SG2  391.6 THA 176.15   EL1  460.6 EL2  306.3 ALF 146.07
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LAUNCH DATE OCT 1 1970 FLIGHT TIME 170.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 501.791

```
RL  149.78 LAL    .00 LOL   7.40 VL  26.263 GAL   -.44 AZL  89.99 HCA 249.19 SMA 122.61 ECC .22172 INC  .0000 V1  29.749
RP  108.63 LAP   -.01 LOP 256.60 VP  36.892 GAP  11.04 AZP  90.00 TAL 181.53 TAP  70.72 RCA  95.42 APO 149.79 V2  34.885
RC 164.900 GL    .09 GP   17.05 ZAL  85.14 ZAP 160.10 ETS  54.45 ZAE 127.49 ETE 166.95 ZAC 119.88 ETC 265.23 CLP-169.59
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PLANETOCENTRIC CONIC

```
C3  12.220 VHL  3.496 DLA -22.79 RAL 283.33 RAD 6567.5 VEL 11.559 PTH   2.02 VHP  7.304 DPA  -7.03 RAP 268.08 ECC 1.2011
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 1 41	1299.12	8.16	348.60	139.13	117.21	9 23 20	699.1	11.74	341.76
90.00	14 10 57	5551.36	28.30	258.62	144.45	91.12	15 43 29	4951.4	28.15	249.96
100.00	10 5 58	1091.64	6.76	332.60	138.38	119.19	10 24 9	491.6	10.60	325.92
100.00	15 49 22	5234.08	29.88	235.29	144.46	89.05	17 16 36	4634.1	29.43	226.51
110.00	10 39 20	987.04	3.50	322.66	136.37	124.02	10 55 47	387.0	7.95	316.39
110.00	17 32 29	4911.44	33.70	210.50	144.18	83.88	18 54 21	4311.4	32.48	201.48

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .0934 TRA  .8908 TC3-7.0980 BAU 1.1614   SGT 5211.4 SGR  519.7 SG3  169.4     ST   520.9 SR   357.1 SS   304.9
RDE  .2119 RRA -.1543 RC3  .3894 FAU .02945   RRT -.6397 RRF -.6346 RTF  .9108    CRT  .0691 CRS -.4008 CST -.9264
FDE  .1775 FRA  .7187 FC3-2.0865 BSP  16635   SGB 5237.2 RZ3  .0631 RI3 -.9111   LSA  599.1 MSA  362.0 SSA   43.5
BDE  .2316 BRA  .9041 BC3 7.1087 FSP   -561   SG1 5222.1 SG2  398.6 THA 176.33   EL1  522.0 EL2  355.5 ALF   5.07
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LAUNCH DATE OCT 1 1970 FLIGHT TIME 172.00 ARRIVAL DATE MAR 22 1971

HELIOCENTRIC CONIC DISTANCE 507.423

```
RL  149.78 LAL    .00 LOL   7.40 VL  26.211 GAL    .05 AZL  89.79 HCA 252.37 SMA 122.30 ECC .22466 INC  .2081 V1  29.749
RP  108.66 LAP   -.20 LOP 259.77 VP  36.845 GAP  11.32 AZP  90.06 TAL 179.82 TAP  72.19 RCA  94.83 APO 149.78 V2  34.874
RC 166.961 GL    1.53 GP   16.35 ZAL  81.64 ZAP 161.10 ETS  55.52 ZAE 127.60 ETE 167.45 ZAC 119.21 ETC 265.89 CLP-170.38
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PLANETOCENTRIC CONIC

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C3  12.770 VHL  3.574 DLA -20.99 RAL 286.91 RAD 6567.5 VEL 11.583 PTH   2.03 VHP  7.447 DPA  -7.89 RAP 270.33 ECC 1.2102
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 52 43	1392.31	5.22	353.88	142.55	117.87	9 15 55	792.3	8.91	347.14
90.00	14 48 33	5476.94	28.28	253.18	148.12	88.39	16 19 50	4876.9	27.75	244.56
100.00	9 59 58	1175.27	3.96	337.23	141.86	119.65	10 19 33	575.3	7.88	330.64
100.00	16 23 59	5169.21	29.71	230.47	148.05	86.52	17 50 8	4569.2	28.91	221.76
110.00	10 38 24	1054.80	.92	326.20	139.96	124.17	10 55 59	454.8	5.39	319.98
110.00	18 2 2	4862.45	33.28	206.74	147.62	81.69	19 23 4	4262.4	31.77	197.84

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .2384 TRA  1.0941 TC3-6.8704 BAU 1.1746  SGT 5271.4 SGR  517.1 SG3  167.5     ST   696.8 SR   349.9 SS   354.0
RDE  .2113 RRA -.1685 RC3  .3672 FAU .02812   RRT -.6247 RRF -.6119 RTF  .9126    CRT  .3258 CRS -.4836 CST -.9774
FDE  .2356 FRA  .7725 FC3-1.9065 BSP  16620   SGB 5296.7 RZ3  .0493 RI3 -.9129   LSA  790.8 MSA  326.2 SSA   37.5
BDE  .3186 BRA  1.1070 BC3 6.8802 FSP   -529   SG1 5281.3 SG2  403.1 THA 176.47   EL1  708.6 EL2  325.3 ALF  11.81
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LAUNCH DATE OCT 1 1970 FLIGHT TIME 174.00 ARRIVAL DATE MAR 24 1971

HELIOCENTRIC CONIC DISTANCE 513.030

RL	149.78	LAL	.00	LOL	7.40	VL	26.160	GAL	.56	AZL	89.60	HCA	255.54	SMA	122.00	ECC	.22788	INC	.3989
RP	108.69	LAP	-.39	LOP	262.94	VP	36.799	GAP	11.61	AZP	90.10	TAL	178.11	TAP	73.65	RCA	94.20	APO	149.80
RC	169.007	GL	2.85	GP	15.71	ZAL	78.20	ZAP	162.03	ETS	56.77	ZAE	127.69	ETE	167.90	ZAC	118.59	ETC	266.55

V1	29.749	V2	34.864	CLP	-171.17														

PLANETOCENTRIC CONIC

C3	13.463	VHL	3.669	DLA	-19.25	RAL	290.38	RAD	6567.5	VEL	11.612	PTH	2.03	VHP	7.600	DPA	-8.63	RAP	272.62
ECC	1.2216																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 46 34	1477.39	2.50	358.64	146.13	118.22	9 11 11	877.4	6.25	351.97
90.00	15 22 21	5414.69	28.07	248.64	151.80	86.12	16 52 36	4814.7	27.24	240.07
100.00	9 55 50	1253.30	1.32	341.53	145.48	119.87	10 16 52	653.4	5.29	334.98
100.00	16 55 37	5113.93	29.41	226.39	151.67	84.39	18 20 51	4513.9	28.32	217.75
110.00	10 38 26	1120.34	-1.59	329.62	143.86	124.15	10 57 7	520.3	2.90	323.41
110.00	18 29 39	4819.75	32.81	203.50	151.12	79.83	19 49 59	4219.7	31.06	194.71

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.3721	TRA	1.2982	TC3	-6.5585	BAU	1.1820	SGT	5302.1	SGR	512.5	SG3	161.2
RDE	.2157	RRA	-.1805	RC3	.3341	FAU	.02601	RRT	-.5981	RRF	-.5051	RTF	.9128
FDE	.2694	FRA	.8110	FC3	-1.6724	BSP	16947	SGB	5326.8	RZ3	.0447	R13	-.9130
BDE	.4301	BRA	1.3107	BC3	6.5670	FSP	-534	SG1	5311.0	SG2	410.0	THA	176.67

ST	879.4	SR	348.6	SS	383.1		
CRT	.4467	CRS	-.5183	CST	-.9921		
LSA	972.9	MSA	306.5	SSA	32.7		
EL1	895.0	EL2	306.5	ALF	11.40		

LAUNCH DATE OCT 1 1970 FLIGHT TIME 176.00 ARRIVAL DATE MAR 26 1971

HELIOCENTRIC CONIC DISTANCE 518.608

RL	149.78	LAL	.00	LOL	7.40	VL	26.109	GAL	1.08	AZL	89.42	HCA	258.71	SMA	121.71	ECC	.23139	INC	.5835
RP	108.72	LAP	-.57	LOP	266.11	VP	36.754	GAP	11.92	AZP	90.11	TAL	176.40	TAP	75.11	RCA	93.54	APO	149.87
RC	171.039	GL	4.03	GP	15.13	ZAL	74.84	ZAP	162.90	ETS	58.21	ZAE	127.78	ETE	168.31	ZAC	118.01	ETC	267.21

V1	29.749	V2	34.855	CLP	-171.95														

PLANETOCENTRIC CONIC

C3	14.512	VHL	3.783	DLA	-17.57	RAL	293.72	RAD	6567.6	VEL	11.649	PTH	2.04	VHP	7.766	DPA	-9.28	RAP	274.94
ECC	1.2355																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 42 18	1556.92	-.07	3.08	149.83	118.32	9 8 15	956.9	3.72	356.45
90.00	15 53 13	5361.96	27.77	244.81	155.49	84.23	17 22 35	4762.0	26.68	236.32
100.00	9 58 25	1327.48	-1.19	345.59	149.21	119.87	10 15 32	727.5	2.79	330.07
100.00	17 24 48	5066.65	29.04	222.92	155.32	82.60	18 49 15	4466.7	27.72	214.37
110.00	10 39 11	1184.08	-4.02	332.95	147.44	123.97	10 58 55	584.1	.47	326.74
110.00	18 56 31	4782.82	32.33	200.72	154.67	78.25	20 15 14	4182.8	30.38	192.05

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.5172	TRA	1.5163	TC3	-6.2202	BAU	1.1916	SGT	5344.7	SGR	509.1	SG3	157.3
RDE	.2195	RRA	-.1938	RC3	.3088	FAU	.02443	RRT	-.5783	RRF	-.5628	RTF	.9147
FDE	.3098	FRA	.8551	FC3	-1.4780	BSP	17102	SGB	5368.9	RZ3	.0376	R13	-.9149
BDE	.5619	BRA	1.5286	BC3	6.2278	FSP	-524	SG1	5352.8	SG2	414.7	THA	176.83

ST	1075.1	SR	345.1	SS	417.6		
CRT	.5194	CRS	-.5499	CST	-.9965		
LSA	1167.9	MSA	290.6	SSA	28.9		
EL1	1091.1	EL2	290.6	ALF	10.20		

LAUNCH DATE OCT 1 1970 FLIGHT TIME 178.00 ARRIVAL DATE MAR 28 1971

HELIOCENTRIC CONIC DISTANCE 524.153

RL	149.78	LAL	.00	LOL	7.40	VL	26.059	GAL	1.63	AZL	89.24	HCA	261.88	SMA	121.42	ECC	.23523	INC	.7643
RP	108.75	LAP	-.76	LOP	269.28	VP	36.710	GAP	12.24	AZP	90.11	TAL	174.68	TAP	76.56	RCA	92.86	APO	149.98
RC	173.056	GL	5.09	GP	14.61	ZAL	71.57	ZAP	163.71	ETS	59.86	ZAE	127.86	ETE	168.68	ZAC	117.45	ETC	267.87

V1	29.749	V2	34.846	CLP	-172.72														

PLANETOCENTRIC CONIC

C3	15.331	VHL	3.915	DLA	-15.96	RAL	296.91	RAD	6567.6	VEL	11.693	PTH	2.06	VHP	7.943	DPA	-9.84	RAP	277.28
ECC	1.2523																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 39 24	1632.27	-2.50	7.28	153.62	118.22	9 6 36	1032.3	1.29	.66
90.00	16 21 37	5317.31	27.42	241.59	159.20	82.65	17 50 14	4717.3	26.12	233.17
100.00	9 51 53	1398.42	-3.59	349.49	153.02	119.70	10 15 11	798.4	.39	342.96
100.00	17 51 50	5026.39	28.66	219.99	159.00	81.11	19 15 36	4426.4	27.13	211.52
110.00	10 40 27	1246.28	-6.58	336.22	151.29	123.65	11 1 13	646.3	-1.91	329.98
110.00	19 19 45	4751.30	31.87	198.58	158.27	76.93	20 38 56	4151.3	29.75	189.81

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.6441	TRA	1.7219	TC3	-5.9061	BAU	1.2119	SGT	5398.9	SGR	507.0	SG3	153.0
RDE	.2265	RRA	-.2052	RC3	.2844	FAU	.02342	RRT	-.5613	RRF	-.5449	RTF	.9195
FDE	.3361	FRA	.8867	FC3	-1.3225	BSP	17803	SGB	5422.6	RZ3	.0310	R13	-.9196
BDE	.6828	BRA	1.7541	BC3	5.9130	FSP	-538	SG1	5406.4	SG2	419.0	THA	176.96

ST	1235.2	SR	344.5	SS	437.7		
CRT	.5588	CRS	-.5683	CST	-.9979		
LSA	1325.0	MSA	282.3	SSA	25.9		
EL1	1250.9	EL2	282.1	ALF	9.34		

LAUNCH DATE OCT 1 1970 FLIGHT TIME 180.00 ARRIVAL DATE MAR 30 1971

HELIOCENTRIC CONIC DISTANCE 529.667

RL	149.78	LAL	.00	LOL	7.40	VL	26.010	GAL	2.20	AZL	89.06	HCA	265.04	SMA	121.13	ECC	.23942	INC	.9420
RP	108.78	LAP	-.94	LOP	272.45	VP	36.667	GAP	12.58	AZP	90.08	TAL	172.97	TAP	78.01	RCA	92.13	APO	150.13
RC	175.059	GL	6.03	GP	14.13	ZAL	68.42	ZAP	164.46	ETS	61.71	ZAE	127.93	ETE	169.02	ZAC	116.91	ETC	268.52

V1	29.749	V2	34.837	CLP	-173.48														

PLANETOCENTRIC CONIC

C3	16.538	VHL	4.067	DLA	-14.43	RAL	299.97	RAD	6567.7	VEL	11.744	PTH	2.07	VHP	8.133	DPA	-10.31	RAP	279.65
ECC	1.2722																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 37 31	1704.35	-4.81	11.32	157.49	117.94	9 5 55	1104.3	-1.03	4.67
90.00	16 47 54	5279.65	27.07	238.89	162.93	81.34	18 15 54	4679.6	25.59	230.54
100.00	9 51 8	1466.80	-5.89	353.27	156.90	119.36	10 15 35	866.8	-1.93	346.71
100.00	18 16 58	4992.43	28.27	217.54	162.70	79.87	19 40 10	4392.4	26.58	209.15
110.00	10 42 7	1307.13	-8.66	339.46	155.20	123.20	11 3 54	707.1	-4.23	333.17
110.00	19 42 29	4724.86	31.45	196.43	161.92	75.85	21 1 14	4124.9	29.19	187.96

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.8162	TRA	1.9799	TC3	-5.4629	BAU	1.2091	SGT	5417.8	SGR	500.5	SG3	149.2
RDE	.2300	RRA	-.2201	RC3	.2524	FAU	.02142	RRT	-.5384	RRF	-.5198	RTF	.9190
FDE	.3817	FRA	.9361	FC3	-1.1215	BSP	17517	SGB	5440.9	RZ3	.0261	R13	-.9191
BDE	.8482	BRA	1.9911	BC3	5.4687	FSP	-507	SG1	5424.6	SG2	421.2	THA	177.14

ST	1444.3	SR	339.2	SS	475.3		
CRT	.5924	CRS	-.5902	CST	-.9986		
LSA	1534.0	MSA	270.9	SSA	23.6		
EL1	1458.7	EL2	270.6	ALF	8.21		

LAUNCH DATE OCT 1 1970 FLIGHT TIME 182.00 ARRIVAL DATE APR 1 1971

HELIOCENTRIC CONIC DISTANCE 535.140

RL	149.78	LAL	.00	LOL	7.40	VL	25.962	GAL	2.80	AZL	88.88	HCA	268.21	SMA	120.85	ECC	.24399	INC	1.1179	V1	29.749
RP	108.80	LAP	-1.12	LOP	275.61	VP	36.625	GAP	12.93	AZP	90.03	TAL	171.25	TAP	79.46	RCA	91.37	APO	150.34	V2	34.829
RC	177.047	GL	6.86	GP	13.70	ZAL	65.40	ZAP	165.16	ETS	63.79	ZAE	127.99	ETE	169.33	ZAC	116.40	ETC	269.17	CLP	-174.24

PLANETOCENTRIC CONIC

C3	17.956	VHL	4.237	DLA	-12.99	RAL	302.88	RAD	6567.7	VEL	11.804	PTH	2.09	VHP	8.337	DPA	-10.69	RAP	282.04	ECC	1.2955

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 36 23	1773.65	-7.01	15.23	161.40	117.51	9 5 57	1173.7	-3.27	8.55
90.00	17 12 16	5248.34	26.72	236.66	166.68	80.27	18 39 45	4648.3	25.11	228.37
100.00	9 51 0	1532.94	-8.08	356.95	160.83	118.88	10 16 33	932.9	-4.16	350.35
100.00	18 40 21	4964.28	27.92	215.52	166.43	78.86	20 3 5	4364.3	26.10	207.19
110.00	10 44 5	1366.70	-10.86	342.66	159.14	122.61	11 6 51	766.7	-6.49	336.30
110.00	20 3 45	4703.29	31.08	194.86	165.59	74.99	21 22 9	4103.3	28.71	186.46

DIFFERENTIAL CORRECTIONS

TDE	.9796	TRA	2.2347	TC3	-5.0434	BAU	1.2119
RDE	.2376	RRA	-.2337	RC3	.2246	FAU	.01981
FDE	.4182	FRA	.9825	FC3	-.9552	BSP	17542
BDE	1.0080	BRA	2.2468	BC3	5.0484	FSP	-491

MID-COURSE EXECUTION ACCURACY

SGT	5444.1	SGR	494.6	SG3	145.4		
RRT	-.5175	RRF	-.4978	RTF	.9206		
SGB	5466.5	R23	.0217	R13	-.9206		
SG1	5450.2	SG2	422.8	THA	177.29		

ORBIT DETERMINATION ACCURACY

ST	1623.6	SR	335.8	SS	503.0		
CRT	.6133	CRS	-.6046	CST	-.9989		
LSA	1712.3	MSA	263.5	SSA	21.7		
EL1	1637.0	EL2	263.1	ALF	7.42		

LAUNCH DATE OCT 1 1970 FLIGHT TIME 184.00 ARRIVAL DATE APR 3 1971

HELIOCENTRIC CONIC DISTANCE 540.570

RL	149.78	LAL	.00	LOL	7.40	VL	25.914	GAL	3.43	AZL	88.71	HCA	271.37	SMA	120.58	ECC	.24899	INC	1.2931	V1	29.749
RP	108.83	LAP	-1.29	LOP	278.78	VP	36.584	GAP	13.31	AZP	89.97	TAL	169.54	TAP	80.91	RCA	90.56	APO	150.60	V2	34.822
RC	179.021	GL	7.58	GP	13.30	ZAL	62.50	ZAP	165.80	ETS	66.11	ZAE	128.05	ETE	169.62	ZAC	115.89	ETC	269.82	CLP	-175.00

PLANETOCENTRIC CONIC

C3	19.608	VHL	4.428	DLA	-11.62	RAL	305.65	RAD	6567.8	VEL	11.874	PTH	2.11	VHP	8.556	DPA	-11.00	RAP	284.44	ECC	1.3227

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 35 52	1840.57	-9.09	19.04	165.36	116.93	9 6 32	1240.6	-5.41	12.30
90.00	17 34 53	5222.82	26.42	234.86	170.44	79.42	19 1 56	4622.8	24.69	226.62
100.00	9 51 19	1597.11	-10.17	.57	164.79	118.26	10 17 56	997.1	-6.31	353.90
100.00	19 2 7	4941.50	27.61	213.90	170.17	78.06	20 24 28	4341.5	25.69	205.63
110.00	10 46 15	1425.07	-12.99	345.85	163.13	121.90	11 10 0	825.1	-8.68	339.41
110.00	20 23 40	4686.31	30.77	193.63	169.28	74.32	21 41 46	4086.3	28.32	185.30

DIFFERENTIAL CORRECTIONS

TDE	1.1439	TRA	2.4990	TC3	-4.6300	BAU	1.2148
RDE	.2459	RRA	-.2467	RC3	.1986	FAU	.01832
FDE	.4513	FRA	1.0253	FC3	-.8089	BSP	17629
BDE	1.1700	BRA	2.5112	BC3	4.6343	FSP	-479

MID-COURSE EXECUTION ACCURACY

SGT	5468.3	SGR	488.2	SG3	141.7		
RRT	-.4968	RRF	-.4767	RTF	.9227		
SGB	5490.0	R23	.0180	R13	-.9227		
SG1	5473.7	SG2	423.3	THA	177.45		

ORBIT DETERMINATION ACCURACY

ST	1785.2	SR	332.8	SS	526.2		
CRT	.6284	CRS	-.6160	CST	-.9991		
LSA	1872.9	MSA	257.6	SSA	20.2		
EL1	1797.6	EL2	257.1	ALF	6.82		

LAUNCH DATE OCT 1 1970 FLIGHT TIME 186.00 ARRIVAL DATE APR 5 1971

HELIOCENTRIC CONIC DISTANCE 545.948

RL	149.78	LAL	.00	LOL	7.40	VL	25.866	GAL	4.08	AZL	88.53	HCA	274.53	SMA	120.31	ECC	.25445	INC	1.4687	V1	29.749
RP	108.85	LAP	-1.46	LOP	281.94	VP	36.544	GAP	13.71	AZP	89.88	TAL	167.84	TAP	82.37	RCA	89.70	APO	150.93	V2	34.815
RC	180.980	GL	8.20	GP	12.94	ZAL	59.75	ZAP	166.39	ETS	68.69	ZAE	128.09	ETE	169.88	ZAC	115.40	ETC	270.46	CLP	-175.76

PLANETOCENTRIC CONIC

C3	21.524	VHL	4.639	DLA	-10.34	RAL	308.28	RAD	6567.9	VEL	11.954	PTH	2.13	VHP	8.792	DPA	-11.22	RAP	286.85	ECC	1.3542

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 35 47	1905.35	-11.06	22.78	169.35	116.23	9 7 33	1305.3	-7.45	15.96
90.00	17 55 54	5202.65	26.16	233.44	174.20	78.75	19 22 36	4602.6	24.34	225.24
100.00	9 52 0	1659.48	-12.15	4.14	168.79	117.52	10 19 39	1059.5	-8.37	357.39
100.00	19 22 22	4923.74	27.35	212.64	173.92	77.45	20 44 26	4323.7	25.35	204.42
110.00	10 48 35	1482.28	-15.02	349.04	167.13	121.07	11 13 17	882.3	-10.79	342.48
110.00	20 42 16	4673.71	30.54	192.73	172.99	73.84	22 0 10	4073.7	28.02	184.44

DIFFERENTIAL CORRECTIONS

TDE	1.2878	TRA	2.7504	TC3	-4.2692	BAU	1.2296
RDE	.2570	RRA	-.2574	RC3	.1774	FAU	.01741
FDE	.4723	FRA	1.0569	FC3	-.7002	BSP	18326
BDE	1.3132	BRA	2.7624	BC3	4.2729	FSP	-490

MID-COURSE EXECUTION ACCURACY

SGT	5490.3	SGR	481.9	SG3	137.2		
RRT	-.4774	RRF	-.4580	RTF	.9268		
SGB	5511.4	R23	.0147	R13	-.9269		
SG1	5495.1	SG2	423.1	THA	177.59		

ORBIT DETERMINATION ACCURACY

ST	1901.7	SR	331.9	SS	536.6		
CRT	.6397	CRS	-.6246	CST	-.9992		
LSA	1987.4	MSA	254.1	SSA	18.8		
EL1	1913.7	EL2	253.5	ALF	6.48		

LAUNCH DATE OCT 1 1970 FLIGHT TIME 188.00 ARRIVAL DATE APR 7 1971

HELIOCENTRIC CONIC DISTANCE 551.275

RL	149.78	LAL	.00	LOL	7.40	VL	25.820	GAL	4.77	AZL	88.35	HCA	277.70	SMA	120.05	ECC	.26041	INC	1.6459	V1	29.749
RP	108.87	LAP	-1.63	LOP	285.10	VP	36.505	GAP	14.14	AZP	89.78	TAL	166.14	TAP	83.84	RCA	88.79	APO	151.31	V2	34.809
RC	182.925	GL	8.72	GP	12.61	ZAL	57.13	ZAP	166.93	ETS	71.51	ZAE	128.13	ETE	170.13	ZAC	114.92	ETC	271.10	CLP	-176.52

PLANETOCENTRIC CONIC

C3	23.742	VHL	4.873	DLA	-9.15	RAL	310.76	RAD	6568.0	VEL	12.047	PTH	2.15	VHP	9.046	DPA	-11.38	RAP	289.26	ECC	1.3907

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 36 6	1968.24	-12.93	26.45	173.37	115.41	9 8 54	1368.2	-9.40	19.55
90.00	18 15 26	5187.39	25.95	232.37	177.97	78.25	19 41 54	4587.4	24.07	224.20
100.00	9 52 56	1720.24	-14.04	7.66	172.81	116.66	10 21 38	1120.2	-10.35	.82
100.00	19 41 15	4910.62	27.16	211.72	177.67	77.00	21 3 6	4310.6	25.10	203.52
110.00	10 51 2	1538.42	-16.97	352.22	171.17	120.13	11 16 41	938.4	-12.84	345.55
110.00	20 59 41	4665.21	30.37	192.12	176.70	73.51	22 17 26	4065.2	27.82	183.86

DIFFERENTIAL CORRECTIONS

TDE	1.4864	TRA	3.0689	TC3	-3.8267	BAU	1.2156
RDE	.2650	RRA	-.2709	RC3	.1511	FAU	.01551
FDE	.5134	FRA	1.1105	FC3	-.5655	BSP	17821
BDE	1.5100	BRA	3.0779	BC3	3.8297	FSP	-456

MID-COURSE EXECUTION ACCURACY

SGT	5504.1	SGR	472.8	SG3	134.3		
RRT	-.4538	RRF	-.4342	RTF	.9278		
SGB	5524.4	R23	.0120	R13	-.9278		
SG1	5508.4	SG2	421.0	THA	177.75		

ORBIT DETERMINATION ACCURACY

ST	2065.8	SR	327.3	SS	564.8		
CRT	.6506	CRS	-.6353	CST	-.9993		
LSA	2152.2	MSA	247.8	SSA	17.7		
EL1	2076.9	EL2	247.2	ALF	5.97		

LAUNCH DATE OCT 1 1970 FLIGHT TIME 190.00 ARRIVAL DATE APR 9 1971

HELIOCENTRIC CONIC DISTANCE 556.535

RL	149.78	LAL	.00	LOL	7.40	VL	25.774	GAL	5.50	AZL	88.17	HCA	280.86	SMA	119.79	ECC	.26695	INC	1.8256	V1	29.749
RP	108.88	LAP	-1.79	LOP	288.27	VP	36.468	GAP	14.59	AZP	89.66	TAL	164.46	TAP	85.31	RCA	87.82	APO	151.77	V2	34.804
RC	184.854	GL	9.17	GP	12.31	ZAL	54.66	ZAP	167.40	ETS	74.61	ZAE	128.16	ETE	170.35	ZAC	114.44	ETC	271.73	CLP	-177.28

PLANETOCENTRIC CONIC

C3	26.302	VHL	5.129	DLA	-8.03	RAL	313.11	RAD	6568.1	VEL	12.152	PTH	2.18	VHP	9.321	DPA	-11.47	RAP	291.67	ECC	1.4329

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 36 42	2029.35	-14.69	30.08	177.40	114.49	9 10 31	1429.4	-11.26	23.08
90.00	18 33 35	5176.72	25.80	231.62	181.73	77.91	19 59 52	4576.7	23.88	223.48
100.00	9 54 10	1779.45	-15.82	11.16	176.85	115.70	10 23 49	1179.4	-12.23	4.20
100.00	19 58 49	4901.86	27.02	211.10	181.42	76.70	21 20 31	4301.9	24.92	202.93
110.00	10 53 35	1593.47	-18.82	355.42	175.22	119.08	11 20 7	993.5	-14.80	348.61
110.00	21 15 54	4660.60	30.29	191.79	180.42	73.33	22 33 35	4060.6	27.71	183.55

DIFFERENTIAL CORRECTIONS

TDE	1.6658	TRA	3.3712	TC3	-3.4459	BAU	1.2126	SGT	5515.7	SGR	463.7
RDE	.2776	RRA	-.2818	RC3	.1298	FAU	.01416	RRT	-.4312	RRF	-.4123
FDE	.5433	FRA	1.1542	FC3	-.4662	BSP	17907	SGB	5535.1	RZS	.0097
BDE	1.6887	BRA	3.3829	BC3	3.4483	FSP	-445	SG1	5519.3	SG2	418.1

MID-COURSE EXECUTION ACCURACY

SG3	130.8	RTF	.9306	RIS	-.9307
THA	177.91				

ORBIT DETERMINATION ACCURACY

ST	2185.5	SR	324.5	SS	581.4
CRT	.6597	CRS	-.6442	CST	-.9993
LSA	2271.6	MSA	243.3	SSA	16.8
EL1	2196.1	EL2	242.7	ALF	5.66

LAUNCH DATE OCT 1 1970 FLIGHT TIME 192.00 ARRIVAL DATE APR 11 1971

HELIOCENTRIC CONIC DISTANCE 561.722

RL	149.78	LAL	.00	LOL	7.40	VL	25.729	GAL	6.27	AZL	87.99	HCA	284.02	SMA	119.54	ECC	.27411	INC	2.0090	V1	29.749
RP	108.90	LAP	-1.95	LOP	291.43	VP	36.431	GAP	15.09	AZP	89.51	TAL	162.79	TAP	86.81	RCA	86.78	APO	152.31	V2	34.799
RC	186.768	GL	9.54	GP	12.03	ZAL	52.32	ZAP	167.82	ETS	77.98	ZAE	128.18	ETE	170.57	ZAC	113.96	ETC	272.35	CLP	-178.05

PLANETOCENTRIC CONIC

C3	29.256	VHL	5.409	DLA	-7.00	RAL	315.33	RAD	6568.2	VEL	12.273	PTH	2.21	VHP	9.619	DPA	-11.49	RAP	294.08	ECC	1.4815

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 37 32	2088.81	-16.33	33.67	181.45	113.46	9 12 20	1488.8	-13.02	26.56
90.00	18 50 27	5170.28	25.71	231.18	185.48	77.70	20 16 37	4570.3	23.76	223.05
100.00	9 55 31	1837.20	-17.49	14.63	180.91	114.63	10 26 8	1237.2	-14.02	7.56
100.00	20 15 8	4897.13	26.95	210.77	185.16	76.54	21 36 45	4297.1	24.83	202.61
110.00	10 56 7	1647.48	-20.57	358.62	179.30	117.92	11 23 34	1047.5	-16.68	351.67
110.00	21 31 2	4659.61	30.27	191.72	184.14	73.30	22 48 42	4059.6	27.68	183.48

DIFFERENTIAL CORRECTIONS

TDE	1.8500	TRA	3.6915	TC3	-3.0841	BAU	1.2070	SGT	5522.0	SGR	453.7
RDE	.2906	RRA	-.2915	RC3	.1102	FAU	.01287	RRT	-.4073	RRF	-.3896
FDE	.5721	FRA	1.1985	FC3	-.3808	BSP	18010	SGB	5540.6	RZS	.0077
BDE	1.8727	BRA	3.7030	BC3	3.0860	FSP	-435	SG1	5525.1	SG2	414.1

MID-COURSE EXECUTION ACCURACY

SG3	127.4	RTF	.9338	RIS	-.9338
THA	178.07				

ORBIT DETERMINATION ACCURACY

ST	2290.7	SR	321.7	SS	596.2
CRT	.6684	CRS	-.6530	CST	-.9994
LSA	2376.7	MSA	238.9	SSA	15.9
EL1	2300.8	EL2	238.2	ALF	5.42

LAUNCH DATE OCT 1 1970 FLIGHT TIME 194.00 ARRIVAL DATE APR 13 1971

HELIOCENTRIC CONIC DISTANCE 566.823

RL	149.78	LAL	.00	LOL	7.40	VL	25.684	GAL	7.09	AZL	87.80	HCA	287.17	SMA	119.30	ECC	.28197	INC	2.1976	V1	29.749
RP	108.91	LAP	-2.10	LOP	294.59	VP	36.396	GAP	15.62	AZP	89.35	TAL	161.14	TAP	88.32	RCA	85.66	APO	152.94	V2	34.795
RC	188.667	GL	9.85	GP	11.77	ZAL	50.12	ZAP	168.17	ETS	81.62	ZAE	128.18	ETE	170.77	ZAC	113.49	ETC	272.96	CLP	-178.83

PLANETOCENTRIC CONIC

C3	32.865	VHL	5.715	DLA	-6.05	RAL	317.42	RAD	6568.3	VEL	12.411	PTH	2.24	VHP	9.942	DPA	-11.45	RAP	296.47	ECC	1.5376

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 38 33	2146.69	-17.87	37.23	185.50	112.34	9 14 19	1546.7	-14.68	30.00
90.00	19 6 6	5167.77	25.67	231.00	189.21	77.62	20 32 14	4567.8	23.71	222.88
100.00	9 57 1	1893.54	-19.05	18.08	184.97	113.48	10 28 35	1293.5	-15.72	10.88
100.00	20 30 19	4896.15	26.93	210.70	188.89	76.51	21 51 55	4296.2	24.81	202.55
110.00	10 58 42	1700.43	-22.23	1.84	183.39	116.66	11 27 2	1100.4	-18.47	354.73
110.00	21 45 7	4662.02	30.31	191.89	187.85	73.39	23 2 49	4062.0	27.74	183.64

DIFFERENTIAL CORRECTIONS

TDE	2.0403	TRA	4.0283	TC3	-2.7447	BAU	1.1993	SGT	5524.3	SGR	442.8
RDE	.3049	RRA	-.2999	RC3	.0926	FAU	.01163	RRT	-.3821	RRF	-.3658
FDE	.6005	FRA	1.2439	FC3	-.3084	BSP	18120	SGB	5542.0	RZS	.0062
BDE	2.0630	BRA	4.0395	BC3	2.7462	FSP	-426	SG1	5526.9	SG2	409.0

MID-COURSE EXECUTION ACCURACY

SG3	124.0	RTF	.9372	RIS	-.9372
THA	178.24				

ORBIT DETERMINATION ACCURACY

ST	2382.6	SR	318.9	SS	609.8
CRT	.6771	CRS	-.6620	CST	-.9995
LSA	2468.9	MSA	234.3	SSA	15.1
EL1	2392.5	EL2	233.7	ALF	5.23

LAUNCH DATE OCT 1 1970 FLIGHT TIME 196.00 ARRIVAL DATE APR 15 1971

HELIOCENTRIC CONIC DISTANCE 571.824

RL	149.78	LAL	.00	LOL	7.40	VL	25.641	GAL	7.95	AZL	87.61	HCA	290.33	SMA	119.06	ECC	.29061	INC	2.3927	V1	29.749
RP	108.92	LAP	-2.24	LOP	297.75	VP	36.362	GAP	16.19	AZP	89.17	TAL	159.52	TAP	89.85	RCA	84.46	APO	153.66	V2	34.791
RC	190.549	GL	10.09	GP	11.54	ZAL	48.05	ZAP	168.45	ETS	85.52	ZAE	128.17	ETE	170.96	ZAC	113.02	ETC	273.56	CLP	-179.62

PLANETOCENTRIC CONIC

C3	36.603	VHL	6.050	DLA	-5.17	RAL	319.38	RAD	6568.4	VEL	12.569	PTH	2.28	VHP	10.294	DPA	-11.35	RAP	298.86	ECC	1.6024

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 39 43	2203.05	-19.29	40.75	189.55	111.14	9 16 26	1603.0	-16.24	33.40
90.00	19 20 36	5168.87	25.69	231.08	192.93	77.66	20 46 45	4568.9	23.73	222.95
100.00	9 58 37	1948.51	-20.51	21.52	189.04	112.24	10 31 6	1348.5	-17.31	14.18
100.00	20 44 23	4898.64	26.97	210.88	192.60	76.59	22 6 2	4298.6	24.86	202.71
110.00	11 1 17	1752.34	-23.78	5.08	187.48	115.32	11 30 29	1152.3	-20.17	357.79
110.00	21 58 13	4667.57	30.42	192.29	191.56	73.60	23 16 0	4067.6	27.87	184.02

DIFFERENTIAL CORRECTIONS

TDE	2.2362	TRA	4.3830	TC3	-2.4245	BAU	1.1870	SGT	5519.2	SGR	431.0
RDE	.3208	RRA	-.3067	RC3	.0767	FAU	.01044	RRT	-.3551	RRF	-.3406
FDE	.6285	FRA	1.2909	FC3	-.2470	BSP	18339	SGB	5536.0	RZS	.0049
BDE	2.2591	BRA	4.3937	BC3	2.4257	FSP	-418	SG1	5521.4	SG2	402.8

MID-COURSE EXECUTION ACCURACY

SG3	120.7	RTF	.9410	RIS	-.9410
THA	178.40				

ORBIT DETERMINATION ACCURACY

ST	2460.9	SR	315.9	SS	622.5
CRT	.6859	CRS	-.6712	CST	-.9995
LSA	2547.6	MSA	229.6	SSA	14.4
EL1	2470.5	EL2	229.0	ALF	5.08

LAUNCH DATE OCT 1 1970 FLIGHT TIME 198.00 ARRIVAL DATE APR 17 1971

HELIOCENTRIC CONIC DISTANCE 576.709

```
RL  149.78 LAL    .00 LOL   7.40 VL  25.598 GAL   8.88 AZL  87.40 HCA 293.49 SHA 118.82 ECC .30012 INC 2.5958 V1  29.749
RP  108.93 LAP  -2.38 LOP 300.91 VP  36.329 GAP  16.82 AZP  88.96 TAL 157.93 TAP  91.42 RCA  83.16 APO 154.49 V2  34.789
RC 192.414 GL   10.28 GP   11.32 ZAL  46.12 ZAP 168.07 ETS  89.67 ZAE 128.13 ETE 171.15 ZAC 112.55 ETC 274.15 CLP 179.58
```

PLANETOCENTRIC CONIC

```
C3  41.159 VHL  6.416 DLA  -4.37 RAL 321.23 RAD 6568.6 VEL 12.749 PTH   2.32-VHP 10.678 DPA -11.20 RAP 301.22 ECC 1.6774
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 41 0	2257.89	-20.60	44.24	193.60	109.87	9 18 38	1657.9	-17.70	36.76
90.00	19 34 2	5173.30	25.75	231.39	196.62	77.80	21 0 15	4573.3	23.81	223.25
100.00	10 0 18	2002.11	-21.85	24.93	193.10	110.92	10 33 40	1402.1	-18.81	17.46
100.00	20 57 25	4904.32	27.06	211.28	196.29	76.79	22 19 10	4304.3	24.97	203.10
110.00	11 3 50	1803.17	-25.22	8.32	191.58	113.88	11 33 54	1203.2	-21.77	.86
110.00	22 10 22	4676.02	30.58	192.80	195.24	73.92	23 28 18	4076.0	28.08	184.59

DIFFERENTIAL CORRECTIONS

```
TDE 2.4418 TRA 4.7582 TC3-2.1318 BAU 1.1756
RDE  .3374 RRA -.3116 RC3  .0625 FAU .00926
FDE  .6571 FRA 1.3408 FC3 -.1952 BSP  18407
BDE 2.4680 BRA 4.7684 BC3 2.1328 FSP   -410
```

MID-COURSE EXECUTION ACCURACY

```
BGT 5513.7 BGR  418.5 BGS  117.5
RRT -.3257 RRF -.3133 RTF  .9447
BGB 5529.6 RZS  .0043 RIS -.9447
BGI 5515.4 BGZ  395.5 THA 178.58
```

ORBIT DETERMINATION ACCURACY

```
ST  2529.2 SR   312.8 SS   635.2
CRT  .6952 CRS -.6811 CST -.9996
LSA 2616.8 NSA  224.6 SSA   13.7
EL1 2538.6 EL2  224.0 ALF   4.95
```

LAUNCH DATE OCT 1 1970 FLIGHT TIME 200.00 ARRIVAL DATE APR 19 1971

HELIOCENTRIC CONIC DISTANCE 581.454

```
RL  149.78 LAL    .00 LOL   7.40 VL  25.556 GAL   9.87 AZL  87.19 HCA 296.64 SHA 118.60 ECC .31063 INC 2.8090 V1  29.749
RP  108.94 LAP  -2.81 LOP 304.06 VP  36.298 GAP  17.50 AZP  88.74 TAL 156.38 TAP  93.02 RCA  81.76 APO 155.43 V2  34.787
RC 194.261 GL   10.43 GP   11.12 ZAL  44.31 ZAP 168.81 ETS  94.04 ZAE 128.08 ETE 171.32 ZAC 112.08 ETC 274.72 CLP 178.76
```

PLANETOCENTRIC CONIC

```
C3  46.446 VHL  6.815 DLA  -3.63 RAL 322.96 RAD 6568.7 VEL 12.954 PTH   2.36 VHP 11.099 DPA -10.99 RAP 303.56 ECC 1.7644
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 42 23	2311.23	-21.79	47.70	197.62	108.54	9 20 54	1711.2	-19.06	40.09
90.00	19 46 25	5180.79	25.86	231.91	200.29	78.04	21 12 46	4580.8	23.95	223.76
100.00	10 2 2	2054.31	-23.08	28.32	197.14	109.54	10 36 16	1454.3	-20.21	20.71
100.00	21 9 28	4912.94	27.19	211.88	199.96	77.08	22 31 21	4312.9	25.14	203.68
110.00	11 6 22	1852.87	-26.55	11.57	195.68	112.37	11 37 15	1252.9	-23.28	3.94
110.00	22 21 36	4687.15	30.79	193.88	198.91	74.36	23 39 44	4087.1	28.34	185.35

DIFFERENTIAL CORRECTIONS

```
TDE 2.6589 TRA 5.1570 TC3-1.8570 BAU 1.1535
RDE  .3587 RRA -.3142 RC3  .0500 FAU .00813
FDE  .6068 FRA 1.3922 FC3 -.1516 BSP  18542
BDE 2.6797 BRA 5.1665 BC3 1.8577 FSP   -403
```

MID-COURSE EXECUTION ACCURACY

```
BGT 5501.4 BGR  405.1 BGS  114.3
RRT -.2937 RRF -.2833 RTF  .9487
BGB 5516.3 RZS  .0038 RIS -.9487
BGI 5502.7 BGZ  387.2 THA 178.76
```

ORBIT DETERMINATION ACCURACY

```
ST  2586.5 SR   309.4 SS   648.2
CRT  .7048 CRS -.6915 CST -.9996
LSA 2675.4 NSA  219.3 SSA   13.1
EL1 2595.8 EL2  218.7 ALF   4.85
```

LAUNCH DATE OCT 1 1970 FLIGHT TIME 202.00 ARRIVAL DATE APR 21 1971

HELIOCENTRIC CONIC DISTANCE 586.036

```
RL  149.78 LAL    .00 LOL   7.40 VL  25.515 GAL  10.94 AZL  86.97 HCA 299.80 SHA 118.37 ECC .32225 INC 3.0342 V1  29.749
RP  108.94 LAP  -2.63 LOP 307.24 VP  36.268 GAP  18.25 AZP  88.49 TAL 154.87 TAP  94.67 RCA  80.23 APO 156.52 V2  34.786
RC 196.090 GL   10.54 GP   10.94 ZAL  42.62 ZAP 168.86 ETS  96.60 ZAE 128.00 ETE 171.50 ZAC 111.61 ETC 275.28 CLP 177.92
```

PLANETOCENTRIC CONIC

```
C3  52.598 VHL  7.252 DLA  -2.97 RAL 324.57 RAD 6568.9 VEL 13.189 PTH   2.41 VHP 11.862 DPA -10.74 RAP 305.87 ECC 1.8656
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 43 50	2363.00	-22.87	51.11	201.61	107.17	9 23 13	1763.0	-20.31	43.38
90.00	19 57 50	5191.09	26.00	232.63	203.91	78.37	21 24 21	4591.1	24.14	224.46
100.00	10 3 48	2105.07	-24.20	31.68	201.15	108.11	10 38 53	1505.1	-21.49	23.93
100.00	21 20 33	4924.25	27.36	212.68	203.58	77.47	22 42 38	4324.3	25.36	204.45
110.00	11 8 52	1901.38	-27.76	14.82	199.75	110.80	11 40 33	1301.4	-24.68	7.01
110.00	22 31 59	4700.71	31.03	194.67	202.55	74.89	23 50 19	4100.7	28.65	186.29

DIFFERENTIAL CORRECTIONS

```
TDE 2.8826 TRA 5.5826 TC3-1.6024 BAU 1.1271
RDE  .3754 RRA -.3142 RC3  .0390 FAU .00697
FDE  .7173 FRA 1.4481 FC3 -.1147 BSP  18645
BDE 2.9070 BRA 5.5915 BC3 1.6029 FSP   -395
```

MID-COURSE EXECUTION ACCURACY

```
BGT 5485.0 BGR  391.1 BGS  111.4
RRT -.2582 RRF -.2502 RTF  .9528
BGB 5499.5 RZS  .0031 RIS -.9528
BGI 5486.6 BGZ  377.8 THA 178.94
```

ORBIT DETERMINATION ACCURACY

```
ST  2635.6 SR   305.8 SS   662.1
CRT  .7152 CRS -.7027 CST -.9997
LSA 2726.3 NSA  213.6 SSA   12.5
EL1 2644.7 EL2  213.0 ALF   4.78
```

LAUNCH DATE OCT 1 1970 FLIGHT TIME 204.00 ARRIVAL DATE APR 23 1971

HELIOCENTRIC CONIC DISTANCE 590.419

```
RL  149.78 LAL    .00 LOL   7.40 VL  25.474 GAL  12.08 AZL  86.73 HCA 302.95 SHA 118.16 ECC .33514 INC 3.2741 V1  29.749
RP  108.94 LAP  -2.75 LOP 310.40 VP  36.238 GAP  19.08 AZP  88.22 TAL 153.42 TAP  96.38 RCA  78.56 APO 157.76 V2  34.785
RC 197.900 GL   10.60 GP   10.77 ZAL  41.06 ZAP 168.83 ETS 103.29 ZAE 127.89 ETE 171.67 ZAC 111.14 ETC 275.82 CLP 177.04
```

PLANETOCENTRIC CONIC

```
C3  59.787 VHL  7.732 DLA  -2.37 RAL 326.07 RAD 6568.1 VEL 13.459 PTH   2.46 VHP 12.073 DPA -10.45 RAP 308.14 ECC 1.9839
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 45 21	2413.14	-23.84	54.46	206.56	105.75	9 25 34	1813.1	-21.45	46.61
90.00	20 8 16	5203.95	26.18	233.53	207.48	78.79	21 35 0	4604.0	24.37	225.35
100.00	10 5 35	2154.31	-25.20	35.08	205.12	106.64	10 41 30	1554.3	-22.68	27.11
100.00	21 30 43	4938.02	27.56	213.65	207.16	77.94	22 53 1	4338.0	25.62	205.39
110.00	11 11 18	1948.59	-28.86	18.08	203.60	109.17	11 43 47	1348.6	-25.97	10.07
110.00	22 41 30	4716.50	31.31	195.82	206.15	75.52	24 0 6	4116.5	29.00	187.38

DIFFERENTIAL CORRECTIONS

```
TDE 3.1235 TRA 6.0982 TC3-1.3668 BAU 1.0927
RDE  .3987 RRA -.3113 RC3  .0296 FAU .00578
FDE  .7504 FRA 1.5087 FC3 -.0836 BSP  18690
BDE 3.1486 BRA 6.0472 BC3 1.3671 FSP   -385
```

MID-COURSE EXECUTION ACCURACY

```
BGT 5466.7 BGR  378.5 BGS  108.5
RRT -.2188 RRF -.2131 RTF  .9570
BGB 5479.7 RZS  .0028 RIS -.9570
BGI 5467.3 BGZ  367.4 THA 179.13
```

ORBIT DETERMINATION ACCURACY

```
ST  2677.0 SR   302.0 SS   677.5
CRT  .7263 CRS -.7147 CST -.9997
LSA 2770.1 NSA  207.4 SSA   12.0
EL1 2686.1 EL2  206.9 ALF   4.71
```

LAUNCH DATE OCT 1 1970 FLIGHT TIME 208.00 ARRIVAL DATE APR 25 1971

HELIOCENTRIC CONIC DISTANCE 594.564

RL	149.78	LAL	.00	LOL	7.40	VL	25.435	GAL	13.33	AZL	86.47	HCA	306.11	SHA	117.95	ECC	.34948	INC	3.5317
RP	108.94	LAP	-2.85	LOP	313.56	VP	36.212	GAP	20.00	AZP	87.92	TAL	152.04	TAP	98.15	RCA	76.73	APO	159.17
RC	199.690	GL	10.64	GP	10.62	ZAL	39.62	ZAP	168.71	ETS	108.09	ZAE	127.74	ETE	171.84	ZAC	110.67	ETC	276.53

V1 29.749 V2 34.785 CLP 176.14

PLANETOCENTRIC CONIC

C3 68.226 VHL 8.260 DLA -1.83 RAL 327.45 RAD 6560.3 VEL 13.769 PTH 2.52 VHP 12.640 DPA -10.12 RAP 310.37 ECC 2.1228

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 46 54	2461.53	-24.69	57.75	209.44	104.32	9 27 56	1861.5	-22.48	49.78
90.00	20 17 46	5219.15	26.37	234.60	210.99	79.30	21 44 45	4619.2	24.63	226.37
100.00	10 7 24	2201.09	-26.08	36.25	209.03	105.14	10 44 6	1601.9	-23.75	30.23
100.00	21 39 56	4954.03	27.78	214.79	210.68	78.50	23 2 32	4354.0	25.92	206.49
110.00	11 13 41	1984.36	-29.84	21.26	207.79	107.50	11 46 55	1384.4	-27.16	13.10
110.00	22 50 10	4734.29	31.60	197.13	209.70	76.24	24 9 4	4134.3	29.39	188.62

DIFFERENTIAL CORRECTIONS

TDE	3.3820	TRA	6.5311	TC3	-1.1482	BAU	1.0484
RDE	.4197	RRA	-.3048	RC3	.0216	FAU	.00451
FDE	.7981	FRA	1.5749	FC3	-.0573	BSP	18682
BDE	3.4079	BRA	6.5362	BC3	1.1494	FSP	-375

MID-COURSE EXECUTION ACCURACY

BGT	5445.4	BGR	361.6	BGS	105.8
RRT	-.1745	RRF	-.1711	RTF	.9613
BGB	5457.4	RZS	.0027	R13	-.9613
BGI	5445.8	BGZ	356.0	THA	179.33

ORBIT DETERMINATION ACCURACY

ST	2712.2	SR	296.0	SS	694.9
CRT	.7383	CRS	-.7276	CST	-.9997
LSA	2808.4	NSA	200.8	SSA	11.4
EL1	2721.1	EL2	200.3	ALF	4.66

LAUNCH DATE OCT 1 1970 FLIGHT TIME 208.00 ARRIVAL DATE APR 27 1971

HELIOCENTRIC CONIC DISTANCE 590.417

RL	149.78	LAL	.00	LOL	7.40	VL	25.390	GAL	14.60	AZL	86.19	HCA	309.26	SHA	117.75	ECC	.36548	INC	3.8110
RP	108.94	LAP	-2.95	LOP	316.73	VP	36.186	GAP	21.02	AZP	87.59	TAL	150.74	TAP	100.00	RCA	74.71	APO	160.78
RC	201.461	GL	10.64	GP	10.47	ZAL	38.31	ZAP	168.49	ETS	112.92	ZAE	127.55	ETE	172.01	ZAC	110.20	ETC	276.83

V1 29.749 V2 34.786 CLP 175.19

PLANETOCENTRIC CONIC

C3 78.187 VHL 8.842 DLA -1.36 RAL 328.72 RAD 6500.5 VEL 14.126 PTH 2.57 VHP 13.272 DPA -9.75 RAP 312.56 ECC 2.2068

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 48 29	2908.00	-25.44	60.95	213.23	102.88	9 30 17	1908.0	-23.41	52.87
90.00	20 28 20	5236.48	26.59	235.82	214.44	79.87	21 53 36	4636.5	24.92	227.55
100.00	10 9 12	2247.66	-26.86	41.44	212.86	103.64	10 46 39	1647.7	-24.72	33.29
100.00	21 48 18	4972.06	28.02	216.08	214.14	79.14	23 11 10	4372.1	26.24	207.73
110.00	11 15 59	2036.58	-30.70	24.41	211.70	105.82	11 49 58	1436.6	-28.23	16.09
110.00	22 58 0	4753.90	31.91	198.57	213.19	77.04	24 17 14	4153.9	29.80	190.00

DIFFERENTIAL CORRECTIONS

TDE	3.6688	TRA	7.0635	TC3	-.9485	BAU	.9916
RDE	.4447	RRA	-.2940	RC3	.0151	FAU	.00316
FDE	.8253	FRA	1.6478	FC3	-.0350	BSP	18535
BDE	3.6878	BRA	7.0886	BC3	.9486	FSP	-363

MID-COURSE EXECUTION ACCURACY

BGT	5422.3	BGR	346.5	BGS	103.3
RRT	-.1243	RRF	-.1232	RTF	.9656
BGB	5433.3	RZS	.0027	R13	-.9656
BGI	5422.4	BGZ	343.8	THA	179.54

ORBIT DETERMINATION ACCURACY

ST	2741.6	SR	293.8	SS	714.9
CRT	.7512	CRS	-.7414	CST	-.9998
LSA	2841.8	NSA	193.8	SSA	10.9
EL1	2750.5	EL2	193.3	ALF	4.63

LAUNCH DATE OCT 1 1970 FLIGHT TIME 210.00 ARRIVAL DATE APR 29 1971

HELIOCENTRIC CONIC DISTANCE 601.910

RL	149.78	LAL	.00	LOL	7.40	VL	25.361	GAL	16.19	AZL	85.88	HCA	312.41	SHA	117.56	ECC	.38340	INC	4.1166
RP	108.93	LAP	-3.04	LOP	319.89	VP	36.162	GAP	22.17	AZP	87.22	TAL	149.55	TAP	101.96	RCA	72.49	APO	162.63
RC	203.212	GL	10.62	GP	10.34	ZAL	37.12	ZAP	168.16	ETS	117.74	ZAE	127.31	ETE	172.19	ZAC	109.73	ETC	277.31

V1 29.749 V2 34.788 CLP 174.19

PLANETOCENTRIC CONIC

C3 90.014 VHL 9.488 DLA -.96 RAL 329.88 RAD 6500.8 VEL 14.538 PTH 2.64 VHP 13.979 DPA -9.36 RAP 314.68 ECC 2.4814

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 50 5	2952.36	-26.07	64.05	216.91	101.45	9 32 38	1952.4	-24.23	55.86
90.00	20 33 55	5255.76	26.81	237.19	217.79	80.52	22 1 31	4655.8	25.23	228.88
100.00	10 10 59	2291.41	-27.52	44.52	216.57	102.15	10 49 11	1691.4	-25.57	36.26
100.00	21 55 43	4991.95	28.27	217.51	217.50	79.85	23 18 55	4391.9	26.58	209.11
110.00	11 18 12	2080.98	-31.45	27.49	215.52	104.14	11 52 53	1481.0	-29.19	19.02
110.00	23 4 59	4775.14	32.22	200.15	216.60	77.93	24 24 34	4175.1	30.23	191.50

DIFFERENTIAL CORRECTIONS

TDE	3.9634	TRA	7.6421	TC3	-.7644	BAU	.9200
RDE	.4722	RRA	-.2783	RC3	.0099	FAU	.00167
FDE	.8686	FRA	1.7286	FC3	-.0161	BSP	18292
BDE	3.9914	BRA	7.6471	BC3	.7645	FSP	-349

MID-COURSE EXECUTION ACCURACY

BGT	5397.9	BGR	331.5	BGS	101.0
RRT	-.0873	RRF	-.0865	RTF	.9698
BGB	5408.1	RZS	.0028	R13	-.9698
BGI	5398.0	BGZ	330.8	THA	179.76

ORBIT DETERMINATION ACCURACY

ST	2765.5	SR	289.6	SS	737.9
CRT	.7650	CRS	-.7562	CST	-.9998
LSA	2870.8	NSA	186.4	SSA	10.3
EL1	2774.4	EL2	185.9	ALF	4.60

LAUNCH DATE OCT 1 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAY 1 1971

HELIOCENTRIC CONIC DISTANCE 604.958

RL	149.78	LAL	.00	LOL	7.40	VL	25.327	GAL	17.83	AZL	85.55	HCA	315.57	SHA	117.37	ECC	.40352	INC	4.4546
RP	108.92	LAP	-3.12	LOP	323.06	VP	36.140	GAP	23.46	AZP	86.82	TAL	148.47	TAP	104.04	RCA	70.01	APO	164.74
RC	204.943	GL	10.57	GP	10.21	ZAL	36.06	ZAP	167.71	ETS	122.51	ZAE	127.01	ETE	172.38	ZAC	109.27	ETC	277.75

V1 29.749 V2 34.790 CLP 173.12

PLANETOCENTRIC CONIC

C3 104.157 VHL 10.206 DLA -.62 RAL 330.91 RAD 6570.0 VEL 15.017 PTH 2.70 VHP 14.774 DPA -8.95 RAP 316.74 ECC 2.7142

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 51 42	2984.34	-26.61	67.00	220.44	100.06	9 34 56	1984.3	-24.95	58.73
90.00	20 40 32	5276.83	27.04	238.00	221.03	81.24	22 8 29	4676.8	25.55	230.34
100.00	10 12 45	2332.09	-28.06	47.47	220.14	100.69	10 51 38	1732.9	-26.32	39.11
100.00	22 2 10	5013.52	28.52	219.06	220.77	80.63	23 25 43	4413.5	26.93	210.62
110.00	11 20 20	2121.34	-32.06	30.47	219.19	102.48	11 55 41	1521.3	-30.03	21.85
110.00	23 11 4	4797.84	32.54	201.05	219.82	78.89	24 31 2	4197.8	30.66	193.13

DIFFERENTIAL CORRECTIONS

TDE	4.2989	TRA	8.2730	TC3	-.9963	BAU	.8304
RDE	.5029	RRA	-.2968	RC3	.0059	FAU	.00001
FDE	.9167	FRA	1.8187	FC3	-.0001	BSP	17914
BDE	4.3222	BRA	8.2770	BC3	.5963	FSP	-333

MID-COURSE EXECUTION ACCURACY

BGT	5372.5	BGR	317.0	BGS	98.8
RRT	-.0082	RRF	-.0081	RTF	.9740
BGB	5381.9	RZS	.0030	R13	-.9740
BGI	5372.5	BGZ	317.0	THA	179.99

ORBIT DETERMINATION ACCURACY

ST	2784.1	SR	285.4	SS	764.5
CRT	.7799	CRS	-.7720	CST	-.9998
LSA	2895.7	NSA	178.5	SSA	9.8
EL1	2793.0	EL2	178.1	ALF	4.59

LAUNCH DATE OCT 1 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAY 3 1971

HELIOCENTRIC CONIC DISTANCE 607.447

```
RL  149.78 LAL    .00 LOL   7.40 VL  25.294 GAL  19.65 AZL  85.17 HCA 318.72 SMA 117.20 ECC .42620 INC 4.8330 V1  29.749
RP  108.91 LAP  -3.19 LOP 326.23 VP  36.120 GAP  24.92 AZP  86.36 TAL 147.55 TAP 106.27 RCA  67.25 APO 167.15 V2  34.793
RC 206.655 GL   10.50 GP   10.09 ZAL  35.14 ZAP 167.14 ETS 127.18 ZAE 126.63 ETE 172.57 ZAC 108.82 ETC 278.17 CLP 171.99
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PLANETOCENTRIC CONIC

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C3 121.190 VHL 11.009 DLA   -.35 RAL 331.80 RAD 6570.3 VEL 15.573 PTH   2.77 VHP 15.674 DPA  -8.53 RAP 318.71 ECC 2.9946
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 53 18	2633.63	-27.04	69.80	223.81	98.73	9 37 12	2033.6	-25.56	61.44
90.00	20 46 6	5299.58	27.26	240.32	224.15	82.03	22 14 26	4699.6	25.88	231.92
100.00	10 14 29	2371.78	-28.54	50.27	223.54	99.28	10 54 1	1771.8	-26.96	41.83
100.00	22 7 36	5036.67	28.76	220.74	223.90	81.48	23 31 33	4436.7	27.29	212.25
110.00	11 22 21	2159.34	-32.61	33.31	222.70	100.88	11 58 20	1559.3	-30.76	24.57
110.00	23 16 14	4821.87	32.84	203.66	223.13	79.92	24 36 36	4221.9	31.10	194.87

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE 4.6527 TRA 8.9826 TC3 -.4437 BAU  .7189    SGT 5345.7 SGR  303.3 SG3   96.7    ST  2796.9 SR   281.4 SS   795.2
RDE  .5364 RRA -.2275 RC3  .0032 FAU-.00188    RRT  .0720 RRF  .0674 RTF  .9779    CRT  .7957 CRS -.7886 CST -.9999
FDE  .9702 FRA 1.9194 FC3  .0134 BSP  17401    SGB 5554.3 RZ3 -.0032 R13  .9779    LSA 2916.3 MSA  170.4 SSA    9.3
BDE 4.6835 BRA 8.9655 BC3  .4437 FSP   -316    SG1 5345.7 SG2  302.5 THA   .23    EL1 2805.9 EL2  169.9 ALF   4.59
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LAUNCH DATE OCT 1 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAY 5 1971

HELIOCENTRIC CONIC DISTANCE 609.222

```
RL  149.78 LAL    .00 LOL   7.40 VL  25.263 GAL  21.69 AZL  84.74 HCA 321.87 SMA 117.04 ECC .45185 INC 5.2620 V1  29.749
RP  108.90 LAP  -3.25 LOP 329.39 VP  36.102 GAP  26.59 AZP  85.86 TAL 146.81 TAP 108.68 RCA  64.15 APO 169.92 V2  34.797
RC 208.346 GL   10.41 GP    9.97 ZAL  34.36 ZAP 166.43 ETS 131.72 ZAE 126.16 ETE 172.78 ZAC 108.38 ETC 278.57 CLP 170.75
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PLANETOCENTRIC CONIC

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C3 141.903 VHL 11.912 DLA   -.16 RAL 332.56 RAD 6570.5 VEL 16.224 PTH   2.85 VHP 16.698 DPA  -8.12 RAP 320.59 ECC 3.3354
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 54 54	2669.84	-27.39	72.39	226.95	97.47	9 39 24	2069.8	-26.07	63.97
90.00	20 50 32	5323.93	-27.48	242.07	227.11	82.88	22 19 16	4723.9	26.21	233.63
100.00	10 16 10	2407.70	-28.91	52.88	226.72	97.96	10 56 18	1807.7	-27.51	44.36
100.00	22 11 57	5061.30	29.00	222.53	226.89	82.40	23 36 18	4461.3	27.64	213.99
110.00	11 24 15	2194.62	-33.03	35.97	225.99	99.35	12 0 49	1594.6	-31.39	27.13
110.00	23 20 32	4847.14	33.12	205.57	226.19	81.02	24 41 9	4247.1	31.53	196.71

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE 5.0013 TRA 9.6730 TC3 -.3188 BAU  .6048    SGT 5292.4 SGR  291.1 SG3   94.2    ST  2781.2 SR   277.7 SS   823.4
RDE  .5746 RRA -.1886 RC3  .0016 FAU-.00360    RRT  .1539 RRF  .1479 RTF  .9816    CRT  .8112 CRS -.8048 CST -.9999
FDE 1.0198 FRA 2.0222 FC3  .0220 BSP  17838    SGB 5300.4 RZ3 -.0036 R13  .9816    LSA 2909.3 MSA  162.3 SSA    8.7
BDE 5.0342 BRA 9.6749 BC3  .3188 FSP   -319    SG1 5292.6 SG2  287.6 THA   .49    EL1 2790.4 EL2  161.9 ALF   4.65
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LAUNCH DATE OCT 1 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAY 7 1971

HELIOCENTRIC CONIC DISTANCE 610.096

```
RL  149.78 LAL    .00 LOL   7.40 VL  25.234 GAL  23.98 AZL  84.24 HCA 325.02 SMA 116.89 ECC .48094 INC 5.7559 V1  29.749
RP  108.89 LAP  -3.30 LOP 332.56 VP  36.087 GAP  28.50 AZP  85.28 TAL 146.29 TAP 111.31 RCA  60.67 APO 173.11 V2  34.802
RC 210.017 GL   10.30 GP    9.86 ZAL  33.76 ZAP 165.57 ETS 136.12 ZAE 125.57 ETE 173.01 ZAC 107.95 ETC 278.92 CLP 169.41
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PLANETOCENTRIC CONIC

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C3 167.297 VHL 12.934 DLA   -.05 RAL 333.16 RAD 6570.8 VEL 16.989 PTH   2.92 VHP 17.870 DPA  -7.71 RAP 322.35 ECC 3.7533
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 56 29	2702.50	-27.66	74.74	229.83	96.32	9 41 31	2102.5	-26.50	66.27
90.00	20 53 43	5349.86	27.68	243.94	229.89	83.80	22 22 53	4749.9	26.54	235.46
100.00	10 17 48	2440.20	-29.19	55.25	229.64	96.74	10 58 28	1840.2	-27.95	46.67
100.00	22 15 5	5087.39	29.22	224.44	229.69	83.38	23 39 53	4487.4	27.99	215.85
110.00	11 25 59	2226.76	-33.36	38.42	229.01	97.94	12 3 6	1626.8	-31.90	29.50
110.00	23 23 23	4873.59	33.38	207.59	229.08	82.19	24 44 37	4273.6	31.94	198.66

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE 5.4035 TRA10.4730 TC3 -.2008 BAU  .4492    SGT 5246.1 SGR  280.8 SG3   92.1    ST  2768.9 SR   274.3 SS   860.1
RDE  .6177 RRA -.1419 RC3  .0010 FAU-.00592    RRT  .2457 RRF  .2388 RTF  .9849    CRT  .8279 CRS -.8222 CST -.9999
FDE 1.0807 FRA 2.1436 FC3  .0306 BSP  17755    SGB 5253.6 RZ3 -.0039 R13  .9849    LSA 2908.2 MSA  153.8 SSA    8.2
BDE 5.4386 BRA10.4740 BC3  .2008 FSP   -311    SG1 5246.6 SG2  272.2 THA   .76    EL1 2778.2 EL2  153.3 ALF   4.70
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LAUNCH DATE OCT 1 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAY 9 1971

HELIOCENTRIC CONIC DISTANCE 609.808

```
RL  149.78 LAL    .00 LOL   7.40 VL  25.209 GAL  26.58 AZL  83.67 HCA 328.17 SMA 116.76 ECC .51402 INC 6.3343 V1  29.749
RP  108.87 LAP  -3.34 LOP 335.73 VP  36.074 GAP  30.71 AZP  84.61 TAL 146.06 TAP 114.23 RCA  56.74 APO 176.78 V2  34.807
RC 211.667 GL   10.16 GP    9.74 ZAL  33.34 ZAP 164.53 ETS 140.35 ZAE 124.85 ETE 173.26 ZAC 107.53 ETC 279.24 CLP 167.92
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PLANETOCENTRIC CONIC

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C3 198.747 VHL 14.098 DLA   -.04 RAL 333.58 RAD 6571.1 VEL 17.890 PTH   3.00 VHP 19.219 DPA  -7.33 RAP 323.98 ECC 4.2709
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 58 2	2731.06	-27.86	76.81	232.41	95.30	9 43 33	2131.1	-26.83	68.29
90.00	20 55 30	5377.44	27.87	245.93	232.45	84.78	22 25 8	4777.4	26.86	237.41
100.00	10 19 21	2468.73	-29.40	57.35	232.24	95.65	11 0 30	1868.7	-28.31	48.72
100.00	22 16 52	5115.00	29.42	226.47	232.28	84.43	23 42 7	4515.0	28.33	217.83
110.00	11 27 34	2255.24	-33.60	40.61	231.71	96.67	12 5 9	1655.2	-32.32	31.61
110.00	23 25 9	4901.25	33.62	209.72	231.76	83.42	24 46 50	4301.3	32.35	200.72

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

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TDE 5.8427 TRA11.3498 TC3 -.0959 BAU  .2548    SGT 5195.1 SGR  273.2 SG3   90.2    ST  2748.4 SR   271.4 SS   902.9
RDE  .6673 RRA -.0816 RC3  .0013 FAU-.00874    RRT  .3452 RRF  .3379 RTF  .9880    CRT  .8449 CRS -.8399 CST -.9999
FDE 1.1495 FRA 2.2811 FC3  .0381 BSP  17641    SGB 5202.3 RZ3 -.0042 R13  .9879    LSA 2901.9 MSA  145.1 SSA    7.6
BDE 5.8806 BRA11.3501 BC3  .0959 FSP   -304    SG1 5196.0 SG2  256.4 THA  1.04    EL1 2758.0 EL2  144.6 ALF   4.78
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LAUNCH DATE OCT 2 1970 FLIGHT TIME 70.00 ARRIVAL DATE DEC 11 1970

HELIOCENTRIC CONIC DISTANCE 195.930

RL	149.74	LAL	.00	LOL	8.39	VL	28.003	GAL	-12.09	AZL	88.81	HCA	88.50	SMA	134.26	ECC	.23789	INC	1.1890	V1	29.758
RP	107.60	LAP	1.19	LOP	96.89	VP	38.449	GAP	-7.68	AZP	89.97	TAL	229.63	TAP	318.13	RCA	102.32	APO	166.20	V2	35.218
RC	56.533	GL	5.53	GP	-20.00	ZAL	155.52	ZAP	35.10	ETS	27.64	ZAE	147.53	ETE	320.76	ZAC	81.78	ETC	261.07	CLP	-29.46

PLANETOCENTRIC CONIC

C3	34.810	VHL	5.900	DLA	-7.07	RAL	212.00	RAD	6560.4	VEL	12.497	PTH	2.26	VHP	6.119	DPA	-40.45	RAP	240.07	ECC	1.5729

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 41 56	2130.34	-17.44	36.22	80.97	112.67	2 17 27	1530.3	-14.22	29.02
90.00	11 53 48	5216.20	26.33	234.39	85.42	79.20	13 20 44	4616.2	24.58	226.16
100.00	2 59 54	1878.84	-18.65	17.18	80.42	113.79	3 31 13	1278.8	-15.28	10.01
100.00	13 18 31	4942.93	27.63	214.00	85.13	78.11	14 40 54	4342.9	25.71	205.73
110.00	4 0 25	1689.37	-21.89	1.16	78.79	116.94	4 28 34	1089.4	-18.10	354.08
110.00	14 34 30	4705.17	31.11	195.00	84.18	75.07	15 52 55	4105.2	28.75	186.59

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0851	TRA	-.3431	TC3	.3079	BAU	.1982	SGT	501.6	SGR	499.9	SG3	164.2	ST	130.7	SR	279.9	SS	356.9
RDE	-.2706	RRA	-.2420	RC3	-.2943	FAU	.05802	RRT	-.2752	RRF	.5682	RTF	-.4047	CRT	-.4185	CRS	.8732	CST	-.7884
FDE	.6753	FRA	-.5445	FC3	-1.4429	BSP	1327	SGB	708.1	RZS	-.1402	R13	.6090	LSA	448.9	NSA	143.4	SSA	26.4
BDE	.2913	BRA	.4199	BC3	.4259	FSP	-434	SG1	565.4	SG2	426.3	THA	135.35	EL1	286.3	EL2	116.1	ALF	103.28

LAUNCH DATE OCT 2 1970 FLIGHT TIME 72.00 ARRIVAL DATE DEC 13 1970

HELIOCENTRIC CONIC DISTANCE 202.706

RL	149.74	LAL	.00	LOL	8.39	VL	28.085	GAL	-11.99	AZL	88.63	HCA	91.74	SMA	134.89	ECC	.23394	INC	1.3669	V1	29.758
RP	107.58	LAP	1.37	LOP	100.13	VP	38.515	GAP	-6.88	AZP	90.04	TAL	230.61	TAP	322.34	RCA	103.33	APO	166.44	V2	35.225
RC	58.419	GL	6.44	GP	-21.35	ZAL	155.95	ZAP	36.95	ETS	25.37	ZAE	147.57	ETE	316.86	ZAC	80.38	ETC	260.89	CLP	-33.36

PLANETOCENTRIC CONIC

C3	34.141	VHL	5.843	DLA	-5.98	RAL	211.69	RAD	6560.3	VEL	12.470	PTH	2.26	VHP	5.770	DPA	-41.58	RAP	238.80	ECC	1.5619

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 32 20	2159.85	-18.20	36.05	80.52	112.07	2 8 20	1559.8	-15.05	30.79
90.00	12 0 52	5176.90	25.80	231.64	84.27	77.92	13 27 9	4576.9	23.88	223.50
100.00	2 50 51	1906.59	-19.41	18.89	79.99	113.19	3 22 37	1306.6	-16.10	11.66
100.00	13 25 3	4905.39	27.08	211.35	83.96	76.82	14 46 48	4305.4	24.99	203.17
110.00	3 52 36	1713.27	-22.82	2.64	78.40	116.34	4 21 9	1113.3	-18.89	355.48
110.00	14 39 47	4671.48	30.49	192.57	82.93	73.75	15 57 39	4071.5	27.97	184.28

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0849	TRA	-.3498	TC3	.2950	BAU	.2033	SGT	494.7	SGR	526.3	SG3	183.9	ST	133.2	SR	259.7	SS	397.6
RDE	-.2532	RRA	-.2553	RC3	-.3337	FAU	.06371	RRT	-.2622	RRF	.6216	RTF	-.3584	CRT	-.3752	CRS	.8587	CST	-.7785
FDE	.7890	FRA	-.6144	FC3	-1.6155	BSP	1374	SGB	722.5	RZS	-.1463	R13	.6371	LSA	470.1	NSA	146.9	SSA	26.3
BDE	.2670	BRA	.4331	BC3	.4453	FSP	-495	SG1	575.3	SG2	436.7	THA	128.33	EL1	265.8	EL2	120.7	ALF	103.79

LAUNCH DATE OCT 2 1970 FLIGHT TIME 74.00 ARRIVAL DATE DEC 15 1970

HELIOCENTRIC CONIC DISTANCE 209.451

RL	149.74	LAL	.00	LOL	8.39	VL	28.153	GAL	-11.89	AZL	88.45	HCA	94.97	SMA	135.41	ECC	.23054	INC	1.5457	V1	29.758
RP	107.56	LAP	1.54	LOP	103.36	VP	38.570	GAP	-6.11	AZP	90.13	TAL	231.43	TAP	326.41	RCA	104.19	APO	166.63	V2	35.232
RC	60.358	GL	7.37	GP	-22.79	ZAL	156.23	ZAP	42.98	ETS	23.20	ZAE	147.64	ETE	312.41	ZAC	78.87	ETC	260.66	CLP	-37.48

PLANETOCENTRIC CONIC

C3	33.573	VHL	5.794	DLA	-4.93	RAL	211.49	RAD	6560.3	VEL	12.448	PTH	2.25	VHP	5.458	DPA	-42.72	RAP	237.19	ECC	1.5525

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 23 31	2188.92	-18.94	39.86	80.25	111.45	2 0 0	1588.9	-15.86	32.54
90.00	12 8 7	5139.36	25.24	229.03	83.33	76.72	13 33 47	4539.4	23.17	220.98
100.00	2 42 33	1934.00	-20.13	20.61	79.73	112.57	3 14 47	1334.0	-16.90	13.31
100.00	13 31 47	4869.51	26.49	208.84	82.99	75.63	14 52 56	4269.5	24.26	200.76
110.00	3 45 29	1736.99	-23.33	4.11	78.19	115.73	4 14 26	1137.0	-19.67	356.88
110.00	14 45 20	4639.29	29.86	190.28	81.90	72.53	16 2 40	4039.3	27.18	182.11

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0887	TRA	-.3611	TC3	.2731	BAU	.2088	SGT	486.0	SGR	557.6	SG3	204.9	ST	139.1	SR	236.4	SS	439.7
RDE	-.2246	RRA	-.2080	RC3	-.3765	FAU	.06971	RRT	-.2283	RRF	.6721	RTF	-.2913	CRT	-.3342	CRS	.8364	CST	-.7785
FDE	.9179	FRA	-.6853	FC3	-1.7975	BSP	1431	SGB	739.7	RZS	-.1358	R13	.6733	LSA	495.4	NSA	149.6	SSA	26.0
BDE	.2414	BRA	.4502	BC3	.4651	FSP	-562	SG1	588.1	SG2	448.7	THA	119.44	EL1	242.8	EL2	127.6	ALF	105.51

LAUNCH DATE OCT 2 1970 FLIGHT TIME 76.00 ARRIVAL DATE DEC 17 1970

HELIOCENTRIC CONIC DISTANCE 216.165

RL	149.74	LAL	.00	LOL	8.39	VL	28.208	GAL	-11.79	AZL	88.27	HCA	98.21	SMA	135.84	ECC	.22758	INC	1.7262	V1	29.758
RP	107.54	LAP	1.71	LOP	106.61	VP	38.616	GAP	-5.37	AZP	90.25	TAL	232.11	TAP	330.32	RCA	104.93	APO	166.76	V2	35.238
RC	62.346	GL	8.31	GP	-24.31	ZAL	156.33	ZAP	47.23	ETS	21.07	ZAE	147.67	ETE	307.37	ZAC	77.25	ETC	260.37	CLP	-41.83

PLANETOCENTRIC CONIC

C3	33.083	VHL	5.752	DLA	-3.89	RAL	211.41	RAD	6560.3	VEL	12.428	PTH	2.25	VHP	5.182	DPA	-43.86	RAP	235.24	ECC	1.5445

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 13 25	2217.61	-19.64	41.67	80.15	110.82	1 52 23	1617.6	-16.64	34.29
90.00	12 15 36	5103.25	24.86	226.55	82.57	75.61	13 40 40	4503.3	22.44	218.58
100.00	2 34 57	1961.09	-20.83	22.31	79.65	111.94	3 7 38	1361.1	-17.67	14.95
100.00	13 38 46	4835.01	25.89	206.46	82.21	74.51	14 59 21	4235.0	23.51	198.47
110.00	3 39 1	1760.53	-24.01	5.59	78.15	115.09	4 8 21	1160.5	-20.43	358.28
110.00	14 51 12	4608.34	29.21	188.10	81.06	71.39	16 8 0	4008.3	26.39	180.05

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0903	TRA	-.3847	TC3	.2324	BAU	.2118	SGT	478.6	SGR	587.6	SG3	225.2	ST	146.4	SR	206.8	SS	489.6
RDE	-.1989	RRA	-.2794	RC3	-.4186	FAU	.07507	RRT	-.1375	RRF	.7131	RTF	-.1812	CRT	-.2454	CRS	.8051	CST	-.7560
FDE	1.0731	FRA	-.7375	FC3	-1.9645	BSP	1363	SGB	756.6	RZS	-.0787	R13	.7137	LSA	529.3	NSA	152.0	SSA	25.2
BDE	.2097	BRA	.4755	BC3	.4788	FSP	-597	SG1	597.3	SG2	464.4	THA	106.55	EL1	212.4	EL2	138.2	ALF	107.43

LAUNCH DATE OCT 2 1970 FLIGHT TIME 78.00 ARRIVAL DATE DEC 19 1970

HELIOCENTRIC CONIC DISTANCE 222.841

RL	149.74	LAL	.00	LOL	8.39	VL	28.251	GAL	-11.70	AZL	88.09	HCA	101.45	SMA	136.18	ECC	.22501	INC	1.9098	V1	29.758
RP	107.53	LAP	1.87	LOP	109.85	VP	38.652	GAP	-4.68	AZP	90.38	TAL	232.63	TAP	334.08	RCA	105.54	APO	166.82	V2	35.243
RC	64.375	GL	9.28	GP	-25.90	ZAL	156.29	ZAP	51.67	ETS	18.92	ZAE	147.60	ETE	301.74	ZAC	75.54	ETC	260.03	CLP	-46.42

PLANETOCENTRIC CONIC

C3	32.661	VHL	5.715	DLA	-2.87	RAL	211.45	RAD	6568.3	VEL	12.411	PTH	2.24	VHP	4.942	DPA	-44.99	RAP	232.91	ECC	1.5375

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 7 57	2246.12	-20.32	43.49	80.20	110.15	1 45 23	1646.1	-17.39	36.04
90.00	12 23 21	5068.27	24.04	224.17	81.99	74.57	13 47 50	4468.3	21.69	216.29
100.00	2 27 57	1988.05	-21.51	24.03	79.72	111.28	3 1 5	1388.0	-18.42	16.59
100.00	13 46 2	4801.58	25.26	204.17	81.61	73.46	15 6 4	4201.6	22.75	196.27
110.00	3 33 7	1784.03	-24.68	7.09	78.27	114.43	4 2 51	1184.0	-21.18	359.70
110.00	14 57 21	4578.36	28.54	186.03	80.41	70.33	16 13 40	3978.4	25.59	178.09

DIFFERENTIAL CORRECTIONS

TDE	.1082	TRA	-.4035	TC3	.1935	BAU	.2213
RDE	-.1549	RRA	-.2936	RC3	-.4684	FAU	.08141
FDE	1.2133	FRA	-.8073	FC3	-2.1580	BSP	1524
BDE	.1890	BRA	.4990	BC3	.5068	FSP	-681

MID-COURSE EXECUTION ACCURACY

SGT	474.0	SGR	630.5	SG3	247.7		
RRT	-.0531	RRF	.7580	RTF	-.0628		
SGB	788.8	R23	-.0290	R13	.7578		
SG1	631.7	SG2	472.5	THA	95.20		

ORBIT DETERMINATION ACCURACY

ST	183.0	SR	179.4	SS	530.6
CRT	-.2123	CRS	.7455	CST	-.7948
LSA	562.4	MSA	152.8	SSA	24.9
EL1	190.3	EL2	150.2	ALF	122.83

LAUNCH DATE OCT 2 1970 FLIGHT TIME 80.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 229.483

RL	149.74	LAL	.00	LOL	8.39	VL	28.283	GAL	-11.61	AZL	87.90	HCA	104.69	SMA	136.44	ECC	.22274	INC	2.0977	V1	29.758
RP	107.51	LAP	2.03	LOP	113.09	VP	38.680	GAP	-4.01	AZP	90.53	TAL	233.01	TAP	337.71	RCA	106.05	APO	166.83	V2	35.247
RC	66.441	GL	10.28	GP	-27.54	ZAL	156.10	ZAP	56.28	ETS	16.69	ZAE	147.35	ETE	295.60	ZAC	73.75	ETC	259.63	CLP	-51.24

PLANETOCENTRIC CONIC

C3	32.291	VHL	5.683	DLA	-1.86	RAL	211.59	RAD	6568.3	VEL	12.396	PTH	2.24	VHP	4.738	DPA	-46.06	RAP	230.23	ECC	1.5314

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 1 1	2274.58	-20.98	45.32	80.42	109.47	1 38 56	1674.6	-18.13	37.80
90.00	12 31 26	5034.09	23.40	221.87	81.57	73.59	13 55 20	4434.1	20.93	214.07
100.00	2 21 30	2014.98	-22.16	25.76	79.95	110.59	2 55 5	1415.0	-19.16	18.25
100.00	13 53 38	4768.91	24.61	201.96	81.17	72.47	15 13 7	4168.9	21.98	194.15
110.00	3 27 45	1807.58	-25.34	8.61	78.54	113.75	3 57 52	1207.6	-21.91	1.13
110.00	15 3 58	4549.08	27.85	184.02	79.92	69.33	16 19 42	3949.1	24.78	176.20

DIFFERENTIAL CORRECTIONS

TDE	.1321	TRA	-.4288	TC3	.1419	BAU	.2326
RDE	-.1170	RRA	-.3065	RC3	-.5198	FAU	.08742
FDE	1.3584	FRA	-.8677	FC3	-2.3438	BSP	1697
BDE	.1765	BRA	.5271	BC3	.5388	FSP	-761

MID-COURSE EXECUTION ACCURACY

SGT	480.5	SGR	677.1	SG3	269.6		
RRT	.0699	RRF	.7963	RTF	.0876		
SGB	830.3	R23	.0234	R13	.7966		
SG1	678.8	SG2	478.2	THA	84.35		

ORBIT DETERMINATION ACCURACY

ST	186.0	SR	151.1	SS	571.8
CRT	-.1338	CRS	.6435	CST	-.8316
LSA	600.4	MSA	152.7	SSA	24.6
EL1	189.0	EL2	147.5	ALF	163.69

LAUNCH DATE OCT 2 1970 FLIGHT TIME 82.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 236.090

RL	149.74	LAL	.00	LOL	8.39	VL	28.306	GAL	-11.52	AZL	87.71	HCA	107.93	SMA	136.62	ECC	.22073	INC	2.2913	V1	29.758
RP	107.50	LAP	2.18	LOP	116.34	VP	38.700	GAP	-3.37	AZP	90.71	TAL	233.25	TAP	341.19	RCA	106.46	APO	166.77	V2	35.251
RC	68.539	GL	11.31	GP	-29.21	ZAL	155.75	ZAP	61.02	ETS	14.34	ZAE	146.86	ETE	289.07	ZAC	71.91	ETC	259.18	CLP	-56.28

PLANETOCENTRIC CONIC

C3	31.965	VHL	5.654	DLA	-.86	RAL	211.84	RAD	6568.3	VEL	12.383	PTH	2.24	VHP	4.570	DPA	-47.06	RAP	227.22	ECC	1.5261

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 54 34	2303.19	-21.62	47.17	80.77	108.75	1 32 57	1703.2	-18.86	39.59
90.00	12 39 54	5000.36	22.74	219.62	81.30	72.65	14 3 14	4400.4	20.15	211.90
100.00	2 15 31	2042.09	-22.80	27.52	80.33	109.87	2 49 33	1442.1	-19.88	19.94
100.00	14 1 38	4736.69	23.93	199.81	80.88	71.53	15 20 35	4136.7	21.19	192.09
110.00	3 22 50	1831.33	-25.98	10.15	78.95	113.04	3 53 22	1231.3	-22.63	2.60
110.00	15 10 48	4520.22	27.14	182.08	79.59	68.37	16 26 8	3920.2	23.96	174.36

DIFFERENTIAL CORRECTIONS

TDE	.1631	TRA	-.4607	TC3	.0778	BAU	.2466
RDE	-.0762	RRA	-.3174	RC3	-.5719	FAU	.09285
FDE	1.5034	FRA	-.9151	FC3	-2.5147	BSP	1900
BDE	.1800	BRA	.5594	BC3	.5772	FSP	-837

MID-COURSE EXECUTION ACCURACY

SGT	503.0	SGR	726.4	SG3	290.0		
RRT	.2204	RRF	.8283	RTF	.2575		
SGB	883.5	R23	.0681	R13	.8291		
SG1	741.3	SG2	480.8	THA	74.80		

ORBIT DETERMINATION ACCURACY

ST	216.7	SR	125.1	SS	612.4
CRT	.0261	CRS	.4592	CST	-.8646
LSA	643.4	MSA	151.9	SSA	24.1
EL1	216.7	EL2	125.0	ALF	1.29

LAUNCH DATE OCT 2 1970 FLIGHT TIME 84.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 242.661

RL	149.74	LAL	.00	LOL	8.39	VL	28.319	GAL	-11.42	AZL	87.51	HCA	111.18	SMA	136.73	ECC	.21893	INC	2.4921	V1	29.758
RP	107.49	LAP	2.32	LOP	119.58	VP	38.712	GAP	-2.76	AZP	90.90	TAL	233.36	TAP	344.53	RCA	106.79	APO	166.66	V2	35.254
RC	70.666	GL	12.38	GP	-30.88	ZAL	155.27	ZAP	65.83	ETS	11.86	ZAE	146.06	ETE	282.31	ZAC	70.03	ETC	258.68	CLP	-61.50

PLANETOCENTRIC CONIC

C3	31.677	VHL	5.628	DLA	.15	RAL	212.20	RAD	6568.3	VEL	12.371	PTH	2.23	VHP	4.437	DPA	-47.96	RAP	223.94	ECC	1.5213

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 48 30	2332.24	-22.24	49.08	81.28	107.99	1 27 22	1732.2	-19.57	41.42
90.00	12 48 49	4966.75	22.04	217.40	81.18	71.75	14 11 35	4366.7	19.34	209.77
100.00	2 9 55	2069.63	-23.43	29.33	80.85	109.12	2 44 25	1469.6	-20.60	21.67
100.00	14 10 5	4704.60	23.22	197.69	80.75	70.63	15 28 29	4104.6	20.37	190.06
110.00	3 18 19	1855.50	-26.61	11.75	79.52	112.29	3 49 15	1255.5	-23.36	4.10
110.00	15 18 10	4491.49	26.41	180.17	79.40	67.46	16 33 1	3891.5	23.12	172.55

DIFFERENTIAL CORRECTIONS

TDE	.2025	TRA	-.4981	TC3	.0014	BAU	.2639
RDE	-.0328	RRA	-.3252	RC3	-.6231	FAU	.09739
FDE	1.6428	FRA	-.9457	FC3	-2.6617	BSP	2140
BDE	.2052	BRA	.5949	BC3	.6231	FSP	-903

MID-COURSE EXECUTION ACCURACY

SGT	547.4	SGR	776.3	SG3	307.9		
RRT	.3762	RRF	.8546	RTF	.4245		
SGB	949.9	R23	.1011	R13	.8558		
SG1	819.4	SG2	490.5	THA	66.73		

ORBIT DETERMINATION ACCURACY

ST	256.2	SR	106.9	SS	651.5
CRT	.3000	CRS	.1394	CST	-.8927
LSA	691.6	MSA	150.4	SSA	23.6
EL1	258.6	EL2	101.0	ALF	8.43

LAUNCH DATE OCT 2 1970 FLIGHT TIME 86.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 249.197

RL	149.74	LAL	.00	LOL	8.39	VL	28.325	GAL	-11.33	AZL	87.30	HCA	114.42	SMA	136.77	ECC	.21729	INC	2.7020	V1	29.758
RP	107.48	LAP	2.46	LOP	122.83	VP	38.718	GAP	-2.18	AZP	91.12	TAL	233.34	TAP	347.76	RCA	107.05	APO	166.49	V2	35.256
RC	72.818	GL	13.51	GP	-32.54	ZAL	154.65	ZAP	70.67	ETS	9.21	ZAE	144.94	ETE	275.52	ZAC	68.14	ETC	258.15	CLP	-66.88

PLANETOCENTRIC CONIC

C3	31.424	VHL	5.606	DLA	1.18	RAL	212.66	RAD	6568.3	VEL	12.361	PTH	2.23	VHP	4.338	DPA	-48.74	RAP	220.45	ECC	1.5172

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 42 44	2362.04	-22.85	51.05	81.93	107.19	1 22 6	1762.0	-20.28	43.31
90.00	12 58 15	4932.92	21.30	215.20	81.20	70.89	14 20 28	4332.9	18.50	207.64
100.00	2 4 37	2097.90	-24.04	31.20	81.51	108.32	2 39 35	1497.9	-21.32	23.47
100.00	14 19 3	4672.30	22.48	195.58	80.75	69.76	15 36 55	4072.3	19.52	188.03
110.00	3 14 8	1880.34	-27.24	13.40	80.22	111.49	3 45 28	1280.3	-24.08	5.67
110.00	15 28 2	4462.61	25.64	178.29	79.36	66.58	16 40 25	3862.6	22.25	170.76

DIFFERENTIAL CORRECTIONS

TDE	.2513	TRA	-.5402	TC3	-.0859	BAU	.2845
RDE	.0120	RRA	-.3295	RC3	-.6718	FAU	.10081
FDE	1.7702	FRA	-.9579	FC3	-2.7774	BSP	2424
BDE	.2515	BRA	.6328	BC3	.6773	FSP	-959

MID-COURSE EXECUTION ACCURACY

SGT	616.6	SGR	825.2	SG3	322.5
RRT	.5144	RRF	.8759	RTF	.5673
SGB	1030.1	RZ3	.1241	RI3	.8776
SG1	912.4	SG2	478.3	THA	59.94

ORBIT DETERMINATION ACCURACY

ST	305.6	SR	104.3	SS	688.0
CRT	.6260	CRS	-.2818	CST	-.9156
LSA	745.0	NSA	148.2	SSA	23.0
EL1	313.0	EL2	79.4	ALF	12.90

LAUNCH DATE OCT 2 1970 FLIGHT TIME 88.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 255.697

RL	149.74	LAL	.00	LOL	8.39	VL	28.322	GAL	-11.22	AZL	87.08	HCA	117.66	SMA	136.75	ECC	.21580	INC	2.9230	V1	29.758
RP	107.48	LAP	2.59	LOP	126.08	VP	38.718	GAP	-1.62	AZP	91.36	TAL	233.20	TAP	350.86	RCA	107.24	APO	166.26	V2	35.258
RC	74.992	GL	14.69	GP	-34.16	ZAL	153.89	ZAP	75.46	ETS	6.41	ZAE	143.49	ETE	268.90	ZAC	66.27	ETC	257.60	CLP	-72.34

PLANETOCENTRIC CONIC

C3	31.207	VHL	5.586	DLA	2.23	RAL	213.23	RAD	6568.2	VEL	12.352	PTH	2.23	VHP	4.274	DPA	-49.42	RAP	216.84	ECC	1.5136

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 37 10	2382.98	-23.46	53.11	82.72	106.35	1 17 3	1793.0	-21.00	45.30
90.00	13 8 20	4988.49	20.52	212.98	81.36	70.04	14 29 58	4298.5	17.61	205.51
100.00	1 59 33	2127.25	-24.66	33.17	82.32	107.46	2 35 0	1527.3	-22.04	25.35
100.00	14 28 38	4639.45	21.69	193.46	80.89	68.91	15 45 57	4039.5	18.63	186.00
110.00	3 10 11	1906.18	-27.08	15.15	81.09	110.63	3 41 57	1306.2	-24.81	7.32
110.00	15 34 38	4453.29	24.83	176.38	79.46	65.72	16 48 23	3833.3	21.34	168.97

DIFFERENTIAL CORRECTIONS

TDE	.3088	TRA	-.5080	TC3	-.1831	BAU	.3084
RDE	.0574	RRA	-.3295	RC3	-.7162	FAU	.10280
FDE	1.8806	FRA	-.9401	FC3	-2.8546	BSP	2751
BDE	.3151	BRA	.6722	BC3	.7392	FSP	-1001

MID-COURSE EXECUTION ACCURACY

SGT	710.4	SGR	870.6	SG3	332.9
RRT	.6236	RRF	.8929	RTF	.6765
SGB	1123.6	RZ3	.1405	RI3	.8950
SG1	1018.4	SG2	474.7	THA	54.09

ORBIT DETERMINATION ACCURACY

ST	365.5	SR	119.7	SS	721.3
CRT	.8493	CRS	-.6223	CST	-.9333
LSA	804.0	NSA	145.7	SSA	22.4
EL1	379.7	EL2	60.8	ALF	15.96

LAUNCH DATE OCT 2 1970 FLIGHT TIME 90.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 262.162

RL	149.74	LAL	.00	LOL	8.39	VL	28.313	GAL	-11.12	AZL	86.84	HCA	120.90	SMA	136.68	ECC	.21442	INC	3.1576	V1	29.758
RP	107.48	LAP	2.71	LOP	129.33	VP	38.712	GAP	-1.08	AZP	91.62	TAL	232.95	TAP	353.85	RCA	107.37	APO	165.98	V2	35.259
RC	77.186	GL	15.85	GP	-35.73	ZAL	152.99	ZAP	80.15	ETS	3.45	ZAE	141.74	ETE	282.61	ZAC	64.43	ETC	257.04	CLP	-77.84

PLANETOCENTRIC CONIC

C3	31.029	VHL	5.570	DLA	3.33	RAL	213.09	RAD	6568.2	VEL	12.345	PTH	2.23	VHP	4.243	DPA	-49.99	RAP	213.20	ECC	1.5107

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 31 41	2425.50	-24.07	55.30	83.68	105.39	1 12 7	1825.5	-21.72	47.41
90.00	13 19 8	4863.09	19.68	210.72	81.67	68.22	14 40 11	4263.1	16.68	203.33
100.00	1 54 35	2158.12	-25.27	35.26	83.30	106.52	2 30 33	1558.1	-22.77	27.36
100.00	14 38 55	4605.71	20.85	191.31	81.18	68.08	15 55 41	4005.7	17.69	183.93
110.00	3 6 24	1933.37	-28.52	17.01	82.11	109.70	3 38 37	1333.4	-25.56	9.07
110.00	15 43 36	4403.22	23.98	174.46	79.71	64.87	16 56 59	3803.2	20.39	167.16

DIFFERENTIAL CORRECTIONS

TDE	.3785	TRA	-.6340	TC3	-.2878	BAU	.3352
RDE	.1024	RRA	-.3242	RC3	-.7550	FAU	.10359
FDE	1.9896	FRA	-.9210	FC3	-2.8903	BSP	3118
BDE	.3921	BRA	.7121	BC3	.8080	FSP	-1029

MID-COURSE EXECUTION ACCURACY

SGT	825.3	SGR	911.2	SG3	338.8
RRT	.7034	RRF	.9066	RTF	.7543
SGB	1229.4	RZ3	.1528	RI3	.9086
SG1	1135.7	SG2	470.7	THA	49.01

ORBIT DETERMINATION ACCURACY

ST	436.0	SR	147.6	SS	750.7
CRT	.9466	CRS	-.8087	CST	-.9468
LSA	868.7	NSA	142.9	SSA	21.7
EL1	458.0	EL2	45.3	ALF	17.95

LAUNCH DATE OCT 2 1970 FLIGHT TIME 92.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 268.593

RL	149.74	LAL	.00	LOL	8.39	VL	28.298	GAL	-11.01	AZL	86.59	HCA	124.14	SMA	136.55	ECC	.21315	INC	3.4086	V1	29.758
RP	107.48	LAP	2.82	LOP	132.58	VP	38.701	GAP	-.57	AZP	91.91	TAL	232.59	TAP	356.74	RCA	107.45	APO	165.66	V2	35.259
RC	79.386	GL	17.28	GP	-37.24	ZAL	151.95	ZAP	84.68	ETS	.34	ZAE	139.74	ETE	256.78	ZAC	62.64	ETC	256.48	CLP	-83.31

PLANETOCENTRIC CONIC

C3	30.896	VHL	5.558	DLA	4.47	RAL	214.67	RAD	6568.2	VEL	12.340	PTH	2.23	VHP	4.243	DPA	-50.48	RAP	209.61	ECC	1.5085

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 26 12	2460.15	-24.67	57.66	84.80	104.36	1 7 12	1860.1	-22.46	49.69
90.00	13 30 48	4826.30	18.77	208.40	82.12	68.40	14 51 14	4226.3	15.67	201.09
100.00	1 49 38	2191.01	-25.89	37.51	84.44	105.49	2 26 9	1591.0	-23.51	29.51
100.00	14 50 2	4570.67	19.94	189.10	81.61	67.26	16 6 13	3970.7	16.69	181.82
110.00	3 2 42	1982.36	-29.16	19.01	83.31	108.68	3 35 24	1362.4	-26.34	10.97
110.00	15 53 28	4372.08	23.08	172.51	80.09	64.04	17 6 20	3772.1	19.38	165.30

DIFFERENTIAL CORRECTIONS

TDE	.4576	TRA	-.6020	TC3	-.3075	BAU	.3640
RDE	.1464	RRA	-.3137	RC3	-.7865	FAU	.10280
FDE	2.0350	FRA	-.8732	FC3	-2.8805	BSP	3514
BDE	.4805	BRA	.7514	BC3	.8813	FSP	-1042

MID-COURSE EXECUTION ACCURACY

SGT	957.2	SGR	944.8	SG3	339.8
RRT	.7593	RRF	.9176	RTF	.8080
SGB	1344.9	RZ3	.1630	RI3	.9190
SG1	1261.4	SG2	466.5	THA	44.51

ORBIT DETERMINATION ACCURACY

ST	517.2	SR	181.5	SS	776.2
CRT	.9817	CRS	-.8991	CST	-.9571
LSA	939.7	NSA	139.9	SSA	20.9
EL1	547.2	EL2	32.7	ALF	19.08

LAUNCH DATE OCT 2 1970 FLIGHT TIME 94.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 274.990

```
RL  149.74 LAL    .00 LOL   8.39 VL  28.277 GAL -10.89 AZL  86.32 HCA 127.38 SMA 136.39 ECC .21194 INC 3.6796 V1  29.758
RP  107.48 LAP   2.92 LOP 135.83 VP  38.685 GAP   -.08 AZP  92.24 TAL 232.14 TAP 359.52 RCA 107.48 APO 165.29 V2  35.258
RC  81.621 GL   18.72 GP  -38.72 ZAL 150.77 ZAP  88.98 ETS 357.11 ZAE 137.54 ETE 251.47 ZAC  60.89 ETC 255.92 CLP -88.70
```

PLANETOCENTRIC CONIC

```
C3  30.818 VHL  5.551 DLA   5.68 RAL 215.55 RAD 6568.2 VEL 12.337 PTH   2.22 VHP  4.274 DPA -50.93 RAP 206.15 ECC 1.5072
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 20 33	2497.54	-25.28	60.23	86.12	103.21	1 2 11	1897.5	-23.21	52.17
90.00	13 43 29	4787.63	17.79	205.99	82.73	67.60	15 3 17	4187.6	14.59	198.77
100.00	1 44 35	2226.51	-26.51	39.96	85.78	104.34	2 21 42	1626.5	-24.28	31.87
100.00	15 2 8	4533.89	18.95	186.81	82.20	66.44	16 17 42	3933.9	15.61	179.62
110.00	2 58 59	1993.66	-29.83	21.21	84.71	107.53	3 32 13	1393.7	-27.14	13.05
110.00	16 4 14	4339.50	22.08	170.49	80.64	63.21	17 16 33	3739.5	18.30	163.39

DIFFERENTIAL CORRECTIONS

```
TDE  .5477 TRA -.7308 TC3 -.5096 BAU  .3918
RDE  .1943 RRA -.2925 RC3 -.8029 FAU .09964
FDE 2.0972 FRA -.7879 FC3-2.7990 BSP   3839
BDE  .5812 BRA  .7871 BC3  .9510 FSP   -997
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1101.9 SGR  982.8 SG3  334.7
RRT  .7991 RRF  .9255 RTF  .8436
SGB 1463.3 R23  .1760 R13  .9250
SG1 1389.4 SG2  459.1 THA  40.19
```

ORBIT DETERMINATION ACCURACY

```
ST   609.5 SR   221.9 SS   805.2
CRT  .9947 CRS -.9487 CST -.9638
LSA 1024.5 MSA  138.4 SSA   19.5
EL1  648.3 EL2   21.4 ALF  19.93
```

LAUNCH DATE OCT 2 1970 FLIGHT TIME 96.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 281.354

```
RL  149.74 LAL    .00 LOL   8.39 VL  28.251 GAL -10.76 AZL  86.02 HCA 130.62 SMA 136.18 ECC .21082 INC 3.9751 V1  29.758
RP  107.48 LAP   3.02 LOP 139.08 VP  38.664 GAP    .39 AZP  92.59 TAL 231.60 TAP   2.22 RCA 107.47 APO 164.89 V2  35.256
RC  83.861 GL   20.28 GP  -40.17 ZAL 149.43 ZAP  93.01 ETS 353.75 ZAE 135.18 ETE 246.69 ZAC  59.18 ETC 255.38 CLP -93.94
```

PLANETOCENTRIC CONIC

```
C3  30.815 VHL  5.551 DLA   6.98 RAL 216.54 RAD 6568.2 VEL 12.336 PTH   2.22 VHP  4.336 DPA -51.39 RAP 202.85 ECC 1.5071
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 14 36	2538.52	-25.88	63.08	87.64	101.90	0 56 55	1938.5	-23.98	54.92
90.00	13 57 23	4746.61	16.70	203.47	83.51	66.80	15 16 29	4146.6	13.42	196.33
100.00	1 39 17	2265.40	-27.14	42.68	87.33	103.04	2 17 2	1665.4	-25.07	34.49
100.00	15 15 23	4494.95	17.88	184.42	82.97	65.64	16 30 18	3895.0	14.44	177.32
110.00	2 55 9	2027.97	-30.50	23.65	86.33	106.23	3 28 57	1428.0	-27.98	15.37
110.00	16 16 0	4305.15	21.01	168.40	81.35	62.39	17 27 45	3705.1	17.14	161.40

DIFFERENTIAL CORRECTIONS

```
TDE  .6479 TRA -.7764 TC3 -.6206 BAU  .4249
RDE  .2303 RRA -.2761 RC3 -.8237 FAU .09705
FDE 2.0967 FRA -.7287 FC3-2.7266 BSP   4365
BDE  .6876 BRA  .8240 BC3 1.0313 FSP  -1022
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1254.5 SGR  987.5 SG3  328.1
RRT  .8240 RRF  .9333 RTF  .8700
SGB 1596.5 R23  .1819 R13  .9326
SG1 1529.1 SG2  459.0 THA  36.83
```

ORBIT DETERMINATION ACCURACY

```
ST   711.6 SR   254.3 SS   816.0
CRT  .9969 CRS -.9686 CST -.9706
LSA 1103.8 MSA  134.2 SSA   18.9
EL1  755.4 EL2   18.9 ALF  19.62
```

LAUNCH DATE OCT 2 1970 FLIGHT TIME 98.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 287.686

```
RL  149.74 LAL    .00 LOL   8.39 VL  28.220 GAL -10.63 AZL  85.70 HCA 133.86 SMA 135.94 ECC .20975 INC 4.3007 V1  29.758
RP  107.49 LAP   3.10 LOP 142.33 VP  38.640 GAP    .84 AZP  92.98 TAL 230.97 TAP   4.83 RCA 107.43 APO 164.45 V2  35.254
RC  86.111 GL   21.97 GP  -41.64 ZAL 147.91 ZAP  96.72 ETS 350.29 ZAE 132.71 ETE 242.45 ZAC  57.48 ETC 254.85 CLP -99.01
```

PLANETOCENTRIC CONIC

```
C3  30.904 VHL  5.559 DLA   8.38 RAL 217.66 RAD 6568.2 VEL 12.340 PTH   2.23 VHP  4.429 DPA -51.90 RAP 199.72 ECC 1.5086
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 8 10	2584.01	-26.48	66.27	89.41	100.41	0 51 14	1984.0	-24.78	58.02
90.00	14 12 44	4702.57	15.50	200.79	84.50	66.00	15 31 6	4102.6	12.13	193.74
100.00	1 33 34	2308.56	-27.76	45.74	89.13	101.55	2 12 2	1708.6	-25.89	37.44
100.00	15 30 1	4453.24	16.69	181.89	83.94	64.83	16 44 14	3853.2	13.16	174.88
110.00	2 51 4	2066.03	-31.20	26.40	88.21	104.74	3 25 30	1466.0	-28.86	17.98
110.00	16 29 0	4268.54	19.84	166.20	82.27	61.57	17 40 9	3668.5	15.88	159.31

DIFFERENTIAL CORRECTIONS

```
TDE  .7603 TRA -.8183 TC3 -.7278 BAU  .4556
RDE  .2700 RRA -.2491 RC3 -.8284 FAU .09243
FDE 2.0960 FRA -.6388 FC3-2.5893 BSP   4804
BDE  .8068 BRA  .8554 BC3 1.1027 FSP   -990
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1412.6 SGR  996.5 SG3  316.2
RRT  .8415 RRF  .9391 RTF  .8876
SGB 1728.8 R23  .1916 R13  .9369
SG1 1667.5 SG2  456.1 THA  33.53
```

ORBIT DETERMINATION ACCURACY

```
ST   824.6 SR   290.3 SS   830.9
CRT  .9969 CRS -.9823 CST -.9751
LSA 1198.7 MSA  131.9 SSA   17.7
EL1  874.0 EL2   21.5 ALF  19.35
```

LAUNCH DATE OCT 2 1970 FLIGHT TIME 100.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 293.906

```
RL  149.74 LAL    .00 LOL   8.39 VL  28.185 GAL -10.49 AZL  85.34 HCA 137.10 SMA 135.67 ECC .20874 INC 4.6638 V1  29.758
RP  107.50 LAP   3.17 LOP 145.58 VP  38.612 GAP   1.27 AZP  93.42 TAL 230.26 TAP   7.36 RCA 107.35 APO 163.98 V2  35.251
RC  88.372 GL   23.82 GP  -43.15 ZAL 146.22 ZAP 100.06 ETS 346.71 ZAE 130.16 ETE 238.72 ZAC  55.75 ETC 254.32 CLP-103.86
```

PLANETOCENTRIC CONIC

```
C3  31.119 VHL  5.578 DLA   9.90 RAL 218.91 RAD 6568.2 VEL 12.349 PTH   2.23 VHP  4.553 DPA -52.50 RAP 196.74 ECC 1.5121
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 1 0	2635.27	-27.06	69.91	91.47	98.67	0 44 55	2035.3	-25.58	61.56
90.00	14 29 51	4654.78	14.16	197.93	85.73	65.22	15 47 26	4054.8	10.70	190.95
100.00	1 27 13	2357.16	-28.38	49.22	91.23	99.81	2 6 31	1757.2	-26.73	40.80
100.00	15 46 19	4408.13	15.36	179.20	85.14	64.04	16 59 47	3808.1	11.75	172.27
110.00	2 46 35	2108.84	-31.90	29.54	90.41	103.00	3 21 43	1508.8	-29.78	20.97
110.00	16 43 27	4229.21	18.54	163.09	83.40	60.76	17 53 56	3629.2	14.51	157.10

DIFFERENTIAL CORRECTIONS

```
TDE  .8854 TRA -.8555 TC3 -.8281 BAU  .4860
RDE  .3063 RRA -.2173 RC3 -.8239 FAU .08695
FDE 2.0763 FRA -.5435 FC3-2.4190 BSP   5261
BDE  .9376 BRA  .8826 BC3 1.1681 FSP   -952
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1573.6 SGR  998.3 SG3  301.2
RRT  .8526 RRF  .9438 RTF  .9002
SGB 1863.5 R23  .2016 R13  .9400
SG1 1807.3 SG2  454.2 THA  30.54
```

ORBIT DETERMINATION ACCURACY

```
ST   948.4 SR   325.0 SS   842.3
CRT  .9957 CRS -.9902 CST -.9787
LSA 1302.8 MSA  130.0 SSA   16.5
EL1 1002.1 EL2   28.6 ALF  18.86
```

LAUNCH DATE OCT 2 1970 FLIGHT TIME 102.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 300.256

RL	149.74	LAL	.00	LOL	8.39	VL	28.147	GAL	-10.35	AZL	84.93	HCA	140.33	SMA	135.37	ECC	.20777	INC	5.0738	V1	29.758
RP	107.51	LAP	3.24	LOP	148.83	VP	38.580	GAP	1.68	AZP	93.91	TAL	229.48	TAP	9.81	RCA	107.24	APO	163.49	V2	35.247
RC	90.641	GL	25.87	GP	-44.76	ZAL	144.32	ZAP	103.02	ETS	343.02	ZAE	127.53	ETE	235.46	ZAC	53.97	ETC	253.78	CLP	-108.49

PLANETOCENTRIC CONIC

C3	31.503	VHL	5.613	DLA	11.58	RAL	220.30	RAD	6568.3	VEL	12.364	PTH	2.23	VHP	4.712	DPA	-53.25	RAP	193.86	ECC	1.5185

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 48 52	2603.90	-27.59	74.12	93.87	96.63	24 33 46	2093.9	-26.39	65.66
90.00	14 49 10	4602.33	12.64	194.82	87.25	64.45	16 5 53	4002.3	9.10	187.93
100.00	1 20 0	2412.66	-28.95	53.24	93.67	97.77	2 0 12	1812.7	-27.58	44.71
100.00	16 4 39	4358.80	13.87	176.30	86.63	63.25	17 17 18	3758.8	10.17	169.46
110.00	2 41 30	2157.63	-32.59	33.18	92.98	100.95	3 17 27	1557.6	-30.73	24.45
110.00	16 59 39	4106.59	17.11	161.41	84.81	59.95	18 9 25	3586.6	12.99	154.73

DIFFERENTIAL CORRECTIONS

TDE	1.0261	TRA	-.0006	TC3	-.9177	BAU	.5155
RDE	.3454	RRA	-.1807	RC3	-.8099	FAU	.08080
FDE	2.0410	FRA	-.4457	FC3	-2.2204	BSP	5726
BDE	1.0826	BRA	.9048	BC3	1.2240	FSP	-906

MID-COURSE EXECUTION ACCURACY

SGT	1735.5	SGR	983.2	SG3	283.5		
RRT	.8586	RRF	.9475	RTF	.9094		
SGB	1999.6	RZ3	.2119	R13	.9423		
SG1	1947.4	SG2	453.7	THA	27.81		

ORBIT DETERMINATION ACCURACY

ST	1083.9	SR	358.2	SS	850.6		
CRT	.9939	CRS	-.9950	CST	-.9816		
LSA	1417.7	NSA	128.6	SSA	15.1		
EL1	1140.9	EL2	37.5	ALF	18.20		

LAUNCH DATE OCT 2 1970 FLIGHT TIME 104.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 306.497

RL	149.74	LAL	.00	LOL	8.39	VL	28.105	GAL	-10.19	AZL	84.46	HCA	143.56	SMA	135.04	ECC	.20685	INC	5.5436	V1	29.758
RP	107.53	LAP	3.29	LOP	152.08	VP	38.546	GAP	2.08	AZP	94.46	TAL	228.63	TAP	12.20	RCA	107.11	APO	162.98	V2	35.243
RC	92.917	GL	28.13	GP	-46.51	ZAL	142.18	ZAP	105.54	ETS	359.17	ZAE	124.83	ETE	232.59	ZAC	52.08	ETC	253.20	CLP	-112.91

PLANETOCENTRIC CONIC

C3	32.121	VHL	5.668	DLA	13.44	RAL	221.86	RAD	6568.3	VEL	12.389	PTH	2.24	VHP	4.910	DPA	-54.19	RAP	191.00	ECC	1.5286

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 39 13	2762.03	-28.03	79.06	96.67	94.19	24 25 15	2162.0	-27.15	70.90
90.00	15 11 15	4543.97	10.90	191.42	89.14	63.70	16 26 59	3944.0	7.28	184.61
100.00	1 11 31	2477.01	-29.46	57.96	96.53	95.34	1 52 48	1877.0	-28.40	49.31
100.00	16 25 34	4304.23	12.18	173.13	88.48	62.49	17 37 18	3704.2	8.40	166.38
110.00	2 35 35	2213.99	-33.23	37.45	96.00	98.50	3 12 29	1614.0	-31.70	28.56
110.00	17 18 0	4140.01	15.50	158.76	86.57	59.15	18 27 0	3540.0	11.30	152.18

DIFFERENTIAL CORRECTIONS

TDE	1.1083	TRA	-.9089	TC3	-.9925	BAU	.5432
RDE	.3828	RRA	-.1381	RC3	-.7844	FAU	.07398
FDE	1.9958	FRA	-.3452	FC3	-1.9938	BSP	6181
BDE	1.2465	BRA	.9203	BC3	1.2850	FSP	-850

MID-COURSE EXECUTION ACCURACY

SGT	1896.9	SGR	980.2	SG3	263.6		
RRT	.8605	RRF	.9502	RTF	.9161		
SGB	2135.2	RZ3	.2227	R13	.9438		
SG1	2086.4	SG2	454.0	THA	25.25		

ORBIT DETERMINATION ACCURACY

ST	1232.8	SR	390.3	SS	857.6		
CRT	.9918	CRS	-.9977	CST	-.9840		
LSA	1546.3	NSA	128.2	SSA	13.6		
EL1	1292.2	EL2	47.6	ALF	17.46		

LAUNCH DATE OCT 2 1970 FLIGHT TIME 106.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 312.709

RL	149.74	LAL	.00	LOL	8.39	VL	28.061	GAL	-10.03	AZL	83.91	HCA	146.79	SMA	134.70	ECC	.20598	INC	6.0910	V1	29.758
RP	107.54	LAP	3.33	LOP	155.33	VP	38.509	GAP	2.46	AZP	95.10	TAL	227.72	TAP	14.51	RCA	106.96	APO	162.45	V2	35.238
RC	95.197	GL	30.65	GP	-48.47	ZAL	139.79	ZAP	107.60	ETS	335.15	ZAE	122.03	ETE	230.06	ZAC	50.03	ETC	252.56	CLP	-117.13

PLANETOCENTRIC CONIC

C3	33.070	VHL	5.751	DLA	15.52	RAL	223.61	RAD	6568.3	VEL	12.427	PTH	2.25	VHP	5.154	DPA	-55.33	RAP	188.02	ECC	1.5442

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 27 29	2842.65	-28.29	84.94	99.95	91.25	24 14 52	2242.6	-27.82	76.31
90.00	15 36 55	4478.02	8.89	187.62	91.50	63.00	16 51 33	3878.0	5.20	180.88
100.00	1 1 17	2332.85	-29.80	63.57	99.89	92.41	1 43 49	1952.9	-29.15	54.82
100.00	16 49 44	4243.04	10.23	169.63	90.78	61.76	18 0 27	3643.0	6.38	162.96
110.00	2 28 28	2280.02	-33.78	42.52	99.57	95.55	3 6 28	1680.0	-32.65	33.47
110.00	17 38 2	4088.64	13.69	155.80	88.75	58.37	18 47 10	3488.6	9.40	149.41

DIFFERENTIAL CORRECTIONS

TDE	1.3712	TRA	-.9243	TC3	-1.0483	BAU	.5691
RDE	.4195	RRA	-.0881	RC3	-.7468	FAU	.06673
FDE	1.9408	FRA	-.2485	FC3	-1.7468	BSP	6635
BDE	1.4339	BRA	.9286	BC3	1.2871	FSP	-786

MID-COURSE EXECUTION ACCURACY

SGT	2057.6	SGR	959.7	SG3	241.9		
RRT	.8583	RRF	.9517	RTF	.9212		
SGB	2270.4	RZ3	.2335	R13	.9448		
SG1	2224.2	SG2	455.6	THA	22.83		

ORBIT DETERMINATION ACCURACY

ST	1396.4	SR	419.7	SS	862.2		
CRT	.9895	CRS	-.9992	CST	-.9860		
LSA	1689.0	NSA	128.6	SSA	12.0		
EL1	1456.9	EL2	58.2	ALF	16.59		

LAUNCH DATE OCT 2 1970 FLIGHT TIME 108.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 318.882

RL	149.74	LAL	.00	LOL	8.39	VL	28.013	GAL	-9.86	AZL	83.28	HCA	150.02	SMA	134.34	ECC	.20514	INC	6.7415	V1	29.758
RP	107.56	LAP	3.36	LOP	158.58	VP	38.489	GAP	2.83	AZP	95.85	TAL	226.74	TAP	16.76	RCA	106.78	APO	161.90	V2	35.232
RC	97.481	GL	35.48	GP	-50.69	ZAL	137.08	ZAP	109.16	ETS	330.92	ZAE	119.10	ETE	227.78	ZAC	47.74	ETC	251.80	CLP	-121.19

PLANETOCENTRIC CONIC

C3	34.496	VHL	5.873	DLA	17.85	RAL	225.58	RAD	6568.4	VEL	12.485	PTH	2.26	VHP	5.457	DPA	-56.70	RAP	184.74	ECC	1.5677

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 12 42	2940.15	-28.23	92.07	103.78	87.68	24 1 43	2340.1	-28.25	83.40
90.00	16 7 24	4401.82	6.51	183.29	94.49	62.38	17 20 46	3801.8	2.76	176.61
100.00	0 48 29	2843.99	-29.87	70.34	103.84	88.84	1 32 33	2044.0	-29.71	61.54
100.00	17 18 15	4173.21	7.95	165.70	93.70	61.09	18 27 48	3573.2	4.04	159.10
110.00	2 19 43	2358.54	-34.13	48.63	103.80	91.95	2 59 1	1758.5	-33.49	39.44
110.00	18 3 30	4031.42	11.02	152.74	91.50	57.62	19 10 42	3431.4	7.27	146.35

DIFFERENTIAL CORRECTIONS

TDE	1.5028	TRA	-.8849	TC3	-1.0787	BAU	.5905
RDE	.4570	RRA	-.0801	RC3	-.6929	FAU	.05809
FDE	1.8838	FRA	-.1456	FC3	-1.4779	BSP	7005
BDE	1.0568	BRA	.9254	BC3	1.2803	FSP	-706

MID-COURSE EXECUTION ACCURACY

SGT	2216.2	SGR	929.5	SG3	218.8		
RRT	.8510	RRF	.9513	RTF	.9251		
SGB	2402.8	RZ3	.2448	R13	.9452		
SG1	2358.8	SG2	458.1	THA	20.43		

ORBIT DETERMINATION ACCURACY

ST	1579.8	SR	446.6	SS	867.1		
CRT	.9867	CRS	-.9996	CST	-.9877		
LSA	1852.0	NSA	130.7	SSA	10.4		
EL1	1640.3	EL2	69.8	ALF	15.62		

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LAUNCH DATE  OCT  2 1970                          FLIGHT TIME 110.00                          ARRIVAL DATE  JAN 20 1971

 HELIOCENTRIC CONIC                                   DISTANCE 325.046
  RL  149.74 LAL     .00 LOL   8.39 VL  27.964 GAL  -9.68 AZL  82.47 HCA 153.24 SMA 133.97 ECC .20435 INC 7.5324 V1  29.758
  RP  107.58 LAP    3.36 LOP 161.83 VP  38.427 GAP   3.18 AZP  96.73 TAL 225.72 TAP  18.96 RCA 106.59 APO 161.34 V2  35.226
  RC  99.767 GL    36.65 GP  -53.25 ZAL 134.03 ZAP 110.16 ETS 326.39 ZAE 115.99 ETE 225.63 ZAC  45.14 ETC 250.85 CLP-125.18
 PLANETOCENTRIC CONIC
  C3  36.640 VHL  6.053 DLA  20.46 RAL 227.82 RAD 6568.4 VEL 12.570 PTH   2.28 VHP  5.840 DPA -58.30 RAP 180.92 ECC 1.6030
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     90.00    22 53  9   3061.68     -27.58     100.90     108.21      83.30   23 44 11    2461.7     -28.22      92.29
     90.00    16 44 50   4310.75       3.61     178.16      98.37      61.89   17 56 41    3710.7       -.18     171.53
    100.00     0 31 48   2756.23     -29.43      78.65     108.44      84.49    1 17 45    2156.2     -29.88      69.88
    100.00    17 52 48   4091.45       5.24     161.15      97.47      60.53   19  0 59    3491.4       1.27     154.60
    110.00     2  8 34   2453.49     -34.11      56.04     108.82      87.57    2 49 28    1853.5     -34.07      46.80
    110.00    18 32 31   3966.93       9.25     149.25      95.02      56.94   19 38 38    3366.9       4.83     142.95
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE 1.8553 TRA -.9160 TC3-1.0793 BAU  .6120      SGT 2376.5 SGR  889.9 SG3  195.0            ST  1778.4 SR   459.6 SS   863.9
  RDE  .4849 RRA  .0333 RC3 -.6292 FAU .05140      RRT  .8370 RRF  .9475 RTF  .9294            CRT  .9837 CRS -.9992 CST -.9894
  FDE 1.8080 FRA -.0631 FC3-1.2146 BSP   7532      SGB 2537.7 RZS  .2531 RIS  .9465            LSA 2025.5 MSA  131.8 SSA    8.9
  BDE 1.9176 BRA  .9166 BC3 1.2493 FSP   -647      SG1 2494.9 SG2  463.9 THA  18.05            EL1 1835.1 EL2   80.1 ALF  14.29

LAUNCH DATE  OCT  2 1970                          FLIGHT TIME 112.00                          ARRIVAL DATE  JAN 22 1971

 HELIOCENTRIC CONIC                                   DISTANCE 331.170
  RL  149.74 LAL     .00 LOL   8.39 VL  27.913 GAL  -9.50 AZL  81.48 HCA 156.45 SMA 133.58 ECC .20360 INC 8.5214 V1  29.758
  RP  107.60 LAP    3.39 LOP 165.07 VP  38.383 GAP   3.52 AZP  97.82 TAL 224.63 TAP  21.09 RCA 106.38 APO 160.77 V2  35.218
  RC 102.053 GL    40.22 GP  -56.23 ZAL 130.57 ZAP 110.57 ETS 321.48 ZAE 112.64 ETE 223.44 ZAC  42.15 ETC 249.60 CLP-129.20
 PLANETOCENTRIC CONIC
  C3  39.906 VHL  6.317 DLA  23.41 RAL 230.40 RAD 6568.5 VEL 12.699 PTH   2.31 VHP  6.335 DPA -60.08 RAP 176.18 ECC 1.6567
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     90.00    22 25  3   3221.24     -25.80     112.23     113.17      77.90   23 18 44    2621.2     -27.21     103.85
     90.00    17 33 30   4194.33       -.14     171.66     103.58      61.68   18 43 24    3594.3       -3.93     165.03
    100.00     0  8 41   2899.81     -28.03      89.09     113.68      79.17    0 57  1    2299.8     -29.24      80.49
    100.00    18 36 30   3991.00       1.85     155.61     102.47      60.16   19 43  1    3391.0       -2.13     149.09
    110.00     1 53 51   2570.75     -33.40      65.12     114.70      82.24    2 36 42    1970.8     -34.11      55.95
    110.00    19  7 48   3892.82       6.47     145.31      99.61      56.36   20 12 41    3292.8       2.01     139.07
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE 2.1876 TRA -.8848 TC3-1.0403 BAU  .6262      SGT 2535.5 SGR  832.1 SG3  170.4            ST  2001.8 SR   457.6 SS   860.3
  RDE  .5026 RRA  .1129 RC3 -.5438 FAU .04346      RRT  .8105 RRF  .9567 RTF  .9335            CRT  .9788 CRS -.9973 CST -.9909
  FDE 1.7325 FRA  .0186 FC3 -.9428 BSP   7960      SGB 2668.6 RZS  .2610 RIS  .9475            LSA 2222.3 MSA  134.6 SSA    7.4
  BDE 2.2446 BRA  .8920 BC3 1.1738 FSP   -570      SG1 2626.8 SG2  470.4 THA  15.40            EL1 2051.4 EL2   91.4 ALF  12.64

LAUNCH DATE  OCT  2 1970                          FLIGHT TIME 114.00                          ARRIVAL DATE  JAN 24 1971

 HELIOCENTRIC CONIC                                   DISTANCE 337.264
  RL  149.74 LAL     .00 LOL   8.39 VL  27.860 GAL  -9.30 AZL  80.20 HCA 159.66 SMA 133.18 ECC .20287 INC 9.8019 V1  29.758
  RP  107.63 LAP    3.39 LOP 168.32 VP  38.337 GAP   3.85 AZP  99.20 TAL 223.50 TAP  23.16 RCA 106.16 APO 160.20 V2  35.211
  RC 104.339 GL    44.23 GP  -59.72 ZAL 126.64 ZAP 110.30 ETS 315.97 ZAE 108.93 ETE 220.95 ZAC  38.66 ETC 247.83 CLP-133.48
 PLANETOCENTRIC CONIC
  C3  45.029 VHL  6.710 DLA  26.89 RAL 233.41 RAD 6568.7 VEL 12.899 PTH   2.35 VHP  6.998 DPA -61.95 RAP 170.00 ECC 1.7411
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     90.00    21 35 22   3462.95     -21.34     128.52     118.01      70.93   22 33  5    2863.0     -23.75     120.67
     90.00    18 47 13   4013.51      -5.95     161.54     111.19      62.26   19 54  7    3413.5      -9.61     154.78
    100.00    23 28 19   3098.84     -24.71     102.93     119.22      72.62   24 19 58    2498.8     -26.86      84.79
    100.00    19 36 58   3852.86      -2.83     148.03     109.47      60.23   20 41 10    3252.9      -6.77     141.46
    110.00     1 33 20   2719.97     -31.46      76.32     121.38      75.89    2 18 40    2120.0     -33.08      67.47
    110.00    19 52 22   3804.49       3.12     140.87     105.77      55.94   20 55 47    3204.5      -1.37     134.46
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE 2.6204 TRA -.8230 TC3 -.9538 BAU  .6318      SGT 2695.0 SGR  748.9 SG3  145.5            ST  2250.1 SR   422.6 SS   854.0
  RDE  .4894 RRA  .2121 RC3 -.4377 FAU .03542      RRT  .7560 RRF  .9077 RTF  .9384            CRT  .9687 CRS -.9919 CST -.9923
  FDE 1.6538 FRA  .0928 FC3 -.6810 BSP   8341      SGB 2797.1 RZS  .2666 RIS  .9491            LSA 2439.6 MSA  138.4 SSA    6.0
  BDE 2.6657 BRA  .8499 BC3 1.0495 FSP   -489      SG1 2755.9 SG2  478.7 THA  12.25            EL1 2287.1 EL2  103.2 ALF  10.33

LAUNCH DATE  OCT  2 1970                          FLIGHT TIME 116.00                          ARRIVAL DATE  JAN 26 1971

 HELIOCENTRIC CONIC                                   DISTANCE 343.323
  RL  149.74 LAL     .00 LOL   8.39 VL  27.805 GAL  -9.09 AZL  78.46 HCA 162.85 SMA 132.78 ECC .20217 INC11.5358 V1  29.758
  RP  107.65 LAP    3.38 LOP 171.56 VP  38.290 GAP   4.16 AZP 101.04 TAL 222.31 TAP  25.16 RCA 105.93 APO 159.62 V2  35.202
  RC 106.824 GL    48.67 GP  -63.80 ZAL 122.20 ZAP 109.31 ETS 309.45 ZAE 104.74 ETE 217.62 ZAC  34.52 ETC 245.15 CLP-138.49
 PLANETOCENTRIC CONIC
  C3  53.467 VHL  7.312 DLA  30.30 RAL 237.00 RAD 6568.9 VEL 13.222 PTH   2.42 VHP  7.926 DPA -63.66 RAP 161.68 ECC 1.8799
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     78.76    18 54 58   4073.13     -13.91     170.11     121.94      62.81   20  2 51    3473.1     -17.44     163.07
    101.24    21 56 15   3499.08     -13.89     127.09     121.93      62.81   22 54 25    2899.1     -17.43     120.06
     78.76    18 54 58   4073.13     -13.91     170.11     121.94      62.81   20  2 51    3473.1     -17.44     163.07
    101.24    21 56 15   3499.08     -13.89     127.09     121.93      62.81   22 54 25    2899.1     -17.43     120.06
    110.00     1  1 28   2921.40     -27.24      90.46     128.36      68.50    1 50  7    2321.4     -29.91      82.29
    110.00    20 52 54   3688.80      -1.30     134.63     114.42      55.84   21 54 23    3088.8      -5.77     128.40
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE 3.2004 TRA -.7175 TC3 -.8178 BAU  .6263      SGT 2853.6 SGR  631.4 SG3  121.0            ST  2515.6 SR   321.2 SS   843.0
  RDE  .3988 RRA  .3353 RC3 -.3144 FAU .02768      RRT  .6235 RRF  .8182 RTF  .9455            CRT  .9334 CRS -.9874 CST -.9938
  FDE 1.5698 FRA  .1521 FC3 -.4481 BSP   8819      SGB 2922.6 RZS  .2671 RIS  .9522            LSA 2668.7 MSA  142.3 SSA    4.8
  BDE 3.2244 BRA  .7918 BC3  .8762 FSP   -415      SG1 2881.5 SG2  488.9 THA   8.09            EL1 2535.5 EL2  114.5 ALF   6.81
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LAUNCH DATE OCT 2 1970 FLIGHT TIME 118.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 349.340

RL 149.74 LAL .00 LOL 0.30 VL 27.749 GAL -0.07 AZL 75.97 HCA 166.02 SHA 132.37 ECC .20148 INC14.0294 V1 29.758
RP 107.68 LAP 3.36 LOP 174.81 VP 38.241 GAP 4.45 AZP 103.63 TAL 221.07 TAP 27.09 RCA 105.70 APO 159.03 V2 35.193
RC 108.906 GL 53.46 GP -68.54 ZAL 117.21 ZAP 107.52 ETS 300.90 ZAE 99.87 ETE 212.30 ZAC 29.57 ETC 240.67 CLP-145.36

PLANETOCENTRIC CONIC

C3 68.431 VHL 8.272 DLA 34.09 RAL 241.37 RAD 6560.3 VEL 13.776 PTH 2.52 VHP 9.309 DPA -64.72 RAP 150.52 ECC 2.1262

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
70.17	18 14 34	4313.74	-13.37	188.12	130.83	58.34	19 26 28	3713.7	-17.46	181.40
109.83	23 11 34	3360.37	-13.36	117.60	130.82	58.34	24 7 43	2768.4	-17.45	110.89
70.17	18 14 34	4313.74	-13.37	188.12	130.83	58.34	19 26 28	3713.7	-17.46	181.40
109.83	23 11 34	3360.37	-13.36	117.60	130.82	58.34	24 7 43	2768.4	-17.45	110.89
110.00	23 31 28	3307.72	-15.43	114.17	132.12	59.11	24 26 36	2707.7	-19.41	107.31
110.00	22 53 51	3422.30	-11.32	120.51	129.51	57.53	23 50 54	2822.4	-15.53	113.93

DIFFERENTIAL CORRECTIONS
TDE 4.0199 TRA -.5146 TC3 -.6227 BAU .5920
RDE .0782 RRA .4980 RC3 -.1759 FAU .01884
FDE 1.4991 FRA .2087 FC3 -.2523 BSP 9146
BDE 4.0207 BRA .7147 BC3 .6471 FSP -335

MID-COURSE EXECUTION ACCURACY
SGT 2999.8 SGR 509.6 SGS 97.8
RRT .1780 RRF .4522 RTF .9558
SGB 3042.8 RZS .2814 R13 .9571
SG1 3001.2 SG2 501.3 THA 1.78

ORBIT DETERMINATION ACCURACY
ST 2787.5 SR 136.0 SS 836.2
CRT .3561 CRS -.4441 CST -.9954
LSA 2909.6 MSA 148.2 SSA 3.6
EL1 2787.9 EL2 127.1 ALF 1.00

LAUNCH DATE OCT 2 1970 FLIGHT TIME 120.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 355.296

RL 149.74 LAL .00 LOL 0.30 VL 27.682 GAL -0.64 AZL 72.07 HCA 169.14 SHA 131.95 ECC .20075 INC17.9327 V1 29.758
RP 107.71 LAP 3.32 LOP 178.05 VP 38.191 GAP 4.72 AZP 107.63 TAL 219.77 TAP 28.92 RCA 105.46 APO 158.44 V2 35.184
RC 111.186 GL 58.29 GP -73.86 ZAL 111.68 ZAP 104.89 ETS 287.42 ZAE 93.97 ETE 201.95 ZAC 23.54 ETC 232.19 CLP-157.57

PLANETOCENTRIC CONIC

C3 98.192 VHL 9.909 DLA 37.73 RAL 246.85 RAD 6500.9 VEL 14.817 PTH 2.68 VHP 11.551 DPA -64.24 RAP 136.52 ECC 2.6160

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.96	18 2 5	4498.22	-11.37	201.45	141.81	53.78	19 17 4	3098.2	-16.01	195.16
116.04	0 11 40	3347.85	-11.35	114.58	141.79	53.78	1 7 28	2747.8	-15.99	108.29
63.96	18 2 5	4498.22	-11.37	201.45	141.81	53.78	19 17 4	3098.2	-16.01	195.16
116.04	0 11 40	3347.85	-11.35	114.58	141.79	53.78	1 7 28	2747.8	-15.99	108.29
63.96	18 2 5	4498.22	-11.37	201.45	141.81	53.78	19 17 4	3098.2	-16.01	195.16
116.04	0 11 40	3347.85	-11.35	114.58	141.79	53.78	1 7 28	2747.8	-15.99	108.29

DIFFERENTIAL CORRECTIONS
TDE 5.1440 TRA -.1053 TC3 -.3798 BAU .5023
RDE -.0980 RRA .6660 RC3 -.0469 FAU .01249
FDE 1.4626 FRA .2577 FC3 -.1101 BSP 9492
BDE 5.2228 BRA .6763 BC3 .3826 FSP -265

MID-COURSE EXECUTION ACCURACY
SGT 3069.5 SGR 719.2 SGS 77.2
RRT -.6857 RRF -.5093 RTF .9719
SGB 3152.7 RZS -.2425 R13 -.9656
SG1 3110.0 SG2 516.7 THA 170.61

ORBIT DETERMINATION ACCURACY
ST 2975.0 SR 540.0 SS 845.9
CRT -.9645 CRS .9422 CST -.9972
LSA 3135.8 MSA 155.7 SSA 2.5
EL1 3020.3 EL2 140.5 ALF 170.05

LAUNCH DATE OCT 2 1970 FLIGHT TIME 122.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 361.143

RL 149.74 LAL .00 LOL 0.30 VL 27.635 GAL -0.37 AZL 65.13 HCA 172.18 SHA 131.53 ECC .19987 INC24.8717 V1 29.758
RP 107.74 LAP 3.28 LOP 181.28 VP 38.140 GAP 4.96 AZP 114.67 TAL 218.39 TAP 30.57 RCA 105.24 APO 157.82 V2 35.174
RC 113.462 GL 62.14 GP -78.43 ZAL 105.73 ZAP 101.47 ETS 280.71 ZAE 86.27 ETE 178.09 ZAC 15.97 ETC 214.99 CLP 172.56

PLANETOCENTRIC CONIC

C3 169.159 VHL 13.006 DLA 40.21 RAL 253.82 RAD 6570.8 VEL 17.044 PTH 2.93 VHP 15.651 DPA -60.74 RAP 121.52 ECC 3.7839

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.16	18 11 42	4655.38	-7.48	211.48	154.90	50.37	19 29 18	4055.4	-12.53	205.59
119.84	0 57 41	3400.74	-7.47	119.92	154.89	50.37	1 54 22	2800.7	-12.52	110.04
60.16	18 11 42	4655.38	-7.48	211.48	154.90	50.37	19 29 18	4055.4	-12.53	205.59
119.84	0 57 41	3400.74	-7.47	119.92	154.89	50.37	1 54 22	2800.7	-12.52	110.04
60.16	18 11 42	4655.38	-7.48	211.48	154.90	50.37	19 29 18	4055.4	-12.53	205.59
119.84	0 57 41	3400.74	-7.47	119.92	154.89	50.37	1 54 22	2800.7	-12.52	110.04

DIFFERENTIAL CORRECTIONS
TDE 6.0314 TRA .7932 TC3 -.1192 BAU .2809
RDE-3.9507 RRA .5316 RC3 .0050 FAU .00442
FDE 1.5314 FRA .3351 FC3 -.0226 BSP 9782
BDE 7.2102 BRA .9540 BC3 .1194 FSP -207

MID-COURSE EXECUTION ACCURACY
SGT 2713.9 SGR 1767.3 SGS 60.8
RRT -.9557 RRF -.8064 RTF .9937
SGB 3230.6 RZS -.1981 R13 -.9784
SG1 3195.0 SG2 529.4 THA 147.65

ORBIT DETERMINATION ACCURACY
ST 2660.6 SR 1742.8 SS 915.6
CRT -.9945 CRS .9904 CST -.9994
LSA 3305.8 MSA 162.7 SSA 1.6
EL1 3177.0 EL2 152.2 ALF 146.83

LAUNCH DATE OCT 2 1970 FLIGHT TIME 124.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 366.717

RL 149.74 LAL .00 LOL 0.30 VL 27.576 GAL -0.05 AZL 50.11 HCA 174.96 SHA 131.11 ECC .19846 INC30.8904 V1 29.758
RP 107.77 LAP 3.23 LOP 184.52 VP 38.088 GAP 5.11 AZP 129.78 TAL 216.83 TAP 31.79 RCA 105.09 APO 157.13 V2 35.164
RC 115.736 GL 61.71 GP -74.86 ZAL 99.74 ZAP 97.49 ETS 216.49 ZAE 74.45 ETE 136.50 ZAC 8.04 ETC 218.86 CLP 119.92

PLANETOCENTRIC CONIC

C3 395.460 VHL 19.886 DLA 38.60 RAL 262.44 RAD 6572.1 VEL 22.732 PTH 3.27 VHP 24.588 DPA -51.49 RAP 109.01 ECC 7.5083

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.60	18 57 32	4735.44	-2.47	214.11	160.36	51.47	20 16 28	4135.4	-7.43	208.22
117.40	1 20 36	3546.01	-2.46	124.02	160.34	51.47	2 19 42	2946.0	-7.42	118.14
62.60	18 57 32	4735.44	-2.47	214.11	160.36	51.47	20 16 28	4135.4	-7.43	208.22
117.40	1 20 36	3546.01	-2.46	124.02	160.34	51.47	2 19 42	2946.0	-7.42	118.14
62.60	18 57 32	4735.44	-2.47	214.11	160.36	51.47	20 16 28	4135.4	-7.43	208.22
117.40	1 20 36	3546.01	-2.46	124.02	160.34	51.47	2 19 42	2946.0	-7.42	118.14

DIFFERENTIAL CORRECTIONS
TDE 3.0848 TRA 1.6993 TC3 -.0020 BAU .6295
RD-10.3102 RRA-1.4024 RC3 -.1190 FAU-.00950
FDE 1.6063 FRA .5551 FC3 .0210 BSP 9496
BDE10.7532 BRA 2.5097 BC3 .1191 FSP -163

MID-COURSE EXECUTION ACCURACY
SGT 1110.1 SGR 3052.2 SGS 50.7
RRT -.8732 RRF -.9827 RTF .9455
SGB 3247.8 RZS -.1275 R13 -.9908
SG1 3206.7 SG2 514.9 THA 108.10

ORBIT DETERMINATION ACCURACY
ST 903.2 SR 2974.6 SS 1161.9
CRT -.9848 CRS .9982 CST -.9935
LSA 3315.0 MSA 158.3 SSA 1.6
EL1 3105.1 EL2 150.3 ALF 106.69

LAUNCH DATE OCT 2 1970 FLIGHT TIME 126.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 371.272

```
RL  149.74 LAL    .00 LOL   8.39 VL  27.517 GAL  -7.52 AZL  11.32 HCA 176.77 SMA 130.69 ECC .19487 INC78.6780 V1  29.758
RP  107.80 LAP   3.16 LOP 187.75 VP  38.036 GAP   4.98 AZP 168.66 TAL 214.64 TAP  31.42 RCA 105.23 APO 156.16 V2  35.153
RC 118.005 GL   47.40 GP  -53.79 ZAL  94.90 ZAP  93.80 ETS 190.20 ZAE  51.66 ETE 114.34 ZAC  23.76 ETC 268.14 CLP  96.58
```

PLANETOCENTRIC CONIC

```
C3 1320.424 VHL 36.338 DLA  23.96 RAL 270.85 RAD 6573.1 VEL 37.970 PTH   3.54 VHP 45.839 DPA -29.45 RAP 102.73 ECC22.7308
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 1 52	3759.29	-13.69	146.88	188.40	64.97	2 4 32	3159.3	-16.95	139.72
90.00	20 23 20	4672.95	14.67	199.01	175.50	65.51	21 41 13	4072.9	11.25	192.01
100.00	2 42 54	3433.54	-16.28	124.18	189.66	64.58	3 40 8	2833.5	-19.57	116.93
100.00	21 24 59	4473.93	17.28	183.14	174.26	65.22	22 39 33	3873.9	13.80	176.08
110.00	4 30 6	3098.16	-22.32	101.83	192.78	63.41	5 21 44	2498.2	-25.70	94.31
110.00	21 54 16	4382.08	23.36	173.13	171.21	64.30	23 7 18	3782.1	19.71	165.90

DIFFERENTIAL CORRECTIONS

```
TDE-3.5979 TRA 1.5814 TC3 -.0664 BAU 3.5209
RD-13.0023 RRA-5.7756 RC3 -.1881 FAU-.05666
FDE 2.6156 FRA 1.3465 FC3  .0372 BSP  8521
BDE14.0701 BRA 5.9882 BC3  .1994 FSP  -151
```

MID-COURSE EXECUTION ACCURACY

```
SGT  793.1 SGR 2731.6 SG3   47.1
RRT  .7405 RRF -.9977 RTF -.6960
SGB 2844.4 R23 -.1050 R13 -.9942
SG1 2796.3 SG2  520.7 THA  77.42
```

ORBIT DETERMINATION ACCURACY

```
ST   573.4 SR  2165.9 SS  1656.8
CRT  .9606 CRS  .9996 CST  .9521
LSA 2781.6 MSA  166.5 SSA    1.5
EL1 2235.2 EL2  154.5 ALF  75.66
```

LAUNCH DATE OCT 2 1970 FLIGHT TIME 128.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 381.391

```
RL  149.74 LAL    .00 LOL   8.39 VL  27.458 GAL  -8.11 AZL 139.97 HCA 184.03 SMA 130.27 ECC .20443 INC49.9663 V1  29.758
RP  107.84 LAP   3.09 LOP 190.99 VP  37.982 GAP   6.42 AZP  40.10 TAL 215.55 TAP  39.58 RCA 103.64 APO 156.91 V2  35.141
RC 120.271 GL  -58.56 GP   67.45 ZAL  97.96 ZAP  97.28 ETS 169.14 ZAE  73.96 ETE 246.92 ZAC 145.59 ETC 266.31 CLP 109.30
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PLANETOCENTRIC CONIC

```
C3 595.110 VHL 24.395 DLA -81.39 RAL 244.85 RAD 6572.5 VEL 26.766 PTH   3.39 VHP 31.898 DPA  80.72 RAP 210.12 ECC10.7940
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
9.80	3 18 32	2431.96	1.60	84.37	154.60	171.38	3 59 4	1832.0	9.50	83.58
170.20	14 39 18	630.15	1.60	281.26	154.62	171.38	14 49 48	30.1	9.51	280.47
9.80	3 18 32	2431.96	1.60	84.37	154.60	171.38	3 59 4	1832.0	9.50	83.58
170.20	14 39 18	630.15	1.60	281.26	154.62	171.38	14 49 48	30.1	9.51	280.47
9.80	3 18 32	2431.96	1.60	84.37	154.60	171.38	3 59 4	1832.0	9.50	83.58
170.20	14 39 18	630.15	1.60	281.26	154.62	171.38	14 49 48	30.1	9.51	280.47

DIFFERENTIAL CORRECTIONS

```
TDE 2.4119 TRA  .3827 TC3 -.0500 BAU 1.4205
RD-12.9880 RRA -.2423 RC3  .1714 FAU-.01847
FDE-2.5449 FRA -.0195 FC3  .0269 BSP  10310
BDE13.2100 BRA  .4361 BC3  .1785 FSP  -169
```

MID-COURSE EXECUTION ACCURACY

```
SGT  839.0 SGR 3185.7 SG3   52.9
RRT -.8037 RRF  .9963 RTF -.7548
SGB 3294.4 R23 -.1095 R13  .9932
SG1 3258.0 SG2  488.2 THA 102.23
```

ORBIT DETERMINATION ACCURACY

```
ST   591.7 SR  3052.7 SS  1647.5
CRT -.9676 CRS -.9998 CST  .9618
LSA 3515.7 MSA  153.5 SSA    1.8
EL1 3106.0 EL2  146.8 ALF 100.65
```

LAUNCH DATE OCT 2 1970 FLIGHT TIME 130.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 386.650

```
RL  149.74 LAL    .00 LOL   8.39 VL  27.398 GAL  -7.71 AZL 117.33 HCA 186.55 SMA 129.86 ECC .20254 INC27.3339 V1  29.758
RP  107.87 LAP   3.00 LOP 194.21 VP  37.928 GAP   6.48 AZP  62.82 TAL 213.78 TAP  40.34 RCA 103.55 APO 156.16 V2  35.130
RC 122.531 GL  -62.57 GP   75.84 ZAL 103.08 ZAP 102.56 ETS 117.78 ZAE  89.54 ETE 196.80 ZAC 158.60 ETC 253.69 CLP 152.78
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PLANETOCENTRIC CONIC

```
C3 197.281 VHL 14.046 DLA -80.18 RAL 194.02 RAD 6571.1 VEL 17.849 PTH   3.00 VHP 18.702 DPA  66.62 RAP 242.69 ECC 4.2467
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
11.17	23 54 30	2308.41	9.77	82.75	102.30	170.04	24 32 58	1708.4	17.65	81.72
168.83	11 13 52	5797.78	9.78	258.88	102.33	170.04	12 50 30	5197.8	17.65	257.84
11.17	23 54 30	2308.41	9.77	82.75	102.30	170.04	24 32 58	1708.4	17.65	81.72
168.83	11 13 52	5797.78	9.78	258.88	102.33	170.04	12 50 30	5197.8	17.65	257.84
11.17	23 54 30	2308.41	9.77	82.75	102.30	170.04	24 32 58	1708.4	17.65	81.72
168.83	11 13 52	5797.78	9.78	258.88	102.33	170.04	12 50 30	5197.8	17.65	257.84

DIFFERENTIAL CORRECTIONS

```
TDE-3.5038 TRA -.8383 TC3 -.0511 BAU  .1348
RDE-2.1741 RRA-1.0293 RC3  .0019 FAU .00584
FDE-1.0257 FRA -.2487 FC3 -.0256 BSP  11080
BDE 4.1235 BRA 1.3275 BC3  .0511 FSP  -204
```

MID-COURSE EXECUTION ACCURACY

```
SGT 2466.8 SGR 2617.2 SG3   63.1
RRT  .9611 RRF  .9596 RTF  .9992
SGB 3596.5 R23 -.1501 R13  .9878
SG1 3561.5 SG2  500.8 THA  46.76
```

ORBIT DETERMINATION ACCURACY

```
ST  1550.7 SR  1154.2 SS   735.0
CRT  .9565 CRS -.9579 CST-1.0000
LSA 2048.9 MSA  281.3 SSA    1.4
EL1 1913.8 EL2  272.9 ALF  36.30
```

LAUNCH DATE OCT 2 1970 FLIGHT TIME 132.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 392.336

```
RL  149.74 LAL    .00 LOL   8.39 VL  27.330 GAL  -7.39 AZL 107.90 HCA 189.50 SMA 129.44 ECC .20183 INC17.9041 V1  29.758
RP  107.91 LAP   2.91 LOP 197.44 VP  37.874 GAP   6.66 AZP  72.35 TAL 212.22 TAP  41.72 RCA 103.32 APO 155.57 V2  35.118
RC 124.786 GL  -59.15 GP   71.48 ZAL 108.13 ZAP 108.45 ETS  77.51 ZAE  98.67 ETE 158.08 ZAC 161.61 ETC 221.20 CLP-175.06
```

PLANETOCENTRIC CONIC

```
C3  94.238 VHL  9.708 DLA -75.04 RAL 195.73 RAD 6569.8 VEL 14.683 PTH   2.66 VHP 13.192 DPA  56.01 RAP 244.72 ECC 2.5509
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.05	0 16 53	2160.25	18.70	76.97	100.53	164.19	0 52 53	1560.2	26.38	74.96
162.95	11 9 0	5668.02	18.70	258.86	100.55	164.19	12 43 28	5068.0	26.38	256.85
17.05	0 16 53	2160.25	18.70	76.97	100.53	164.19	0 52 53	1560.2	26.38	74.96
162.95	11 9 0	5668.02	18.70	258.86	100.55	164.19	12 43 28	5068.0	26.38	256.85
17.05	0 16 53	2160.25	18.70	76.97	100.53	164.19	0 52 53	1560.2	26.38	74.96
162.95	11 9 0	5668.02	18.70	258.86	100.55	164.19	12 43 28	5068.0	26.38	256.85

DIFFERENTIAL CORRECTIONS

```
TDE-2.6980 TRA-1.4083 TC3 -.4190 BAU  .5280
RDE  .4741 RRA -.2499 RC3  .0065 FAU .01666
FDE -.8982 FRA -.3065 FC3 -.1530 BSP  11570
BDE 2.7393 BRA 1.4313 BC3  .4191 FSP  -262
```

MID-COURSE EXECUTION ACCURACY

```
SGT 3685.8 SGR  636.5 SG3   80.2
RRT  .5909 RRF  .4209 RTF  .9783
SGB 3740.4 R23 -.2088 R13  .9754
SG1 3705.3 SG2  510.8 THA   5.94
```

ORBIT DETERMINATION ACCURACY

```
ST  1863.1 SR   328.2 SS   650.1
CRT -.4576 CRS  .5999 CST -.9859
LSA 1976.8 MSA  305.9 SSA    2.1
EL1 1869.3 EL2  290.8 ALF 175.28
```

LAUNCH DATE OCT 2 1970 FLIGHT TIME 134.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 398.143

RL 149.74 LAL .00 LOL 8.39 VL 27.278 GAL -7.09 AZL 102.99 HCA 192.59 SMA 129.03 ECC .20153 INC12.9861 V1 29.758
RP 107.95 LAP 2.81 LOP 200.66 VP 37.819 GAP 6.87 AZP 77.32 TAL 210.69 TAP 43.28 RCA 103.02 APO 155.03 V2 35.105
RC 127.036 GL -53.92 GP 64.69 ZAL 112.43 ZAP 114.27 ETS 65.82 ZAE 105.16 ETE 148.61 ZAC 159.28 ETC 232.14 CLP-164.03

PLANETOCENTRIC CONIC

C3 56.650 VHL 7.527 DLA -70.08 RAL 203.67 RAD 6560.0 VEL 13.342 PTH 2.44 VHP 10.465 DPA 47.42 RAP 244.54 ECC 1.9323

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
22.77	1 0 28	2028.34	25.69	69.68	103.62	157.79	1 34 16	1428.3	33.06	66.50
157.23	11 28 47	5562.38	25.70	257.43	103.64	157.79	13 1 30	4962.4	33.06	254.25
22.77	1 0 28	2028.34	25.69	69.68	103.62	157.79	1 34 16	1428.3	33.06	66.50
157.23	11 28 47	5562.38	25.70	257.43	103.64	157.79	13 1 30	4962.4	33.06	254.25
22.77	1 0 28	2028.34	25.69	69.68	103.62	157.79	1 34 16	1428.3	33.06	66.50
157.23	11 28 47	5562.38	25.70	257.43	103.64	157.79	13 1 30	4962.4	33.06	254.25

DIFFERENTIAL CORRECTIONS
TDE-2.2767 TRA-1.3680 TC3 -.9009 BAU .6094
RDE .7044 RRA -.0171 RC3 .1301 FAU .02416
FDE -.9407 FRA -.3104 FC3 -.3692 BSP 11573
BDE 2.3832 BRA 1.3681 BC3 .9102 FSP -313

MID-COURSE EXECUTION ACCURACY
SGT 3766.6 SGR 572.2 SG3 98.6
RRT -.5002 RRF -.7140 RTF .9572
SGB 3809.8 RZS .2620 R13 -.9599
SG1 3777.8 SG2 494.0 THA 175.58

ORBIT DETERMINATION ACCURACY
ST 1961.2 SR 536.4 SS 674.4
CRT -.8737 CRS .9540 CST -.9793
LSA 2124.3 MSA 276.7 SSA 3.0
EL1 2017.4 EL2 253.7 ALF 166.34

LAUNCH DATE OCT 2 1970 FLIGHT TIME 136.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 403.989

RL 149.74 LAL .00 LOL 8.39 VL 27.218 GAL -6.80 AZL 99.99 HCA 195.72 SMA 128.62 ECC .20147 INC 9.9936 V1 29.758
RP 107.99 LAP 2.70 LOP 203.88 VP 37.764 GAP 7.09 AZP 80.37 TAL 209.18 TAP 44.90 RCA 102.71 APO 154.53 V2 35.093
RC 129.278 GL -48.46 GP 58.14 ZAL 115.77 ZAP 119.76 ETS 61.24 ZAE 110.14 ETE 146.77 ZAC 154.99 ETC 241.12 CLP-160.11

PLANETOCENTRIC CONIC

C3 39.263 VHL 6.266 DLA -65.37 RAL 211.03 RAD 6560.5 VEL 12.674 PTH 2.30 VHP 8.940 DPA 40.05 RAP 244.29 ECC 1.6462

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.26	1 41 59	1919.70	30.29	61.60	105.48	151.14	2 13 59	1319.7	37.21	57.18
151.74	11 46 0	5487.67	30.30	255.29	105.50	151.14	13 17 27	4887.7	37.22	250.87
28.26	1 41 59	1919.70	30.29	61.60	105.48	151.14	2 13 59	1319.7	37.21	57.18
151.74	11 46 0	5487.67	30.30	255.29	105.50	151.14	13 17 27	4887.7	37.22	250.87
28.26	1 41 59	1919.70	30.29	61.60	105.48	151.14	2 13 59	1319.7	37.21	57.18
151.74	11 46 0	5487.67	30.30	255.29	105.50	151.14	13 17 27	4887.7	37.22	250.87

DIFFERENTIAL CORRECTIONS
TDE-2.0313 TRA-1.2979 TC3-1.4659 BAU .7815
RDE .6583 RRA .0361 RC3 .2800 FAU .03070
FDE -.9587 FRA -.2964 FC3 -.6768 BSP 12103
BDE 2.1353 BRA 1.2964 BC3 1.4887 FSP -388

MID-COURSE EXECUTION ACCURACY
SGT 3864.3 SGR 609.0 SG3 119.4
RRT -.7295 RRF -.8983 RTF .9432
SGB 3925.2 RZS .2924 R13 -.9479
SG1 3897.3 SG2 487.3 THA 172.48

ORBIT DETERMINATION ACCURACY
ST 2045.2 SR 602.4 SS 693.9
CRT -.9243 CRS .9839 CST -.9776
LSA 2227.9 MSA 252.3 SSA 3.9
EL1 2120.5 EL2 221.8 ALF 164.60

LAUNCH DATE OCT 2 1970 FLIGHT TIME 138.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 409.848

RL 149.74 LAL .00 LOL 8.39 VL 27.158 GAL -6.50 AZL 97.98 HCA 198.88 SMA 128.21 ECC .20157 INC 7.9805 V1 29.758
RP 108.03 LAP 2.58 LOP 207.10 VP 37.709 GAP 7.32 AZP 82.44 TAL 207.66 TAP 46.54 RCA 102.37 APO 154.06 V2 35.080
RC 131.513 GL -43.28 GP 52.27 ZAL 118.13 ZAP 124.77 ETS 58.74 ZAE 114.02 ETE 147.34 ZAC 150.41 ETC 246.75 CLP-158.75

PLANETOCENTRIC CONIC

C3 29.865 VHL 5.465 DLA -61.00 RAL 217.32 RAD 6560.2 VEL 12.298 PTH 2.22 VHP 8.023 DPA 35.63 RAP 244.30 ECC 1.4915

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.41	2 19 20	1830.33	32.91	53.42	106.29	144.73	2 49 50	1230.3	39.30	47.87
146.59	11 58 49	5439.08	32.91	253.09	106.30	144.73	13 29 28	4839.1	39.31	247.54
33.41	2 19 20	1830.33	32.91	53.42	106.29	144.73	2 49 50	1230.3	39.30	47.87
146.59	11 58 49	5439.08	32.91	253.09	106.30	144.73	13 29 28	4839.1	39.31	247.54
33.41	2 19 20	1830.33	32.91	53.42	106.29	144.73	2 49 50	1230.3	39.30	47.87
146.59	11 58 49	5439.08	32.91	253.09	106.30	144.73	13 29 28	4839.1	39.31	247.54

DIFFERENTIAL CORRECTIONS
TDE-1.8244 TRA-1.2175 TC3-2.0679 BAU .8384
RDE .5694 RRA .0377 RC3 .3655 FAU .03582
FDE -.9306 FRA -.2580 FC3-1.0383 BSP 12520
BDE 1.9112 BRA 1.2181 BC3 2.0999 FSP -453

MID-COURSE EXECUTION ACCURACY
SGT 3962.3 SGR 722.9 SG3 138.1
RRT -.7888 RRF -.9362 RTF .9327
SGB 4027.7 RZS .3111 R13 -.9378
SG1 4003.7 SG2 439.7 THA 171.71

ORBIT DETERMINATION ACCURACY
ST 2070.5 SR 597.6 SS 686.7
CRT -.9391 CRS .9915 CST -.9757
LSA 2249.5 MSA 235.5 SSA 5.1
EL1 2145.9 EL2 198.1 ALF 164.70

LAUNCH DATE OCT 2 1970 FLIGHT TIME 140.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 415.708

RL 149.74 LAL .00 LOL 8.39 VL 27.098 GAL -6.19 AZL 96.53 HCA 202.06 SMA 127.81 ECC .20180 INC 6.5291 V1 29.758
RP 108.07 LAP 2.45 LOP 210.32 VP 37.654 GAP 7.55 AZP 83.95 TAL 206.13 TAP 48.18 RCA 102.02 APO 153.60 V2 35.067
RC 133.740 GL -38.51 GP 47.12 ZAL 119.56 ZAP 129.27 ETS 57.05 ZAE 117.04 ETE 148.84 ZAC 146.11 ETC 250.38 CLP-158.47

PLANETOCENTRIC CONIC

C3 24.205 VHL 4.920 DLA -57.03 RAL 222.79 RAD 6560.0 VEL 12.066 PTH 2.16 VHP 7.448 DPA 28.01 RAP 244.63 ECC 1.3984

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.18	2 53 25	1754.92	34.11	45.61	106.71	138.91	3 22 40	1154.9	39.95	39.17
141.82	12 8 22	5410.17	34.12	251.24	106.73	138.90	13 38 32	4810.2	39.97	244.80
38.18	2 53 25	1754.92	34.11	45.61	106.71	138.91	3 22 40	1154.9	39.95	39.17
141.82	12 8 22	5410.17	34.12	251.24	106.73	138.90	13 38 32	4810.2	39.97	244.80
38.18	2 53 25	1754.92	34.11	45.61	106.71	138.91	3 22 40	1154.9	39.95	39.17
141.82	12 8 22	5410.17	34.12	251.24	106.73	138.90	13 38 32	4810.2	39.97	244.80

DIFFERENTIAL CORRECTIONS
TDE-1.6411 TRA-1.1306 TC3-2.6774 BAU .8781
RDE .4897 RRA .0245 RC3 .4413 FAU .03952
FDE -.8690 FRA -.2037 FC3-1.4137 BSP 12822
BDE 1.7115 BRA 1.1309 BC3 2.7135 FSP -503

MID-COURSE EXECUTION ACCURACY
SGT 4055.5 SGR 715.0 SG3 153.3
RRT -.8110 RRF -.9452 RTF .9245
SGB 4118.1 RZS .3204 R13 -.9293
SG1 4097.2 SG2 414.0 THA 171.78

ORBIT DETERMINATION ACCURACY
ST 2045.9 SR 566.1 SS 657.2
CRT -.9443 CRS .9948 CST -.9727
LSA 2210.9 MSA 223.4 SSA 6.5
EL1 2115.1 EL2 180.2 ALF 165.25

LAUNCH DATE OCT 2 1970 FLIGHT TIME 142.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 421.565

RL	149.74	LAL	.00	LOL	8.39	VL	27.038	GAL	-5.88	AZL	95.43	HCA	205.24	SMA	127.42	ECC	.20216	INC	5.4282
RP	108.11	LAP	2.31	LOP	213.53	VP	37.599	GAP	7.78	AZP	85.09	TAL	204.58	TAP	49.82	RCA	101.66	APO	153.17
RC	135.957	GL	-34.18	GP	42.64	ZAL	120.14	ZAP	133.27	ETS	55.75	ZAE	119.39	ETE	150.69	ZAC	142.27	ETC	252.88

V1 29.758 V2 35.054 CLP-158.74

PLANETOCENTRIC CONIC

C3 20.515 VHL 4.529 DLA -53.45 RAL 227.70 RAD 6567.8 VEL 11.912 PTH 2.12 VHP 7.081 DPA 23.11 RAP 245.24 ECC 1.3376

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.57	3 25 21	1688.96	34.39	38.36	107.20	133.81	3 53 30	1089.0	39.70	31.28
137.43	12 15 39	5395.98	34.40	249.95	107.21	133.80	13 45 35	4796.0	39.71	242.87
42.57	3 25 21	1688.96	34.39	38.36	107.20	133.81	3 53 30	1089.0	39.70	31.28
137.43	12 15 39	5395.98	34.40	249.95	107.21	133.80	13 45 35	4796.0	39.71	242.87
42.57	3 25 21	1688.96	34.39	38.36	107.20	133.81	3 53 30	1089.0	39.70	31.28
137.43	12 15 39	5395.98	34.40	249.95	107.21	133.80	13 45 35	4796.0	39.71	242.87

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.4727	TRA	-1.0322	TC3	-3.2651	BAU	.9054	SGT	4126.2	SGR	684.6	SG3	163.8	ST	1977.6	SR	524.7
RDE	.4147	RRA	.0055	RC3	.4855	FAU	.04168	RRT	-.8154	RRF	-.9420	RTF	.9159	CRT	-.9450	CRS	.9967
FDE	-.7815	FRA	-.1309	FC3	-1.7589	BSP	12915	SGB	4182.6	R23	.3254	R13	-.9202	LSA	2123.5	MSA	214.4
BDE	1.5299	BRA	1.0322	BC3	3.3010	FSP	-527	SG1	4164.2	SG2	392.7	THA	172.23	EL1	2039.2	EL2	166.4

SS 607.7 CST -.9677 SSA 8.2 ALF 165.83

LAUNCH DATE OCT 2 1970 FLIGHT TIME 144.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 427.412

RL	149.74	LAL	.00	LOL	8.39	VL	26.979	GAL	-5.56	AZL	94.56	HCA	208.42	SMA	127.02	ECC	.20264	INC	4.5604
RP	108.15	LAP	2.17	LOP	216.74	VP	37.544	GAP	8.01	AZP	85.99	TAL	203.02	TAP	51.44	RCA	101.28	APO	152.77
RC	138.166	GL	-30.24	GP	38.77	ZAL	119.99	ZAP	136.82	ETS	54.68	ZAE	121.21	ETE	152.62	ZAC	138.89	ETC	254.71

V1 29.758 V2 35.041 CLP-159.28

PLANETOCENTRIC CONIC

C3 17.967 VHL 4.239 DLA -50.21 RAL 232.26 RAD 6567.7 VEL 11.805 PTH 2.09 VHP 6.848 DPA 18.81 RAP 246.10 ECC 1.2957

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.63	3 55 57	1629.37	34.07	31.71	107.97	129.42	4 23 6	1029.4	38.90	24.19
133.37	12 21 24	5392.93	34.08	249.29	107.98	129.41	13 51 17	4792.9	38.91	241.76
46.63	3 55 57	1629.37	34.07	31.71	107.97	129.42	4 23 6	1029.4	38.90	24.19
133.37	12 21 24	5392.93	34.08	249.29	107.98	129.41	13 51 17	4792.9	38.91	241.76
46.63	3 55 57	1629.37	34.07	31.71	107.97	129.42	4 23 6	1029.4	38.90	24.19
133.37	12 21 24	5392.93	34.08	249.29	107.98	129.41	13 51 17	4792.9	38.91	241.76

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.3434	TRA	-.9507	TC3	-3.8768	BAU	.9397	SGT	4258.1	SGR	665.9	SG3	175.1	ST	1915.8	SR	495.5
RDE	.3664	RRA	-.0054	RC3	.5249	FAU	.04365	RRT	-.8249	RRF	-.9358	RTF	.9143	CRT	-.9467	CRS	.9981
FDE	-.7039	FRA	-.0712	FC3	-2.1033	BSP	13530	SGB	4309.9	R23	.3110	R13	-.9179	LSA	2047.4	MSA	206.1
BDE	1.3925	BRA	.9507	BC3	3.9122	FSP	-579	SG1	4293.7	SG2	373.3	THA	172.59	EL1	1972.8	EL2	154.9

SS 564.5 CST -.9631 SSA 10.1 ALF 166.15

LAUNCH DATE OCT 2 1970 FLIGHT TIME 146.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 433.251

RL	149.74	LAL	.00	LOL	8.39	VL	26.920	GAL	-5.24	AZL	93.86	HCA	211.61	SMA	126.64	ECC	.20325	INC	3.8550
RP	108.19	LAP	2.02	LOP	219.94	VP	37.489	GAP	8.24	AZP	86.72	TAL	201.44	TAP	53.05	RCA	100.90	APO	152.38
RC	140.364	GL	-26.67	GP	35.43	ZAL	119.20	ZAP	139.96	ETS	53.79	ZAE	122.62	ETE	154.49	ZAC	135.97	ETC	256.14

V1 29.758 V2 35.028 CLP-159.97

PLANETOCENTRIC CONIC

C3 16.128 VHL 4.016 DLA -47.28 RAL 236.59 RAD 6567.6 VEL 11.727 PTH 2.07 VHP 6.705 DPA 15.05 RAP 247.17 ECC 1.2654

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.40	4 25 54	1573.72	33.39	25.57	109.10	125.67	4 52 8	973.7	37.78	17.76
129.60	12 26 2	5398.79	33.40	249.24	109.11	125.66	13 56 0	4798.8	37.79	241.43
50.40	4 25 54	1573.72	33.39	25.57	109.10	125.67	4 52 8	973.7	37.78	17.76
129.60	12 26 2	5398.79	33.40	249.24	109.11	125.66	13 56 0	4798.8	37.79	241.43
50.40	4 25 54	1573.72	33.39	25.57	109.10	125.67	4 52 8	973.7	37.78	17.76
129.60	12 26 2	5398.79	33.40	249.24	109.11	125.66	13 56 0	4798.8	37.79	241.43

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.2113	TRA	-.8463	TC3	-4.4278	BAU	.9617	SGT	4336.2	SGR	634.5	SG3	180.5	ST	1812.0	SR	463.8
RDE	.3248	RRA	-.0208	RC3	.5369	FAU	.04407	RRT	-.8202	RRF	-.9221	RTF	.9090	CRT	-.9463	CRS	.9990
FDE	-.6088	FRA	.0082	FC3	-2.3656	BSP	13705	SGB	4382.4	R23	.2995	R13	-.9121	LSA	1926.8	MSA	199.6
BDE	1.2541	BRA	.8466	BC3	4.4603	FSP	-590	SG1	4367.5	SG2	360.4	THA	173.11	EL1	1864.7	EL2	145.6

SS 504.3 CST -.9542 SSA 12.5 ALF 166.30

LAUNCH DATE OCT 2 1970 FLIGHT TIME 148.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 439.079

RL	149.74	LAL	.00	LOL	8.39	VL	26.861	GAL	-4.90	AZL	93.27	HCA	214.80	SMA	126.26	ECC	.20399	INC	3.2670
RP	108.23	LAP	1.86	LOP	223.14	VP	37.434	GAP	8.46	AZP	87.32	TAL	199.85	TAP	54.65	RCA	100.50	APO	152.02
RC	142.552	GL	-23.39	GP	32.53	ZAL	117.89	ZAP	142.74	ETS	53.06	ZAE	123.71	ETE	156.25	ZAC	133.43	ETC	257.32

V1 29.758 V2 35.014 CLP-160.75

PLANETOCENTRIC CONIC

C3 14.760 VHL 3.842 DLA -44.60 RAL 240.79 RAD 6567.6 VEL 11.668 PTH 2.05 VHP 6.624 DPA 11.74 RAP 248.43 ECC 1.2429

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.97	4 55 42	1520.26	32.46	19.82	110.60	122.45	5 21 3	920.3	36.48	11.84
126.03	12 29 40	5412.32	32.48	249.76	110.61	122.44	13 59 53	4812.3	36.49	241.78
53.97	4 55 42	1520.26	32.46	19.82	110.60	122.45	5 21 3	920.3	36.48	11.84
126.03	12 29 40	5412.32	32.48	249.76	110.61	122.44	13 59 53	4812.3	36.49	241.78
53.97	4 55 42	1520.26	32.46	19.82	110.60	122.45	5 21 3	920.3	36.48	11.84
126.03	12 29 40	5412.32	32.48	249.76	110.61	122.44	13 59 53	4812.3	36.49	241.78

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.0944	TRA	-.7414	TC3	-4.9597	BAU	.9845	SGT	4427.0	SGR	609.8	SG3	184.8	ST	1701.2	SR	440.1
RDE	.2947	RRA	-.0330	RC3	.5429	FAU	.04407	RRT	-.8148	RRF	-.9053	RTF	.9063	CRT	-.9470	CRS	.9987
FDE	-.5199	FRA	.0783	FC3	-2.5848	BSP	13993	SGB	4468.8	R23	.2797	R13	-.9088	LSA	1802.5	MSA	193.3
BDE	1.1334	BRA	.7421	BC3	4.9893	FSP	-603	SG1	4455.0	SG2	351.3	THA	173.56	EL1	1751.8	EL2	137.3

SS 446.0 CST -.9425 SSA 15.3 ALF 166.15

LAUNCH DATE OCT 2 1970 FLIGHT TIME 150.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 444.894

RL 149.74 LAL .00 LOL 8.39 VL 26.803 GAL -4.55 AZL 92.77 HCA 217.99 SMA 125.88 ECC .20487 INC 2.7668 V1 29.758
RP 108.27 LAP 1.70 LOP 226.34 VP 37.380 GAP 8.69 AZP 87.82 TAL 198.24 TAP 56.23 RCA 100.10 APO 151.67 V2 35.001
RC 144.730 GL -20.37 GP 30.02 ZAL 116.11 ZAP 145.23 ETS 52.48 ZAE 124.56 ETE 157.86 ZAC 131.24 ETC 258.32 CLP-161.57

PLANETOCENTRIC CONIC

C3 13.723 VHL 3.705 DLA -42.12 RAL 244.90 RAD 6567.5 VEL 11.624 PTH 2.04 VHP 6.589 DPA 8.83 RAP 249.84 ECC 1.2259

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.41	5 25 54	1467.26	31.39	14.32	112.44	119.67	5 50 21	867.3	35.07	6.24
122.59	12 32 17	5433.18	31.40	250.87	112.45	119.66	14 2 50	4833.2	35.08	242.79
57.41	5 25 54	1467.26	31.39	14.32	112.44	119.67	5 50 21	867.3	35.07	6.24
122.59	12 32 17	5433.18	31.40	250.87	112.45	119.66	14 2 50	4833.2	35.08	242.79
57.41	5 25 54	1467.26	31.39	14.32	112.44	119.67	5 50 21	867.3	35.07	6.24
122.59	12 32 17	5433.18	31.40	250.87	112.45	119.66	14 2 50	4833.2	35.08	242.79

DIFFERENTIAL CORRECTIONS
TDE -.9852 TRA -.6308 TC3-5.4559 BAU 1.0059
RDE .2719 RRA -.0441 RC3 .5417 FAU .04356
FDE -.4348 FRA .1488 FC3-2.7477 BSP 14285
BDE 1.0221 BRA .6324 BC3 5.4827 FSP -611

MID-COURSE EXECUTION ACCURACY
SGT 4515.8 SGR 588.6 SG3 187.2
RRT -.8060 RRF -.8850 RTF .9042
SGB 4554.0 R23 .2565 R13 -.9063
SG1 4540.8 SG2 346.5 THA 173.97

ORBIT DETERMINATION ACCURACY
ST 1578.7 SR 421.6 SS 388.0
CRT -.9486 CRS .9955 CST -.9250
LSA 1668.9 MSA 187.4 SSA 18.7
EL1 1629.0 EL2 129.4 ALF 165.69

LAUNCH DATE OCT 2 1970 FLIGHT TIME 152.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 450.696

RL 149.74 LAL .00 LOL 8.39 VL 26.745 GAL -4.20 AZL 92.33 HCA 221.17 SMA 125.52 ECC .20588 INC 2.3334 V1 29.758
RP 108.31 LAP 1.54 LOP 229.54 VP 37.327 GAP 8.92 AZP 88.24 TAL 196.62 TAP 57.79 RCA 99.67 APO 151.36 V2 34.988
RC 146.899 GL -17.58 GP 27.83 ZAL 113.95 ZAP 147.46 ETS 52.04 ZAE 125.23 ETE 159.32 ZAC 129.33 ETC 259.21 CLP-162.42

PLANETOCENTRIC CONIC

C3 12.934 VHL 3.596 DLA -39.80 RAL 248.97 RAD 6567.5 VEL 11.590 PTH 2.03 VHP 6.588 DPA 6.24 RAP 251.38 ECC 1.2129

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.78	5 56 59	1413.10	30.21	8.92	114.61	117.25	6 20 32	813.1	33.60	.79
119.22	12 33 40	5461.63	30.22	252.57	114.62	117.23	14 4 41	4861.6	33.61	244.44
60.78	5 56 59	1413.10	30.21	8.92	114.61	117.25	6 20 32	813.1	33.60	.79
119.22	12 33 40	5461.63	30.22	252.57	114.62	117.23	14 4 41	4861.6	33.61	244.44
60.78	5 56 59	1413.10	30.21	8.92	114.61	117.25	6 20 32	813.1	33.60	.79
119.22	12 33 40	5461.63	30.22	252.57	114.62	117.23	14 4 41	4861.6	33.61	244.44

DIFFERENTIAL CORRECTIONS
TDE -.8807 TRA -.5140 TC3-5.9131 BAU 1.0267
RDE .2549 RRA -.0544 RC3 .5367 FAU .04272
FDE -.3543 FRA .2163 FC3-2.8594 BSP 14591
BDE .9169 BRA .5169 BC3 5.9374 FSP -616

MID-COURSE EXECUTION ACCURACY
SGT 4603.7 SGR 571.5 SG3 188.3
RRT -.7948 RRF -.8621 RTF .9031
SGB 4639.1 R23 .2311 R13 -.9048
SG1 4626.2 SG2 345.1 THA 174.33

ORBIT DETERMINATION ACCURACY
ST 1444.8 SR 407.6 SS 332.2
CRT -.9516 CRS .9857 CST -.8977
LSA 1526.5 MSA 181.5 SSA 23.0
EL1 1496.3 EL2 121.0 ALF 164.87

LAUNCH DATE OCT 2 1970 FLIGHT TIME 154.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 456.485

RL 149.74 LAL .00 LOL 8.39 VL 26.688 GAL -3.83 AZL 91.95 HCA 224.36 SMA 125.15 ECC .20704 INC 1.9522 V1 29.758
RP 108.35 LAP 1.36 LOP 232.73 VP 37.273 GAP 9.15 AZP 88.60 TAL 194.99 TAP 59.35 RCA 99.24 APO 151.07 V2 34.975
RC 149.057 GL -14.97 GP 25.92 ZAL 111.46 ZAP 149.48 ETS 51.74 ZAE 125.75 ETE 160.63 ZAC 127.67 ETC 260.02 CLP-163.28

PLANETOCENTRIC CONIC

C3 12.339 VHL 3.513 DLA -37.59 RAL 253.01 RAD 6567.5 VEL 11.564 PTH 2.02 VHP 6.612 DPA 3.95 RAP 253.05 ECC 1.2031

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.16	6 29 31	1355.84	28.95	3.45	117.06	115.11	6 52 7	755.8	32.08	355.32
115.84	12 33 22	5498.74	28.96	254.94	117.07	115.09	14 5 1	4898.7	32.09	246.80
64.16	6 29 31	1355.84	28.95	3.45	117.06	115.11	6 52 7	755.8	32.08	355.32
115.84	12 33 22	5498.74	28.96	254.94	117.07	115.09	14 5 1	4898.7	32.09	246.80
64.16	6 29 31	1355.84	28.95	3.45	117.06	115.11	6 52 7	755.8	32.08	355.32
115.84	12 33 22	5498.74	28.96	254.94	117.07	115.09	14 5 1	4898.7	32.09	246.80

DIFFERENTIAL CORRECTIONS
TDE -.7777 TRA -.3897 TC3-6.3197 BAU 1.0461
RDE .2419 RRA -.0645 RC3 .5280 FAU .04159
FDE -.2781 FRA .2816 FC3-2.9179 BSP 14867
BDE .8144 BRA .3950 BC3 6.3417 FSP -616

MID-COURSE EXECUTION ACCURACY
SGT 4686.6 SGR 557.6 SG3 188.2
RRT -.7810 RRF -.8369 RTF .9024
SGB 4719.6 R23 .2054 R13 -.9039
SG1 4706.9 SG2 346.7 THA 174.66

ORBIT DETERMINATION ACCURACY
ST 1298.0 SR 396.7 SS 279.8
CRT -.9562 CRS .9605 CST -.8524
LSA 1374.3 MSA 175.5 SSA 28.4
EL1 1352.6 EL2 111.4 ALF 163.60

LAUNCH DATE OCT 2 1970 FLIGHT TIME 156.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 462.259

RL 149.74 LAL .00 LOL 8.39 VL 26.631 GAL -3.45 AZL 91.61 HCA 227.55 SMA 124.80 ECC .20836 INC 1.6123 V1 29.758
RP 108.39 LAP 1.19 LOP 235.92 VP 37.221 GAP 9.38 AZP 88.91 TAL 193.34 TAP 60.89 RCA 98.80 APO 150.80 V2 34.962
RC 151.205 GL -12.52 GP 24.23 ZAL 108.70 ZAP 151.30 ETS 51.59 ZAE 126.16 ETE 161.80 ZAC 126.22 ETC 260.79 CLP-164.14

PLANETOCENTRIC CONIC

C3 11.904 VHL 3.450 DLA -35.48 RAL 257.04 RAD 6567.5 VEL 11.545 PTH 2.02 VHP 6.657 DPA 1.90 RAP 254.81 ECC 1.1959

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.67	7 4 20	1292.80	27.63	357.70	119.77	113.21	7 25 53	692.8	30.52	349.58
112.33	12 30 42	5546.62	27.64	258.12	119.78	113.19	14 3 9	4946.6	30.52	249.99
67.67	7 4 20	1292.80	27.63	357.70	119.77	113.21	7 25 53	692.8	30.52	349.58
112.33	12 30 42	5546.62	27.64	258.12	119.78	113.19	14 3 9	4946.6	30.52	249.99
67.67	7 4 20	1292.80	27.63	357.70	119.77	113.21	7 25 53	692.8	30.52	349.58
112.33	12 30 42	5546.62	27.64	258.12	119.78	113.19	14 3 9	4946.6	30.52	249.99

DIFFERENTIAL CORRECTIONS
TDE -.6750 TRA -.2585 TC3-6.6707 BAU 1.0648
RDE .2321 RRA -.0745 RC3 .5171 FAU .04027
FDE -.2066 FRA .3436 FC3-2.9288 BSP 15144
BDE .7137 BRA .2690 BC3 6.6907 FSP -613

MID-COURSE EXECUTION ACCURACY
SGT 4766.7 SGR 546.7 SG3 187.2
RRT -.7652 RRF -.8103 RTF .9023
SGB 4798.0 R23 .1803 R13 -.9035
SG1 4785.2 SG2 350.6 THA 174.96

ORBIT DETERMINATION ACCURACY
ST 1140.4 SR 388.2 SS 234.0
CRT -.9628 CRS .9017 CST -.7751
LSA 1214.9 MSA 169.5 SSA 35.5
EL1 1200.5 EL2 99.7 ALF 161.72

LAUNCH DATE OCT 2 1970 FLIGHT TIME 158.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 468.019

RL 149.74 LAL .00 LOL 8.39 VL 26.575 GAL -3.06 AZL 91.31 HCA 230.73 SMA 124.45 ECC .20983 INC 1.3056 V1 29.758
RP 108.43 LAP 1.01 LOP 239.11 VP 37.168 GAP 9.62 AZP 89.17 TAL 191.68 TAP 62.41 RCA 98.33 APO 150.56 V2 34.949
RC 153.343 GL -10.22 GP 22.75 ZAL 105.71 ZAP 152.96 ETS 51.59 ZAE 126.50 ETE 162.84 ZAC 124.93 ETC 261.51 CLP-164.99

PLANETOCENTRIC CONIC

C3 11.608 VHL 3.407 DLA -33.43 RAL 261.05 RAD 6567.4 VEL 11.532 PTH 2.01 VHP 6.720 DPA .07 RAP 256.67 ECC 1.1910

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
71.44	7 42 41	1219.71	26.24	351.34	122.72	111.49	8 3 1	619.7	28.92	343.25
108.56	12 24 24	5609.16	26.26	262.38	122.72	111.48	13 57 53	5009.2	28.93	254.29
71.44	7 42 41	1219.71	26.24	351.34	122.72	111.49	8 3 1	619.7	28.92	343.25
108.56	12 24 24	5609.16	26.26	262.38	122.72	111.48	13 57 53	5009.2	28.93	254.29
110.00	11 38 55	5748.57	22.12	271.17	120.70	116.75	13 14 43	5148.6	25.53	263.67
110.00	13 27 20	5416.34	30.53	249.06	124.38	106.18	14 57 37	4816.3	32.44	240.37

DIFFERENTIAL CORRECTIONS
TDE -.5705 TRA -.1197 TC3-6.9580 BAU 1.0826
RDE .2247 RRA -.0846 RC3 .5041 FAU .03882
FDE -.1392 FRA .4029 FC3-2.8955 BSP 15413
BDE .6132 BRA .1466 BC3 6.9762 FSP -609

MID-COURSE EXECUTION ACCURACY
SGT 4843.3 SGR 538.4 SG3 185.4
RRT -.7479 RRF -.7829 RTF .9026
SGB 4873.2 R23 .1568 R13 -.9036
SG1 4860.1 SG2 356.2 THA 175.22

ORBIT DETERMINATION ACCURACY
ST 972.6 SR 381.5 SS 199.1
CRT -.9712 CRS .7760 CST -.6457
LSA 1049.9 HSA 164.2 SSA 44.9
EL1 1041.3 EL2 85.0 ALF 159.00

LAUNCH DATE OCT 2 1970 FLIGHT TIME 160.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 473.762

RL 149.74 LAL .00 LOL 8.39 VL 26.519 GAL -2.66 AZL 91.03 HCA 233.91 SMA 124.10 ECC .21148 INC 1.0258 V1 29.758
RP 108.47 LAP .83 LOP 242.30 VP 37.117 GAP 9.86 AZP 89.40 TAL 190.01 TAP 63.93 RCA 97.86 APO 150.35 V2 34.937
RC 155.470 GL -8.06 GP 21.44 ZAL 102.53 ZAP 154.49 ETS 51.74 ZAE 126.77 ETE 163.78 ZAC 123.79 ETC 262.22 CLP-165.84

PLANETOCENTRIC CONIC

C3 11.438 VHL 3.382 DLA -31.43 RAL 265.05 RAD 6567.4 VEL 11.525 PTH 2.01 VHP 6.797 DPA -1.56 RAP 258.62 ECC 1.1882

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
75.76	8 27 5	1128.12	24.81	343.74	125.87	109.94	8 45 53	528.1	27.30	335.69
104.24	12 11 52	5094.63	24.83	268.31	125.87	109.92	13 46 47	5094.6	27.31	260.26
75.76	8 27 5	1128.12	24.81	343.74	125.87	109.94	8 45 53	528.1	27.30	335.69
104.24	12 11 52	5094.63	24.83	268.31	125.87	109.92	13 46 47	5094.6	27.31	260.26
110.00	11 5 53	612.35	17.20	302.29	122.07	120.01	11 16 6	12.3	21.06	295.28
110.00	14 32 14	5258.40	32.95	237.40	128.32	99.68	15 59 53	4658.4	33.93	228.30

DIFFERENTIAL CORRECTIONS
TDE -.4634 TRA .0268 TC3-7.1734 BAU 1.0995
RDE .2193 RRA -.0950 RC3 .4890 FAU .03726
FDE -.0758 FRA .4596 FC3-2.8204 BSP 15663
BDE .5127 BRA .0987 BC3 7.1901 FSP -602

MID-COURSE EXECUTION ACCURACY
SGT 4915.6 SGR 531.9 SG3 183.1
RRT -.7291 RRF -.7549 RTF .9032
SGB 4944.3 R23 .1356 R13 -.9040
SG1 4931.0 SG2 382.9 THA 175.46

ORBIT DETERMINATION ACCURACY
ST 798.6 SR 375.9 SS 180.7
CRT -.9793 CRS .5512 CST -.4619
LSA 884.3 HSA 162.7 SSA 56.5
EL1 879.9 EL2 69.0 ALF 155.09

LAUNCH DATE OCT 2 1970 FLIGHT TIME 162.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 479.489

RL 149.74 LAL .00 LOL 8.39 VL 26.464 GAL -2.24 AZL 90.77 HCA 237.09 SMA 123.76 ECC .21331 INC .7679 V1 29.758
RP 108.51 LAP .64 LOP 245.48 VP 37.066 GAP 10.10 AZP 89.58 TAL 188.33 TAP 65.43 RCA 97.36 APO 150.16 V2 34.925
RC 157.587 GL -6.03 GP 20.28 ZAL 99.20 ZAP 155.89 ETS 52.04 ZAE 127.00 ETE 164.61 ZAC 122.78 ETC 262.90 CLP-166.67

PLANETOCENTRIC CONIC

C3 11.389 VHL 3.375 DLA -29.47 RAL 269.01 RAD 6567.4 VEL 11.523 PTH 2.01 VHP 6.887 DPA -3.02 RAP 260.63 ECC 1.1874

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.48	9 25 19	992.49	23.34	333.04	129.20	108.52	9 41 51	392.5	25.65	325.04
98.52	11 45 17	5028.44	23.35	277.75	129.20	108.50	13 22 25	5228.4	25.66	269.75
100.00	11 14 22	639.37	20.43	306.01	128.03	112.31	11 25 2	39.4	23.28	298.37
100.00	12 38 54	5658.80	26.33	266.00	130.18	104.68	14 13 11	5056.8	28.09	257.64
110.00	10 50 27	714.72	13.62	308.07	124.41	121.66	11 2 22	114.7	17.71	301.34
110.00	15 19 18	5154.21	33.86	229.40	131.69	95.03	16 45 13	4554.2	34.18	220.17

DIFFERENTIAL CORRECTIONS
TDE -.3483 TRA .1857 TC3-7.2976 BAU 1.1134
RDE .2148 RRA -.1064 RC3 .4697 FAU .03551
FDE -.0131 FRA .5168 FC3-2.6991 BSP 15812
BDE .4092 BRA .2140 BC3 7.3127 FSP -589

MID-COURSE EXECUTION ACCURACY
SGT 4974.0 SGR 525.9 SG3 179.9
RRT -.7082 RRF -.7259 RTF .9030
SGB 5001.7 R23 .1174 R13 -.9036
SG1 4988.0 SG2 370.3 THA 175.69

ORBIT DETERMINATION ACCURACY
ST 619.1 SR 370.1 SS 183.3
CRT -.9768 CRS .2410 CST -.2838
LSA 719.9 HSA 176.4 SSA 66.8
EL1 718.0 EL2 68.3 ALF 149.41

LAUNCH DATE OCT 2 1970 FLIGHT TIME 164.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 485.196

RL 149.74 LAL .00 LOL 8.39 VL 26.409 GAL -1.82 AZL 90.53 HCA 240.27 SMA 123.43 ECC .21534 INC .5281 V1 29.758
RP 108.54 LAP .46 LOP 248.66 VP 37.016 GAP 10.35 AZP 89.74 TAL 186.65 TAP 66.92 RCA 96.85 APO 150.01 V2 34.913
RC 159.092 GL -4.12 GP 19.24 ZAL 95.77 ZAP 157.19 ETS 52.49 ZAE 127.19 ETE 165.35 ZAC 121.86 ETC 263.58 CLP-167.50

PLANETOCENTRIC CONIC

C3 11.455 VHL 3.385 DLA -27.54 RAL 272.93 RAD 6567.4 VEL 11.526 PTH 2.01 VHP 6.988 DPA -4.33 RAP 262.71 ECC 1.1885

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 52 42	957.36	18.01	328.35	131.23	112.23	10 8 39	357.4	20.87	320.84
90.00	11 49 10	5066.01	25.79	281.23	133.82	102.13	13 26 56	5266.0	27.20	272.85
100.00	10 32 58	827.23	15.17	317.47	129.90	116.07	10 46 45	227.2	18.55	310.31
100.00	13 51 35	5471.37	28.85	252.81	134.44	98.19	15 22 47	4871.4	29.68	244.11
110.00	10 41 34	800.22	10.52	312.75	127.22	122.71	10 54 54	200.2	14.76	306.21
110.00	15 59 29	5071.15	34.16	222.94	134.95	91.22	17 24 0	4471.1	33.96	213.70

DIFFERENTIAL CORRECTIONS
TDE -.2308 TRA .3903 TC3-7.3504 BAU 1.1278
RDE .2120 RRA -.1177 RC3 .4502 FAU .03382
FDE .0445 FRA .5696 FC3-2.5556 BSP 16004
BDE .3134 BRA .3695 BC3 7.3642 FSP -578

MID-COURSE EXECUTION ACCURACY
SGT 5035.5 SGR 521.7 SG3 176.7
RRT -.6877 RRF -.6980 RTF .9038
SGB 5062.5 R23 .1004 R13 -.9043
SG1 5048.4 SG2 377.8 THA 175.90

ORBIT DETERMINATION ACCURACY
ST 463.9 SR 365.3 SS 204.5
CRT -.9154 CRS -.0367 CST -.2786
LSA 579.7 HSA 225.3 SSA 67.9
EL1 578.6 EL2 117.9 ALF 142.38

LAUNCH DATE OCT 2 1970 FLIGHT TIME 166.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 490.886

RL	149.74	LAL	.00	LOL	8.39	VL	26.355	GAL	-1.37	AZL	90.30	HCA	243.45	SMA	123.11	ECC	.21758	INC	.3029	V1	29.758
RP	108.58	LAP	.27	LOP	251.84	VP	36.966	GAP	10.61	AZP	89.86	TAL	184.95	TAP	68.40	RCA	96.32	APO	149.89	V2	34.901
RC	161.784	GL	-2.34	GP	18.31	ZAL	92.26	ZAP	158.39	ETS	53.10	ZAE	127.35	ETE	166.02	ZAC	121.03	ETC	264.25	CLP	-168.32

PLANETOCENTRIC CONIC

C3	11.640	VHL	3.412	DLA	-25.64	RAL	276.79	RAD	6567.4	VEL	11.534	PTH	2.01	VHP	7.100	DPA	-5.49	RAP	264.85	ECC	1.1916

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 18 31	1126.17	13.37	358.57	133.59	115.19	9 37 17	526.2	16.66	331.44
90.00	12 54 6	5703.87	27.59	269.72	137.90	96.63	14 29 10	5103.9	28.22	261.11
100.00	10 14 29	945.45	11.52	324.35	132.64	117.78	10 30 15	345.5	15.15	317.44
100.00	14 40 50	5359.81	29.65	244.62	138.12	93.95	16 10 9	4759.8	29.89	235.82
110.00	10 36 17	877.08	7.66	316.87	130.33	123.42	10 50 54	277.1	12.01	310.46
110.00	16 35 31	5000.95	34.13	217.45	138.21	87.97	17 58 52	4400.9	33.47	208.27

DIFFERENTIAL CORRECTIONS

TDE	-.1294	TRA	.5033	TC3	-7.3903	BAU	1.1521
RDE	.2132	RRA	-.1288	RC3	.4380	FAU	.03275
FDE	.0843	FRA	.6070	FC3	-2.4360	BSP	16675
BDE	.2494	BRA	.5191	BC3	7.4033	FSP	-596

MID-COURSE EXECUTION ACCURACY

SGT	5133.9	SGR	522.9	SGS	174.1		
RRT	-.6729	RRF	-.6770	RTF	.9097		
SGB	5160.4	R23	.0829	R13	-.9101		
SG1	5146.0	SG2	385.9	THA	176.06		

ORBIT DETERMINATION ACCURACY

ST	386.3	SR	365.2	SS	227.6
CRT	-.7028	CRS	-.1934	CST	-.5036
LSA	493.3	MSA	295.4	SSA	61.6
EL1	490.7	EL2	204.5	ALF	137.30

LAUNCH DATE OCT 2 1970 FLIGHT TIME 168.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 496.557

RL	149.74	LAL	.00	LOL	8.39	VL	26.302	GAL	-.91	AZL	90.09	HCA	246.62	SMA	122.79	ECC	.22004	INC	.0896	V1	29.758
RP	108.61	LAP	.08	LOP	255.01	VP	36.918	GAP	10.87	AZP	89.96	TAL	183.24	TAP	69.87	RCA	95.77	APO	149.80	V2	34.890
RC	163.865	GL	-.69	GP	17.47	ZAL	88.72	ZAP	159.51	ETS	53.87	ZAE	127.49	ETE	166.61	ZAC	120.27	ETC	264.92	CLP	-169.12

PLANETOCENTRIC CONIC

C3	11.945	VHL	3.456	DLA	-23.78	RAL	280.57	RAD	6567.5	VEL	11.547	PTH	2.02	VHP	7.223	DPA	-6.53	RAP	267.04	ECC	1.1966

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 1 13	1243.36	9.88	345.41	136.58	116.67	9 21 56	643.4	13.38	338.48
90.00	13 41 36	5597.52	28.19	282.00	141.65	92.81	15 14 54	4997.5	28.28	253.33
100.00	10 3 20	1042.83	8.37	329.87	135.77	118.80	10 20 43	442.8	12.15	323.12
100.00	15 22 10	5273.28	29.89	238.20	141.70	90.58	16 50 3	4673.3	29.65	229.40
110.00	10 33 19	948.79	4.96	320.65	133.68	123.86	10 49 8	348.8	9.37	314.35
110.00	17 8 40	4940.08	33.88	212.72	141.53	85.18	18 31 0	4340.1	32.84	203.64

DIFFERENTIAL CORRECTIONS

TDE	.0120	TRA	.7002	TC3	-7.2335	BAU	1.1570
RDE	.2109	RRA	-.1411	RC3	.4078	FAU	.03057
FDE	.1451	FRA	.6660	FC3	-2.2158	BSP	16502
BDE	.2112	BRA	.7143	BC3	7.2450	FSP	-564

MID-COURSE EXECUTION ACCURACY

SGT	5158.5	SGR	516.8	SGS	169.7		
RRT	-.6478	RRF	-.6462	RTF	.9072		
SGB	5184.3	R23	.0724	R13	-.9075		
SG1	5169.4	SG2	392.9	THA	176.27		

ORBIT DETERMINATION ACCURACY

ST	409.5	SR	358.1	SS	272.8
CRT	-.1603	CRS	-.3577	CST	-.0348
LSA	474.7	MSA	377.2	SSA	51.8
EL1	422.7	EL2	342.4	ALF	155.02

LAUNCH DATE OCT 2 1970 FLIGHT TIME 170.00 ARRIVAL DATE MAR 21 1971

HELIOCENTRIC CONIC DISTANCE 502.205

RL	149.74	LAL	.00	LOL	8.39	VL	26.249	GAL	-.44	AZL	89.89	HCA	249.80	SMA	122.47	ECC	.22275	INC	.1112	V1	29.758
RP	108.65	LAP	-.11	LOP	258.19	VP	36.870	GAP	11.14	AZP	90.04	TAL	181.53	TAP	71.33	RCA	95.19	APO	149.75	V2	34.880
RC	165.932	GL	.84	GP	16.72	ZAL	85.18	ZAP	160.55	ETS	54.82	ZAE	127.61	ETE	167.15	ZAC	119.57	ETC	265.58	CLP	-169.91

PLANETOCENTRIC CONIC

C3	12.377	VHL	3.518	DLA	-21.96	RAL	284.26	RAD	6567.5	VEL	11.566	PTH	2.02	VHP	7.356	DPA	-7.44	RAP	269.27	ECC	1.2037

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 50 18	1341.83	6.82	351.03	139.87	117.55	9 12 40	741.8	10.46	344.24
90.00	14 21 57	5514.07	28.32	255.90	145.31	89.75	15 53 51	4914.1	27.98	247.25
100.00	9 56 5	1129.53	5.50	334.70	139.15	119.43	10 14 54	529.5	9.38	328.06
100.00	15 58 51	5201.60	29.82	232.87	145.27	87.78	17 25 33	4601.6	29.19	224.12
110.00	10 31 56	1017.13	2.36	324.23	137.20	124.11	10 48 53	417.1	6.82	317.99
110.00	17 39 29	4886.77	33.50	208.60	144.92	82.77	19 0 56	4286.8	32.14	199.64

DIFFERENTIAL CORRECTIONS

TDE	.1446	TRA	.8913	TC3	-7.0495	BAU	1.1682
RDE	.2116	RRA	-.1536	RC3	.3824	FAU	.02884
FDE	.1931	FRA	.7127	FC3	-2.0171	BSP	16646
BDE	.2563	BRA	.9044	BC3	7.0599	FSP	-552

MID-COURSE EXECUTION ACCURACY

SGT	5206.6	SGR	513.7	SGS	165.7		
RRT	-.6265	RRF	-.6202	RTF	.9084		
SGB	5231.8	R23	.0812	R13	-.9087		
SG1	5216.5	SG2	399.6	THA	176.44		

ORBIT DETERMINATION ACCURACY

ST	546.0	SR	354.0	SS	312.4
CRT	.2171	CRS	-.4460	CST	-.9564
LSA	634.5	MSA	341.3	SSA	43.6
EL1	554.7	EL2	340.1	ALF	12.96

LAUNCH DATE OCT 2 1970 FLIGHT TIME 172.00 ARRIVAL DATE MAR 23 1971

HELIOCENTRIC CONIC DISTANCE 507.828

RL	149.74	LAL	.00	LOL	8.39	VL	26.197	GAL	.05	AZL	89.80	HCA	252.97	SMA	122.16	ECC	.22571	INC	.3061	V1	29.758
RP	108.68	LAP	-.29	LOP	261.36	VP	36.823	GAP	11.43	AZP	90.09	TAL	179.81	TAP	72.78	RCA	94.59	APO	149.74	V2	34.869
RC	167.985	GL	2.23	GP	16.04	ZAL	81.67	ZAP	161.52	ETS	55.94	ZAE	127.72	ETE	167.63	ZAC	118.92	ETC	266.24	CLP	-170.70

PLANETOCENTRIC CONIC

C3	12.944	VHL	3.598	DLA	-20.18	RAL	287.85	RAD	6567.5	VEL	11.590	PTH	2.03	VHP	7.500	DPA	-8.25	RAP	271.55	ECC	1.2130

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 42 58	1430.11	4.01	356.00	143.37	118.05	9 6 49	830.1	7.74	349.30
90.00	14 57 51	5444.94	28.19	250.84	148.97	87.22	16 28 36	4844.9	27.51	242.25
100.00	9 51 18	1209.64	2.80	339.12	142.70	119.77	10 11 27	609.6	6.75	332.55
100.00	16 32 13	5140.65	29.57	228.36	148.87	85.42	17 57 54	4540.7	28.62	219.68
110.00	10 31 41	1083.06	-.16	327.67	140.85	124.18	10 49 44	483.1	4.32	321.46
110.00	18 8 19	4840.00	33.04	205.03	148.37	80.71	19 28 59	4240.0	31.41	196.19

DIFFERENTIAL CORRECTIONS

TDE	.2055	TRA	1.0957	TC3	-6.7803	BAU	1.1749
RDE	.2127	RRA	-.1676	RC3	.3507	FAU	.02671
FDE	.2417	FRA	.7639	FC3	-1.7865	BSP	16729
BDE	.3560	BRA	1.1084	BC3	6.7894	FSP	-532

MID-COURSE EXECUTION ACCURACY

SGT	5240.8	SGR	509.1	SGS	161.2		
RRT	-.6017	RRF	-.5922	RTF	.9058		
SGB	5265.4	R23	.0549	R13	-.9060		
SG1	5249.8	SG2	405.9	THA	176.63		

ORBIT DETERMINATION ACCURACY

ST	734.3	SR	349.4	SS	355.4
CRT	.4105	CRS	-.5058	CST	-.9070
LSA	830.2	MSA	311.4	SSA	37.6
EL1	751.2	EL2	311.4	ALF	13.40

LAUNCH DATE OCT 2 1970 FLIGHT TIME 174.00 ARRIVAL DATE MAR 25 1971

HELIOCENTRIC CONIC DISTANCE 513.426

RL	149.74	LAL	.00	LOL	8.39	VL	26.145	GAL	.57	AZL	89.51	HCA	256.14	SMA	121.86	ECC	.22895	INC	.4938
RP	108.71	LAP	-.48	LOP	264.53	VP	36.777	GAP	11.72	AZP	90.12	TAL	178.09	TAP	74.23	RCA	93.96	APO	149.76
RC	170.025	GL	3.50	GP	15.43	ZAL	78.21	ZAP	162.42	ETS	57.24	ZAE	127.82	ETE	168.07	ZAC	118.31	ETC	266.90

V1 29.758 V2 34.859 CLP-171.47

PLANETOCENTRIC CONIC

C3	13.656	VHL	3.695	DLA	-18.46	RAL	291.31	RAD	6567.5	VEL	11.621	PTH	2.04	VHP	7.655	DPA	-8.96	RAP	273.86

ECC 1.2247

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 37 57	1511.86	1.39	.87	147.03	118.29	9 3 9	911.9	5.16	353.92
90.00	15 30 30	5386.42	27.92	246.58	152.65	85.10	17 0 16	4786.4	26.95	238.05
100.00	9 48 12	1285.19	.24	343.27	146.39	119.89	10 9 37	685.2	4.22	336.74
100.00	17 2 56	5088.32	29.22	224.51	152.50	83.42	18 27 44	4488.3	28.01	215.92
110.00	10 32 16	1147.13	-2.61	331.02	144.61	124.10	10 51 23	547.1	1.88	324.81
110.00	18 35 22	4799.14	32.55	201.84	151.90	78.94	19 55 21	4199.1	30.69	193.22

DIFFERENTIAL CORRECTIONS

TDE	.4231	TRA	1.3034	TC3	-6.5016	BAU	1.1885
RDE	.2161	RRA	-.1803	RC3	.3282	FAU	.02545
FDE	.2811	FRA	.8061	FC3	-1.6134	BSP	16938
BDE	.4751	BRA	1.3158	BC3	6.5098	FSP	-524

MID-COURSE EXECUTION ACCURACY

SGT	5297.0	SGR	507.9	SG3	158.1		
RRT	-.5850	RRF	-.5721	RTF	.9103		
SGB	5321.9	RZ3	.0448	R13	-.9105		
SG1	5305.4	SG2	411.3	THA	176.77		

ORBIT DETERMINATION ACCURACY

ST	927.2	SR	346.5	SS	389.9
CRT	.5048	CRS	-.5423	CST	-.9948
LSA	1022.0	MSA	293.5	SSA	32.6
EL1	945.3	EL2	293.4	ALF	11.84

LAUNCH DATE OCT 2 1970 FLIGHT TIME 176.00 ARRIVAL DATE MAR 27 1971

HELIOCENTRIC CONIC DISTANCE 518.995

RL	149.74	LAL	.00	LOL	8.39	VL	26.095	GAL	1.10	AZL	89.32	HCA	259.31	SMA	121.56	ECC	.23250	INC	.6766
RP	108.74	LAP	-.66	LOP	267.70	VP	36.732	GAP	12.03	AZP	90.13	TAL	176.37	TAP	75.68	RCA	93.30	APO	149.83
RC	172.049	GL	4.64	GP	14.87	ZAL	74.83	ZAP	163.26	ETS	58.74	ZAE	127.90	ETE	168.46	ZAC	117.73	ETC	267.56

V1 29.758 V2 34.850 CLP-172.24

PLANETOCENTRIC CONIC

C3	14.526	VHL	3.811	DLA	-16.81	RAL	294.64	RAD	6567.6	VEL	11.658	PTH	2.05	VHP	7.821	DPA	-9.56	RAP	276.20

ECC 1.2391

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 34 32	1588.94	-1.10	4.87	150.79	118.30	9 1 1	988.9	2.69	358.24
90.00	16 0 30	5336.54	27.58	242.97	156.35	83.32	17 29 27	4736.5	26.37	234.52
100.00	9 46 19	1357.33	-2.20	347.23	150.18	119.82	10 8 56	757.3	1.78	340.71
100.00	17 31 25	5043.38	28.83	221.23	156.17	81.73	18 55 28	4443.4	27.39	212.72
110.00	10 33 27	1209.68	-4.99	334.29	148.44	123.86	10 53 36	609.7	-.51	328.08
110.00	19 0 46	4763.79	32.06	199.30	155.48	77.45	20 20 10	4163.8	30.00	190.70

DIFFERENTIAL CORRECTIONS

TDE	.5681	TRA	1.5216	TC3	-6.1620	BAU	1.1981
RDE	.2201	RRA	-.1934	RC3	.3016	FAU	.02393
FDE	.3203	FRA	.8482	FC3	-1.4264	BSP	17103
BDE	.6092	BRA	1.5338	BC3	6.1694	FSP	-515

MID-COURSE EXECUTION ACCURACY

SGT	5338.6	SGR	504.6	SG3	154.3		
RRT	-.5654	RRF	-.5496	RTF	.9128		
SGB	5362.4	RZ3	.0369	R13	-.9129		
SG1	5346.3	SG2	415.6	THA	176.92		

ORBIT DETERMINATION ACCURACY

ST	1123.9	SR	343.3	SS	423.4
CRT	.5606	CRS	-.5704	CST	-.9973
LSA	1216.9	MSA	280.2	SSA	28.8
EL1	1141.3	EL2	279.9	ALF	10.35

LAUNCH DATE OCT 2 1970 FLIGHT TIME 178.00 ARRIVAL DATE MAR 29 1971

HELIOCENTRIC CONIC DISTANCE 524.529

RL	149.74	LAL	.00	LOL	8.39	VL	26.044	GAL	1.65	AZL	89.14	HCA	262.48	SMA	121.27	ECC	.23638	INC	.8553
RP	108.77	LAP	-.85	LOP	270.86	VP	36.688	GAP	12.35	AZP	90.11	TAL	174.64	TAP	77.12	RCA	92.61	APO	149.94
RC	174.060	GL	5.65	GP	14.37	ZAL	71.56	ZAP	164.05	ETS	60.45	ZAE	127.98	ETE	168.82	ZAC	117.18	ETC	268.22

V1 29.758 V2 34.841 CLP-173.01

PLANETOCENTRIC CONIC

C3	15.569	VHL	3.946	DLA	-15.23	RAL	297.84	RAD	6567.6	VEL	11.703	PTH	2.06	VHP	8.000	DPA	-10.08	RAP	278.56

ECC 1.2562

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 32 17	1662.42	-3.47	8.97	154.64	118.12	9 0 0	1062.4	.32	2.34
90.00	16 28 15	5294.13	27.21	239.93	160.08	81.84	17 56 29	4694.1	25.80	231.54
100.00	9 45 20	1426.73	-4.54	351.05	154.04	119.58	10 9 7	826.7	-.57	344.52
100.00	17 57 53	5005.04	28.42	218.45	159.87	80.33	19 21 18	4405.0	26.79	210.03
110.00	10 35 5	1270.88	-7.30	337.53	152.34	123.49	10 56 16	670.9	-2.85	331.27
110.00	19 24 37	4733.66	31.59	197.08	159.11	76.21	20 43 31	4133.7	29.38	188.57

DIFFERENTIAL CORRECTIONS

TDE	.6982	TRA	1.7317	TC3	-5.8369	BAU	1.2163
RDE	.2270	RRA	-.2050	RC3	.2785	FAU	.02284
FDE	.3470	FRA	.8806	FC3	-1.2700	BSP	17709
BDE	.7342	BRA	1.7438	BC3	5.8435	FSP	-524

MID-COURSE EXECUTION ACCURACY

SGT	5388.6	SGR	502.2	SG3	150.0		
RRT	-.5477	RRF	-.5310	RTF	.9172		
SGB	5411.9	RZ3	.0306	R13	-.9173		
SG1	5395.6	SG2	419.6	THA	177.06		

ORBIT DETERMINATION ACCURACY

ST	1287.7	SR	342.5	SS	444.1
CRT	.5918	CRS	-.5868	CST	-.9981
LSA	1377.5	MSA	273.1	SSA	25.8
EL1	1304.3	EL2	272.6	ALF	9.36

LAUNCH DATE OCT 2 1970 FLIGHT TIME 180.00 ARRIVAL DATE MAR 31 1971

HELIOCENTRIC CONIC DISTANCE 530.033

RL	149.74	LAL	.00	LOL	8.39	VL	25.995	GAL	2.23	AZL	88.97	HCA	265.64	SMA	120.99	ECC	.24061	INC	1.0313
RP	108.79	LAP	-1.03	LOP	274.03	VP	36.645	GAP	12.69	AZP	90.08	TAL	172.92	TAP	78.56	RCA	91.88	APO	150.10
RC	176.055	GL	6.55	GP	13.91	ZAL	68.40	ZAP	164.78	ETS	62.37	ZAE	128.06	ETE	169.15	ZAC	116.65	ETC	268.88

V1 29.758 V2 34.833 CLP-173.76

PLANETOCENTRIC CONIC

C3	16.805	VHL	4.099	DLA	-13.72	RAL	300.89	RAD	6567.7	VEL	11.755	PTH	2.07	VHP	8.191	DPA	-10.51	RAP	280.94

ECC 1.2766

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 30 55	1732.99	-5.72	12.93	158.55	117.78	8 59 48	1133.0	-1.96	6.27
90.00	16 54 0	5258.35	26.84	237.37	163.84	80.61	18 21 39	4658.3	25.27	229.06
100.00	9 45 3	1493.85	-6.79	354.77	157.97	119.18	10 9 56	893.8	-2.84	348.20
100.00	18 22 34	4972.72	28.03	216.13	163.60	79.16	19 45 27	4372.7	26.25	207.78
110.00	10 37 5	1330.88	-9.54	340.73	156.29	122.98	10 59 15	730.9	-5.13	334.42
110.00	19 47 2	4708.46	31.17	195.24	162.78	75.20	21 5 30	4108.5	28.82	186.82

DIFFERENTIAL CORRECTIONS

TDE	.8680	TRA	1.9882	TC3	-5.4006	BAU	1.2146
RDE	.2319	RRA	-.2197	RC3	.2477	FAU	.02095
FDE	.3902	FRA	.9307	FC3	-1.0793	BSP	17476
BDE	.8985	BRA	2.0003	BC3	5.4062	FSP	-496

MID-COURSE EXECUTION ACCURACY

SGT	5409.2	SGR	496.2	SG3	146.5		
RRT	-.5253	RRF	-.5066	RTF	.9172		
SGB	5431.9	RZ3	.0257	R13	-.9173		
SG1	5415.5	SG2	421.7	THA	177.22		

ORBIT DETERMINATION ACCURACY

ST	1491.9	SR	337.8	SS	479.7
CRT	.6173	CRS	-.6050	CST	-.9986
LSA	1581.1	MSA	263.8	SSA	23.5
EL1	1506.9	EL2	263.1	ALF	8.21

LAUNCH DATE OCT 2 1970 FLIGHT TIME 182.00 ARRIVAL DATE APR 2 1971

HELIOCENTRIC CONIC DISTANCE 535.495

RL	149.74	LAL	.00	LOL	8.39	VL	25.946	GAL	2.84	AZL	88.79	HCA	260.81	SMA	120.71	ECC	.24523	INC	1.2058	V1	29.758
RP	108.82	LAP	-1.21	LOP	277.20	VP	36.603	GAP	13.04	AZP	90.02	TAL	171.19	TAP	80.00	RCA	91.11	APO	150.31	V2	34.825
RC	178.036	GL	7.35	GP	13.49	ZAL	65.37	ZAP	165.46	ETS	64.53	ZAE	128.12	ETE	169.45	ZAC	116.13	ETC	269.53	CLP	-174.52

PLANETOCENTRIC CONIC

C3	18.255	VHL	4.273	DLA	-12.29	RAL	303.01	RAD	6567.7	VEL	11.817	PTH	2.09	VHP	8.397	DPA	-10.86	RAP	283.34	ECC	1.3004

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 30 14	1801.08	-7.87	16.79	162.52	117.29	9 0 15	1201.1	-4.15	10.08
90.00	17 17 57	5228.64	26.49	235.27	167.61	79.61	18 45 5	4628.6	24.79	227.01
100.00	9 45 17	1558.95	-8.93	358.41	161.95	118.65	10 11 16	959.0	-5.04	351.79
100.00	18 45 35	4946.00	27.67	214.22	167.35	78.22	20 8 1	4346.0	25.77	205.94
110.00	10 39 19	1389.73	-11.71	343.91	160.29	122.35	11 2 29	789.7	-7.35	337.52
110.00	20 8 2	4687.99	30.80	193.75	166.48	74.39	21 26 10	4088.0	28.36	185.41

DIFFERENTIAL CORRECTIONS

TDE	1.0313	TRA	2.2446	TC3	-4.9832	BAU	1.2174
RDE	.2390	RRA	-.2331	RC3	.2203	FAU	.01938
FDE	.4256	FRA	.9743	FC3	-.9190	BSP	17510
BDE	1.0506	BRA	2.2567	BC3	4.9881	FSP	-481

MID-COURSE EXECUTION ACCURACY

SGT	5434.7	SGR	490.4	SG3	142.8		
RRT	-.5042	RRF	-.4846	RTF	.9190		
SGB	5456.8	RZ3	.0213	R13	-.9191		
SG1	5440.3	SG2	423.1	THA	177.38		

ORBIT DETERMINATION ACCURACY

ST	1668.2	SR	334.6	SS	506.4
CRT	.6338	CRS	-.6178	CST	-.9988
LSA	1756.3	MSA	257.4	SSA	21.6
EL1	1682.0	EL2	256.7	ALF	7.42

LAUNCH DATE OCT 2 1970 FLIGHT TIME 184.00 ARRIVAL DATE APR 4 1971

HELIOCENTRIC CONIC DISTANCE 540.913

RL	149.74	LAL	.00	LOL	8.39	VL	25.898	GAL	3.47	AZL	88.62	HCA	271.97	SMA	120.43	ECC	.25029	INC	1.3798	V1	29.758
RP	108.84	LAP	-1.38	LOP	280.36	VP	36.562	GAP	13.42	AZP	89.95	TAL	169.47	TAP	81.44	RCA	90.29	APO	150.58	V2	34.818
RC	180.002	GL	8.01	GP	13.11	ZAL	62.47	ZAP	166.08	ETS	66.92	ZAE	128.18	ETE	169.73	ZAC	115.63	ETC	270.17	CLP	-175.27

PLANETOCENTRIC CONIC

C3	19.945	VHL	4.466	DLA	-10.95	RAL	306.58	RAD	6567.8	VEL	11.888	PTH	2.11	VHP	8.618	DPA	-11.13	RAP	285.75	ECC	1.3282

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 30 4	1866.98	-9.90	20.56	166.52	116.66	9 1 11	1267.0	-6.24	13.79
90.00	17 40 13	5204.52	26.18	233.57	171.39	78.81	19 6 57	4604.5	24.38	225.37
100.00	9 45 56	1622.25	-10.97	2.00	165.96	117.98	10 12 58	1022.3	-7.15	355.30
100.00	19 7 3	4924.48	27.36	212.70	171.12	77.47	20 29 7	4324.5	25.36	204.47
110.00	10 41 44	1447.47	-13.79	347.09	164.31	121.59	11 5 52	847.5	-9.51	340.61
110.00	20 27 43	4672.02	30.51	192.61	170.20	73.77	21 45 35	4072.0	27.98	184.32

DIFFERENTIAL CORRECTIONS

TDE	1.1960	TRA	2.5109	TC3	-4.5710	BAU	1.2200
RDE	.2475	RRA	-.2459	RC3	.1946	FAU	.01792
FDE	.4580	FRA	1.0168	FC3	-.7778	BSP	17600
BDE	1.2214	BRA	2.5229	BC3	4.5752	FSP	-470

MID-COURSE EXECUTION ACCURACY

SGT	5457.9	SGR	484.0	SG3	139.1		
RRT	-.4833	RRF	-.4634	RTF	.9213		
SGB	5479.4	RZ3	.0176	R13	-.9213		
SG1	5463.0	SG2	423.4	THA	177.53		

ORBIT DETERMINATION ACCURACY

ST	1827.1	SR	331.9	SS	528.9
CRT	.6459	CRS	-.6279	CST	-.9990
LSA	1914.2	MSA	252.4	SSA	20.1
EL1	1839.9	EL2	251.6	ALF	6.82

LAUNCH DATE OCT 2 1970 FLIGHT TIME 186.00 ARRIVAL DATE APR 6 1971

HELIOCENTRIC CONIC DISTANCE 546.281

RL	149.74	LAL	.00	LOL	8.39	VL	25.850	GAL	4.14	AZL	88.45	HCA	275.13	SMA	120.17	ECC	.25581	INC	1.5544	V1	29.758
RP	108.86	LAP	-1.55	LOP	283.52	VP	36.523	GAP	13.82	AZP	89.86	TAL	167.76	TAP	82.89	RCA	89.43	APO	150.91	V2	34.812
RC	181.954	GL	8.59	GP	12.76	ZAL	59.71	ZAP	166.65	ETS	69.56	ZAE	128.23	ETE	169.99	ZAC	115.14	ETC	270.82	CLP	-176.02

PLANETOCENTRIC CONIC

C3	21.906	VHL	4.680	DLA	-9.69	RAL	309.21	RAD	6567.9	VEL	11.970	PTH	2.13	VHP	8.856	DPA	-11.32	RAP	288.17	ECC	1.3605

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 30 19	1930.92	-11.83	24.26	170.56	115.92	9 2 30	1330.9	-8.25	17.42
90.00	18 0 56	5185.57	25.93	232.24	175.18	78.20	19 27 22	4585.6	24.04	224.08
100.00	9 46 53	1683.88	-12.92	5.54	170.00	117.19	10 14 57	1083.9	-9.17	358.76
100.00	19 27 3	4907.84	27.11	211.52	174.89	76.91	20 48 51	4307.8	25.04	203.34
110.00	10 44 17	1504.15	-15.78	350.27	168.37	120.72	11 9 21	904.1	-11.59	343.67
110.00	20 46 8	4660.34	30.28	191.77	173.93	73.32	22 3 49	4060.3	27.70	183.53

DIFFERENTIAL CORRECTIONS

TDE	1.3651	TRA	2.7893	TC3	-4.1653	BAU	1.2209
RDE	.2572	RRA	-.2582	RC3	.1703	FAU	.01650
FDE	.4889	FRA	1.0591	FC3	-.6522	BSP	17704
BDE	1.3891	BRA	2.8012	BC3	4.1688	FSP	-459

MID-COURSE EXECUTION ACCURACY

SGT	5476.7	SGR	476.8	SG3	135.5		
RRT	-.4618	RRF	-.4420	RTF	.9238		
SGB	5497.4	RZ3	.0145	R13	-.9238		
SG1	5481.2	SG2	422.6	THA	177.68		

ORBIT DETERMINATION ACCURACY

ST	1971.4	SR	329.2	SS	548.7
CRT	.6558	CRS	-.6370	CST	-.9991
LSA	2057.6	MSA	247.9	SSA	18.8
EL1	1983.3	EL2	247.1	ALF	6.35

LAUNCH DATE OCT 2 1970 FLIGHT TIME 188.00 ARRIVAL DATE APR 8 1971

HELIOCENTRIC CONIC DISTANCE 551.592

RL	149.74	LAL	.00	LOL	8.39	VL	25.803	GAL	4.84	AZL	88.27	HCA	278.29	SMA	119.90	ECC	.26186	INC	1.7307	V1	29.758
RP	108.87	LAP	-1.71	LOP	286.69	VP	36.484	GAP	14.25	AZP	89.75	TAL	166.06	TAP	84.35	RCA	88.51	APO	151.30	V2	34.806
RC	183.891	GL	9.09	GP	12.44	ZAL	57.09	ZAP	167.16	ETS	72.47	ZAE	128.27	ETE	170.22	ZAC	114.65	ETC	271.45	CLP	-176.78

PLANETOCENTRIC CONIC

C3	24.176	VHL	4.917	DLA	-8.51	RAL	311.70	RAD	6568.0	VEL	12.065	PTH	2.16	VHP	9.113	DPA	-11.44	RAP	290.59	ECC	1.3979

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 30 54	1993.06	-13.65	27.92	174.62	115.05	9 4 7	1393.1	-10.16	20.98
90.00	18 20 13	5171.44	25.73	231.26	178.97	77.74	19 46 25	4571.4	23.78	223.13
100.00	9 48 6	1743.98	-14.76	9.06	174.07	116.29	10 17 10	1144.0	-11.11	2.17
100.00	19 45 42	4895.76	26.92	210.67	178.66	76.50	21 7 17	4295.8	24.80	202.52
110.00	10 46 56	1559.79	-17.69	353.45	172.44	119.74	11 12 55	959.8	-13.60	346.73
110.00	21 3 21	4652.71	30.13	191.23	177.67	73.03	22 20 54	4052.7	27.51	183.01

DIFFERENTIAL CORRECTIONS

TDE	1.5397	TRA	3.0818	TC3	-3.7708	BAU	1.2197
RDE	.2881	RRA	-.2897	RC3	.1475	FAU	.01514
FDE	.5189	FRA	1.1020	FC3	-.5421	BSP	17790
BDE	1.5628	BRA	3.0936	BC3	3.7737	FSP	-448

MID-COURSE EXECUTION ACCURACY

SGT	5491.4	SGR	468.6	SG3	132.1		
RRT	-.4397	RRF	-.4204	RTF	.9266		
SGB	5511.3	RZ3	.0118	R13	-.9266		
SG1	5495.3	SG2	420.6	THA	177.84		

ORBIT DETERMINATION ACCURACY

ST	2101.9	SR	326.6	SS	566.5
CRT	.6644	CRS	-.6455	CST	-.9992
LSA	2187.7	MSA	243.7	SSA	17.6
EL1	2113.3	EL2	242.8	ALF	5.97

LAUNCH DATE OCT 2 1970 FLIGHT TIME 190.00 ARRIVAL DATE APR 10 1971

HELIOCENTRIC CONIC DISTANCE 556.837

RL	149.74	LAL	.00	LOL	8.39	VL	25.757	GAL	5.57	AZL	88.09	HCA	281.45	SMA	119.65	ECC	.26848	INC	1.9098	V1	29.758
RP	108.89	LAP	-1.87	LOP	289.85	VP	36.447	GAP	14.72	AZP	89.62	TAL	164.37	TAP	85.82	RCA	87.52	APO	151.77	V2	34.801
RC	185.813	GL	9.50	GP	12.14	ZAL	54.61	ZAP	167.61	ETS	75.65	ZAE	128.30	ETE	170.45	ZAC	114.17	ETC	272.08	CLP	-177.54

PLANETOCENTRIC CONIC

C3	26.796	VHL	5.177	DLA	-7.42	RAL	314.05	RAD	6568.1	VEL	12.173	PTH	2.18	VHP	9.391	DPA	-11.50	RAP	293.01	ECC	1.4410

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 31 44	2053.53	-15.36	31.53	178.70	114.08	9 5 57	1453.5	-11.98	24.49
90.00	18 38 9	5161.77	25.58	230.58	182.75	77.43	20 4 11	4561.8	23.60	222.48
100.00	9 49 31	1802.61	-16.50	12.54	178.15	115.29	10 19 33	1202.6	-12.96	5.54
100.00	20 3 3	4887.93	26.80	210.13	182.43	76.24	21 24 31	4287.9	24.64	201.99
110.00	10 49 37	1614.40	-19.51	356.65	176.54	118.64	11 16 32	1014.4	-15.53	349.79
110.00	21 19 26	4648.90	30.05	190.96	181.41	72.89	22 36 55	4048.9	27.42	182.76

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.7197	TRA	3.3892	TC3	-3.3932	BAU	1.2164	SGT	5502.4	SGR	459.6	SG3	128.7	ST	2218.6	SR	324.0	SS	582.6
RDE	.2802	RRA	-.2803	RC3	.1265	FAU	.01382	RRT	-.4165	RRF	-.3982	RTF	.9297	CRT	.6723	CRS	-.6538	CST	-.9993
FDE	.5482	FRA	1.1457	FC3	-.4466	BSP	17877	SGB	5521.5	R23	.0095	R13	-.9297	LSA	2304.2	MSA	239.5	SSA	16.7
BDE	1.7424	BRA	3.4008	BC3	3.3956	FSP	-438	SG1	5505.7	SG2	417.5	THA	178.00	EL1	2229.4	EL2	238.7	ALF	5.67

LAUNCH DATE OCT 2 1970 FLIGHT TIME 192.00 ARRIVAL DATE APR 12 1971

HELIOCENTRIC CONIC DISTANCE 562.007

RL	149.74	LAL	.00	LOL	8.39	VL	25.712	GAL	6.35	AZL	87.91	HCA	284.61	SMA	119.39	ECC	.27575	INC	2.0929	V1	29.758
RP	108.90	LAP	-2.03	LOP	293.01	VP	36.410	GAP	15.21	AZP	89.47	TAL	162.69	TAP	87.31	RCA	86.47	APO	152.32	V2	34.797
RC	187.719	GL	9.84	GP	11.87	ZAL	52.27	ZAP	168.01	ETS	79.10	ZAE	128.32	ETE	170.65	ZAC	113.69	ETC	272.70	CLP	-178.30

PLANETOCENTRIC CONIC

C3	29.821	VHL	5.461	DLA	-6.41	RAL	316.27	RAD	6568.2	VEL	12.296	PTH	2.21	VHP	9.691	DPA	-11.49	RAP	295.42	ECC	1.4908

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 32 46	2112.42	-16.97	35.12	182.78	113.02	9 7 59	1512.4	-13.70	27.96
90.00	18 54 49	5156.26	25.50	230.20	186.52	77.26	20 20 45	4556.3	23.49	222.11
100.00	9 51 4	1859.84	-18.13	16.01	182.25	114.18	10 22 4	1259.8	-14.71	8.89
100.00	20 19 13	4884.06	26.74	209.86	186.20	76.11	21 40 37	4284.1	24.56	201.73
110.00	10 52 20	1668.01	-21.22	359.86	180.66	117.45	11 20 8	1068.0	-17.38	352.84
110.00	21 34 26	4648.66	30.05	190.94	185.15	72.88	22 51 54	4048.7	27.41	182.74

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.9047	TRA	3.7118	TC3	-3.0349	BAU	1.2107	SGT	5508.0	SGR	449.6	SG3	125.3	ST	2320.7	SR	321.4	SS	597.0
RDE	.2936	RRA	-.2897	RC3	.1072	FAU	.01256	RRT	-.3922	RRF	-.3752	RTF	.9330	CRT	.6801	CRS	-.6621	CST	-.9993
FDE	.5766	FRA	1.1901	FC3	-.3647	BSP	17980	SGB	5526.3	R23	.0077	R13	-.9330	LSA	2406.2	MSA	235.4	SSA	15.8
BDE	1.9271	BRA	3.7231	BC3	3.0368	FSP	-428	SG1	5510.9	SG2	413.3	THA	178.16	EL1	2331.1	EL2	234.6	ALF	5.44

LAUNCH DATE OCT 2 1970 FLIGHT TIME 194.00 ARRIVAL DATE APR 14 1971

HELIOCENTRIC CONIC DISTANCE 567.088

RL	149.74	LAL	.00	LOL	8.39	VL	25.667	GAL	7.18	AZL	87.72	HCA	287.77	SMA	119.15	ECC	.28372	INC	2.2813	V1	29.758
RP	108.92	LAP	-2.17	LOP	296.17	VP	36.375	GAP	15.75	AZP	89.30	TAL	161.04	TAP	88.81	RCA	85.34	APO	152.95	V2	34.793
RC	189.610	GL	10.12	GP	11.63	ZAL	50.07	ZAP	168.34	ETS	82.81	ZAE	128.32	ETE	170.85	ZAC	113.21	ETC	273.30	CLP	-179.07

PLANETOCENTRIC CONIC

C3	33.314	VHL	5.772	DLA	-5.47	RAL	318.36	RAD	6568.3	VEL	12.437	PTH	2.25	VHP	10.018	DPA	-11.41	RAP	297.82	ECC	1.5483

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 33 59	2169.78	-18.46	38.66	186.88	111.86	9 10 9	1569.8	-15.33	31.39
90.00	19 10 18	5154.58	25.48	230.08	190.28	77.20	20 36 12	4554.6	23.46	221.99
100.00	9 52 44	1915.72	-19.65	19.46	186.36	112.99	10 24 40	1315.7	-16.37	12.21
100.00	20 34 13	4883.88	26.73	209.84	189.95	76.10	21 55 37	4283.9	24.56	201.72
110.00	10 55 4	1720.60	-22.84	3.09	184.79	116.15	11 23 44	1120.6	-19.14	355.91
110.00	21 48 23	4651.76	30.11	191.16	188.89	73.00	23 5 55	4051.8	27.49	182.95

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.0961	TRA	4.0511	TC3	-2.6977	BAU	1.2021	SGT	5508.9	SGR	438.7	SG3	122.0	ST	2409.8	SR	318.7	SS	610.5
RDE	.3082	RRA	-.2976	RC3	.0898	FAU	.01135	RRT	-.3663	RRF	-.3507	RTF	.9366	CRT	.6881	CRS	-.6709	CST	-.9994
FDE	.6049	FRA	1.2357	FC3	-.2949	BSP	18103	SGB	5526.3	R23	.0062	R13	-.9366	LSA	2495.5	MSA	231.0	SSA	15.0
BDE	2.1186	BRA	4.0620	BC3	2.6992	FSP	-420	SG1	5511.2	SG2	408.0	THA	178.32	EL1	2419.8	EL2	230.3	ALF	5.25

LAUNCH DATE OCT 2 1970 FLIGHT TIME 196.00 ARRIVAL DATE APR 16 1971

HELIOCENTRIC CONIC DISTANCE 572.068

RL	149.74	LAL	.00	LOL	8.39	VL	25.623	GAL	8.06	AZL	87.52	HCA	290.93	SMA	118.91	ECC	.29249	INC	2.4764	V1	29.758
RP	108.93	LAP	-2.31	LOP	299.33	VP	36.341	GAP	16.33	AZP	89.11	TAL	159.42	TAP	90.34	RCA	84.13	APO	153.69	V2	34.790
RC	191.483	GL	10.33	GP	11.40	ZAL	48.00	ZAP	168.60	ETS	86.78	ZAE	128.31	ETE	171.04	ZAC	112.74	ETC	273.90	CLP	-179.86

PLANETOCENTRIC CONIC

C3	37.350	VHL	6.111	DLA	-4.61	RAL	320.33	RAD	6568.5	VEL	12.598	PTH	2.29	VHP	10.375	DPA	-11.29	RAP	300.20	ECC	1.6147

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 35 19	2225.66	-19.84	42.18	190.97	110.63	9 12 25	1625.7	-16.85	34.78
90.00	19 24 30	5156.47	25.50	230.21	194.02	77.26	20 50 35	4556.5	23.50	222.12
100.00	9 54 30	1970.25	-21.06	22.90	190.46	111.72	10 27 20	1370.3	-17.93	15.50
100.00	20 48 9	4887.11	26.79	210.07	193.68	76.21	22 9 36	4287.1	24.62	201.94
110.00	10 57 46	1772.16	-24.35	6.33	188.93	114.77	11 27 19	1172.2	-20.80	358.98
110.00	22 1 22	4657.97	30.23	191.60	192.61	73.23	23 19 0	4058.0	27.64	183.37

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.2874	TRA	4.4081	TC3	-2.3838	BAU	1.1909	SGT	5502.6	SGR	426.9	SG3	118.8	ST	2480.6	SR	315.7	SS	623.1
RDE	.3241	RRA	-.3039	RC3	.0741	FAU	.01018	RRT	-.3396	RRF	-.3250	RTF	.9403	CRT	.6954	CRS	-.6799	CST	-.9995
FDE	.6329	FRA	1.2831	FC3	-.2359	BSP	18281	SGB	5519.1	R23	.0043	R13	-.9403	LSA	2567.0	MSA	226.7	SSA	14.3
BDE	2.3102	BRA	4.4186	BC3	2.3849	FSP	-412	SG1	5504.5	SG2	401.4	THA	178.48	EL1	2490.4	EL2	226.0	ALF	5.10

LAUNCH DATE OCT 2 1970 FLIGHT TIME 198.00 ARRIVAL DATE APR 18 1971

HELIOCENTRIC CONIC DISTANCE 576.927

RL	149.74	LAL	.00	LOL	8.39	VL	25.580	GAL	9.00	AZL	87.32	HCA	294.08	SMA	118.67	ECC	.30216	INC	2.6799	V1	29.758
RP	108.93	LAP	-2.45	LOP	302.49	VP	36.309	GAP	16.96	AZP	88.91	TAL	157.82	TAP	91.90	RCA	82.81	APO	154.53	V2	34.788
RC	193.340	GL	10.50	GP	11.19	ZAL	46.06	ZAP	168.79	ETS	90.99	ZAE	128.28	ETE	171.22	ZAC	112.26	ETC	274.48	CLP	179.34

PLANETOCENTRIC CONIC

C3	42.025	VHL	6.483	DLA	-3.83	RAL	322.17	RAD	6568.6	VEL	12.782	PTH	2.33	VHP	10.764	DPA	-11.10	RAP	302.56	ECC	1.6916

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 36 46	2280.06	-21.10	45.67	195.04	109.33	9 14 46	1680.1	-18.27	38.14
90.00	19 37 56	5101.63	25.58	230.57	197.73	77.43	21 3 57	4561.6	23.60	222.47
100.00	9 56 19	2023.44	-22.36	26.31	194.55	110.37	10 30 3	1423.4	-19.39	18.78
100.00	21 1 4	4893.48	26.89	210.52	197.39	76.42	22 22 37	4293.5	24.75	202.37
110.00	11 0 27	1822.65	-25.75	9.59	193.07	113.30	11 30 50	1222.7	-22.37	2.06
110.00	22 13 25	4667.04	30.41	192.25	196.31	73.58	23 31 12	4067.0	27.86	183.98

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.4999	TRA	4.7877	TC3	-2.0908	BAU	1.1752	SGT	5496.9	SGR	414.4	SG3	115.7	ST	2550.9	SR	312.8	SS	635.8
RDE	.3415	RRA	-.3082	RC3	.0602	FAU	.00903	RRT	-.3084	RRF	-.2967	RTF	.9444	CRT	.7051	CRS	-.6896	CST	-.9995
FDE	.6615	FRA	1.3327	FC3	-.1861	BSP	18370	SGB	5512.5	RZS	.0042	R13	-.9444	LSA	2638.2	MSA	221.7	SSA	13.7
BDE	2.5231	BRA	4.7976	BC3	2.0917	FSP	-405	SG1	5498.4	SG2	394.1	THA	178.66	EL1	2560.5	EL2	221.0	ALF	4.98

LAUNCH DATE OCT 2 1970 FLIGHT TIME 200.00 ARRIVAL DATE APR 20 1971

HELIOCENTRIC CONIC DISTANCE 581.644

RL	149.74	LAL	.00	LOL	8.39	VL	25.538	GAL	10.01	AZL	87.11	HCA	297.24	SMA	118.45	ECC	.31284	INC	2.8937	V1	29.758
RP	108.94	LAP	-2.57	LOP	305.66	VP	36.278	GAP	17.66	AZP	88.67	TAL	156.27	TAP	93.51	RCA	81.39	APO	155.50	V2	34.786
RC	195.178	GL	10.62	GP	11.00	ZAL	44.25	ZAP	168.90	ETS	95.41	ZAE	128.22	ETE	171.40	ZAC	111.79	ETC	275.04	CLP	178.52

PLANETOCENTRIC CONIC

C3	47.452	VHL	6.889	DLA	-3.11	RAL	323.90	RAD	6568.8	VEL	12.993	PTH	2.37	VHP	11.191	DPA	-10.87	RAP	304.90	ECC	1.7809

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 38 18	2332.96	-22.25	49.12	199.10	107.98	9 17 11	1733.0	-19.59	41.46
90.00	19 50 11	5169.80	25.70	231.14	201.40	77.69	21 16 21	4569.8	23.75	223.02
100.00	9 58 11	2075.24	-23.55	29.70	198.63	108.96	10 32 46	1475.2	-20.75	22.03
100.00	21 12 59	4902.75	27.03	211.16	201.06	76.73	22 34 41	4302.8	24.94	202.99
110.00	11 3 6	1872.02	-27.04	12.85	197.20	111.76	11 34 18	1272.0	-23.84	5.14
110.00	22 24 33	4678.74	30.63	193.09	199.99	74.03	23 42 32	4078.7	28.14	184.78

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.7160	TRA	5.1999	TC3	-1.8186	BAU	1.1541	SGT	5483.6	SGR	401.1	SG3	112.7	ST	2606.0	SR	309.5	SS	648.8
RDE	.3602	RRA	-.3102	RC3	.0479	FAU	.00790	RRT	-.2753	RRF	-.2658	RTF	.9485	CRT	.7144	CRS	-.7000	CST	-.9996
FDE	.6911	FRA	1.3854	FC3	-.1441	BSP	18510	SGB	5498.2	RZS	.0035	R13	-.9485	LSA	2694.6	MSA	216.5	SSA	13.0
BDE	2.7398	BRA	5.1991	BC3	1.8192	FSP	-397	SG1	5484.7	SG2	385.5	THA	178.84	EL1	2615.4	EL2	215.8	ALF	4.88

LAUNCH DATE OCT 2 1970 FLIGHT TIME 202.00 ARRIVAL DATE APR 22 1971

HELIOCENTRIC CONIC DISTANCE 586.191

RL	149.74	LAL	.00	LOL	8.39	VL	25.497	GAL	11.09	AZL	86.88	HCA	300.39	SMA	118.22	ECC	.32467	INC	3.1199	V1	29.758
RP	108.94	LAP	-2.69	LOP	308.82	VP	36.248	GAP	18.42	AZP	88.42	TAL	154.76	TAP	95.16	RCA	79.84	APO	156.61	V2	34.785
RC	196.997	GL	10.70	GP	10.82	ZAL	42.57	ZAP	168.93	ETS	100.00	ZAE	128.14	ETE	171.57	ZAC	111.31	ETC	275.59	CLP	177.68

PLANETOCENTRIC CONIC

C3	53.774	VHL	7.333	DLA	-2.46	RAL	325.51	RAD	6568.9	VEL	13.234	PTH	2.42	VHP	11.662	DPA	-10.59	RAP	307.20	ECC	1.8850

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 39 53	2384.31	-23.29	52.53	203.12	106.57	9 19 37	1784.3	-20.80	44.74
90.00	20 1 28	5180.73	25.86	231.90	205.04	78.04	21 27 48	4580.7	23.95	223.75
100.00	10 0 5	2125.61	-24.62	33.06	202.67	107.51	10 35 30	1525.6	-22.00	25.25
100.00	21 23 57	4914.67	27.22	212.00	204.70	77.14	22 45 51	4314.7	25.17	203.80
110.00	11 5 42	1920.20	-28.21	16.10	201.30	110.16	11 37 42	1320.2	-25.20	8.22
110.00	22 34 49	4692.84	30.89	194.10	203.84	74.58	23 53 2	4092.8	28.47	185.74

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.9447	TRA	5.6196	TC3	-1.5666	BAU	1.1266	SGT	5467.0	SGR	387.2	SG3	109.8	ST	2652.7	SR	306.0	SS	662.9
RDE	.3804	RRA	-.3095	RC3	.0372	FAU	.00675	RRT	-.2387	RRF	-.2316	RTF	.9528	CRT	.7244	CRS	-.7110	CST	-.9996
FDE	.7222	FRA	1.4420	FC3	-.1086	BSP	18608	SGB	5480.6	RZS	.0031	R13	-.9528	LSA	2743.2	MSA	210.8	SSA	12.4
BDE	2.9692	BRA	5.6282	BC3	1.5670	FSP	-389	SG1	5467.7	SG2	376.0	THA	179.03	EL1	2662.0	EL2	210.2	ALF	4.81

LAUNCH DATE OCT 2 1970 FLIGHT TIME 204.00 ARRIVAL DATE APR 24 1971

HELIOCENTRIC CONIC DISTANCE 590.533

RL	149.74	LAL	.00	LOL	8.39	VL	25.457	GAL	12.26	AZL	86.64	HCA	303.55	SMA	118.01	ECC	.33780	INC	3.3613	V1	29.758
RP	108.94	LAP	-2.80	LOP	311.98	VP	36.219	GAP	19.26	AZP	88.14	TAL	153.31	TAP	96.86	RCA	78.15	APO	157.87	V2	34.785
RC	196.798	GL	10.75	GP	10.66	ZAL	41.01	ZAP	168.88	ETS	104.72	ZAE	128.03	ETE	171.74	ZAC	110.84	ETC	276.12	CLP	176.80

PLANETOCENTRIC CONIC

C3	61.168	VHL	7.821	DLA	-1.87	RAL	327.01	RAD	6569.1	VEL	13.510	PTH	2.47	VHP	12.182	DPA	-10.27	RAP	309.47	ECC	2.0067

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 41 31	2434.01	-24.22	55.88	207.08	105.14	9 22 5	1834.6	-21.90	47.97
90.00	20 11 46	5194.19	26.04	232.85	208.62	78.48	21 38 21	4594.2	24.19	224.67
100.00	10 1 59	2174.43	-25.58	36.37	206.66	106.01	10 38 14	1574.4	-23.14	28.42
100.00	21 33 59	4929.00	27.43	213.01	208.29	77.63	22 56 8	4329.0	25.45	204.77
110.00	11 8 14	1967.07	-29.27	19.34	205.37	108.51	11 41 1	1367.1	-26.46	11.28
110.00	22 44 14	4709.13	31.18	195.29	207.25	75.22	24 2 43	4109.1	28.84	186.87

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	3.1888	TRA	6.0812	TC3	-1.3334	BAU	1.0907	SGT	5447.4	SGR	372.8	SG3	107.1	ST	2692.3	SR	302.3	SS	678.7
RDE	.4022	RRA	-.3058	RC3	.0280	FAU	.00556	RRT	-.1980	RRF	-.1931	RTF	.9571	CRT	.7353	CRS	-.7229	CST	-.9997
FDE	.7557	FRA	1.5036	FC3	-.0786	BSP	18644	SGB	5460.2	RZS	.0029	R13	-.9571	LSA	2785.4	MSA	204.8	SSA	11.9
BDE	3.2138	BRA	6.0888	BC3	1.3337	FSP	-380	SG1	5447.9	SG2	365.4	THA	179.22	EL1	2701.5	EL2	204.2	ALF	4.75

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LAUNCH DATE  OCT  2 1970                          FLIGHT TIME 206.00                          ARRIVAL DATE  APR 26 1971

  HELIOCENTRIC CONIC                              DISTANCE 594.629
   RL  149.74 LAL     .00 LOL    8.39 VL  25.418 GAL  13.53 AZL  86.38 HCA 306.70 SMA 117.80 ECC .35241 INC 3.6210 V1  29.758
   RP  108.94 LAP   -2.90 LOP 315.15 VP  36.193 GAP  20.20 AZP  87.83 TAL 151.94 TAP  98.64 RCA  76.29 APO 159.31 V2  34.786
   RC 200.578 GL    10.76 GP   10.51 ZAL  39.57 ZAP 168.73 ETS 109.51 ZAE 127.88 ETE 171.91 ZAC 110.37 ETC 276.64 CLP 175.89
  PLANETOCENTRIC CONIC
   C3  69.858 VHL  8.358 DLA   -1.36 RAL 328.39 RAD 6569.3 VEL 13.828 PTH   2.53 VHP 12.759 DPA  -9.92 RAP 311.70 ECC 2.1497
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      90.00     8 43 11   2481.94     -25.03      59.15      210.98      103.69    9 24 33     1881.9     -22.90      51.13
      90.00    20 21  9   5209.95      26.25     233.95      212.14       78.99   21 47 58     4609.9      24.47     225.74
     100.00    10  3 54   2221.59     -26.43      39.62      210.59      104.50   10 40 56     1621.6     -24.17      31.54
     100.00    21 43  7   4945.54      27.67     214.19      211.82       78.20   23  5 32     4345.5      25.76     205.90
     110.00    11 10 42   2012.49     -30.20      22.54      209.39      106.82   11 44 15     1412.5     -27.61      14.32
     110.00    22 52 48   4727.40      31.49     196.62      210.81       75.96   24 11 36     4127.4      29.24     188.14
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
   TDE 3.4502 TRA 6.5788 TC3-1.1181 BAU 1.0444      SGT 5425.6 SGR  358.1 SG3  104.5      ST  2725.6 SR   298.3 SS   696.6
   RDE  .4259 RRA -.2983 RC3  .0203 FAU .00430      RRT -.1521 RRF -.1496 RTF  .9615      CRT  .7470 CRS -.7358 CST -.9997
   FDE  .7921 FRA 1.5709 FC3 -.0533 BSP  18601      SGB 5437.4 R23  .0028 R13 -.9615      LSA 2822.0 MSA  198.2 SSA   11.3
   BDE 3.4764 BRA 6.5856 BC3 1.1183 FSP   -370      SG1 5425.9 SG2  353.9 THA 179.42      EL1 2734.7 EL2  197.7 ALF   4.70

LAUNCH DATE  OCT  2 1970                          FLIGHT TIME 208.00                          ARRIVAL DATE  APR 28 1971

  HELIOCENTRIC CONIC                              DISTANCE 598.421
   RL  149.74 LAL     .00 LOL    8.39 VL  25.380 GAL  14.91 AZL  86.10 HCA 309.86 SMA 117.60 ECC .36873 INC 3.9029 V1  29.758
   RP  108.93 LAP   -3.00 LOP 318.31 VP  36.167 GAP  21.24 AZP  87.50 TAL 150.65 TAP 100.51 RCA  74.24 APO 160.96 V2  34.787
   RC 202.339 GL    10.75 GP   10.37 ZAL  38.26 ZAP 168.48 ETS 114.33 ZAE 127.68 ETE 172.08 ZAC 109.89 ETC 277.12 CLP 174.94
  PLANETOCENTRIC CONIC
   C3  80.127 VHL  8.951 DLA    -.90 RAL 329.66 RAD 6569.6 VEL 14.194 PTH   2.59 VHP 13.403 DPA  -9.54 RAP 313.87 ECC 2.3187
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      90.00     8 44 53   2527.94     -25.73      62.34      214.78      102.24    9 27  1     1927.9     -23.79      54.21
      90.00    20 29 34   5227.80      26.48     235.21      215.58       79.58   21 56 42     4627.8      24.77     226.96
     100.00    10  5 48   2266.90     -27.16      42.79      214.42      102.99   10 43 35     1666.9     -25.10      34.59
     100.00    21 51 19   4964.07      27.92     215.51      215.28       78.86   23 14  4     4364.1      26.10     207.18
     110.00    11 13  5   2056.28     -31.03      25.69      213.31      105.13   11 47 22     1456.3     -28.64      17.30
     110.00    23  0 32   4747.45      31.81     198.09      214.31       76.78   24 19 39     4147.5      29.67     189.54
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
   TDE 3.7330 TRA 7.1179 TC3 -.9198 BAU  .9854      SGT 5402.1 SGR  343.2 SG3  102.1      ST  2753.2 SR   294.3 SS   717.1
   RDE  .4516 RRA -.2864 RC3  .0140 FAU .00294      RRT -.1003 RRF -.1001 RTF  .9659      CRT  .7597 CRS -.7495 CST -.9998
   FDE  .8320 FRA 1.6451 FC3 -.0317 BSP  18456      SGB 5413.0 R23  .0028 R13 -.9659      LSA 2853.8 MSA  191.3 SSA   10.8
   BDE 3.7602 BRA 7.1237 BC3  .9199 FSP   -358      SG1 5402.3 SG2  341.5 THA 179.63      EL1 2762.3 EL2  190.7 ALF   4.66

LAUNCH DATE  OCT  2 1970                          FLIGHT TIME 210.00                          ARRIVAL DATE  APR 30 1971

  HELIOCENTRIC CONIC                              DISTANCE 601.841
   RL  149.74 LAL     .00 LOL    8.39 VL  25.343 GAL  16.43 AZL  85.79 HCA 313.01 SMA 117.41 ECC .38701 INC 4.2120 V1  29.758
   RP  108.93 LAP   -3.08 LOP 321.48 VP  36.144 GAP  22.41 AZP  87.12 TAL 149.46 TAP 102.47 RCA  71.97 APO 162.85 V2  34.789
   RC 204.080 GL    10.71 GP   10.24 ZAL  37.08 ZAP 168.12 ETS 119.12 ZAE 127.44 ETE 172.26 ZAC 109.43 ETC 277.59 CLP 173.93
  PLANETOCENTRIC CONIC
   C3  92.338 VHL  9.609 DLA    -.51 RAL 330.81 RAD 6569.8 VEL 14.618 PTH   2.65 VHP 14.124 DPA  -9.13 RAP 315.99 ECC 2.5197
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      90.00     8 46 35   2571.77     -26.33      65.41      218.46      100.82    9 29 27     1971.8     -24.57      57.18
      90.00    20 37  1   5247.58      26.72     236.61      218.94       80.25   22  4 29     4647.6      25.10     228.32
     100.00    10  7 42   2310.15     -27.79      45.85      218.14      101.49   10 46 12     1710.2     -25.92      37.54
     100.00    21 58 36   4984.43      28.18     216.97      218.64       79.58   23 21 40     4384.4      26.45     208.59
     110.00    11 15 23   2098.24     -31.73      28.76      217.13      103.44   11 50 22     1498.2     -29.56      20.22
     110.00    23  7 24   4769.11      32.14     199.70      217.72       77.67   24 26 53     4169.1      30.11     191.07
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
   TDE 4.0397 TRA 7.7040 TC3 -.7380 BAU  .9111      SGT 5377.3 SGR  328.6 SG3   99.8      ST  2775.4 SR   290.1 SS   740.7
   RDE  .4798 RRA -.2694 RC3  .0090 FAU .00144      RRT -.0415 RRF -.0433 RTF  .9702      CRT  .7733 CRS -.7642 CST -.9998
   FDE  .8762 FRA 1.7276 FC3 -.0135 BSP  18197      SGB 5387.4 R23  .0029 R13 -.9702      LSA 2881.2 MSA  183.9 SSA   10.3
   BDE 4.0681 BRA 7.7087 BC3  .7380 FSP   -344      SG1 5377.3 SG2  328.3 THA 179.85      EL1 2784.5 EL2  183.4 ALF   4.64

LAUNCH DATE  OCT  2 1970                          FLIGHT TIME 212.00                          ARRIVAL DATE  MAY  2 1971

  HELIOCENTRIC CONIC                              DISTANCE 604.796
   RL  149.74 LAL     .00 LOL    8.39 VL  25.309 GAL  18.11 AZL  85.45 HCA 316.16 SMA 117.23 ECC .40757 INC 4.5547 V1  29.758
   RP  108.92 LAP   -3.15 LOP 324.64 VP  36.122 GAP  23.73 AZP  86.71 TAL 148.41 TAP 104.57 RCA  69.45 APO 165.00 V2  34.792
   RC 205.802 GL    10.64 GP   10.11 ZAL  36.02 ZAP 167.64 ETS 123.85 ZAE 127.12 ETE 172.44 ZAC 108.96 ETC 278.03 CLP 172.86
  PLANETOCENTRIC CONIC
   C3 106.961 VHL 10.342 DLA    -.19 RAL 331.83 RAD 6570.1 VEL 15.110 PTH   2.72 VHP 14.936 DPA  -8.70 RAP 318.03 ECC 2.7603
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      90.00     8 48 18   2613.18     -26.83      68.34      221.99       99.43    9 31 51     2013.2     -25.25      60.03
      90.00    20 43 29   5269.14      26.96     238.14      222.18       80.98   22 11 18     4669.1      25.43     229.81
     100.00    10  9 33   2351.08     -28.31      48.78      221.71      100.03   10 48 44     1751.1     -26.63      40.38
     100.00    22  4 54   5006.47      28.44     218.55      221.90       80.38   23 28 21     4406.5      26.82     210.13
     110.00    11 17 35   2138.10     -32.32      31.72      220.81      101.78   11 53 13     1538.1     -30.36      23.05
     110.00    23 13 21   4792.21      32.46     201.42      221.04       78.65   24 33 14     4192.2      30.56     192.72
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
   TDE 4.3744 TRA 8.3435 TC3 -.5721 BAU  .8181      SGT 5351.5 SGR  314.5 SG3   97.7      ST  2792.3 SR   286.1 SS   768.1
   RDE  .5111 RRA -.2461 RC3  .0054 FAU-.00024      RRT  .0254 RRF  .0218 RTF  .9744      CRT  .7879 CRS -.7798 CST -.9998
   FDE  .9253 FRA 1.8195 FC3  .0019 BSP  17799      SGB 5360.8 R23 -.0031 R13  .9744      LSA 2904.8 MSA  176.1 SSA    9.7
   BDE 4.4042 BRA 8.3471 BC3  .5721 FSP   -328      SG1 5351.5 SG2  314.4 THA    .09      EL1 2801.5 EL2  175.6 ALF   4.63
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LAUNCH DATE OCT 2 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAY 4 1971

HELIOCENTRIC CONIC DISTANCE 607.169

RL	149.74	LAL	.00	LOL	8.39	VL	25.276	GAL	19.98	AZL	85.06	HCA	319.32	SMA	117.06	ECC	.43076	INC	4.9392	V1	29.758
RP	108.91	LAP	-3.22	LOP	327.81	VP	36.102	GAP	25.22	AZP	86.25	TAL	147.50	TAP	106.82	RCA	66.63	APO	167.48	V2	34.795
RC	207.503	GL	10.56	GP	9.99	ZAL	35.11	ZAP	167.04	ETS	128.46	ZAE	126.73	ETE	172.64	ZAC	108.51	ETC	278.44	CLP	171.71

PLANETOCENTRIC CONIC

C3	124.610	VHL	11.163	DLA	.06	RAL	332.72	RAD	6570.3	VEL	15.683	PTH	2.79	VHP	15.856	DPA	-8.27	RAP	319.99	ECC	3.0508

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 50 0	2651.82	-27.23	71.10	225.34	98.10	9 34 12	2051.8	-25.82	62.71
90.00	20 48 52	5292.35	27.19	239.80	225.28	81.78	22 17 5	4692.4	25.77	231.42
100.00	10 11 22	2389.35	-28.73	51.55	225.09	98.64	10 51 12	1789.4	-27.24	43.06
100.00	22 10 11	5030.05	28.69	220.26	225.03	81.24	23 34 1	4430.1	27.19	211.78
110.00	11 19 41	2175.55	-32.81	34.53	224.30	100.18	11 55 56	1575.5	-31.06	25.75
110.00	23 18 22	4816.62	32.77	203.26	224.23	79.69	24 38 39	4216.6	31.00	194.49

DIFFERENTIAL CORRECTIONS

TDE	4.7399	TRA	9.0429	TC3	-.4216	BAU	.7024
RDE	.5460	RRA	-.2154	RC3	.0029	FAU	-.00216
FDE	.9800	FRA	1.9223	FC3	.0150	BSP	17269
BDE	4.7713	BRA	9.0454	BC3	.4216	FSP	-311

MID-COURSE EXECUTION ACCURACY

SGT	5324.3	SGR	301.3	SG3	95.7		
RRT	.1014	RRF	.0962	RTF	.9784		
SGB	5332.8	R23	-.0033	R13	.9784		
SG1	5324.4	SG2	299.8	THA	.33		

ORBIT DETERMINATION ACCURACY

ST	2803.3	SR	282.2	SS	799.6		
CRT	.8035	CRS	-.7963	CST	-.9999		
LSA	2923.9	MSA	168.0	SSA	9.2		
EL1	2812.5	EL2	167.5	ALF	4.64		

LAUNCH DATE OCT 2 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAY 6 1971

HELIOCENTRIC CONIC DISTANCE 608.796

RL	149.74	LAL	.00	LOL	8.39	VL	25.245	GAL	22.06	AZL	84.62	HCA	322.47	SMA	116.89	ECC	.45700	INC	5.3763	V1	29.758
RP	108.90	LAP	-3.27	LOP	330.98	VP	36.085	GAP	26.93	AZP	85.73	TAL	146.79	TAP	109.26	RCA	63.47	APO	170.32	V2	34.799
RC	209.184	GL	10.45	GP	9.88	ZAL	34.36	ZAP	166.30	ETS	132.95	ZAE	126.24	ETE	172.85	ZAC	108.06	ETC	278.82	CLP	170.47

PLANETOCENTRIC CONIC

C3	146.092	VHL	12.087	DLA	.23	RAL	333.47	RAD	6570.6	VEL	16.353	PTH	2.86	VHP	16.905	DPA	-7.84	RAP	321.85	ECC	3.4043

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 51 42	2687.29	-27.54	73.64	228.46	96.86	9 36 29	2087.3	-26.30	65.20
90.00	20 53 6	5317.17	27.42	241.58	228.23	82.64	22 21 44	4717.2	26.12	233.16
100.00	10 13 8	2424.56	-29.06	54.11	228.24	97.33	10 53 33	1824.6	-27.74	45.55
100.00	22 14 21	5055.13	28.94	222.08	228.00	82.17	23 38 36	4455.1	27.56	213.55
110.00	11 21 38	2210.19	-33.20	37.16	227.57	98.67	11 58 28	1610.2	-31.64	28.28
110.00	23 22 21	4842.27	33.07	205.20	227.28	80.81	24 43 3	4242.3	31.45	196.35

DIFFERENTIAL CORRECTIONS

TDE	5.0914	TRA	9.7603	TC3	-.2997	BAU	.5853
RDE	.5853	RRA	-.1757	RC3	.0015	FAU	-.00390
FDE	1.0303	FRA	2.0268	FC3	.0231	BSP	17776
BDE	5.1249	BRA	9.7619	BC3	.2997	FSP	-315

MID-COURSE EXECUTION ACCURACY

SGT	5268.4	SGR	289.7	SG3	93.2		
RRT	.1845	RRF	.1781	RTF	.9820		
SGB	5276.4	R23	-.0037	R13	.9820		
SG1	5268.7	SG2	284.7	THA	.58		

ORBIT DETERMINATION ACCURACY

ST	2784.2	SR	278.6	SS	828.3		
CRT	.8186	CRS	-.8121	CST	-.9999		
LSA	2913.8	MSA	160.0	SSA	8.6		
EL1	2793.6	EL2	159.5	ALF	4.70		

LAUNCH DATE OCT 2 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAY 8 1971

HELIOCENTRIC CONIC DISTANCE 609.479

RL	149.74	LAL	.00	LOL	8.39	VL	25.217	GAL	24.41	AZL	84.12	HCA	325.62	SMA	116.75	ECC	.48678	INC	5.8811	V1	29.758
RP	108.88	LAP	-3.32	LOP	334.15	VP	36.070	GAP	28.89	AZP	85.14	TAL	146.32	TAP	111.93	RCA	59.92	APO	173.58	V2	34.804
RC	210.844	GL	10.32	GP	9.77	ZAL	33.77	ZAP	165.41	ETS	137.28	ZAE	125.64	ETE	173.08	ZAC	107.63	ETC	279.17	CLP	169.10

PLANETOCENTRIC CONIC

C3	172.489	VHL	13.134	DLA	.32	RAL	334.05	RAD	6570.9	VEL	17.141	PTH	2.94	VHP	18.106	DPA	-7.42	RAP	323.59	ECC	3.8387

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 53 22	2719.11	-27.78	75.94	231.31	95.73	9 38 41	2119.1	-26.69	67.44
90.00	20 56 4	5343.59	27.64	243.48	230.99	83.57	22 25 8	4743.6	26.46	235.01
100.00	10 14 51	2456.26	-29.31	56.43	231.13	96.13	10 55 47	1856.3	-28.16	47.82
100.00	22 17 16	5081.68	29.17	224.02	230.78	83.17	23 41 58	4481.7	27.92	215.44
110.00	11 23 26	2241.59	-33.49	39.56	230.55	97.28	12 0 47	1641.6	-32.12	30.60
110.00	23 25 10	4869.11	33.34	207.25	230.15	81.99	24 46 19	4269.1	31.88	198.33

DIFFERENTIAL CORRECTIONS

TDE	5.5005	TRA	10.5720	TC3	-.1837	BAU	.4236
RDE	.6299	RRA	-.1255	RC3	.0011	FAU	-.00628
FDE	1.0930	FRA	2.1510	FC3	.0315	BSP	17685
BDE	5.5365	BRA	10.5728	BC3	.1837	FSP	-308

MID-COURSE EXECUTION ACCURACY

SGT	5221.4	SGR	280.2	SG3	91.2		
RRT	.2771	RRF	.2700	RTF	.9854		
SGB	5229.0	R23	-.0040	R13	.9854		
SG1	5222.0	SG2	269.2	THA	.85		

ORBIT DETERMINATION ACCURACY

ST	2770.0	SR	275.3	SS	866.2		
CRT	.8349	CRS	-.8292	CST	-.9999		
LSA	2911.4	MSA	151.5	SSA	8.1		
EL1	2779.6	EL2	151.0	ALF	4.76		

LAUNCH DATE OCT 2 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAY 10 1971

HELIOCENTRIC CONIC DISTANCE 608.944

RL	149.74	LAL	.00	LOL	8.39	VL	25.192	GAL	27.08	AZL	83.53	HCA	328.77	SMA	116.62	ECC	.52067	INC	6.4744	V1	29.758
RP	108.86	LAP	-3.35	LOP	337.32	VP	36.058	GAP	31.17	AZP	84.46	TAL	146.13	TAP	114.89	RCA	55.90	APO	177.34	V2	34.810
RC	212.484	GL	10.17	GP	9.65	ZAL	33.38	ZAP	164.32	ETS	141.45	ZAE	124.89	ETE	173.33	ZAC	107.22	ETC	279.48	CLP	167.59

PLANETOCENTRIC CONIC

C3	205.247	VHL	14.326	DLA	.31	RAL	334.44	RAD	6571.1	VEL	18.071	PTH	3.01	VHP	19.491	DPA	-7.03	RAP	325.19	ECC	4.3779

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 55 0	2746.71	-27.95	77.94	233.83	94.74	9 40 47	2146.7	-27.00	69.41
90.00	20 57 35	5371.69	27.83	245.52	233.52	84.57	22 27 7	4771.7	26.79	237.00
100.00	10 16 29	2483.86	-29.50	58.46	233.68	95.08	10 57 53	1883.9	-28.48	49.81
100.00	22 18 47	5109.77	29.38	226.08	233.34	84.23	23 43 57	4509.8	28.27	217.45
110.00	11 25 3	2269.22	-33.71	41.69	233.20	96.04	12 2 53	1669.2	-32.51	32.66
110.00	23 26 42	4897.17	33.59	209.40	232.80	83.24	24 48 19	4297.2	32.29	200.41

DIFFERENTIAL CORRECTIONS

TDE	5.9400	TRA	11.4613	TC3	-.0808	BAU	.2217
RDE	.6811	RRA	-.0625	RC3	.0016	FAU	-.00920
FDE	1.1035	FRA	2.2917	FC3	.0388	BSP	17574
BDE	5.9858	BRA	11.4615	BC3	.0808	FSP	-302

MID-COURSE EXECUTION ACCURACY

SGT	5169.2	SGR	275.6	SG3	89.3		
RRT	.3764	RRF	.3690	RTF	.9883		
SGB	5176.5	R23	-.0043	R13	.9883		
SG1	5170.3	SG2	253.4	THA	1.14		

ORBIT DETERMINATION ACCURACY

ST	2747.3	SR	272.5	SS	910.2		
CRT	.8516	CRS	-.8466	CST	-.9999		
LSA	2903.4	MSA	142.8	SSA	7.5		
EL1	2757.1	EL2	142.3	ALF	4.84		

LAUNCH DATE OCT 3 1970 FLIGHT TIME 70.00 ARRIVAL DATE DEC 12 1970

HELIOCENTRIC CONIC DISTANCE 197.027

RL	149.69	LAL	.00	LOL	9.37	VL	28.133	GAL	-12.39	AZL	88.72	HCA	89.13	SMA	135.19	ECC	.23881	INC	1.2781
RP	107.59	LAP	1.28	LOP	98.51	VP	38.540	GAP	-7.27	AZP	89.98	TAL	231.58	TAP	320.71	RCA	102.90	APO	167.47
RC	57.469	GL	5.84	GP	-20.44	ZAL	156.82	ZAP	37.25	ETS	25.79	ZAE	148.02	ETE	318.58	ZAC	81.28	ETC	260.90

V1 29.766 V2 35.222 CLP -31.85

PLANETOCENTRIC CONIC

C3	36.312	VHL	6.026	DLA	-6.63	RAL	211.71	RAD	6568.4	VEL	12.557	PTH	2.28	VHP	5.969	DPA	-40.67	RAP	239.01

ECC 1.5976

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 33 27	2154.90	-18.08	37.74	81.45	112.17	2 9 22	1554.9	-14.91	30.49
90.00	11 52 3	5212.98	26.29	234.17	85.73	79.09	13 18 56	4613.0	24.52	225.94
100.00	2 51 38	1902.69	-19.30	18.65	80.94	113.28	3 23 21	1302.7	-15.99	11.43
100.00	13 16 33	4940.43	27.60	213.82	85.43	78.03	14 38 54	4340.4	25.67	205.55
110.00	3 52 39	1711.85	-22.57	2.54	79.29	116.38	4 21 11	1111.7	-18.84	355.38
110.00	14 32 2	4704.23	31.10	194.93	84.47	75.03	15 50 26	4104.2	28.73	186.53

DIFFERENTIAL CORRECTIONS

TDE	.0900	TRA	-.3544	TC3	.2806	BAU	.1976
RDE	-.2764	RRA	-.2536	RC3	-.2948	FAU	.06068
FDE	.7312	FRA	-.5929	FC3	-1.4467	BSP	1280
BDE	.2907	BRA	.4358	BC3	.4070	FSP	-451

MID-COURSE EXECUTION ACCURACY

SGT	486.6	SGR	504.2	SG3	169.4		
RRT	-.2458	RRF	.5810	RTF	-.3539		
SGB	700.7	R23	-.1434	R13	.6037		
SG1	553.6	SG2	429.6	THA	130.89		

ORBIT DETERMINATION ACCURACY

ST	133.3	SR	272.9	SS	370.2
CRT	-.4171	CRS	.8667	CST	-.7970
LSA	455.6	MSA	145.1	SSA	25.7
EL1	279.8	EL2	118.2	ALF	104.08

LAUNCH DATE OCT 3 1970 FLIGHT TIME 72.00 ARRIVAL DATE DEC 14 1970

HELIOCENTRIC CONIC DISTANCE 203.793

RL	149.69	LAL	.00	LOL	9.37	VL	28.206	GAL	-12.28	AZL	88.55	HCA	92.37	SMA	135.76	ECC	.23515	INC	1.4549
RP	107.57	LAP	1.45	LOP	101.75	VP	38.600	GAP	-6.48	AZP	90.06	TAL	232.47	TAP	324.84	RCA	103.83	APO	167.68
RC	59.382	GL	6.73	GP	-21.80	ZAL	157.15	ZAP	41.22	ETS	23.59	ZAE	148.12	ETE	314.34	ZAC	79.85	ETC	260.70

V1 29.766 V2 35.229 CLP -35.89

PLANETOCENTRIC CONIC

C3	35.643	VHL	5.970	DLA	-5.59	RAL	211.46	RAD	6568.4	VEL	12.530	PTH	2.27	VHP	5.636	DPA	-41.77	RAP	237.54

ECC 1.5866

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 24 33	2183.02	-18.79	39.49	81.09	111.58	2 0 56	1583.0	-15.69	32.18
90.00	11 59 1	5175.47	25.78	231.54	84.69	77.87	13 25 16	4575.5	23.85	223.40
100.00	2 43 15	1929.15	-20.00	20.30	80.57	112.69	3 15 24	1329.1	-16.76	13.01
100.00	13 23 0	4904.58	27.06	211.29	84.37	76.80	14 44 45	4304.6	24.98	203.11
110.00	3 45 26	1734.45	-23.25	3.95	79.00	115.79	4 14 20	1134.5	19.59	356.73
110.00	14 37 18	4672.04	30.51	192.61	83.34	73.77	15 55 10	4072.0	27.98	184.32

DIFFERENTIAL CORRECTIONS

TDE	.0924	TRA	-.3644	TC3	.2636	BAU	.2025
RDE	-.2501	RRA	-.2670	RC3	-.3333	FAU	.06654
FDE	.8527	FRA	-.6644	FC3	-1.6161	BSP	1324
BDE	.2667	BRA	.4517	BC3	.4249	FSP	-513

MID-COURSE EXECUTION ACCURACY

SGT	480.0	SGR	531.3	SG3	189.4		
RRT	-.2199	RRF	.6324	RTF	-.2943		
SGB	716.0	R23	-.1403	R13	.6369		
SG1	564.1	SG2	441.1	THA	122.58		

ORBIT DETERMINATION ACCURACY

ST	138.1	SR	252.5	SS	410.3
CRT	-.3804	CRS	.8505	CST	-.7932
LSA	478.0	MSA	148.5	SSA	25.5
EL1	259.6	EL2	124.2	ALF	105.35

LAUNCH DATE OCT 3 1970 FLIGHT TIME 74.00 ARRIVAL DATE DEC 16 1970

HELIOCENTRIC CONIC DISTANCE 210.526

RL	149.69	LAL	.00	LOL	9.37	VL	28.266	GAL	-12.18	AZL	88.37	HCA	95.61	SMA	136.23	ECC	.23198	INC	1.6326
RP	107.55	LAP	1.62	LOP	104.98	VP	38.649	GAP	-5.72	AZP	90.16	TAL	233.21	TAP	328.82	RCA	104.63	APO	167.83
RC	61.348	GL	7.64	GP	-23.24	ZAL	157.32	ZAP	45.40	ETS	21.46	ZAE	148.22	ETE	309.51	ZAC	78.32	ETC	260.43

V1 29.766 V2 35.235 CLP -40.16

PLANETOCENTRIC CONIC

C3	35.068	VHL	5.922	DLA	-4.58	RAL	211.34	RAD	6568.4	VEL	12.508	PTH	2.26	VHP	5.339	DPA	-42.86	RAP	235.74

ECC 1.5771

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 16 23	2210.70	-19.47	41.24	80.90	110.97	1 53 14	1610.7	-16.45	33.87
90.00	12 6 10	5139.57	25.25	229.04	83.84	76.73	13 31 50	4539.6	23.17	220.99
100.00	2 35 34	1955.24	-20.68	21.94	80.40	112.08	3 8 9	1355.2	-17.51	14.59
100.00	13 29 40	4870.26	26.51	208.89	83.50	75.65	14 50 50	4270.3	24.27	200.81
110.00	3 38 53	1757.04	-23.91	5.37	78.87	115.19	4 8 10	1157.0	-20.32	358.07
110.00	14 42 51	4641.22	29.90	190.41	82.40	72.60	16 0 12	4041.2	27.23	182.24

DIFFERENTIAL CORRECTIONS

TDE	.0993	TRA	-.3793	TC3	.2374	BAU	.2081
RDE	-.2208	RRA	-.2806	RC3	-.3749	FAU	.07264
FDE	.9847	FRA	-.7358	FC3	-1.7932	BSP	1386
BDE	.2421	BRA	.4718	BC3	.4438	FSP	-580

MID-COURSE EXECUTION ACCURACY

SGT	473.1	SGR	563.0	SG3	210.4		
RRT	-.1694	RRF	.6814	RTF	-.2107		
SGB	735.4	R23	-.1139	R13	.6787		
SG1	579.0	SG2	453.4	THA	112.05		

ORBIT DETERMINATION ACCURACY

ST	146.7	SR	229.1	SS	451.4
CRT	-.3459	CRS	.8259	CST	-.7992
LSA	504.3	MSA	151.0	SSA	25.3
EL1	257.4	EL2	132.8	ALF	108.44

LAUNCH DATE OCT 3 1970 FLIGHT TIME 76.00 ARRIVAL DATE DEC 18 1970

HELIOCENTRIC CONIC DISTANCE 217.224

RL	149.69	LAL	.00	LOL	9.37	VL	28.313	GAL	-12.07	AZL	88.19	HCA	98.85	SMA	136.60	ECC	.22922	INC	1.8124
RP	107.53	LAP	1.79	LOP	108.23	VP	38.689	GAP	-5.00	AZP	90.28	TAL	233.80	TAP	332.65	RCA	105.29	APO	167.91
RC	63.355	GL	8.57	GP	-24.76	ZAL	157.34	ZAP	49.77	ETS	19.34	ZAE	148.24	ETE	304.08	ZAC	76.69	ETC	260.12

V1 29.766 V2 35.240 CLP -44.67

PLANETOCENTRIC CONIC

C3	34.567	VHL	5.879	DLA	-3.59	RAL	211.32	RAD	6568.4	VEL	12.487	PTH	2.26	VHP	5.079	DPA	-43.94	RAP	233.58

ECC 1.5689

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 8 53	2238.04	-20.13	42.97	80.87	110.34	1 46 11	1638.0	-17.18	35.54
90.00	12 13 33	5104.96	24.68	226.67	83.17	75.67	13 38 38	4505.0	22.47	218.69
100.00	2 28 33	1981.06	-21.33	23.59	80.38	111.45	3 1 34	1381.1	-18.23	16.16
100.00	13 36 35	4837.17	25.93	206.61	82.80	74.58	14 57 12	4237.2	23.56	198.61
110.00	3 32 56	1779.48	-24.55	6.80	78.90	114.56	4 2 36	1179.5	-21.03	359.42
110.00	14 48 40	4611.52	29.28	188.32	81.65	71.51	16 5 32	4011.5	26.47	180.26

DIFFERENTIAL CORRECTIONS

TDE	.1117	TRA	-.3995	TC3	.2015	BAU	.2150
RDE	-.1881	RRA	-.2940	RC3	-.4193	FAU	.07882
FDE	1.1251	FRA	-.8042	FC3	-1.9740	BSP	1470
BDE	.2188	BRA	.4960	BC3	.4652	FSP	-650

MID-COURSE EXECUTION ACCURACY

SGT	469.2	SGR	599.3	SG3	231.9		
RRT	-.0884	RRF	.7266	RTF	-.0987		
SGB	761.1	R23	-.0619	R13	.7247		
SG1	602.8	SG2	464.6	THA	99.84		

ORBIT DETERMINATION ACCURACY

ST	160.0	SR	203.1	SS	493.1
CRT	-.3076	CRS	.7875	CST	-.8147
LSA	534.8	MSA	152.7	SSA	25.0
EL1	214.8	EL2	144.0	ALF	115.97

LAUNCH DATE OCT 3 1970 FLIGHT TIME 78.00 ARRIVAL DATE DEC 20 1970

HELIOCENTRIC CONIC DISTANCE 223.887

RL	149.69	LAL	.00	LOL	9.37	VL	28.349	GAL	-11.98	AZL	88.00	HCA	102.09	SMA	136.89	ECC	.22678	INC	1.9954	V1	29.766
RP	107.52	LAP	1.95	LOP	111.47	VP	38.719	GAP	-4.31	AZP	90.42	TAL	234.23	TAP	336.32	RCA	105.85	APO	167.93	V2	35.245
RC	65.403	GL	9.52	GP	-26.32	ZAL	157.20	ZAP	54.32	ETS	17.17	ZAE	148.12	ETE	290.09	ZAC	74.98	ETC	259.75	CLP	-49.40

PLANETOCENTRIC CONIC

C3	34.123	VHL	5.841	DLA	-2.61	RAL	211.42	RAD	6568.3	VEL	12.470	PTH	2.26	VHP	4.856	DPA	-44.98	RAP	231.08	ECC	1.5616

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 1 59	2265.16	-20.76	44.71	81.00	109.70	1 39 44	1665.2	-17.89	37.21
90.00	12 21 13	5071.32	24.10	224.37	82.66	74.66	13 45 45	4471.3	21.76	216.48
100.00	2 22 6	2006.70	-21.96	25.23	80.52	110.80	2 55 33	1406.7	-18.94	17.74
100.00	13 43 47	4805.01	25.33	204.41	82.28	73.57	15 3 52	4205.0	22.83	196.50
110.00	3 27 33	1801.81	-25.18	8.23	79.08	113.92	3 57 35	1201.8	-21.73	.78
110.00	14 54 50	4582.66	28.64	186.32	81.07	70.48	16 11 12	3982.7	25.71	178.37

DIFFERENTIAL CORRECTIONS

TDE	.1256	TRA	-.4303	TC3	.1491	BAU	.2216
RDE	-.1492	RRA	-.3034	RC3	-.4622	FAU	.08410
FDE	1.2870	FRA	-.8502	FC3	-2.1338	BSP	1495
BDE	.1951	BRA	.5265	BC3	.4857	FSP	-688

MID-COURSE EXECUTION ACCURACY

SGT	473.3	SGR	633.9	SG3	252.0		
RRT	.0459	RRF	.7628	RTF	.0537		
SGB	791.1	R23	.0250	R13	.7627		
SG1	634.7	SG2	472.2	THA	85.60		

ORBIT DETERMINATION ACCURACY

ST	176.9	SR	172.3	SS	540.8
CRT	-.2230	CRS	.7258	CST	-.8198
LSA	573.8	MSA	153.7	SSA	24.2
EL1	193.2	EL2	153.7	ALF	138.37

LAUNCH DATE OCT 3 1970 FLIGHT TIME 80.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 230.514

RL	149.69	LAL	.00	LOL	9.37	VL	28.375	GAL	-11.88	AZL	87.82	HCA	105.33	SMA	137.09	ECC	.22463	INC	2.1830	V1	29.766
RP	107.51	LAP	2.11	LOP	114.71	VP	38.742	GAP	-3.66	AZP	90.58	TAL	234.52	TAP	339.85	RCA	106.30	APO	167.89	V2	35.249
RC	67.486	GL	10.49	GP	-27.93	ZAL	156.93	ZAP	59.01	ETS	14.90	ZAE	147.78	ETE	291.63	ZAC	73.21	ETC	259.33	CLP	-54.36

PLANETOCENTRIC CONIC

C3	33.731	VHL	5.808	DLA	-1.65	RAL	211.62	RAD	6568.3	VEL	12.454	PTH	2.25	VHP	4.668	DPA	-45.95	RAP	228.25	ECC	1.5551

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 55 35	2292.30	-21.38	46.47	81.26	109.03	1 33 47	1692.3	-18.58	38.90
90.00	12 29 13	5038.34	23.49	222.15	82.30	73.71	13 53 11	4438.3	21.03	214.34
100.00	2 16 10	2032.38	-22.57	26.89	80.80	110.13	2 50 2	1432.4	-19.63	19.34
100.00	13 51 20	4773.50	24.70	202.27	81.90	72.61	15 10 53	4173.5	22.09	194.45
110.00	3 22 39	1824.25	-25.79	9.69	79.40	113.25	3 53 3	1224.3	-22.42	2.16
110.00	15 1 20	4554.39	27.98	184.39	80.65	69.51	16 17 14	3954.4	24.93	176.54

DIFFERENTIAL CORRECTIONS

TDE	.1543	TRA	-.4592	TC3	.0944	BAU	.2344
RDE	-.1117	RRA	-.3155	RC3	-.5112	FAU	.08999
FDE	1.4278	FRA	-.9081	FC3	-2.3096	BSP	1697
BDE	.1905	BRA	.5572	BC3	.5198	FSP	-770

MID-COURSE EXECUTION ACCURACY

SGT	490.6	SGR	679.5	SG3	273.0		
RRT	.1777	RRF	.7996	RTF	.2106		
SGB	838.1	R23	.0676	R13	.7998		
SG1	690.3	SG2	475.2	THA	75.91		

ORBIT DETERMINATION ACCURACY

ST	204.2	SR	145.6	SS	579.3
CRT	-.1391	CRS	.6155	CST	-.8552
LSA	611.8	MSA	153.5	SSA	23.9
EL1	206.1	EL2	142.8	ALF	169.01

LAUNCH DATE OCT 3 1970 FLIGHT TIME 82.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 237.104

RL	149.69	LAL	.00	LOL	9.37	VL	28.391	GAL	-11.78	AZL	87.62	HCA	108.57	SMA	137.22	ECC	.22269	INC	2.3765	V1	29.766
RP	107.50	LAP	2.25	LOP	117.96	VP	38.757	GAP	-3.03	AZP	90.76	TAL	234.68	TAP	343.25	RCA	106.67	APO	167.78	V2	35.253
RC	69.600	GL	11.51	GP	-29.54	ZAL	156.51	ZAP	63.81	ETS	12.51	ZAE	147.16	ETE	284.86	ZAC	71.40	ETC	258.86	CLP	-59.51

PLANETOCENTRIC CONIC

C3	33.379	VHL	5.777	DLA	-.68	RAL	211.92	RAD	6568.3	VEL	12.440	PTH	2.25	VHP	4.516	DPA	-46.84	RAP	225.14	ECC	1.5493

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 49 37	2319.66	-21.97	48.25	81.66	108.33	1 28 17	1719.7	-19.26	40.62
90.00	12 37 36	5005.70	22.85	219.97	82.09	72.80	14 1 2	4405.7	20.28	212.24
100.00	2 10 39	2058.29	-23.17	28.59	81.22	109.43	2 44 57	1458.3	-20.31	20.96
100.00	13 59 16	4742.30	24.05	200.18	81.67	71.69	15 18 18	4142.3	21.35	192.45
110.00	3 18 10	1846.93	-26.39	11.18	79.86	112.56	3 48 57	1246.9	-23.10	3.57
110.00	15 8 14	4526.42	27.30	182.50	80.37	68.58	16 23 40	3926.4	24.14	174.75

DIFFERENTIAL CORRECTIONS

TDE	.1903	TRA	-.4947	TC3	.0276	BAU	.2502
RDE	-.0716	RRA	-.3250	RC3	-.5599	FAU	.09512
FDE	1.5661	FRA	-.9504	FC3	-2.4671	BSP	1925
BDE	.2033	BRA	.5919	BC3	.5606	FSP	-844

MID-COURSE EXECUTION ACCURACY

SGT	526.6	SGR	726.3	SG3	292.1		
RRT	.3245	RRF	.8300	RTF	.3734		
SGB	897.1	R23	.1005	R13	.8312		
SG1	760.7	SG2	475.6	THA	67.61		

ORBIT DETERMINATION ACCURACY

ST	239.3	SR	121.5	SS	616.9
CRT	.0279	CRS	.4231	CST	-.8844
LSA	654.8	MSA	152.4	SSA	23.5
EL1	239.4	EL2	121.5	ALF	1.09

LAUNCH DATE OCT 3 1970 FLIGHT TIME 84.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 243.658

RL	149.69	LAL	.00	LOL	9.37	VL	28.398	GAL	-11.68	AZL	87.42	HCA	111.81	SMA	137.28	ECC	.22094	INC	2.5776	V1	29.766
RP	107.49	LAP	2.39	LOP	121.21	VP	38.764	GAP	-2.43	AZP	90.96	TAL	234.70	TAP	346.52	RCA	106.95	APO	167.62	V2	35.255
RC	71.740	GL	12.56	GP	-31.14	ZAL	155.96	ZAP	68.65	ETS	9.98	ZAE	146.22	ETE	277.98	ZAC	69.58	ETC	258.36	CLP	-64.82

PLANETOCENTRIC CONIC

C3	33.063	VHL	5.750	DLA	.30	RAL	212.33	RAD	6568.3	VEL	12.427	PTH	2.25	VHP	4.399	DPA	-47.61	RAP	221.80	ECC	1.5441

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 44 0	2347.50	-22.56	50.08	82.21	107.59	1 23 8	1747.5	-19.94	42.39
90.00	12 46 27	4973.05	22.17	217.82	82.02	71.92	14 9 20	4373.1	19.49	210.17
100.00	2 5 29	2084.67	-23.76	30.33	81.78	108.70	2 40 14	1484.7	-20.98	22.63
100.00	14 7 39	4711.11	23.37	198.12	81.58	70.81	15 26 11	4111.1	20.54	190.47
110.00	3 14 3	1870.06	-26.99	12.72	80.46	111.82	3 45 13	1270.1	-23.78	5.02
110.00	15 15 35	4498.49	26.59	180.63	80.23	67.68	16 30 34	3898.5	23.32	172.99

DIFFERENTIAL CORRECTIONS

TDE	.2346	TRA	-.5385	TC3	-.0506	BAU	.2892
RDE	-.0297	RRA	-.3312	RC3	-.6080	FAU	.09924
FDE	1.6959	FRA	-.9747	FC3	-2.5985	BSP	2191
BDE	.2364	BRA	.6296	BC3	.6090	FSP	-907

MID-COURSE EXECUTION ACCURACY

SGT	585.5	SGR	772.6	SG3	308.3		
RRT	.4639	RRF	.8548	RTF	.5205		
SGB	969.4	R23	.1239	R13	.8573		
SG1	845.6	SG2	475.9	THA	60.60		

ORBIT DETERMINATION ACCURACY

ST	283.3	SR	105.4	SS	652.6
CRT	.3003	CRS	.1065	CST	-.9081
LSA	702.9	MSA	150.6	SSA	23.1
EL1	285.3	EL2	99.8	ALF	7.27

LAUNCH DATE OCT 3 1970 FLIGHT TIME 86.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 250.176

RL	149.69	LAL	.00	LOL	9.37	VL	28.397	GAL	-11.58	AZL	87.21	HCA	115.05	SMA	137.28	ECC	.21934	INC	2.7880	V1	29.766
RP	107.48	LAP	2.53	LOP	124.45	VP	38.766	GAP	-1.85	AZP	91.18	TAL	234.60	TAP	349.66	RCA	107.17	APO	167.39	V2	35.257
RC	73.903	GL	13.67	GP	-32.71	ZAL	155.28	ZAP	73.48	ETS	7.30	ZAE	144.95	ETE	271.19	ZAC	67.76	ETC	257.83	CLP	-70.25

PLANETOCENTRIC CONIC

C3	32.780	VHL	5.725	DLA	1.29	RAL	212.83	RAD	6568.3	VEL	12.416	PTH	2.24	VHP	4.316	DPA	-48.28	RAP	218.32	ECC	1.5395

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 38 39	2376.17	-23.13	51.98	82.89	106.80	1 18 15	1776.2	-20.61	44.22
90.00	12 55 50	4940.06	21.46	215.66	82.08	71.07	14 18 10	4340.1	18.68	208.09
100.00	2 0 35	2111.85	-24.34	32.14	82.47	107.91	2 35 47	1511.9	-21.66	24.36
100.00	14 16 35	4679.61	22.65	196.05	81.62	69.95	15 34 35	4079.6	19.71	188.49
110.00	3 10 18	1893.92	-27.58	14.32	81.20	111.04	3 41 47	1293.9	-24.47	6.53
110.00	15 23 27	4470.30	25.85	178.78	80.23	66.81	16 37 57	3870.3	22.48	171.24

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2879	TRA	-.5808	TC3	-.1389	BAU	.2916	SGT	668.1	SGR	816.3	SG3	320.8	ST	336.8	SR	103.4	SS	685.9
RDE	.0132	RRA	-.3331	RC3	-.6506	FAU	.10211	RRT	.5798	RRF	.8748	RTF	.6384	CRT	.6140	CRS	-.2920	CST	-.9267
FDE	1.8121	FRA	-.9788	FC3	-2.6968	BSP	2496	SGB	1054.9	RZS	.1405	RIS	.8783	LSA	756.4	MSA	148.3	SSA	22.6
BDE	.2882	BRA	.6696	BC3	.6653	FSP	-956	SG1	944.0	SG2	470.7	THA	54.59	EL1	343.1	EL2	80.1	ALF	11.29

LAUNCH DATE OCT 3 1970 FLIGHT TIME 88.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 256.657

RL	149.69	LAL	.00	LOL	9.37	VL	28.390	GAL	-11.47	AZL	86.99	HCA	118.30	SMA	137.22	ECC	.21786	INC	3.0099	V1	29.766
RP	107.48	LAP	2.65	LOP	127.70	VP	38.761	GAP	-1.31	AZP	91.43	TAL	234.39	TAP	352.69	RCA	107.32	APO	167.11	V2	35.258
RC	76.087	GL	14.84	GP	-34.23	ZAL	154.47	ZAP	78.24	ETS	4.47	ZAE	143.36	ETE	264.68	ZAC	65.97	ETC	257.29	CLP	-75.73

PLANETOCENTRIC CONIC

C3	32.535	VHL	5.704	DLA	2.32	RAL	213.44	RAD	6568.3	VEL	12.406	PTH	2.24	VHP	4.266	DPA	-48.84	RAP	214.79	ECC	1.5354

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 33 27	2406.04	-23.71	53.99	83.71	105.96	1 13 33	1806.0	-21.29	46.15
90.00	13 5 52	4906.37	20.70	213.48	82.27	70.23	14 27 38	4306.4	17.82	205.99
100.00	1 55 53	2140.19	-24.92	34.04	83.32	107.07	2 31 33	1540.2	-22.34	26.19
100.00	14 26 7	4647.46	21.88	193.97	81.80	69.11	15 43 35	4047.5	18.85	186.49
110.00	3 6 36	1918.83	-28.18	16.01	82.09	110.20	3 38 35	1318.8	-25.17	8.13
110.00	15 31 53	4441.58	25.06	176.91	80.37	65.95	16 45 55	3841.6	21.60	169.47

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.3907	TRA	-.6290	TC3	-.2355	BAU	.3170	SGT	772.1	SGR	856.0	SG3	329.1	ST	400.2	SR	116.9	SS	715.7
RDE	.0561	RRA	-.3305	RC3	-.6698	FAU	.10363	RRT	.6678	RRF	.8909	RTF	.7251	CRT	.8324	CRS	-.6131	CST	-.9412
FDE	1.9088	FRA	-.9626	FC3	-2.7578	BSP	2840	SGB	1152.8	RZS	.1527	RIS	.8950	LSA	815.1	MSA	145.6	SSA	22.0
BDE	.3551	BRA	.7106	BC3	.7289	FSP	-993	SG1	1054.1	SG2	466.7	THA	49.40	EL1	412.1	EL2	62.9	ALF	14.00

LAUNCH DATE OCT 3 1970 FLIGHT TIME 90.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 263.104

RL	149.69	LAL	.00	LOL	9.37	VL	28.375	GAL	-11.35	AZL	86.75	HCA	121.54	SMA	137.10	ECC	.21648	INC	3.2457	V1	29.766
RP	107.48	LAP	2.77	LOP	130.95	VP	38.751	GAP	-.78	AZP	91.70	TAL	234.07	TAP	355.61	RCA	107.42	APO	166.78	V2	35.259
RC	78.289	GL	16.08	GP	-35.70	ZAL	153.52	ZAP	82.86	ETS	1.50	ZAE	141.49	ETE	258.59	ZAC	64.23	ETC	256.76	CLP	-81.20

PLANETOCENTRIC CONIC

C3	32.325	VHL	5.685	DLA	3.38	RAL	214.14	RAD	6568.3	VEL	12.397	PTH	2.24	VHP	4.248	DPA	-49.31	RAP	211.29	ECC	1.5320

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 28 19	2437.58	-24.28	56.12	84.69	105.04	1 8 57	1837.6	-21.98	48.20
90.00	13 16 37	4871.60	19.88	211.26	82.60	69.41	14 37 49	4271.6	16.90	203.85
100.00	1 51 15	2170.11	-25.50	36.07	84.31	106.15	2 27 25	1570.1	-23.04	28.14
100.00	14 36 23	4614.30	21.06	191.85	82.11	68.29	15 53 17	4014.3	17.93	184.46
110.00	3 3 7	1945.16	-28.78	17.82	83.13	109.29	3 35 32	1345.2	-25.88	9.84
110.00	15 41 0	4412.02	24.23	175.02	80.63	65.11	16 54 32	3812.0	20.67	167.68

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.4231	TRA	-.6788	TC3	-.3382	BAU	.3449	SGT	894.1	SGR	889.9	SG3	352.9	ST	473.5	SR	141.2	SS	741.7
RDE	.0981	RRA	-.3229	RC3	-.7230	FAU	.10371	RRT	.7311	RRF	.9038	RTF	.7861	CRT	.9352	CRS	-.7968	CST	-.9522
FDE	1.9836	FRA	-.9264	FC3	-2.7777	BSP	3218	SGB	1261.4	RZS	.1626	RIS	.9079	LSA	879.5	MSA	142.5	SSA	21.3
BDE	.4343	BRA	.7517	BC3	.7982	FSP	-1015	SG1	1173.6	SG2	462.5	THA	44.82	EL1	491.8	EL2	48.1	ALF	15.74

LAUNCH DATE OCT 3 1970 FLIGHT TIME 92.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 269.515

RL	149.69	LAL	.00	LOL	9.37	VL	28.355	GAL	-11.24	AZL	86.50	HCA	124.78	SMA	136.94	ECC	.21519	INC	3.4986	V1	29.766
RP	107.48	LAP	2.87	LOP	134.20	VP	38.736	GAP	-.28	AZP	92.00	TAL	233.65	TAP	358.42	RCA	107.47	APO	166.41	V2	35.258
RC	80.507	GL	17.41	GP	-37.12	ZAL	152.43	ZAP	87.29	ETS	358.40	ZAE	139.40	ETE	253.02	ZAC	62.53	ETC	256.23	CLP	-86.60

PLANETOCENTRIC CONIC

C3	32.163	VHL	5.671	DLA	4.50	RAL	214.95	RAD	6568.3	VEL	12.391	PTH	2.24	VHP	4.261	DPA	-49.73	RAP	207.89	ECC	1.5293

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 23 8	2471.32	-24.86	58.42	85.83	104.02	1 4 19	1871.3	-22.69	50.43
90.00	13 28 15	4835.33	19.00	208.97	83.07	68.60	14 48 50	4235.3	15.92	201.64
100.00	1 46 36	2202.13	-26.09	38.27	85.48	105.13	2 23 18	1602.1	-23.76	30.25
100.00	14 47 29	4579.76	20.18	189.67	82.56	67.47	16 3 48	3979.8	16.95	182.36
110.00	2 59 41	1973.36	-29.40	19.78	84.36	108.28	3 32 35	1373.4	-26.62	11.70
110.00	15 50 52	4381.29	23.33	173.08	81.04	64.28	17 3 54	3781.3	19.68	165.85

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.5053	TRA	-.7287	TC3	-.4446	BAU	.3745	SGT	1029.7	SGR	916.5	SG3	332.1	ST	556.7	SR	171.0	SS	764.3
RDE	.1390	RRA	-.3098	RC3	-.7490	FAU	.10234	RRT	.7756	RRF	.9142	RTF	.8282	CRT	.9763	CRS	-.8906	CST	-.9606
FDE	2.0359	FRA	-.8717	FC3	-2.7548	BSP	3621	SGB	1378.5	RZS	.1716	RIS	.9176	LSA	950.5	MSA	139.4	SSA	20.5
BDE	.5241	BRA	.7918	BC3	.8710	FSP	-1021	SG1	1300.1	SG2	458.2	THA	40.72	EL1	581.3	EL2	35.5	ALF	16.75

LAUNCH DATE OCT 3 1970 FLIGHT TIME 94.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 275.894

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RL  149.69 LAL    .00 LOL   9.37 VL  28.330 GAL -11.11 AZL  86.23 HCA 128.02 SMA 136.73 ECC .21396 INC 3.7720 V1  29.766
RP  107.48 LAP   2.97 LOP 137.45 VP  38.716 GAP    .20 AZP  92.33 TAL 233.13 TAP   1.15 RCA 107.48 APO 165.99 V2  35.257
RC  82.739 GL   18.84 GP  -38.51 ZAL 151.20 ZAP  91.47 ETS 355.19 ZAE 137.14 ETE 248.01 ZAC  60.87 ETC 255.71 CLP -91.88
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PLANETOCENTRIC CONIC

```
C3  32.057 VHL  5.662 DLA   5.70 RAL 215.87 RAD 6568.3 VEL 12.387 PTH   2.24 VHP  4.304 DPA -50.14 RAP 204.66 ECC 1.5276
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 17 46	2507.92	-25.44	60.95	87.16	102.88	0 59 34	1907.9	-23.41	52.86
90.00	13 40 55	4797.08	18.03	206.58	83.70	67.79	15 0 52	4197.1	14.86	199.33
100.00	1 41 48	2236.86	-26.68	40.68	86.83	104.00	2 19 5	1636.9	-24.49	32.57
100.00	14 59 34	4543.37	19.21	187.40	83.17	66.65	16 15 18	3943.4	15.89	180.18
110.00	2 56 13	2003.96	-30.04	21.94	85.77	107.15	3 29 37	1404.0	-27.40	13.74
110.00	16 1 39	4349.03	22.37	171.08	81.60	63.45	17 14 8	3749.0	18.62	163.95

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

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TDE  .5988 TRA -.7765 TC3 -.5512 BAU  .4018    SGT 1174.9 SGR  925.4 SG3  325.0    ST   650.9 SR   208.3 SS   793.3
RDE  .1855 RRA -.2842 RC3 -.7584 FAU .09835    RRT  .8076 RRF  .9215 RTF  .8556    CRT  .9937 CRS -.9457 CST -.9659
FDE 2.0935 FRA -.7728 FC3-2.6560 BSP   3909    SGB 1495.5 RZS  .1848 RIS  .9223    LSA 1037.7 MSA  138.3 SSA   19.1
BDE  .6269 BRA  .8288 BC3  .9376 FSP   -955    SG1 1426.4 SG2  449.5 THA  36.69    EL1  683.0 EL2   22.3 ALF  17.66
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LAUNCH DATE OCT 3 1970 FLIGHT TIME 96.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 282.238

```
RL  149.69 LAL    .00 LOL   9.37 VL  28.299 GAL -10.98 AZL  85.93 HCA 131.26 SMA 136.49 ECC .21280 INC 4.0709 V1  29.766
RP  107.49 LAP   3.06 LOP 140.70 VP  38.692 GAP    .66 AZP  92.69 TAL 232.53 TAP   3.78 RCA 107.45 APO 165.54 V2  35.255
RC  84.905 GL   20.39 GP  -39.89 ZAL 149.82 ZAP  95.36 ETS 351.88 ZAE 134.75 ETE 243.54 ZAC  59.24 ETC 255.21 CLP -96.99
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PLANETOCENTRIC CONIC

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C3  32.031 VHL  5.660 DLA   6.98 RAL 216.89 RAD 6568.3 VEL 12.386 PTH   2.24 VHP  4.376 DPA -50.58 RAP 201.60 ECC 1.5271
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 12 3	2548.20	-26.02	63.75	88.71	101.59	0 54 31	1948.2	-24.16	55.58
90.00	13 54 49	4756.38	16.96	204.06	84.50	66.98	15 14 5	4156.4	13.70	196.91
100.00	1 36 44	2275.09	-27.28	43.36	88.40	102.71	2 14 39	1675.1	-25.26	35.15
100.00	15 12 49	4504.72	18.15	185.02	83.95	65.83	16 27 54	3904.7	14.74	177.89
110.00	2 52 36	2037.67	-30.69	24.35	87.41	105.86	3 26 34	1437.7	-28.21	16.03
110.00	16 13 08	4314.91	21.31	168.99	82.33	62.62	17 25 21	3714.9	17.48	161.96

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

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TDE  .7002 TRA -.8227 TC3 -.6572 BAU  .4358    SGT 1326.6 SGR  946.6 SG3  317.7    ST   752.6 SR   235.5 SS   799.5
RDE  .2165 RRA -.2676 RC3 -.7770 FAU .09570    RRT  .8271 RRF  .9294 RTF  .8776    CRT  .9965 CRS -.9658 CST -.9720
FDE 2.0757 FRA -.7170 FC3-2.5866 BSP   4463    SGB 1629.7 RZS  .1902 RIS  .9301    LSA 1114.8 MSA  133.6 SSA   18.6
BDE  .7329 BRA  .8651 BC3 1.0177 FSP   -988    SG1 1566.2 SG2  450.7 THA  33.71    EL1  788.3 EL2   18.9 ALF  17.33
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LAUNCH DATE OCT 3 1970 FLIGHT TIME 98.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 288.552

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RL  149.69 LAL    .00 LOL   9.37 VL  28.265 GAL -10.84 AZL  85.60 HCA 134.50 SMA 136.22 ECC .21169 INC 4.4009 V1  29.766
RP  107.50 LAP   3.14 LOP 143.95 VP  38.664 GAP   1.11 AZP  93.09 TAL 231.84 TAP   6.34 RCA 107.38 APO 165.05 V2  35.253
RC  87.241 GL   22.08 GP  -41.30 ZAL 148.27 ZAP  98.91 ETS 348.46 ZAE 132.27 ETE 239.62 ZAC  57.61 ETC 254.72 CLP-101.90
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PLANETOCENTRIC CONIC

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C3  32.100 VHL  5.666 DLA   8.36 RAL 218.04 RAD 6568.3 VEL 12.388 PTH   2.24 VHP  4.477 DPA -51.10 RAP 198.73 ECC 1.5283
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 5 49	2593.14	-26.59	66.92	90.50	100.10	0 49 2	1993.1	-24.93	58.65
90.00	14 10 11	4712.53	15.78	201.39	85.50	66.18	15 28 44	4112.5	12.42	194.32
100.00	1 31 13	2317.72	-27.89	46.39	90.22	101.23	2 9 51	1717.7	-26.05	38.07
100.00	15 27 29	4463.19	16.98	182.49	84.93	65.02	16 41 52	3863.2	13.47	175.46
110.00	2 48 42	2075.23	-31.35	27.07	89.32	104.37	3 23 17	1475.2	-29.06	18.62
110.00	16 26 29	4278.43	20.15	166.79	83.25	61.79	17 37 47	3678.4	16.23	159.87

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

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TDE  .8157 TRA -.8628 TC3 -.7565 BAU  .4645    SGT 1480.9 SGR  946.0 SG3  304.4    ST   866.7 SR   270.8 SS   817.2
RDE  .2568 RRA -.2354 RC3 -.7742 FAU .09023    RRT  .8411 RRF  .9347 RTF  .8911    CRT  .9969 CRS -.9819 CST -.9756
FDE 2.0789 FRA -.6123 FC3-2.4335 BSP   4824    SGB 1757.3 RZS  .2019 RIS  .9330    LSA 1214.3 MSA  132.4 SSA   17.2
BDE  .8552 BRA  .8944 BC3 1.0824 FSP   -929    SG1 1699.8 SG2  445.8 THA  30.58    EL1  907.8 EL2   20.2 ALF  17.31
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LAUNCH DATE OCT 3 1970 FLIGHT TIME 100.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 294.833

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RL  149.69 LAL    .00 LOL   9.37 VL  28.226 GAL -10.70 AZL  85.23 HCA 137.73 SMA 135.91 ECC .21064 INC 4.7697 V1  29.766
RP  107.51 LAP   3.21 LOP 147.21 VP  38.633 GAP   1.53 AZP  93.53 TAL 231.08 TAP   8.81 RCA 107.29 APO 164.54 V2  35.249
RC  89.506 GL   23.84 GP  -42.78 ZAL 146.53 ZAP 102.09 ETS 344.93 ZAE 129.72 ETE 236.19 ZAC  55.95 ETC 254.23 CLP-106.59
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PLANETOCENTRIC CONIC

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C3  32.304 VHL  5.684 DLA   9.88 RAL 219.31 RAD 6568.3 VEL 12.397 PTH   2.24 VHP  4.610 DPA -51.74 RAP 195.99 ECC 1.5316
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 54 53	2644.01	-27.15	70.54	92.57	98.37	24 38 57	2044.0	-25.71	62.17
90.00	14 27 22	4684.84	14.44	198.53	86.73	65.38	15 45 6	4084.8	11.00	191.54
100.00	1 25 2	2365.94	-28.48	49.85	92.34	99.50	2 4 28	1765.9	-26.87	41.42
100.00	15 43 50	4418.15	15.66	179.79	86.14	64.21	16 57 28	3818.1	12.06	172.85
110.00	2 44 22	2117.70	-32.03	30.20	91.53	102.64	3 19 40	1517.7	-29.96	21.60
110.00	16 40 59	4239.15	18.87	164.47	84.40	60.96	17 51 38	3639.2	14.86	157.65

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

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TDE  .9407 TRA -.9007 TC3 -.8514 BAU  .4966    SGT 1638.7 SGR  949.2 SG3  290.0    ST   988.2 SR   298.6 SS   821.9
RDE  .2883 RRA -.2085 RC3 -.7729 FAU .08525    RRT  .8490 RRF  .9397 RTF  .9024    CRT  .9959 CRS -.9896 CST -.9791
FDE 2.0390 FRA -.5308 FC3-2.2847 BSP   5359    SGB 1893.8 RZS  .2104 RIS  .9370    LSA 1313.1 MSA  129.1 SSA   16.3
BDE  .9839 BRA  .9241 BC3 1.1499 FSP   -919    SG1 1840.3 SG2  446.6 THA  27.98    EL1 1032.0 EL2   25.9 ALF  16.76
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LAUNCH DATE OCT 3 1970 FLIGHT TIME 102.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 301.086

RL 149.69 LAL .00 LOL 9.37 VL 28.184 GAL -10.54 AZL 84.81 HCA 140.97 SMA 135.58 ECC .20962 INC 5.1873 V1 29.766
RP 107.52 LAP 3.26 LOP 150.46 VP 38.599 GAP 1.94 AZP 94.03 TAL 230.25 TAP 11.22 RCA 107.16 APO 164.01 V2 35.245
RC 91.778 GL 25.99 GP -44.37 ZAL 144.59 ZAP 104.87 ETS 341.28 ZAE 127.11 ETE 233.20 ZAC 54.20 ETC 253.72 CLP-111.04

PLANETOCENTRIC CONIC

C3 32.683 VHL 5.717 DLA 11.56 RAL 220.73 RAD 6568.3 VEL 12.412 PTH 2.24 VHP 4.776 DPA -52.56 RAP 193.34 ECC 1.5379

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 46 49	2702.45	-27.66	74.74	95.00	96.32	24 31 52	2102.5	-26.49	66.27
90.00	14 46 47	4612.28	12.93	195.41	88.26	64.59	16 3 39	4012.3	9.40	188.51
100.00	1 17 56	2421.25	-29.03	53.87	94.81	97.45	1 58 18	1821.3	-27.70	45.32
100.00	16 2 17	4368.71	14.17	176.88	87.64	63.40	17 15 5	3768.7	10.49	170.02
110.00	2 39 25	2166.31	-32.70	33.83	94.13	100.58	3 15 31	1566.3	-30.89	25.08
110.00	16 57 17	4196.42	17.44	161.98	85.82	60.13	18 7 14	3596.4	13.34	155.27

DIFFERENTIAL CORRECTIONS
TDE 1.0891 TRA -.9253 TC3 -.9274 BAU .5201
RDE .3324 RRA -.1591 RC3 -.7460 FAU .07763
FDE 2.0289 FRA -.4031 FC3-2.0563 BSP 5583
BDE 1.1387 BRA .9389 BC3 1.1902 FSP -811

MID-COURSE EXECUTION ACCURACY
SGT 1792.2 SGR 930.1 SG3 270.9
RRT .8532 RRF .9429 RTF .9081
SGB 2019.2 R23 .2253 R13 .9369
SG1 1970.4 SG2 441.2 THA 25.24

ORBIT DETERMINATION ACCURACY
ST 1128.3 SR 337.7 SS 841.2
CRT .9929 CRS -.9956 CST -.9813
LSA 1441.3 MSA 131.1 SSA 14.3
EL1 1177.2 EL2 38.4 ALF 16.57

LAUNCH DATE OCT 3 1970 FLIGHT TIME 104.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 307.308

RL 149.69 LAL .00 LOL 9.37 VL 28.139 GAL -10.38 AZL 84.33 HCA 144.20 SMA 135.23 ECC .20866 INC 5.6673 V1 29.766
RP 107.53 LAP 3.31 LOP 153.71 VP 38.561 GAP 2.33 AZP 94.60 TAL 229.35 TAP 13.55 RCA 107.02 APO 163.45 V2 35.240
RC 94.056 GL 28.26 GP -46.13 ZAL 142.41 ZAP 107.22 ETS 337.47 ZAE 124.42 ETE 230.59 ZAC 52.33 ETC 253.18 CLP-115.29

PLANETOCENTRIC CONIC

C3 33.317 VHL 5.772 DLA 13.43 RAL 222.32 RAD 6568.3 VEL 12.437 PTH 2.25 VHP 4.982 DPA -53.57 RAP 190.67 ECC 1.5483

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 37 14	2770.69	-28.07	79.69	97.83	93.88	24 23 25	2170.7	-27.24	71.12
90.00	15 9 0	4553.73	11.20	191.98	90.16	63.82	16 24 54	3953.7	7.59	185.16
100.00	1 9 32	2485.70	-29.51	58.60	97.70	95.00	1 50 58	1885.7	-28.50	49.94
100.00	16 23 19	4313.95	12.48	173.69	89.50	62.62	17 35 13	3714.0	8.72	166.93
110.00	2 33 34	2222.76	-33.32	38.12	97.19	98.12	3 10 37	1622.8	-31.84	29.20
110.00	17 18 46	4149.66	15.84	159.31	87.58	59.30	18 24 56	3549.7	11.65	152.71

DIFFERENTIAL CORRECTIONS
TDE 1.2447 TRA -.9534 TC3-1.0020 BAU .5529
RDE .3581 RRA -.1256 RC3 -.7328 FAU .07222
FDE 1.9524 FRA -.3344 FC3-1.8767 BSP 6268
BDE 1.2951 BRA .9616 BC3 1.2413 FSP -817

MID-COURSE EXECUTION ACCURACY
SGT 1952.2 SGR 926.5 SG3 252.9
RRT .8528 RRF .9460 RTF .9158
SGB 2160.9 R23 .2325 R13 .9405
SG1 2114.2 SG2 446.8 THA 23.13

ORBIT DETERMINATION ACCURACY
ST 1270.0 SR 358.4 SS 835.9
CRT .9914 CRS -.9978 CST -.9840
LSA 1556.8 MSA 127.4 SSA 13.4
EL1 1318.8 EL2 45.2 ALF 15.65

LAUNCH DATE OCT 3 1970 FLIGHT TIME 106.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 313.501

RL 149.69 LAL .00 LOL 9.37 VL 28.091 GAL -10.21 AZL 83.77 HCA 147.43 SMA 134.87 ECC .20774 INC 6.2287 V1 29.766
RP 107.55 LAP 3.35 LOP 156.96 VP 38.522 GAP 2.70 AZP 95.26 TAL 228.40 TAP 15.82 RCA 106.85 APO 162.88 V2 35.235
RC 96.339 GL 30.81 GP -48.12 ZAL 139.96 ZAP 109.10 ETS 333.47 ZAE 121.64 ETE 228.29 ZAC 50.27 ETC 252.56 CLP-119.36

PLANETOCENTRIC CONIC

C3 34.300 VHL 5.857 DLA 15.52 RAL 224.09 RAD 6568.4 VEL 12.477 PTH 2.26 VHP 5.235 DPA -54.81 RAP 187.85 ECC 1.5645

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 25 30	2851.79	-28.30	85.61	101.15	90.92	24 13 2	2251.8	-27.88	76.97
90.00	15 34 54	4487.30	9.17	188.15	92.55	63.09	16 49 41	3887.3	5.49	181.41
100.00	0 59 18	2562.00	-29.83	64.25	101.10	92.05	1 42 0	1962.0	-29.23	55.49
100.00	16 47 43	4252.27	10.53	170.16	91.83	61.86	17 58 36	3652.3	6.68	163.48
110.00	2 26 29	2289.17	-33.84	43.23	100.80	95.13	3 4 39	1689.2	-32.76	34.16
110.00	17 37 1	4097.91	14.02	156.40	89.78	58.50	18 45 19	3497.9	9.75	149.90

DIFFERENTIAL CORRECTIONS
TDE 1.4330 TRA -.9661 TC3-1.0502 BAU .5777
RDE .3929 RRA -.0757 RC3 -.6959 FAU .06498
FDE 1.8979 FRA -.2567 FC3-1.6401 BSP 6702
BDE 1.4859 BRA .9691 BC3 1.2599 FSP -754

MID-COURSE EXECUTION ACCURACY
SGT 2107.3 SGR 904.5 SG3 231.8
RRT .8483 RRF .9472 RTF .9202
SGB 2293.3 R23 .2437 R13 .9414
SG1 2248.9 SG2 448.7 THA 20.88

ORBIT DETERMINATION ACCURACY
ST 1433.0 SR 385.8 SS 840.8
CRT .9885 CRS -.9993 CST -.9859
LSA 1700.8 MSA 128.0 SSA 11.8
EL1 1482.9 EL2 56.3 ALF 14.93

LAUNCH DATE OCT 3 1970 FLIGHT TIME 108.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 319.666

RL 149.69 LAL .00 LOL 9.37 VL 28.041 GAL -10.04 AZL 83.10 HCA 150.65 SMA 134.48 ECC .20685 INC 6.8985 V1 29.766
RP 107.57 LAP 3.37 LOP 160.20 VP 38.479 GAP 3.06 AZP 96.02 TAL 227.38 TAP 18.03 RCA 106.66 APO 162.30 V2 35.229
RC 98.624 GL 33.66 GP -50.40 ZAL 137.20 ZAP 110.47 ETS 329.25 ZAE 118.72 ETE 226.21 ZAC 47.95 ETC 251.82 CLP-123.28

PLANETOCENTRIC CONIC

C3 35.796 VHL 5.983 DLA 17.87 RAL 226.10 RAD 6568.4 VEL 12.537 PTH 2.27 VHP 5.549 DPA -56.29 RAP 184.69 ECC 1.5891

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 10 37	2950.34	-28.20	92.81	105.03	87.31	23 59 48	2350.3	-28.27	84.15
90.00	16 5 46	4410.30	6.77	183.77	95.58	62.44	17 19 16	3810.3	3.03	177.09
100.00	0 46 25	2654.11	-29.86	71.09	105.10	88.45	1 30 39	2054.1	-29.75	62.29
100.00	17 16 36	4181.76	8.23	166.18	94.79	61.16	18 26 17	3581.8	4.32	159.57
110.00	2 17 41	2368.53	-34.15	49.41	105.10	91.49	2 57 10	1768.5	-33.57	40.21
110.00	18 1 48	4040.11	11.94	153.21	92.57	57.73	19 9 8	3440.1	7.59	146.81

DIFFERENTIAL CORRECTIONS
TDE 1.6581 TRA -.9658 TC3-1.0723 BAU .5987
RDE .4272 RRA -.0165 RC3 -.6446 FAU .05730
FDE 1.8400 FRA -.1394 FC3-1.3858 BSP 7080
BDE 1.7123 BRA .9659 BC3 1.2512 FSP -678

MID-COURSE EXECUTION ACCURACY
SGT 2261.0 SGR 873.3 SG3 209.4
RRT .8385 RRF .9460 RTF .9237
SGB 2423.8 R23 .2550 R13 .9420
SG1 2381.3 SG2 451.9 THA 18.64

ORBIT DETERMINATION ACCURACY
ST 1614.9 SR 409.8 SS 845.3
CRT .9852 CRS -.9995 CST -.9876
LSA 1863.7 MSA 129.9 SSA 10.2
EL1 1664.7 EL2 68.2 ALF 14.06

LAUNCH DATE OCT 3 1970 FLIGHT TIME 110.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 325.803

RL	149.69	LAL	.00	LOL	9.37	VL	27.989	GAL	-9.85	AZL	82.28	HCA	153.87	SMA	134.08	ECC	.20600	INC	7.7170
RP	107.59	LAP	3.39	LOP	163.45	VP	38.435	GAP	3.41	AZP	96.94	TAL	226.31	TAP	20.19	RCA	106.46	APO	161.70
RC	100.910	GL	36.88	GP	-53.04	ZAL	134.08	ZAP	111.29	ETS	324.71	ZAE	115.60	ETE	224.23	ZAC	45.30	ETC	250.87

V1	29.766	V2	35.222	CLP	-127.14														

PLANETOCENTRIC CONIC

C3	38.067	VHL	6.170	DLA	20.52	RAL	228.38	RAD	6568.5	VEL	12.627	PTH	2.29	VHP	5.946	DPA	-58.00	RAP	180.92

ECC	1.6265	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	22 50 46	3073.83	-27.48	101.77	109.53	82.87	23 42 0	2473.8	-28.18	93.18							
		90.00	16 43 49	4317.90	3.84	178.56	99.53	61.92	17 55 47	3717.9	.05	171.93							
		100.00	0 29 30	2768.14	-29.35	79.53	109.77	84.04	1 15 38	2168.1	-29.86	70.76							
		100.00	17 51 42	4098.82	5.48	161.56	98.62	60.57	19 0 1	3498.8	1.52	155.01							
		110.00	2 6 24	2464.97	-34.07	56.94	110.21	87.04	2 47 29	1865.0	-34.11	47.69							
		110.00	18 31 17	3974.76	9.54	149.67	96.15	57.02	19 37 32	3374.8	5.13	143.36							

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY			
TDE	1.9281	TRA	-.9547	TC3	-1.0676	BAU	.6190	SGT	2416.1	SGR	834.1	SG3	186.4	ST	1813.4	SR	420.6	SS	843.2
RDE	.4520	RRA	.0485	RC3	-.5828	FAU	.04987	RRT	.8205	RRF	.9405	RTF	.9278	CRT	.9813	CRS	-.9987	CST	-.9893
FDE	1.7668	FRA	-.0583	FC3	-1.1341	BSP	7585	SGB	2556.1	RZS	.2635	R13	.9433	LSA	2039.3	HSA	131.2	SSA	8.7
BDE	1.9804	BRA	.9560	BC3	1.2163	FSP	-620	SG1	2514.7	SG2	458.2	THA	16.37	EL1	1859.8	EL2	79.0	ALF	12.85

LAUNCH DATE OCT 3 1970 FLIGHT TIME 112.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 331.910

RL	149.69	LAL	.00	LOL	9.37	VL	27.935	GAL	-9.66	AZL	81.25	HCA	157.09	SMA	133.67	ECC	.20519	INC	8.7470
RP	107.61	LAP	3.39	LOP	166.70	VP	38.300	GAP	3.74	AZP	96.07	TAL	225.19	TAP	22.26	RCA	106.25	APO	161.10
RC	103.196	GL	40.51	GP	-56.12	ZAL	130.53	ZAP	111.48	ETS	319.76	ZAE	112.21	ETE	222.18	ZAC	42.22	ETC	249.60

V1	29.766	V2	35.215	CLP	-131.07														

PLANETOCENTRIC CONIC

C3	41.561	VHL	6.447	DLA	23.52	RAL	231.01	RAD	6568.6	VEL	12.764	PTH	2.32	VHP	6.462	DPA	-59.91	RAP	176.15

ECC	1.6840	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	22 21 50	3257.16	-25.56	113.34	114.56	77.39	23 15 55	2657.2	-27.05	104.98							
		90.00	17 33 38	4198.93	.00	171.92	104.88	61.68	18 43 36	3598.9	-3.78	165.29							
		100.00	0 5 50	2914.93	-27.84	90.17	115.10	78.64	0 54 25	2314.9	-29.12	81.60							
		100.00	18 36 22	3996.39	2.03	155.91	103.75	60.17	19 42 59	3396.4	-1.95	149.39							
		110.00	1 51 23	2584.68	-33.26	66.18	116.19	81.62	2 34 28	1984.7	-34.06	57.03							
		110.00	19 7 18	3899.39	6.72	145.66	100.84	56.40	20 12 18	3299.4	2.26	139.41							

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY			
TDE	2.2711	TRA	-.9813	TC3	-1.0219	BAU	.6323	SGT	2570.5	SGR	776.3	SG3	162.6	ST	2036.5	SR	414.6	SS	840.4
RDE	.4641	RRA	.1298	RC3	-.5007	FAU	.04205	RRT	.7871	RRF	.9257	RTF	.9320	CRT	.9749	CRS	-.9959	CST	-.9908
FDE	1.6933	FRA	.0204	FC3	-.8760	BSP	8014	SGB	2685.2	RZS	.2709	R13	.9446	LSA	2237.8	HSA	134.0	SSA	7.2
BDE	2.3180	BRA	.9304	BC3	1.1379	FSP	-546	SG1	2644.6	SG2	465.4	THA	13.81	EL1	2076.3	EL2	90.6	ALF	11.25

LAUNCH DATE OCT 3 1970 FLIGHT TIME 114.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 337.986

RL	149.69	LAL	.00	LOL	9.37	VL	27.879	GAL	-9.46	AZL	79.91	HCA	160.29	SMA	133.26	ECC	.20442	INC	10.0910
RP	107.64	LAP	3.39	LOP	169.94	VP	38.341	GAP	4.06	AZP	99.51	TAL	224.02	TAP	24.31	RCA	106.02	APO	160.50
RC	105.482	GL	44.59	GP	-59.74	ZAL	126.50	ZAP	110.99	ETS	314.17	ZAE	108.44	ETE	219.74	ZAC	38.60	ETC	247.78

V1	29.766	V2	35.207	CLP	-135.32														

PLANETOCENTRIC CONIC

C3	47.105	VHL	6.863	DLA	26.86	RAL	234.10	RAD	6568.8	VEL	12.980	PTH	2.37	VHP	7.157	DPA	-61.88	RAP	169.80

ECC	1.7752	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	21 29 37	3489.47	-20.74	130.23	119.38	70.28	22 27 47	2889.5	-23.24	122.45							
		90.00	18 50 36	4009.61	-6.07	161.32	112.78	62.29	19 57 26	3409.6	-9.73	154.56							
		100.00	23 24 0	3120.74	-24.26	104.40	120.69	71.98	24 16 1	2520.7	-26.50	96.32							
		100.00	19 38 54	3853.58	-2.81	148.07	110.99	60.23	20 43 8	3253.6	-6.75	141.50							
		110.00	1 30 15	2738.00	-31.15	77.63	122.98	75.16	2 15 53	2138.0	-32.87	68.83							
		110.00	19 53 5	3809.08	3.30	140.91	107.19	55.96	20 56 34	3209.1	-1.19	134.70							

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY			
TDE	2.7220	TRA	-.8548	TC3	-.9277	BAU	.6356	SGT	2724.9	SGR	693.0	SG3	138.6	ST	2285.4	SR	373.6	SS	835.6
RDE	.4402	RRA	.2326	RC3	-.3976	FAU	.03409	RRT	.7180	RRF	.8859	RTF	.9372	CRT	.9604	CRS	-.9875	CST	-.9923
FDE	1.6181	FRA	.0926	FC3	-.6265	BSP	8579	SGB	2811.6	RZS	.2757	R13	.9465	LSA	2458.0	HSA	138.0	SSA	5.8
BDE	2.7574	BRA	.8859	BC3	1.0093	FSP	-466	SG1	2771.4	SG2	474.3	THA	10.67	EL1	2313.4	EL2	102.8	ALF	8.94

LAUNCH DATE OCT 3 1970 FLIGHT TIME 116.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 344.027

RL	149.69	LAL	.00	LOL	9.37	VL	27.822	GAL	-9.24	AZL	78.07	HCA	163.47	SMA	132.83	ECC	.20366	INC	11.9302
RP	107.66	LAP	3.37	LOP	173.19	VP	38.292	GAP	4.36	AZP	101.45	TAL	222.80	TAP	26.28	RCA	105.78	APO	159.89
RC	107.765	GL	49.12	GP	-63.99	ZAL	121.93	ZAP	109.75	ETS	307.45	ZAE	104.15	ETE	216.34	ZAC	34.29	ETC	244.96

V1	29.766	V2	35.198	CLP	-140.42														

PLANETOCENTRIC CONIC

C3	56.367	VHL	7.508	DLA	30.54	RAL	237.80	RAD	6568.0	VEL	13.331	PTH	2.44	VHP	8.144	DPA	-63.65	RAP	161.14

ECC	1.9277	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		78.06	18 49 5	4102.46	-13.60	172.14	123.61	62.39	19 57 28	3502.5	-17.19	165.14							
		101.94	22 0 39	3485.80	-13.58	126.68	123.60	62.38	22 58 44	2885.8	-17.18	119.69							
		78.06	18 49 5	4102.46	-13.60	172.14	123.61	62.39	19 57 28	3502.5	-17.19	165.14							
		101.94	22 0 39	3485.80	-13.58	126.68	123.60	62.38	22 58 44	2885.8	-17.18	119.69							
		110.00	0 56 51	2947.10	-26.59	92.17	130.02	67.68	1 45 58	2347.1	-29.37	84.10							
		110.00	20 55 59	3689.16	-1.29	134.65	116.20	55.84	21 57 28	3089.2	-5.76	128.42							

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY			
TDE	3.3315	TRA	-.7405	TC3	-.7836	BAU	.6265	SGT	2877.4	SGR	579.7	SG3	114.9	ST	2550.3	SR	262.1	SS	826.9
RDE	.3190	RRA	.3617	RC3	-.2779	FAU	.02641	RRT	.5394	RRF	.7560	RTF	.9450	CRT	.8985	CRS	-.9416	CST	-.9938
FDE	1.5389	FRA	.1500	FC3	-.4057	BSP	8846	SGB	2935.2	RZS	.2747	R13	.9503	LSA	2690.1	HSA	142.0	SSA	4.5
BDE	3.3468	BRA	.8241	BC3	.8314	FSP	-395	SG1	2894.8	SG2	485.2	THA	6.38	EL1	2561.2	EL2	114.5	ALF	5.29

LAUNCH DATE OCT 3 1970 FLIGHT TIME 118.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 350.024

```
RL  149.69 LAL    .00 LOL   9.37 VL  27.764 GAL  -9.01 AZL  75.39 HCA 166.64 SMA 132.41 ECC .20291 INC14.6132 V1  29.766
RP  107.69 LAP   3.34 LOP 176.43 VP  38.241 GAP   4.65 AZP 104.23 TAL 221.53 TAP  28.17 RCA 105.54 APO 159.27 V2  35.189
RC 110.046 GL   54.00 GP  -68.93 ZAL 116.78 ZAP 107.69 ETS 298.43 ZAE  99.11 ETE 210.63 ZAC  29.11 ETC 240.14 CLP-147.70
PLANETOCENTRIC CONIC
C3  73.123 VHL  8.551 DLA  34.39 RAL 242.34 RAD 6569.4 VEL 13.945 PTH   2.55 VHP  9.636 DPA -64.66 RAP 149.44 ECC 2.2034
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.61	18 11 9	4339.58	-12.91	189.84	132.79	57.84	19 23 29	3739.6	-17.07	183.18
110.39	23 14 51	3373.81	-12.90	117.73	132.78	57.84	24 11 5	2773.8	-17.05	111.07
69.61	18 11 9	4339.58	-12.91	189.84	132.79	57.84	19 23 29	3739.6	-17.07	183.18
110.39	23 14 51	3373.81	-12.90	117.73	132.78	57.84	24 11 5	2773.8	-17.05	111.07
69.61	18 11 9	4339.58	-12.91	189.84	132.79	57.84	19 23 29	3739.6	-17.07	183.18
110.39	23 14 51	3373.81	-12.90	117.73	132.78	57.84	24 11 5	2773.8	-17.05	111.07

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE 4.1962 TRA -.5187 TC3 -.5815 BAU  .5860   SGT 3011.9 SGR  498.8 SG3   92.6          ST  2814.6 SR   135.9 SS   823.8
RDE -.0624 RRA  .5300 RC3 -.1454 FAU .01879   RRT -.0343 RRF  .2521 RTF  .9566          CRT -.3492 CRS  .2591 CST -.9955
FDE 1.4748 FRA  .2024 FC3 -.2225 BSP   9188   SGB 3052.9 RZ3 -.2659 R13 -.9564          LSA 2932.0 MSA  148.0 SSA    3.4
BDE 4.1966 BRA  .7416 BC3  .5994 FSP   -319   SG1 3011.9 SG2  498.5 THA 179.67          EL1 2815.0 EL2  127.3 ALF 179.03
```

LAUNCH DATE OCT 3 1970 FLIGHT TIME 120.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 355.955

```
RL  149.69 LAL    .00 LOL   9.37 VL  27.705 GAL  -8.77 AZL  71.10 HCA 169.75 SMA 131.98 ECC .20210 INC18.9027 V1  29.766
RP  107.72 LAP   3.30 LOP 179.67 VP  38.189 GAP   4.91 AZP 108.62 TAL 220.20 TAP  29.95 RCA 105.30 APO 158.65 V2  35.179
RC 112.324 GL   58.84 GP  -74.38 ZAL 111.07 ZAP 104.78 ETS 283.65 ZAE  92.93 ETE 199.01 ZAC  22.77 ETC 230.80 CLP-161.39
PLANETOCENTRIC CONIC
C3 107.454 VHL 10.366 DLA  38.00 RAL 248.08 RAD 6570.1 VEL 15.126 PTH   2.72 VHP 12.107 DPA -63.88 RAP 134.89 ECC 2.7684
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.52	18 0 52	4523.77	-10.66	203.02	144.16	53.30	19 16 15	3923.8	-15.37	196.79
116.48	0 14 53	3360.47	-10.65	115.09	144.15	53.30	1 10 54	2760.5	-15.35	108.86
63.52	18 0 52	4523.77	-10.66	203.02	144.16	53.30	19 16 15	3923.8	-15.37	196.79
116.48	0 14 53	3360.47	-10.65	115.09	144.15	53.30	1 10 54	2760.5	-15.35	108.86
63.52	18 0 52	4523.77	-10.66	203.02	144.16	53.30	19 16 15	3923.8	-15.37	196.79
116.48	0 14 53	3360.47	-10.65	115.09	144.15	53.30	1 10 54	2760.5	-15.35	108.86

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE 5.3644 TRA -.0525 TC3 -.3318 BAU  .4782   SGT 3044.0 SGR  849.0 SG3   73.0          ST  2965.1 SR   705.6 SS   843.0
RDE-1.2483 RRA  .7006 RC3 -.0275 FAU .01128   RRT -.7834 RRF -.6355 RTF  .9746          CRT -.9787 CRS  .9618 CST -.9975
FDE 1.4548 FRA  .2555 FC3 -.0909 BSP   9452   SGB 3160.2 RZ3 -.2420 R13 -.9663          LSA 3158.5 MSA  155.9 SSA    2.3
BDE 5.5077 BRA  .7026 BC3  .3329 FSP   -250   SG1 3117.9 SG2  515.2 THA 167.32          EL1 3044.7 EL2  141.2 ALF 166.86
```

LAUNCH DATE OCT 3 1970 FLIGHT TIME 122.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 361.761

```
RL  149.69 LAL    .00 LOL   9.37 VL  27.645 GAL  -8.50 AZL  63.22 HCA 172.76 SMA 131.54 ECC .20111 INC26.7834 V1  29.766
RP  107.75 LAP   3.26 LOP 182.90 VP  38.137 GAP   5.13 AZP 116.60 TAL 218.78 TAP  31.54 RCA 105.09 APO 158.00 V2  35.169
RC 114.599 GL   62.39 GP  -78.47 ZAL 104.95 ZAP 101.08 ETS 253.59 ZAE  84.66 ETE 171.82 ZAC  14.81 ETC 212.54 CLP 164.01
PLANETOCENTRIC CONIC
C3 193.329 VHL 13.904 DLA  40.18 RAL 255.46 RAD 6571.1 VEL 17.738 PTH   2.99 VHP 16.773 DPA -59.66 RAP 119.77 ECC 4.1817
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.22	18 14 34	4676.54	-6.53	212.48	157.69	50.27	19 32 30	4076.5	-11.59	206.62
119.78	1 0 2	3423.31	-6.51	117.04	157.68	50.27	1 57 5	2823.3	-11.58	111.19
60.22	18 14 34	4676.54	-6.53	212.48	157.69	50.27	19 32 30	4076.5	-11.59	206.62
119.78	1 0 2	3423.31	-6.51	117.04	157.68	50.27	1 57 5	2823.3	-11.58	111.19
60.22	18 14 34	4676.54	-6.53	212.48	157.69	50.27	19 32 30	4076.5	-11.59	206.62
119.78	1 0 2	3423.31	-6.51	117.04	157.68	50.27	1 57 5	2823.3	-11.58	111.19

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE 5.9645 TRA  .9582 TC3 -.0802 BAU  .2077   SGT 2521.4 SGR 2031.0 SG3   57.9          ST  2462.7 SR  2018.9 SS   935.8
RDE-4.8965 RRA  .4287 RC3 -.0051 FAU .00279   RRT -.9445 RRF -.9215 RTF  .9967          CRT -.9953 CRS  .9927 CST -.9997
FDE 1.5612 FRA  .3437 FC3 -.0125 BSP   9718   SGB 3237.7 RZ3 -.1893 R13 -.9804          LSA 3315.2 MSA  162.0 SSA    1.6
BDE 7.7169 BRA 1.0498 BC3  .0804 FSP   -196   SG1 3194.5 SG2  526.8 THA 141.50          EL1 3180.8 EL2  152.0 ALF 140.68
```

LAUNCH DATE OCT 3 1970 FLIGHT TIME 124.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 367.228

```
RL  149.69 LAL    .00 LOL   9.37 VL  27.585 GAL  -8.15 AZL  45.30 HCA 175.45 SMA 131.11 ECC .19943 INC44.6983 V1  29.766
RP  107.79 LAP   3.20 LOP 186.14 VP  38.083 GAP   5.26 AZP 134.61 TAL 217.14 TAP  32.60 RCA 104.96 APO 157.26 V2  35.158
RC 116.871 GL   60.42 GP  -72.32 ZAL  98.89 ZAP  96.91 ETS 209.57 ZAE  71.40 ETE 130.51 ZAC   8.54 ETC 233.52 CLP 113.34
PLANETOCENTRIC CONIC
C3 487.713 VHL 22.084 DLA  37.15 RAL 264.52 RAD 6572.3 VEL 24.678 PTH   3.33 VHP 27.380 DPA -48.67 RAP 107.97 ECC 9.0265
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.88	19 13 21	4721.17	-1.61	212.27	172.41	52.88	20 32 2	4121.2	-6.42	206.28
115.12	1 13 32	3598.28	-1.60	127.64	172.39	52.88	2 13 30	2998.3	-6.41	121.65
64.88	19 13 21	4721.17	-1.61	212.27	172.41	52.88	20 32 2	4121.2	-6.42	206.28
115.12	1 13 32	3598.28	-1.60	127.64	172.39	52.88	2 13 30	2998.3	-6.41	121.65
64.88	19 13 21	4721.17	-1.61	212.27	172.41	52.88	20 32 2	4121.2	-6.42	206.28
115.12	1 13 32	3598.28	-1.60	127.64	172.39	52.88	2 13 30	2998.3	-6.41	121.65

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
TDE 1.9210 TRA 1.8870 TC3 -.0098 BAU  .9470   SGT  792.2 SGR 3113.9 SG3   49.2          ST   531.4 SR  2986.0 SS  1240.8
RD-11.4952 RRA-1.9620 RC3 -.1449 FAU-.01421   RRT -.7498 RRF -.9878 RTF  .8398          CRT -.9582 CRS  .9987 CST -.9717
FDE 2.0081 FRA  .6219 FC3  .0252 BSP   9232   SGB 3213.1 RZ3 -.1184 R13 -.9920          LSA 3273.1 MSA  157.9 SSA    1.7
BDE11.6448 BRA 2.7222 BC3  .1452 FSP   -155   SG1 3171.6 SG2  514.6 THA 101.09          EL1 3029.2 EL2  149.8 ALF  99.70
```

LAUNCH DATE OCT 3 1970 FLIGHT TIME 128.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 381.786

```
RL  149.69 LAL    .00 LOL   9.37 VL  27.463 GAL  -8.18 AZL 133.39 HCA 184.44 SMA 130.25 ECC .20518 INC43.3904 V1  29.766
RP  107.86 LAP   3.05 LOP 192.60 VP  37.974 GAP   6.53 AZP  46.69 TAL 215.74 TAP  40.18 RCA 103.52 APO 156.97 V2  35.136
RC 121.402 GL  -60.48 GP   70.68 ZAL  99.15 ZAP  98.39 ETS 162.34 ZAE  78.11 ETE 240.08 ZAC 149.41 ETC 262.04 CLP 116.16
```

PLANETOCENTRIC CONIC

```
C3 460.532 VHL 21.460 DLA -82.62 RAL 230.95 RAD 6572.3 VEL 24.121 PTH   3.31 VHP 28.171 DPA  77.40 RAP 225.76 ECC 8.5792
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
8.39	2 16 24	2413.11	2.97	84.99	140.55	172.61	2 56 37	1813.1	10.90	84.36
171.61	13 42 37	608.52	2.97	280.53	140.57	172.61	13 52 45	8.5	10.90	279.90
8.39	2 16 24	2413.11	2.97	84.99	140.55	172.61	2 56 37	1813.1	10.90	84.36
171.61	13 42 37	608.52	2.97	280.53	140.57	172.61	13 52 45	8.5	10.90	279.90
8.39	2 16 24	2413.11	2.97	84.99	140.55	172.61	2 56 37	1813.1	10.90	84.36
171.61	13 42 37	608.52	2.97	280.53	140.57	172.61	13 52 45	8.5	10.90	279.90

DIFFERENTIAL CORRECTIONS

```
TDE  .2343 TRA  .2301 TC3 -.0308 BAU  .9392
RD-11.1916 RRA -.6190 RC3  .1494 FAU-.01088
FDE-2.2088 FRA -.0888 FC3  .0204 BSP  10056
BDE11.1940 BRA  .6636 BC3  .1525 FSP   -166
```

MID-COURSE EXECUTION ACCURACY

```
SGT  518.2 SGR 3516.0 SGS   54.0
RRT -.5305 RRF  .9934 RTF -.4537
SGB 3356.3 RZS -.1211 RIS  .9921
SGI 3327.6 SGZ  437.8 THA  94.82
```

ORBIT DETERMINATION ACCURACY

```
ST   161.8 SR  3012.9 SS  1442.4
CRT -.5018 CRS -.9994 CST  .4713
LSA 3341.0 HSA  147.6 SSA    1.4
EL1 3014.0 EL2  139.9 ALF  91.55
```

LAUNCH DATE OCT 5 1970 FLIGHT TIME 130.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 387.179

```
RL  149.69 LAL    .00 LOL   9.37 VL  27.402 GAL  -7.81 AZL 114.68 HCA 187.10 SMA 129.82 ECC .20359 INC24.6833 V1  29.766
RP  107.89 LAP   2.96 LOP 195.83 VP  37.919 GAP   6.62 AZP  65.48 TAL 214.04 TAP  41.13 RCA 103.39 APO 156.25 V2  35.124
RC 123.660 GL  -62.00 GP   75.29 ZAL 104.54 ZAP 104.01 ETS 104.71 ZAE  91.88 ETE 183.72 ZAC 159.89 ETC 226.21 CLP 162.37
```

PLANETOCENTRIC CONIC

```
C3 164.880 VHL 12.841 DLA -79.13 RAL 193.93 RAD 6570.8 VEL 16.918 PTH   2.92 VHP 17.183 DPA  63.79 RAP 243.40 ECC 3.7135
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
12.30	23 52 34	2277.44	11.70	81.72	101.64	168.89	24 30 31	1677.4	19.55	80.51
167.62	11 7 12	5769.93	11.71	259.01	101.66	168.89	12 43 22	5169.9	19.55	257.80
12.30	23 52 34	2277.44	11.70	81.72	101.64	168.89	24 30 31	1677.4	19.55	80.51
167.62	11 7 12	5769.93	11.71	259.01	101.66	168.89	12 43 22	5169.9	19.55	257.80
12.30	23 52 34	2277.44	11.70	81.72	101.64	168.89	24 30 31	1677.4	19.55	80.51
167.62	11 7 12	5769.93	11.71	259.01	101.66	168.89	12 43 22	5169.9	19.55	257.80

DIFFERENTIAL CORRECTIONS

```
TDE-3.4151 TRA-1.0880 TC3 -.1107 BAU  .2491
RDE-1.0482 RRA -.8886 RC3 -.0227 FAU .00875
FDE -.9464 FRA -.2827 FC3 -.0460 BSP  11167
BDE 3.5723 BRA 1.3683 BC3  .1130 FSP   -213
```

MID-COURSE EXECUTION ACCURACY

```
SGT 3006.0 SGR 2015.3 SGS   65.7
RRT  .9534 RRF  .9277 RTF  .9962
SGB 3619.0 RZS -.1657 RIS  .9850
SGI 3582.9 SGZ  510.1 THA  33.35
```

ORBIT DETERMINATION ACCURACY

```
ST  1708.5 SR   751.2 SS   685.3
CRT  .9092 CRS -.8856 CST -.9986
LSA 1965.5 HSA  299.5 SSA    1.5
EL1 1843.8 EL2  289.8 ALF  22.37
```

LAUNCH DATE OCT 3 1970 FLIGHT TIME 132.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 392.894

```
RL  149.69 LAL    .00 LOL   9.37 VL  27.340 GAL  -7.49 AZL 106.55 HCA 190.09 SMA 129.39 ECC .20295 INC16.5451 V1  29.766
RP  107.93 LAP   2.86 LOP 198.05 VP  37.863 GAP   6.81 AZP  73.70 TAL 212.47 TAP  42.56 RCA 103.13 APO 155.65 V2  35.112
RC 125.912 GL  -57.78 GP   69.76 ZAL 109.64 ZAP 110.02 ETS  73.96 ZAE 100.35 ETE 154.74 ZAC 161.35 ETC 223.62 CLP-171.76
```

PLANETOCENTRIC CONIC

```
C3  83.260 VHL  9.125 DLA -73.83 RAL 198.50 RAD 6589.6 VEL 14.304 PTH   2.60 VHP 12.470 DPA  53.64 RAP 244.73 ECC 2.3703
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.45	0 26 52	2129.00	20.37	75.30	102.31	162.71	1 2 22	1529.9	27.99	73.12
161.55	11 13 17	5643.31	20.38	258.68	102.33	162.71	12 47 20	5043.3	28.00	256.42
18.45	0 26 52	2129.00	20.37	75.30	102.31	162.71	1 2 22	1529.9	27.99	73.12
161.55	11 13 17	5643.31	20.38	258.68	102.33	162.71	12 47 20	5043.3	28.00	256.42
18.45	0 26 52	2129.00	20.37	75.30	102.31	162.71	1 2 22	1529.9	27.99	73.12
161.55	11 13 17	5643.31	20.38	258.68	102.33	162.71	12 47 20	5043.3	28.00	256.42

DIFFERENTIAL CORRECTIONS

```
TDE-2.5769 TRA-1.4180 TC3 -.5222 BAU  .5823
RDE  .5694 RRA -.1756 RC3  .0305 FAU .01859
FDE -.9019 FRA -.3082 FC3 -.1933 BSP  11566
BDE 2.6391 BRA 1.4286 BC3  .5231 FSP   -272
```

MID-COURSE EXECUTION ACCURACY

```
SGT 3707.4 SGR  532.9 SGS   83.2
RRT  .3134 RRF  .0970 RTF  .9727
SGB 3745.5 RZS -.2250 RIS  .9713
SGI 3711.2 SGZ  505.5 THA   2.63
```

ORBIT DETERMINATION ACCURACY

```
ST  1881.1 SR   376.3 SS   650.3
CRT -.6583 CRS  .7838 CST -.9834
LSA 2003.6 HSA  297.9 SSA    2.3
EL1 1897.8 EL2  280.8 ALF 172.33
```

LAUNCH DATE OCT 3 1970 FLIGHT TIME 134.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 398.705

```
RL  149.69 LAL    .00 LOL   9.37 VL  27.279 GAL  -7.19 AZL 102.15 HCA 193.19 SMA 128.97 ECC .20265 INC12.1506 V1  29.766
RP  107.97 LAP   2.75 LOP 202.27 VP  37.807 GAP   7.02 AZP  78.16 TAL 210.94 TAP  44.13 RCA 102.83 APO 155.11 V2  35.099
RC 128.158 GL  -52.28 GP   62.86 ZAL 113.88 ZAP 115.87 ETS  84.78 ZAE 106.51 ETE 147.97 ZAC 158.26 ETC 234.97 CLP-163.08
```

PLANETOCENTRIC CONIC

```
C3  51.871 VHL  7.202 DLA -68.75 RAL 206.38 RAD 6560.9 VEL 13.162 PTH   2.40 VHP 10.077 DPA  45.28 RAP 244.58 ECC 1.8537
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
24.32	1 10 43	2002.23	26.81	67.66	105.04	156.04	1 44 5	1402.2	34.07	64.16
155.68	11 32 19	5844.96	26.82	257.05	105.05	156.03	13 4 44	4945.0	34.07	253.55
24.32	1 10 43	2002.23	26.81	67.66	105.04	156.04	1 44 5	1402.2	34.07	64.16
155.68	11 32 19	5844.96	26.82	257.05	105.05	156.03	13 4 44	4945.0	34.07	253.55
24.32	1 10 43	2002.23	26.81	67.66	105.04	156.04	1 44 5	1402.2	34.07	64.16
155.68	11 32 19	5844.96	26.82	257.05	105.05	156.03	13 4 44	4945.0	34.07	253.55

DIFFERENTIAL CORRECTIONS

```
TDE-2.1981 TRA-1.3617 TC3-1.0225 BAU  .7172
RDE  .6019 RRA -.0073 RC3  .1554 FAU .02564
FDE -.9518 FRA -.3044 FC3 -.4279 BSP  11521
BDE 2.2995 BRA 1.3617 BC3 1.0343 FSP   -321
```

MID-COURSE EXECUTION ACCURACY

```
SGT 3762.0 SGR  587.1 SGS  101.3
RRT -.5568 RRF -.7689 RTF  .9517
SGB 3807.5 RZS  .2769 RIS -.9549
SGI 3776.4 SGZ  485.8 THA 174.95
```

ORBIT DETERMINATION ACCURACY

```
ST  1964.2 SR   542.6 SS   668.8
CRT -.8856 CRS  .9629 CST -.9780
LSA 2127.6 HSA  269.8 SSA    3.2
EL1 2023.0 EL2  244.7 ALF 166.05
```

LAUNCH DATE OCT 3 1970 FLIGHT TIME 136.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 404.547

```
RL  149.69 LAL    .00 LOL   9.37 VL  27.217 GAL  -6.89 AZL  99.42 HCA 196.33 SMA 128.55 ECC .20258 INC 9.4161 V1  29.766
RP  108.01 LAP   2.64 LOP 205.49 VP  37.751 GAP   7.24 AZP  80.96 TAL 209.41 TAP  45.74 RCA 102.51 APO 154.59 V2  35.086
RC 130.397 GL  -46.75 GP   56.41 ZAL 117.12 ZAP 121.32 ETS  60.85 ZAE 111.24 ETE 146.94 ZAC 153.75 ETC 243.03 CLP-159.96
```

PLANETOCENTRIC CONIC

```
C3  36.841 VHL  6.070 DLA -63.97 RAL 213.38 RAD 6568.4 VEL 12.578 PTH   2.28 VHP  8.718 DPA  38.08 RAP 244.45 ECC 1.6063
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
29.90	1 51 14	1897.61	30.85	59.31	106.41	149.26	2 22 52	1297.6	37.63	54.58
150.10	11 47 38	5477.58	30.86	254.86	106.43	149.26	13 18 56	4877.6	37.63	250.13
29.90	1 51 14	1897.61	30.85	59.31	106.41	149.26	2 22 52	1297.6	37.63	54.58
150.10	11 47 38	5477.58	30.86	254.86	106.43	149.26	13 18 56	4877.6	37.63	250.13
29.90	1 51 14	1897.61	30.85	59.31	106.41	149.26	2 22 52	1297.6	37.63	54.58
150.10	11 47 38	5477.58	30.86	254.86	106.43	149.26	13 18 56	4877.6	37.63	250.13

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE-1.9531 TRA-1.2958 TC3-1.6001 BAU  .7999    SGT 3865.4 SGR  677.7 SGS  121.5          ST  2025.3 SR   584.1 SS   677.8
 RDE  .6183 RRA  .0508 RC3  .2784 FAU .03182    RRT -.7319 RRF -.9041 RTF  .9382          CRT -.9242 CRS  .9851 CST -.9760
 FDE -.9326 FRA -.2854 FC3 -.7478 BSP  12072    SGB 3924.4 RZS  .3048 RIS -.9429          LSA 2200.2 MSA  248.1 SSA    4.2
 BDE 2.0486 BRA 1.2962 BC3 1.6241 FSP   -393    SGI 3897.6 SGZ  458.0 THA 172.58          EL1 2096.8 EL2  215.4 ALF 164.91
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LAUNCH DATE OCT 3 1970 FLIGHT TIME 138.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 410.399

```
RL  149.69 LAL    .00 LOL   9.37 VL  27.156 GAL  -6.58 AZL  97.55 HCA 199.49 SMA 128.14 ECC .20266 INC 7.5483 V1  29.766
RP  108.05 LAP   2.51 LOP 208.71 VP  37.695 GAP   7.47 AZP  82.88 TAL 207.88 TAP  47.37 RCA 102.17 APO 154.11 V2  35.074
RC 132.627 GL  -41.57 GP   50.67 ZAL 119.34 ZAP 126.25 ETS  58.56 ZAE 114.91 ETE 147.83 ZAC 149.16 ETC 248.05 CLP-158.91
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PLANETOCENTRIC CONIC

```
C3  28.519 VHL  5.340 DLA -59.59 RAL 219.35 RAD 6568.1 VEL 12.243 PTH   2.20 VHP  7.894 DPA  31.81 RAP 244.60 ECC 1.4693
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.09	2 27 42	1811.13	33.02	51.04	106.92	142.87	2 57 53	1211.1	39.24	45.23
144.91	11 58 47	5435.20	33.03	252.76	106.94	142.87	13 29 22	4835.2	39.25	246.94
35.09	2 27 42	1811.13	33.02	51.04	106.92	142.87	2 57 53	1211.1	39.24	45.23
144.91	11 58 47	5435.20	33.03	252.76	106.94	142.87	13 29 22	4835.2	39.25	246.94
35.09	2 27 42	1811.13	33.02	51.04	106.92	142.87	2 57 53	1211.1	39.24	45.23
144.91	11 58 47	5435.20	33.03	252.76	106.94	142.87	13 29 22	4835.2	39.25	246.94

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE-1.7476 TRA-1.2200 TC3-2.2059 BAU  .8531    SGT 3969.2 SGR  700.4 SGS  139.3          ST  2030.4 SR   570.9 SS   662.3
 RDE  .5317 RRA  .0303 RC3  .3757 FAU .03662    RRT -.7847 RRF -.9356 RTF  .9283          CRT -.9364 CRS  .9917 CST -.9735
 FDE -.8926 FRA -.2458 FC3-1.1117 BSP  12514    SGB 4030.5 RZS  .3203 RIS -.9333          LSA 2198.3 MSA  232.9 SSA    5.4
 BDE 1.8267 BRA 1.2204 BC3 2.2376 FSP   -456    SGI 4007.5 SGZ  430.0 THA 172.02          EL1 2100.2 EL2  193.7 ALF 165.12
```

LAUNCH DATE OCT 3 1970 FLIGHT TIME 140.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 416.252

```
RL  149.69 LAL    .00 LOL   9.37 VL  27.095 GAL  -6.28 AZL  96.19 HCA 202.67 SMA 127.73 ECC .20287 INC 6.1869 V1  29.766
RP  108.09 LAP   2.38 LOP 211.92 VP  37.639 GAP   7.69 AZP  84.29 TAL 206.33 TAP  49.00 RCA 101.82 APO 153.64 V2  35.061
RC 134.850 GL  -36.86 GP   45.67 ZAL 120.62 ZAP 130.65 ETS  56.95 ZAE 117.77 ETE 149.46 ZAC 144.93 ETC 251.32 CLP-158.79
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PLANETOCENTRIC CONIC

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C3  23.415 VHL  4.839 DLA -55.65 RAL 224.57 RAD 6568.0 VEL 12.033 PTH   2.15 VHP  7.376 DPA  26.35 RAP 245.04 ECC 1.3854
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
39.87	3 1 14	1737.38	33.90	43.24	107.22	137.17	3 30 11	1137.4	39.57	36.61
140.13	12 6 57	5411.47	33.91	251.10	107.23	137.16	13 37 8	4811.5	39.58	244.47
39.87	3 1 14	1737.38	33.90	43.24	107.22	137.17	3 30 11	1137.4	39.57	36.61
140.13	12 6 57	5411.47	33.91	251.10	107.23	137.16	13 37 8	4811.5	39.58	244.47
39.87	3 1 14	1737.38	33.90	43.24	107.22	137.17	3 30 11	1137.4	39.57	36.61
140.13	12 6 57	5411.47	33.91	251.10	107.23	137.16	13 37 8	4811.5	39.58	244.47

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE-1.5668 TRA-1.1357 TC3-2.8110 BAU  .8908    SGT 4064.6 SGR  688.5 SGS  153.4          ST  1989.8 SR   537.6 SS   626.5
 RDE  .4538 RRA  .0176 RC3  .4431 FAU .03998    RRT -.8046 RRF -.9422 RTF  .9203          CRT -.9403 CRS  .9948 CST -.9698
 FDE -.8233 FRA -.1884 FC3-1.4782 BSP  12839    SGB 4122.5 RZS  .3273 RIS -.9248          LSA 2142.8 MSA  221.9 SSA    6.9
 BDE 1.6312 BRA 1.1359 BC3 2.8457 FSP   -503    SGI 4102.5 SGZ  405.0 THA 172.16          EL1 2053.5 EL2  177.4 ALF 165.64
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LAUNCH DATE OCT 3 1970 FLIGHT TIME 142.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 422.100

```
RL  149.69 LAL    .00 LOL   9.37 VL  27.035 GAL  -5.96 AZL  95.15 HCA 205.85 SMA 127.33 ECC .20321 INC 5.1457 V1  29.766
RP  108.13 LAP   2.24 LOP 215.13 VP  37.583 GAP   7.92 AZP  85.37 TAL 204.76 TAP  50.61 RCA 101.45 APO 153.20 V2  35.047
RC 137.063 GL  -32.60 GP   41.34 ZAL 121.05 ZAP 134.54 ETS  55.68 ZAE 119.98 ETE 151.35 ZAC 141.19 ETC 253.60 CLP-159.12
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PLANETOCENTRIC CONIC

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C3  20.041 VHL  4.477 DLA -52.10 RAL 229.31 RAD 6567.8 VEL 11.892 PTH   2.11 VHP  7.046 DPA  21.59 RAP 245.76 ECC 1.3298
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.24	3 32 50	1672.25	33.95	36.07	107.69	132.23	4 0 42	1072.2	39.10	28.85
135.76	12 13 8	5401.53	33.96	250.06	107.70	132.22	13 43 9	4801.5	39.11	242.85
44.24	3 32 50	1672.25	33.95	36.07	107.69	132.23	4 0 42	1072.2	39.10	28.85
135.76	12 13 8	5401.53	33.96	250.06	107.70	132.22	13 43 9	4801.5	39.11	242.85
44.24	3 32 50	1672.25	33.95	36.07	107.69	132.23	4 0 42	1072.2	39.10	28.85
135.76	12 13 8	5401.53	33.96	250.06	107.70	132.22	13 43 9	4801.5	39.11	242.85

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE-1.4030 TRA-1.0405 TC3-3.3913 BAU  .9178    SGT 4140.6 SGR  659.6 SGS  163.2          ST  1911.9 SR   499.0 SS   574.6
 RDE  .3897 RRA  .0006 RC3  .4820 FAU .04190    RRT -.8090 RRF -.9378 RTF  .9123          CRT -.9404 CRS  .9967 CST -.9639
 FDE -.7342 FRA -.1168 FC3-1.8100 BSP  12982    SGB 4192.8 RZS  .3289 RIS -.9163          LSA 2046.7 MSA  213.6 SSA    8.7
 BDE 1.4561 BRA 1.0405 BC3 3.4254 FSP   -527    SGI 4175.1 SGZ  384.5 THA 172.59          EL1 1969.1 EL2  164.8 ALF 166.11
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LAUNCH DATE OCT 3 1970 FLIGHT TIME 144.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 427.938

RL	149.69	LAL	.00	LOL	9.37	VL	26.974	GAL	-5.63	AZL	94.32	HCA	209.03	SMA	126.93	ECC	.20368	INC	4.3196	V1	29.766
RP	108.17	LAP	2.09	LOP	218.34	VP	37.527	GAP	8.15	AZP	86.22	TAL	203.19	TAP	52.22	RCA	101.08	APO	152.78	V2	35.034
RC	139.266	GL	-28.74	GP	37.61	ZAL	120.77	ZAP	137.98	ETS	54.63	ZAE	121.69	ETE	153.27	ZAC	137.93	ETC	255.30	CLP	-159.69

PLANETOCENTRIC CONIC

C3	17.683	VHL	4.205	DLA	-48.92	RAL	233.73	RAD	6567.7	VEL	11.793	PTH	2.09	VHP	6.837	DPA	17.44	RAP	246.71	ECC	1.2910

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.28	4 3 17	1612.76	33.49	29.48	108.49	128.01	4 30 9	1012.8	38.16	21.88
131.72	12 17 56	5402.11	33.50	249.66	108.50	128.00	13 47 58	4802.1	38.18	242.06
48.28	4 3 17	1612.76	33.49	29.48	108.49	128.01	4 30 9	1012.8	38.16	21.88
131.72	12 17 56	5402.11	33.50	249.66	108.50	128.00	13 47 58	4802.1	38.18	242.06
48.28	4 3 17	1612.76	33.49	29.48	108.49	128.01	4 30 9	1012.8	38.16	21.88
131.72	12 17 56	5402.11	33.50	249.66	108.50	128.00	13 47 58	4802.1	38.18	242.06

DIFFERENTIAL CORRECTIONS

TDE	-1.2715	TRA	-.9546	TC3	-3.9797	BAU	.9486
RDE	.3451	RRA	-.0104	RC3	.5130	FAU	.04542
FDE	-.6518	FRA	-.0534	FC3	-2.1258	BSP	13468
BDE	1.3175	BRA	.9547	BC3	4.0126	FSP	-567

MID-COURSE EXECUTION ACCURACY

SGT	4257.0	SGR	638.5	SG3	172.7		
RRT	-.8153	RRF	-.9295	RTF	.9096		
SGB	4304.7	RZ3	.3149	R13	-.9129		
SG1	4289.0	SG2	367.0	THA	172.98		

ORBIT DETERMINATION ACCURACY

ST	1834.2	SR	470.4	SS	526.0
CRT	-.9412	CRS	.9982	CST	-.9575
LSA	1954.4	MSA	206.0	SSA	10.8
EL1	1887.2	EL2	154.5	ALF	166.34

LAUNCH DATE OCT 3 1970 FLIGHT TIME 146.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 433.760

RL	149.69	LAL	.00	LOL	9.37	VL	26.914	GAL	-5.30	AZL	95.64	HCA	212.22	SMA	126.54	ECC	.20427	INC	3.6446	V1	29.766
RP	108.21	LAP	1.94	LOP	221.54	VP	37.472	GAP	8.37	AZP	86.92	TAL	201.59	TAP	53.81	RCA	100.69	APO	152.39	V2	35.021
RC	141.459	GL	-25.24	GP	34.39	ZAL	119.86	ZAP	141.02	ETS	53.76	ZAE	123.01	ETE	155.12	ZAC	135.11	ETC	256.65	CLP	-160.39

PLANETOCENTRIC CONIC

C3	15.965	VHL	3.996	DLA	-46.04	RAL	237.95	RAD	6567.6	VEL	11.720	PTH	2.06	VHP	6.711	DPA	13.80	RAP	247.86	ECC	1.2627

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.04	4 33 15	1556.60	32.71	23.38	109.67	124.41	4 59 12	956.6	36.97	15.54
127.96	12 21 40	5411.29	32.72	249.86	109.68	124.40	13 51 51	4811.3	36.98	242.02
52.04	4 33 15	1556.60	32.71	23.38	109.67	124.41	4 59 12	956.6	36.97	15.54
127.96	12 21 40	5411.29	32.72	249.86	109.68	124.40	13 51 51	4811.3	36.98	242.02
52.04	4 33 15	1556.60	32.71	23.38	109.67	124.41	4 59 12	956.6	36.97	15.54
127.96	12 21 40	5411.29	32.72	249.86	109.68	124.40	13 51 51	4811.3	36.98	242.02

DIFFERENTIAL CORRECTIONS

TDE	-1.1492	TRA	-.8538	TC3	-4.5224	BAU	.9717
RDE	.3089	RRA	-.0235	RC3	.5244	FAU	.04378
FDE	-.5610	FRA	.0198	FC3	-2.3739	BSP	13718
BDE	1.1862	BRA	.8541	BC3	4.5527	FSP	-582

MID-COURSE EXECUTION ACCURACY

SGT	4343.8	SGR	611.7	SG3	178.1		
RRT	-.8115	RRF	-.9148	RTF	.9053		
SGB	4386.6	RZ3	.2998	R13	-.9081		
SG1	4372.2	SG2	355.1	THA	173.44		

ORBIT DETERMINATION ACCURACY

ST	1728.8	SR	443.4	SS	467.7
CRT	-.9408	CRS	.9990	CST	-.9472
LSA	1834.1	MSA	199.7	SSA	13.3
EL1	1778.7	EL2	146.1	ALF	166.34

LAUNCH DATE OCT 3 1970 FLIGHT TIME 148.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 439.586

RL	149.69	LAL	.00	LOL	9.37	VL	26.855	GAL	-4.96	AZL	93.08	HCA	215.41	SMA	126.16	ECC	.20500	INC	3.0797	V1	29.766
RP	108.25	LAP	1.78	LOP	224.74	VP	37.417	GAP	8.59	AZP	87.49	TAL	199.99	TAP	55.39	RCA	100.29	APO	152.02	V2	35.008
RC	143.643	GL	-22.04	GP	31.61	ZAL	118.44	ZAP	143.72	ETS	53.04	ZAE	124.03	ETE	156.83	ZAC	132.67	ETC	257.76	CLP	-161.18

PLANETOCENTRIC CONIC

C3	14.677	VHL	3.831	DLA	-43.41	RAL	242.06	RAD	6567.6	VEL	11.665	PTH	2.05	VHP	6.642	DPA	10.61	RAP	249.19	ECC	1.2415

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.61	5 3 16	1502.06	31.74	17.64	111.22	121.34	5 28 18	902.1	35.62	9.65
124.39	12 24 26	5428.02	31.75	250.65	111.23	121.32	13 54 54	4828.0	35.63	242.66
55.61	5 3 16	1502.06	31.74	17.64	111.22	121.34	5 28 18	902.1	35.62	9.65
124.39	12 24 26	5428.02	31.75	250.65	111.23	121.32	13 54 54	4828.0	35.63	242.66
55.61	5 3 16	1502.06	31.74	17.64	111.22	121.34	5 28 18	902.1	35.62	9.65
124.39	12 24 26	5428.02	31.75	250.65	111.23	121.32	13 54 54	4828.0	35.63	242.66

DIFFERENTIAL CORRECTIONS

TDE	-1.0312	TRA	-.7494	TC3	-5.0397	BAU	.9943
RDE	.2822	RRA	-.0347	RC3	.5287	FAU	.04363
FDE	-.4747	FRA	.0902	FC3	-2.5734	BSP	14021
BDE	1.0691	BRA	.7502	BC3	5.0673	FSP	-594

MID-COURSE EXECUTION ACCURACY

SGT	4435.0	SGR	589.4	SG3	181.8		
RRT	-.8053	RRF	-.8965	RTF	.9026		
SGB	4474.0	RZ3	.2786	R13	-.9050		
SG1	4460.5	SG2	347.4	THA	173.85		

ORBIT DETERMINATION ACCURACY

ST	1614.3	SR	422.8	SS	410.1
CRT	-.9412	CRS	.9982	CST	-.9527
LSA	1707.4	MSA	193.8	SSA	16.4
EL1	1663.0	EL2	138.6	ALF	166.05

LAUNCH DATE OCT 3 1970 FLIGHT TIME 150.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 445.392

RL	149.69	LAL	.00	LOL	9.37	VL	26.796	GAL	-4.61	AZL	92.60	HCA	218.60	SMA	125.78	ECC	.20586	INC	2.5971	V1	29.766
RP	108.29	LAP	1.62	LOP	227.94	VP	37.362	GAP	8.82	AZP	87.97	TAL	198.36	TAP	56.96	RCA	99.88	APO	151.67	V2	34.995
RC	145.816	GL	-19.09	GP	29.19	ZAL	116.57	ZAP	146.12	ETS	52.48	ZAE	124.82	ETE	158.40	ZAC	130.55	ETC	258.73	CLP	-162.00

PLANETOCENTRIC CONIC

C3	13.896	VHL	3.701	DLA	-40.98	RAL	246.11	RAD	6567.5	VEL	11.622	PTH	2.04	VHP	6.616	DPA	7.79	RAP	250.86	ECC	1.2254

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.05	5 33 51	1447.36	30.63	12.10	113.12	118.67	5 57 58	847.4	34.19	4.02
120.95	12 26 6	5452.20	30.64	252.02	113.12	118.66	13 56 59	4852.2	34.20	243.95
59.05	5 33 51	1447.36	30.63	12.10	113.12	118.67	5 57 58	847.4	34.19	4.02
120.95	12 26 6	5452.20	30.64	252.02	113.12	118.66	13 56 59	4852.2	34.20	243.95
59.05	5 33 51	1447.36	30.63	12.10	113.12	118.67	5 57 58	847.4	34.19	4.02
120.95	12 26 6	5452.20	30.64	252.02	113.12	118.66	13 56 59	4852.2	34.20	243.95

DIFFERENTIAL CORRECTIONS

TDE	-.9237	TRA	-.6379	TC3	-5.5194	BAU	1.0152
RDE	.2822	RRA	-.0452	RC3	.5270	FAU	.04302
FDE	-.3926	FRA	.1590	FC3	-2.7192	BSP	14298
BDE	.9602	BRA	.6395	BC3	5.5445	FSP	-600

MID-COURSE EXECUTION ACCURACY

SGT	4521.7	SGR	570.6	SG3	183.8		
RRT	-.7957	RRF	-.8749	RTF	.9007		
SGB	4557.6	RZ3	.2542	R13	-.9027		
SG1	4544.6	SG2	343.8	THA	174.23		

ORBIT DETERMINATION ACCURACY

ST	1488.0	SR	407.1	SS	353.5
CRT	-.9428	CRS	.9935	CST	-.9107
LSA	1571.3	MSA	188.0	SSA	20.1
EL1	1537.1	EL2	131.4	ALF	165.43

LAUNCH DATE OCT 3 1970 FLIGHT TIME 152.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 451.185

RL 149.69 LAL .00 LOL 9.37 VL 26.737 GAL -4.25 AZL 92.18 HCA 221.78 SMA 125.40 ECC .20687 INC 2.1778 V1 29.766
RP 108.33 LAP 1.45 LOP 231.14 VP 37.308 GAP 9.05 AZP 88.38 TAL 196.73 TAP 58.51 RCA 99.46 APO 151.35 V2 34.982
RC 147.979 GL -16.36 GP 27.09 ZAL 114.33 ZAP 148.28 ETS 52.06 ZAE 125.45 ETE 159.81 ZAC 128.72 ETC 259.60 CLP-162.84

PLANETOCENTRIC CONIC

C3 12.946 VHL 3.598 DLA -38.70 RAL 250.12 RAD 6567.5 VEL 11.590 PTH 2.03 VHP 6.620 DPA 5.30 RAP 252.26 ECC 1.2131

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.44	6 5 31	1390.85	29.43	6.60	115.33	116.35	6 28 41	790.9	32.71	358.50
117.56	12 26 27	5484.28	29.44	254.01	115.33	116.33	13 57 51	4884.3	32.72	245.90
62.44	6 5 31	1390.85	29.43	6.60	115.33	116.35	6 28 41	790.9	32.71	358.50
117.56	12 26 27	5484.28	29.44	254.01	115.33	116.33	13 57 51	4884.3	32.72	245.90
62.44	6 5 31	1390.85	29.43	6.60	115.33	116.35	6 28 41	790.9	32.71	358.50
117.56	12 26 27	5484.28	29.44	254.01	115.33	116.33	13 57 51	4884.3	32.72	245.90

DIFFERENTIAL CORRECTIONS
TDE -.8211 TRA -.5207 TC3-5.9597 BAU 1.0354
RDE .2473 RRA -.0549 RC3 .5218 FAU .04209
FDE -.3156 FRA .2245 FC3-2.8148 BSP 14596
BDE .8576 BRA .5236 BC3 5.9825 FSP -603

MID-COURSE EXECUTION ACCURACY
SGT 4607.7 SGR 555.6 SG3 184.6
RRT -.7837 RRF -.8507 RTF .8997
SG8 4641.1 RZ3 .2281 R13 -.9013
SG1 4628.4 SG2 343.6 THA 174.57

ORBIT DETERMINATION ACCURACY
ST 1352.0 SR 395.5 SS 300.1
CRT -.9459 CRS .9798 CST -.8759
LSA 1428.5 MSA 182.2 SSA 24.8
EL1 1403.2 EL2 123.6 ALF 164.41

LAUNCH DATE OCT 3 1970 FLIGHT TIME 154.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 456.965

RL 149.69 LAL .00 LOL 9.37 VL 26.679 GAL -3.87 AZL 91.81 HCA 224.97 SMA 125.04 ECC .20802 INC 1.8080 V1 29.766
RP 108.37 LAP 1.28 LOP 234.33 VP 37.254 GAP 9.27 AZP 88.72 TAL 195.08 TAP 60.05 RCA 99.03 APO 151.05 V2 34.969
RC 150.132 GL -13.81 GP 25.25 ZAL 111.78 ZAP 150.23 ETS 51.80 ZAE 125.94 ETE 161.07 ZAC 127.12 ETC 260.40 CLP-163.68

PLANETOCENTRIC CONIC

C3 12.380 VHL 3.518 DLA -36.53 RAL 254.11 RAD 6567.5 VEL 11.566 PTH 2.02 VHP 6.650 DPA 3.08 RAP 253.98 ECC 1.2037

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.89	6 38 59	1330.15	28.17	.96	117.82	114.29	7 1 9	730.1	31.19	352.85
114.11	12 24 52	5525.84	28.18	256.72	117.82	114.28	13 56 58	4925.8	31.20	248.61
65.89	6 38 59	1330.15	28.17	.96	117.82	114.29	7 1 9	730.1	31.19	352.85
114.11	12 24 52	5525.84	28.18	256.72	117.82	114.28	13 56 58	4925.8	31.20	248.61
65.89	6 38 59	1330.15	28.17	.96	117.82	114.29	7 1 9	730.1	31.19	352.85
114.11	12 24 52	5525.84	28.18	256.72	117.82	114.28	13 56 58	4925.8	31.20	248.61

DIFFERENTIAL CORRECTIONS
TDE -.7190 TRA -.3980 TC3-6.3519 BAU 1.0547
RDE .2361 RRA -.0647 RC3 .5139 FAU .04093
FDE -.2428 FRA .2879 FC3-2.8622 BSP 14877
BDE .7576 BRA .4012 BC3 6.3726 FSP -603

MID-COURSE EXECUTION ACCURACY
SGT 4690.1 SGR 543.8 SG3 184.4
RRT -.7692 RRF -.8246 RTF .8991
SG8 4721.5 RZ3 .2022 R13 -.9004
SG1 4708.8 SG2 346.1 THA 174.88

ORBIT DETERMINATION ACCURACY
ST 1204.3 SR 386.6 SS 250.9
CRT -.9508 CRS .9452 CST -.8169
LSA 1277.0 MSA 176.1 SSA 30.8
EL1 1259.6 EL2 114.5 ALF 162.88

LAUNCH DATE OCT 3 1970 FLIGHT TIME 156.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 462.731

RL 149.69 LAL .00 LOL 9.37 VL 26.621 GAL -3.49 AZL 91.48 HCA 228.15 SMA 124.68 ECC .20933 INC 1.4774 V1 29.766
RP 108.41 LAP 1.10 LOP 237.52 VP 37.201 GAP 9.50 AZP 89.01 TAL 193.42 TAP 61.58 RCA 98.58 APO 150.78 V2 34.956
RC 152.275 GL -11.42 GP 23.63 ZAL 108.96 ZAP 152.00 ETS 51.68 ZAE 126.33 ETE 162.20 ZAC 125.72 ETC 261.15 CLP-164.53

PLANETOCENTRIC CONIC

C3 11.967 VHL 3.459 DLA -34.46 RAL 258.11 RAD 6567.5 VEL 11.548 PTH 2.02 VHP 6.699 DPA 1.11 RAP 255.79 ECC 1.1969

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.50	7 15 11	1262.13	26.84	354.91	120.56	112.46	7 36 13	662.1	29.64	346.82
110.50	12 20 30	5579.50	26.85	260.34	120.57	112.45	13 53 30	4979.5	29.65	252.25
69.50	7 15 11	1262.13	26.84	354.91	120.56	112.46	7 36 13	662.1	29.64	346.82
110.50	12 20 30	5579.50	26.85	260.34	120.57	112.45	13 53 30	4979.5	29.65	252.25
69.50	7 15 11	1262.13	26.84	354.91	120.56	112.46	7 36 13	662.1	29.64	346.82
110.50	12 20 30	5579.50	26.85	260.34	120.57	112.45	13 53 30	4979.5	29.65	252.25

DIFFERENTIAL CORRECTIONS
TDE -.6183 TRA -.2640 TC3-6.6877 BAU 1.0730
RDE .2276 RRA -.0744 RC3 .5036 FAU .03957
FDE -.1744 FRA .3482 FC3-2.8631 BSP 15146
BDE .6588 BRA .2743 BC3 6.7067 FSP -600

MID-COURSE EXECUTION ACCURACY
SGT 4768.5 SGR 534.6 SG3 183.2
RRT -.7527 RRF -.7971 RTF .8990
SG8 4798.4 RZ3 .1772 R13 -.9001
SG1 4785.5 SG2 350.7 THA 175.15

ORBIT DETERMINATION ACCURACY
ST 1045.6 SR 379.7 SS 209.5
CRT -.9579 CRS .8652 CST -.7154
LSA 1118.5 MSA 169.9 SSA 38.8
EL1 1107.7 EL2 102.9 ALF 160.65

LAUNCH DATE OCT 3 1970 FLIGHT TIME 158.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 468.481

RL 149.69 LAL .00 LOL 9.37 VL 26.564 GAL -3.10 AZL 91.18 HCA 231.34 SMA 124.32 ECC .21081 INC 1.1784 V1 29.766
RP 108.45 LAP .92 LOP 240.70 VP 37.148 GAP 9.74 AZP 89.26 TAL 191.75 TAP 63.09 RCA 98.11 APO 150.53 V2 34.943
RC 154.408 GL -9.18 GP 22.21 ZAL 105.92 ZAP 153.61 ETS 51.71 ZAE 126.65 ETE 163.20 ZAC 124.48 ETC 261.87 CLP-165.37

PLANETOCENTRIC CONIC

C3 11.689 VHL 3.419 DLA -32.44 RAL 262.09 RAD 6567.4 VEL 11.536 PTH 2.01 VHP 6.764 DPA -.64 RAP 257.69 ECC 1.1924

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.47	7 55 53	1180.98	25.47	348.02	123.54	110.81	8 15 34	581.0	28.06	339.96
106.53	12 11 36	5650.79	25.48	265.25	123.54	110.79	13 45 46	5050.8	28.07	257.19
73.47	7 55 53	1180.98	25.47	348.02	123.54	110.81	8 15 34	581.0	28.06	339.96
106.53	12 11 36	5650.79	25.48	265.25	123.54	110.79	13 45 46	5050.8	28.07	257.19
110.00	11 11 1	5838.04	19.28	276.56	120.45	118.79	12 48 19	5238.0	22.97	269.37
110.00	13 55 38	5329.76	32.00	242.75	125.78	102.71	15 24 28	4729.8	33.42	233.80

DIFFERENTIAL CORRECTIONS
TDE -.5152 TRA -.1244 TC3-6.9612 BAU 1.0905
RDE .2212 RRA -.0843 RC3 .4916 FAU .03811
FDE -.1101 FRA .4058 FC3-2.8230 BSP 15408
BDE .5606 BRA .1503 BC3 6.9785 FSP -595

MID-COURSE EXECUTION ACCURACY
SGT 4843.8 SGR 527.7 SG3 181.4
RRT -.7350 RRF -.7690 RTF .8994
SG8 4872.5 RZ3 .1540 R13 -.9003
SG1 4859.4 SG2 356.7 THA 175.40

ORBIT DETERMINATION ACCURACY
ST 878.2 SR 374.3 SS 180.9
CRT -.9669 CRS .7001 CST -.5503
LSA 956.4 MSA 164.2 SSA 49.6
EL1 950.5 EL2 88.3 ALF 157.40

LAUNCH DATE OCT 3 1970 FLIGHT TIME 160.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 474.216

```
RL  149.69 LAL    .00 LOL   9.37 VL  26.508 GAL  -2.69 AZL  90.91 HCA 234.52 SMA 123.98 ECC .21246 INC  .9051 V1  29.766
RP  108.49 LAP    .74 LOP 243.89 VP  37.096 GAP   9.97 AZP  89.47 TAL 190.07 TAP  84.59 RCA  97.64 APO 150.31 V2  34.931
RC 156.530 GL   -7.08 GP   20.95 ZAL 102.70 ZAP 155.09 ETS  51.89 ZAE 126.91 ETE 164.10 ZAC 123.38 ETC 262.57 CLP-166.21
```

PLANETOCENTRIC CONIC

```
C3  11.534 VHL  3.396 DLA -30.47 RAL 266.06 RAD 6567.4 VEL 11.529 PTH   2.01 VHP  6.843 DPA  -2.21 RAP 259.68 ECC 1.1898
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
78.25	8 45 2	1073.48	24.05	339.33	126.72	109.30	9 2 55	473.5	26.46	331.31
101.75	11 54 6	5752.74	24.06	272.38	126.72	109.29	13 29 59	5152.7	26.47	264.36
78.25	8 45 2	1073.48	24.05	339.33	126.72	109.30	9 2 55	473.5	26.46	331.31
101.75	11 54 6	5752.74	24.06	272.38	126.72	109.29	13 29 59	5152.7	26.47	264.36
110.00	10 49 37	667.64	15.29	305.43	122.36	120.95	11 0 45	67.6	19.28	298.59
110.00	14 48 42	5206.57	33.47	233.44	129.26	97.39	16 15 28	4606.6	34.13	224.26

DIFFERENTIAL CORRECTIONS

```
TDE -.4073 TRA  .0249 TC3-7.1589 BAU 1.1064
RDE  .2164 RRA -.0949 RC3  .4768 FAU .03651
FDE -.0486 FRA  .4623 FC3-2.7403 BSP  15616
BDE  .4612 BRA  .0981 BC3 7.1748 FSP   -586
```

MID-COURSE EXECUTION ACCURACY

```
SGT 4911.2 SGR  522.2 SG3  179.0
RRT -.7153 RRF -.7403 RTF  .8996
SGB 4938.9 RZS  .1334 R13 -.9004
SG1 4925.4 SG2  363.9 THA 175.63
```

ORBIT DETERMINATION ACCURACY

```
ST   702.6 SR   369.5 SS   170.9
CRT -.9751 CRS  .4270 CST -.3370
LSA  792.9 MSA  163.1 SSA   63.2
EL1  790.4 EL2   72.9 ALF 152.60
```

LAUNCH DATE OCT 3 1970 FLIGHT TIME 162.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 479.935

```
RL  149.69 LAL    .00 LOL   9.37 VL  26.452 GAL  -2.27 AZL  90.65 HCA 237.70 SMA 123.63 ECC .21429 INC  .6526 V1  29.766
RP  108.53 LAP    .55 LOP 247.07 VP  37.045 GAP  10.22 AZP  89.65 TAL 188.38 TAP  66.08 RCA  97.14 APO 150.13 V2  34.919
RC 158.641 GL   -5.10 GP   19.82 ZAL  99.33 ZAP 156.46 ETS  52.23 ZAE 127.13 ETE 164.90 ZAC 122.39 ETC 263.25 CLP-167.03
```

PLANETOCENTRIC CONIC

```
C3  11.498 VHL  3.391 DLA -28.54 RAL 270.00 RAD 6567.4 VEL 11.528 PTH   2.01 VHP  6.934 DPA  -3.62 RAP 261.73 ECC 1.1892
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
86.29	10 4 13	869.10	22.59	323.69	130.07	107.91	10 18 43	269.1	24.85	315.72
93.71	11 6 37	686.98	22.61	308.90	130.08	107.89	11 17 44	67.0	24.85	300.92
100.00	10 41 55	748.75	17.46	312.61	127.94	114.66	10 54 24	148.8	20.64	305.26
100.00	13 12 4	5551.14	27.94	258.57	131.60	101.09	14 44 35	4951.1	29.18	249.99
110.00	10 39 9	758.73	12.04	310.23	124.91	122.24	10 51 48	158.7	16.21	303.60
110.00	15 31 42	5113.93	34.05	226.28	132.50	93.19	16 56 56	4513.9	34.12	217.04

DIFFERENTIAL CORRECTIONS

```
TDE -.2943 TRA  .1830 TC3-7.2770 BAU 1.1208
RDE  .2128 RRA -.1080 RC3  .4596 FAU .03483
FDE  .0105 FRA  .5167 FC3-2.6225 BSP  15793
BDE  .3632 BRA  .2115 BC3 7.2915 FSP   -575
```

MID-COURSE EXECUTION ACCURACY

```
SGT 4972.5 SGR  517.7 SG3  176.0
RRT -.6949 RRF -.7115 RTF  .9000
SGB 4999.4 RZS  .1150 R13 -.9006
SG1 4985.6 SG2  371.4 THA 175.84
```

ORBIT DETERMINATION ACCURACY

```
ST   529.5 SR   364.9 SS   181.8
CRT -.9662 CRS  .1116 CST -.1903
LSA  639.1 MSA  180.9 SSA   73.8
EL1  638.3 EL2   78.1 ALF 145.76
```

LAUNCH DATE OCT 3 1970 FLIGHT TIME 164.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 485.635

```
RL  149.69 LAL    .00 LOL   9.37 VL  26.397 GAL  -1.84 AZL  90.42 HCA 240.88 SMA 123.30 ECC .21633 INC  .4176 V1  29.766
RP  108.56 LAP    .37 LOP 250.25 VP  36.995 GAP  10.46 AZP  89.80 TAL 186.68 TAP  67.55 RCA  96.63 APO 149.97 V2  34.907
RC 160.740 GL   -3.24 GP   18.82 ZAL  95.87 ZAP 157.71 ETS  52.72 ZAE 127.32 ETE 165.62 ZAC 121.50 ETC 263.93 CLP-167.85
```

PLANETOCENTRIC CONIC

```
C3  11.978 VHL  3.403 DLA -26.64 RAL 273.90 RAD 6567.4 VEL 11.531 PTH   2.01 VHP  7.037 DPA  -4.87 RAP 263.84 ECC 1.1905
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 25 24	1049.81	15.54	334.01	131.42	113.98	9 42 54	449.8	18.65	326.72
90.00	12 16 20	5777.98	26.90	275.03	135.04	99.21	13 52 38	5178.0	27.89	266.50
100.00	10 15 33	887.80	13.32	321.03	130.33	117.01	10 30 21	287.8	16.84	314.00
100.00	14 8 52	5415.22	29.32	248.71	135.41	96.08	15 39 7	4815.2	29.86	239.94
110.00	10 31 21	838.25	9.11	314.79	127.85	123.09	10 45 19	238.2	13.41	308.33
110.00	16 9 34	5037.54	34.18	220.31	135.70	89.66	17 33 31	4437.5	33.76	211.09

DIFFERENTIAL CORRECTIONS

```
TDE -.1785 TRA  .3483 TC3-7.3221 BAU 1.1354
RDE  .2108 RRA -.1173 RC3  .4413 FAU .03317
FDE  .0649 FRA  .5682 FC3-2.4800 BSP  16003
BDE  .2762 BRA  .3676 BC3 7.3354 FSP   -566
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5034.9 SGR  514.7 SG3  172.9
RRT -.6745 RRF -.6839 RTF  .9009
SGB 5061.1 RZS  .0985 R13 -.9015
SG1 5046.9 SG2  379.1 THA 176.03
```

ORBIT DETERMINATION ACCURACY

```
ST   389.2 SR   361.1 SS   208.5
CRT -.8615 CRS -.1376 CST -.2842
LSA  512.8 MSA  239.3 SSA   72.0
EL1  512.3 EL2  139.3 ALF 137.48
```

LAUNCH DATE OCT 3 1970 FLIGHT TIME 166.00 ARRIVAL DATE MAR 18 1971

HELIOCENTRIC CONIC DISTANCE 491.314

```
RL  149.69 LAL    .00 LOL   9.37 VL  26.343 GAL  -1.39 AZL  90.20 HCA 244.05 SMA 122.97 ECC .21858 INC  .1962 V1  29.766
RP  108.60 LAP    .18 LOP 253.42 VP  36.945 GAP  10.72 AZP  89.91 TAL 184.97 TAP  69.02 RCA  96.09 APO 149.85 V2  34.896
RC 162.826 GL   -1.51 GP   17.93 ZAL  92.34 ZAP 158.88 ETS  53.38 ZAE 127.47 ETE 166.26 ZAC 120.70 ETC 264.60 CLP-168.65
```

PLANETOCENTRIC CONIC

```
C3  11.775 VHL  3.432 DLA -24.77 RAL 277.75 RAD 6567.4 VEL 11.540 PTH   2.01 VHP  7.150 DPA  -5.98 RAP 266.00 ECC 1.1938
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 2 8	1184.30	11.68	341.99	134.12	115.99	9 21 52	584.3	15.06	334.96
90.00	13 10 16	5650.57	27.95	285.86	138.88	94.73	14 44 26	5050.6	28.31	257.21
100.00	10 1 27	992.78	10.00	327.05	133.26	118.32	10 18 0	392.8	13.71	320.22
100.00	14 53 37	5317.32	29.81	241.47	138.99	92.30	16 22 15	4717.3	29.81	232.67
110.00	10 27 27	911.20	6.38	318.67	131.06	123.65	10 42 39	311.2	10.76	312.32
110.00	16 44 6	4971.66	34.04	215.17	138.94	86.63	18 6 58	4371.7	33.19	206.03

DIFFERENTIAL CORRECTIONS

```
TDE -.0743 TRA  .5053 TC3-7.3422 BAU 1.1578
RDE  .2119 RRA -.1289 RC3  .4283 FAU .03202
FDE  .1051 FRA  .6063 FC3-2.3544 BSP  16588
BDE  .2246 BRA  .5210 BC3 7.3547 FSP   -578
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5125.5 SGR  515.8 SG3  170.3
RRT -.6589 RRF -.6621 RTF  .9064
SGB 5151.4 RZS  .0816 R13 -.9068
SG1 5136.8 SG2  387.2 THA 176.18
```

ORBIT DETERMINATION ACCURACY

```
ST   340.5 SR   360.8 SS   235.2
CRT -.5272 CRS -.2783 CST -.6076
LSA  436.1 MSA  327.6 SSA   63.1
EL1  433.8 EL2  240.6 ALF 131.87
```

LAUNCH DATE OCT 3 1970 FLIGHT TIME 168.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 496.977

RL 149.69 LAL .00 LOL 9.37 VL 26.289 GAL -.92 AZL 89.99 HCA 247.23 SMA 122.65 ECC .22106 INC .0000 V1 29.766
RP 108.63 LAP -.01 LOP 256.60 VP 36.896 GAP 10.98 AZP 90.00 TAL 183.25 TAP 70.48 RCA 95.54 APO 149.76 V2 34.885
RC 164.900 GL .09 GP 17.12 ZAL 88.77 ZAP 159.97 ETS 54.20 ZAE 127.61 ETE 166.83 ZAC 119.95 ETC 265.27 CLP-169.45

PLANETOCENTRIC CONIC

C3 12.094 VHL 3.478 DLA -22.93 RAL 281.52 RAD 6567.5 VEL 11.553 PTH 2.02 VHP 7.274 DPA -6.97 RAP 268.22 ECC 1.1990

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 48 35	1289.90	8.44	348.08	137.26	117.13	9 10 5	689.9	12.02	341.22
90.00	13 53 54	5556.20	28.29	258.98	142.52	91.30	15 26 30	4956.2	28.17	250.32
100.00	9 52 35	1083.31	7.04	332.14	136.50	119.13	10 10 39	483.3	10.87	325.44
100.00	15 32 35	5230.02	29.88	235.58	142.53	89.20	16 59 53	4638.0	29.45	226.80
110.00	10 25 30	980.13	3.77	322.30	134.48	124.00	10 41 50	380.1	8.21	316.02
110.00	17 16 10	4915.97	33.72	210.70	142.26	84.00	18 38 4	4314.0	32.52	201.67

DIFFERENTIAL CORRECTIONS

TDE .0634 TRA .7006 TC3-7.1869 BAU 1.1638
RDE .2105 RRA -.1408 RC3 .4004 FAU .02996
FDE .1610 FRA .6625 FC3-2.1444 BSP 16482
BDE .2199 BRA .7146 BC3 7.1980 FSP -551

MID-COURSE EXECUTION ACCURACY

SGT 5154.5 SGR 511.1 SG3 166.2
RRT -.6344 RRF -.6324 RTF .9046
SGB 5179.8 RZS .0714 R13 -.9050
SG1 5164.8 SG2 394.3 THA 176.38

ORBIT DETERMINATION ACCURACY

ST 418.1 SR 355.1 SS 280.2
CRT .0445 CRS -.4091 CST -.9020
LSA 499.1 MSA 357.1 SSA 52.1
EL1 419.1 EL2 353.8 ALF 7.59

LAUNCH DATE OCT 3 1970 FLIGHT TIME 170.00 ARRIVAL DATE MAR 22 1971

HELIOCENTRIC CONIC DISTANCE 502.615

RL 149.69 LAL .00 LOL 9.37 VL 26.235 GAL -.44 AZL 89.79 HCA 250.40 SMA 122.33 ECC .22378 INC .2106 V1 29.766
RP 108.66 LAP -.20 LOP 259.77 VP 36.848 GAP 11.25 AZP 90.07 TAL 181.53 TAP 71.93 RCA 94.96 APO 149.71 V2 34.874
RC 166.961 GL 1.57 GP 16.40 ZAL 85.21 ZAP 160.98 ETS 55.19 ZAE 127.73 ETE 167.35 ZAC 119.27 ETC 265.93 CLP-170.23

PLANETOCENTRIC CONIC

C3 12.541 VHL 3.541 DLA -21.13 RAL 285.20 RAD 6567.5 VEL 11.573 PTH 2.02 VHP 7.408 DPA -7.84 RAP 270.48 ECC 1.2064

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 39 46	1382.07	5.55	353.30	140.65	117.81	9 2 48	782.1	9.23	346.55
90.00	14 32 6	5479.43	28.28	253.36	146.16	88.48	16 3 25	4879.4	27.77	244.74
100.00	9 46 48	1165.69	4.29	336.70	139.96	119.61	10 6 14	565.7	8.20	330.10
100.00	16 7 44	5171.05	29.72	230.61	146.09	86.59	17 33 55	4571.0	28.93	221.89
110.00	10 24 53	1046.36	1.24	325.76	138.06	124.16	10 42 19	446.4	5.71	319.53
110.00	17 46 9	4863.14	33.28	206.79	145.66	81.72	19 7 12	4263.1	31.78	197.89

DIFFERENTIAL CORRECTIONS

TDE .1963 TRA .8930 TC3-6.9990 BAU 1.1752
RDE .2114 RRA -.1534 RC3 .3761 FAU .02829
FDE .2079 FRA .7087 FC3-1.9529 BSP 16622
BDE .2885 BRA .9060 BC3 7.0091 FSP -538

MID-COURSE EXECUTION ACCURACY

SGT 5203.2 SGR 508.6 SG3 162.5
RRT -.6136 RRF -.6068 RTF .9061
SGB 5228.0 RZS .0601 R13 -.9064
SG1 5212.6 SG2 400.9 THA 176.55

ORBIT DETERMINATION ACCURACY

ST 582.1 SR 351.3 SS 320.6
CRT .3439 CRS -.4846 CST -.9752
LSA 678.7 MSA 320.1 SSA 43.6
EL1 599.8 EL2 320.1 ALF 16.57

LAUNCH DATE OCT 3 1970 FLIGHT TIME 172.00 ARRIVAL DATE MAR 24 1971

HELIOCENTRIC CONIC DISTANCE 508.229

RL 149.69 LAL .00 LOL 9.37 VL 26.183 GAL .06 AZL 89.60 HCA 253.57 SMA 122.02 ECC .22677 INC .4026 V1 29.766
RP 108.69 LAP -.39 LOP 262.94 VP 36.802 GAP 11.53 AZP 90.11 TAL 179.80 TAP 73.37 RCA 94.35 APO 149.69 V2 34.864
RC 169.007 GL 2.91 GP 15.75 ZAL 81.68 ZAP 161.92 ETS 56.37 ZAE 127.84 ETE 167.81 ZAC 118.63 ETC 286.60 CLP-171.01

PLANETOCENTRIC CONIC

C3 13.125 VHL 3.623 DLA -19.38 RAL 288.78 RAD 6567.5 VEL 11.598 PTH 2.03 VHP 7.553 DPA -8.60 RAP 272.78 ECC 1.2160

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 33 48	1466.29	2.85	358.02	144.23	118.18	8 58 14	886.3	6.60	351.35
90.00	15 6 36	5414.74	28.07	248.64	149.82	86.13	16 36 50	4814.7	27.24	240.08
100.00	9 43 3	1242.78	1.68	340.94	143.58	119.85	10 3 46	642.8	5.64	334.39
100.00	16 40 1	5113.49	29.41	226.36	149.69	84.37	18 5 14	4513.5	28.32	217.72
110.00	10 25 14	1110.64	-1.22	329.11	141.77	124.16	10 43 44	510.6	3.27	322.91
110.00	18 14 20	4818.39	32.79	203.39	149.14	79.77	19 34 38	4218.4	31.04	194.61

DIFFERENTIAL CORRECTIONS

TDE .3334 TRA 1.0999 TC3-6.7485 BAU 1.1857
RDE .2133 RRA -.1672 RC3 .3499 FAU .02660
FDE .2519 FRA .7587 FC3-1.7544 BSP 16386
BDE .3958 BRA 1.1126 BC3 6.7575 FSP -485

MID-COURSE EXECUTION ACCURACY

SGT 5252.4 SGR 506.7 SG3 159.1
RRT -.5933 RRF -.5835 RTF .9067
SGB 5276.8 RZS .0525 R13 -.9069
SG1 5261.0 SG2 407.2 THA 176.70

ORBIT DETERMINATION ACCURACY

ST 778.2 SR 347.8 SS 360.9
CRT .4812 CRS -.5305 CST -.9917
LSA 875.8 MSA 297.1 SSA 37.2
EL1 799.0 EL2 296.9 ALF 14.13

LAUNCH DATE OCT 3 1970 FLIGHT TIME 174.00 ARRIVAL DATE MAR 26 1971

HELIOCENTRIC CONIC DISTANCE 513.818

RL 149.69 LAL .00 LOL 9.37 VL 26.131 GAL .58 AZL 89.41 HCA 256.74 SMA 121.72 ECC .23004 INC .5880 V1 29.766
RP 108.72 LAP -.57 LOP 266.11 VP 36.756 GAP 11.83 AZP 90.13 TAL 178.07 TAP 74.81 RCA 93.72 APO 149.72 V2 34.855
RC 171.039 GL 4.13 GP 15.15 ZAL 78.21 ZAP 162.80 ETS 57.73 ZAE 127.94 ETE 168.23 ZAC 118.02 ETC 287.26 CLP-171.77

PLANETOCENTRIC CONIC

C3 13.855 VHL 3.722 DLA -17.69 RAL 292.23 RAD 6567.5 VEL 11.629 PTH 2.04 VHP 7.709 DPA -9.27 RAP 275.11 ECC 1.2280

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 29 45	1545.16	.31	2.42	147.95	118.32	8 55 30	945.2	4.09	355.79
90.00	15 38 14	5359.47	27.75	244.63	153.51	84.14	17 7 33	4759.5	26.65	236.14
100.00	9 40 45	1318.08	-.80	344.96	147.33	119.88	10 2 41	716.1	3.18	338.44
100.00	17 9 55	5063.78	29.02	222.71	153.34	82.49	18 34 19	4463.8	27.68	214.17
110.00	10 26 17	1173.38	-3.61	332.39	145.58	124.01	10 45 51	573.4	.88	326.18
110.00	18 40 52	4779.25	32.28	200.45	152.69	78.10	20 0 31	4179.2	30.31	191.80

DIFFERENTIAL CORRECTIONS

TDE .4737 TRA 1.3086 TC3-6.4444 BAU 1.1952
RDE .2165 RRA -.1798 RC3 .3231 FAU .02497
FDE .2923 FRA .7991 FC3-1.5600 BSP 16910
BDE .5208 BRA 1.3189 BC3 6.4525 FSP -513

MID-COURSE EXECUTION ACCURACY

SGT 5292.0 SGR 503.3 SG3 155.0
RRT -.5723 RRF -.5587 RTF .9086
SGB 5315.8 RZS .0434 R13 -.9088
SG1 5299.8 SG2 412.2 THA 176.87

ORBIT DETERMINATION ACCURACY

ST 976.4 SR 344.6 SS 396.1
CRT .5551 CRS -.5658 CST -.9960
LSA 1071.9 MSA 281.3 SSA 32.3
EL1 996.7 EL2 280.8 ALF 12.06

LAUNCH DATE OCT 3 1970 FLIGHT TIME 176.00 ARRIVAL DATE MAR 28 1971

HELIOCENTRIC CONIC DISTANCE 519.377

RL	149.69	LAL	.00	LOL	9.37	VL	26.080	GAL	1.12	AZL	89.23	HCA	259.91	SMA	121.42	ECC	.23362	INC	.7685	V1	29.766
RP	108.75	LAP	-.76	LOP	269.28	VP	36.711	GAP	12.13	AZP	90.13	TAL	176.34	TAP	76.24	RCA	93.05	APO	149.79	V2	34.846
RC	173.056	GL	5.23	GP	14.62	ZAL	74.83	ZAP	163.62	ETS	59.29	ZAE	128.03	ETE	168.62	ZAC	117.45	ETC	267.92	CLP	-172.54

PLANETOCENTRIC CONIC

C3	14.747	VHL	3.840	DLA	-16.06	RAL	295.57	RAD	6567.6	VEL	11.668	PTH	2.05	VHP	7.877	DPA	-9.83	RAP	277.46	ECC	1.2427

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 27 5	1620.07	-2.11	6.60	151.77	118.25	8 54 5	1020.1	1.69	359.98
90.00	16 7 29	5312.13	27.38	241.22	157.23	82.47	17 36 1	4712.1	26.05	232.80
100.00	9 39 29	1306.46	-3.19	348.83	151.17	119.74	10 2 35	786.5	.80	342.31
100.00	17 37 46	5020.96	28.60	219.60	157.03	80.91	19 1 27	4421.0	27.05	211.14
110.00	10 27 53	1234.82	-5.84	335.62	149.46	123.72	10 48 28	634.8	-1.47	329.39
110.00	19 5 51	4745.37	31.78	197.94	156.30	76.69	20 24 56	4145.4	29.62	189.40

DIFFERENTIAL CORRECTIONS

TDE	.6185	TRA	1.5271	TC3	-6.1003	BAU	1.2041
RDE	.2209	RRA	-.1930	RC3	.2963	FAU	.02342
FDE	.3296	FRA	.8415	FC3	-1.3748	BSP	17076
BDE	.6568	BRA	1.5392	BC3	6.1074	FSP	-504

MID-COURSE EXECUTION ACCURACY

BGT	5331.4	BGR	500.2	BGS	151.2		
RRT	-.5522	RRF	-.5363	RTF	.9107		
BGB	5354.9	RZS	.0365	R13	-.9109		
BG1	5338.6	BG2	416.5	THA	177.02		

ORBIT DETERMINATION ACCURACY

ST	1173.6	SR	341.7	SS	428.7
CRT	.5966	CRS	-.5888	CST	-.9974
LSA	1266.4	MSA	270.7	SSA	28.6
EL1	1192.2	EL2	270.0	ALF	10.39

LAUNCH DATE OCT 3 1970 FLIGHT TIME 178.00 ARRIVAL DATE MAR 30 1971

HELIOCENTRIC CONIC DISTANCE 524.902

RL	149.69	LAL	.00	LOL	9.37	VL	26.029	GAL	1.68	AZL	89.05	HCA	263.08	SMA	121.13	ECC	.23753	INC	.9453	V1	29.766
RP	108.78	LAP	-.94	LOP	272.45	VP	36.666	GAP	12.45	AZP	90.11	TAL	174.60	TAP	77.68	RCA	92.36	APO	149.90	V2	34.837
RC	175.059	GL	6.20	GP	14.13	ZAL	71.54	ZAP	164.39	ETS	61.06	ZAE	128.11	ETE	168.97	ZAC	116.90	ETC	268.97	CLP	-173.29

PLANETOCENTRIC CONIC

C3	15.815	VHL	3.977	DLA	-14.50	RAL	298.76	RAD	6567.6	VEL	11.713	PTH	2.06	VHP	8.056	DPA	-10.31	RAP	279.84	ECC	1.2603

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 25 25	1601.85	-4.41	10.82	155.67	118.00	8 53 37	1091.9	-.63	3.98
90.00	16 54 38	5271.78	26.98	238.33	160.08	81.07	18 2 30	4671.8	25.47	229.99
100.00	9 39 0	1454.45	-5.47	352.58	155.09	119.43	10 3 14	854.5	-1.51	346.04
100.00	18 3 44	4984.41	28.18	216.96	160.75	79.58	19 26 49	4384.4	26.45	208.59
110.00	10 29 52	1295.09	-8.21	338.81	153.41	123.30	10 51 27	695.1	-3.77	332.54
110.00	19 29 81	4716.54	31.31	195.83	159.95	75.52	20 47 57	4116.5	29.00	187.38

DIFFERENTIAL CORRECTIONS

TDE	.7821	TRA	1.7416	TC3	-5.7662	BAU	1.2206
RDE	.2277	RRA	-.2048	RC3	.2728	FAU	.02229
FDE	.3574	FRA	.8747	FC3	-1.2201	BSP	17617
BDE	.7858	BRA	1.7536	BC3	5.7727	FSP	-511

MID-COURSE EXECUTION ACCURACY

BGT	5378.2	BGR	497.6	BGS	147.2		
RRT	-.5342	RRF	-.5172	RTF	.9150		
BGB	5401.2	RZS	.0301	R13	-.9151		
BG1	5384.8	BG2	420.2	THA	177.15		

ORBIT DETERMINATION ACCURACY

ST	1340.7	SR	340.7	SS	450.3
CRT	.6207	CRS	-.6037	CST	-.9900
LSA	1430.3	MSA	264.6	SSA	25.6
EL1	1357.9	EL2	263.7	ALF	9.32

LAUNCH DATE OCT 3 1970 FLIGHT TIME 180.00 ARRIVAL DATE APR 1 1971

HELIOCENTRIC CONIC DISTANCE 530.395

RL	149.69	LAL	.00	LOL	9.37	VL	25.979	GAL	2.26	AZL	88.88	HCA	266.24	SMA	120.84	ECC	.24181	INC	1.1197	V1	29.766
RP	108.80	LAP	-1.12	LOP	275.61	VP	36.624	GAP	12.79	AZP	90.07	TAL	172.86	TAP	79.11	RCA	91.62	APO	150.06	V2	34.829
RC	177.047	GL	7.05	GP	13.68	ZAL	68.37	ZAP	165.10	ETS	63.05	ZAE	128.19	ETE	169.28	ZAC	116.37	ETC	269.23	CLP	-174.04

PLANETOCENTRIC CONIC

C3	17.080	VHL	4.133	DLA	-13.01	RAL	301.82	RAD	6567.7	VEL	11.767	PTH	2.08	VHP	8.249	DPA	-10.70	RAP	282.24	ECC	1.2811

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 24 32	1701.07	-6.61	14.52	159.64	117.60	8 53 53	1161.1	-2.86	7.84
90.00	16 59 55	5237.74	26.60	235.91	164.76	79.92	18 27 13	4637.7	24.94	227.64
100.00	9 39 7	1520.42	-7.66	356.25	159.07	118.98	10 4 28	920.4	-3.74	349.66
100.00	18 28 1	4953.62	27.78	214.76	164.50	78.49	19 50 34	4353.6	25.91	206.46
110.00	10 32 10	1354.30	-10.41	341.99	157.41	122.75	10 54 44	754.3	-6.02	335.65
110.00	19 51 28	4692.50	30.89	194.08	163.65	74.57	21 9 40	4092.5	28.46	185.72

DIFFERENTIAL CORRECTIONS

TDE	.9202	TRA	1.9976	TC3	-5.3353	BAU	1.2195
RDE	.2331	RRA	-.2192	RC3	.2428	FAU	.02047
FDE	.3984	FRA	.9234	FC3	-1.0377	BSP	17426
BDE	.9493	BRA	2.0006	BC3	5.3408	FSP	-486

MID-COURSE EXECUTION ACCURACY

BGT	5399.5	BGR	492.0	BGS	143.7		
RRT	-.5118	RRF	-.4932	RTF	.9154		
BGB	5421.9	RZS	.0253	R13	-.9155		
BG1	5405.4	BG2	422.2	THA	177.31		

ORBIT DETERMINATION ACCURACY

ST	1540.2	SR	336.5	SS	484.0
CRT	.6399	CRS	-.6190	CST	-.9984
LSA	1628.8	MSA	257.0	SSA	23.4
EL1	1555.6	EL2	256.0	ALF	8.18

LAUNCH DATE OCT 3 1970 FLIGHT TIME 182.00 ARRIVAL DATE APR 3 1971

HELIOCENTRIC CONIC DISTANCE 535.047

RL	149.69	LAL	.00	LOL	9.37	VL	25.930	GAL	2.88	AZL	88.71	HCA	269.40	SMA	120.56	ECC	.24649	INC	1.2928	V1	29.766
RP	108.83	LAP	-1.29	LOP	278.78	VP	36.582	GAP	13.15	AZP	90.01	TAL	171.13	TAP	80.54	RCA	90.84	APO	150.28	V2	34.822
RC	179.021	GL	7.79	GP	13.28	ZAL	65.33	ZAP	165.75	ETS	65.28	ZAE	128.25	ETE	169.57	ZAC	115.86	ETC	269.88	CLP	-174.79

PLANETOCENTRIC CONIC

C3	18.863	VHL	4.309	DLA	-11.61	RAL	304.73	RAD	6567.8	VEL	11.830	PTH	2.10	VHP	8.457	DPA	-11.01	RAP	284.65	ECC	1.3055

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 24 15	1828.03	-8.70	18.32	163.65	117.05	8 54 43	1228.0	-5.01	11.59
90.00	17 23 28	5209.52	26.25	233.92	168.55	78.98	18 50 17	4609.5	24.46	225.71
100.00	9 39 43	1584.55	-9.76	359.06	163.09	118.59	10 6 7	984.6	-5.89	353.21
100.00	18 50 41	4928.23	27.42	212.96	168.28	77.80	20 12 49	4328.2	23.44	204.72
110.00	10 34 40	1412.47	-12.53	345.16	161.44	122.07	10 58 12	812.5	-8.21	338.75
110.00	20 12 13	4673.09	30.53	192.68	167.38	73.81	21 30 6	4073.1	28.01	184.39

DIFFERENTIAL CORRECTIONS

TDE	1.0829	TRA	2.2883	TC3	-4.9206	BAU	1.2223
RDE	.2408	RRA	-.2325	RC3	.2159	FAU	.01894
FDE	.4324	FRA	.9806	FC3	-.8834	BSP	17470
BDE	1.1093	BRA	2.2672	BC3	4.9253	FSP	-472

MID-COURSE EXECUTION ACCURACY

BGT	5424.6	BGR	486.4	BGS	140.2		
RRT	-.4907	RRF	-.4713	RTF	.9174		
BGB	5446.4	RZS	.0211	R13	-.9174		
BG1	5429.9	BG2	423.4	THA	177.47		

ORBIT DETERMINATION ACCURACY

ST	1718.8	SR	333.6	SS	509.5
CRT	.6526	CRS	-.6290	CST	-.9906
LSA	1800.2	MSA	251.0	SSA	21.5
EL1	1726.9	EL2	250.7	ALF	7.40

LAUNCH DATE OCT 3 1970 FLIGHT TIME 184.00 ARRIVAL DATE APR 5 1971

HELIOCENTRIC CONIC DISTANCE 541.253

RL	149.69	LAL	.00	LOL	9.37	VL	25.881	GAL	3.52	AZL	88.53	HCA	272.57	SMA	120.29	ECC	.25160
RP	108.85	LAP	-1.46	LOP	281.94	VP	36.541	GAP	13.53	AZP	89.93	TAL	169.40	TAP	81.97	RCA	90.02
RC	180.980	GL	8.43	GP	12.91	ZAL	62.43	ZAP	166.35	ETS	67.74	ZAE	128.31	ETE	169.84	ZAC	115.36

INC	1.4656	V1	29.766	APO	150.55	V2	34.815	ETC	270.52	CLP	-175.54						

PLANETOCENTRIC CONIC

C3	20.292	VHL	4.505	DLA	-10.29	RAL	307.51	RAD	6567.8	VEL	11.903	PTH	2.11	VHP	8.680	DPA	-11.24
RAP	287.07	ECC	1.3340														

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 24 25	1892.99	-10.69	22.06	167.70	116.38	8 55 58	1293.0	-7.06	15.26
90.00	17 45 25	5186.72	25.94	232.32	172.36	78.23	19 11 51	4586.7	24.06	224.16
100.00	9 40 39	1647.03	-11.76	3.42	167.15	117.68	10 8 7	1047.0	-7.96	356.69
100.00	19 11 51	4907.91	27.11	211.53	172.07	76.91	20 33 39	4307.9	25.04	203.34
110.00	10 37 19	1469.62	-14.57	348.33	165.52	121.27	11 1 48	869.6	-10.33	341.80
110.00	20 31 41	4658.09	30.24	191.61	171.12	73.24	21 49 19	4058.1	27.64	183.38

DIFFERENTIAL CORRECTIONS

TDE	1.2481	TRA	2.5229	TC3	-4.5104	BAU	1.2247
RDE	.2493	RRA	-.2451	RC3	.1905	FAU	.01751
FDE	.4642	FRA	1.0086	FC3	-.7469	BSP	17569
BDE	1.2728	BRA	2.5348	BC3	4.5144	FSP	-461

MID-COURSE EXECUTION ACCURACY

SGT	5447.0	SGR	480.0	SG3	136.6		
RRT	-.4696	RRF	-.4498	RTF	.9198		
SGB	5468.1	R23	.0173	R13	-.9199		
SG1	5451.7	SG2	423.4	THA	177.62		

ORBIT DETERMINATION ACCURACY

ST	1868.8	SR	331.0	SS	531.4
CRT	.6622	CRS	-.6391	CST	-.9988
LSA	1955.2	MSA	247.4	SSA	20.0
EL1	1881.8	EL2	246.3	ALF	6.81

LAUNCH DATE OCT 3 1970 FLIGHT TIME 186.00 ARRIVAL DATE APR 7 1971

HELIOCENTRIC CONIC DISTANCE 546.608

RL	149.69	LAL	.00	LOL	9.37	VL	25.834	GAL	4.19	AZL	88.36	HCA	275.73	SMA	120.02	ECC	.25720
RP	108.87	LAP	-1.63	LOP	285.10	VP	36.501	GAP	13.94	AZP	89.84	TAL	167.68	TAP	83.41	RCA	89.15
RC	182.925	GL	8.98	GP	12.57	ZAL	59.66	ZAP	166.90	ETS	70.47	ZAE	128.37	ETE	170.09	ZAC	114.86

APO	150.89	V2	34.809	ETC	271.16	CLP	-176.28										

PLANETOCENTRIC CONIC

C3	22.298	VHL	4.722	DLA	-9.05	RAL	310.14	RAD	6567.9	VEL	11.987	PTH	2.14	VHP	8.920	DPA	-11.40
RAP	289.50	ECC	1.3670														

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 24 58	1956.13	-12.58	25.74	171.78	115.58	8 57 34	1356.1	-9.03	18.86
90.00	18 5 51	5168.94	25.69	231.08	176.17	77.66	19 32 0	4568.9	23.73	222.96
100.00	9 41 53	1707.96	-13.66	6.94	171.24	116.85	10 10 21	1108.0	-9.95	.12
100.00	19 31 37	4892.34	26.87	210.44	175.87	76.38	20 53 9	4292.3	24.73	202.29
110.00	10 40 4	1525.77	-16.53	351.50	169.61	120.35	11 5 30	925.8	-12.38	344.85
110.00	20 49 56	4647.30	30.02	190.84	174.88	72.83	22 7 23	4047.3	27.38	182.65

DIFFERENTIAL CORRECTIONS

TDE	1.4175	TRA	2.8030	TC3	-4.1077	BAU	1.2255
RDE	.2593	RRA	-.2572	RC3	.1665	FAU	.01613
FDE	.4944	FRA	1.0507	FC3	-.6265	BSP	17669
BDE	1.4410	BRA	2.8148	BC3	4.1111	FSP	-451

MID-COURSE EXECUTION ACCURACY

SGT	5465.2	SGR	472.8	SG3	133.2		
RRT	-.4478	RRF	-.4284	RTF	.9226		
SGB	5485.6	R23	.0142	R13	-.9226		
SG1	5469.3	SG2	422.4	THA	177.77		

ORBIT DETERMINATION ACCURACY

ST	2009.8	SR	328.6	SS	550.5
CRT	.6702	CRS	-.6473	CST	-.9989
LSA	2095.4	MSA	243.5	SSA	18.7
EL1	2022.0	EL2	242.4	ALF	6.34

LAUNCH DATE OCT 3 1970 FLIGHT TIME 188.00 ARRIVAL DATE APR 9 1971

HELIOCENTRIC CONIC DISTANCE 551.904

RL	149.69	LAL	.00	LOL	9.37	VL	25.786	GAL	4.90	AZL	88.19	HCA	278.89	SMA	119.75	ECC	.26332
RP	108.88	LAP	-1.79	LOP	288.27	VP	36.463	GAP	14.37	AZP	89.72	TAL	165.97	TAP	84.86	RCA	88.22
RC	184.854	GL	9.44	GP	12.26	ZAL	57.04	ZAP	167.39	ETS	73.45	ZAE	128.41	ETE	170.32	ZAC	114.37

APO	151.29	V2	34.804	ETC	271.80	CLP	-177.03										

PLANETOCENTRIC CONIC

C3	24.620	VHL	4.962	DLA	-7.89	RAL	312.63	RAD	6568.0	VEL	12.083	PTH	2.16	VHP	9.179	DPA	-11.49
RAP	291.92	ECC	1.4052														

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 25 48	2017.58	-14.35	29.38	175.89	114.67	8 59 25	1417.6	-10.91	22.40
90.00	18 24 54	5155.86	25.50	230.17	179.98	77.24	19 50 50	4555.9	23.49	222.08
100.00	9 43 20	1767.44	-15.46	10.44	175.35	115.91	10 12 47	1167.4	-11.85	3.51
100.00	19 50 3	4881.24	26.69	209.66	179.67	76.01	21 11 24	4281.2	24.50	201.54
110.00	10 42 54	1580.95	-18.40	354.68	173.74	119.33	11 9 15	980.9	-14.36	347.91
110.00	21 6 59	4640.50	29.88	190.36	178.65	72.57	22 24 19	4040.5	27.21	182.19

DIFFERENTIAL CORRECTIONS

TDE	1.5928	TRA	3.0980	TC3	-3.7156	BAU	1.2239
RDE	.2704	RRA	-.2684	RC3	.1440	FAU	.01479
FDE	.5241	FRA	1.0936	FC3	-.5200	BSP	17750
BDE	1.6156	BRA	3.1096	BC3	3.7184	FSP	-440

MID-COURSE EXECUTION ACCURACY

SGT	5479.2	SGR	464.6	SG3	129.8		
RRT	-.4253	RRF	-.4064	RTF	.9255		
SGB	5498.9	R23	.0115	R13	-.9256		
SG1	5482.8	SG2	420.2	THA	177.92		

ORBIT DETERMINATION ACCURACY

ST	2137.5	SR	326.1	SS	567.9
CRT	.6774	CRS	-.6552	CST	-.9991
LSA	2222.6	MSA	239.7	SSA	17.6
EL1	2149.1	EL2	238.6	ALF	5.97

LAUNCH DATE OCT 3 1970 FLIGHT TIME 190.00 ARRIVAL DATE APR 11 1971

HELIOCENTRIC CONIC DISTANCE 557.134

RL	149.69	LAL	.00	LOL	9.37	VL	25.740	GAL	5.65	AZL	88.01	HCA	282.05	SMA	119.50	ECC	.27004
RP	108.90	LAP	-1.95	LOP	291.43	VP	36.425	GAP	14.84	AZP	89.58	TAL	164.28	TAP	86.32	RCA	87.23
RC	186.768	GL	9.82	GP	11.98	ZAL	54.55	ZAP	167.82	ETS	76.71	ZAE	128.44	ETE	170.54	ZAC	113.89

APO	151.76	V2	34.799	ETC	272.42	CLP	-177.79										

PLANETOCENTRIC CONIC

C3	27.302	VHL	5.225	DLA	-6.82	RAL	314.99	RAD	6568.1	VEL	12.193	PTH	2.19	VHP	9.460	DPA	-11.51
RAP	294.35	ECC	1.4493														

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 26 51	2077.44	-16.02	32.98	180.01	113.66	9 1 29	1477.4	-12.69	25.89
90.00	18 42 36	5147.16	25.36	229.57	183.79	76.97	20 8 25	4547.2	23.32	221.50
100.00	9 44 57	1825.53	-17.16	13.92	179.47	114.86	10 15 22	1225.5	-13.66	6.87
100.00	20 7 14	4874.31	26.57	209.18	183.46	75.78	21 28 28	4274.3	24.36	201.06
110.00	10 45 45	1635.15	-20.18	357.88	177.88	118.20	11 13 0	1035.1	-16.25	350.96
110.00	21 22 55	4637.45	29.82	190.15	182.41	72.46	22 40 12	4037.5	27.13	181.99

DIFFERENTIAL CORRECTIONS

TDE	1.7735	TRA	3.4076	TC3	-3.3402	BAU	1.2200
RDE	.2829	RRA	-.2787	RC3	.1232	FAU	.01349
FDE	.5529	FRA	1.1373	FC3	-.4279	BSP	17836
BDE	1.7959	BRA	3.4190	BC3	3.3424	FSP	-430

MID-COURSE EXECUTION ACCURACY

SGT	5488.8	SGR	455.6	SG3	126.5		
RRT	-.4017	RRF	-.3839	RTF	.9288		
SGB	5507.7	R23	.0094	R13	-.9288		
SG1	5491.9	SG2	417.0	THA	178.08		

ORBIT DETERMINATION ACCURACY

ST	2251.1	SR	323.7	SS	583.5
CRT	.6843	CRS	-.6630	CST	-.9992
LSA	2335.9	MSA	235.9	SSA	16.6
EL1	2262.0	EL2	234.9	ALF	5.68

LAUNCH DATE OCT 3 1970 FLIGHT TIME 192.00 ARRIVAL DATE APR 13 1971

HELIOCENTRIC CONIC DISTANCE 562.286

RL 149.69 LAL .00 LOL 9.37 VL 25.694 GAL 6.44 AZL 87.82 HCA 285.21 SMA 119.24 ECC .27740 INC 2.1758 V1 29.766
RP 108.91 LAP -2.10 LOP 294.59 VP 36.389 GAP 15.34 AZP 89.43 TAL 162.60 TAP 87.80 RCA 86.17 APO 152.32 V2 34.795
RC 188.667 GL 10.13 GP 11.72 ZAL 52.21 ZAP 160.19 ETS 80.24 ZAE 128.46 ETE 170.74 ZAC 113.41 ETC 273.03 CLP-178.55

PLANETOCENTRIC CONIC

C3 30.400 VHL 5.514 DLA -5.82 RAL 317.21 RAD 6568.2 VEL 12.320 PTH 2.22 VHP 9.764 DPA -11.47 RAP 296.76 ECC 1.5003

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 28 6	2135.79	-17.58	36.55	184.13	112.56	9 3 42	1535.8	-14.37	29.35
90.00	18 59 7	5142.53	25.29	229.25	187.58	76.82	20 24 50	4542.5	23.23	221.19
100.00	9 46 41	1882.27	-18.75	17.39	183.61	113.72	10 18 4	1282.3	-15.38	10.21
100.00	20 23 13	4871.28	26.52	208.97	187.24	75.68	21 44 24	4271.3	24.29	200.67
110.00	10 48 37	1688.37	-21.86	1.10	182.04	116.96	11 16 46	1088.4	-18.07	354.02
110.00	21 37 46	4637.94	29.83	190.18	186.17	72.48	22 55 4	4037.9	27.15	182.02

DIFFERENTIAL CORRECTIONS

TDE 1.9594 TRA 3.7325 TC3-2.9649 BAU 1.2139
RDE .2966 RRA -.2877 RC3 .1042 FAU .01225
FDE .5811 FRA 1.1817 FC3 -.3490 BSP 17944
BDE 1.9817 BRA 3.7436 BC3 2.9868 FSP -421

MID-COURSE EXECUTION ACCURACY

SGT 5493.7 SGR 445.6 SG3 123.3
RRT -.3768 RRF -.3603 RTF .9323
SGB 5511.7 RZS .0076 R13 -.9323
SG1 5496.3 SG2 412.5 THA 178.24

ORBIT DETERMINATION ACCURACY

ST 2350.2 SR 321.2 SS 597.7
CRT .6913 CRS -.6711 CST -.9993
LSA 2435.1 MSA 232.0 SSA 15.7
EL1 2360.8 EL2 231.0 ALF 5.45

LAUNCH DATE OCT 3 1970 FLIGHT TIME 194.00 ARRIVAL DATE APR 15 1971

HELIOCENTRIC CONIC DISTANCE 567.349

RL 149.69 LAL .00 LOL 9.37 VL 25.650 GAL 7.28 AZL 87.64 HCA 288.36 SMA 119.00 ECC .28550 INC 2.3640 V1 29.766
RP 108.92 LAP -2.24 LOP 297.75 VP 36.354 GAP 15.88 AZP 89.25 TAL 160.94 TAP 89.30 RCA 85.02 APO 152.97 V2 34.791
RC 190.549 GL 10.37 GP 11.48 ZAL 50.01 ZAP 160.50 ETS 84.03 ZAE 128.46 ETE 170.94 ZAC 112.93 ETC 273.64 CLP-179.32

PLANETOCENTRIC CONIC

C3 33.978 VHL 5.829 DLA -4.90 RAL 319.30 RAD 6568.3 VEL 12.464 PTH 2.25 VHP 10.095 DPA -11.37 RAP 299.16 ECC 1.5592

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 29 30	2192.66	-19.03	40.10	188.27	111.37	9 6 2	1592.7	-15.96	32.77
90.00	19 14 26	5141.68	25.28	229.19	191.36	76.80	20 40 8	4541.7	23.21	221.13
100.00	9 48 32	1937.70	-20.23	20.84	187.75	112.49	10 20 49	1337.7	-17.00	13.53
100.00	20 38 5	4871.87	26.53	209.01	191.01	75.70	21 59 17	4271.9	24.31	200.91
110.00	10 51 29	1740.61	-23.43	4.34	186.21	115.63	11 20 30	1140.6	-19.79	357.09
110.00	21 51 37	4641.72	29.91	190.45	189.93	72.62	23 8 59	4041.7	27.24	182.27

DIFFERENTIAL CORRECTIONS

TDE 2.1515 TRA 4.0742 TC3-2.6509 BAU 1.2049
RDE .3117 RRA -.2953 RC3 .0870 FAU .01106
FDE .6090 FRA 1.2278 FC3 -.2819 BSP 18078
BDE 2.1739 BRA 4.0849 BC3 2.6524 FSP -413

MID-COURSE EXECUTION ACCURACY

SGT 5493.5 SGR 434.7 SG3 120.1
RRT -.3503 RRF -.3354 RTF .9360
SGB 5510.7 RZS .0062 R13 -.9360
SG1 5495.6 SG2 407.0 THA 178.40

ORBIT DETERMINATION ACCURACY

ST 2436.1 SR 318.6 SS 610.9
CRT .6986 CRS -.6795 CST -.9993
LSA 2521.3 MSA 227.9 SSA 14.9
EL1 2446.4 EL2 227.0 ALF 5.27

LAUNCH DATE OCT 3 1970 FLIGHT TIME 196.00 ARRIVAL DATE APR 17 1971

HELIOCENTRIC CONIC DISTANCE 572.306

RL 149.69 LAL .00 LOL 9.37 VL 25.606 GAL 8.17 AZL 87.44 HCA 291.52 SMA 118.76 ECC .29441 INC 2.5592 V1 29.766
RP 108.93 LAP -2.38 LOP 300.91 VP 36.321 GAP 16.47 AZP 89.06 TAL 159.31 TAP 90.83 RCA 83.79 APO 153.72 V2 34.789
RC 192.414 GL 10.56 GP 11.26 ZAL 47.94 ZAP 160.74 ETS 88.07 ZAE 128.45 ETE 171.12 ZAC 112.45 ETC 274.23 CLP 179.90

PLANETOCENTRIC CONIC

C3 38.117 VHL 6.174 DLA -4.06 RAL 321.27 RAD 6568.5 VEL 12.629 PTH 2.29 VHP 10.456 DPA -11.21 RAP 301.54 ECC 1.6273

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 31 0	2248.08	-20.37	43.61	192.39	110.11	9 8 28	1648.1	-17.44	36.16
90.00	19 28 38	5144.32	25.32	229.37	195.11	76.88	20 54 22	4544.3	23.26	221.31
100.00	9 50 26	1991.82	-21.60	24.27	191.89	111.18	10 23 38	1391.8	-18.53	16.82
100.00	20 51 53	4875.81	26.60	209.28	194.76	75.83	22 13 9	4275.8	24.39	201.18
110.00	10 54 19	1791.83	-24.90	7.59	190.39	114.21	11 24 11	1191.8	-21.42	.17
110.00	22 4 29	4648.56	30.05	190.93	193.67	72.88	23 21 58	4048.6	27.41	182.73

DIFFERENTIAL CORRECTIONS

TDE 2.3508 TRA 4.4350 TC3-2.3391 BAU 1.1925
RDE .3280 RRA -.3010 RC3 .0716 FAU .00991
FDE .6372 FRA 1.2754 FC3 -.2251 BSP 18204
BDE 2.3736 BRA 4.4452 BC3 2.3402 FSP -406

MID-COURSE EXECUTION ACCURACY

SGT 5488.8 SGR 423.0 SG3 117.0
RRT -.3217 RRF -.3087 RTF .9400
SGB 5505.1 RZS .0050 R13 -.9400
SG1 5490.5 SG2 400.4 THA 178.57

ORBIT DETERMINATION ACCURACY

ST 2509.8 SR 315.8 SS 623.6
CRT .7063 CRS -.6885 CST -.9994
LSA 2595.7 MSA 223.5 SSA 14.2
EL1 2519.8 EL2 222.7 ALF 5.12

LAUNCH DATE OCT 3 1970 FLIGHT TIME 198.00 ARRIVAL DATE APR 19 1971

HELIOCENTRIC CONIC DISTANCE 577.140

RL 149.69 LAL .00 LOL 9.37 VL 25.562 GAL 9.12 AZL 87.24 HCA 294.68 SMA 118.52 ECC .30423 INC 2.7630 V1 29.766
RP 108.94 LAP -2.51 LOP 304.08 VP 36.288 GAP 17.11 AZP 88.85 TAL 157.71 TAP 92.39 RCA 82.46 APO 154.58 V2 34.787
RC 194.281 GL 10.70 GP 11.06 ZAL 46.00 ZAP 168.91 ETS 92.34 ZAE 128.42 ETE 171.30 ZAC 111.97 ETC 274.80 CLP 179.10

PLANETOCENTRIC CONIC

C3 42.912 VHL 6.551 DLA -3.29 RAL 323.12 RAD 6568.6 VEL 12.817 PTH 2.33 VHP 10.851 DPA -11.00 RAP 303.91 ECC 1.7062

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 32 36	2302.04	-21.59	47.10	196.50	108.78	9 10 58	1702.0	-18.83	39.51
90.00	19 41 47	5150.18	25.41	229.78	198.83	77.06	21 7 37	4550.2	23.38	221.70
100.00	9 52 24	2044.60	-22.86	27.69	196.02	109.81	10 26 29	1444.6	-19.95	20.10
100.00	21 4 39	4882.86	26.72	209.77	198.49	76.07	22 26 2	4282.9	24.54	201.65
110.00	10 57 7	1842.00	-26.26	10.86	194.57	112.71	11 27 49	1242.0	-22.95	3.26
110.00	22 16 26	4658.23	30.24	191.62	197.39	73.24	23 34 4	4058.2	27.65	183.38

DIFFERENTIAL CORRECTIONS

TDE 2.5583 TRA 4.8171 TC3-2.0496 BAU 1.1763
RDE .3458 RRA -.3048 RC3 .0579 FAU .00879
FDE .6658 FRA 1.3255 FC3 -.1773 BSP 18338
BDE 2.5815 BRA 4.8268 BC3 2.0504 FSP -399

MID-COURSE EXECUTION ACCURACY

SGT 5479.7 SGR 410.5 SG3 114.0
RRT -.2907 RRF -.2798 RTF .9441
SGB 5495.1 RZS .0041 R13 -.9441
SG1 5481.0 SG2 392.7 THA 178.75

ORBIT DETERMINATION ACCURACY

ST 2572.2 SR 312.9 SS 636.2
CRT .7146 CRS -.6980 CST -.9995
LSA 2659.1 MSA 218.8 SSA 13.6
EL1 2582.0 EL2 218.0 ALF 5.00

LAUNCH DATE OCT 3 1970 FLIGHT TIME 200.00 ARRIVAL DATE APR 21 1971

HELIOCENTRIC CONIC DISTANCE 581.826

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RL  149.69 LAL    .00 LOL   9.37 VL  25.520 GAL  10.15 AZL  87.02 HCA 297.83 SMA 118.30 ECC .31510 INC 2.9774 V1  29.766
RP  108.94 LAP  -2.63 LOP 307.24 VP  36.257 GAP  17.82 AZP  88.61 TAL 156.16 TAP  93.99 RCA  81.02 APO 155.57 V2  34.786
RC 196.090 GL   10.80 GP   10.87 ZAL  44.19 ZAP 168.99 ETS  96.80 ZAE 128.36 ETE 171.47 ZAC 111.49 ETC 275.36 CLP 178.28
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PLANETOCENTRIC CONIC

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C3  48.484 VHL  6.963 DLA  -2.59 RAL 324.85 RAD 6568.8 VEL 13.033 PTH   2.38 VHP 11.285 DPA -10.74 RAP 306.24 ECC 1.7979
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 34 16	2354.52	-22.70	50.55	200.59	107.40	9 13 30	1754.5	-20.11	42.83
90.00	19 53 54	5159.01	25.54	230.39	202.52	77.34	21 19 53	4559.0	23.55	222.29
100.00	9 54 24	2096.02	-24.00	31.08	200.13	108.37	10 29 20	1496.0	-21.27	23.35
100.00	21 16 27	4892.75	26.88	210.46	202.18	76.40	22 38 0	4292.8	24.74	202.32
110.00	10 59 53	1891.04	-27.51	14.12	198.73	111.14	11 31 24	1291.0	-24.39	6.35
110.00	22 27 28	4670.49	30.48	192.50	201.08	73.71	23 45 18	4070.5	27.94	184.22

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE 2.7763 TRA 5.2236 TC3-1.7803 BAU 1.1543   SGT 5466.1 SGR  397.3 SG3  111.1          ST  2625.0 SR   309.7 SS   649.4
 RDE  .3650 RRA -.3061 RC3  .0459 FAU .00767   RRT -.2566 RRF -.2479 RTF  .9484          CRT  .7236 CRS -.7082 CST -.9995
 FDE  .6955 FRA 1.3788 FC3 -.1369 BSP  18467   SGB 5480.5 RZS  .0035 RIS -.9484          LSA 2713.4 MSA  213.7 SSA   12.9
 BDE 2.8002 BRA 5.2325 BC3 1.7809 FSP   -392   SG1 5467.0 SG2  383.9 THA 178.93          EL1 2654.6 EL2  213.0 ALF   4.91
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LAUNCH DATE OCT 3 1970 FLIGHT TIME 202.00 ARRIVAL DATE APR 23 1971

HELIOCENTRIC CONIC DISTANCE 586.338

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RL  149.69 LAL    .00 LOL   9.37 VL  25.479 GAL  11.25 AZL  86.80 HCA 300.99 SMA 118.07 ECC .32713 INC 3.2046 V1  29.766
RP  108.94 LAP  -2.75 LOP 310.40 VP  36.228 GAP  18.59 AZP  88.35 TAL 154.65 TAP  95.64 RCA  79.45 APO 156.70 V2  34.785
RC 197.900 GL   10.86 GP   10.70 ZAL  42.51 ZAP 169.00 ETS 101.42 ZAE 128.28 ETE 171.64 ZAC 111.01 ETC 275.91 CLP 177.44
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PLANETOCENTRIC CONIC

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C3  54.982 VHL  7.415 DLA  -1.95 RAL 326.46 RAD 6569.0 VEL 13.279 PTH   2.43 VHP 11.763 DPA -10.44 RAP 308.54 ECC 1.9049
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 35 59	2405.45	-23.70	53.95	204.63	105.97	9 16 4	1805.4	-21.28	46.11
90.00	20 5 3	5170.56	25.71	231.19	206.17	77.71	21 31 14	4570.6	23.76	223.07
100.00	9 56 25	2145.99	-25.03	34.43	204.20	106.89	10 32 11	1546.0	-22.48	26.57
100.00	21 27 18	4905.26	27.07	211.34	205.83	78.82	22 49 3	4305.3	24.99	203.16
110.00	11 2 34	1938.89	-28.64	17.39	202.87	109.51	11 34 53	1338.9	-25.71	9.43
110.00	22 37 38	4685.12	30.75	193.55	204.74	74.28	23 55 43	4085.1	28.29	185.21

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE 3.0075 TRA 5.6578 TC3-1.5307 BAU 1.1254   SGT 5448.8 SGR  383.5 SG3  108.3          ST  2669.7 SR   306.3 SS   663.9
 RDE  .3856 RRA -.3047 RC3  .0354 FAU .00652   RRT -.2188 RRF -.2125 RTF  .9528          CRT  .7334 CRS -.7192 CST -.9996
 FDE  .7271 FRA 1.4363 FC3 -.1027 BSP  18551   SGB 5462.2 RZS  .0031 RIS -.9528          LSA 2760.2 MSA  208.2 SSA   12.4
 BDE 3.0322 BRA 5.6660 BC3 1.5311 FSP   -384   SG1 5449.4 SG2  374.1 THA 179.11          EL1 2679.2 EL2  207.5 ALF   4.84
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LAUNCH DATE OCT 3 1970 FLIGHT TIME 204.00 ARRIVAL DATE APR 25 1971

HELIOCENTRIC CONIC DISTANCE 590.638

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RL  149.69 LAL    .00 LOL   9.37 VL  25.439 GAL  12.44 AZL  86.55 HCA 304.14 SMA 117.86 ECC .34050 INC 3.4475 V1  29.766
RP  108.94 LAP  -2.85 LOP 313.56 VP  36.200 GAP  19.45 AZP  88.06 TAL 153.21 TAP  97.35 RCA  77.73 APO 157.99 V2  34.785
RC 199.690 GL   10.88 GP   10.54 ZAL  40.95 ZAP 168.92 ETS 106.15 ZAE 128.17 ETE 171.81 ZAC 110.53 ETC 276.43 CLP 176.56
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PLANETOCENTRIC CONIC

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C3  62.588 VHL  7.911 DLA  -1.39 RAL 327.96 RAD 6569.2 VEL 13.563 PTH   2.48 VHP 12.292 DPA -10.09 RAP 310.80 ECC 2.0300
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 37 44	2454.72	-24.58	57.29	208.62	104.52	9 18 39	1854.7	-22.34	49.33
90.00	20 15 14	5184.60	25.91	232.17	209.76	78.16	21 41 39	4584.6	24.02	224.02
100.00	9 58 26	2194.41	-25.95	37.74	208.21	105.38	10 35 1	1594.4	-23.59	29.74
100.00	21 37 14	4920.14	27.30	212.39	209.43	77.33	22 59 14	4320.1	25.28	204.17
110.00	11 5 12	1985.41	-29.66	20.63	208.96	107.84	11 38 18	1385.4	-26.93	12.50
110.00	22 46 57	4701.91	31.05	194.76	208.36	74.94	24 5 19	4101.9	28.88	186.37

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE 3.2537 TRA 6.1241 TC3-1.3002 BAU 1.0881   SGT 5428.4 SGR  369.2 SG3  105.7          ST  2707.0 SR   302.6 SS   679.9
 RDE  .4080 RRA -.3000 RC3  .0265 FAU .00534   RRT -.1767 RRF -.1728 RTF  .9572          CRT  .7440 CRS -.7310 CST -.9997
 FDE  .7610 FRA 1.4987 FC3 -.0739 BSP  18585   SGB 5441.0 RZS  .0029 RIS -.9572          LSA 2800.2 MSA  202.2 SSA   11.8
 BDE 3.2792 BRA 6.1314 BC3 1.3004 FSP   -375   SG1 5428.8 SG2  363.4 THA 179.31          EL1 2716.4 EL2  201.5 ALF   4.78
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LAUNCH DATE OCT 3 1970 FLIGHT TIME 206.00 ARRIVAL DATE APR 27 1971

HELIOCENTRIC CONIC DISTANCE 594.682

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RL  149.69 LAL    .00 LOL   9.37 VL  25.400 GAL  13.73 AZL  86.29 HCA 307.30 SMA 117.65 ECC .35539 INC 3.7091 V1  29.766
RP  108.94 LAP  -2.95 LOP 316.73 VP  36.173 GAP  20.40 AZP  87.75 TAL 151.84 TAP  99.13 RCA  75.84 APO 159.46 V2  34.786
RC 201.461 GL   10.88 GP   10.40 ZAL  39.52 ZAP 168.74 ETS 110.95 ZAE 128.01 ETE 171.97 ZAC 110.06 ETC 276.93 CLP 175.65
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PLANETOCENTRIC CONIC

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C3  71.538 VHL  8.458 DLA   -.88 RAL 329.34 RAD 6569.4 VEL 13.888 PTH   2.54 VHP 12.879 DPA  -9.72 RAP 313.02 ECC 2.1773
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 39 31	2502.20	-25.35	60.55	212.53	103.06	9 21 13	1902.2	-23.30	52.48
90.00	20 24 29	5200.90	26.14	233.32	213.29	78.69	21 51 10	4600.9	24.31	225.12
100.00	10 0 27	2241.14	-26.75	40.98	212.15	103.86	10 37 48	1641.1	-24.58	32.85
100.00	21 46 14	4937.20	27.55	213.60	212.96	77.91	23 8 31	4337.2	25.61	205.33
110.00	11 7 45	2030.46	-30.55	23.83	210.99	106.14	11 41 36	1430.5	-28.04	15.53
110.00	22 55 25	4720.64	31.38	196.13	211.93	75.68	24 14 6	4120.6	29.09	187.67

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE 3.5188 TRA 6.8275 TC3-1.0872 BAU 1.0399   SGT 5405.9 SGR  354.7 SG3  103.2          ST  2738.3 SR   298.8 SS   698.2
 RDE  .4323 RRA -.2915 RC3  .0190 FAU .00408   RRT -.1294 RRF -.1277 RTF  .9617          CRT  .7555 CRS -.7437 CST -.9997
 FDE  .7980 FRA 1.5672 FC3 -.0494 BSP  18534   SGB 5417.5 RZS  .0028 RIS -.9617          LSA 2834.9 MSA  195.7 SSA   11.2
 BDE 3.5449 BRA 6.6340 BC3 1.0873 FSP   -365   SG1 5406.1 SG2  351.7 THA 179.51          EL1 2747.6 EL2  195.1 ALF   4.74
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LAUNCH DATE  OCT  3 1970                          FLIGHT TIME 208.00                          ARRIVAL DATE  APR 29 1971

  HELIOCENTRIC CONIC                                  DISTANCE 598.413
   RL  149.69 LAL     .00 LOL    9.37 VL  25.362 GAL  15.14 AZL  86.01 HCA 310.45 SHA 117.45 ECC .37204 INC 3.9938 V1  29.766
   RP  108.93 LAP   -3.04 LOP 319.89 VP  36.148 GAP  21.46 AZP  87.41 TAL 150.55 TAP 101.01 RCA  73.76 APO 161.15 V2  34.788
   RC 203.212 GL    10.85 GP   10.26 ZAL  38.21 ZAP 160.46 ETS 115.74 ZAE 127.81 ETE 172.15 ZAC 109.58 ETC 277.41 CLP 174.69
  PLANETOCENTRIC CONIC
   C3  82.128 VHL  9.062 DLA    -.44 RAL 330.60 RAD 6569.6 VEL 14.264 PTH   2.60 VHP 13.535 DPA  -9.31 RAP 315.19 ECC 2.3516
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      90.00     8 41 19   2547.71     -26.01      63.72      216.34      101.60    9 23 47     1947.7     -24.15      55.55
      90.00    20 32 46   5219.28      26.37     234.61      216.74       79.30   21 59 45     4619.3      24.63     226.37
     100.00    10  2 27   2285.90     -27.45      44.13      216.00      102.33   10 40 33     1686.0     -25.47      35.89
     100.00    21 54 19   4956.23      27.81     214.95      216.42       78.58   23 16 55     4356.2      25.96     206.64
     110.00    11 10 14   2073.85     -31.33      26.97      214.94      104.43   11 44 48     1473.9     -29.03      18.52
     110.00    23  3  2   4741.13      31.71     197.63      215.43       76.52   24 22  3     4141.1      29.53     189.10
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
   TDE 3.8050 TRA 7.1735 TC3 -.8911 BAU  .9786      SGT 5382.1 SGR  340.1 SG3  100.9            ST  2764.2 SR   294.8 SS   719.3
   RDE  .4587 RRA -.2786 RC3  .0130 FAU .00272      RRT -.0760 RRF -.0765 RTF  .9662            CRT  .7679 CRS -.7574 CST -.9998
   FDE  .8387 FRA 1.6429 FC3 -.0286 BSP  18368      SGB 5382.8 RZS  -.0028 R13 -.9662            LSA 2865.2 MSA  188.8 SSA   10.7
   BDE 3.8326 BRA 7.1789 BC3  .8912 FSP   -353      SG1 5382.1 SG2  339.1 THA 179.72            EL1 2773.5 EL2  188.2 ALF   4.70

LAUNCH DATE  OCT  3 1970                          FLIGHT TIME 210.00                          ARRIVAL DATE  MAY  1 1971

  HELIOCENTRIC CONIC                                  DISTANCE 601.755
   RL  149.69 LAL     .00 LOL    9.37 VL  25.325 GAL  16.69 AZL  85.69 HCA 313.60 SHA 117.26 ECC .39071 INC 4.3065 V1  29.766
   RP  108.92 LAP   -3.12 LOP 323.06 VP  36.125 GAP  22.65 AZP  87.03 TAL 149.38 TAP 102.99 RCA  71.45 APO 163.08 V2  34.790
   RC 204.943 GL    10.79 GP   10.13 ZAL  37.03 ZAP 160.07 ETS 120.50 ZAE 127.56 ETE 172.32 ZAC 109.11 ETC 277.87 CLP 173.68
  PLANETOCENTRIC CONIC
   C3  94.757 VHL  9.733 DLA    -.07 RAL 331.75 RAD 6580.8 VEL 14.700 PTH   2.66 VHP 14.271 DPA  -8.88 RAP 317.29 ECC 2.5591
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      90.00     8 43  8   2591.02     -26.57      66.77      220.02      100.17    9 26 19     1991.0     -24.89      58.50
      90.00    20 40  5   5230.55      26.62     236.04      220.09       79.98   22  7 25     4639.6      24.97     227.76
     100.00    10  4 26   2328.74     -28.03      47.18      219.71      100.84   10 43 15     1728.7     -26.25      38.83
     100.00    22  1 28   4977.06      28.08     216.44      219.79       79.32   23 24 25     4377.1      26.32     208.08
     110.00    11 12 36   2115.37     -31.99      30.02      218.76      102.73   11 47 52     1515.4     -29.91      21.43
     110.00    23  9 47   4763.20      32.05     199.26      218.84       77.43   24 29 10     4163.2      29.99     190.65
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
   TDE 4.1165 TRA 7.7675 TC3 -.7116 BAU  .9013      SGT 5357.0 SGR  325.8 SG3   98.7            ST  2784.8 SR   290.8 SS   743.6
   RDE  .4877 RRA -.2602 RC3  .0083 FAU .00120      RRT -.0154 RRF -.0179 RTF  .9706            CRT  .7813 CRS -.7719 CST -.9998
   FDE  .8838 FRA 1.7270 FC3 -.0110 BSP  18085      SGB 5368.9 RZS  .0029 R13 -.9706            LSA 2891.3 MSA  181.4 SSA   10.2
   BDE 4.1453 BRA 7.7719 BC3  .7117 FSP   -339      SG1 5357.0 SG2  325.8 THA 179.95            EL1 2794.1 EL2  180.9 ALF   4.68

LAUNCH DATE  OCT  3 1970                          FLIGHT TIME 212.00                          ARRIVAL DATE  MAY  3 1971

  HELIOCENTRIC CONIC                                  DISTANCE 604.615
   RL  149.69 LAL     .00 LOL    9.37 VL  25.291 GAL  18.40 AZL  85.35 HCA 316.76 SHA 117.08 ECC .41171 INC 4.6539 V1  29.766
   RP  108.91 LAP   -3.19 LOP 326.23 VP  36.104 GAP  24.00 AZP  86.61 TAL 148.34 TAP 105.10 RCA  68.88 APO 165.28 V2  34.793
   RC 206.655 GL    10.71 GP   10.01 ZAL  35.99 ZAP 167.57 ETS 125.18 ZAE 127.24 ETE 172.51 ZAC 108.64 ETC 278.30 CLP 172.60
  PLANETOCENTRIC CONIC
   C3 109.860 VHL 10.481 DLA     .23 RAL 332.76 RAD 6570.1 VEL 15.205 PTH   2.73 VHP 15.101 DPA  -8.44 RAP 319.32 ECC 2.8080
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      90.00     8 44 56   2631.84     -27.03      69.67      223.54       98.79    9 28 48     2031.8     -25.53      61.32
      90.00    20 46 23   5261.58      26.87     237.60      223.32       80.72   22 14  5     4661.6      25.32     229.28
     100.00    10  6 23   2369.11     -28.51      50.08      223.27       99.38   10 45 52     1769.1     -26.92      41.64
     100.00    22  7 37   4999.54      28.36     218.05      223.04       80.13   23 30 57     4399.5      26.70     209.64
     110.00    11 14 53   2154.72     -32.55      32.96      222.43      101.08   11 50 47     1554.7     -30.68      24.24
     110.00    23 15 37   4786.60      32.39     201.01      222.15       78.41   24 35 24     4186.7      30.45     192.33
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
   TDE 4.4559 TRA 8.4155 TC3 -.5480 BAU  .8049      SGT 5330.6 SGR  312.1 SG3   96.7            ST  2799.8 SR   286.8 SS   771.7
   RDE  .5199 RRA -.2354 RC3  .0048 FAU-.00050      RRT  .0533 RRF  .0490 RTF  .9748            CRT  .7957 CRS -.7874 CST -.9998
   FDE  .9340 FRA 1.8207 FC3  .0039 BSP  17675      SGB 5339.8 RZS -.0031 R13  .9748            LSA 2913.1 MSA  173.7 SSA    9.6
   BDE 4.4862 BRA 8.4188 BC3  .5480 FSP   -323      SG1 5330.7 SG2  311.7 THA    .18            EL1 2809.1 EL2  173.1 ALF   4.68

LAUNCH DATE  OCT  3 1970                          FLIGHT TIME 214.00                          ARRIVAL DATE  MAY  5 1971

  HELIOCENTRIC CONIC                                  DISTANCE 606.868
   RL  149.69 LAL     .00 LOL    9.37 VL  25.258 GAL  20.31 AZL  84.96 HCA 319.91 SHA 116.91 ECC .43541 INC 5.0446 V1  29.766
   RP  108.90 LAP   -3.25 LOP 329.39 VP  36.085 GAP  25.53 AZP  86.14 TAL 147.46 TAP 107.37 RCA  66.01 APO 167.81 V2  34.797
   RC 208.346 GL    10.60 GP    9.90 ZAL  35.09 ZAP 166.94 ETS 129.74 ZAE 126.83 ETE 172.71 ZAC 108.19 ETC 278.70 CLP 171.44
  PLANETOCENTRIC CONIC
   C3 128.143 VHL 11.320 DLA     .46 RAL 333.64 RAD 6570.4 VEL 15.795 PTH   2.80 VHP 16.042 DPA  -7.99 RAP 321.26 ECC 3.1089
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      90.00     8 46 44   2669.82     -27.39      72.39      226.87       97.47    9 31 14     2069.8     -26.07      63.97
      90.00    20 51 36   5285.26      27.12     239.29      226.42       81.53   22 19 41     4685.3      25.67     230.93
     100.00    10  8 18   2406.75     -28.90      52.81      226.64       97.99   10 48 24     1806.8     -27.49      44.29
     100.00    22 12 44   5023.57      28.63     219.79      226.16       81.00   23 36 27     4423.6      27.09     211.32
     110.00    11 17  2   2191.60     -33.00      35.74      225.91       99.49   11 53 33     1591.6     -31.33      26.91
     110.00    23 20 29   4811.49      32.71     202.87      225.34       79.47   24 40 41     4211.5      30.91     194.11
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
   TDE 4.8275 TRA 9.1290 TC3 -.5999 BAU  .6850      SGT 5303.0 SGR  299.6 SG3   94.8            ST  2809.1 SR   283.1 SS   804.1
   RDE  .5559 RRA -.2029 RC3  .0026 FAU-.00245      RRT  .1309 RRF  .1252 RTF  .9788            CRT  .8110 CRS -.8037 CST -.9999
   FDE  .9900 FRA 1.9258 FC3  .0166 BSP  17127      SGB 5311.5 RZS -.0034 R13  .9788            LSA 2930.9 MSA  165.6 SSA    9.1
   BDE 4.8594 BRA 9.1272 BC3  .5999 FSP   -306      SG1 5303.2 SG2  297.0 THA    .42            EL1 2818.5 EL2  165.1 ALF   4.69
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LAUNCH DATE OCT 3 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAY 7 1971

HELIOCENTRIC CONIC DISTANCE 608.337

RL	149.69	LAL	.00	LOL	9.37	VL	25.228	GAL	22.44	AZL	84.51	HCA	323.06	SMA	116.75	ECC	.46227	INC	5.4901	V1	29.766
RP	108.89	LAP	-3.30	LOP	332.56	VP	36.068	GAP	27.28	AZP	85.61	TAL	146.78	TAP	109.84	RCA	62.78	APO	170.72	V2	34.802
RC	210.017	GL	10.48	GP	9.78	ZAL	34.35	ZAP	166.17	ETS	134.17	ZAE	126.33	ETE	172.92	ZAC	107.74	ETC	279.07	CLP	170.17

PLANETOCENTRIC CONIC

C3	150.439	VHL	12.265	DLA	.61	RAL	334.37	RAD	6570.6	VEL	16.485	PTH	2.87	VHP	17.116	DPA	-7.55	RAP	323.10	ECC	3.4758

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 48 31	2704.54	-27.67	74.89	229.97	96.25	9 33 36	2104.5	-26.52	66.41
90.00	20 55 36	5310.56	27.36	241.11	229.35	82.41	22 24 9	4710.6	26.03	232.69
100.00	10 10 9	2441.24	-29.20	55.33	229.77	96.70	10 50 50	1841.2	-27.97	46.74
100.00	22 16 42	5049.09	28.88	221.64	229.11	81.95	23 40 51	4449.1	27.47	213.12
110.00	11 19 3	2225.58	-33.35	38.33	229.14	97.99	11 56 8	1625.6	-31.88	29.41
110.00	23 24 17	4837.51	33.02	204.84	228.37	80.60	24 44 55	4237.5	31.37	196.01

DIFFERENTIAL CORRECTIONS

TDE	5.1818	TRA	9.8498	TC3	-.2807	BAU	.5646
RDE	.5964	RRA	-.1613	RC3	.0014	FAU	-.00421
FDE	1.0410	FRA	2.0321	FC3	.0242	BSP	17705
BDE	5.2160	BRA	9.8512	BC3	.2807	FSP	-312

MID-COURSE EXECUTION ACCURACY

SGT	5244.7	SGR	288.6	SG3	92.3		
RRT	.2149	RRF	.2081	RTF	.9824		
SGB	5252.7	R23	-.0037	R13	.9824		
SG1	5245.1	SG2	281.9	THA	.68		

ORBIT DETERMINATION ACCURACY

ST	2786.6	SR	279.5	SS	833.4
CRT	.8257	CRS	-.8192	CST	-.9999
LSA	2917.7	MSA	157.6	SSA	8.5
EL1	2796.2	EL2	157.1	ALF	4.75

LAUNCH DATE OCT 3 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAY 9 1971

HELIOCENTRIC CONIC DISTANCE 608.822

RL	149.69	LAL	.00	LOL	9.37	VL	25.200	GAL	24.84	AZL	83.99	HCA	326.21	SMA	116.61	ECC	.49276	INC	6.0062	V1	29.766
RP	108.87	LAP	-3.34	LOP	335.73	VP	36.054	GAP	29.30	AZP	85.00	TAL	146.34	TAP	112.56	RCA	59.15	APO	174.07	V2	34.807
RC	211.667	GL	10.34	GP	9.67	ZAL	33.78	ZAP	165.23	ETS	138.44	ZAE	125.70	ETE	173.15	ZAC	107.51	ETC	279.40	CLP	168.79

PLANETOCENTRIC CONIC

C3	177.888	VHL	13.337	DLA	.68	RAL	334.93	RAD	6570.9	VEL	17.298	PTH	2.95	VHP	18.348	DPA	-7.13	RAP	324.82	ECC	3.9276

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 50 17	2735.51	-27.88	77.13	232.78	95.14	9 35 52	2135.5	-26.88	68.61
90.00	20 58 22	5337.46	27.59	243.04	232.08	83.36	22 27 20	4737.5	26.38	234.58
100.00	10 11 56	2472.11	-29.42	57.60	232.61	95.53	10 53 8	1872.1	-28.35	48.96
100.00	22 19 24	5076.09	29.13	223.61	231.87	82.96	23 44 0	4476.1	27.84	215.04
110.00	11 20 54	2256.23	-33.61	40.69	232.09	96.62	11 58 31	1656.2	-32.33	31.69
110.00	23 28 55	4864.73	33.30	206.92	231.22	81.79	24 48 0	4264.7	31.81	198.00

DIFFERENTIAL CORRECTIONS

TDE	5.5980	TRA	10.6735	TC3	-.1668	BAU	.3966
RDE	.6424	RRA	-.1087	RC3	.0012	FAU	-.00666
FDE	1.1053	FRA	2.1592	FC3	.0324	BSP	17603
BDE	5.6347	BRA	10.6741	BC3	.1668	FSP	-305

MID-COURSE EXECUTION ACCURACY

SGT	5196.9	SGR	279.9	SG3	90.3		
RRT	.3080	RRF	.3006	RTF	.9858		
SGB	5204.4	R23	-.0040	R13	.9858		
SG1	5197.6	SG2	266.3	THA	.95		

ORBIT DETERMINATION ACCURACY

ST	2770.5	SR	276.3	SS	872.5
CRT	.8417	CRS	-.8360	CST	-.9999
LSA	2913.9	MSA	149.2	SSA	8.0
EL1	2780.3	EL2	148.7	ALF	4.81

LAUNCH DATE OCT 3 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAY 11 1971

HELIOCENTRIC CONIC DISTANCE 608.028

RL	149.69	LAL	.00	LOL	9.37	VL	25.176	GAL	27.58	AZL	83.39	HCA	329.36	SMA	116.48	ECC	.52747	INC	6.6149	V1	29.766
RP	108.86	LAP	-3.37	LOP	338.90	VP	36.042	GAP	31.84	AZP	84.30	TAL	146.21	TAP	115.57	RCA	55.04	APO	177.93	V2	34.813
RC	213.296	GL	10.17	GP	9.56	ZAL	33.42	ZAP	164.11	ETS	142.54	ZAE	124.93	ETE	173.41	ZAC	106.90	ETC	279.70	CLP	167.25

PLANETOCENTRIC CONIC

C3	212.022	VHL	14.561	DLA	.65	RAL	335.31	RAD	6571.2	VEL	18.258	PTH	3.03	VHP	19.771	DPA	-6.74	RAP	326.39	ECC	4.4894

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 52 0	2762.11	-28.03	79.06	235.25	94.19	9 38 2	2162.1	-27.16	70.51
90.00	20 59 37	5366.09	27.80	245.11	234.58	84.37	22 29 3	4766.1	26.73	236.61
100.00	10 13 39	2498.76	-29.58	59.56	235.12	94.50	10 55 18	1898.8	-28.64	50.88
100.00	22 20 39	5104.67	29.35	225.71	234.40	84.04	23 45 44	4504.7	28.21	217.09
110.00	11 22 35	2282.99	-33.80	42.75	234.69	95.41	12 0 38	1683.0	-32.69	33.70
110.00	23 28 13	4893.20	33.56	209.10	233.84	83.06	24 49 46	4293.2	32.23	200.12

DIFFERENTIAL CORRECTIONS

TDE	6.0519	TRA	11.5754	TC3	-.0658	BAU	.1867
RDE	.6953	RRA	-.0429	RC3	.0018	FAU	-.00968
FDE	1.1779	FRA	2.3031	FC3	.0395	BSP	17494
BDE	6.0918	BRA	11.5755	BC3	.0659	FSP	-299

MID-COURSE EXECUTION ACCURACY

SGT	5143.6	SGR	274.2	SG3	88.5		
RRT	.4060	RRF	.3992	RTF	.9887		
SGB	5150.9	R23	-.0043	R13	.9887		
SG1	5144.8	SG2	250.4	THA	1.25		

ORBIT DETERMINATION ACCURACY

ST	2745.6	SR	273.6	SS	917.9
CRT	.8580	CRS	-.8530	CST	-.9999
LSA	2904.5	MSA	140.6	SSA	7.4
EL1	2755.7	EL2	140.1	ALF	4.90

LAUNCH DATE OCT 4 1970 FLIGHT TIME 70.00 ARRIVAL DATE DEC 13 1970

HELIOCENTRIC CONIC DISTANCE 198.133

RL 149.65 LAL .00 LOL 10.36 VL 28.262 GAL -12.69 AZL 88.63 HCA 89.77 SMA 136.12 ECC .24007 INC 1.3663 V1 29.775
RP 107.58 LAP 1.37 LOP 100.13 VP 38.631 GAP -6.87 AZP 89.99 TAL 233.50 TAP 323.27 RCA 103.44 APO 168.80 V2 35.225
RC 58.419 GL 6.13 GP -20.87 ZAL 158.03 ZAP 39.51 ETS 23.98 ZAE 148.59 ETE 316.18 ZAC 80.77 ETC 260.72 CLP -34.35

PLANETOCENTRIC CONIC

C3 37.900 VHL 6.156 DLA -6.24 RAL 211.47 RAD 6568.5 VEL 12.620 PTH 2.29 VHP 5.828 DPA -40.85 RAP 237.81 ECC 1.6237

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 25 34	2170.24	-18.67	39.19	82.01	111.68	2 1 52	1578.2	-15.56	31.90
90.00	11 50 13	5211.27	26.27	234.04	86.13	79.04	13 17 5	4611.3	24.49	225.83
100.00	2 43 56	1925.39	-19.91	20.07	81.48	112.77	3 16 2	1325.4	-16.65	12.79
100.00	13 14 32	4939.35	27.58	213.75	85.83	77.99	14 36 51	4339.4	25.65	205.48
110.00	3 45 24	1732.95	-23.21	3.86	79.88	115.83	4 14 17	1133.0	-19.54	356.64
110.00	14 29 33	4704.55	31.10	194.95	84.86	75.04	15 47 58	4104.6	28.73	186.55

DIFFERENTIAL CORRECTIONS

TDE .0966 TRA -.3686 TC3 .2524 BAU .1966
RDE -.2744 RRA -.2648 RC3 -.2946 FAU .06341
FDE .7906 FRA -.6408 FC3-1.4484 BSP 1226
BDE .2909 BRA .4539 BC3 .3880 FSP -467

MID-COURSE EXECUTION ACCURACY

SGT 473.0 SGR 509.2 SG3 174.6
RRT -.2086 RRF .5918 RTF -.2941
SGB 684.3 RZ3 -.1416 R13 .6006
SG1 542.3 SG2 433.6 THA 125.50

ORBIT DETERMINATION ACCURACY

ST 137.4 SR 266.3 SS 382.4
CRT -.4198 CRS .8604 CST -.8076
LSA 462.4 NSA 146.8 SSA 25.0
EL1 274.0 EL2 121.2 ALF 105.29

LAUNCH DATE OCT 4 1970 FLIGHT TIME 72.00 ARRIVAL DATE DEC 15 1970

HELIOCENTRIC CONIC DISTANCE 204.887

RL 149.65 LAL .00 LOL 10.36 VL 28.326 GAL -12.57 AZL 88.46 HCA 93.01 SMA 136.64 ECC .23666 INC 1.5419 V1 29.775
RP 107.56 LAP 1.54 LOP 103.36 VP 38.684 GAP -6.08 AZP 90.08 TAL 234.30 TAP 327.31 RCA 104.30 APO 168.97 V2 35.232
RC 60.358 GL 7.00 GP -22.23 ZAL 158.26 ZAP 43.61 ETS 21.83 ZAE 148.73 ETE 311.57 ZAC 79.33 ETC 260.48 CLP -38.54

PLANETOCENTRIC CONIC

C3 37.224 VHL 6.101 DLA -5.25 RAL 211.30 RAD 6568.5 VEL 12.593 PTH 2.28 VHP 5.510 DPA -41.90 RAP 236.15 ECC 1.6126

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 17 19	2204.08	-19.33	40.87	81.74	111.10	1 54 4	1605.0	-16.29	33.52
90.00	11 57 5	5175.44	25.78	231.53	85.19	77.87	13 23 21	4575.4	23.85	223.40
100.00	2 36 11	1950.56	-20.56	21.65	81.22	112.19	3 8 41	1350.6	-17.37	14.31
100.00	13 20 54	4905.09	27.07	211.33	84.87	76.81	14 42 39	4305.1	24.99	203.15
110.00	3 38 45	1754.64	-23.84	5.22	79.66	115.25	4 8 0	1154.6	-20.24	357.03
110.00	14 34 40	4673.77	30.54	192.73	83.83	73.84	15 52 43	4073.8	28.02	184.44

DIFFERENTIAL CORRECTIONS

TDE .1019 TRA -.3819 TC3 .2314 BAU .2015
RDE -.2475 RRA -.2783 RC3 -.3322 FAU .06941
FDE .9162 FRA -.7134 FC3-1.6144 BSP 1280
BDE .2676 BRA .4725 BC3 .4048 FSP -531

MID-COURSE EXECUTION ACCURACY

SGT 487.6 SGR 535.8 SG3 194.6
RRT -.1684 RRF .6421 RTF -.2199
SGB 711.2 RZ3 -.1236 R13 .6402
SG1 554.3 SG2 445.6 THA 115.46

ORBIT DETERMINATION ACCURACY

ST 144.6 SR 245.7 SS 421.7
CRT -.3096 CRS .8426 CST -.8094
LSA 485.8 NSA 149.9 SSA 24.8
EL1 254.4 EL2 128.6 ALF 107.53

LAUNCH DATE OCT 4 1970 FLIGHT TIME 74.00 ARRIVAL DATE DEC 17 1970

HELIOCENTRIC CONIC DISTANCE 211.606

RL 149.65 LAL .00 LOL 10.36 VL 28.378 GAL -12.46 AZL 88.28 HCA 96.24 SMA 137.05 ECC .23370 INC 1.7187 V1 29.775
RP 107.54 LAP 1.71 LOP 106.61 VP 38.727 GAP -5.34 AZP 90.19 TAL 234.95 TAP 331.19 RCA 105.02 APO 169.08 V2 35.238
RC 62.346 GL 7.89 GP -23.67 ZAL 158.34 ZAP 47.91 ETS 19.73 ZAE 148.83 ETE 306.34 ZAC 77.78 ETC 260.19 CLP -42.96

PLANETOCENTRIC CONIC

C3 36.835 VHL 6.053 DLA -4.28 RAL 211.24 RAD 6568.4 VEL 12.570 PTH 2.28 VHP 5.230 DPA -42.93 RAP 234.16 ECC 1.6029

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 9 46	2231.28	-19.87	42.54	81.62	110.50	1 46 57	1631.3	-17.00	35.12
90.00	12 4 9	5141.07	25.27	229.15	84.43	76.78	13 29 50	4541.1	23.20	221.09
100.00	2 29 6	1975.35	-21.19	23.22	81.12	111.59	3 2 1	1375.4	-18.07	15.82
100.00	13 27 30	4872.23	26.54	209.03	84.08	75.71	14 48 42	4272.2	24.31	200.94
110.00	3 32 45	1776.11	-24.46	6.58	79.81	114.66	4 2 21	1176.1	-20.93	359.22
110.00	14 40 20	4644.24	29.96	190.63	82.99	72.71	15 57 44	4044.2	27.30	182.44

DIFFERENTIAL CORRECTIONS

TDE .1122 TRA -.4008 TC3 .2014 BAU .2074
RDE -.2174 RRA -.2916 RC3 -.3724 FAU .07559
FDE 1.0511 FRA -.7844 FC3-1.7862 BSP 1350
BDE .2447 BRA .4955 BC3 .4234 FSP -597

MID-COURSE EXECUTION ACCURACY

SGT 464.0 SGR 567.7 SG3 215.5
RRT -.1008 RRF .6895 RTF -.1196
SGB 753.2 RZ3 -.0773 R13 .6870
SG1 573.1 SG2 457.3 THA 103.20

ORBIT DETERMINATION ACCURACY

ST 156.0 SR 222.5 SS 461.7
CRT -.3598 CRS .8158 CST -.8196
LSA 513.0 NSA 152.3 SSA 24.6
EL1 233.6 EL2 138.5 ALF 112.43

LAUNCH DATE OCT 4 1970 FLIGHT TIME 76.00 ARRIVAL DATE DEC 19 1970

HELIOCENTRIC CONIC DISTANCE 218.290

RL 149.65 LAL .00 LOL 10.36 VL 28.418 GAL -12.35 AZL 88.10 HCA 99.48 SMA 137.37 ECC .23109 INC 1.8977 V1 29.775
RP 107.53 LAP 1.87 LOP 109.85 VP 38.761 GAP -4.63 AZP 90.31 TAL 235.44 TAP 334.93 RCA 105.62 APO 169.11 V2 35.243
RC 64.375 GL 8.80 GP -25.16 ZAL 158.27 ZAP 52.40 ETS 17.60 ZAE 148.82 ETE 300.52 ZAC 76.15 ETC 259.85 CLP -47.61

PLANETOCENTRIC CONIC

C3 36.114 VHL 6.009 DLA -3.33 RAL 211.28 RAD 6568.4 VEL 12.549 PTH 2.27 VHP 4.986 DPA -43.93 RAP 231.82 ECC 1.5943

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 2 51	2257.27	-20.58	44.20	81.66	109.89	1 40 28	1657.3	-17.69	36.73
90.00	12 11 28	5107.85	24.73	228.86	83.83	75.75	13 36 34	4507.9	22.53	218.88
100.00	2 22 38	1989.88	-21.80	24.79	81.17	110.98	2 55 58	1389.9	-18.75	17.32
100.00	13 34 20	4840.47	25.99	206.83	83.47	74.68	14 55 1	4240.5	23.63	198.83
110.00	3 27 19	1797.41	-25.06	7.95	79.70	114.05	3 57 16	1197.4	-21.59	.51
110.00	14 46 9	4615.70	29.37	188.82	82.31	71.86	16 3 5	4015.7	26.58	180.54

DIFFERENTIAL CORRECTIONS

TDE .1284 TRA -.4846 TC3 .1617 BAU .2150
RDE -.1844 RRA -.3044 RC3 -.4150 FAU .08173
FDE 1.1922 FRA -.8511 FC3-1.9592 BSP 1450
BDE .2247 BRA .5225 BC3 .4454 FSP -667

MID-COURSE EXECUTION ACCURACY

SGT 466.1 SGR 603.5 SG3 256.6
RRT -.0060 RRF .7328 RTF .0088
SGB 782.5 RZ3 -.0125 R13 .7328
SG1 603.5 SG2 466.1 THA 90.22

ORBIT DETERMINATION ACCURACY

ST 172.7 SR 196.8 SS 501.8
CRT -.3238 CRS .7744 CST -.8374
LSA 544.2 NSA 153.7 SSA 24.3
EL1 214.9 EL2 149.7 ALF 123.98

LAUNCH DATE OCT 4 1970 FLIGHT TIME 78.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 224.938

RL 149.65 LAL .00 LOL 10.36 VL 28.446 GAL -12.25 AZL 87.92 HCA 102.73 SMA 137.60 ECC .22877 INC 2.0801 V1 29.775
RP 107.51 LAP 2.03 LOP 113.09 VP 38.786 GAP -3.95 AZP 90.46 TAL 235.79 TAP 338.51 RCA 106.12 APO 169.08 V2 35.247
RC 66.441 GL 9.73 GP -26.70 ZAL 158.05 ZAP 57.04 ETS 15.40 ZAE 148.62 ETE 294.18 ZAC 74.46 ETC 259.45 CLP -52.49

PLANETOCENTRIC CONIC

C3 35.645 VHL 5.970 DLA -2.39 RAL 211.44 RAD 6568.4 VEL 12.531 PTH 2.27 VHP 4.779 DPA -44.88 RAP 229.17 ECC 1.5866

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 56 29	2283.06	-21.17	45.87	81.83	109.26	1 34 32	1683.1	-18.35	38.33
90.00	12 19 1	5075.46	24.17	224.66	83.39	74.78	13 43 37	4475.5	21.85	216.75
100.00	2 16 43	2024.26	-22.38	26.36	81.36	110.35	2 50 27	1424.3	-19.41	18.83
100.00	13 41 29	4809.49	25.41	204.71	83.01	73.71	15 1 38	4209.5	22.94	196.79
110.00	3 22 24	1818.63	-25.64	9.33	79.93	113.42	3 52 43	1218.6	-22.25	1.81
110.00	14 52 17	4587.88	28.75	186.68	81.80	70.66	16 8 45	3987.9	25.85	178.71

DIFFERENTIAL CORRECTIONS

TDE .1457 TRA -.4803 TC3 .1049 BAU .2224
RDE -.1445 RRA -.3120 RC3 -.4547 FAU .08665
FDE 1.3573 FRA -.8889 FC3-2.1045 BSP 1486
BDE .2052 BRA .5561 BC3 .4666 FSP -693

MID-COURSE EXECUTION ACCURACY

SGT 480.3 SGR 635.4 SG3 255.4
RRT .1477 RRF .7662 RTF .1724
SGB 796.6 R23 .0755 R13 .7649
SG1 644.1 SG2 468.7 THA 76.24

ORBIT DETERMINATION ACCURACY

ST 192.8 SR 186.1 SS 549.0
CRT -.2351 CRS .7083 CST -.8420
LSA 584.6 MSA 154.6 SSA 23.5
EL1 203.2 EL2 153.1 ALF 151.23

LAUNCH DATE OCT 4 1970 FLIGHT TIME 80.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 231.548

RL 149.65 LAL .00 LOL 10.36 VL 28.465 GAL -12.15 AZL 87.73 HCA 105.97 SMA 137.75 ECC .22670 INC 2.2674 V1 29.775
RP 107.50 LAP 2.18 LOP 116.34 VP 38.803 GAP -3.31 AZP 90.62 TAL 235.99 TAP 341.96 RCA 106.52 APO 168.98 V2 35.251
RC 68.539 GL 10.69 GP -28.25 ZAL 157.70 ZAP 61.81 ETS 13.10 ZAE 148.17 ETE 287.43 ZAC 72.72 ETC 259.02 CLP -57.57

PLANETOCENTRIC CONIC

C3 35.226 VHL 5.935 DLA -1.46 RAL 211.69 RAD 6568.4 VEL 12.514 PTH 2.27 VHP 4.608 DPA -45.75 RAP 226.22 ECC 1.5797

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 50 35	2308.92	-21.74	47.55	82.15	108.60	1 29 4	1708.9	-19.00	39.95
90.00	12 26 56	5043.61	23.59	222.51	83.09	73.86	13 51 0	4443.6	21.15	214.68
100.00	2 11 15	2048.73	-22.95	27.96	81.69	109.69	2 45 24	1448.7	-20.06	20.36
100.00	13 48 58	4779.04	24.81	202.65	82.69	72.78	15 8 37	4179.0	22.22	194.81
110.00	3 17 56	1839.99	-26.21	10.72	80.30	112.77	3 48 36	1240.0	-22.89	3.13
110.00	14 58 46	4560.55	28.12	184.80	81.44	69.72	16 14 47	3960.5	25.10	176.93

DIFFERENTIAL CORRECTIONS

TDE .1798 TRA -.4929 TC3 .0476 BAU .2369
RDE -.1077 RRA -.3229 RC3 -.5008 FAU .09233
FDE 1.4922 FRA -.9426 FC3-2.2692 BSP 1712
BDE .2091 BRA .5893 BC3 .5031 FSP -775

MID-COURSE EXECUTION ACCURACY

SGT 509.6 SGR 679.3 SG3 275.4
RRT .2799 RRF .8015 RTF .3266
SGB 849.2 R23 .1040 R13 .8018
SG1 707.4 SG2 469.8 THA 68.08

ORBIT DETERMINATION ACCURACY

ST 224.3 SR 141.0 SS 584.6
CRT -.1474 CRS .5931 CST -.8745
LSA 622.6 MSA 154.1 SSA 23.3
EL1 225.9 EL2 138.5 ALF 171.49

LAUNCH DATE OCT 4 1970 FLIGHT TIME 82.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 238.120

RL 149.65 LAL .00 LOL 10.36 VL 28.475 GAL -12.04 AZL 87.54 HCA 109.21 SMA 137.83 ECC .22483 INC 2.4608 V1 29.775
RP 107.49 LAP 2.32 LOP 119.58 VP 38.813 GAP -2.69 AZP 90.81 TAL 236.06 TAP 345.27 RCA 106.84 APO 168.82 V2 35.254
RC 70.666 GL 11.69 GP -29.79 ZAL 157.22 ZAP 66.64 ETS 10.67 ZAE 147.41 ETE 280.48 ZAC 70.95 ETC 258.54 CLP -62.82

PLANETOCENTRIC CONIC

C3 34.844 VHL 5.903 DLA -.53 RAL 212.04 RAD 6568.4 VEL 12.499 PTH 2.26 VHP 4.472 DPA -46.51 RAP 223.03 ECC 1.5734

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 45 5	2335.06	-22.30	49.26	82.59	107.92	1 24 0	1735.1	-19.64	41.60
90.00	12 35 15	5011.97	22.97	220.39	82.93	72.97	13 58 47	4412.0	20.42	212.65
100.00	2 6 11	2073.46	-23.51	29.58	82.15	109.01	2 40 44	1473.5	-20.70	21.92
100.00	13 56 51	4748.79	24.19	200.62	82.51	71.88	15 15 59	4148.8	21.49	192.86
110.00	3 13 52	1861.62	-26.77	12.15	80.80	112.09	3 44 53	1261.6	-23.54	4.49
110.00	15 5 39	4533.41	27.47	182.96	81.21	68.81	16 21 13	3933.4	24.34	175.20

DIFFERENTIAL CORRECTIONS

TDE .2200 TRA -.5317 TC3 -.0213 BAU .2545
RDE -.0689 RRA -.3309 RC3 -.5460 FAU .09712
FDE 1.6214 FRA -.9797 FC3-2.4132 BSP 1967
BDE .2305 BRA .6263 BC3 .5464 FSP -847

MID-COURSE EXECUTION ACCURACY

SGT 559.1 SGR 723.2 SG3 293.0
RRT .4146 RRF .8304 RTF .4739
SGB 914.2 R23 .1254 R13 .8331
SG1 784.7 SG2 468.9 THA 61.06

ORBIT DETERMINATION ACCURACY

ST 263.8 SR 118.9 SS 618.9
CRT .0209 CRS .3997 CST -.9002
LSA 665.5 MSA 152.8 SSA 23.0
EL1 263.8 EL2 118.8 ALF .68

LAUNCH DATE OCT 4 1970 FLIGHT TIME 84.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 244.656

RL 149.65 LAL .00 LOL 10.36 VL 28.476 GAL -11.93 AZL 87.34 HCA 112.45 SMA 137.84 ECC .22311 INC 2.6621 V1 29.775
RP 107.48 LAP 2.46 LOP 122.83 VP 38.816 GAP -2.10 AZP 91.02 TAL 236.00 TAP 348.45 RCA 107.09 APO 168.60 V2 35.256
RC 72.818 GL 12.73 GP -31.31 ZAL 156.60 ZAP 71.49 ETS 8.11 ZAE 146.31 ETE 273.54 ZAC 69.19 ETC 258.04 CLP -68.19

PLANETOCENTRIC CONIC

C3 34.495 VHL 5.875 DLA .41 RAL 212.49 RAD 6568.4 VEL 12.485 PTH 2.26 VHP 4.371 DPA -47.17 RAP 219.69 ECC 1.5677

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 39 54	2361.74	-22.85	51.02	83.16	107.20	1 19 15	1761.7	-20.28	43.29
90.00	12 44 2	4980.21	22.32	218.29	82.90	72.11	14 7 2	4380.2	19.67	210.62
100.00	2 1 26	2098.74	-24.06	31.26	82.74	108.29	2 36 24	1498.7	-21.34	23.52
100.00	14 5 11	4718.44	23.53	198.60	82.46	71.01	15 23 50	4118.4	20.72	190.93
110.00	3 10 7	1883.75	-27.33	13.63	81.43	111.38	3 41 30	1283.7	-24.18	5.88
110.00	15 13 0	4506.20	26.79	181.14	81.11	67.92	16 28 6	3906.2	23.55	173.47

DIFFERENTIAL CORRECTIONS

TDE .2688 TRA -.5757 TC3 -.1007 BAU .2754
RDE -.0287 RRA -.3350 RC3 -.5887 FAU .10077
FDE 1.7404 FRA -.9970 FC3-2.5290 BSP 2255
BDE .2703 BRA .6661 BC3 .5972 FSP -906

MID-COURSE EXECUTION ACCURACY

SGT 631.1 SGR 785.3 SG3 307.3
RRT .5343 RRF .8538 RTF .5983
SGB 991.9 R23 .1410 R13 .8587
SG1 875.5 SG2 466.3 THA 54.98

ORBIT DETERMINATION ACCURACY

ST 311.7 SR 104.1 SS 651.5
CRT .2854 CRS .0951 CST -.9200
LSA 713.5 MSA 150.8 SSA 22.6
EL1 313.3 EL2 99.2 ALF 6.05

LAUNCH DATE OCT 4 1970 FLIGHT TIME 86.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 251.155

RL	149.65	LAL	.00	LOL	10.36	VL	28.470	GAL	-11.82	AZL	87.13	HCA	115.69	SHA	137.79	ECC	.22152	INC	2.8730	V1	29.775
RP	107.48	LAP	2.59	LOP	126.08	VP	38.813	GAP	-1.53	AZP	91.25	TAL	235.83	TAP	351.52	RCA	107.27	APO	168.31	V2	35.258
RC	74.992	GL	13.82	GP	-32.79	ZAL	155.86	ZAP	76.30	ETS	5.40	ZAE	144.88	ETE	266.82	ZAC	67.45	ETC	257.53	CLP	-73.64

PLANETOCENTRIC CONIC

C3	34.179	VHL	5.846	DLA	1.38	RAL	213.04	RAD	6568.3	VEL	12.472	PTH	2.26	VHP	4.303	DPA	-47.72	RAP	216.26	ECC	1.5625		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 34 56	2389.31	-23.39	52.86	83.87	106.43	1 14 45	1789.3	-20.91	45.07
90.00	12 53 22	4948.00	21.63	216.18	82.99	71.27	14 15 50	4348.0	18.88	206.59
100.00	1 56 54	2124.87	-24.61	33.01	83.46	107.53	2 32 19	1524.9	-21.98	25.20
100.00	14 14 4	4687.67	22.84	196.58	82.54	70.17	15 32 12	4087.7	19.93	188.99
110.00	3 6 37	1906.66	-27.89	15.18	82.20	110.62	3 38 24	1306.7	-24.83	7.35
110.00	15 20 51	4478.64	26.07	179.32	81.15	67.06	16 35 29	3878.6	22.73	171.75

DIFFERENTIAL CORRECTIONS

TDE	.3263	TRA	-.6237	TC3	-.1001	BAU	.2905
RDE	.0119	RRA	-.3347	RC3	-.6276	FAU	.10310
FDE	1.8434	FRA	-.9934	FC3	-2.8115	BSP	2582
BDE	.3265	BRA	.7078	BC3	.6555	FSP	-952

MID-COURSE EXECUTION ACCURACY

SGT	724.5	SGR	804.0	SG3	317.9		
RRT	.6293	RRF	.8727	RTF	.6933		
SGB	1082.3	RZ3	.1527	R13	.8790		
SG1	978.4	SG2	482.7	THA	49.70		

ORBIT DETERMINATION ACCURACY

ST	368.7	SR	101.5	SS	681.2
CRT	.5855	CRS	-.2783	CST	-.9353
LSA	766.7	HSA	148.3	SSA	22.1
EL1	373.7	EL2	81.2	ALF	9.62

LAUNCH DATE OCT 4 1970 FLIGHT TIME 88.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 257.617

RL	149.65	LAL	.00	LOL	10.36	VL	28.457	GAL	-11.71	AZL	86.90	HCA	118.93	SHA	137.68	ECC	.22004	INC	3.0958	V1	29.775
RP	107.48	LAP	2.71	LOP	129.33	VP	38.804	GAP	-1.00	AZP	91.50	TAL	235.54	TAP	354.47	RCA	107.39	APO	167.98	V2	35.259
RC	77.186	GL	14.98	GP	-34.22	ZAL	155.00	ZAP	81.01	ETS	2.56	ZAE	143.16	ETE	280.49	ZAC	65.75	ETC	257.01	CLP	-79.11

PLANETOCENTRIC CONIC

C3	33.888	VHL	5.822	DLA	2.37	RAL	213.68	RAD	6568.3	VEL	12.461	PTH	2.25	VHP	4.267	DPA	-48.17	RAP	212.84	ECC	1.5579		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 30 5	2418.16	-23.93	54.80	84.72	105.61	1 10 23	1818.2	-21.56	46.94
90.00	13 3 20	4914.98	20.90	214.04	83.21	70.44	14 25 15	4315.0	18.04	208.53
100.00	1 52 32	2152.22	-25.16	34.86	84.33	106.70	2 28 24	1552.2	-22.63	26.97
100.00	14 23 34	4656.15	22.09	194.53	82.74	69.34	15 41 10	4056.1	19.08	187.03
110.00	3 3 19	1930.68	-28.45	16.82	83.11	109.80	3 35 30	1330.7	-25.49	8.90
110.00	15 29 17	4450.46	25.31	177.49	81.31	66.21	16 43 27	3850.5	21.87	170.02

DIFFERENTIAL CORRECTIONS

TDE	.3028	TRA	-.6740	TC3	-.2844	BAU	.3263
RDE	.0521	RRA	-.3295	RC3	-.6615	FAU	.10401
FDE	1.9271	FRA	-.9688	FC3	-2.6563	BSP	2939
BDE	.3962	BRA	.7502	BC3	.7201	FSP	-981

MID-COURSE EXECUTION ACCURACY

SGT	836.5	SGR	837.5	SG3	324.1		
RRT	.6999	RRF	.8879	RTF	.7618		
SGB	1183.7	RZ3	.1622	R13	.8948		
SG1	1091.3	SG2	458.5	THA	45.05		

ORBIT DETERMINATION ACCURACY

ST	435.0	SR	112.4	SS	707.9
CRT	.8064	CRS	-.5894	CST	-.9471
LSA	825.5	HSA	145.4	SSA	21.6
EL1	444.5	EL2	65.1	ALF	12.04

LAUNCH DATE OCT 4 1970 FLIGHT TIME 90.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 264.044

RL	149.65	LAL	.00	LOL	10.36	VL	28.437	GAL	-11.59	AZL	86.67	HCA	122.18	SHA	137.53	ECC	.21865	INC	3.3329	V1	29.775
RP	107.48	LAP	2.82	LOP	132.58	VP	38.789	GAP	-.48	AZP	91.78	TAL	235.15	TAP	357.33	RCA	107.46	APO	167.60	V2	35.259
RC	79.396	GL	16.21	GP	-35.59	ZAL	154.00	ZAP	85.55	ETS	359.59	ZAE	141.19	ETE	254.65	ZAC	64.10	ETC	256.50	CLP	-84.52

PLANETOCENTRIC CONIC

C3	33.656	VHL	5.801	DLA	3.42	RAL	214.42	RAD	6568.3	VEL	12.451	PTH	2.25	VHP	4.262	DPA	-48.56	RAP	209.51	ECC	1.5539		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 25 16	2448.76	-24.48	56.88	85.72	104.70	1 6 5	1848.8	-22.22	48.94
90.00	13 14 3	4880.77	20.10	211.84	83.56	69.62	14 35 24	4280.8	17.15	204.41
100.00	1 48 13	2181.24	-25.71	36.84	85.35	105.80	2 24 34	1581.2	-23.29	28.87
100.00	14 35 48	4623.52	21.29	192.44	83.07	68.51	15 50 51	4023.5	18.19	185.02
110.00	3 0 7	1956.18	-29.03	18.58	84.18	108.90	3 32 43	1356.2	-26.17	10.56
110.00	15 38 23	4421.35	24.49	175.62	81.60	65.38	16 52 4	3821.3	20.96	168.25

DIFFERENTIAL CORRECTIONS

TDE	.4684	TRA	-.7252	TC3	-.3845	BAU	.3553
RDE	.0911	RRA	-.3193	RC3	-.6896	FAU	.10352
FDE	1.9880	FRA	-.9256	FC3	-2.6627	BSP	3327
BDE	.4772	BRA	.7924	BC3	.7896	FSP	-997

MID-COURSE EXECUTION ACCURACY

SGT	963.3	SGR	865.0	SG3	326.0		
RRT	.7505	RRF	.9002	RTF	.8099		
SGB	1294.6	RZ3	.1707	R13	.9069		
SG1	1212.3	SG2	454.2	THA	40.91		

ORBIT DETERMINATION ACCURACY

ST	510.4	SR	132.8	SS	730.8
CRT	.9192	CRS	-.7769	CST	-.9562
LSA	889.7	HSA	142.2	SSA	21.0
EL1	524.9	EL2	50.9	ALF	13.58

LAUNCH DATE OCT 4 1970 FLIGHT TIME 92.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 270.435

RL	149.65	LAL	.00	LOL	10.36	VL	28.412	GAL	-11.46	AZL	86.41	HCA	125.42	SHA	137.32	ECC	.21732	INC	3.5876	V1	29.775
RP	107.48	LAP	2.92	LOP	135.83	VP	38.770	GAP	.01	AZP	92.08	TAL	234.66	TAP	.08	RCA	107.48	APO	167.17	V2	35.258
RC	81.621	GL	17.53	GP	-36.92	ZAL	152.87	ZAP	89.86	ETS	356.52	ZAE	139.02	ETE	249.37	ZAC	62.50	ETC	256.00	CLP	-89.83

PLANETOCENTRIC CONIC

C3	33.463	VHL	5.785	DLA	4.52	RAL	215.26	RAD	6568.3	VEL	12.443	PTH	2.25	VHP	4.287	DPA	-48.93	RAP	206.33	ECC	1.5507		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 20 22	2481.64	-25.03	59.13	86.88	103.70	1 1 44	1881.6	-22.89	51.11
90.00	13 25 39	4844.97	19.24	209.57	84.05	68.81	14 46 24	4245.0	16.19	202.23
100.00	1 43 50	2212.44	-26.27	38.98	86.53	104.80	2 20 43	1612.4	-23.98	30.93
100.00	14 44 53	4589.41	20.43	190.28	83.55	67.69	16 1 22	3989.4	17.23	182.95
110.00	2 56 57	1983.63	-29.62	20.50	85.42	107.90	3 30 0	1383.6	-26.89	12.38
110.00	15 48 15	4390.99	23.62	173.09	82.02	64.54	17 1 26	3791.0	19.99	166.43

DIFFERENTIAL CORRECTIONS

TDE	.5531	TRA	-.7780	TC3	-.4870	BAU	.3856
RDE	.1206	RRA	-.3103	RC3	-.7111	FAU	.10166
FDE	2.0265	FRA	-.8911	FC3	-2.6301	BSP	3737
BDE	.5678	BRA	.8358	BC3	.8619	FSP	-999

MID-COURSE EXECUTION ACCURACY

SGT	1101.0	SGR	887.7	SG3	324.1		
RRT	.7889	RRF	.9104	RTF	.8467		
SGB	1414.3	RZ3	.1737	R13	.9178		
SG1	1341.5	SG2	447.7	THA	37.31		

ORBIT DETERMINATION ACCURACY

ST	594.9	SR	159.3	SS	750.6
CRT	.9662	CRS	-.8747	CST	-.9642
LSA	960.9	HSA	138.0	SSA	20.2
EL1	614.6	EL2	39.7	ALF	14.57

LAUNCH DATE OCT 4 1970 FLIGHT TIME 94.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 276.795

```
RL  149.65 LAL    .00 LOL  10.36 VL  28.382 GAL -11.33 AZL  86.14 HCA 128.66 SMA 137.08 ECC .21606 INC 3.8636 V1  29.775
RP  107.48 LAP   3.02 LOP 139.08 VP  38.747 GAP    .49 AZP  92.42 TAL 234.08 TAP   2.74 RCA 107.46 APO 166.70 V2  35.256
RC  83.861 GL   18.95 GP  -38.23 ZAL 151.61 ZAP  93.91 ETS 353.35 ZAE 136.72 ETE 244.68 ZAC  60.93 ETC 255.53 CLP -94.99
```

PLANETOCENTRIC CONIC

```
C3  33.330 VHL  5.773 DLA   5.69 RAL 216.21 RAD 6568.3 VEL 12.438 PTH   2.25 VHP  4.340 DPA -49.31 RAP 203.33 ECC 1.5485
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 15 16	2517.49	-25.58	61.61	88.23	102.58	0 57 13	1917.5	-23.59	53.51
90.00	13 38 18	4807.12	18.29	207.20	84.69	68.00	14 58 25	4207.1	15.14	199.94
100.00	1 39 18	2246.45	-26.84	41.35	87.90	103.68	2 16 44	1646.4	-24.69	33.21
100.00	14 56 57	4553.39	19.48	188.02	84.17	66.87	16 12 51	3953.4	16.18	180.78
110.00	2 53 42	2013.58	-30.23	22.62	86.85	106.78	3 27 16	1413.6	-27.63	14.39
110.00	15 59 2	4359.03	22.67	171.70	82.59	63.70	17 11 41	3759.0	18.95	164.53

DIFFERENTIAL CORRECTIONS

```
TDE  .6471 TRA -.8246 TC3 -.5895 BAU  .4165
RDE  .1646 RRA -.2839 RC3 -.7255 FAU .09857
FDE 2.0442 FRA -.7913 FC3-2.5603 BSP   4160
BDE  .6677 BRA  .8721 BC3  .9348 FSP   -988
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1245.8 SGR  899.2 SG3  317.2
RRT  .8104 RRF  .9182 RTF  .8667
SGB 1536.4 R23  .1880 R13  .9228
SG1 1470.2 SG2  446.4 THA  33.87
```

ORBIT DETERMINATION ACCURACY

```
ST   688.3 SR   185.8 SS   766.5
CRT  .9881 CRS -.9312 CST -.9687
LSA 1037.8 MSA  135.7 SSA   19.4
EL1  712.4 EL2   27.6 ALF  14.96
```

LAUNCH DATE OCT 4 1970 FLIGHT TIME 96.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 283.121

```
RL  149.65 LAL    .00 LOL  10.36 VL  28.347 GAL -11.19 AZL  85.83 HCA 131.90 SMA 136.80 ECC .21486 INC 4.1658 V1  29.775
RP  107.49 LAP   3.10 LOP 142.33 VP  38.719 GAP    .94 AZP  92.78 TAL 233.42 TAP   5.32 RCA 107.41 APO 166.20 V2  35.254
RC  86.111 GL   20.50 GP  -39.55 ZAL 150.18 ZAP  97.65 ETS 350.08 ZAE 134.31 ETE 240.54 ZAC  59.38 ETC 255.07 CLP -99.95
```

PLANETOCENTRIC CONIC

```
C3  33.275 VHL  5.768 DLA   6.95 RAL 217.26 RAD 6568.3 VEL 12.436 PTH   2.25 VHP  4.421 DPA -49.75 RAP 200.52 ECC 1.5476
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 9 46	2557.12	-26.14	64.38	89.78	101.30	0 52 24	1957.1	-24.32	56.18
90.00	13 52 12	4766.66	17.24	204.70	85.50	67.18	15 11 38	4166.7	14.00	197.52
100.00	1 34 26	2284.04	-27.42	44.00	89.48	102.40	2 12 30	1684.0	-25.43	35.76
100.00	15 10 13	4514.97	18.44	185.64	84.96	66.04	16 25 28	3915.0	15.04	178.49
110.00	2 50 17	2046.69	-30.85	25.00	88.51	105.50	3 24 24	1446.7	-28.42	16.64
110.00	16 10 52	4325.06	21.63	169.61	83.33	62.86	17 22 57	3725.1	17.82	162.55

DIFFERENTIAL CORRECTIONS

```
TDE  .7515 TRA -.8607 TC3 -.6889 BAU  .4469
RDE  .2006 RRA -.2576 RC3 -.7312 FAU .09420
FDE 2.0475 FRA -.7018 FC3-2.4508 BSP   4568
BDE  .7778 BRA  .9071 BC3 1.0046 FSP   -955
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1395.1 SGR  904.3 SG3  307.0
RRT  .8272 RRF  .9248 RTF  .8829
SGB 1662.5 R23  .1981 R13  .9274
SG1 1602.6 SG2  442.4 THA  30.80
```

ORBIT DETERMINATION ACCURACY

```
ST   791.1 SR   215.2 SS   781.7
CRT  .9956 CRS -.9619 CST -.9729
LSA 1124.8 MSA  133.0 SSA   18.4
EL1  819.6 EL2   19.5 ALF  15.16
```

LAUNCH DATE OCT 4 1970 FLIGHT TIME 98.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 289.415

```
RL  149.65 LAL    .00 LOL  10.36 VL  28.309 GAL -11.05 AZL  85.50 HCA 135.13 SMA 136.49 ECC .21371 INC 4.5002 V1  29.775
RP  107.50 LAP   3.17 LOP 145.58 VP  38.688 GAP   1.37 AZP  93.19 TAL 232.68 TAP   7.82 RCA 107.32 APO 165.66 V2  35.251
RC  88.372 GL   22.19 GP  -40.91 ZAL 148.60 ZAP 101.05 ETS 346.71 ZAE 131.83 ETE 236.93 ZAC  57.81 ETC 254.62 CLP-104.69
```

PLANETOCENTRIC CONIC

```
C3  33.325 VHL  5.773 DLA   8.33 RAL 218.43 RAD 6568.3 VEL 12.438 PTH   2.25 VHP  4.531 DPA -50.30 RAP 197.89 ECC 1.5484
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 3 44	2601.55	-26.69	67.51	91.59	99.82	0 47 5	2001.5	-25.06	59.22
90.00	14 7 36	4722.99	16.06	202.03	86.51	66.36	15 26 18	4123.0	12.73	194.93
100.00	1 29 6	2326.18	-28.00	46.99	91.32	100.93	2 7 52	1726.2	-26.20	38.65
100.00	15 24 54	4473.59	17.27	183.12	85.94	65.22	16 39 28	3873.6	13.79	176.06
110.00	2 46 33	2083.81	-31.50	27.70	90.43	104.03	3 21 17	1483.8	-29.25	19.21
110.00	16 23 56	4288.72	20.48	167.41	84.26	62.02	17 35 25	3688.7	16.58	160.46

DIFFERENTIAL CORRECTIONS

```
TDE  .8658 TRA -.9113 TC3 -.7842 BAU  .4781
RDE  .2331 RRA -.2293 RC3 -.7325 FAU .08937
FDE 2.0259 FRA -.6145 FC3-2.3217 BSP   5034
BDE  .8966 BRA  .9397 BC3 1.0731 FSP   -931
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1547.2 SGR  906.5 SG3  294.4
RRT  .8377 RRF  .9306 RTF  .8951
SGB 1793.2 R23  .2079 R13  .9314
SG1 1738.2 SG2  440.7 THA  28.11
```

ORBIT DETERMINATION ACCURACY

```
ST   902.4 SR   242.8 SS   791.1
CRT  .9970 CRS -.9784 CST -.9765
LSA 1217.4 MSA  130.1 SSA   17.3
EL1  934.4 EL2   18.0 ALF  15.02
```

LAUNCH DATE OCT 4 1970 FLIGHT TIME 100.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 295.678

```
RL  149.65 LAL    .00 LOL  10.36 VL  28.266 GAL -10.90 AZL  85.13 HCA 138.37 SMA 136.16 ECC .21260 INC 4.8749 V1  29.775
RP  107.51 LAP   3.24 LOP 148.83 VP  38.654 GAP   1.79 AZP  93.65 TAL 231.87 TAP  10.24 RCA 107.21 APO 165.11 V2  35.247
RC  90.641 GL   24.04 GP  -42.37 ZAL 146.82 ZAP 104.07 ETS 343.23 ZAE 129.29 ETE 233.79 ZAC  56.20 ETC 254.17 CLP-109.20
```

PLANETOCENTRIC CONIC

```
C3  33.514 VHL  5.789 DLA   9.85 RAL 219.73 RAD 6568.3 VEL 12.445 PTH   2.25 VHP  4.671 DPA -50.99 RAP 195.38 ECC 1.5515
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 52 57	2652.07	-27.23	71.11	93.68	98.09	24 37 9	2052.1	-25.83	62.73
90.00	14 24 49	4675.32	14.74	199.15	87.75	65.55	15 42 45	4075.3	11.32	192.15
100.00	1 23 5	2374.06	-28.57	50.44	93.45	99.20	2 2 39	1774.1	-27.00	41.99
100.00	15 41 19	4428.56	15.97	180.41	87.16	64.39	16 55 7	3828.6	12.39	173.45
110.00	2 42 22	2125.96	-32.15	30.81	92.66	102.29	3 17 48	1526.0	-30.12	22.18
110.00	16 38 31	4249.42	19.21	165.07	85.41	61.17	17 49 20	3649.4	15.22	158.23

DIFFERENTIAL CORRECTIONS

```
TDE  .9930 TRA -.9487 TC3 -.8706 BAU  .5074
RDE  .2888 RRA -.1948 RC3 -.7242 FAU .08353
FDE 1.9971 FRA -.5166 FC3-2.1579 BSP   5465
BDE 1.0291 BRA  .9665 BC3 1.1325 FSP   -887
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1699.4 SGR  900.6 SG3  278.9
RRT  .8435 RRF  .9351 RTF  .9036
SGB 1923.3 R23  .2192 R13  .9339
SG1 1872.6 SG2  439.0 THA  25.59
```

ORBIT DETERMINATION ACCURACY

```
ST  1024.7 SR   271.6 SS   800.8
CRT  .9960 CRS -.9887 CST -.9793
LSA 1322.3 MSA  128.3 SSA   16.1
EL1 1059.8 EL2   23.5 ALF  14.80
```

LAUNCH DATE OCT 4 1970 FLIGHT TIME 102.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 301.912

RL 149.65 LAL .00 LOL 10.36 VL 28.221 GAL -10.74 AZL 84.70 HCA 141.60 SHA 135.80 ECC .21153 INC 5.3003 V1 29.775
RP 107.53 LAP 3.29 LOP 152.08 VP 30.617 GAP 2.19 AZP 94.16 TAL 230.99 TAP 12.59 RCA 107.07 APO 164.53 V2 35.243
RC 92.917 GL 26.10 GP -43.95 ZAL 144.84 ZAP 106.67 ETS 339.62 ZAE 126.70 ETE 231.08 ZAC 54.48 ETC 253.70 CLP-113.49

PLANETOCENTRIC CONIC

C3 33.891 VHL 5.822 DLA 11.52 RAL 221.18 RAD 6568.3 VEL 12.460 PTH 2.25 VHP 4.845 DPA -51.88 RAP 192.94 ECC 1.5578

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 44 59	2710.37	-27.72	75.31	96.13	96.04	24 30 9	2110.4	-26.59	66.83
90.00	14 44 20	4822.66	13.23	196.02	80.29	64.74	16 1 23	4022.7	9.72	189.10
100.00	1 16 5	2429.24	-29.10	54.45	95.94	97.15	1 56 34	1829.2	-27.81	45.89
100.00	15 59 51	4379.02	14.49	177.48	88.67	63.56	17 12 50	3779.0	10.82	170.61
110.00	2 37 31	2174.45	-32.80	34.45	95.29	100.23	3 13 45	1574.5	-31.04	25.67
110.00	16 54 55	4206.57	17.79	162.57	86.84	60.32	18 5 2	3606.6	13.70	155.84

DIFFERENTIAL CORRECTIONS

TDE 1.1431 TRA -.9709 TC3 -.9409 BAU .5313
RDE .3068 RRA -.1488 RC3 -.6098 FAU .07616
FDE 1.9784 FRA -.3062 FC3-1.9456 BSP 5720
BDE 1.1835 BRA .9822 BC3 1.1726 FSP -792

MID-COURSE EXECUTION ACCURACY

SGT 1848.4 SGR 881.7 SG3 260.4
RRT .8455 RRF .9383 RTF .9084
SGB 2048.0 RZS .2335 R13 .9340
SG1 2001.3 SG2 434.8 THA 23.12

ORBIT DETERMINATION ACCURACY

ST 1162.9 SR 306.2 SS 817.1
CRT .9930 CRS -.9953 CST -.9814
LSA 1448.0 MSA 129.6 SSA 14.2
EL1 1202.0 EL2 35.1 ALF 14.67

LAUNCH DATE OCT 4 1970 FLIGHT TIME 104.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 308.115

RL 149.65 LAL .00 LOL 10.36 VL 28.172 GAL -10.57 AZL 84.21 HCA 144.83 SHA 135.42 ECC .21051 INC 5.7909 V1 29.775
RP 107.54 LAP 3.33 LOP 155.33 VP 30.577 GAP 2.57 AZP 94.74 TAL 230.05 TAP 14.88 RCA 106.91 APO 163.93 V2 35.238
RC 95.197 GL 28.39 GP -45.73 ZAL 142.62 ZAP 108.85 ETS 335.84 ZAE 124.04 ETE 228.71 ZAC 52.62 ETC 253.18 CLP-117.57

PLANETOCENTRIC CONIC

C3 34.537 VHL 5.877 DLA 13.40 RAL 222.79 RAD 6568.4 VEL 12.486 PTH 2.26 VHP 5.058 DPA -52.97 RAP 190.45 ECC 1.5684

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 35 27	2778.75	-28.11	80.28	98.99	93.58	24 21 46	2178.8	-27.31	71.70
90.00	15 6 43	4563.81	11.50	192.57	91.21	63.94	16 22 46	3963.8	7.90	185.74
100.00	1 7 44	2493.82	-29.56	59.20	98.87	94.69	1 49 18	1893.8	-28.59	50.53
100.00	16 21 3	4323.97	12.80	174.27	90.54	62.75	17 33 7	3724.0	9.04	167.49
110.00	2 31 44	2231.01	-33.40	38.75	98.38	97.75	3 8 55	1631.0	-31.97	29.81
110.00	17 13 38	4159.55	16.18	159.87	88.61	59.47	18 22 52	3559.5	12.01	153.25

DIFFERENTIAL CORRECTIONS

TDE 1.3013 TRA -.9973 TC3-1.0079 BAU .5624
RDE .3326 RRA -.1124 RC3 -.6840 FAU .07047
FDE 1.9073 FRA -.3224 FC3-1.7664 BSP 6355
BDE 1.3431 BRA 1.0036 BC3 1.2181 FSP -786

MID-COURSE EXECUTION ACCURACY

SGT 2003.0 SGR 874.1 SG3 242.4
RRT .8432 RRF .9412 RTF .9149
SGB 2185.4 RZS .2424 R13 .9370
SG1 2140.7 SG2 439.7 THA 21.14

ORBIT DETERMINATION ACCURACY

ST 1304.1 SR 326.9 SS 814.1
CRT .9907 CRS -.9979 CST -.9838
LSA 1566.6 MSA 126.7 SSA 13.2
EL1 1343.8 EL2 43.1 ALF 13.96

LAUNCH DATE OCT 4 1970 FLIGHT TIME 106.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 314.290

RL 149.65 LAL .00 LOL 10.36 VL 28.121 GAL -10.40 AZL 83.63 HCA 148.06 SHA 135.03 ECC .20953 INC 6.3668 V1 29.775
RP 107.56 LAP 3.36 LOP 158.58 VP 30.534 GAP 2.94 AZP 95.41 TAL 229.05 TAP 17.11 RCA 106.73 APO 163.32 V2 35.232
RC 97.481 GL 30.96 GP -47.76 ZAL 140.13 ZAP 110.55 ETS 331.86 ZAE 121.27 ETE 226.63 ZAC 50.54 ETC 252.58 CLP-121.48

PLANETOCENTRIC CONIC

C3 35.557 VHL 5.963 DLA 15.50 RAL 224.60 RAD 6568.4 VEL 12.527 PTH 2.27 VHP 5.319 DPA -54.31 RAP 187.78 ECC 1.5852

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 23 43	2860.40	-28.31	86.24	102.35	90.60	24 11 23	2260.4	-27.93	77.59
90.00	15 32 51	4496.86	9.47	188.70	93.61	63.19	16 47 48	3896.9	5.80	181.94
100.00	0 57 29	2570.64	-29.85	64.09	102.31	91.71	1 40 20	1970.6	-29.29	56.13
100.00	16 45 42	4261.85	10.83	170.70	92.89	61.97	17 56 43	3661.9	7.00	164.01
110.00	2 24 40	2297.88	-33.89	43.91	102.04	94.74	3 2 58	1697.9	-32.87	34.82
110.00	17 35 0	4107.37	14.35	156.93	90.83	58.64	18 43 28	3507.4	10.10	150.41

DIFFERENTIAL CORRECTIONS

TDE 1.4925 TRA-1.0088 TC3-1.0500 BAU .5867
RDE .3654 RRA -.0819 RC3 -.6486 FAU .06332
FDE 1.8530 FRA -.2270 FC3-1.5418 BSP 6781
BDE 1.5366 BRA 1.0107 BC3 1.2342 FSP -724

MID-COURSE EXECUTION ACCURACY

SGT 2153.3 SGR 851.7 SG3 222.0
RRT .8365 RRF .9419 RTF .9188
SGB 2315.6 RZS .2540 R13 .9379
SG1 2273.0 SG2 442.1 THA 19.06

ORBIT DETERMINATION ACCURACY

ST 1466.0 SR 352.3 SS 819.2
CRT .9873 CRS -.9993 CST -.9857
LSA 1711.2 MSA 127.3 SSA 11.6
EL1 1506.8 EL2 54.5 ALF 13.37

LAUNCH DATE OCT 4 1970 FLIGHT TIME 108.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 320.437

RL 149.65 LAL .00 LOL 10.36 VL 28.068 GAL -10.21 AZL 82.94 HCA 151.29 SHA 134.62 ECC .20859 INC 7.0569 V1 29.775
RP 107.58 LAP 3.38 LOP 161.83 VP 30.489 GAP 3.29 AZP 96.20 TAL 227.99 TAP 19.28 RCA 106.54 APO 162.70 V2 35.226
RC 99.767 GL 33.85 GP -50.10 ZAL 137.31 ZAP 111.74 ETS 327.64 ZAE 118.35 ETE 224.74 ZAC 48.19 ETC 251.85 CLP-125.26

PLANETOCENTRIC CONIC

C3 37.127 VHL 6.093 DLA 17.88 RAL 226.84 RAD 6568.4 VEL 12.590 PTH 2.28 VHP 5.643 DPA -55.91 RAP 184.72 ECC 1.6110

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 8 42	2960.09	-28.17	93.52	106.29	86.95	23 58 2	2360.1	-28.29	84.86
90.00	16 4 7	4419.01	7.05	184.26	96.68	62.50	17 17 46	3819.0	3.31	177.57
100.00	0 44 30	2663.82	-29.84	71.81	106.37	88.07	1 28 54	2063.8	-29.78	63.01
100.00	17 14 56	4190.51	8.52	166.67	95.89	61.24	18 24 47	3590.5	4.62	160.05
110.00	2 15 48	2378.16	-34.17	50.16	106.41	91.05	2 55 26	1778.2	-33.65	40.95
110.00	18 0 7	4048.93	12.26	153.70	93.65	57.84	19 7 36	3448.9	7.92	147.28

DIFFERENTIAL CORRECTIONS

TDE 1.7225 TRA-1.0070 TC3-1.0655 BAU .6068
RDE .3972 RRA -.0020 RC3 -.5993 FAU .05573
FDE 1.7963 FRA -.1324 FC3-1.2996 BSP 7149
BDE 1.7677 BRA 1.0070 BC3 1.2225 FSP -651

MID-COURSE EXECUTION ACCURACY

SGT 2302.0 SGR 820.3 SG3 200.4
RRT .8236 RRF .9398 RTF .9220
SGB 2443.8 RZS .2655 R13 .9385
SG1 2402.8 SG2 445.7 THA 16.96

ORBIT DETERMINATION ACCURACY

ST 1647.4 SR 374.2 SS 824.1
CRT .9831 CRS -.9993 CST -.9874
LSA 1875.2 MSA 129.2 SSA 9.9
EL1 1688.0 EL2 66.8 ALF 12.61

LAUNCH DATE OCT 4 1970 FLIGHT TIME 110.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 326.556

```
RL  149.65 LAL    .00 LOL  10.36 VL  28.013 GAL -10.02 AZL  82.10 HCA 154.50 SMA 134.20 ECC .20768 INC 7.9046 V1  29.775
RP  107.60 LAP   3.39 LOP 165.07 VP  38.443 GAP   3.63 AZP  97.14 TAL 226.89 TAP  21.39 RCA 106.33 APO 162.07 V2  35.218
RC 102.053 GL   37.11 GP  -52.82 ZAL 134.11 ZAP 112.36 ETS 323.09 ZAE 115.22 ETE 222.92 ZAC  45.47 ETC 250.91 CLP-129.01
```

PLANETOCENTRIC CONIC

```
C3  39.535 VHL  6.288 DLA  20.58 RAL 228.96 RAD 6568.5 VEL 12.685 PTH   2.30 VHP  6.054 DPA -57.74 RAP 180.98 ECC 1.6506
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 48 32	3085.69	-27.38	102.62	110.86	82.46	23 39 57	2485.7	-28.14	94.04
90.00	16 42 50	4325.17	4.07	178.97	100.71	61.95	17 54 55	3725.2	.29	172.33
100.00	0 27 20	2779.77	-29.26	80.38	111.12	83.60	1 13 40	2179.8	-29.84	71.63
100.00	17 50 38	4106.32	5.74	161.97	99.79	60.81	18 59 5	3506.3	1.78	155.42
110.00	2 4 22	2476.20	-34.03	57.81	111.60	86.52	2 45 38	1876.2	-34.13	48.57
110.00	18 30 6	3982.66	9.83	150.10	97.29	57.10	19 36 29	3382.7	5.43	143.78

DIFFERENTIAL CORRECTIONS

```
TDE 1.9990 TRA -.9941 TC3-1.0543 BAU  .6259
RDE  .4190 RRA  .0646 RC3 -.5394 FAU .04837
FDE 1.7260 FRA -.0531 FC3-1.0592 BSP   7642
BDE 2.0432 BRA  .9962 BC3 1.1843 FSP   -593
```

MID-COURSE EXECUTION ACCURACY

```
SGT 2452.5 SGR  781.0 SG3  178.1
RRT  .8010 RRF  .9321 RTF  .9260
SGB 2573.8 RZS  .2740 RIS  .9599
SG1 2533.7 SG2  452.5 THA  14.79
```

ORBIT DETERMINATION ACCURACY

```
ST  1845.7 SR   382.8 SS   823.0
CRT  .9781 CRS -.9979 CST -.9891
LSA 2052.6 MSA  130.7 SSA    8.4
EL1 1883.4 EL2   78.1 ALF   11.49
```

LAUNCH DATE OCT 4 1970 FLIGHT TIME 112.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 332.646

```
RL  149.65 LAL    .00 LOL  10.36 VL  27.956 GAL  -9.82 AZL  81.02 HCA 157.72 SMA 133.77 ECC .20682 INC 8.9783 V1  29.775
RP  107.63 LAP   3.39 LOP 168.32 VP  38.394 GAP   3.96 AZP  98.32 TAL 225.73 TAP  23.45 RCA 106.10 APO 161.43 V2  35.211
RC 104.339 GL   40.80 GP  -56.02 ZAL 130.47 ZAP 112.34 ETS 318.09 ZAE 111.79 ETE 220.98 ZAC  42.29 ETC 249.61 CLP-132.86
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PLANETOCENTRIC CONIC

```
C3  43.278 VHL  6.579 DLA  23.62 RAL 231.65 RAD 6568.6 VEL 12.831 PTH   2.34 VHP  6.592 DPA -59.77 RAP 176.16 ECC 1.7122
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 18 57	3253.03	-25.32	114.44	115.95	76.89	23 13 10	2653.0	-26.88	106.11
90.00	17 33 50	4203.48	.15	172.17	106.19	61.68	18 43 54	3603.5	-3.64	165.54
100.00	0 3 5	2929.99	-27.63	91.24	116.53	78.11	0 51 55	2330.0	-28.99	82.70
100.00	18 36 20	4001.75	2.21	156.20	105.04	60.18	19 43 2	3401.7	-1.77	149.68
110.00	1 49 1	2598.56	-33.12	67.24	117.70	81.01	2 32 20	1998.6	-34.01	58.11
110.00	19 6 53	3905.95	6.97	146.00	102.10	56.45	20 11 59	3305.9	2.51	139.75

DIFFERENTIAL CORRECTIONS

```
TDE 2.3550 TRA -.9574 TC3-1.0014 BAU  .6375
RDE  .4255 RRA  .1485 RC3 -.4597 FAU .04063
FDE 1.6558 FRA  .0239 FC3 -.8127 BSP   8050
BDE 2.3931 BRA  .9688 BC3 1.1019 FSP   -521
```

MID-COURSE EXECUTION ACCURACY

```
SGT 2602.1 SGR  723.3 SG3  155.1
RRT  .7590 RRF  .9121 RTF  .9302
SGB 2700.8 RZS  .2811 RIS  .9415
SG1 2661.2 SG2  460.4 THA  12.29
```

ORBIT DETERMINATION ACCURACY

```
ST  2069.5 SR   373.4 SS   821.6
CRT  .9695 CRS -.9937 CST -.9906
LSA 2253.7 MSA  133.7 SSA    7.0
EL1 2101.0 EL2   90.2 ALF    9.94
```

LAUNCH DATE OCT 4 1970 FLIGHT TIME 114.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 338.704

```
RL  149.65 LAL    .00 LOL  10.36 VL  27.898 GAL  -9.61 AZL  79.61 HCA 160.92 SMA 133.33 ECC .20598 INC10.3912 V1  29.775
RP  107.65 LAP   3.38 LOP 171.56 VP  38.344 GAP   4.27 AZP  99.83 TAL 224.53 TAP  25.44 RCA 105.87 APO 160.80 V2  35.202
RC 106.624 GL   44.97 GP  -59.79 ZAL 126.33 ZAP 111.63 ETS 312.39 ZAE 107.96 ETE 218.59 ZAC  38.53 ETC 247.72 CLP-137.10
```

PLANETOCENTRIC CONIC

```
C3  49.289 VHL  7.021 DLA  27.04 RAL 234.81 RAD 6568.8 VEL 13.063 PTH   2.38 VHP  7.324 DPA -61.85 RAP 169.62 ECC 1.8112
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	21 23 38	3517.23	-20.09	132.01	120.75	69.62	22 22 13	2917.2	-22.69	124.30
90.00	18 54 27	4004.52	-6.23	161.04	114.43	62.32	20 1 12	3404.5	-9.89	154.27
100.00	23 19 38	3143.16	-23.78	105.89	122.16	71.33	24 12 1	2543.2	-26.11	97.87
100.00	19 41 6	3853.82	-2.80	148.09	112.54	60.23	20 45 20	3253.8	-6.74	141.52
110.00	1 27 12	2756.26	-30.83	78.96	124.60	74.44	2 13 9	2156.3	-32.65	70.21
110.00	19 53 57	3813.49	3.46	141.14	108.65	55.97	20 57 30	3213.5	-1.03	134.93

DIFFERENTIAL CORRECTIONS

```
TDE 2.8236 TRA -.8878 TC3 -.9012 BAU  .6396
RDE  .3891 RRA  .2543 RC3 -.3605 FAU .03283
FDE 1.5827 FRA  .0919 FC3 -.5766 BSP   8444
BDE 2.8503 BRA  .9235 BC3  .9707 FSP   -446
```

MID-COURSE EXECUTION ACCURACY

```
SGT 2751.9 SGR  641.3 SG3  131.9
RRT  .6701 RRF  .8574 RTF  .9360
SGB 2825.7 RZS  .2847 RIS  .9440
SG1 2786.3 SG2  470.2 THA   9.14
```

ORBIT DETERMINATION ACCURACY

```
ST  2317.5 SR   325.5 SS   817.7
CRT  .9482 CRS -.9803 CST -.9922
LSA 2475.2 MSA  137.6 SSA    5.6
EL1 2338.0 EL2  102.5 ALF    7.60
```

LAUNCH DATE OCT 4 1970 FLIGHT TIME 116.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 344.726

```
RL  149.65 LAL    .00 LOL  10.36 VL  27.839 GAL  -9.39 AZL  77.65 HCA 164.10 SMA 132.89 ECC .20517 INC12.3458 V1  29.775
RP  107.68 LAP   3.36 LOP 174.81 VP  38.293 GAP   4.56 AZP 101.89 TAL 223.28 TAP  27.38 RCA 105.62 APO 160.15 V2  35.193
RC 108.906 GL   49.59 GP  -64.22 ZAL 121.62 ZAP 110.13 ETS 305.46 ZAE 103.55 ETE 215.08 ZAC  34.04 ETC 244.75 CLP-142.32
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PLANETOCENTRIC CONIC

```
C3  59.482 VHL  7.712 DLA  30.79 RAL 238.63 RAD 6569.1 VEL 13.448 PTH   2.46 VHP  8.374 DPA -63.67 RAP 160.56 ECC 1.9789
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
77.37	18 43 29	4131.44	-13.28	174.14	125.31	61.96	19 52 20	3531.4	-16.93	167.18
102.63	22 5 1	3483.16	-13.27	126.31	125.30	61.96	23 3 4	2883.2	-16.92	119.36
77.37	18 43 29	4131.44	-13.28	174.14	125.31	61.96	19 52 20	3531.4	-16.93	167.18
102.63	22 5 1	3483.16	-13.27	126.31	125.30	61.96	23 3 4	2883.2	-16.92	119.36
110.00	0 52 9	2973.74	-25.89	93.93	131.69	66.86	1 41 42	2373.7	-28.79	85.95
110.00	20 59 27	3688.86	-1.30	134.63	118.04	55.84	22 0 56	3088.9	-5.77	128.40

DIFFERENTIAL CORRECTIONS

```
TDE 3.4667 TRA -.7619 TC3 -.7480 BAU  .6256
RDE  .2403 RRA  .3905 RC3 -.2438 FAU .02516
FDE 1.5097 FRA  .1486 FC3 -.3663 BSP   8852
BDE 3.4750 BRA  .8562 BC3  .7867 FSP   -374
```

MID-COURSE EXECUTION ACCURACY

```
SGT 2897.9 SGR  536.1 SG3  109.1
RRT  .4320 RRF  .6740 RTF  .9446
SGB 2947.1 RZS  .2819 RIS  .9485
SG1 2907.4 SG2  481.9 THA   4.70
```

ORBIT DETERMINATION ACCURACY

```
ST  2583.2 SR   205.6 SS   812.0
CRT  .8287 CRS -.8855 CST -.9938
LSA 2711.9 MSA  141.9 SSA    4.3
EL1 2588.9 EL2  114.8 ALF    3.78
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LAUNCH DATE  OCT  4 1970                          FLIGHT TIME 126.00                          ARRIVAL DATE  FEB  7 1971

 HELIOCENTRIC CONIC                                DISTANCE 377.766
  RL  149.65 LAL     .00 LOL  10.36 VL  27.531 GAL  -8.83 AZL 168.51 HCA 183.15 SHA 130.66 ECC .21020 INC78.5108 V1  29.775
  RP  107.84 LAP    3.09 LOP 190.99 VP  38.022 GAP   6.82 AZP  11.50 TAL 218.08 TAP  41.23 RCA 103.20 APO 158.12 V2  35.141
  RC 120.271 GL  -47.26 GP   52.18 ZAL  95.89 ZAP  95.26 ETS 178.02 ZAE  57.93 ETE 253.23 ZAC 129.77 ETC 269.83 CLP  98.59
 PLANETOCENTRIC CONIC
  C31317.666 VHL 36.300 DLA -70.68 RAL 273.39 RAD 6573.1 VEL 37.933 PTH   3.54 VHP 47.049 DPA  75.27 RAP 128.73 ECC22.6854
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     22.07     5 29 16   2450.84      -1.11      78.72     183.77     160.68    6 10  7     1850.8       6.44      76.48
    157.93    16  0 32    693.20      -1.10     287.83     183.79     160.68   16 12  5       93.2       6.44     285.60
     22.07     5 29 16   2450.84      -1.11      78.72     183.77     160.68    6 10  7     1850.8       6.44      76.48
    157.93    16  0 32    693.20      -1.10     287.83     183.79     160.68   16 12  5       93.2       6.44     285.60
     22.07     5 29 16   2450.84      -1.11      78.72     183.77     160.68    6 10  7     1850.8       6.44      76.48
    157.93    16  0 32    693.20      -1.10     287.83     183.79     160.68   16 12  5       93.2       6.44     285.60
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
  TDE 5.8865 TRA  .2779 TC3 -.0885 BAU 3.5531      SGT 1157.3 SGR 2572.5 SG3   48.2       ST   930.2 SR  1962.0 SS  1778.0
  RD-12.4019 RRA 2.1518 RC3  .1813 FAU-.05563      RRT -.8640 RRF  .9991 RTF -.8516       CRT -.9803 CRS-1.0000 CST  .9793
  FDE-2.7347 FRA  .4901 FC3  .0366 BSP   8230      SGB 2812.7 RZ3 -.0998 R13  .9943       LSA 2814.9 NSA  175.9 SSA    2.2
  BDE13.7280 BRA 2.1606 BC3  .2017 FSP   -148      SG1 2761.6 SG2  533.4 THA 111.76       EL1 2183.1 EL2  166.8 ALF 114.86

LAUNCH DATE  OCT  4 1970                          FLIGHT TIME 128.00                          ARRIVAL DATE  FEB  9 1971

 HELIOCENTRIC CONIC                                DISTANCE 382.225
  RL  149.65 LAL     .00 LOL  10.36 VL  27.468 GAL  -8.26 AZL 127.96 HCA 184.89 SHA 130.22 ECC .20604 INC37.9559 V1  29.775
  RP  107.87 LAP    3.00 LOP 194.21 VP  37.965 GAP   6.65 AZP  52.15 TAL 215.95 TAP  40.84 RCA 103.39 APO 157.05 V2  35.130
  RC 122.531 GL  -61.65 GP   73.01 ZAL 100.46 ZAP  99.62 ETS 152.75 ZAE  81.75 ETE 250.44 ZAC 152.61 ETC 255.68 CLP 124.87
 PLANETOCENTRIC CONIC
  C3 360.938 VHL 18.996 DLA -82.80 RAL 217.28 RAD 6572.0 VEL 21.960 PTH   3.23 VHP 25.047 DPA  73.91 RAP 233.41 ECC 6.9401
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      8.18     1 17 34   2309.92       4.55      84.99     126.69     172.78    1 57 24     1789.9      12.48      84.39
    171.82    12 44 35   5873.00       4.55     258.24     126.72     172.78   14 22 28     5273.0      12.49     257.64
      8.18     1 17 34   2309.92       4.55      84.99     126.69     172.78    1 57 24     1789.9      12.48      84.39
    171.82    12 44 35   5873.00       4.55     258.24     126.72     172.78   14 22 28     5273.0      12.49     257.64
      8.18     1 17 34   2309.92       4.55      84.99     126.69     172.78    1 57 24     1789.9      12.48      84.39
    171.82    12 44 36   5873.00       4.55     258.24     126.72     172.78   14 22 28     5273.0      12.49     257.64
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
  TDE-1.8023 TRA  .0350 TC3 -.0145 BAU  .5526      SGT  552.8 SGR 3300.8 SG3   55.5       ST   544.1 SR  2644.6 SS  1187.0
  RDE-8.4974 RRA -.9041 RC3  .1136 FAU-.00469      RRT  .6327 RRF  .9995 RTF  .7361       CRT  .9565 CRS -.9983 CST -.9720
  FDE-1.7858 FRA -.1439 FC3  .0112 BSP  10647      SGB 3434.6 RZ3 -.1292 R13  .9912       LSA 2944.8 NSA  164.1 SSA    1.1
  BDE 8.6865 BRA  .9048 BC3  .1145 FSP   -179      SG1 3408.1 SG2  425.8 THA  84.02       EL1 2695.5 EL2  155.8 ALF  78.83

LAUNCH DATE  OCT  4 1970                          FLIGHT TIME 130.00                          ARRIVAL DATE  FEB 11 1971

 HELIOCENTRIC CONIC                                DISTANCE 387.716
  RL  149.65 LAL     .00 LOL  10.36 VL  27.405 GAL  -7.90 AZL 112.40 HCA 187.65 SHA 129.78 ECC .20468 INC22.4028 V1  29.775
  RP  107.91 LAP    2.91 LOP 197.44 VP  37.909 GAP   6.77 AZP  67.78 TAL 214.29 TAP  41.94 RCA 103.21 APO 156.34 V2  35.118
  RC 124.786 GL  -61.13 GP   74.25 ZAL 106.06 ZAP 105.52 ETS  94.31 ZAE  94.06 ETE 173.38 ZAC 160.79 ETC 221.96 CLP 170.40
 PLANETOCENTRIC CONIC
  C3 139.567 VHL 11.814 DLA -77.98 RAL 195.12 RAD 6570.5 VEL 16.152 PTH   2.84 VHP 15.890 DPA  61.07 RAP 243.87 ECC 3.2969
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     13.69    23 55 58   2245.67      13.64      80.52     102.15     167.62   24 33 24     1645.7      21.45      79.10
    166.31    11  5 27   5741.92      13.65     259.09     102.17     167.62   12 41  9     5141.9      21.45     257.67
     13.69    23 55 58   2245.67      13.64      80.52     102.15     167.62   24 33 24     1645.7      21.45      79.10
    166.31    11  5 27   5741.92      13.65     259.09     102.17     167.62   12 41  9     5141.9      21.45     257.67
     13.69    23 55 58   2245.67      13.64      80.52     102.15     167.62   24 33 24     1645.7      21.45      79.10
    166.31    11  5 27   5741.92      13.65     259.09     102.17     167.62   12 41  9     5141.9      21.45     257.67
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
  TDE-3.2075 TRA-1.2450 TC3 -.1875 BAU  .3540      SGT 3319.6 SGR 1470.0 SG3   68.3       ST  1782.3 SR   468.3 SS   657.9
  RDE -.3437 RRA -.6265 RC3 -.0294 FAU .01131      RRT  .9261 RRF  .8710 RTF  .9909       CRT  .7667 CRS -.6984 CST -.9949
  FDE -.9064 FRA -.2729 FC3 -.0702 BSP  11174      SGB 3630.5 RZ3 -.1825 R13  .9817       LSA 1932.6 NSA  306.0 SSA    1.7
  BDE 3.2259 BRA 1.3937 BC3  .1897 FSP   -222      SG1 3594.2 SG2  512.2 THA  22.79       EL1 1819.1 EL2  294.6 ALF  11.70

LAUNCH DATE  OCT  4 1970                          FLIGHT TIME 132.00                          ARRIVAL DATE  FEB 13 1971

 HELIOCENTRIC CONIC                                DISTANCE 393.452
  RL  149.65 LAL     .00 LOL  10.36 VL  27.342 GAL  -7.59 AZL 105.33 HCA 190.68 SHA 129.34 ECC .20408 INC15.3260 V1  29.775
  RP  107.95 LAP    2.81 LOP 200.66 VP  37.852 GAP   6.96 AZP  74.93 TAL 212.72 TAP  43.40 RCA 102.95 APO 155.74 V2  35.105
  RC 127.036 GL  -56.27 GP   67.95 ZAL 111.18 ZAP 111.64 ETS  71.31 ZAE 101.97 ETE 152.36 ZAC 160.83 ETC 226.61 CLP-169.24
 PLANETOCENTRIC CONIC
  C3  74.190 VHL  8.613 DLA -72.53 RAL 201.34 RAD 6569.4 VEL 13.984 PTH   2.55 VHP 11.840 DPA  51.30 RAP 244.76 ECC 2.2210
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     19.94     0 37 20   2100.10      21.94      73.64     104.04     161.12    1 12 20     1500.1      29.48      71.09
    160.06    11 17 36   5620.06      21.94     258.45     104.07     161.12   12 51 16     5020.1      29.49     255.91
     19.94     0 37 20   2100.10      21.94      73.64     104.04     161.12    1 12 20     1500.1      29.48      71.09
    160.06    11 17 36   5620.06      21.94     258.45     104.07     161.12   12 51 16     5020.1      29.49     255.91
     19.94     0 37 20   2100.10      21.94      73.64     104.04     161.12    1 12 20     1500.1      29.48      71.09
    160.06    11 17 36   5620.06      21.94     258.45     104.07     161.12   12 51 16     5020.1      29.49     255.91
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
  TDE-2.4744 TRA-1.4292 TC3 -.6332 BAU  .6305      SGT 3724.9 SGR  499.8 SG3   86.4       ST  1899.5 SR   417.9 SS   650.5
  RDE  .6184 RRA -.1214 RC3  .0560 FAU .02044      RRT  .0373 RRF -.2040 RTF  .9671       CRT -.7540 CRS  .8660 CST -.9814
  FDE -.9045 FRA -.3092 FC3 -.2386 BSP  11646      SGB 3758.2 RZ3 -.2409 R13  .9669       LSA 2030.2 NSA  289.9 SSA    2.5
  BDE 2.5501 BRA 1.4303 BC3  .6357 FSP   -284      SG1 3724.9 SG2  499.4 THA   .29       EL1 1926.0 EL2  270.7 ALF 170.39
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LAUNCH DATE  OCT  4 1970                          FLIGHT TIME 118.00                          ARRIVAL DATE  JAN 30 1971

  HELIOCENTRIC CONIC                                  DISTANCE 350.702
   RL  149.65 LAL     .00 LOL  10.36 VL  27.779 GAL  -9.15 AZL  74.76 HCA 167.25 SMA 132.45 ECC .20435 INC15.2418 V1  29.775
   RP  107.71 LAP    3.32 LOP 178.05 VP  38.240 GAP   4.84 AZP 104.88 TAL 221.98 TAP  29.23 RCA 105.38 APO 159.51 V2  35.184
   RC 111.186 GL    54.55 GP  -69.35 ZAL 116.30 ZAP 107.80 ETS 295.88 ZAE  98.32 ETE 208.90 ZAC  28.61 ETC 239.55 CLP-150.09
  PLANETOCENTRIC CONIC
   C3  78.323 VHL  8.850 DLA  34.70 RAL 243.36 RAD 6569.5 VEL 14.131 PTH   2.58 VHP  9.989 DPA -64.59 RAP 148.27 ECC 2.2890
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      69.05    18  7 57   4365.60     -12.43     191.57     134.81      57.34   19 20 42     3765.6     -16.65     184.96
     110.95    23 18 17   3379.68     -12.42     117.88     134.80      57.33   24 14 37     2779.7     -16.64     111.28
      69.05    18  7 57   4365.60     -12.43     191.57     134.81      57.34   19 20 42     3765.6     -16.65     184.96
     110.95    23 18 17   3379.68     -12.42     117.88     134.80      57.33   24 14 37     2779.7     -16.64     111.28
      69.05    18  7 57   4365.60     -12.43     191.57     134.81      57.34   19 20 42     3765.6     -16.65     184.96
     110.95    23 18 17   3379.68     -12.42     117.88     134.80      57.33   24 14 37     2779.7     -16.64     111.28
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
   TDE 4.3788 TRA -.5186 TC3 -.5394 BAU  .5780      SGT 3019.1 SGR  513.0 SG3   87.6      ST  2837.7 SR   195.6 SS   813.1
   RDE -.2197 RRA  .5678 RC3 -.1171 FAU .01763      RRT -.2505 RRF  .0148 RTF  .9577      CRT -.7557 CRS  .6917 CST -.9957
   FDE 1.4533 FRA  .1988 FC3 -.1949 BSP   9221      SGB 3062.4 RZS -.2699 RIS -.9558      LSA 2954.6 MSA  148.0 SSA    3.2
   BDE 4.3843 BRA  .7690 BC3  .5520 FSP   -302      SG1 3021.9 SG2  496.2 THA 177.50      EL1 2841.5 EL2  127.9 ALF 177.01

LAUNCH DATE  OCT  4 1970                          FLIGHT TIME 120.00                          ARRIVAL DATE  FEB  1 1971

  HELIOCENTRIC CONIC                                  DISTANCE 356.607
   RL  149.65 LAL     .00 LOL  10.36 VL  27.717 GAL  -8.90 AZL  70.02 HCA 170.36 SMA 132.00 ECC .20347 INC19.9791 V1  29.775
   RP  107.74 LAP    3.28 LOP 181.28 VP  38.187 GAP   5.09 AZP 109.72 TAL 220.61 TAP  30.97 RCA 105.14 APO 158.86 V2  35.174
   RC 113.462 GL    59.38 GP  -74.92 ZAL 110.41 ZAP 104.60 ETS 279.55 ZAE  91.81 ETE 195.76 ZAC  21.94 ETC 229.22 CLP-165.61
  PLANETOCENTRIC CONIC
   C3 118.199 VHL 10.872 DLA  38.27 RAL 249.39 RAD 6570.2 VEL 15.477 PTH   2.76 VHP 12.727 DPA -63.45 RAP 133.17 ECC 2.9453
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      63.10    18  0  6   4549.19      -9.93     204.55     146.59      52.85   19 15 55     3949.2     -14.69     198.38
     116.90     0 18 14   3374.02      -9.91     115.64     146.58      52.84    1 14 28     2774.0     -14.67     109.48
      63.10    18  0  6   4549.19      -9.93     204.55     146.59      52.85   19 15 55     3949.2     -14.69     198.38
     116.90     0 18 14   3374.02      -9.91     115.64     146.58      52.84    1 14 28     2774.0     -14.67     109.48
      63.10    18  0  6   4549.19      -9.93     204.55     146.59      52.85   19 15 55     3949.2     -14.69     198.38
     116.90     0 18 14   3374.02      -9.91     115.64     146.58      52.84    1 14 28     2774.0     -14.67     109.48
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
   TDE 5.5732 TRA  .0107 TC3 -.2854 BAU  .4514      SGT 3002.0 SGR 1003.3 SG3   69.1      ST  2937.2 SR   886.5 SS   842.7
   RDE-1.6586 RRA  .7329 RC3 -.0117 FAU .01009      RRT -.8460 RRF -.7238 RTF  .9777      CRT -.9859 CRS  .9728 CST -.9978
   FDE 1.4510 FRA  .2531 FC3 -.0739 BSP   9517      SGB 3165.2 RZS -.2403 RIS -.9673      LSA 3177.8 MSA  156.2 SSA    2.1
   BDE 5.8148 BRA  .7330 BC3  .2856 FSP   -237      SG1 3123.2 SG2  514.3 THA 163.76      EL1 3064.7 EL2  142.2 ALF 163.39

LAUNCH DATE  OCT  4 1970                          FLIGHT TIME 122.00                          ARRIVAL DATE  FEB  3 1971

  HELIOCENTRIC CONIC                                  DISTANCE 362.366
   RL  149.65 LAL     .00 LOL  10.36 VL  27.656 GAL  -8.62 AZL  61.00 HCA 173.33 SMA 131.55 ECC .20234 INC29.0036 V1  29.775
   RP  107.77 LAP    3.23 LOP 184.52 VP  38.133 GAP   5.30 AZP 118.84 TAL 219.15 TAP  32.48 RCA 104.93 APO 158.17 V2  35.164
   RC 115.736 GL    62.51 GP  -78.24 ZAL 104.12 ZAP 100.62 ETS 245.91 ZAE  82.89 ETE 164.99 ZAC  13.60 ETC 210.68 CLP 154.76
  PLANETOCENTRIC CONIC
   C3 223.359 VHL 14.945 DLA  40.02 RAL 257.21 RAD 6571.3 VEL 18.565 PTH   3.05 VHP 18.079 DPA -58.38 RAP 118.06 ECC 4.6759
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      60.45    18 18 40   4695.43      -5.56     213.27     160.58      50.30   19 36 55     4095.4     -10.63     207.43
     119.55     1  2  3   3448.10      -5.54     118.33     160.56      50.30    1 59 31     2848.1     -10.61     112.49
      60.45    18 18 40   4695.43      -5.56     213.27     160.58      50.30   19 36 55     4095.4     -10.63     207.43
     119.55     1  2  3   3448.10      -5.54     118.33     160.56      50.30    1 59 31     2848.1     -10.61     112.49
      60.45    18 18 40   4695.43      -5.56     213.27     160.58      50.30   19 36 55     4095.4     -10.63     207.43
     119.55     1  2  3   3448.10      -5.54     118.33     160.56      50.30    1 59 31     2848.1     -10.61     112.49
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
   TDE 5.7448 TRA 1.1365 TC3 -.0479 BAU  .1574      SGT 2279.2 SGR 2293.2 SG3   55.3      ST  2209.0 SR  2288.5 SS   963.5
   RDE-5.9684 RRA  .2736 RC3 -.0220 FAU .00096      RRT -.9475 RRF -.9409 RTF  .9985      CRT -.9955 CRS  .9945 CST-1.0000
   FDE 1.6028 FRA  .3565 FC3 -.0037 BSP   9701      SGB 3233.2 RZS -.1788 RIS -.9825      LSA 3319.5 MSA  160.9 SSA    1.5
   BDE 8.2840 BRA 1.1690 BC3  .0527 FSP   -186      SG1 3190.4 SG2  524.0 THA 134.81      EL1 3177.1 EL2  151.5 ALF 133.98

LAUNCH DATE  OCT  4 1970                          FLIGHT TIME 124.00                          ARRIVAL DATE  FEB  5 1971

  HELIOCENTRIC CONIC                                  DISTANCE 367.696
   RL  149.65 LAL     .00 LOL  10.36 VL  27.594 GAL  -8.24 AZL  39.42 HCA 175.90 SMA 131.10 ECC .20030 INC50.5791 V1  29.775
   RP  107.80 LAP    3.16 LOP 187.75 VP  38.077 GAP   5.39 AZP 140.51 TAL 217.43 TAP  33.33 RCA 104.84 APO 157.37 V2  35.153
   RC 118.005 GL    58.55 GP  -69.13 ZAL  98.03 ZAP  96.30 ETS 203.54 ZAE  67.83 ETE 125.49 ZAC  10.38 ETC 246.94 CLP 107.95
  PLANETOCENTRIC CONIC
   C3 611.480 VHL 24.728 DLA  35.17 RAL 266.70 RAD 6572.6 VEL 27.070 PTH   3.39 VHP 30.745 DPA -45.29 RAP 107.17 ECC11.0634
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      68.21    19 36 14   4684.47      -.86     208.78     175.49      54.84   20 54 19     4084.5     -5.45      202.64
     111.79     1  0  8   3669.49      -.85     132.80     175.48      54.84    2  1 18     3069.5     -5.44      126.66
      68.21    19 36 14   4684.47      -.86     208.78     175.49      54.84   20 54 19     4084.5     -5.45      202.64
     111.79     1  0  8   3669.49      -.85     132.80     175.48      54.84    2  1 18     3069.5     -5.44      126.66
      68.21    19 36 14   4684.47      -.86     208.78     175.49      54.84   20 54 19     4084.5     -5.45      202.64
     111.79     1  0  8   3669.49      -.85     132.80     175.48      54.84    2  1 18     3069.5     -5.44      126.66
  DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
   TDE  .6598 TRA 1.9091 TC3 -.0214 BAU 1.3562      SGT  572.2 SGR 3103.1 SG3   48.0      ST   223.0 SR  2910.8 SS  1332.8
   RD-12.5280 RRA-2.6024 RC3 -.1645 FAU-.02018      RRT -.4261 RRF -.9914 RTF  .5352      CRT -.7387 CRS  .9990 CST -.7680
   FDE 2.1496 FRA  .7103 FC3  .0286 BSP   9308      SGB 3155.5 RZS -.1113 RIS -.9930      LSA 3205.3 MSA  158.3 SSA    1.6
   BDE12.5434 BRA 3.2276 BC3  .1659 FSP   -153      SG1 3113.0 SG2  516.0 THA  94.62      EL1 2915.5 EL2  150.1 ALF  93.25
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LAUNCH DATE OCT 4 1970 FLIGHT TIME 134.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 399.265

RL 149.65 LAL .00 LOL 10.36 VL 27.280 GAL -7.28 AZL 101.38 HCA 193.79 SMA 128.91 ECC .20378 INC11.3804 V1 29.775
RP 107.99 LAP 2.70 LOP 203.88 VP 37.795 GAP 7.17 AZP 78.94 TAL 211.18 TAP 44.97 RCA 102.64 APO 155.18 V2 35.093
RC 129.278 GL -50.57 GP 61.03 ZAL 115.35 ZAP 117.49 ETS 63.94 ZAE 107.81 ETE 147.60 ZAC 157.14 ETC 237.59 CLP-162.37

PLANETOCENTRIC CONIC

C3 47.789 VHL 6.913 DLA -67.35 RAL 209.01 RAD 6568.8 VEL 13.006 PTH 2.37 VHP 9.733 DPA 43.14 RAP 244.67 ECC 1.7865

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
25.94	1 20 49	1976.87	27.78	65.50	106.29	154.20	1 53 46	1376.9	34.92	61.68
154.06	11 35 17	5529.43	27.79	256.64	106.31	154.19	13 7 26	4929.4	34.93	252.82
25.94	1 20 49	1976.87	27.78	65.50	106.29	154.20	1 53 46	1376.9	34.92	61.68
154.06	11 35 17	5529.43	27.79	256.64	106.31	154.19	13 7 26	4929.4	34.93	252.82
25.94	1 20 49	1976.87	27.78	65.50	106.29	154.20	1 53 46	1376.9	34.92	61.68
154.06	11 35 17	5529.43	27.79	256.64	106.31	154.19	13 7 26	4929.4	34.93	252.82

DIFFERENTIAL CORRECTIONS
TDE-2.1185 TRA-1.3626 TC3-1.1519 BAU .7449
RDE .6536 RRA -.0015 RC3 .1799 FAU .02711
FDE -.9193 FRA -.2900 FC3 -.4911 BSP 11588
BDE 2.2170 BRA 1.3626 BC3 1.1659 FSP -331

MID-COURSE EXECUTION ACCURACY
SGT 3770.8 SGR 596.1 SG3 104.2
RRT -.5950 RRF -.8059 RTF .9464
SGB 3017.6 RZS .2906 R13 -.9500
SG1 3787.7 SG2 476.9 THA 174.54

ORBIT DETERMINATION ACCURACY
ST 1964.5 SR 541.8 SS 661.2
CRT -.8932 CRS .9689 CST -.9767
LSA 2126.1 MSA 263.8 SSA 3.4
EL1 2024.1 EL2 236.4 ALF 165.97

LAUNCH DATE OCT 4 1970 FLIGHT TIME 136.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 405.103

RL 149.65 LAL .00 LOL 10.36 VL 27.217 GAL -6.98 AZL 98.87 HCA 196.94 SMA 128.49 ECC .20369 INC 8.8737 V1 29.775
RP 108.03 LAP 2.58 LOP 207.10 VP 37.738 GAP 7.39 AZP 81.51 TAL 209.64 TAP 46.57 RCA 102.31 APO 154.66 V2 35.080
RC 131.513 GL -45.00 GP 54.68 ZAL 118.46 ZAP 122.88 ETS 60.50 ZAE 112.30 ETE 147.22 ZAC 152.47 ETC 244.77 CLP-159.89

PLANETOCENTRIC CONIC

C3 34.734 VHL 5.894 DLA -62.53 RAL 215.64 RAD 6568.4 VEL 12.494 PTH 2.26 VHP 8.521 DPA 36.12 RAP 244.67 ECC 1.5716

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.60	2 0 20	1876.06	31.27	56.94	107.22	147.34	2 31 37	1276.1	37.90	51.90
148.40	11 48 40	5469.38	31.28	254.46	107.23	147.33	13 19 50	4869.4	37.90	249.41
31.60	2 0 20	1876.06	31.27	56.94	107.22	147.34	2 31 37	1276.1	37.90	51.90
148.40	11 48 40	5469.38	31.28	254.46	107.23	147.33	13 19 50	4869.4	37.90	249.41
31.60	2 0 20	1876.06	31.27	56.94	107.22	147.34	2 31 37	1276.1	37.90	51.90
148.40	11 48 40	5469.38	31.28	254.46	107.23	147.33	13 19 50	4869.4	37.90	249.41

DIFFERENTIAL CORRECTIONS
TDE-1.8783 TRA-1.2984 TC3-1.7390 BAU .8191
RDE .5799 RRA .0259 RC3 .2956 FAU .03294
FDE -.9041 FRA -.2753 FC3 -.8211 BSP 12122
BDE 1.9639 BRA 1.2997 BC3 1.7639 FSP -401

MID-COURSE EXECUTION ACCURACY
SGT 3876.8 SGR 665.0 SG3 123.6
RRT -.7339 RRF -.9088 RTF .9335
SGB 3933.4 RZS .3156 R13 -.9382
SG1 3907.8 SG2 448.1 THA 172.73

ORBIT DETERMINATION ACCURACY
ST 2001.5 SR 564.1 SS 660.0
CRT -.9233 CRS .9861 CST -.9742
LSA 2168.0 MSA 244.4 SSA 4.5
EL1 2068.9 EL2 209.6 ALF 165.26

LAUNCH DATE OCT 4 1970 FLIGHT TIME 138.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 410.948

RL 149.65 LAL .00 LOL 10.36 VL 27.155 GAL -6.67 AZL 97.14 HCA 200.10 SMA 128.06 ECC .20375 INC 7.1371 V1 29.775
RP 108.07 LAP 2.45 LOP 210.32 VP 37.681 GAP 7.61 AZP 83.29 TAL 208.08 TAP 48.19 RCA 101.97 APO 154.16 V2 35.067
RC 133.740 GL -39.86 GP 49.09 ZAL 120.53 ZAP 127.72 ETS 58.39 ZAE 115.77 ETE 148.37 ZAC 147.90 ETC 249.24 CLP-159.11

PLANETOCENTRIC CONIC

C3 27.338 VHL 5.229 DLA -58.16 RAL 221.31 RAD 6568.1 VEL 12.195 PTH 2.19 VHP 7.781 DPA 30.02 RAP 244.94 ECC 1.4499

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.81	2 36 1	1792.18	33.02	48.62	107.49	141.01	3 5 53	1192.2	39.07	42.57
143.19	11 58 14	5433.08	33.03	252.49	107.51	141.01	13 28 47	4833.1	39.09	246.43
36.81	2 36 1	1792.18	33.02	48.62	107.49	141.01	3 5 53	1192.2	39.07	42.57
143.19	11 58 14	5433.08	33.03	252.49	107.51	141.01	13 28 47	4833.1	39.09	246.43
36.81	2 36 1	1792.18	33.02	48.62	107.49	141.01	3 5 53	1192.2	39.07	42.57
143.19	11 58 14	5433.08	33.03	252.49	107.51	141.01	13 28 47	4833.1	39.09	246.43

DIFFERENTIAL CORRECTIONS
TDE-1.6712 TRA-1.2249 TC3-2.3431 BAU .8678
RDE .4962 RRA .0231 RC3 .3835 FAU .03734
FDE -.8525 FRA -.2314 FC3-1.1825 BSP 12543
BDE 1.7433 BRA 1.2251 BC3 2.3743 FSP -459

MID-COURSE EXECUTION ACCURACY
SGT 3978.9 SGR 677.3 SG3 140.2
RRT -.7794 RRF -.9344 RTF .9237
SGB 4036.1 RZS .3292 R13 -.9284
SG1 4014.2 SG2 420.6 THA 172.36

ORBIT DETERMINATION ACCURACY
ST 1985.4 SR 544.1 SS 636.0
CRT -.9329 CRS .9919 CST -.9710
LSA 2142.2 MSA 230.8 SSA 5.8
EL1 2049.9 EL2 189.9 ALF 165.53

LAUNCH DATE OCT 4 1970 FLIGHT TIME 140.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 416.792

RL 149.65 LAL .00 LOL 10.36 VL 27.092 GAL -6.36 AZL 95.86 HCA 203.28 SMA 127.65 ECC .20395 INC 5.8580 V1 29.775
RP 108.11 LAP 2.31 LOP 213.53 VP 37.624 GAP 7.84 AZP 84.62 TAL 206.52 TAP 49.80 RCA 101.62 APO 153.68 V2 35.054
RC 135.957 GL -35.21 GP 44.25 ZAL 121.65 ZAP 132.01 ETS 56.84 ZAE 118.47 ETE 150.10 ZAC 143.77 ETC 252.19 CLP-159.11

PLANETOCENTRIC CONIC

C3 22.723 VHL 4.767 DLA -54.25 RAL 226.31 RAD 6567.9 VEL 12.004 PTH 2.14 VHP 7.314 DPA 24.72 RAP 245.50 ECC 1.3740

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.58	3 9 3	1719.85	33.60	40.87	107.71	135.45	3 37 43	1119.8	39.10	34.06
138.42	12 5 5	5414.39	33.62	251.07	107.73	135.45	13 35 20	4814.4	39.11	244.26
41.58	3 9 3	1719.85	33.60	40.87	107.71	135.45	3 37 43	1119.8	39.10	34.06
138.42	12 5 5	5414.39	33.62	251.07	107.73	135.45	13 35 20	4814.4	39.11	244.26
41.58	3 9 3	1719.85	33.60	40.87	107.71	135.45	3 37 43	1119.8	39.10	34.06
138.42	12 5 5	5414.39	33.62	251.07	107.73	135.45	13 35 20	4814.4	39.11	244.26

DIFFERENTIAL CORRECTIONS
TDE-1.4922 TRA-1.1417 TC3-2.9392 BAU .9029
RDE .4244 RRA .0112 RC3 .4428 FAU .04034
FDE -.7770 FRA -.1725 FC3-1.5370 BSP 12847
BDE 1.5514 BRA 1.1417 BC3 2.9723 FSP -502

MID-COURSE EXECUTION ACCURACY
SGT 4072.6 SGR 682.5 SG3 153.2
RRT -.7975 RRF -.9388 RTF .9158
SGB 4126.1 RZS .3339 R13 -.9201
SG1 4107.0 SG2 396.4 THA 172.54

ORBIT DETERMINATION ACCURACY
ST 1928.9 SR 510.3 SS 594.7
CRT -.9355 CRS .9948 CST -.9662
LSA 2070.3 MSA 220.8 SSA 7.4
EL1 1987.6 EL2 175.0 ALF 165.99

LAUNCH DATE OCT 4 1970 FLIGHT TIME 142.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 422.631

```
RL  149.65 LAL    .00 LOL  10.36 VL  27.031 GAL  -6.03 AZL  94.87 HCA 206.46 SMA 127.24 ECC .20427 INC 4.8723 V1  29.775
RP  108.15 LAP   2.17 LOP 216.74 VP  37.567 GAP   8.06 AZP  85.64 TAL 204.94 TAP  51.40 RCA 101.25 APO 153.23 V2  35.041
RC 138.166 GL  -31.02 GP   40.07 ZAL 121.94 ZAP 135.79 ETS  55.59 ZAE 120.54 ETE 152.01 ZAC 140.13 ETC 254.28 CLP-159.50
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PLANETOCENTRIC CONIC

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C3  19.629 VHL  4.430 DLA -50.76 RAL 230.87 RAD 6567.8 VEL 11.875 PTH   2.11 VHP  7.017 DPA  20.11 RAP 246.32 ECC 1.3230
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.94	3 40 21	1655.32	33.46	33.76	108.19	130.69	4 7 57	1055.3	38.44	26.44
134.06	12 10 13	5408.58	33.47	250.28	108.20	130.68	13 40 21	4808.6	38.45	242.96
45.94	3 40 21	1655.32	33.46	33.76	108.19	130.69	4 7 57	1055.3	38.44	26.44
134.06	12 10 13	5408.58	33.47	250.28	108.20	130.68	13 40 21	4808.6	38.45	242.96
45.94	3 40 21	1655.32	33.46	33.76	108.19	130.69	4 7 57	1055.3	38.44	26.44
134.06	12 10 13	5408.58	33.47	250.28	108.20	130.68	13 40 21	4808.6	38.45	242.96

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.3324 TRA-1.0485 TC3-3.5092 BAU  .9293   SGT 4151.2 SGR  634.8 SG3  162.2      ST  1841.5 SR   474.3 SS   540.3
 RDE  .3666 RRA -.0039 RC3  .4763 FAU .04200   RRT -.8016 RRF -.9329 RTF  .9082      CRT -.9349 CRS  .9968 CST -.9592
 FDE -.6863 FRA -.1016 FC3-1.8526 BSP  13014   SGB 4199.4 RZS  .3326 RIS -.9120     LSA 1965.3 MSA  213.0 SSA    9.3
 BDE 1.3819 BRA 1.0485 BC3 3.5414 FSP   -525   SG1 4182.5 SG2  376.7 THA 172.95     EL1 1894.6 EL2  163.6 ALF 166.36
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LAUNCH DATE OCT 4 1970 FLIGHT TIME 144.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 428.460

```
RL  149.65 LAL    .00 LOL  10.36 VL  26.969 GAL  -5.71 AZL  94.09 HCA 209.65 SMA 126.84 ECC .20472 INC 4.0853 V1  29.775
RP  108.19 LAP   2.02 LOP 219.94 VP  37.511 GAP   8.28 AZP  86.45 TAL 203.35 TAP  52.99 RCA 100.87 APO 152.80 V2  35.028
RC 140.364 GL  -27.24 GP   36.47 ZAL 121.52 ZAP 130.12 ETS  54.56 ZAE 122.14 ETE 153.92 ZAC 136.98 ETC 255.87 CLP-160.10
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PLANETOCENTRIC CONIC

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C3  17.442 VHL  4.176 DLA -47.63 RAL 235.16 RAD 6567.7 VEL 11.782 PTH   2.08 VHP  6.831 DPA  16.09 RAP 247.35 ECC 1.2870
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.95	4 10 45	1595.64	32.87	27.24	109.03	126.64	4 37 21	995.6	37.39	19.57
130.05	12 14 3	5412.85	32.88	250.14	109.04	126.63	13 44 15	4812.8	37.40	242.48
49.95	4 10 45	1595.64	32.87	27.24	109.03	126.64	4 37 21	995.6	37.39	19.57
130.05	12 14 3	5412.85	32.88	250.14	109.04	126.63	13 44 15	4812.8	37.40	242.48
49.95	4 10 45	1595.64	32.87	27.24	109.03	126.64	4 37 21	995.6	37.39	19.57
130.05	12 14 3	5412.85	32.88	250.14	109.04	126.63	13 44 15	4812.8	37.40	242.48

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.2041 TRA -.9631 TC3-4.0834 BAU  .9593   SGT 4266.9 SGR  615.1 SG3  170.9      ST  1756.6 SR   448.7 SS   490.4
 RDE  .3269 RRA -.0139 RC3  .5029 FAU .04329   RRT -.8070 RRF -.9231 RTF  .9057      CRT -.9352 CRS  .9982 CST -.9514
 FDE -.6042 FRA -.0388 FC3-2.1485 BSP  13499   SGB 4311.0 RZS  .3166 RIS -.9088     LSA 1866.8 MSA  206.0 SSA   11.5
 BDE 1.2477 BRA  .9632 BC3 4.1142 FSP   -561   SG1 4295.9 SG2  360.8 THA 173.32     EL1 1806.4 EL2  154.5 ALF 166.46
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LAUNCH DATE OCT 4 1970 FLIGHT TIME 146.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 434.280

```
RL  149.65 LAL    .00 LOL  10.36 VL  26.908 GAL  -5.37 AZL  93.44 HCA 212.83 SMA 126.44 ECC .20530 INC 3.4390 V1  29.775
RP  108.23 LAP   1.86 LOP 223.14 VP  37.455 GAP   8.50 AZP  87.11 TAL 201.74 TAP  54.57 RCA 100.48 APO 152.40 V2  35.014
RC 142.552 GL  -23.82 GP   33.38 ZAL 120.49 ZAP 142.06 ETS  53.71 ZAE 123.37 ETE 155.73 ZAC 134.26 ETC 257.14 CLP-160.81
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PLANETOCENTRIC CONIC

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C3  15.833 VHL  3.979 DLA -44.81 RAL 239.29 RAD 6567.6 VEL 11.714 PTH   2.06 VHP  6.720 DPA  12.58 RAP 248.58 ECC 1.2606
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.70	4 40 49	1538.80	32.01	21.17	110.27	123.21	5 6 28	938.8	36.13	13.30
126.30	12 16 54	5425.33	32.03	250.61	110.28	123.19	13 47 19	4825.3	36.14	242.74
53.70	4 40 49	1538.80	32.01	21.17	110.27	123.21	5 6 28	938.8	36.13	13.30
126.30	12 16 54	5425.33	32.03	250.61	110.28	123.19	13 47 19	4825.3	36.14	242.74
53.70	4 40 49	1538.80	32.01	21.17	110.27	123.21	5 6 28	938.8	36.13	13.30
126.30	12 16 54	5425.33	32.03	250.61	110.28	123.19	13 47 19	4825.3	36.14	242.74

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.0798 TRA -.8620 TC3-4.6086 BAU  .9815   SGT 4350.8 SGR  590.1 SG3  175.5      ST  1644.7 SR   424.6 SS   431.7
 RDE  .2945 RRA -.0259 RC3  .5113 FAU .04343   RRT -.8022 RRF -.9068 RTF  .9014      CRT -.9344 CRS  .9988 CST -.9387
 FDE -.5146 FRA  .0333 FC3-2.3748 BSP  13731   SGB 4390.6 RZS  .2997 RIS -.9040     LSA 1741.1 MSA  200.1 SSA   14.2
 BDE 1.1193 BRA  .8624 BC3 4.6368 FSP   -573   SG1 4376.6 SG2  350.2 THA 173.75     EL1 1692.3 EL2  147.0 ALF 166.33
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LAUNCH DATE OCT 4 1970 FLIGHT TIME 148.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 440.089

```
RL  149.65 LAL    .00 LOL  10.36 VL  26.848 GAL  -5.02 AZL  92.90 HCA 216.02 SMA 126.05 ECC .20601 INC 2.8959 V1  29.775
RP  108.27 LAP   1.70 LOP 226.34 VP  37.399 GAP   8.72 AZP  87.66 TAL 200.12 TAP  56.13 RCA 100.08 APO 152.02 V2  35.001
RC 144.730 GL  -20.70 GP   30.70 ZAL 118.97 ZAP 144.67 ETS  53.01 ZAE 124.33 ETE 157.40 ZAC 131.91 ETC 258.20 CLP-161.59
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PLANETOCENTRIC CONIC

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C3  14.618 VHL  3.823 DLA -42.23 RAL 243.32 RAD 6567.6 VEL 11.662 PTH   2.05 VHP  6.663 DPA   9.49 RAP 249.98 ECC 1.2406
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.26	5 11 6	1482.91	30.99	15.42	111.87	120.26	5 35 49	882.9	34.75	7.42
122.74	12 18 45	5445.39	31.00	251.67	111.88	120.25	13 49 30	4845.4	34.76	243.67
57.26	5 11 6	1482.91	30.99	15.42	111.87	120.26	5 35 49	882.9	34.75	7.42
122.74	12 18 45	5445.39	31.00	251.67	111.88	120.25	13 49 30	4845.4	34.76	243.67
57.26	5 11 6	1482.91	30.99	15.42	111.87	120.26	5 35 49	882.9	34.75	7.42
122.74	12 18 45	5445.39	31.00	251.67	111.88	120.25	13 49 30	4845.4	34.76	243.67

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.9687 TRA -.7876 TC3-5.1099 BAU 1.0037   SGT 4441.5 SGR  570.2 SG3  178.7      ST  1527.3 SR   407.1 SS   375.4
 RDE  .2712 RRA -.0363 RC3  .5142 FAU .04315   RRT -.7951 RRF -.8870 RTF  .8988      CRT -.9346 CRS  .9973 CST -.9206
 FDE -.4314 FRA  .1019 FC3-2.5552 BSP  14036   SGB 4477.9 RZS  .2770 RIS -.9010     LSA 1612.8 MSA  194.4 SSA   17.5
 BDE 1.0059 BRA  .7585 BC3 5.1357 FSP   -583   SG1 4464.7 SG2  344.0 THA 174.14     EL1 1574.4 EL2  140.5 ALF 165.90
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LAUNCH DATE OCT 4 1970 FLIGHT TIME 150.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 445.886

RL 149.65 LAL .00 LOL 10.36 VL 26.780 GAL -4.66 AZL 92.43 HCA 219.21 SMA 125.67 ECC .20686 INC 2.4303 V1 29.775
RP 108.31 LAP 1.54 LOP 229.54 VP 37.343 GAP 8.95 AZP 88.12 TAL 198.48 TAP 57.69 RCA 99.67 APO 151.66 V2 34.988
RC 146.899 GL -17.82 GP 28.38 ZAL 117.01 ZAP 147.00 ETS 52.47 ZAE 125.07 ETE 158.92 ZAC 129.88 ETC 259.14 CLP-162.41

PLANETOCENTRIC CONIC

C3 13.688 VHL 3.700 DLA -39.84 RAL 247.30 RAD 6567.5 VEL 11.622 PTH 2.04 VHP 6.644 DPA 6.78 RAP 251.51 ECC 1.2253

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ABC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.71	5 42 10	1426.22	29.86	9.81	113.82	117.71	6 5 56	826.2	33.31	1.75
119.29	12 19 26	5473.07	29.87	253.32	113.82	117.70	13 50 40	4873.1	33.32	245.26
60.71	5 42 10	1426.22	29.86	9.81	113.82	117.71	6 5 56	826.2	33.31	1.75
119.29	12 19 26	5473.07	29.87	253.32	113.82	117.70	13 50 40	4873.1	33.32	245.26
60.71	5 42 10	1426.22	29.86	9.81	113.82	117.71	6 5 56	826.2	33.31	1.75
119.29	12 19 26	5473.07	29.87	253.32	113.82	117.70	13 50 40	4873.1	33.32	245.26

DIFFERENTIAL CORRECTIONS
TDE -.0829 TRA -.0456 TC3-5.5731 BAU 1.0241
RDE .2536 RRA -.0461 RC3 .5120 FAU .04243
FDE -.3521 FRA .1801 FC3-2.6837 BSP 14306
BDE .8994 BRA .6472 BC3 5.5966 FSP -588

MID-COURSE EXECUTION ACCURACY
SGT 4526.2 SGR 553.5 SGS 180.3
RRT -.7847 RRF -.0639 RTF .8969
SGB 4560.0 RZS .2519 RIS -.8987
SGI 4547.2 SGZ 341.6 THA 174.49

ORBIT DETERMINATION ACCURACY
ST 1397.8 SR 393.8 SS 320.3
CRT -.9360 CRS .9904 CST -.0925
LSA 1474.9 MSA 188.9 SSA 21.6
ELI 1446.0 ELZ 134.0 ALF 165.10

LAUNCH DATE OCT 4 1970 FLIGHT TIME 152.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 451.670

RL 149.65 LAL .00 LOL 10.36 VL 26.729 GAL -4.30 AZL 92.02 HCA 222.39 SMA 125.29 ECC .20786 INC 2.0245 V1 29.775
RP 108.35 LAP 1.36 LOP 232.73 VP 37.289 GAP 9.17 AZP 88.50 TAL 196.83 TAP 59.22 RCA 99.25 APO 151.33 V2 34.975
RC 149.057 GL -15.15 GP 26.36 ZAL 114.70 ZAP 149.09 ETS 52.08 ZAE 125.66 ETE 160.28 ZAC 128.12 ETC 259.98 CLP-163.24

PLANETOCENTRIC CONIC

C3 12.974 VHL 3.602 DLA -37.61 RAL 251.26 RAD 6567.5 VEL 11.591 PTH 2.03 VHP 6.655 DPA 4.37 RAP 253.17 ECC 1.2135

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ABC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.14	6 14 34	1366.88	28.65	4.19	116.07	115.48	6 37 21	766.9	31.82	356.11
115.86	12 18 38	5509.16	28.66	255.63	116.08	115.47	13 50 27	4909.2	31.83	247.54
64.14	6 14 34	1366.88	28.65	4.19	116.07	115.48	6 37 21	766.9	31.82	356.11
115.86	12 18 38	5509.16	28.66	255.63	116.08	115.47	13 50 27	4909.2	31.83	247.54
64.14	6 14 34	1366.88	28.65	4.19	116.07	115.48	6 37 21	766.9	31.82	356.11
115.86	12 18 38	5509.16	28.66	255.63	116.08	115.47	13 50 27	4909.2	31.83	247.54

DIFFERENTIAL CORRECTIONS
TDE -.7628 TRA -.5283 TC3-5.9998 BAU 1.0444
RDE .2407 RRA -.0554 RC3 .5075 FAU .04147
FDE -.2787 FRA .2325 FC3-2.7676 BSP 14610
BDE .7997 BRA .5312 BC3 6.0212 FSP -591

MID-COURSE EXECUTION ACCURACY
SGT 4612.8 SGR 540.9 SGS 181.0
RRT -.7722 RRF -.0387 RTF .8961
SGB 4644.4 RZS .2250 RIS -.8976
SGI 4631.7 SGZ 342.3 THA 174.80

ORBIT DETERMINATION ACCURACY
ST 1260.9 SR 384.5 SS 289.6
CRT -.9392 CRS .9714 CST -.8477
LSA 1332.7 MSA 183.1 SSA 26.7
ELI 1312.1 ELZ 126.9 ALF 163.86

LAUNCH DATE OCT 4 1970 FLIGHT TIME 154.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 457.441

RL 149.65 LAL .00 LOL 10.36 VL 26.670 GAL -3.92 AZL 91.67 HCA 225.58 SMA 124.92 ECC .20901 INC 1.6657 V1 29.775
RP 108.39 LAP 1.19 LOP 235.92 VP 37.234 GAP 9.39 AZP 88.83 TAL 195.17 TAP 60.75 RCA 98.81 APO 151.03 V2 34.962
RC 151.205 GL -12.67 GP 24.59 ZAL 112.08 ZAP 150.96 ETS 51.85 ZAE 126.13 ETE 161.50 ZAC 126.58 ETC 260.76 CLP-164.08

PLANETOCENTRIC CONIC

C3 12.434 VHL 3.526 DLA -35.48 RAL 255.21 RAD 6567.5 VEL 11.568 PTH 2.02 VHP 6.688 DPA 2.24 RAP 254.93 ECC 1.2046

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ABC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.66	6 49 9	1302.10	27.38	358.32	118.60	113.51	7 10 51	702.1	30.31	350.24
112.34	12 15 35	5555.74	27.39	258.72	118.60	113.50	13 48 11	4955.7	30.32	250.64
67.66	6 49 9	1302.10	27.38	358.32	118.60	113.51	7 10 51	702.1	30.31	350.24
112.34	12 15 35	5555.74	27.39	258.72	118.60	113.50	13 48 11	4955.7	30.32	250.64
67.66	6 49 9	1302.10	27.38	358.32	118.60	113.51	7 10 51	702.1	30.31	350.24
112.34	12 15 35	5555.74	27.39	258.72	118.60	113.50	13 48 11	4955.7	30.32	250.64

DIFFERENTIAL CORRECTIONS
TDE -.6628 TRA -.4029 TC3-6.3762 BAU 1.0631
RDE .2309 RRA -.0648 RC3 .4999 FAU .04025
FDE -.2091 FRA .2939 FC3-2.8027 BSP 14882
BDE .7019 BRA .4080 BC3 6.3958 FSP -590

MID-COURSE EXECUTION ACCURACY
SGT 4693.2 SGR 530.8 SGS 180.5
RRT -.7569 RRF -.0115 RTF .8955
SGB 4723.1 RZS .1980 RIS -.8968
SGI 4710.5 SGZ 345.6 THA 175.08

ORBIT DETERMINATION ACCURACY
ST 1111.9 SR 377.3 SS 223.8
CRT -.9442 CRS .9235 CST -.7700
LSA 1181.7 MSA 177.0 SSA 33.4
ELI 1168.2 ELZ 118.3 ALF 162.04

LAUNCH DATE OCT 4 1970 FLIGHT TIME 156.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 463.198

RL 149.65 LAL .00 LOL 10.36 VL 26.611 GAL -3.53 AZL 91.34 HCA 228.76 SMA 124.55 ECC .21031 INC 1.3442 V1 29.775
RP 108.43 LAP 1.01 LOP 239.11 VP 37.181 GAP 9.62 AZP 89.11 TAL 193.50 TAP 62.26 RCA 98.36 APO 150.75 V2 34.949
RC 153.343 GL -10.34 GP 23.04 ZAL 109.20 ZAP 152.69 ETS 51.76 ZAE 126.50 ETE 162.59 ZAC 125.22 ETC 261.51 CLP-164.92

PLANETOCENTRIC CONIC

C3 12.041 VHL 3.470 DLA -33.44 RAL 259.17 RAD 6567.5 VEL 11.551 PTH 2.02 VHP 6.740 DPA .35 RAP 256.79 ECC 1.1982

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ABC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
71.42	7 27 9	1227.82	26.06	351.88	121.38	111.74	7 47 37	627.8	28.77	343.82
108.58	12 9 8	5616.43	26.07	262.86	121.38	111.73	13 42 45	5016.4	28.78	254.80
71.42	7 27 9	1227.82	26.06	351.88	121.38	111.74	7 47 37	627.8	28.77	343.82
108.58	12 9 8	5616.43	26.07	262.86	121.38	111.73	13 42 45	5016.4	28.78	254.80
110.00	11 23 58	5754.88	21.93	271.56	119.33	110.90	12 59 53	5154.9	25.36	264.08
110.00	13 11 30	5425.40	30.36	249.71	123.07	106.53	14 41 55	4825.4	32.32	241.05

DIFFERENTIAL CORRECTIONS
TDE -.5632 TRA -.2708 TC3-6.7008 BAU 1.0816
RDE .2237 RRA -.0742 RC3 .4910 FAU +03091
FDE -.1443 FRA .3521 FC3-2.7977 BSP 15165
BDE .6060 BRA .2807 BC3 6.7187 FSP -587

MID-COURSE EXECUTION ACCURACY
SGT 4772.6 SGR 523.6 SGS 179.4
RRT -.7408 RRF -.7836 RTF .8958
SGB 4801.2 RZS .1739 RIS -.8968
SGI 4788.4 SGZ 350.9 THA 175.33

ORBIT DETERMINATION ACCURACY
ST 954.0 SR 372.2 SS 187.7
CRT -.9517 CRS .8156 CST -.6379
LSA 1026.1 MSA 170.4 SSA 42.5
ELI 1018.4 ELZ 107.1 ALF 159.39

LAUNCH DATE OCT 4 1970 FLIGHT TIME 158.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 468.940

RL	149.65	LAL	.00	LOL	10.36	VL	26.554	GAL	-3.13	AZL	91.05	HCA	231.94	SMA	124.20	ECC	.21179	INC	1.0526	V1	29.775
RP	108.47	LAP	.83	LOP	242.30	VP	37.128	GAP	9.85	AZP	89.35	TAL	191.81	TAP	63.76	RCA	97.89	APO	150.50	V2	34.937
RC	155.470	GL	-8.16	GP	21.67	ZAL	106.11	ZAP	154.25	ETS	51.83	ZAE	126.80	ETE	163.56	ZAC	124.03	ETC	262.22	CLP	-165.75

PLANETOCENTRIC CONIC

C3	11.779	VHL	3.432	DLA	-31.46	RAL	263.12	RAD	6567.4	VEL	11.540	PTH	2.01	VHP	6.808	DPA	-1.34	RAP	258.73	ECC	1.1939

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
75.68	8 10 59	1135.94	24.69	344.28	124.38	110.14	8 29 55	535.9	27.21	336.25
104.32	11 56 50	5699.06	24.71	268.60	124.38	110.13	13 31 49	5099.1	27.22	260.57
75.68	8 10 59	1135.94	24.69	344.28	124.38	110.14	8 29 55	535.9	27.21	336.25
104.32	11 56 50	5699.06	24.71	268.60	124.38	110.13	13 31 49	5099.1	27.22	260.57
110.00	10 50 55	616.58	17.05	302.53	120.55	120.08	11 1 11	16.6	20.92	295.54
110.00	14 16 5	5266.42	32.85	238.00	126.88	100.02	15 43 52	4666.4	33.89	228.92

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4608	TRA	-.1301	TC3	-6.9598	BAU	1.0986	SGT	4845.6	SGR	518.1	SG3	177.6	ST	786.2	SR	367.9
RDE	.2183	RRA	-.0840	RC3	.4800	FAU	.03744	RRT	-.7220	RRF	-.7550	RTF	.8963	CRT	-.9611	CRS	.6044
FDE	-.0829	FRA	.4081	FC3	-2.7517	BSP	15417	SGB	4873.2	RZS	.1508	RI3	-.8972	LSA	866.7	HSA	164.1
BDE	.5099	BRA	.1549	BC3	6.9763	FSP	-582	SG1	4860.1	SG2	357.4	THA	175.56	EL1	863.1	EL2	92.5

LAUNCH DATE OCT 4 1970 FLIGHT TIME 160.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 474.667

RL	149.65	LAL	.00	LOL	10.36	VL	26.497	GAL	-2.72	AZL	90.79	HCA	235.12	SMA	123.85	ECC	.21344	INC	.7857	V1	29.775
RP	108.51	LAP	.64	LOP	245.48	VP	37.076	GAP	10.09	AZP	89.55	TAL	190.12	TAP	65.24	RCA	97.41	APO	150.28	V2	34.925
RC	157.587	GL	-6.11	GP	20.46	ZAL	102.85	ZAP	155.69	ETS	52.05	ZAE	127.05	ETE	164.42	ZAC	122.96	ETC	262.92	CLP	-166.57

PLANETOCENTRIC CONIC

C3	11.639	VHL	3.412	DLA	-29.53	RAL	267.06	RAD	6567.4	VEL	11.534	PTH	2.01	VHP	6.889	DPA	-2.85	RAP	260.75	ECC	1.1915

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.27	9 8 0	1002.35	23.29	333.75	127.58	108.68	9 24 42	402.4	25.62	325.76
98.73	11 31 18	5827.64	23.30	277.67	127.59	108.67	13 8 25	5227.6	25.63	269.68
100.00	11 1 39	634.48	20.56	305.70	126.49	112.19	11 12 14	34.5	23.39	298.05
100.00	12 20 20	5670.75	26.09	266.97	128.52	105.14	13 54 50	5070.7	27.91	258.64
110.00	10 35 36	716.57	13.56	308.17	122.77	121.68	10 47 33	116.6	17.65	301.45
110.00	15 2 82	5161.42	33.81	229.96	130.13	95.36	16 28 53	4561.4	34.18	220.74

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3513	TRA	.0227	TC3	-7.1372	BAU	1.1129	SGT	4905.7	SGR	513.0	SG3	174.9	ST	608.2	SR	363.5
RDE	.2139	RRA	-.0949	RC3	.4648	FAU	.03575	RRT	-.7011	RRF	-.7252	RTF	.8958	CRT	-.9685	CRS	.2850
FDE	-.0222	FRA	.4650	FC3	-2.6591	BSP	15563	SGB	4932.5	RZS	.1313	RI3	-.8965	LSA	705.3	HSA	163.8
BDE	.4114	BRA	.0975	BC3	7.1523	FSP	-570	SG1	4919.0	SG2	364.8	THA	175.78	EL1	704.2	EL2	78.1

LAUNCH DATE OCT 4 1970 FLIGHT TIME 162.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 480.376

RL	149.65	LAL	.00	LOL	10.36	VL	26.440	GAL	-2.29	AZL	90.54	HCA	238.30	SMA	123.50	ECC	.21528	INC	.5388	V1	29.775
RP	108.54	LAP	.46	LOP	248.66	VP	37.024	GAP	10.33	AZP	89.72	TAL	188.42	TAP	66.72	RCA	96.92	APO	150.09	V2	34.913
RC	159.692	GL	-4.18	GP	19.38	ZAL	99.46	ZAP	157.01	ETS	52.43	ZAE	127.27	ETE	165.19	ZAC	122.01	ETC	263.60	CLP	-167.39

PLANETOCENTRIC CONIC

C3	11.616	VHL	3.408	DLA	-27.62	RAL	270.99	RAD	6567.4	VEL	11.533	PTH	2.01	VHP	6.982	DPA	-4.20	RAP	262.83	ECC	1.1912

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 40 16	949.70	18.20	327.88	129.58	112.07	9 56 6	349.7	21.04	320.35
90.00	11 30 10	5879.44	25.59	282.17	132.06	102.56	13 8 19	5279.4	27.07	273.81
100.00	10 19 5	824.22	15.26	317.29	128.20	116.02	10 32 50	224.2	18.63	310.13
100.00	13 34 11	5480.15	28.76	253.45	132.72	98.51	15 5 31	4880.2	29.64	244.76
110.00	10 26 54	799.69	10.54	312.72	125.48	122.71	10 40 13	199.7	14.78	306.18
110.00	15 42 52	5077.45	34.15	228.43	135.27	91.51	17 7 29	4477.5	33.99	214.19

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.2416	TRA	.1798	TC3	-7.2517	BAU	1.1283	SGT	4971.4	SGR	510.2	SG3	172.2	ST	444.3	SR	360.4
RDE	.2113	RRA	-.1056	RC3	.4497	FAU	.03415	RRT	-.6812	RRF	-.6970	RTF	.8969	CRT	-.9479	CRS	-.0112
FDE	.0324	FRA	.5166	FC3	-2.5451	BSP	15787	SGB	4997.5	RZS	.1128	RI3	-.8975	LSA	565.1	HSA	186.9
BDE	.3210	BRA	.2085	BC3	7.2656	FSP	-562	SG1	4983.6	SG2	372.6	THA	175.98	EL1	564.9	EL2	90.3

LAUNCH DATE OCT 4 1970 FLIGHT TIME 164.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 486.060

RL	149.65	LAL	.00	LOL	10.36	VL	26.385	GAL	-1.85	AZL	90.31	HCA	241.48	SMA	123.17	ECC	.21732	INC	.3083	V1	29.775
RP	108.58	LAP	.27	LOP	251.84	VP	36.974	GAP	10.57	AZP	89.85	TAL	186.70	TAP	68.18	RCA	96.40	APO	149.93	V2	34.901
RC	161.784	GL	-2.38	GP	18.42	ZAL	95.96	ZAP	158.23	ETS	52.96	ZAE	127.44	ETE	165.88	ZAC	121.15	ETC	264.28	CLP	-168.19

PLANETOCENTRIC CONIC

C3	11.708	VHL	3.422	DLA	-25.75	RAL	274.87	RAD	6567.4	VEL	11.537	PTH	2.01	VHP	7.086	DPA	-5.39	RAP	264.98	ECC	1.1927

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 5 11	1119.96	13.55	338.21	131.82	115.10	9 23 51	520.0	16.82	331.06
90.00	12 36 24	5712.49	27.52	270.34	136.10	96.94	14 11 37	5112.5	28.20	261.74
100.00	10 0 39	940.85	11.66	324.09	130.86	117.72	10 16 20	340.9	15.28	317.17
100.00	14 23 37	5366.83	29.62	245.14	136.33	94.22	15 53 4	4766.8	29.89	236.34
110.00	10 21 52	874.30	7.77	316.72	128.53	123.39	10 36 26	274.3	12.11	310.31
110.00	16 18 54	5006.15	34.14	217.86	136.44	88.21	17 42 20	4406.2	33.52	208.67

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.1265	TRA	.3455	TC3	-7.2877	BAU	1.1427	SGT	5032.9	SGR	508.1	SG3	169.2	ST	325.1	SR	357.3
RDE	.2097	RRA	-.1168	RC3	.4325	FAU	.03252	RRT	-.6609	RRF	-.6694	RTF	.8981	CRT	-.7648	CRS	-.2290
FDE	.0844	FRA	.5662	FC3	-2.4046	BSP	15998	SGB	5058.4	RZS	.0964	RI3	-.8986	LSA	452.9	HSA	258.9
BDE	.2450	BRA	.3647	BC3	7.3005	FSP	-553	SG1	5044.1	SG2	380.4	THA	176.16	EL1	452.9	EL2	164.3

LAUNCH DATE OCT 4 1970 FLIGHT TIME 166.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 491.739

RL	149.65	LAL	.00	LOL	10.36	VL	26.330	GAL	-1.40	AZL	90.09	HCA	244.65	SHA	122.84	ECC	.21959	INC	.0904
RP	108.61	LAP	.08	LOP	255.01	VP	36.924	GAP	10.83	AZP	89.96	TAL	184.98	TAP	69.64	RCA	95.86	APO	149.81
RC	163.865	GL	-.70	GP	17.55	ZAL	92.41	ZAP	159.37	ETS	53.66	ZAE	127.60	ETE	166.49	ZAC	120.36	ETC	264.95

V1 29.775 V2 34.890 CLP-168.99

PLANETOCENTRIC CONIC

C3	11.918	VHL	3.452	DLA	-23.90	RAL	278.70	RAD	6567.5	VEL	11.546	PTH	2.02	VHP	7.201	DPA	-6.46	RAP	267.17

ECC 1.1961

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 47 50	1236.02	10.10	344.98	134.74	116.59	9 8 26	636.0	13.59	338.05
90.00	13 24 18	5603.90	28.17	262.46	130.77	93.04	14 57 42	5003.9	28.29	253.80
100.00	9 49 38	1036.50	8.58	329.52	133.93	118.74	10 6 55	436.5	12.35	322.76
100.00	15 5 11	5278.65	29.88	238.60	130.84	90.79	16 33 10	4678.6	29.67	229.80
110.00	10 19 9	943.95	5.14	320.40	131.83	123.84	10 34 53	344.0	9.55	314.09
110.00	16 52 10	4943.97	33.90	213.02	130.68	85.36	18 14 33	4344.0	32.89	203.93

DIFFERENTIAL CORRECTIONS

TDE	-.0208	TRA	.5063	TC3	-7.2908	BAU	1.1636
RDE	.2110	RRA	-.1288	RC3	.4189	FAU	.03130
FDE	.1237	FRA	.6054	FC3	-2.2734	BSP	16525
BDE	.2121	BRA	.5220	BC3	7.3028	FSP	-563

MID-COURSE EXECUTION ACCURACY

SGT	5117.3	SGR	509.3	SGS	166.5		
RRT	-.6445	RRF	-.6472	RTF	.9030		
SGB	5142.6	RZS	.0909	R13	-.9034		
SG1	5127.9	SG2	388.6	THA	176.31		

ORBIT DETERMINATION ACCURACY

ST	316.3	SR	357.1	SS	243.4
CRT	-.2874	CRS	-.3487	CST	-.7348
LSA	387.4	MSA	364.1	SSA	64.2
EL1	386.0	EL2	280.2	ALF	123.53

LAUNCH DATE OCT 4 1970 FLIGHT TIME 168.00 ARRIVAL DATE MAR 21 1971

HELIOCENTRIC CONIC DISTANCE 497.392

RL	149.65	LAL	.00	LOL	10.36	VL	26.275	GAL	-.93	AZL	89.89	HCA	247.83	SHA	122.51	ECC	.22208	INC	.1126
RP	108.65	LAP	-.11	LOP	258.19	VP	36.875	GAP	11.09	AZP	90.04	TAL	183.26	TAP	71.08	RCA	95.30	APO	149.72
RC	165.932	GL	.85	GP	16.78	ZAL	88.82	ZAP	160.43	ETS	54.53	ZAE	127.74	ETE	167.05	ZAC	119.63	ETC	265.62

V1 29.775 V2 34.880 CLP-169.77

PLANETOCENTRIC CONIC

C3	12.250	VHL	3.500	DLA	-22.09	RAL	282.46	RAD	6567.5	VEL	11.560	PTH	2.02	VHP	7.325	DPA	-7.40	RAP	269.41

ECC 1.2016

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 37 3	1333.18	7.09	350.54	137.99	117.49	8 59 16	733.2	10.72	343.74
90.00	14 5 6	5518.35	28.32	256.21	143.39	89.91	15 37 4	4918.4	28.00	247.56
100.00	9 42 36	1121.62	5.76	334.27	137.27	119.38	10 1 18	521.6	9.64	327.62
100.00	15 42 14	5205.14	29.83	233.14	143.36	87.92	17 8 59	4605.1	29.22	224.38
110.00	10 18 4	1010.46	2.61	323.09	135.32	124.10	10 34 54	410.5	7.07	317.63
110.00	17 23 16	4809.07	33.52	208.78	143.01	82.88	18 44 45	4289.1	32.17	199.81

DIFFERENTIAL CORRECTIONS

TDE	.1149	TRA	.7007	TC3	-7.1361	BAU	1.1705
RDE	.2101	RRA	-.1404	RC3	.3927	FAU	.02932
FDE	.1771	FRA	.6509	FC3	-2.0718	BSP	16465
BDE	.2395	BRA	.7146	BC3	7.1469	FSP	-539

MID-COURSE EXECUTION ACCURACY

SGT	5149.9	SGR	505.4	SGS	162.6		
RRT	-.6207	RRF	-.6178	RTF	.9017		
SGB	5174.6	RZS	.0909	R13	-.9021		
SG1	5159.5	SG2	395.5	THA	176.49		

ORBIT DETERMINATION ACCURACY

ST	442.4	SR	352.0	SS	288.6
CRT	.2301	CRS	-.4572	CST	-.9455
LSA	539.5	MSA	330.4	SSA	52.3
EL1	458.9	EL2	330.3	ALF	22.47

LAUNCH DATE OCT 4 1970 FLIGHT TIME 170.00 ARRIVAL DATE MAR 23 1971

HELIOCENTRIC CONIC DISTANCE 503.022

RL	149.65	LAL	.00	LOL	10.36	VL	26.222	GAL	-.44	AZL	89.69	HCA	251.00	SHA	122.19	ECC	.22482	INC	.3093
RP	108.68	LAP	-.29	LOP	261.36	VP	36.827	GAP	11.36	AZP	90.10	TAL	181.52	TAP	72.52	RCA	94.72	APO	149.66
RC	167.985	GL	2.28	GP	16.08	ZAL	85.24	ZAP	161.41	ETS	55.58	ZAE	127.86	ETE	167.55	ZAC	118.96	ETC	266.28

V1 29.775 V2 34.869 CLP-170.55

PLANETOCENTRIC CONIC

C3	12.712	VHL	3.565	DLA	-20.32	RAL	286.14	RAD	6567.5	VEL	11.580	PTH	2.03	VHP	7.461	DPA	-8.22	RAP	271.70

ECC 1.2092

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 29 54	1420.29	4.33	355.45	141.48	118.01	8 53 35	820.3	8.04	348.74
90.00	14 41 33	5447.01	28.20	251.00	147.02	87.30	16 12 20	4847.0	27.53	242.39
100.00	9 38 3	1200.38	3.12	338.61	140.81	119.74	9 58 3	600.4	7.05	332.04
100.00	16 16 6	5142.15	29.58	228.47	146.92	85.47	17 41 48	4542.2	28.64	219.79
110.00	10 18 7	1074.82	.15	327.24	138.96	124.18	10 36 2	474.8	4.64	321.03
110.00	17 52 31	4840.47	33.05	205.07	146.42	80.73	19 13 12	4240.5	31.42	196.22

DIFFERENTIAL CORRECTIONS

TDE	.2459	TRA	.8942	TC3	-6.9429	BAU	1.1816
RDE	.2117	RRA	-.1530	RC3	.3690	FAU	.02767
FDE	.2201	FRA	.7039	FC3	-1.8843	BSP	16597
BDE	.3244	BRA	.9072	BC3	6.9527	FSP	-526

MID-COURSE EXECUTION ACCURACY

SGT	5197.6	SGR	503.7	SGS	159.0		
RRT	-.5997	RRF	-.5929	RTF	.9035		
SGB	5221.9	RZS	.0597	R13	-.9037		
SG1	5206.4	SG2	402.4	THA	176.65		

ORBIT DETERMINATION ACCURACY

ST	624.1	SR	349.2	SS	327.3
CRT	.4453	CRS	-.5164	CST	-.9851
LSA	725.2	MSA	301.3	SSA	43.4
EL1	648.8	EL2	300.8	ALF	17.98

LAUNCH DATE OCT 4 1970 FLIGHT TIME 172.00 ARRIVAL DATE MAR 25 1971

HELIOCENTRIC CONIC DISTANCE 508.627

RL	149.65	LAL	.00	LOL	10.36	VL	26.169	GAL	.06	AZL	89.50	HCA	254.17	SHA	121.88	ECC	.22783	INC	.4984
RP	108.71	LAP	-.48	LOP	264.53	VP	36.780	GAP	11.64	AZP	90.14	TAL	179.78	TAP	73.96	RCA	94.11	APO	149.65
RC	170.025	GL	3.58	GP	15.45	ZAL	81.70	ZAP	162.33	ETS	56.81	ZAE	127.97	ETE	167.99	ZAC	118.33	ETC	266.95

V1 29.775 V2 34.859 CLP-171.31

PLANETOCENTRIC CONIC

C3	13.312	VHL	3.649	DLA	-18.60	RAL	289.71	RAD	6567.5	VEL	11.606	PTH	2.03	VHP	7.607	DPA	-8.94	RAP	274.02

ECC 1.2191

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 25 6	1501.07	1.73	359.96	145.13	118.27	8 50 7	901.1	5.50	353.31
90.00	15 14 51	5306.11	27.92	246.56	150.67	85.09	16 44 37	4786.1	26.95	238.03
100.00	9 35 12	1274.83	.60	342.70	144.49	119.89	9 56 27	674.8	4.57	336.17
100.00	16 47 26	5087.58	29.22	224.45	150.53	83.39	18 12 13	4487.6	28.00	215.86
110.00	10 19 0	1137.59	-2.25	330.52	142.72	124.12	10 37 58	537.6	2.24	324.32
110.00	18 20 7	4797.58	32.53	201.83	149.82	78.87	19 40 5	4197.6	30.66	193.11

DIFFERENTIAL CORRECTIONS

TDE	.3898	TRA	1.1027	TC3	-6.6747	BAU	1.1894
RDE	.2124	RRA	-.1873	RC3	.3385	FAU	.02558
FDE	.2712	FRA	.7558	FC3	-1.6633	BSP	16696
BDE	.4439	BRA	1.1154	BC3	6.6833	FSP	-508

MID-COURSE EXECUTION ACCURACY

SGT	5237.9	SGR	499.1	SGS	155.1		
RRT	-.5758	RRF	-.5636	RTF	.8997		
SGB	5261.7	RZS	.0518	R13	-.9000		
SG1	5245.9	SG2	407.4	THA	176.84		

ORBIT DETERMINATION ACCURACY

ST	834.6	SR	343.8	SS	374.0
CRT	.5489	CRS	-.5648	CST	-.9937
LSA	935.2	MSA	280.2	SSA	37.5
EL1	858.3	EL2	279.5	ALF	14.29

LAUNCH DATE OCT 4 1970 FLIGHT TIME 174.00 ARRIVAL DATE MAR 27 1971

HELIOCENTRIC CONIC DISTANCE 514.206

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RL  149.65 LAL    .00 LOL  10.36 VL  26.116 GAL    .59 AZL  89.32 HCA 257.34 SHA 121.58 ECC .23113 INC  .6812 V1  29.775
RP  108.74 LAP   -.66 LOP 267.70 VP  36.734 GAP  11.93 AZP  90.15 TAL 178.04 TAP  75.38 RCA  93.48 APO 149.68 V2  34.850
RC 172.049 GL    4.75 GP   14.88 ZAL  78.21 ZAP 163.18 ETS  58.23 ZAE 128.07 ETE 168.40 ZAC 117.73 ETC 267.61 CLP-172.07
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PLANETOCENTRIC CONIC

```
C3  14.062 VHL  3.750 DLA -16.93 RAL 293.16 RAD 6567.6 VEL 11.638 PTH   2.04 VHP  7.764 DPA  -9.56 RAP 276.36 ECC 1.2314
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 21 55	1577.41	-.73	4.22	148.90	118.31	8 48 12	977.4	3.06	357.59
90.00	15 45 36	5333.71	27.56	242.77	154.37	83.22	17 14 30	4733.7	26.33	234.32
100.00	9 33 35	1346.13	-1.82	346.61	148.30	119.84	9 56 1	746.1	2.16	340.09
100.00	17 16 37	5040.23	28.80	221.00	154.19	81.62	18 40 37	4440.2	27.34	212.50
110.00	10 20 31	1199.11	-4.59	333.74	146.57	123.91	10 40 30	599.1	-.11	327.52
110.00	18 46 10	4760.01	32.00	199.02	153.50	77.29	20 5 30	4160.0	29.92	190.43

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .5248 TRA 1.3094 TC3-6.3799 BAU 1.2009   SGT 5283.0 SGR  498.4 SG3  151.7     ST  1028.2 SR   342.6 SS   402.5
 RDE  .2170 RRA -.1793 RC3  .3169 FAU .02438   RRT -.5502 RRF -.5439 RTF  .9061    CRT  .5990 CRS -.5881 CST -.9963
 FDE  .3034 FRA  .7919 FC3-1.5010 BSP  16092   SGB 5306.5 RZS  .0422 R13 -.9062   LSA 1123.8 HSA  269.8 SSA   32.1
 BDE  .5679 BRA 1.3216 BC3 6.3877 FSP   -503   SG1 5290.4 SG2  413.0 THA 176.97   EL1 1050.0 EL2  268.7 ALF  12.09
```

LAUNCH DATE OCT 4 1970 FLIGHT TIME 176.00 ARRIVAL DATE MAR 29 1971

HELIOCENTRIC CONIC DISTANCE 519.756

```
RL  149.65 LAL    .00 LOL  10.36 VL  26.065 GAL   1.13 AZL  89.14 HCA 260.51 SHA 121.28 ECC .23474 INC  .8597 V1  29.775
RP  108.77 LAP   -.85 LOP 270.86 VP  36.689 GAP  12.24 AZP  90.14 TAL 176.30 TAP  76.81 RCA  92.81 APO 149.74 V2  34.841
RC 174.060 GL    5.80 GP   14.36 ZAL  74.82 ZAP 163.98 ETS  59.85 ZAE 128.16 ETE 168.77 ZAC 117.17 ETC 268.27 CLP-172.82
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PLANETOCENTRIC CONIC

```
C3  14.975 VHL  3.870 DLA -15.32 RAL 296.49 RAD 6567.6 VEL 11.677 PTH   2.05 VHP  7.932 DPA -10.09 RAP 278.74 ECC 1.2465
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 19 54	1650.39	-3.08	8.30	152.78	118.16	8 47 24	1050.4	.71	1.67
90.00	16 14 11	5288.66	27.16	239.54	158.11	81.65	17 42 19	4688.7	25.72	231.16
100.00	9 32 53	1414.93	-4.15	350.40	152.19	119.63	9 56 28	814.9	-.17	343.87
100.00	17 43 53	4999.36	28.36	218.04	157.90	80.12	19 7 12	4399.4	26.70	209.63
110.00	10 22 29	1259.53	-6.88	336.92	150.50	123.57	10 43 29	659.5	-2.42	330.68
110.00	19 10 46	4727.52	31.49	196.63	157.13	75.96	20 29 33	4127.5	29.24	188.14

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .6687 TRA 1.5316 TC3-6.0389 BAU 1.2104   SGT 5324.7 SGR  495.9 SG3  148.3     ST  1223.7 SR   340.1 SS   434.0
 RDE  .2217 RRA -.1926 RC3  .2911 FAU .02292   RRT -.5389 RRF -.5226 RTF  .9086    CRT  .6284 CRS -.6066 CST -.9972
 FDE  .3394 FRA  .8343 FC3-1.3252 BSP  17060   SGB 5347.8 RZS  .0355 R13 -.9088   LSA 1316.2 HSA  261.8 SSA   28.4
 BDE  .7045 BRA 1.5436 BC3 6.0459 FSP   -494   SG1 5331.5 SG2  417.2 THA 177.11   EL1 1243.1 EL2  260.5 ALF  10.37
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LAUNCH DATE OCT 4 1970 FLIGHT TIME 178.00 ARRIVAL DATE MAR 31 1971

HELIOCENTRIC CONIC DISTANCE 525.271

```
RL  149.65 LAL    .00 LOL  10.36 VL  26.014 GAL   1.70 AZL  88.97 HCA 263.67 SHA 120.98 ECC .23869 INC 1.0346 V1  29.775
RP  108.79 LAP  -1.03 LOP 274.03 VP  36.645 GAP  12.56 AZP  90.11 TAL 174.55 TAP  78.23 RCA  92.10 APO 149.86 V2  34.833
RC 176.055 GL    6.73 GP   13.89 ZAL  71.52 ZAP 164.72 ETS  61.69 ZAE 128.24 ETE 169.11 ZAC 116.62 ETC 268.93 CLP-173.57
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PLANETOCENTRIC CONIC

```
C3  16.069 VHL  4.009 DLA -15.78 RAL 299.69 RAD 6567.6 VEL 11.724 PTH   2.07 VHP  8.113 DPA -10.53 RAP 281.13 ECC 1.2645
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 18 47	1720.65	-5.33	12.24	156.73	117.85	8 47 27	1120.6	-1.56	5.58
90.00	16 40 48	5250.20	26.75	236.80	161.89	80.34	18 8 18	4650.2	25.14	228.50
100.00	9 32 51	1481.63	-6.38	354.09	156.16	119.27	9 57 33	881.6	-2.43	347.53
100.00	18 9 24	4964.45	27.92	215.53	161.64	78.87	19 32 8	4364.4	26.10	207.21
110.00	10 24 48	1318.94	-9.10	340.09	154.50	123.09	10 46 47	718.9	-4.68	333.79
110.00	19 33 57	4699.91	31.02	194.62	160.81	74.86	20 52 17	4099.9	28.63	186.23

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .8047 TRA 1.7502 TC3-5.6964 BAU 1.2251   SGT 5367.9 SGR  493.3 SG3  144.4     ST  1392.4 SR   339.1 SS   456.0
 RDE  .2286 RRA -.2047 RC3  .2671 FAU .02174   RRT -.5204 RRF -.5034 RTF  .9125    CRT  .6462 CRS -.6190 CST -.9977
 FDE  .3670 FRA  .8691 FC3-1.1711 BSP  17538   SGB 5390.5 RZS  .0299 R13 -.9126   LSA 1481.6 HSA  257.0 SSA   25.5
 BDE  .8366 BRA 1.7621 BC3 5.7026 FSP   -498   SG1 5374.0 SG2  420.8 THA 177.24   EL1 1410.2 EL2  255.5 ALF   9.25
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LAUNCH DATE OCT 4 1970 FLIGHT TIME 180.00 ARRIVAL DATE APR 2 1971

HELIOCENTRIC CONIC DISTANCE 530.753

```
RL  149.65 LAL    .00 LOL  10.36 VL  25.963 GAL   2.30 AZL  88.79 HCA 266.84 SHA 120.70 ECC .24302 INC 1.2074 V1  29.775
RP  108.82 LAP  -1.21 LOP 277.20 VP  36.602 GAP  12.90 AZP  90.07 TAL 172.81 TAP  79.65 RCA  91.36 APO 150.03 V2  34.825
RC 178.036 GL    7.54 GP   13.46 ZAL  68.34 ZAP 165.41 ETS  63.75 ZAE 128.32 ETE 169.41 ZAC 116.09 ETC 269.58 CLP-174.32
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PLANETOCENTRIC CONIC

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C3  17.362 VHL  4.167 DLA -12.32 RAL 302.75 RAD 6567.7 VEL 11.779 PTH   2.08 VHP  8.308 DPA -10.88 RAP 283.54 ECC 1.2857
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 18 20	1788.61	-7.48	16.08	160.75	117.39	8 48 9	1188.6	-3.75	9.38
90.00	17 5 39	5217.77	26.35	234.50	165.69	79.25	18 32 36	4617.8	24.60	226.27
100.00	9 33 22	1546.53	-8.52	357.72	160.18	118.76	9 59 8	946.5	-4.62	351.10
100.00	18 33 18	4935.08	27.52	213.45	165.42	77.84	19 55 33	4335.1	25.57	205.19
110.00	10 27 22	1377.41	-11.26	343.24	158.54	122.49	10 50 19	777.4	-6.89	336.87
110.00	19 55 47	4676.98	30.60	192.96	164.54	75.96	21 13 44	4077.0	28.10	184.66

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .9710 TRA 2.0081 TC3-5.2710 BAU 1.2248   SGT 5389.9 SGR  487.9 SG3  141.0     ST  1586.7 SR   335.4 SS   487.6
 RDE  .2344 RRA -.2188 RC3  .2381 FAU .02001   RRT -.4983 RRF -.4796 RTF  .9135    CRT  .6603 CRS -.6320 CST -.9981
 FDE  .4058 FRA  .9159 FC3 -.9975 BSP  17391   SGB 5411.9 RZS  .0249 R13 -.9136   LSA 1674.6 HSA  250.9 SSA   23.2
 BDE  .9989 BRA 2.0180 BC3 5.2764 FSP   -476   SG1 5395.4 SG2  422.6 THA 177.40   EL1 1602.5 EL2  249.4 ALF   8.14
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LAUNCH DATE OCT 4 1970 FLIGHT TIME 182.00 ARRIVAL DATE APR 4 1971

HELIOCENTRIC CONIC DISTANCE 536.194

RL	149.65	LAL	.00	LOL	10.36	VL	25.914	GAL	2.92	AZL	88.62	HCA	270.00	SMA	120.41	ECC	.24775	INC	1.3790
RP	108.84	LAP	-1.38	LOP	280.36	VP	36.560	GAP	13.26	AZP	90.00	TAL	171.07	TAP	81.07	RCA	90.58	APO	150.25
RC	180.002	GL	8.24	GP	13.07	ZAL	65.29	ZAP	166.04	ETS	66.04	ZAE	128.39	ETE	169.70	ZAC	115.58	ETC	270.23

V1	29.775	V2	34.818	CLP	-175.06														

PLANETOCENTRIC CONIC

C3	18.879	VHL	4.345	DLA	-10.93	RAL	305.66	RAD	6567.8	VEL	11.843	PTH	2.10	VHP	8.517	DPA	-11.15	RAP	285.97

ECC	1.3107	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	8 18 25	1854.54	-9.52	19.84	164.81	116.79	8 49 19	1254.5	-5.85	13.09							
		90.00	17 28 50	5190.96	26.00	232.62	169.50	78.37	18 55 21	4591.0	24.14	224.45							
		100.00	9 34 17	1609.82	-10.57	1.29	164.25	118.12	10 1 7	1009.8	-6.73	354.61							
		100.00	18 55 39	4910.96	27.16	211.74	169.22	77.01	20 17 30	4311.0	25.10	203.55							
		110.00	10 30 7	1434.93	-13.34	346.40	162.62	121.77	10 54 2	834.9	-9.04	339.93							
		110.00	20 16 19	4658.57	30.25	191.64	168.29	73.26	21 33 57	4058.6	27.66	183.41							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.1336	TRA	2.2850	TC3	-4.0589	BAU	1.2276	SGT	5414.5	SGR	482.4	SG3	137.6	ST	1755.9	SR	332.7	SS	512.2
RDE	.2421	RRA	-.2318	RC3	.2116	FAU	.01852	RRT	-.4771	RRF	-.4578	RTF	.9157	CRT	.6698	CRS	-.6415	CST	-.9984
FDE	.4388	FRA	.9585	FC3	-.8493	BSP	17445	SGB	5436.0	R23	.0207	R13	-.9158	LSA	1842.6	MSA	246.5	SSA	21.4
BDE	1.1592	BRA	2.2768	BC3	4.0835	FSP	-463	SG1	5419.4	SG2	423.6	THA	177.55	EL1	1770.3	EL2	245.0	ALF	7.38

LAUNCH DATE OCT 4 1970 FLIGHT TIME 184.00 ARRIVAL DATE APR 6 1971

HELIOCENTRIC CONIC DISTANCE 541.588

RL	149.65	LAL	.00	LOL	10.36	VL	25.865	GAL	3.57	AZL	88.45	HCA	273.16	SMA	120.14	ECC	.25293	INC	1.5505
RP	108.86	LAP	-1.55	LOP	283.52	VP	36.519	GAP	13.64	AZP	89.91	TAL	169.33	TAP	82.49	RCA	89.75	APO	150.52
RC	181.954	GL	8.84	GP	12.71	ZAL	62.38	ZAP	166.62	ETS	68.59	ZAE	128.45	ETE	169.96	ZAC	115.08	ETC	270.87

V1	29.775	V2	34.812	CLP	-175.80														

PLANETOCENTRIC CONIC

C3	20.648	VHL	4.544	DLA	-9.63	RAL	308.44	RAD	6567.8	VEL	11.918	PTH	2.12	VHP	8.742	DPA	-11.35	RAP	288.40

ECC	1.3398	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	8 18 54	1918.63	-11.46	23.55	168.90	116.07	8 50 53	1318.6	-7.87	16.72							
		90.00	17 50 29	5189.39	25.70	231.11	173.33	77.67	19 16 38	4569.4	23.74	222.99							
		100.00	9 35 31	1671.49	-12.53	4.83	168.35	117.36	10 3 22	1071.5	-8.77	358.06							
		100.00	19 16 34	4801.77	26.86	210.39	173.03	76.36	20 38 5	4291.8	24.72	202.25							
		110.00	10 32 59	1491.52	-15.34	349.56	166.74	120.93	10 57 50	891.5	-11.13	342.98							
		110.00	20 38 36	4644.50	29.97	190.64	172.06	72.72	21 52 59	4044.5	27.31	182.46							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.2909	TRA	2.5343	TC3	-4.4508	BAU	1.2297	SGT	5435.9	SGR	476.1	SG3	134.2	ST	1908.6	SR	330.4	SS	533.3
RDE	.2512	RRA	-.2443	RC3	.1864	FAU	.01711	RRT	-.4557	RRF	-.4362	RTF	.9183	CRT	.6772	CRS	-.6497	CST	-.9986
FDE	.4698	FRA	1.0003	FC3	-.7175	BSP	17544	SGB	5456.7	R23	.0171	R13	-.9184	LSA	1994.2	MSA	242.8	SSA	19.9
BDE	1.3230	BRA	2.5460	BC3	4.4548	FSP	-453	SG1	5440.3	SG2	423.4	THA	177.70	EL1	1921.9	EL2	241.4	ALF	6.79

LAUNCH DATE OCT 4 1970 FLIGHT TIME 186.00 ARRIVAL DATE APR 8 1971

HELIOCENTRIC CONIC DISTANCE 546.930

RL	149.65	LAL	.00	LOL	10.36	VL	25.817	GAL	4.25	AZL	88.28	HCA	276.32	SMA	119.87	ECC	.25859	INC	1.7231
RP	108.87	LAP	-1.71	LOP	286.69	VP	36.480	GAP	14.05	AZP	89.81	TAL	167.60	TAP	83.93	RCA	88.87	APO	150.87
RC	183.891	GL	9.35	GP	12.39	ZAL	59.61	ZAP	167.15	ETS	71.39	ZAE	128.50	ETE	170.20	ZAC	114.58	ETC	271.51

V1	29.775	V2	34.806	CLP	-176.54														

PLANETOCENTRIC CONIC

C3	22.700	VHL	4.764	DLA	-8.41	RAL	311.07	RAD	6567.9	VEL	12.003	PTH	2.14	VHP	8.984	DPA	-11.47	RAP	290.83

ECC	1.3736	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	8 19 43	1981.02	-13.30	27.21	173.03	115.23	8 52 44	1381.0	-9.80	20.29							
		90.00	18 10 41	5152.73	25.45	229.96	177.17	77.14	19 36 33	4552.7	23.43	221.87							
		100.00	9 36 59	1731.75	-14.39	8.34	172.48	116.49	10 5 51	1131.8	-10.72	1.47							
		100.00	19 36 6	4877.22	26.62	209.38	176.86	75.88	20 57 23	4277.2	24.42	201.27							
		110.00	10 35 56	1547.18	-17.27	352.73	170.88	119.97	11 1 43	947.2	-13.15	346.03							
		110.00	20 53 38	4634.56	29.76	189.94	175.84	72.35	22 10 53	4034.6	27.06	181.79							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.4693	TRA	2.8167	TC3	-4.0497	BAU	1.2300	SGT	5453.3	SGR	468.9	SG3	130.9	ST	2047.1	SR	328.0	SS	552.1
RDE	.2615	RRA	-.2561	RC3	.1627	FAU	.01576	RRT	-.4337	RRF	-.4146	RTF	.9213	CRT	.6836	CRS	-.6572	CST	-.9988
FDE	.4996	FRA	1.0425	FC3	-.6010	BSP	17637	SGB	5473.4	R23	.0140	R13	-.9213	LSA	2132.0	MSA	239.4	SSA	18.6
BDE	1.4923	BRA	2.8284	BC3	4.0530	FSP	-443	SG1	5457.1	SG2	422.2	THA	177.85	EL1	2059.5	EL2	238.0	ALF	6.34

LAUNCH DATE OCT 4 1970 FLIGHT TIME 188.00 ARRIVAL DATE APR 10 1971

HELIOCENTRIC CONIC DISTANCE 552.213

RL	149.65	LAL	.00	LOL	10.36	VL	25.770	GAL	4.97	AZL	88.10	HCA	279.48	SMA	119.61	ECC	.26480	INC	1.8977
RP	108.89	LAP	-1.87	LOP	289.85	VP	36.441	GAP	14.49	AZP	89.69	TAL	165.88	TAP	85.37	RCA	87.93	APO	151.28
RC	185.813	GL	9.78	GP	12.09	ZAL	56.98	ZAP	167.62	ETS	74.46	ZAE	128.55	ETE	170.42	ZAC	114.09	ETC	272.14

V1	29.775	V2	34.801	CLP	-177.29														

PLANETOCENTRIC CONIC

C3	25.076	VHL	5.008	DLA	-7.27	RAL	313.57	RAD	6568.0	VEL	12.102	PTH	2.17	VHP	9.246	DPA	-11.52	RAP	293.26

ECC	1.4127	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	8 20 49	2041.82	-15.04	30.83	177.17	114.28	8 54 50	1441.8	-11.63	23.81							
		90.00	18 29 30	5140.66	25.26	229.12	181.00	76.76	19 55 11	4540.7	23.19	221.06							
		100.00	9 38 39	1790.65	-16.15	11.83	176.64	115.50	10 8 30	1190.6	-12.58	4.85							
		100.00	19 54 20	4867.06	26.45	208.67	180.68	75.54	21 15 27	4267.1	24.21	200.59							
		110.00	10 38 56	1601.91	-19.10	355.91	175.05	118.90	11 5 38	1001.9	-15.09	349.08							
		110.00	21 10 32	4628.56	29.64	189.52	179.63	72.13	22 27 41	4028.6	26.91	181.39							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.6451	TRA	3.1137	TC3	-3.6603	BAU	1.2280	SGT	5466.3	SGR	460.7	SG3	127.6	ST	2171.6	SR	325.7	SS	568.9
RDE	.2730	RRA	-.2671	RC3	.1405	FAU	.01444	RRT	-.4107	RRF	-.3923	RTF	.9244	CRT	.6896	CRS	-.6645	CST	-.9989
FDE	.5287	FRA	1.0853	FC3	-.4986	BSP	17720	SGB	5485.7	R23	.0114	R13	-.9245	LSA	2256.1	MSA	235.9	SSA	17.5
BDE	1.6676	BRA	3.1251	BC3	3.6630	FSP	-433	SG1	5469.6	SG2	419.8	THA	178.01	EL1	2183.4	EL2	234.6	ALF	5.97

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LAUNCH DATE  OCT  4 1970                          FLIGHT TIME 190.00                          ARRIVAL DATE  APR 12 1971

 HELIOCENTRIC CONIC                                DISTANCE 557.427
  RL  149.65 LAL     .00 LOL  10.36 VL  25.723 GAL   5.72 AZL  87.92 HCA 282.64 SMA 119.35 ECC .27161 INC 2.0755 V1  29.775
  RP  108.90 LAP   -2.03 LOP 293.01 VP  36.404 GAP  14.96 AZP  89.55 TAL 164.18 TAP  86.83 RCA  86.93 APO 151.76 V2  34.797
  RC 187.719 GL    10.12 GP   11.81 ZAL  54.50 ZAP 168.03 ETS  77.80 ZAE 128.58 ETE 170.63 ZAC 113.61 ETC 272.76 CLP-178.04
 PLANETOCENTRIC CONIC
  C3  27.821 VHL   5.275 DLA  -6.22 RAL 315.92 RAD 6568.1 VEL 12.215 PTH   2.19 VHP  9.530 DPA -11.51 RAP 295.69 ECC 1.4579
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG   INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     90.00     8 22  4   2101.10     -16.66      34.42      181.33      113.23    8 57  5    1501.1     -13.38      27.29
     90.00    18 47  2   5132.88      25.14     228.58      184.83       76.52   20 12 35    4532.9      23.04     220.54
    100.00     9 40 28   1848.22     -17.80      15.30      180.81      114.42   10 11 16    1248.2     -14.36       8.20
    100.00    20 11 20   4860.99      26.35     208.25      184.49       75.35   21 32 21    4261.0      24.08     200.19
    110.00    10 41 57   1655.71     -20.84     359.12      179.23      117.73   11  9 33    1055.7     -16.96     352.14
    110.00    21 26 20   4626.26      29.59     189.36      183.42       72.05   22 43 26    4026.3      26.85     181.24
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE 1.8263 TRA 3.4254 TC3-3.2881 BAU 1.2238       SGT 5475.1 SGR  451.7 SG3  124.5            ST  2282.0 SR   323.4 SS   584.2
  RDE  .2857 RRA -.2771 RC3  .1199 FAU .01318       RRT -.3867 RRF -.3694 RTF  .9279            CRT  .6956 CRS -.6720 CST -.9991
  FDE  .5572 FRA 1.1289 FC3 -.4100 BSP  17815       SGB 5493.7 R23  .0092 R13 -.9279            LSA 2366.2 MSA  232.4 SSA   16.5
  BDE 1.8486 BRA 3.4366 BC3 3.2903 FSP   -423       SG1 5477.9 SG2  416.3 THA 178.16            EL1 2293.2 EL2  231.2 ALF   5.69

LAUNCH DATE  OCT  4 1970                          FLIGHT TIME 192.00                          ARRIVAL DATE  APR 14 1971

 HELIOCENTRIC CONIC                                DISTANCE 562.561
  RL  149.65 LAL     .00 LOL  10.36 VL  25.677 GAL   6.53 AZL  87.74 HCA 285.80 SMA 119.09 ECC .27908 INC 2.2577 V1  29.775
  RP  108.92 LAP   -2.17 LOP 296.17 VP  36.368 GAP  15.46 AZP  89.38 TAL 162.50 TAP  88.30 RCA  85.86 APO 152.33 V2  34.793
  RC 189.810 GL    10.40 GP   11.56 ZAL  52.15 ZAP 168.38 ETS  81.40 ZAE 128.60 ETE 170.83 ZAC 113.12 ETC 273.37 CLP-178.79
 PLANETOCENTRIC CONIC
  C3  30.993 VHL   5.567 DLA  -5.24 RAL 318.15 RAD 6568.2 VEL 12.344 PTH   2.23 VHP  9.838 DPA -11.44 RAP 298.10 ECC 1.5101
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG   INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     90.00     8 23 31   2158.93     -18.18      37.99      185.50      112.09    8 59 30    1558.9     -15.03      30.73
     90.00    19  3 21   5129.10      25.08     228.32      188.64       76.41   20 28 50    4529.1      22.96     220.29
    100.00     9 42 23   1904.50     -19.35      18.76      184.98      113.24   10 14  7    1304.5     -16.04      11.53
    100.00    20 27 10   4858.76      26.31     208.10      188.30       75.27   21 48  9    4258.8      24.03     200.04
    110.00    10 44 58   1708.57     -22.47       2.35      183.44      116.46   11 13 26    1108.6     -18.74     358.20
    110.00    21 41  5   4627.45      29.61     189.44      187.20       72.09   22 58 12    4027.5      26.88     181.32
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE 2.0138 TRA 3.7528 TC3-2.9359 BAU 1.2172       SGT 5479.3 SGR  441.7 SG3  121.3            ST  2378.5 SR   321.0 SS   598.3
  RDE  .2998 RRA -.2857 RC3  .1012 FAU .01196       RRT -.3612 RRF -.3453 RTF  .9315            CRT  .7019 CRS -.6797 CST -.9992
  FDE  .5853 FRA 1.1736 FC3 -.3540 BSP  17915       SGB 5497.0 R23  .0074 R13 -.9316            LSA 2462.9 MSA  228.8 SSA   15.6
  BDE 2.0357 BRA 3.7636 BC3 2.9376 FSP   -415       SG1 5481.6 SG2  411.7 THA 178.32            EL1 2389.3 EL2  227.6 ALF   5.46

LAUNCH DATE  OCT  4 1970                          FLIGHT TIME 194.00                          ARRIVAL DATE  APR 16 1971

 HELIOCENTRIC CONIC                                DISTANCE 567.604
  RL  149.65 LAL     .00 LOL  10.36 VL  25.632 GAL   7.38 AZL  87.55 HCA 288.96 SMA 118.85 ECC .28730 INC 2.4457 V1  29.775
  RP  108.93 LAP   -2.31 LOP 299.33 VP  36.334 GAP  16.01 AZP  89.20 TAL 160.83 TAP  89.79 RCA  84.70 APO 152.99 V2  34.790
  RC 191.483 GL    10.62 GP   11.33 ZAL  49.95 ZAP 168.66 ETS  85.27 ZAE 128.61 ETE 171.02 ZAC 112.64 ETC 273.97 CLP-179.56
 PLANETOCENTRIC CONIC
  C3  34.660 VHL   5.887 DLA  -4.34 RAL 320.25 RAD 6568.4 VEL 12.491 PTH   2.26 VHP 10.173 DPA -11.31 RAP 300.51 ECC 1.5704
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG   INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     90.00     8 25  5   2215.32     -19.59      41.53      189.67      110.87    9  2  0    1615.3     -16.57      34.15
     90.00    19 18 31   5129.03      25.08     228.32      192.44       76.40   20 44  0    4529.0      22.96     220.29
    100.00     9 44 23   1959.49     -20.79      22.21      189.17      111.98   10 17  3    1359.5     -17.63      14.85
    100.00    20 41 54   4860.09      26.33     208.19      192.09       75.32   22  2 54    4260.1      24.06     200.13
    110.00    10 47 58   1760.46     -24.01       5.59      187.65      115.09   11 17 18    1160.5     -20.43     358.28
    110.00    21 54 48   4631.89      29.71     189.75      190.98       72.25   23 12  0    4031.9      26.99     181.62
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE 2.2068 TRA 4.0975 TC3-2.5886 BAU 1.2001       SGT 5467.7 SGR  430.9 SG3  118.3            ST  2461.8 SR   318.5 SS   611.3
  RDE  .3152 RRA -.2928 RC3  .0844 FAU .01077       RRT -.3340 RRF -.3199 RTF  .9364            CRT  .7087 CRS -.6879 CST -.9993
  FDE  .6131 FRA 1.2197 FC3 -.2691 BSP  18080       SGB 5484.7 R23  .0057 R13 -.9364            LSA 2546.5 MSA  224.9 SSA   14.7
  BDE 2.2292 BRA 4.1079 BC3 2.5899 FSP   -407       SG1 5469.6 SG2  406.0 THA 178.48            EL1 2472.2 EL2  223.8 ALF   5.28

LAUNCH DATE  OCT  4 1970                          FLIGHT TIME 196.00                          ARRIVAL DATE  APR 18 1971

 HELIOCENTRIC CONIC                                DISTANCE 572.539
  RL  149.65 LAL     .00 LOL  10.36 VL  25.588 GAL   8.28 AZL  87.36 HCA 292.12 SMA 118.61 ECC .29635 INC 2.6409 V1  29.775
  RP  108.93 LAP   -2.45 LOP 302.49 VP  36.300 GAP  16.61 AZP  89.00 TAL 159.20 TAP  91.32 RCA  83.46 APO 153.76 V2  34.788
  RC 193.340 GL    10.78 GP   11.12 ZAL  47.88 ZAP 168.88 ETS  89.37 ZAE 128.60 ETE 171.20 ZAC 112.15 ETC 274.55 CLP 179.66
 PLANETOCENTRIC CONIC
  C3  38.903 VHL   6.237 DLA  -3.51 RAL 322.22 RAD 6568.5 VEL 12.660 PTH   2.30 VHP 10.539 DPA -11.12 RAP 302.89 ECC 1.6402
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG   INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     90.00     8 26 45   2270.30     -20.88      45.04      193.83      109.57    9  4 35    1670.3     -18.02      37.53
     90.00    19 32 34   5132.41      25.13     228.55      196.21       76.51   20 58  7    4532.4      23.03     220.51
    100.00     9 46 27   2013.20     -22.12      25.65      193.34      110.64   10 20  0    1413.2     -19.11      18.14
    100.00    20 55 34   4864.74      26.41     208.51      195.86       75.47   22 16 38    4264.7      24.16     200.44
    110.00    10 50 55   1811.36     -25.44       8.85      191.87      113.64   11 21  7    1211.4     -22.03       1.37
    110.00    22  7 34   4639.35      29.86     190.28      194.73       72.53   23 24 54    4039.3      27.18     182.11
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE 2.4071 TRA 4.4615 TC3-2.2958 BAU 1.1946       SGT 5472.8 SGR  419.1 SG3  115.3            ST  2532.7 SR   315.9 SS   623.9
  RDE  .3320 RRA -.2981 RC3  .0691 FAU .00966       RRT -.3046 RRF -.2925 RTF  .9396            CRT  .7159 CRS -.6967 CST -.9994
  FDE  .6411 FRA 1.2678 FC3 -.2149 BSP  18168       SGB 5488.8 R23  .0050 R13 -.9396            LSA 2618.1 MSA  220.7 SSA   14.2
  BDE 2.4299 BRA 4.4714 BC3 2.2969 FSP   -400       SG1 5474.3 SG2  399.1 THA 178.66            EL1 2542.8 EL2  219.7 ALF   5.14
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LAUNCH DATE OCT 4 1970 FLIGHT TIME 198.00 ARRIVAL DATE APR 20 1971

HELIOCENTRIC CONIC DISTANCE 577.346

RL 149.65 LAL .00 LOL 10.36 VL 25.545 GAL 9.25 AZL 87.15 HCA 295.27 SHA 118.37 ECC .30633 INC 2.8451 V1 29.775
RP 108.94 LAP -2.57 LOP 305.66 VP 36.268 GAP 17.26 AZP 88.78 TAL 157.60 TAP 92.87 RCA 82.11 APO 154.64 V2 34.786
RC 195.178 GL 10.90 GP 10.92 ZAL 45.94 ZAP 169.02 ETS 93.70 ZAE 128.56 ETE 171.38 ZAC 111.67 ETC 275.12 CLP 178.86

PLANETOCENTRIC CONIC

C3 43.823 VHL 6.620 DLA -2.76 RAL 324.07 RAD 6568.7 VEL 12.853 PTH 2.34 VHP 10.940 DPA -10.88 RAP 305.25 ECC 1.7212

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 28 29	2323.05	-22.06	48.52	197.97	108.22	9 7 13	1723.8	-19.37	40.89
90.00	19 45 35	5138.96	25.24	229.00	199.95	76.71	21 11 14	4539.0	23.16	220.95
100.00	9 48 33	2085.60	-23.34	29.07	197.50	109.23	10 22 58	1485.6	-20.50	21.42
100.00	21 8 13	4872.43	26.54	209.05	199.60	75.72	22 29 25	4272.4	24.32	200.95
110.00	10 53 50	1881.21	-26.76	12.13	196.08	112.11	11 24 51	1261.2	-23.52	4.46
110.00	22 19 25	4649.60	30.07	191.01	198.47	72.92	23 36 54	4049.6	27.44	182.80

DIFFERENTIAL CORRECTIONS
TDE 2.6156 TRA 4.8464 TC3-2.0090 BAU 1.1775
RDE .3502 RRA -.3012 RC3 .0556 FAU .00855
FDE .6698 FRA 1.3184 FC3 -.1688 BSP 18309
BDE 2.6390 BRA 4.8557 BC3 2.0098 FSP -393

MID-COURSE EXECUTION ACCURACY
SGT 5462.2 SGR 408.7 SG3 112.4
RRT -.2727 RRF -.2626 RTF .9439
SGB 5477.3 RZS .0041 R13 -.9439
SG1 5463.3 SG2 391.2 THA 178.83

ORBIT DETERMINATION ACCURACY
ST 2592.0 SR 313.0 SS 636.5
CRT .7238 CRS -.7061 CST -.9994
LSA 2678.6 MSA 216.1 SSA 13.5
EL1 2602.0 EL2 215.2 ALF 5.03

LAUNCH DATE OCT 4 1970 FLIGHT TIME 200.00 ARRIVAL DATE APR 22 1971

HELIOCENTRIC CONIC DISTANCE 582.002

RL 149.65 LAL .00 LOL 10.36 VL 25.502 GAL 10.29 AZL 86.94 HCA 298.43 SHA 118.15 ECC .31738 INC 3.0601 V1 29.775
RP 108.94 LAP -2.69 LOP 308.82 VP 36.237 GAP 17.98 AZP 88.54 TAL 156.04 TAP 94.47 RCA 80.65 APO 155.64 V2 34.785
RC 196.997 GL 10.97 GP 10.74 ZAL 44.13 ZAP 169.08 ETS 98.21 ZAE 128.51 ETE 171.55 ZAC 111.19 ETC 275.68 CLP 178.04

PLANETOCENTRIC CONIC

C3 49.545 VHL 7.039 DLA -2.07 RAL 325.80 RAD 6568.8 VEL 13.073 PTH 2.39 VHP 11.380 DPA -10.59 RAP 307.58 ECC 1.8154

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 30 17	2375.92	-23.13	51.97	202.09	106.81	9 9 53	1775.9	-20.61	44.20
90.00	19 57 35	5148.43	25.38	229.66	203.65	77.01	21 23 24	4548.4	23.34	221.58
100.00	9 50 40	2116.64	-24.44	32.46	201.64	107.77	10 25 56	1516.6	-21.78	24.67
100.00	21 19 54	4882.94	26.72	209.78	203.30	76.07	22 41 17	4282.9	24.54	201.66
110.00	10 56 42	1909.93	-27.97	15.40	200.28	110.51	11 28 32	1309.9	-24.92	7.56
110.00	22 30 21	4662.41	30.32	191.92	202.18	73.40	23 48 4	4062.4	27.75	183.67

DIFFERENTIAL CORRECTIONS
TDE 2.8356 TRA 5.2500 TC3-1.7425 BAU 1.1545
RDE .3608 RRA -.3019 RC3 .0438 FAU .00744
FDE .6998 FRA 1.3725 FC3 -.1300 BSP 18431
BDE 2.8596 BRA 5.2655 BC3 1.7430 FSP -386

MID-COURSE EXECUTION ACCURACY
SGT 5447.9 SGR 393.6 SG3 109.6
RRT -.2576 RRF -.2298 RTF .9483
SGB 5462.1 RZS .0035 R13 -.9483
SG1 5448.7 SG2 382.2 THA 179.01

ORBIT DETERMINATION ACCURACY
ST 2642.6 SR 310.0 SS 650.0
CRT .7325 CRS -.7162 CST -.9995
LSA 2730.8 MSA 211.1 SSA 12.9
EL1 2652.4 EL2 210.2 ALF 4.94

LAUNCH DATE OCT 4 1970 FLIGHT TIME 202.00 ARRIVAL DATE APR 24 1971

HELIOCENTRIC CONIC DISTANCE 586.477

RL 149.65 LAL .00 LOL 10.36 VL 25.461 GAL 11.41 AZL 86.71 HCA 301.58 SHA 117.92 ECC .32963 INC 3.2883 V1 29.775
RP 108.94 LAP -2.80 LOP 311.98 VP 36.208 GAP 18.76 AZP 88.28 TAL 154.54 TAP 96.12 RCA 79.05 APO 156.80 V2 34.785
RC 198.798 GL 11.01 GP 10.58 ZAL 42.45 ZAP 169.06 ETS 102.86 ZAE 128.42 ETE 171.71 ZAC 110.70 ETC 276.21 CLP 177.20

PLANETOCENTRIC CONIC

C3 56.225 VHL 7.498 DLA -1.45 RAL 327.41 RAD 6569.0 VEL 13.326 PTH 2.44 VHP 11.865 DPA -10.27 RAP 309.88 ECC 1.9253

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 32 0	2426.43	-24.08	55.36	206.15	105.36	9 12 34	1826.4	-21.74	47.47
90.00	20 8 37	5160.58	25.57	230.50	207.31	77.39	21 34 37	4560.6	23.58	222.40
100.00	9 52 48	2166.22	-25.43	35.81	205.73	106.27	10 28 54	1566.2	-22.95	27.88
100.00	21 30 38	4896.02	26.93	210.69	206.96	76.51	22 52 14	4296.0	24.80	202.54
110.00	10 59 29	1957.45	-29.06	18.67	204.44	108.85	11 32 7	1357.4	-26.21	10.65
110.00	22 40 28	4677.55	30.61	193.00	205.85	73.98	23 58 23	4077.6	28.11	184.70

DIFFERENTIAL CORRECTIONS
TDE 3.0688 TRA 5.6957 TC3-1.4955 BAU 1.1244
RDE .3910 RRA -.2997 RC3 .0336 FAU .00631
FDE .7317 FRA 1.4307 FC3 -.0971 BSP 18511
BDE 3.0937 BRA 5.7036 BC3 1.4959 FSP -379

MID-COURSE EXECUTION ACCURACY
SGT 5429.8 SGR 379.9 SG3 106.9
RRT -.1986 RRF -.1932 RTF .9528
SGB 5443.1 RZS .0031 R13 -.9528
SG1 5430.4 SG2 372.3 THA 179.20

ORBIT DETERMINATION ACCURACY
ST 2685.0 SR 306.6 SS 664.6
CRT .7420 CRS -.7271 CST -.9996
LSA 2775.4 MSA 205.6 SSA 12.3
EL1 2694.7 EL2 204.8 ALF 4.87

LAUNCH DATE OCT 4 1970 FLIGHT TIME 204.00 ARRIVAL DATE APR 26 1971

HELIOCENTRIC CONIC DISTANCE 590.733

RL 149.65 LAL .00 LOL 10.36 VL 25.421 GAL 12.62 AZL 86.47 HCA 304.74 SHA 117.71 ECC .34325 INC 3.5326 V1 29.775
RP 108.94 LAP -2.90 LOP 315.15 VP 36.180 GAP 19.63 AZP 87.99 TAL 153.10 TAP 97.84 RCA 77.31 APO 158.11 V2 34.786
RC 200.578 GL 11.01 GP 10.43 ZAL 40.89 ZAP 168.95 ETS 107.60 ZAE 128.31 ETE 171.88 ZAC 110.22 ETC 276.73 CLP 176.32

PLANETOCENTRIC CONIC

C3 64.049 VHL 8.003 DLA -.90 RAL 328.91 RAD 6569.2 VEL 13.616 PTH 2.49 VHP 12.403 DPA -9.90 RAP 312.13 ECC 2.0541

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 34 0	2475.27	-24.92	58.69	210.16	103.90	9 15 16	1875.3	-22.77	50.69
90.00	20 18 41	5175.18	25.78	231.52	210.91	77.86	21 44 56	4575.2	23.85	223.38
100.00	9 54 56	2214.24	-26.30	39.11	209.77	104.74	10 31 50	1614.2	-24.02	31.05
100.00	21 40 28	4911.44	27.17	211.78	210.57	77.03	23 2 18	4311.4	25.11	203.58
110.00	11 2 13	2003.62	-30.03	21.91	208.56	107.16	11 35 36	1403.6	-27.39	13.72
110.00	22 49 30	4604.82	30.93	194.25	209.48	74.66	24 7 54	4094.8	28.51	185.88

DIFFERENTIAL CORRECTIONS
TDE 3.3183 TRA 6.1878 TC3-1.2671 BAU 1.0852
RDE .4140 RRA -.2941 RC3 .0250 FAU .00513
FDE .7662 FRA 1.4942 FC3 -.0693 BSP 18528
BDE 3.3440 BRA 6.1746 BC3 1.2673 FSP -370

MID-COURSE EXECUTION ACCURACY
SGT 5409.1 SGR 365.8 SG3 104.3
RRT -.1552 RRF -.1521 RTF .9574
SGB 5421.5 RZS .0029 R13 -.9574
SG1 5409.4 SG2 361.3 THA 179.40

ORBIT DETERMINATION ACCURACY
ST 2720.8 SR 303.0 SS 681.1
CRT .7524 CRS -.7388 CST -.9996
LSA 2813.9 MSA 199.7 SSA 11.7
EL1 2730.3 EL2 198.9 ALF 4.82

LAUNCH DATE OCT 4 1970 FLIGHT TIME 206.00 ARRIVAL DATE APR 28 1971

HELIOCENTRIC CONIC DISTANCE 594.725

RL	149.65	LAL	.00	LOL	10.36	VL	25.381	GAL	13.93	AZL	86.20	HCA	307.89	SMA	117.50	ECC	.35843	INC	3.7963
RP	108.93	LAP	-3.00	LOP	318.31	VP	36.154	GAP	20.60	AZP	87.67	TAL	151.73	TAP	99.63	RCA	75.39	APO	159.62
RC	202.339	GL	10.99	GP	10.28	ZAL	39.46	ZAP	168.75	ETS	112.38	ZAE	128.15	ETE	172.05	ZAC	109.74	ETC	277.22

V1 29.775 V2 34.787 CLP 175.41

PLANETOCENTRIC CONIC

C3	73.268	VHL	8.560	DLA	-.41	RAL	330.29	RAD	6569.4	VEL	13.951	PTH	2.55	VHP	13.001	DPA	-9.50	RAP	314.34

ECC 2.2058

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 35 54	2522.30	-25.65	61.95	214.08	102.42	9 17 56	1922.3	-23.68	53.83
90.00	20 27 47	5192.01	26.02	232.69	214.44	78.40	21 54 19	4592.0	24.15	224.52
100.00	9 57 3	2260.54	-27.06	42.34	213.72	103.21	10 34 43	1660.5	-24.98	34.16
100.00	21 49 20	4929.01	27.43	213.02	214.11	77.63	23 11 29	4329.0	25.45	204.77
110.00	11 4 51	2048.30	-30.88	25.11	212.61	105.44	11 38 59	1448.3	-28.46	16.75
110.00	22 58 1	4714.01	31.26	195.64	213.05	75.42	24 16 35	4114.0	28.95	187.21

DIFFERENTIAL CORRECTIONS

TDE	3.5866	TRA	6.6773	TC3	-1.0566	BAU	1.0351
RDE	.4300	RRA	-.2846	RC3	.0178	FAU	.00367
FDE	.8038	FRA	1.5639	FC3	-.0457	BSP	18459
BDE	3.6133	BRA	6.6833	BC3	1.0568	FSP	-360

MID-COURSE EXECUTION ACCURACY

SGT	5386.4	SGR	351.5	SG3	101.9		
RRT	-.1064	RRF	-.1056	RTF	.9620		
SGB	5397.9	RZ3	.0028	RI3	-.9620		
SG1	5386.5	SG2	349.4	THA	179.60		

ORBIT DETERMINATION ACCURACY

ST	2750.4	SR	299.3	SS	699.9
CRT	.7636	CRS	-.7514	CST	-.9997
LSA	2847.2	MSA	193.3	SSA	11.1
EL1	2759.9	EL2	192.6	ALF	4.77

LAUNCH DATE OCT 4 1970 FLIGHT TIME 208.00 ARRIVAL DATE APR 30 1971

HELIOCENTRIC CONIC DISTANCE 598.391

RL	149.65	LAL	.00	LOL	10.36	VL	25.344	GAL	15.37	AZL	85.92	HCA	311.05	SMA	117.30	ECC	.37541	INC	4.0836
RP	108.93	LAP	-3.08	LOP	321.48	VP	36.130	GAP	21.69	AZP	87.32	TAL	150.46	TAP	101.51	RCA	73.27	APO	161.34
RC	204.080	GL	10.93	GP	10.15	ZAL	38.16	ZAP	168.44	ETS	117.16	ZAE	127.94	ETE	172.22	ZAC	109.26	ETC	277.70

V1 29.775 V2 34.789 CLP 174.44

PLANETOCENTRIC CONIC

C3	84.190	VHL	9.176	DLA	.01	RAL	331.55	RAD	6569.6	VEL	14.337	PTH	2.61	VHP	13.670	DPA	-9.08	RAP	316.50

ECC 2.3856

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 37 48	2567.33	-26.27	65.10	217.90	100.96	9 20 36	1967.3	-24.49	56.88
90.00	20 35 57	5210.90	26.27	234.02	217.89	79.02	22 2 48	4610.9	24.49	225.60
100.00	9 59 9	2304.93	-27.71	45.48	217.58	101.68	10 37 34	1704.9	-25.82	37.19
100.00	21 57 17	4948.52	27.71	214.40	217.57	78.31	23 19 46	4348.5	25.82	206.11
110.00	11 7 24	2091.29	-31.62	28.25	216.56	103.72	11 42 15	1491.3	-29.41	19.74
110.00	23 8 31	4734.93	31.61	197.17	216.55	76.26	24 24 26	4134.9	29.40	188.66

DIFFERENTIAL CORRECTIONS

TDE	3.8788	TRA	7.2298	TC3	-.8630	BAU	.9714
RDE	.4660	RRA	-.2705	RC3	.0120	FAU	.00250
FDE	.8454	FRA	1.6410	FC3	-.0257	BSP	18284
BDE	3.9047	BRA	7.2349	BC3	.8631	FSP	-348

MID-COURSE EXECUTION ACCURACY

SGT	5361.9	SGR	337.2	SG3	99.7		
RRT	-.0514	RRF	-.0527	RTF	.9665		
SGB	5372.5	RZ3	.0028	RI3	-.9665		
SG1	5361.9	SG2	336.7	THA	179.81		

ORBIT DETERMINATION ACCURACY

ST	2774.3	SR	295.4	SS	721.5
CRT	.7759	CRS	-.7650	CST	-.9997
LSA	2875.7	MSA	186.4	SSA	10.6
EL1	2783.8	EL2	185.7	ALF	4.74

LAUNCH DATE OCT 4 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAY 2 1971

HELIOCENTRIC CONIC DISTANCE 601.653

RL	149.65	LAL	.00	LOL	10.36	VL	25.307	GAL	16.95	AZL	85.60	HCA	314.20	SMA	117.11	ECC	.39447	INC	4.4000
RP	108.92	LAP	-3.15	LOP	324.64	VP	36.107	GAP	22.90	AZP	86.93	TAL	149.30	TAP	103.50	RCA	70.92	APO	163.31
RC	205.802	GL	10.86	GP	10.03	ZAL	36.99	ZAP	168.03	ETS	121.88	ZAE	127.68	ETE	172.39	ZAC	108.79	ETC	278.14

V1 29.775 V2 34.792 CLP 173.42

PLANETOCENTRIC CONIC

C3	97.214	VHL	9.860	DLA	.36	RAL	332.68	RAD	6569.9	VEL	14.784	PTH	2.67	VHP	14.421	DPA	-8.63	RAP	318.59

ECC 2.5999

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 39 43	2610.10	-26.79	68.12	221.58	99.53	9 23 13	2010.1	-25.20	59.81
90.00	20 43 7	5231.66	26.53	235.48	221.24	79.71	22 10 19	4631.7	24.84	227.22
100.00	10 1 13	2347.17	-28.26	48.50	221.29	100.18	10 40 21	1747.2	-26.56	40.11
100.00	22 4 18	4969.81	27.99	215.92	220.93	79.06	23 27 7	4369.8	26.20	207.58
110.00	11 9 51	2132.35	-32.24	31.29	220.39	102.02	11 45 24	1532.3	-30.25	22.64
110.00	23 12 9	4757.40	31.96	198.83	219.87	77.19	24 31 26	4157.4	29.87	190.24

DIFFERENTIAL CORRECTIONS

TDE	4.1924	TRA	7.8316	TC3	-.6858	BAU	.8914
RDE	.4959	RRA	-.2508	RC3	.0075	FAU	.00097
FDE	.8913	FRA	1.7267	FC3	-.0087	BSP	17984
BDE	4.2217	BRA	7.8356	BC3	.6858	FSP	-334

MID-COURSE EXECUTION ACCURACY

SGT	5336.4	SGR	323.2	SG3	97.6		
RRT	.0108	RRF	.0076	RTF	.9710		
SGB	5346.2	RZ3	-.0030	RI3	.9710		
SG1	5336.4	SG2	323.2	THA	.04		

ORBIT DETERMINATION ACCURACY

ST	2793.1	SR	291.4	SS	746.4
CRT	.7890	CRS	-.7794	CST	-.9998
LSA	2900.2	MSA	179.1	SSA	10.1
EL1	2802.5	EL2	178.4	ALF	4.73

LAUNCH DATE OCT 4 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAY 4 1971

HELIOCENTRIC CONIC DISTANCE 604.412

RL	149.65	LAL	.00	LOL	10.36	VL	25.273	GAL	18.70	AZL	85.25	HCA	317.35	SMA	116.93	ECC	.41593	INC	4.7522
RP	108.91	LAP	-3.22	LOP	327.81	VP	36.086	GAP	24.28	AZP	86.50	TAL	148.28	TAP	105.63	RCA	68.30	APO	165.57
RC	207.503	GL	10.76	GP	9.91	ZAL	35.95	ZAP	167.49	ETS	126.51	ZAE	127.35	ETE	172.58	ZAC	108.32	ETC	278.56

V1 29.775 V2 34.795 CLP 172.34

PLANETOCENTRIC CONIC

C3	112.859	VHL	10.624	DLA	.65	RAL	333.69	RAD	6570.1	VEL	15.303	PTH	2.74	VHP	15.269	DPA	-8.17	RAP	320.60

ECC 2.8574

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 41 37	2650.33	-27.21	70.99	225.09	98.15	9 25 47	2050.3	-25.80	62.61
90.00	20 49 16	5254.16	26.79	237.08	224.47	80.47	22 16 50	4654.2	25.20	228.77
100.00	10 3 16	2386.97	-28.70	51.37	224.84	98.72	10 43 3	1787.0	-27.20	42.89
100.00	22 10 18	4992.74	28.28	217.56	224.18	79.88	23 33 31	4392.7	26.59	209.17
110.00	11 12 12	2171.20	-32.76	34.20	224.05	100.37	11 48 23	1571.2	-30.98	25.43
110.00	23 17 51	4781.29	32.31	200.61	223.27	78.18	24 37 33	4181.3	30.35	191.94

DIFFERENTIAL CORRECTIONS

TDE	4.5372	TRA	8.4987	TC3	-.5245	BAU	.7914
RDE	.5290	RRA	-.2244	RC3	.0043	FAU	-.00075
FDE	.9426	FRA	1.8224	FC3	.0058	BSP	17556
BDE	4.5680	BRA	8.4917	BC3	.5245	FSP	-318

MID-COURSE EXECUTION ACCURACY

SGT	5309.7	SGR	310.0	SG3	95.6		
RRT	.0812	RRF	.0763	RTF	.9752		
SGB	5318.7	RZ3	-.0032	RI3	.9752		
SG1	5309.7	SG2	309.0	THA	.27		

ORBIT DETERMINATION ACCURACY

ST	2806.4	SR	287.6	SS	775.3
CRT	.8032	CRS	-.7947	CST	-.9998
LSA	2920.7	MSA	171.3	SSA	9.5
EL1	2815.9	EL2	170.8	ALF	4.72

LAUNCH DATE OCT 4 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAY 6 1971

HELIOCENTRIC CONIC DISTANCE 606.537

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RL  149.65 LAL    .00 LOL  10.36 VL  25.241 GAL  20.64 AZL  84.85 HCA 320.51 SMA 116.77 ECC .44017 INC 5.1493 V1  29.775
RP  100.90 LAP  -3.27 LOP 330.98 VP  36.067 GAP  25.85 AZP  86.02 TAL 147.42 TAP 107.93 RCA  65.37 APO 168.16 V2  34.799
RC 209.184 GL   10.64 GP    9.80 ZAL  35.07 ZAP 166.83 ETS 131.02 ZAE 126.93 ETE 172.78 ZAC 107.86 ETC 278.95 CLP 171.16
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PLANETOCENTRIC CONIC

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C3 131.805 VHL 11.481 DLA    .86 RAL 334.56 RAD 6570.4 VEL 15.910 PTH   2.81 VHP 16.232 DPA  -7.71 RAP 322.53 ECC 3.1692
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 43 31	2687.64	-27.54	73.67	228.41	96.85	9 28 18	2087.6	-26.31	65.22
90.00	20 54 18	5278.31	27.05	238.80	227.55	81.29	22 22 16	4678.3	25.57	230.44
100.00	10 5 15	2423.97	-29.06	54.07	228.19	97.35	10 45 39	1824.0	-27.73	45.51
100.00	22 15 15	5017.21	28.56	219.33	227.29	80.77	23 38 52	4417.2	26.99	210.88
110.00	11 14 25	2207.49	-33.17	36.95	227.51	98.79	11 51 13	1607.5	-31.60	28.08
110.00	23 22 34	4806.46	32.65	202.49	226.45	79.25	24 42 41	4206.5	30.82	193.75

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE 4.9149 TRA 9.2085 TC3 -.3785 BAU  .6670    SGT 5281.7 SGR  298.1 SG3   93.8        ST  2813.9 SR   284.0 SS   808.7
 RDE  .5661 RRA -.1901 RC3  .0023 FAU-.00275    RRT  .1603 RRF  .1541 RTF  .9793        CRT  .8182 CRS -.8108 CST -.9999
 FDE 1.0000 FRA 1.9298 FC3  .0181 BSP  16903    SGB 5290.1 RZS -.0034 R13  .9793        LSA 2937.0 MSA  163.3 SSA    9.0
 BDE 4.9474 BRA 9.2105 BC3  .3785 FSP   -301    SG1 5281.9 SG2  294.2 THA   .52        EL1 2823.6 EL2  162.7 ALF    4.74
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LAUNCH DATE OCT 4 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAY 8 1971

HELIOCENTRIC CONIC DISTANCE 607.846

```
RL  149.65 LAL    .00 LOL  10.36 VL  25.210 GAL  22.83 AZL  84.40 HCA 323.66 SMA 116.61 ECC .46766 INC 5.6035 V1  29.775
RP  100.86 LAP  -3.32 LOP 334.15 VP  36.051 GAP  27.64 AZP  85.48 TAL 146.77 TAP 110.43 RCA  62.08 APO 171.14 V2  34.804
RC 210.844 GL   10.50 GP    9.69 ZAL  34.34 ZAP 166.03 ETS 135.38 ZAE 126.41 ETE 172.99 ZAC 107.42 ETC 279.31 CLP 169.88
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PLANETOCENTRIC CONIC

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C3 154.951 VHL 12.448 DLA    .99 RAL 335.28 RAD 6570.7 VEL 16.622 PTH   2.89 VHP 17.332 DPA  -7.26 RAP 324.35 ECC 3.5501
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 45 23	2721.60	-27.79	76.12	231.47	95.64	9 30 45	2121.6	-26.72	67.62
90.00	20 56 8	5304.07	27.30	240.64	230.47	82.19	22 26 32	4704.1	25.94	232.24
100.00	10 7 11	2457.73	-29.32	56.54	231.29	96.07	10 48 9	1857.7	-28.17	47.93
100.00	22 19 1	5043.17	28.83	221.21	230.22	81.73	23 43 4	4443.2	27.38	212.71
110.00	11 16 30	2240.80	-33.48	38.50	230.72	97.31	11 53 50	1640.8	-32.11	30.54
110.00	23 26 18	4832.86	32.96	204.49	229.46	80.39	24 46 45	4232.9	31.29	195.67

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE 5.2717 TRA 9.9407 TC3 -.2823 BAU  .5433    SGT 5220.7 SGR  287.8 SG3   91.4        ST  2788.0 SR   280.5 SS   838.5
 RDE  .6077 RRA -.1465 RC3  .0013 FAU-.00452    RRT  .2430 RRF  .2378 RTF  .9829        CRT  .8325 CRS -.8260 CST -.9999
 FDE 1.0517 FRA 2.0378 FC3  .0253 BSP  17637    SGB 5228.6 RZS -.0038 R13  .9829        LSA 2920.7 MSA  155.4 SSA    8.4
 BDE 5.3066 BRA 9.9418 BC3  .2823 FSP   -309    SG1 5221.2 SG2  279.0 THA   .78        EL1 2797.8 EL2  154.8 ALF    4.80
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LAUNCH DATE OCT 4 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAY 10 1971

HELIOCENTRIC CONIC DISTANCE 608.122

```
RL  149.65 LAL    .00 LOL  10.36 VL  25.183 GAL  25.29 AZL  85.87 HCA 326.81 SMA 116.47 ECC .49889 INC 6.1312 V1  29.775
RP  100.86 LAP  -3.35 LOP 337.32 VP  36.037 GAP  29.71 AZP  84.86 TAL 146.38 TAP 113.19 RCA  58.36 APO 174.57 V2  34.810
RC 212.484 GL   10.34 GP    9.58 ZAL  33.80 ZAP 165.05 ETS 139.58 ZAE 125.77 ETE 173.23 ZAC 106.99 ETC 279.64 CLP 168.47
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PLANETOCENTRIC CONIC

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C3 183.505 VHL 13.546 DLA   1.04 RAL 335.82 RAD 6571.0 VEL 17.459 PTH   2.96 VHP 18.596 DPA  -6.83 RAP 326.05 ECC 4.0200
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 47 14	2751.69	-27.98	78.31	234.24	94.56	9 33 6	2151.7	-27.05	69.76
90.00	21 0 38	5331.47	27.54	242.61	233.17	83.15	22 29 29	4731.5	26.31	234.16
100.00	10 9 3	2487.75	-29.52	58.75	234.10	94.93	10 50 31	1887.8	-28.53	50.09
100.00	22 21 29	5070.63	29.08	223.21	232.96	82.75	23 46 0	4470.6	27.77	214.65
110.00	11 18 25	2270.68	-33.72	41.80	233.63	95.97	11 56 15	1670.7	-32.53	32.77
110.00	23 28 38	4860.47	33.26	206.59	232.29	81.61	24 49 38	4260.5	31.74	197.69

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE 5.6949 TRA10.7763 TC3 -.1503 BAU  .3686    SGT 5172.0 SGR  279.8 SG3   89.5        ST  2769.9 SR   277.4 SS   878.8
 RDE  .6552 RRA -.0915 RC3  .0013 FAU-.00705    RRT  .3383 RRF  .3307 RTF  .9862        CRT  .8482 CRS -.8425 CST -.9999
 FDE 1.1177 FRA 2.1678 FC3  .0333 BSP  17533    SGB 5179.5 RZS -.0041 R13  .9862        LSA 2915.5 MSA  146.9 SSA    7.9
 BDE 5.7324 BRA10.7767 BC3  .1503 FSP   -302    SG1 5172.8 SG2  263.3 THA  1.05        EL1 2779.9 EL2  146.4 ALF    4.87
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LAUNCH DATE OCT 4 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAY 12 1971

HELIOCENTRIC CONIC DISTANCE 607.057

```
RL  149.65 LAL    .00 LOL  10.36 VL  25.159 GAL  28.10 AZL  83.24 HCA 329.96 SMA 116.35 ECC .53445 INC 6.7561 V1  29.775
RP  100.85 LAP  -3.38 LOP 340.49 VP  36.027 GAP  32.12 AZP  84.14 TAL 146.29 TAP 116.25 RCA  54.17 APO 178.53 V2  34.816
RC 214.102 GL   10.16 GP    9.47 ZAL  33.46 ZAP 163.89 ETS 143.62 ZAE 124.97 ETE 173.49 ZAC 106.58 ETC 279.92 CLP 166.91
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PLANETOCENTRIC CONIC

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C3 219.086 VHL 14.802 DLA    .98 RAL 336.17 RAD 6571.3 VEL 18.450 PTH   3.04 VHP 20.057 DPA  -6.44 RAP 327.59 ECC 4.6056
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 49 3	2777.27	-28.10	80.17	236.67	93.64	9 35 20	2177.3	-27.30	71.59
90.00	21 1 35	5360.63	27.76	244.72	235.64	84.18	22 30 56	4760.6	26.66	236.22
100.00	10 10 51	2513.42	-29.66	60.65	236.55	93.94	10 52 44	1913.4	-28.79	51.95
100.00	22 22 28	5099.71	29.31	225.34	235.46	83.85	23 47 28	4499.7	28.15	216.73
110.00	11 20 8	2296.54	-33.89	43.80	236.17	94.80	11 58 25	1696.5	-32.85	34.72
110.00	23 29 40	4889.35	33.52	208.80	234.88	82.89	24 51 10	4289.4	32.18	199.83

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE 6.1582 TRA11.8810 TC3 -.0513 BAU  .1504    SGT 5117.4 SGR  275.0 SG3   87.7        ST  2742.7 SR   274.8 SS   925.6
 RDE  .7088 RRA -.0228 RC3  .0021 FAU-.01018    RRT  .4362 RRF  .4285 RTF  .9891        CRT  .8640 CRS -.8591 CST -.9999
 FDE 1.1921 FRA 2.3151 FC3  .0402 BSP  17424    SGB 5124.8 RZS -.0044 R13  .9891        LSA 2904.4 MSA  138.4 SSA    7.3
 BDE 6.1970 BRA11.8911 BC3  .0513 FSP   -296    SG1 5118.8 SG2  247.4 THA  1.35        EL1 2753.0 EL2  137.8 ALF    4.96
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LAUNCH DATE OCT 5 1970 FLIGHT TIME 70.00 ARRIVAL DATE DEC 14 1970

HELIOCENTRIC CONIC DISTANCE 199.246

RL	149.61	LAL	.00	LOL	11.34	VL	28.390	GAL	-12.98	AZL	88.55	HCA	90.40	SMA	137.07	ECC	.24166	INC	1.4537	V1	29.784
RP	107.57	LAP	1.45	LOP	101.75	VP	38.721	GAP	-6.46	AZP	90.01	TAL	235.38	TAP	325.78	RCA	103.95	APO	170.20	V2	35.229
RC	59.382	GL	6.41	GP	-21.27	ZAL	159.17	ZAP	41.87	ETS	22.19	ZAE	149.21	ETE	313.52	ZAC	80.28	ETC	260.51	CLP	-36.96

PLANETOCENTRIC CONIC

C3	39.572	VHL	6.291	DLA	-5.88	RAL	211.30	RAD	6568.5	VEL	12.686	PTH	2.30	VHP	5.695	DPA	-40.97	RAP	236.48	ECC	1.6512

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 18 14	2200.37	-19.22	40.58	82.64	111.20	1 54 54	1600.4	-16.17	33.24
90.00	11 48 19	5210.95	26.27	234.02	86.61	79.02	13 15 10	4611.0	24.49	225.81
100.00	2 36 47	1946.96	-20.47	21.42	82.11	112.27	3 9 14	1347.0	-17.27	14.09
100.00	13 12 27	4939.60	27.58	213.77	86.31	78.00	14 34 46	4339.6	25.65	205.50
110.00	3 38 39	1753.27	-23.80	5.14	80.53	115.29	4 7 52	1153.3	-20.20	357.85
110.00	14 27 4	4706.05	31.13	195.06	85.34	75.10	15 45 30	4106.1	28.77	186.65

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1053	TRA	-.3855	TC3	.2237	BAU	.1954	SGT	461.5	SGR	512.0	SG3	179.6	ST	143.1	SR	260.1	SS	393.2
RDE	-.2729	RRA	-.2757	RC3	-.2938	FAU	.06622	RRT	-.1640	RRF	.6018	RTF	-.2255	CRT	-.4273	CRS	.8545	CST	-.8204
FDE	.8503	FRA	-.6881	FC3	-1.4487	BSP	1182	SGB	689.3	R23	-.1307	R13	.6013	LSA	469.2	MSA	148.4	SSA	24.3
BDE	.2925	BRA	.4739	BC3	.3693	FSP	-484	SG1	532.4	SG2	437.8	THA	118.80	EL1	269.2	EL2	125.0	ALF	107.00

LAUNCH DATE OCT 5 1970 FLIGHT TIME 72.00 ARRIVAL DATE DEC 16 1970

HELIOCENTRIC CONIC DISTANCE 205.988

RL	149.61	LAL	.00	LOL	11.34	VL	28.446	GAL	-12.86	AZL	88.37	HCA	93.64	SMA	137.52	ECC	.23848	INC	1.6281	V1	29.784
RP	107.55	LAP	1.62	LOP	104.99	VP	38.768	GAP	-5.69	AZP	90.10	TAL	236.09	TAP	329.73	RCA	104.73	APO	170.32	V2	35.235
RC	61.346	GL	7.26	GP	-22.63	ZAL	159.30	ZAP	46.10	ETS	20.09	ZAE	149.38	ETE	308.51	ZAC	78.81	ETC	260.25	CLP	-41.30

PLANETOCENTRIC CONIC

C3	38.882	VHL	6.236	DLA	-4.93	RAL	211.19	RAD	6568.5	VEL	12.659	PTH	2.30	VHP	5.394	DPA	-41.96	RAP	234.64	ECC	1.6399

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 10 36	2225.74	-19.84	42.19	82.44	110.63	1 47 42	1625.7	-16.85	34.79
90.00	11 55 5	5176.70	25.80	231.62	85.77	77.91	13 21 21	4576.7	23.88	223.48
100.00	2 29 38	1970.83	-21.08	22.93	81.93	111.70	3 2 28	1370.8	-17.95	15.54
100.00	13 18 45	4906.84	27.10	211.45	85.44	76.87	14 40 31	4306.8	25.02	203.27
110.00	3 32 33	1773.85	-24.40	6.44	80.39	114.72	4 2 7	1173.8	-20.85	359.08
110.00	14 38 19	4676.59	30.59	192.93	84.40	73.95	15 50 15	4076.6	28.09	184.63

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1136	TRA	-.4025	TC3	.1988	BAU	.2004	SGT	458.5	SGR	539.8	SG3	199.6	ST	152.8	SR	239.4	SS	431.5
RDE	-.2453	RRA	-.2889	RC3	-.3302	FAU	.07232	RRT	-.1079	RRF	.6507	RTF	-.1355	CRT	-.4021	CRS	.8352	CST	-.8262
FDE	.9791	FRA	-.7609	FC3	-1.6102	BSP	1240	SGB	708.2	R23	-.0917	R13	.6475	LSA	493.4	MSA	151.3	SSA	24.1
BDE	.2703	BRA	.4955	BC3	.3855	FSP	-547	SG1	547.2	SG2	449.6	THA	106.67	EL1	250.6	EL2	133.7	ALF	110.45

LAUNCH DATE OCT 5 1970 FLIGHT TIME 74.00 ARRIVAL DATE DEC 18 1970

HELIOCENTRIC CONIC DISTANCE 212.693

RL	149.61	LAL	.00	LOL	11.34	VL	28.489	GAL	-12.74	AZL	88.20	HCA	96.88	SMA	137.88	ECC	.23568	INC	1.8038	V1	29.784
RP	107.53	LAP	1.79	LOP	108.23	VP	38.804	GAP	-4.96	AZP	90.22	TAL	236.65	TAP	333.53	RCA	105.38	APO	170.37	V2	35.240
RC	63.355	GL	8.13	GP	-24.06	ZAL	159.29	ZAP	50.52	ETS	17.99	ZAE	149.46	ETE	302.88	ZAC	77.27	ETC	259.93	CLP	-45.87

PLANETOCENTRIC CONIC

C3	38.272	VHL	6.186	DLA	-4.01	RAL	211.19	RAD	6568.5	VEL	12.635	PTH	2.29	VHP	5.130	DPA	-42.92	RAP	232.46	ECC	1.6299

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 3 39	2250.69	-20.43	43.78	82.40	110.05	1 41 10	1650.7	-17.51	36.32
90.00	12 2 3	5143.77	25.31	229.33	85.09	76.86	13 27 46	4543.8	23.25	221.27
100.00	2 23 7	1994.35	-21.66	24.44	81.90	111.12	2 56 21	1394.3	-18.60	16.98
100.00	13 25 16	4875.34	26.59	209.25	84.74	75.82	14 46 31	4275.3	24.38	201.15
110.00	3 27 3	1794.19	-24.97	7.74	80.40	114.14	3 56 57	1194.2	-21.49	.32
110.00	14 37 49	4648.26	30.04	190.91	83.64	72.87	15 55 17	4048.3	27.40	182.71

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1274	TRA	-.4249	TC3	.1651	BAU	.2068	SGT	459.7	SGR	571.4	SG3	220.1	ST	167.3	SR	216.4	SS	470.2
RDE	-.2148	RRA	-.3018	RC3	-.3689	FAU	.07850	RRT	-.0237	RRF	.6963	RTF	-.0194	CRT	-.3762	CRS	.8067	CST	-.8393
FDE	1.1155	FRA	-.8307	FC3	-1.7757	BSP	1323	SGB	733.3	R23	-.0272	R13	.6958	LSA	521.3	MSA	153.4	SSA	23.9
BDE	.2498	BRA	.5212	BC3	.4042	FSP	-614	SG1	571.6	SG2	459.3	THA	93.09	EL1	232.3	EL2	144.4	ALF	117.65

LAUNCH DATE OCT 5 1970 FLIGHT TIME 76.00 ARRIVAL DATE DEC 20 1970

HELIOCENTRIC CONIC DISTANCE 219.361

RL	149.61	LAL	.00	LOL	11.34	VL	28.521	GAL	-12.63	AZL	88.02	HCA	100.12	SMA	138.14	ECC	.23320	INC	1.9820	V1	29.784
RP	107.52	LAP	1.95	LOP	111.47	VP	38.832	GAP	-4.26	AZP	90.35	TAL	237.05	TAP	337.17	RCA	105.93	APO	170.35	V2	35.245
RC	65.403	GL	9.02	GP	-25.52	ZAL	159.13	ZAP	55.11	ETS	15.85	ZAE	149.39	ETE	296.66	ZAC	75.65	ETC	259.56	CLP	-50.67

PLANETOCENTRIC CONIC

C3	37.726	VHL	6.142	DLA	-3.10	RAL	211.30	RAD	6568.5	VEL	12.613	PTH	2.29	VHP	4.903	DPA	-43.84	RAP	229.97	ECC	1.6209

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 57 17	2275.34	-21.00	45.37	82.49	109.45	1 35 12	1675.3	-18.15	37.85
90.00	12 9 15	5111.85	24.80	227.14	84.56	75.87	13 34 27	4511.8	22.61	219.15
100.00	2 17 11	2017.62	-22.22	25.93	82.01	110.52	2 50 48	1417.6	-19.23	18.42
100.00	13 32 3	4844.81	26.06	207.13	84.20	74.82	14 52 47	4244.8	23.73	199.11
110.00	3 22 6	1814.38	-25.52	9.05	80.55	113.55	3 52 20	1214.4	-22.12	1.55
110.00	14 43 37	4620.81	29.47	188.97	83.04	71.85	16 0 37	4020.8	26.71	180.88

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1475	TRA	-.4531	TC3	.1218	BAU	.2154	SGT	469.6	SGR	606.1	SG3	240.5	ST	187.3	SR	191.4	SS	508.7
RDE	-.1816	RRA	-.3136	RC3	-.4094	FAU	.08453	RRT	.0894	RRF	.7375	RTF	.1210	CRT	-.3407	CRS	.7633	CST	-.8572
FDE	1.2565	FRA	-.8938	FC3	-1.9398	BSP	1438	SGB	766.7	R23	.0391	R13	.7385	LSA	553.2	MSA	154.6	SSA	23.7
BDE	.2339	BRA	.5510	BC3	.4271	FSP	-681	SG1	609.6	SG2	465.0	THA	80.44	EL1	219.3	EL2	153.7	ALF	133.18

LAUNCH DATE OCT 5 1970 FLIGHT TIME 78.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 225.992

RL	149.61	LAL	.00	LOL	11.34	VL	28.543	GAL	-12.52	AZL	87.84	HCA	103.36	SMA	138.32	ECC	.23098	INC	2.1639
RP	107.51	LAP	2.11	LOP	114.71	VP	38.852	GAP	-3.59	AZP	90.50	TAL	237.30	TAP	340.66	RCA	106.37	APO	170.27
RC	67.486	GL	9.93	GP	-27.01	ZAL	158.84	ZAP	59.84	ETS	13.63	ZAE	149.09	ETE	289.98	ZAC	73.98	ETC	259.15

V1 29.784 V2 35.249 CLP -55.67

PLANETOCENTRIC CONIC

C3	37.231	VHL	6.102	DLA	-2.21	RAL	211.50	RAD	6568.5	VEL	12.594	PTH	2.28	VHP	4.713	DPA	-44.68	RAP	227.18

ECC 1.6127

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 51 25	2299.87	-21.54	46.96	82.71	108.83	1 29 45	1699.9	-18.77	39.38
90.00	12 16 45	5080.64	24.26	225.01	84.18	74.94	13 41 26	4480.6	21.96	217.09
100.00	2 11 44	2040.79	-22.77	27.44	82.25	109.91	2 45 45	1440.8	-19.85	19.86
100.00	13 39 7	4814.95	25.52	205.08	83.80	73.88	14 59 22	4214.9	23.06	197.15
110.00	3 17 38	1834.54	-26.07	10.37	80.83	112.94	3 48 12	1234.5	-22.73	2.80
110.00	14 49 43	4593.97	28.89	187.10	82.59	70.88	16 6 17	3994.0	26.01	179.11

DIFFERENTIAL CORRECTIONS

TDE	.1748	TRA	-.4089	TC3	.0687	BAU	.2270
RDE	-.1459	RRA	-.3230	RC3	-.4508	FAU	.09017
FDE	1.3977	FRA	-.9472	FC3	-2.0969	BSP	1596
BDE	.2277	BRA	.5048	BC3	.4560	FSP	-747

MID-COURSE EXECUTION ACCURACY

SGT	493.3	SGR	643.4	SG3	260.1		
RRT	.2225	RRF	.7737	RTF	.2748		
SG8	810.7	R23	.0882	R13	.7758		
SG1	662.9	SG2	466.8	THA	70.19		

ORBIT DETERMINATION ACCURACY

ST	214.0	SR	165.5	SS	546.5
CRT	-.2823	CRS	.6946	CST	-.8774
LSA	589.1	MSA	154.9	SSA	23.4
EL1	224.0	EL2	151.6	ALF	156.31

LAUNCH DATE OCT 5 1970 FLIGHT TIME 80.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 232.584

RL	149.61	LAL	.00	LOL	11.34	VL	28.555	GAL	-12.41	AZL	87.65	HCA	106.60	SMA	138.41	ECC	.22897	INC	2.3507
RP	107.50	LAP	2.25	LOP	117.96	VP	38.864	GAP	-2.96	AZP	90.67	TAL	237.42	TAP	344.02	RCA	106.72	APO	170.11
RC	68.000	GL	10.87	GP	-28.50	ZAL	158.41	ZAP	64.65	ETS	11.30	ZAE	148.50	ETE	283.01	ZAC	72.28	ETC	258.70

V1 29.784 V2 35.253 CLP -60.85

PLANETOCENTRIC CONIC

C3	36.775	VHL	6.064	DLA	-1.31	RAL	211.81	RAD	6568.4	VEL	12.576	PTH	2.28	VHP	4.558	DPA	-45.43	RAP	224.15

ECC 1.6052

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 46 1	2324.47	-22.07	48.57	83.07	108.20	1 24 45	1724.5	-19.38	40.93
90.00	12 24 38	5049.81	23.70	222.92	83.94	74.04	13 48 46	4449.8	21.29	215.08
100.00	2 6 45	2064.05	-23.30	28.96	82.62	109.27	2 41 9	1464.0	-20.46	21.32
100.00	13 46 35	4785.47	24.94	203.08	83.53	72.97	15 6 18	4185.5	22.37	195.22
110.00	3 13 35	1854.81	-26.60	11.70	81.24	112.31	3 44 30	1254.8	-23.33	4.06
110.00	14 56 12	4567.48	28.29	185.28	82.28	69.95	16 12 19	3967.5	25.29	177.38

DIFFERENTIAL CORRECTIONS

TDE	.2068	TRA	-.5295	TC3	.0019	BAU	.2402
RDE	-.1051	RRA	-.3288	RC3	-.4885	FAU	.09439
FDE	1.5509	FRA	-.9706	FC3	-2.2220	BSP	1741
BDE	.2318	BRA	.6231	BC3	.4885	FSP	-774

MID-COURSE EXECUTION ACCURACY

SGT	537.1	SGR	676.3	SG3	276.6		
RRT	.3706	RRF	.8018	RTF	.4296		
SG8	863.6	R23	.1309	R13	.8038		
SG1	729.2	SG2	462.6	THA	61.05		

ORBIT DETERMINATION ACCURACY

ST	246.2	SR	137.3	SS	588.0
CRT	-.1599	CRS	.5779	CST	-.8902
LSA	633.1	MSA	154.7	SSA	22.7
EL1	247.6	EL2	134.8	ALF	172.74

LAUNCH DATE OCT 5 1970 FLIGHT TIME 82.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 239.139

RL	149.61	LAL	.00	LOL	11.34	VL	28.558	GAL	-12.30	AZL	87.46	HCA	109.84	SMA	138.44	ECC	.22713	INC	2.5441
RP	107.49	LAP	2.39	LOP	121.21	VP	38.868	GAP	-2.35	AZP	90.86	TAL	237.40	TAP	347.25	RCA	107.00	APO	169.88
RC	71.740	GL	11.85	GP	-29.97	ZAL	157.87	ZAP	69.51	ETS	8.84	ZAE	147.58	ETE	275.95	ZAC	70.57	ETC	258.23

V1 29.784 V2 35.255 CLP -66.17

PLANETOCENTRIC CONIC

C3	36.358	VHL	6.030	DLA	-.41	RAL	212.21	RAD	6568.4	VEL	12.559	PTH	2.28	VHP	4.438	DPA	-46.08	RAP	220.93

ECC 1.5984

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 40 57	2349.42	-22.60	50.21	83.54	107.54	1 20 6	1749.4	-19.99	42.51
90.00	12 32 51	5019.10	23.11	220.87	83.82	73.17	13 56 30	4419.1	20.59	213.10
100.00	2 2 6	2087.66	-23.82	30.52	83.11	108.61	2 36 53	1487.7	-21.06	22.82
100.00	13 54 23	4756.09	24.34	201.10	83.40	72.09	15 13 39	4156.1	21.67	193.33
110.00	3 9 54	1875.42	-27.12	13.07	81.77	111.65	3 41 9	1275.4	-23.94	5.36
110.00	15 3 4	4541.10	27.66	183.48	82.10	69.06	16 18 45	3941.1	24.56	175.69

DIFFERENTIAL CORRECTIONS

TDE	.2519	TRA	-.5715	TC3	-.0684	BAU	.2598
RDE	-.0679	RRA	-.3347	RC3	-.5301	FAU	.09879
FDE	1.6697	FRA	-1.0017	FC3	-2.3524	BSP	2021
BDE	.2609	BRA	.6823	BC3	.5345	FSP	-845

MID-COURSE EXECUTION ACCURACY

SGT	599.1	SGR	716.9	SG3	292.6		
RRT	.4800	RRF	.8294	RTF	.5572		
SG8	934.3	R23	.1433	R13	.8352		
SG1	812.6	SG2	461.1	THA	55.12		

ORBIT DETERMINATION ACCURACY

ST	289.5	SR	116.8	SS	619.1
CRT	.0042	CRS	.5901	CST	-.9124
LSA	675.8	MSA	153.2	SSA	22.5
EL1	289.5	EL2	116.8	ALF	.12

LAUNCH DATE OCT 5 1970 FLIGHT TIME 84.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 245.655

RL	149.61	LAL	.00	LOL	11.34	VL	28.553	GAL	-12.19	AZL	87.25	HCA	113.09	SMA	138.40	ECC	.22542	INC	2.7455
RP	107.48	LAP	2.53	LOP	124.45	VP	38.867	GAP	-1.77	AZP	91.08	TAL	237.26	TAP	350.35	RCA	107.20	APO	169.60
RC	73.903	GL	12.88	GP	-31.40	ZAL	157.20	ZAP	74.36	ETS	6.25	ZAE	146.32	ETE	269.04	ZAC	68.88	ETC	257.73

V1 29.784 V2 35.257 CLP -71.59

PLANETOCENTRIC CONIC

C3	35.973	VHL	5.998	DLA	.50	RAL	212.70	RAD	6568.4	VEL	12.544	PTH	2.27	VHP	4.352	DPA	-46.62	RAP	217.62

ECC 1.5920

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 38 9	2374.99	-23.11	51.91	84.15	106.83	1 15 44	1775.0	-20.59	44.14
90.00	12 41 34	4988.15	22.49	218.81	83.82	72.32	14 4 42	4388.1	19.86	211.12
100.00	1 57 43	2111.86	-24.34	32.14	83.73	107.91	2 32 55	1511.9	-21.66	24.36
100.00	14 2 40	4726.51	23.71	199.13	83.38	71.24	15 21 27	4126.5	20.93	191.44
110.00	3 6 30	1896.59	-27.65	14.50	82.43	110.96	3 38 7	1296.6	-24.54	6.70
110.00	15 10 23	4514.55	27.00	181.70	82.04	68.19	16 25 38	3914.6	23.80	174.00

DIFFERENTIAL CORRECTIONS

TDE	.3049	TRA	-.6184	TC3	-.1483	BAU	.2825
RDE	-.0299	RRA	-.3366	RC3	-.5684	FAU	.10192
FDE	1.7759	FRA	-1.0114	FC3	-2.4528	BSP	2330
BDE	.3084	BRA	.7040	BC3	.5875	FSP	-900

MID-COURSE EXECUTION ACCURACY

SGT	682.3	SGR	754.4	SG3	305.1		
RRT	.5886	RRF	.8515	RTF	.6594		
SG8	1017.2	R23	.1535	R13	.8601		
SG1	908.1	SG2	458.2	THA	49.85		

ORBIT DETERMINATION ACCURACY

ST	341.0	SR	102.7	SS	648.1
CRT	.2535	CRS	.1059	CST	-.9291
LSA	723.6	MSA	151.0	SSA	22.1
EL1	342.1	EL2	99.0	ALF	4.76

LAUNCH DATE OCT 5 1970 FLIGHT TIME 86.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 252.134

RL	149.61	LAL	.00	LOL	11.34	VL	28.541	GAL	-12.07	AZL	87.04	HCA	116.53	SMA	138.30	ECC	.22383	INC	2.9569	V1	29.784
RP	107.48	LAP	2.65	LOP	127.70	VP	38.859	GAP	-1.22	AZP	91.31	TAL	237.01	TAP	353.34	RCA	107.35	APO	169.26	V2	35.258
RC	76.087	GL	13.96	GP	-32.79	ZAL	156.41	ZAP	79.13	ETS	3.53	ZAE	144.75	ETE	262.46	ZAC	67.22	ETC	257.24	CLP	-77.04

PLANETOCENTRIC CONIC

C3	35.820	VHL	5.968	DLA	1.43	RAL	213.29	RAD	6568.4	VEL	12.530	PTH	2.27	VHP	4.299	DPA	-47.06	RAP	214.29	ECC	1.5862

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 31 33	2401.51	-23.62	53.68	84.88	106.09	1 11 34	1801.5	-21.19	45.85
90.00	12 50 50	4956.64	21.82	216.74	83.94	71.49	14 13 27	4356.6	19.09	209.13
100.00	1 53 33	2136.98	-24.85	33.83	84.48	107.17	2 29 10	1537.0	-22.27	25.98
100.00	14 11 31	4696.41	23.04	197.15	83.49	70.41	15 29 47	4096.4	20.15	189.54
110.00	3 3 20	1918.58	-28.17	15.99	83.22	110.21	3 35 18	1318.6	-25.16	8.11
110.00	15 18 14	4487.57	26.30	179.91	82.10	67.34	16 33 1	3887.6	23.00	172.31

DIFFERENTIAL CORRECTIONS

TDE	.3661	TRA	-.6686	TC3	-.2360	BAU	.3082
RDE	.0081	RRA	-.3339	RC3	-.6027	FAU	.10369
FDE	1.8655	FRA	-1.0000	FC3	-2.5201	BSP	2673
BDE	.3662	BRA	.7473	BC3	.6473	FSP	-940

MID-COURSE EXECUTION ACCURACY

SGT	784.3	SGR	787.7	SG3	313.6
RRT	.6657	RRF	.8694	RTF	.7353
SGB	1111.6	RZ3	.1619	R13	.8796
SG1	1014.4	SG2	454.4	THA	45.18

ORBIT DETERMINATION ACCURACY

ST	400.9	SR	98.9	SS	674.6
CRT	.5410	CRS	-.2428	CST	-.9418
LSA	776.6	MSA	148.3	SSA	21.7
EL1	404.6	EL2	82.4	ALF	7.93

LAUNCH DATE OCT 5 1970 FLIGHT TIME 88.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 258.577

RL	149.61	LAL	.00	LOL	11.34	VL	28.523	GAL	-11.95	AZL	86.82	HCA	119.57	SMA	138.15	ECC	.22233	INC	3.1805	V1	29.784
RP	107.48	LAP	2.77	LOP	130.95	VP	38.846	GAP	-.69	AZP	91.57	TAL	236.65	TAP	356.22	RCA	107.44	APO	168.86	V2	35.259
RC	78.209	GL	15.10	GP	-34.11	ZAL	155.49	ZAP	83.76	ETS	.69	ZAE	142.90	ETE	256.35	ZAC	65.62	ETC	256.75	CLP	-82.46

PLANETOCENTRIC CONIC

C3	35.301	VHL	5.941	DLA	2.41	RAL	213.96	RAD	6568.4	VEL	12.517	PTH	2.27	VHP	4.277	DPA	-47.43	RAP	211.02	ECC	1.5810

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 27 2	2429.38	-24.13	55.56	85.75	105.28	1 7 32	1829.4	-21.80	47.67
90.00	13 0 45	4924.24	21.11	214.64	84.19	70.67	14 22 50	4324.2	18.28	207.10
100.00	1 49 30	2163.40	-25.37	35.62	85.36	106.36	2 25 34	1563.4	-22.89	27.70
100.00	14 20 59	4665.46	22.32	195.13	83.72	69.58	15 38 44	4065.5	19.33	187.61
110.00	3 0 19	1941.74	-28.71	17.58	84.15	109.41	3 32 41	1341.7	-25.79	9.62
110.00	15 26 38	4459.87	25.56	178.10	82.28	66.49	16 40 59	3859.9	22.16	170.59

DIFFERENTIAL CORRECTIONS

TDE	.4358	TRA	-.7206	TC3	-.3294	BAU	.3363
RDE	.0453	RRA	-.3263	RC3	-.6319	FAU	.10403
FDE	1.9344	FRA	-.9686	FC3	-2.5513	BSP	3045
BDE	.4381	BRA	.7910	BC3	.7126	FSP	-966

MID-COURSE EXECUTION ACCURACY

SGT	902.0	SGR	815.4	SG3	318.0
RRT	.7224	RRF	.8838	RTF	.7895
SGB	1215.9	RZ3	.1697	R13	.8945
SG1	1129.5	SG2	450.2	THA	41.02

ORBIT DETERMINATION ACCURACY

ST	469.3	SR	106.5	SS	697.8
CRT	.7670	CRS	-.5472	CST	-.9516
LSA	834.9	MSA	145.2	SSA	21.2
EL1	476.5	EL2	67.3	ALF	10.08

LAUNCH DATE OCT 5 1970 FLIGHT TIME 90.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 264.985

RL	149.61	LAL	.00	LOL	11.34	VL	28.498	GAL	-11.82	AZL	86.58	HCA	122.81	SMA	137.95	ECC	.22090	INC	3.4190	V1	29.784
RP	107.48	LAP	2.87	LOP	134.20	VP	38.827	GAP	-.18	AZP	91.85	TAL	236.19	TAP	359.01	RCA	107.48	APO	168.42	V2	35.258
RC	80.507	GL	16.33	GP	-35.39	ZAL	154.46	ZAP	88.20	ETS	357.75	ZAE	140.84	ETE	250.81	ZAC	64.06	ETC	256.27	CLP	-87.79

PLANETOCENTRIC CONIC

C3	35.023	VHL	5.918	DLA	3.42	RAL	214.74	RAD	6568.4	VEL	12.506	PTH	2.26	VHP	4.284	DPA	-47.76	RAP	207.89	ECC	1.5764

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 22 32	2459.07	-24.65	57.58	86.76	104.39	1 3 31	1859.1	-22.43	49.62
90.00	13 11 26	4890.55	20.33	212.47	84.56	69.85	14 32 57	4290.5	17.40	205.02
100.00	1 45 28	2191.54	-25.90	37.54	86.39	105.47	2 22 0	1591.5	-23.52	29.55
100.00	14 31 11	4633.31	21.54	193.06	84.07	68.75	15 48 24	4033.3	18.46	185.62
110.00	2 57 23	1966.46	-29.25	19.30	85.24	108.53	3 30 10	1366.5	-26.44	11.24
110.00	15 35 45	4431.16	24.77	176.24	82.59	65.65	16 49 36	3831.2	21.27	168.84

DIFFERENTIAL CORRECTIONS

TDE	.5140	TRA	-.7728	TC3	-.4264	BAU	.3661
RDE	.0814	RRA	-.3136	RC3	-.6553	FAU	.10298
FDE	1.9827	FRA	-.9183	FC3	-2.5457	BSP	3436
BDE	.5204	BRA	.8341	BC3	.7818	FSP	-975

MID-COURSE EXECUTION ACCURACY

SGT	1031.6	SGR	836.8	SG3	318.1
RRT	.7630	RRF	.8955	RTF	.8276
SGB	1328.3	RZ3	.1775	R13	.9057
SG1	1251.2	SG2	446.0	THA	37.28

ORBIT DETERMINATION ACCURACY

ST	546.3	SR	122.8	SS	718.1
CRT	.8958	CRS	-.7462	CST	-.9592
LSA	899.2	MSA	141.9	SSA	20.7
EL1	557.3	EL2	53.5	ALF	11.49

LAUNCH DATE OCT 5 1970 FLIGHT TIME 92.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 271.357

RL	149.61	LAL	.00	LOL	11.34	VL	28.468	GAL	-11.69	AZL	86.32	HCA	126.05	SMA	137.71	ECC	.21954	INC	3.6755	V1	29.784
RP	107.48	LAP	2.97	LOP	137.45	VP	38.804	GAP	.31	AZP	92.17	TAL	235.64	TAP	1.69	RCA	107.47	APO	167.94	V2	35.257
RC	82.739	GL	17.84	GP	-36.64	ZAL	153.29	ZAP	92.39	ETS	354.71	ZAE	138.61	ETE	245.86	ZAC	62.55	ETC	255.81	CLP	-92.98

PLANETOCENTRIC CONIC

C3	34.795	VHL	5.899	DLA	4.50	RAL	215.61	RAD	6568.4	VEL	12.497	PTH	2.26	VHP	4.319	DPA	-48.08	RAP	204.93	ECC	1.5726

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 17 54	2491.15	-25.18	59.79	87.94	103.41	0 59 25	1891.1	-23.08	51.74
90.00	13 23 1	4955.17	19.49	210.22	85.06	69.04	14 43 56	4255.2	16.46	202.85
100.00	1 41 21	2221.96	-26.43	39.64	87.59	104.49	2 18 23	1622.0	-24.18	31.57
100.00	14 42 14	4599.59	20.89	190.92	84.55	67.93	15 58 54	3999.6	17.51	183.56
110.00	2 54 27	1993.19	-29.82	21.17	86.49	107.55	3 27 40	1393.2	-27.13	13.02
110.00	15 45 38	4401.13	23.91	174.33	83.03	64.81	16 58 59	3801.1	20.32	167.03

DIFFERENTIAL CORRECTIONS

TDE	.6005	TRA	-.8240	TC3	-.5247	BAU	.3969
RDE	.1150	RRA	-.2963	RC3	-.6727	FAU	.10068
FDE	2.0080	FRA	-.8533	FC3	-2.5050	BSP	3851
BDE	.6116	BRA	.8756	BC3	.8531	FSP	-974

MID-COURSE EXECUTION ACCURACY

SGT	1169.6	SGR	851.9	SG3	314.3
RRT	.7915	RRF	.9051	RTF	.8544
SGB	1447.0	RZ3	.1858	R13	.9141
SG1	1377.9	SG2	442.0	THA	33.92

ORBIT DETERMINATION ACCURACY

ST	631.4	SR	144.0	SS	734.9
CRT	.9565	CRS	-.8582	CST	-.9652
LSA	969.5	MSA	138.4	SSA	20.0
EL1	646.3	EL2	41.1	ALF	12.36

LAUNCH DATE OCT 5 1970 FLIGHT TIME 94.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 277.695

RL	149.61	LAL	.00	LOL	11.34	VL	28.434	GAL	-11.55	AZL	86.05	HCA	129.29	SMA	137.43	ECC	.21824	INC	3.9541	V1	29.784
RP	107.49	LAP	3.06	LOP	140.70	VP	38.777	GAP	.77	AZP	92.51	TAL	235.00	TAP	4.30	RCA	107.43	APO	167.42	V2	35.255
RC	84.985	GL	19.05	GP	-37.88	ZAL	151.98	ZAP	96.30	ETS	351.58	ZAE	136.27	ETE	241.49	ZAC	61.07	ETC	255.38	CLP	-98.00

PLANETOCENTRIC CONIC

C3	34.629	VHL	5.885	DLA	5.66	RAL	216.58	RAD	6568.4	VEL	12.490	PTH	2.26	VHP	4.382	DPA	-48.45	RAP	202.17	ECC	1.5699

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 13 1	2526.28	-25.71	62.22	89.30	102.30	0 55 8	1926.3	-23.76	54.10
90.00	13 35 39	4817.63	18.55	207.06	85.71	68.22	14 55 56	4217.6	15.43	200.57
100.00	1 37 2	2255.27	-26.98	41.97	88.97	103.38	2 14 38	1655.3	-24.87	33.80
100.00	14 54 18	4563.87	19.76	188.67	85.19	67.10	16 10 22	3963.9	16.49	181.41
110.00	2 51 25	2022.50	-30.40	23.26	87.94	106.44	3 25 8	1422.5	-27.85	14.99
110.00	15 56 25	4369.41	22.98	172.34	83.61	63.97	17 9 15	3769.4	19.29	165.15

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.6961	TRA	-.8725	TC3	-.6220	BAU	.4279	SGT	1313.1	SGR	860.3	SG3	306.8	ST	724.9	SR	167.8	SS	749.2
RDE	.1492	RRA	-.2742	RC3	-.6835	FAU	.09720	RRT	.8112	RRF	.9130	RTF	.8735	CRT	.9832	CRS	-.9205	CST	-.9699
FDE	2.0171	FRA	-.7753	FC3	-2.4301	BSP	4269	SGB	1569.8	RZ3	.1950	R13	.9203	LSA	1047.1	MSA	135.1	SSA	19.2
BDE	.7120	BRA	.9146	BC3	.9242	FSP	-957	SG1	1507.4	SG2	438.3	THA	30.88	EL1	743.5	EL2	29.9	ALF	12.84

LAUNCH DATE OCT 5 1970 FLIGHT TIME 96.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 284.001

RL	149.61	LAL	.00	LOL	11.34	VL	28.395	GAL	-11.40	AZL	85.74	HCA	132.53	SMA	137.11	ECC	.21698	INC	4.2597	V1	29.784
RP	107.50	LAP	3.14	LOP	143.95	VP	38.746	GAP	1.21	AZP	92.88	TAL	234.28	TAP	6.82	RCA	107.36	APO	166.86	V2	35.253
RC	87.241	GL	20.59	GP	-39.15	ZAL	150.53	ZAP	99.89	ETS	348.36	ZAE	133.86	ETE	237.68	ZAC	59.59	ETC	254.96	CLP	-102.80

PLANETOCENTRIC CONIC

C3	34.546	VHL	5.878	DLA	6.91	RAL	217.66	RAD	6568.4	VEL	12.487	PTH	2.26	VHP	4.472	DPA	-48.91	RAP	199.61	ECC	1.5685

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 7 45	2565.29	-26.25	64.95	90.87	101.03	0 50 30	1965.3	-24.46	56.74
90.00	13 49 32	4777.40	17.52	205.36	86.53	67.39	15 9 10	4177.4	14.30	198.16
100.00	1 32 23	2292.28	-27.54	44.58	90.57	102.12	2 10 36	1692.3	-25.59	36.32
100.00	15 7 35	4525.65	18.73	186.30	85.98	66.27	16 23 1	3925.6	15.36	179.13
110.00	2 48 11	2055.08	-31.00	25.60	89.61	105.17	3 22 26	1455.1	-28.61	17.22
110.00	16 8 17	4335.61	21.96	170.25	84.36	63.12	17 20 32	3735.6	18.17	163.16

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.8020	TRA	-.9169	TC3	-.7154	BAU	.4578	SGT	1459.2	SGR	860.5	SG3	295.9	ST	827.5	SR	194.2	SS	763.5
RDE	.1832	RRA	-.2459	RC3	-.6060	FAU	.09247	RRT	.8245	RRF	.9193	RTF	.8864	CRT	.9942	CRS	-.9570	CST	-.9735
FDE	2.0150	FRA	-.6817	FC3	-2.3173	BSP	4659	SGB	1694.0	RZ3	.2058	R13	.9243	LSA	1134.7	MSA	132.6	SSA	18.1
BDE	.8227	BRA	.9493	BC3	.9912	FSP	-917	SG1	1637.5	SG2	433.9	THA	28.07	EL1	849.8	EL2	20.4	ALF	13.14

LAUNCH DATE OCT 5 1970 FLIGHT TIME 98.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 290.276

RL	149.61	LAL	.00	LOL	11.34	VL	28.352	GAL	-11.25	AZL	85.40	HCA	135.77	SMA	136.77	ECC	.21577	INC	4.5986	V1	29.784
RP	107.51	LAP	3.21	LOP	147.21	VP	38.712	GAP	1.64	AZP	93.30	TAL	233.49	TAP	9.26	RCA	107.26	APO	166.28	V2	35.249
RC	89.506	GL	22.28	GP	-40.48	ZAL	148.90	ZAP	103.12	ETS	345.04	ZAE	131.39	ETE	234.38	ZAC	58.08	ETC	254.55	CLP	-107.37

PLANETOCENTRIC CONIC

C3	34.573	VHL	5.880	DLA	8.28	RAL	218.86	RAD	6568.4	VEL	12.488	PTH	2.26	VHP	4.590	DPA	-49.50	RAP	197.21	ECC	1.5690

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 1 52	2609.25	-26.78	68.06	92.69	99.56	0 45 21	2009.2	-25.19	59.76
90.00	14 4 58	4733.85	16.36	202.69	87.54	66.56	15 23 52	4133.8	13.05	195.57
100.00	1 27 13	2333.96	-28.10	47.55	92.42	100.65	2 6 7	1734.0	-26.34	39.19
100.00	15 22 18	4484.37	17.58	183.78	86.97	65.43	16 37 2	3884.4	14.12	176.69
110.00	2 44 37	2091.78	-31.63	28.28	91.54	103.70	3 19 28	1491.8	-29.42	19.77
110.00	16 21 24	4299.32	20.82	168.05	85.29	62.26	17 33 3	3699.3	16.94	161.07

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.9168	TRA	-.9581	TC3	-.8050	BAU	.4889	SGT	1607.6	SGR	860.2	SG3	283.2	ST	937.5	SR	218.4	SS	770.9
RDE	.2129	RRA	-.2171	RC3	-.6862	FAU	.08759	RRT	.8323	RRF	.9252	RTF	.8966	CRT	.9967	CRS	-.9758	CST	-.9767
FDE	1.9853	FRA	-.5961	FC3	-2.1933	BSP	5133	SGB	1823.3	RZ3	.2161	R13	.9282	LSA	1226.4	MSA	129.5	SSA	17.1
BDE	.9412	BRA	.9824	BC3	1.0578	FSP	-897	SG1	1771.1	SG2	432.8	THA	25.65	EL1	962.5	EL2	17.2	ALF	13.08

LAUNCH DATE OCT 5 1970 FLIGHT TIME 100.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 296.519

RL	149.61	LAL	.00	LOL	11.34	VL	28.306	GAL	-11.10	AZL	85.02	HCA	139.01	SMA	136.40	ECC	.21461	INC	4.9793	V1	29.784
RP	107.52	LAP	3.26	LOP	150.46	VP	38.674	GAP	2.05	AZP	93.76	TAL	232.63	TAP	11.64	RCA	107.13	APO	165.67	V2	35.245
RC	91.778	GL	24.14	GP	-41.91	ZAL	147.10	ZAP	105.98	ETS	341.61	ZAE	128.88	ETE	231.53	ZAC	56.50	ETC	254.13	CLP	-111.71

PLANETOCENTRIC CONIC

C3	34.748	VHL	5.895	DLA	9.79	RAL	220.18	RAD	6568.4	VEL	12.495	PTH	2.26	VHP	4.737	DPA	-50.25	RAP	194.92	ECC	1.5719

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 51 14	2659.46	-27.30	71.64	94.80	97.93	24 35 33	2059.5	-25.93	63.24
90.00	14 22 15	4686.18	15.05	199.80	88.79	65.73	15 40 21	4086.2	11.64	192.78
100.00	1 21 20	2381.55	-28.65	50.98	94.57	98.92	2 1 1	1781.5	-27.12	42.51
100.00	15 38 46	4439.32	16.28	181.06	88.20	64.58	16 52 45	3839.3	12.73	174.07
110.00	2 40 33	2133.65	-32.26	31.38	95.80	101.97	3 16 6	1533.7	-30.28	22.73
110.00	16 36 2	4259.98	19.56	165.70	86.44	61.39	17 47 2	3660.0	15.59	158.83

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.0457	TRA	-.9829	TC3	-.8856	BAU	.5180	SGT	1755.6	SGR	852.4	SG3	267.8	ST	1058.5	SR	244.6	SS	779.5
RDE	.2443	RRA	-.1821	RC3	-.6775	FAU	.08174	RRT	.8360	RRF	.9298	RTF	.9038	CRT	.9960	CRS	-.9877	CST	-.9793
FDE	1.9523	FRA	-.5003	FC3	-2.0367	BSP	5563	SGB	1951.6	RZ3	.2279	R13	.9305	LSA	1330.9	MSA	127.5	SSA	15.8
BDE	1.0738	BRA	1.0094	BC3	1.1150	FSP	-855	SG1	1905.3	SG2	431.4	THA	23.37	EL1	1086.1	EL2	21.4	ALF	12.97

LAUNCH DATE OCT 5 1970 FLIGHT TIME 102.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 302.734

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RL  149.61 LAL    .00 LOL  11.34 VL  28.257 GAL -10.93 AZL  84.59 HCA 142.24 SMA 136.01 ECC .21348 INC 5.4129 V1  29.784
RP  107.53 LAP   3.31 LOP 153.71 VP  38.634 GAP   2.44 AZP  94.28 TAL 231.70 TAP  13.94 RCA 106.98 APO 165.05 V2  35.240
RC  94.056 GL   26.21 GP  -43.51 ZAL 145.08 ZAP 108.42 ETS 338.03 ZAE 126.31 ETE 229.07 ZAC  54.80 ETC 253.69 CLP-115.83
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PLANETOCENTRIC CONIC

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C3  35.122 VHL  5.926 DLA  11.47 RAL 221.65 RAD 6568.4 VEL 12.510 PTH   2.26 VHP  4.917 DPA -51.21 RAP 192.67 ECC 1.5780
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 43 21	2717.67	-27.77	75.84	97.26	95.78	24 28 39	2117.7	-26.68	67.34
90.00	14 41 51	4633.37	13.54	196.65	90.34	64.89	15 59 5	4033.4	10.05	189.72
100.00	1 14 25	2436.64	-29.16	54.99	97.09	96.87	1 55 2	1836.6	-27.91	46.42
100.00	15 57 24	4389.63	14.81	178.11	89.71	63.73	17 10 34	3789.6	11.16	171.22
110.00	2 35 47	2182.06	-32.89	35.02	96.45	99.90	3 12 9	1582.1	-31.17	26.22
110.00	16 52 32	4216.98	18.14	163.17	87.87	60.52	18 2 49	3617.0	14.07	156.42

DIFFERENTIAL CORRECTIONS

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TDE 1.1949 TRA-1.0170 TC3 -.9510 BAU  .5424
RDE  .2806 RRA -.1373 RC3 -.6556 FAU .07465
FDE 1.9261 FRA -.3871 FC3-1.8401 BSP   5856
BDE 1.2274 BRA 1.0262 BC3 1.1551 FSP   -773
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MID-COURSE EXECUTION ACCURACY

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SGT 1900.5 SGR  834.2 SG3  250.0
RRT  .8360 RRF  .9330 RTF  .9081
SGB 2075.5 R23  .2421 R13  .9308
SG1 2030.8 SG2  428.4 THA  21.14
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ORBIT DETERMINATION ACCURACY

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ST  1194.3 SR   275.3 SS   793.0
CRT  .9928 CRS -.9950 CST -.9813
LSA 1454.1 MSA  128.2 SSA   14.1
EL1 1225.2 EL2   32.2 ALF  12.90
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LAUNCH DATE OCT 5 1970 FLIGHT TIME 104.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 308.918

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RL  149.61 LAL    .00 LOL  11.34 VL  28.205 GAL -10.76 AZL  84.09 HCA 145.47 SMA 135.61 ECC .21240 INC 5.9144 V1  29.784
RP  107.55 LAP   3.35 LOP 156.96 VP  38.591 GAP   2.82 AZP  94.88 TAL 230.72 TAP  16.19 RCA 106.80 APO 164.41 V2  35.235
RC  96.539 GL   28.51 GP  -45.31 ZAL 142.82 ZAP 110.42 ETS 334.28 ZAE 123.66 ETE 226.94 ZAC  52.94 ETC 253.20 CLP-119.75
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PLANETOCENTRIC CONIC

```
C3  35.781 VHL  5.982 DLA  13.36 RAL 223.29 RAD 6568.4 VEL 12.536 PTH   2.27 VHP  5.137 DPA -52.40 RAP 190.34 ECC 1.5889
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 33 52	2786.25	-28.14	80.82	100.15	93.31	24 20 18	2186.5	-27.38	72.24
90.00	15 4 24	4574.18	11.81	193.17	92.26	64.07	16 20 38	3974.2	8.23	186.33
100.00	1 6 7	2501.42	-29.60	59.76	100.04	94.40	1 47 49	1901.4	-28.67	51.08
100.00	16 18 46	4334.25	13.11	174.87	91.59	62.90	17 31 0	3734.3	9.38	168.07
110.00	2 30 3	2238.79	-33.47	39.35	99.57	97.40	3 7 22	1638.8	-32.08	30.39
110.00	17 11 19	4169.64	16.53	160.44	89.66	59.64	18 20 49	3569.6	12.37	153.80

DIFFERENTIAL CORRECTIONS

```
TDE 1.3564 TRA-1.0413 TC3-1.0107 BAU  .5717
RDE  .3068 RRA -.0983 RC3 -.6379 FAU .06872
FDE 1.8614 FRA -.3090 FC3-1.6627 BSP   6431
BDE 1.3907 BRA 1.0459 BC3 1.1951 FSP   -754
```

MID-COURSE EXECUTION ACCURACY

```
SGT 2049.6 SGR  823.4 SG3  232.3
RRT  .8317 RRF  .9356 RTF  .9134
SGB 2208.8 R23  .2524 R13  .9333
SG1 2166.1 SG2  432.6 THA  19.28
```

ORBIT DETERMINATION ACCURACY

```
ST  1335.7 SR   296.2 SS   792.7
CRT  .9898 CRS -.9979 CST -.9836
LSA 1576.1 MSA  126.0 SSA   12.9
EL1 1367.5 EL2   41.2 ALF  12.39
```

LAUNCH DATE OCT 5 1970 FLIGHT TIME 106.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 315.075

```
RL  149.61 LAL    .00 LOL  11.34 VL  28.151 GAL -10.57 AZL  83.49 HCA 148.70 SMA 135.18 ECC .21136 INC 6.5054 V1  29.784
RP  107.57 LAP   3.37 LOP 160.20 VP  38.546 GAP   3.18 AZP  95.56 TAL 229.68 TAP  18.38 RCA 106.61 APO 163.76 V2  35.229
RC  98.624 GL   31.10 GP  -47.38 ZAL 140.27 ZAP 111.95 ETS 330.32 ZAE 120.91 ETE 225.07 ZAC  50.84 ETC 252.82 CLP-123.51
```

PLANETOCENTRIC CONIC

```
C3  36.840 VHL  6.070 DLA  15.48 RAL 225.12 RAD 6568.4 VEL 12.578 PTH   2.28 VHP  5.406 DPA -53.85 RAP 187.80 ECC 1.6063
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 22 5	2868.51	-28.32	86.83	103.55	90.30	24 9 54	2268.5	-27.97	78.18
90.00	15 30 48	4506.66	9.77	189.26	94.68	63.29	16 45 55	3906.7	6.11	182.50
100.00	0 55 51	2578.82	-29.86	65.50	103.53	91.39	1 38 50	1978.8	-29.35	56.73
100.00	16 43 39	4271.59	11.14	171.26	93.96	62.08	17 54 51	3671.6	7.32	164.55
110.00	2 22 59	2306.18	-33.94	44.55	103.29	94.36	3 1 25	1706.2	-32.96	35.45
110.00	17 33 0	4116.99	14.69	157.47	91.90	58.78	18 41 37	3517.0	10.45	150.93

DIFFERENTIAL CORRECTIONS

```
TDE 1.5506 TRA-1.0518 TC3-1.0469 BAU  .5953
RDE  .3377 RRA -.0473 RC3 -.6041 FAU .06167
FDE 1.8077 FRA -.2164 FC3-1.4493 BSP   6854
BDE 1.5869 BRA 1.0829 BC3 1.2087 FSP   -695
```

MID-COURSE EXECUTION ACCURACY

```
SGT 2195.2 SGR  800.9 SG3  212.6
RRT  .8225 RRF  .9358 RTF  .9169
SGB 2336.8 R23  .2645 R13  .9342
SG1 2295.8 SG2  435.5 THA  17.35
```

ORBIT DETERMINATION ACCURACY

```
ST  1496.5 SR   319.8 SS   797.9
CRT  .9856 CRS -.9993 CST -.9854
LSA 1721.1 MSA  126.6 SSA   11.4
EL1 1529.4 EL2   52.9 ALF  11.91
```

LAUNCH DATE OCT 5 1970 FLIGHT TIME 108.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 321.204

```
RL  149.61 LAL    .00 LOL  11.34 VL  28.095 GAL -10.38 AZL  82.78 HCA 151.92 SMA 134.75 ECC .21035 INC 7.2167 V1  29.784
RP  107.59 LAP   3.39 LOP 163.45 VP  38.499 GAP   3.52 AZP  96.37 TAL 228.59 TAP  20.51 RCA 106.41 APO 163.10 V2  35.222
RC 100.910 GL   34.03 GP  -49.79 ZAL 137.39 ZAP 112.95 ETS 326.09 ZAE 118.00 ETE 223.37 ZAC  48.44 ETC 251.90 CLP-127.16
```

PLANETOCENTRIC CONIC

```
C3  38.490 VHL  6.204 DLA  17.89 RAL 227.19 RAD 6568.5 VEL 12.643 PTH   2.30 VHP  5.740 DPA -55.56 RAP 184.82 ECC 1.6334
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 6 56	2969.44	-28.13	94.21	107.55	86.61	23 56 25	2369.4	-28.30	85.55
90.00	16 2 29	4427.88	7.33	184.76	97.80	62.57	17 16 17	3827.9	3.59	178.07
100.00	0 42 44	2673.15	-29.81	72.51	107.65	87.70	1 27 17	2073.1	-29.81	63.70
100.00	17 13 17	4199.40	8.81	167.17	97.00	61.32	18 23 16	3599.4	4.92	160.55
110.00	2 14 3	2387.45	-34.18	50.88	107.72	90.62	2 53 51	1787.5	-33.72	41.67
110.00	17 58 28	4057.86	12.58	154.19	94.75	57.95	19 6 5	3457.9	8.26	147.76

DIFFERENTIAL CORRECTIONS

```
TDE 1.7842 TRA-1.0497 TC3-1.0577 BAU  .6152
RDE  .3686 RRA  .0127 RC3 -.5575 FAU .05427
FDE 1.7512 FRA -.1283 FC3-1.2208 BSP   7247
BDE 1.8215 BRA 1.0498 BC3 1.1956 FSP   -628
```

MID-COURSE EXECUTION ACCURACY

```
SGT 2339.9 SGR  770.3 SG3  191.7
RRT  .8063 RRF  .9324 RTF  .9201
SGB 2463.4 R23  .2759 R13  .9350
SG1 2423.8 SG2  439.9 THA  15.38
```

ORBIT DETERMINATION ACCURACY

```
ST  1676.3 SR   339.2 SS   802.7
CRT  .9805 CRS -.9989 CST -.9871
LSA 1884.9 MSA  128.5 SSA    9.7
EL1 1709.1 EL2   65.4 ALF  11.24
```

LAUNCH DATE OCT 5 1970 FLIGHT TIME 110.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 327.305

RL	149.61	LAL	.00	LOL	11.34	VL	28.037	GAL	-10.19	AZL	81.90	HCA	155.14	SMA	134.31	ECC	.20939	INC	8.0955	V1	29.784
RP	107.61	LAP	3.39	LOP	166.70	VP	38.450	GAP	3.85	AZP	97.35	TAL	227.44	TAP	22.58	RCA	106.18	APO	162.43	V2	35.215
RC	103.196	GL	37.34	GP	-52.61	ZAL	134.12	ZAP	113.38	ETS	321.51	ZAE	114.85	ETE	221.70	ZAC	45.64	ETC	250.95	CLP	-130.80

PLANETOCENTRIC CONIC

C3	41.047	VHL	6.407	DLA	20.63	RAL	229.56	RAD	6568.6	VEL	12.744	PTH	2.32	VHP	6.167	DPA	-57.52	RAP	181.11	ECC	1.6755

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 46 25	3097.28	-27.27	103.46	112.19	82.06	23 38 2	2497.3	-28.09	94.89
90.00	16 41 52	4332.53	4.30	179.38	101.89	61.99	17 54 4	3732.5	.52	172.74
100.00	0 25 17	2791.15	-29.17	81.22	112.47	83.17	1 11 48	2191.2	-29.81	72.47
100.00	17 49 37	4113.89	5.99	162.39	100.97	60.66	18 58 11	3513.9	2.03	155.84
110.00	2 2 26	2487.21	-33.98	58.67	113.00	86.02	2 43 53	1887.2	-34.16	49.43
110.00	18 28 57	3980.59	10.12	150.53	98.45	57.17	19 35 28	3390.6	5.73	144.19

DIFFERENTIAL CORRECTIONS

TDE	2.0700	TRA	-1.0344	TC3	-1.0398	BAU	.6330	SGT	2485.7	SGR	730.8	SG3	170.2	ST	1875.2	SR	346.0	SS	803.1
RDE	.3854	RRA	.8813	RC3	-.4993	FAU	.04885	RRT	.7781	RRF	.9218	RTF	.9239	CRT	.9740	CRS	-.9966	CST	-.9888
FDE	1.6848	FRA	-.0482	FC3	-.9903	BSP	7710	SGB	2590.9	RZS	.2845	R13	.9365	LSA	2064.9	MSA	130.2	SSA	8.2
BDE	2.1055	BRA	1.0376	BC3	1.1534	FSP	-569	SG1	2552.1	SG2	447.1	THA	13.30	EL1	1905.3	EL2	77.2	ALF	10.20

MID-COURSE EXECUTION ACCURACY

ORBIT DETERMINATION ACCURACY

LAUNCH DATE OCT 5 1970 FLIGHT TIME 112.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 333.377

RL	149.61	LAL	.00	LOL	11.34	VL	27.977	GAL	-9.98	AZL	80.78	HCA	158.34	SMA	133.86	ECC	.20847	INC	9.2159	V1	29.784
RP	107.64	LAP	3.39	LOP	169.94	VP	38.399	GAP	4.17	AZP	98.58	TAL	226.25	TAP	24.60	RCA	105.95	APO	161.76	V2	35.207
RC	105.482	GL	41.10	GP	-55.94	ZAL	130.40	ZAP	113.15	ETS	316.45	ZAE	111.38	ETE	219.86	ZAC	42.35	ETC	249.63	CLP	-134.58

PLANETOCENTRIC CONIC

C3	45.083	VHL	6.713	DLA	23.73	RAL	232.30	RAD	6568.7	VEL	12.901	PTH	2.35	VHP	6.727	DPA	-59.67	RAP	176.20	ECC	1.7416

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 16 1	3268.91	-25.07	115.53	117.36	76.39	23 10 30	2668.9	-26.70	107.24
90.00	17 34 9	4207.93	.29	172.42	107.52	61.68	18 44 17	3607.9	-3.49	165.79
100.00	0 0 23	2945.05	-27.41	92.31	117.97	77.59	0 49 28	2345.1	-28.85	83.80
100.00	18 36 24	4007.02	2.39	156.49	106.35	60.19	19 43 11	3407.0	-1.59	149.97
110.00	1 46 43	2612.40	-32.97	68.29	119.22	80.41	2 30 15	2012.4	-33.94	59.19
110.00	19 6 38	3912.44	7.21	146.35	103.37	56.50	20 11 46	3312.4	2.76	140.09

DIFFERENTIAL CORRECTIONS

TDE	2.4378	TRA	-.9947	TC3	-.9803	BAU	.6430	SGT	2630.9	SGR	673.7	SG3	148.0	ST	2099.6	SR	333.0	SS	802.9
RDE	.3857	RRA	.1677	RC3	-.4220	FAU	.03929	RRT	.7254	RRF	.8948	RTF	.9284	CRT	.9621	CRS	-.9903	CST	-.9905
FDE	1.6181	FRA	.0884	FC3	-.7549	BSP	8105	SGB	2715.8	RZS	.2911	R13	.9384	LSA	2268.5	MSA	133.3	SSA	6.7
BDE	2.4682	BRA	1.0088	BC3	1.0673	FSP	-498	SG1	2677.3	SG2	455.7	THA	10.84	EL1	2124.0	EL2	89.8	ALF	8.69

MID-COURSE EXECUTION ACCURACY

ORBIT DETERMINATION ACCURACY

LAUNCH DATE OCT 5 1970 FLIGHT TIME 114.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 339.417

RL	149.61	LAL	.00	LOL	11.34	VL	27.917	GAL	-9.76	AZL	79.30	HCA	161.54	SMA	133.40	ECC	.20757	INCID	.7032	V1	29.784
RP	107.66	LAP	3.37	LOP	173.19	VP	38.347	GAP	4.48	AZP	100.16	TAL	225.02	TAP	26.56	RCA	105.71	APO	161.09	V2	35.198
RC	107.765	GL	45.35	GP	-59.86	ZAL	126.14	ZAP	112.20	ETS	310.64	ZAE	107.47	ETE	217.48	ZAC	38.45	ETC	247.67	CLP	-138.82

PLANETOCENTRIC CONIC

C3	51.591	VHL	7.183	DLA	27.22	RAL	235.55	RAD	6568.9	VEL	13.151	PTH	2.40	VHP	7.498	DPA	-61.85	RAP	169.44	ECC	1.8491

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	21 17 9	3546.69	-19.38	133.88	122.11	68.94	22 16 16	2946.7	-22.07	126.24
90.00	18 58 56	3997.81	-6.44	160.66	116.13	62.37	20 5 34	3397.8	-10.09	153.88
100.00	23 15 9	3166.27	-23.27	107.42	123.65	70.68	24 7 56	2566.3	-25.69	99.46
100.00	19 43 36	3853.45	-2.81	148.06	114.13	60.23	20 47 50	3253.5	-6.75	141.50
110.00	1 24 11	2774.82	-30.48	80.29	126.24	73.72	2 10 26	2174.8	-32.41	71.60
110.00	19 55 0	3817.67	3.62	141.36	110.13	55.99	20 58 38	3217.7	-.87	135.15

DIFFERENTIAL CORRECTIONS

TDE	2.9271	TRA	-.9200	TC3	-.8730	BAU	.6427	SGT	2776.0	SGR	594.0	SG3	125.6	ST	2348.3	SR	278.6	SS	800.6
RDE	.3360	RRA	.2777	RC3	-.3258	FAU	.03158	RRT	.6108	RRF	.8199	RTF	.9347	CRT	.9291	CRS	-.9680	CST	-.9921
FDE	1.5487	FRA	.0918	FC3	-.5299	BSP	8491	SGB	2838.8	RZS	.2935	R13	.9415	LSA	2492.9	MSA	137.2	SSA	5.4
BDE	2.9464	BRA	.9610	BC3	.9318	FSP	-426	SG1	2800.2	SG2	466.3	THA	7.66	EL1	2362.6	EL2	102.4	ALF	6.30

MID-COURSE EXECUTION ACCURACY

ORBIT DETERMINATION ACCURACY

LAUNCH DATE OCT 5 1970 FLIGHT TIME 116.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 345.421

RL	149.61	LAL	.00	LOL	11.34	VL	27.855	GAL	-9.34	AZL	77.21	HCA	164.72	SMA	132.94	ECC	.20669	INC	12.7853	V1	29.784
RP	107.69	LAP	3.34	LOP	176.43	VP	38.294	GAP	4.76	AZP	102.35	TAL	223.73	TAP	28.46	RCA	105.46	APO	160.42	V2	35.189
RC	110.046	GL	50.07	GP	-64.48	ZAL	121.28	ZAP	110.46	ETS	303.45	ZAE	102.93	ETE	213.83	ZAC	33.76	ETC	244.52	CLP	-144.20

PLANETOCENTRIC CONIC

C3	62.842	VHL	7.927	DLA	31.05	RAL	239.49	RAD	6569.2	VEL	13.572	PTH	2.48	VHP	8.618	DPA	-63.71	RAP	159.93	ECC	2.0342

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
76.70	18 36 8	4160.10	-12.95	176.11	127.05	61.53	19 47 28	3560.1	-16.66	169.19
103.30	22 9 23	3481.18	-12.94	125.98	127.04	61.53	23 7 24	2881.2	-16.64	119.07
76.70	18 36 8	4160.10	-12.95	176.11	127.05	61.53	19 47 28	3560.1	-16.66	169.19
103.30	22 9 23	3481.18	-12.94	125.98	127.04	61.53	23 7 24	2881.2	-16.64	119.07
110.00	0 47 15	3001.50	-25.13	95.73	133.37	66.03	1 37 17	2401.5	-28.15	87.86
110.00	21 3 22	3687.77	-1.34	134.58	119.95	55.84	22 4 50	3087.8	-5.81	128.35

DIFFERENTIAL CORRECTIONS

TDE	3.6040	TRA	-.7840	TC3	-.7128	BAU	.6248	SGT	2915.3	SGR	502.5	SG3	103.5	ST	2612.6	SR	155.0	SS	797.6
RDE	.1549	RRA	.4213	RC3	-.2126	FAU	.02399	RRT	.2985	RRF	.5653	RTF	.9444	CRT	.6690	CRS	-.7468	CST	-.9939
FDE	1.4810	FRA	.1463	FC3	-.3305	BSP	8902	SGB	2958.3	RZS	.2887	R13	.9469	LSA	2732.3	MSA	141.8	SSA	4.1
BDE	3.6075	BRA	.8900	BC3	.7436	FSP	-356	SG1	2919.3	SG2	478.9	THA	3.03	EL1	2614.6	EL2	115.1	ALF	2.28

MID-COURSE EXECUTION ACCURACY

ORBIT DETERMINATION ACCURACY

LAUNCH DATE OCT 5 1970 FLIGHT TIME 118.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 351.375

```
RL  149.61 LAL    .00 LOL  11.34 VL  27.793 GAL  -9.29 AZL  74.08 HCA 167.87 SMA 132.48 ECC .20581 INC15.9216 V1  29.784
RP  107.72 LAP   3.30 LOP 179.67 VP  38.239 GAP   5.03 AZP 105.58 TAL 222.40 TAP  30.27 RCA 105.22 APO 159.75 V2  35.179
RC 112.324 GL   55.12 GP -69.81 ZAL 115.79 ZAP 107.84 ETS 293.24 ZAE  97.49 ETE 207.08 ZAC  28.07 ETC 238.88 CLP-152.58
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PLANETOCENTRIC CONIC

```
C3  84.122 VHL  9.172 DLA  35.02 RAL 244.42 RAD 6569.6 VEL 14.334 PTH   2.61 VHP 10.372 DPA -64.51 RAP 147.00 ECC 2.3844
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
68.48	18 5 0	4391.72	-11.93	193.29	136.89	56.83	19 18 12	3791.7	-16.21	186.74
111.52	23 21 51	3386.13	-11.91	118.06	136.88	56.82	24 18 17	2786.1	-16.19	111.51
68.48	18 5 0	4391.72	-11.93	193.29	136.89	56.83	19 18 12	3791.7	-16.21	186.74
111.52	23 21 51	3386.13	-11.91	118.06	136.88	56.82	24 18 17	2786.1	-16.19	111.51
68.48	18 5 0	4391.72	-11.93	193.29	136.89	56.83	19 18 12	3791.7	-16.21	186.74
111.52	23 21 51	3386.13	-11.91	118.06	136.88	56.82	24 18 17	2786.1	-16.19	111.51

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 4.5666 TRA -.5147 TC3 -.4972 BAU  .5686   SGT 3020.6 SGR  553.0 SG3   82.9     ST  2855.3 SR   285.5 SS   803.7
 RDE -.3990 RRA  .6083 RC3 -.0919 FAU .01653   RRT -.4427 RRF -.1918 RTF  .9592     CRT -.8921 CRS  .8474 CST -.9959
 FDE 1.4337 FRA  .1946 FC3 -.1701 BSP   9286   SGB 3070.8 R23 -.2727 R13 -.9556     LSA 2976.3 MSA  147.9 SSA    3.0
 BDE 4.5840 BRA  .7968 BC3  .5056 FSP   -288   SG1 3030.8 SG2  494.2 THA 175.24     EL1 2866.7 EL2  128.5 ALF 174.89
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LAUNCH DATE OCT 5 1970 FLIGHT TIME 120.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 357.251

```
RL  149.61 LAL    .00 LOL  11.34 VL  27.730 GAL  -9.03 AZL  68.82 HCA 170.96 SMA 132.02 ECC .20483 INC21.1820 V1  29.784
RP  107.75 LAP   3.26 LOP 182.90 VP  38.184 GAP   5.28 AZP 110.94 TAL 221.00 TAP  31.96 RCA 104.98 APO 159.06 V2  35.169
RC 114.599 GL   59.91 GP -75.44 ZAL 109.70 ZAP 104.35 ETS 275.04 ZAE  90.62 ETE 192.11 ZAC  21.04 ETC 227.45 CLP-170.35
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PLANETOCENTRIC CONIC

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C3 130.796 VHL 11.437 DLA  38.51 RAL 250.78 RAD 6570.4 VEL 15.879 PTH   2.81 VHP 13.423 DPA -62.94 RAP 131.38 ECC 3.1526
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.73	17 59 51	4574.46	-9.16	206.04	149.11	52.43	19 16 5	3974.5	-13.97	199.93
117.27	0 21 42	3388.54	-9.14	116.25	149.10	52.42	1 18 11	2788.5	-13.95	110.14
62.73	17 59 51	4574.46	-9.16	206.04	149.11	52.43	19 16 5	3974.5	-13.97	199.93
117.27	0 21 42	3388.54	-9.14	116.25	149.10	52.42	1 18 11	2788.5	-13.95	110.14
62.73	17 59 51	4574.46	-9.16	206.04	149.11	52.43	19 16 5	3974.5	-13.97	199.93
117.27	0 21 42	3388.54	-9.14	116.25	149.10	52.42	1 18 11	2788.5	-13.95	110.14

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 5.7704 TRA  .0956 TC3 -.2382 BAU  .4165   SGT 2942.4 SGR 1180.8 SG3   65.5     ST  2891.0 SR  1086.1 SS   846.3
 RDE-2.1483 RRA  .7584 RC3 -.0010 FAU .00884   RRT -.8866 RRF -.7877 RTF  .9812     CRT -.9901 CRS  .9798 CST -.9982
 FDE 1.4534 FRA  .2526 FC3 -.0585 BSP   9476   SGB 3170.5 R23 -.2365 R13 -.9687     LSA 3198.3 MSA  156.4 SSA    1.9
 BDE 6.1574 BRA  .7644 BC3  .2382 FSP   -224   SG1 3128.6 SG2  513.6 THA 159.85     EL1 3085.0 EL2  143.0 ALF 159.55
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LAUNCH DATE OCT 5 1970 FLIGHT TIME 122.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 362.956

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RL  149.61 LAL    .00 LOL  11.34 VL  27.666 GAL  -8.73 AZL  58.39 HCA 173.89 SMA 131.56 ECC .20356 INC31.6115 V1  29.784
RP  107.79 LAP   3.20 LOP 186.14 VP  38.128 GAP   5.47 AZP 121.47 TAL 219.50 TAP  33.39 RCA 104.78 APO 158.34 V2  35.158
RC 116.871 GL   62.46 GP -77.66 ZAL 103.24 ZAP 100.10 ETS 237.81 ZAE  80.91 ETE 157.76 ZAC  12.39 ETC 210.12 CLP 145.15
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PLANETOCENTRIC CONIC

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C3 261.289 VHL 16.164 DLA  39.71 RAL 259.09 RAD 6571.5 VEL 19.560 PTH   3.11 VHP 19.615 DPA -56.85 RAP 116.41 ECC 5.3002
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.90	18 24 21	4711.09	-4.59	213.79	163.57	50.51	19 42 52	4111.1	-9.64	207.95
119.10	1 3 30	3475.72	-4.57	119.86	163.55	50.51	2 1 26	2875.7	-9.62	114.02
60.90	18 24 21	4711.09	-4.59	213.79	163.57	50.51	19 42 52	4111.1	-9.64	207.95
119.10	1 3 30	3475.72	-4.57	119.86	163.55	50.51	2 1 26	2875.7	-9.62	114.02
60.90	18 24 21	4711.09	-4.59	213.79	163.57	50.51	19 42 52	4111.1	-9.64	207.95
119.10	1 3 30	3475.72	-4.57	119.86	163.55	50.51	2 1 26	2875.7	-9.62	114.02

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 5.3344 TRA 1.3215 TC3 -.0235 BAU  .1780   SGT 1987.9 SGR 2539.7 SG3   53.0     ST  1899.6 SR  2535.4 SS  1000.6
 RDE-7.1530 RRA  .0508 RC3 -.0452 FAU-.00119   RRT -.9445 RRF -.9560 RTF  .9979     CRT -.9951 CRS  .9959 CST-1.0000
 FDE 1.6592 FRA  .3758 FC3  .0040 BSP   9632   SGB 3225.2 R23 -.1669 R13 -.9847     LSA 3318.5 MSA  159.6 SSA    1.5
 BDE 8.9231 BRA 1.3225 BC3  .0510 FSP   -177   SG1 3182.9 SG2  521.0 THA 127.66     EL1 3164.5 EL2  150.6 ALF 126.80
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LAUNCH DATE OCT 5 1970 FLIGHT TIME 124.00 ARRIVAL DATE FEB 6 1971

HELIOCENTRIC CONIC DISTANCE 368.109

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RL  149.61 LAL    .00 LOL  11.34 VL  27.602 GAL  -8.31 AZL  32.22 HCA 176.30 SMA 131.10 ECC .20105 INC57.7817 V1  29.784
RP  107.82 LAP   3.13 LOP 189.37 VP  38.071 GAP   5.50 AZP 147.73 TAL 217.67 TAP  33.97 RCA 104.74 APO 157.45 V2  35.147
RC 119.138 GL   55.95 GP -65.19 ZAL  97.20 ZAP  95.69 ETS 198.47 ZAE  63.66 ETE 121.56 ZAC  13.54 ETC 256.09 CLP 103.67
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PLANETOCENTRIC CONIC

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C3 777.709 VHL 27.887 DLA  32.51 RAL 268.95 RAD 6572.8 VEL 29.983 PTH   3.45 VHP 34.776 DPA -41.23 RAP 106.67 ECC13.7991
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.31	20 12 32	4603.94	-.25	202.11	178.57	57.49	21 29 16	4003.9	-4.54	195.77
106.69	0 33 56	3780.28	-.24	141.00	178.56	57.49	1 36 56	3180.3	-4.52	134.66
73.31	20 12 32	4603.94	-.25	202.11	178.57	57.49	21 29 16	4003.9	-4.54	195.77
106.69	0 33 56	3780.28	-.24	141.00	178.56	57.49	1 36 56	3180.3	-4.52	134.66
110.00	2 15 21	3467.51	-9.66	122.95	184.63	57.05	3 13 8	2867.5	-13.93	116.46
110.00	23 30 18	3964.71	9.16	149.13	172.50	56.92	24 36 23	3364.7	4.75	142.83

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.6708 TRA 1.9006 TC3 -.0353 BAU 1.8997   SGT  521.7 SGR 3038.6 SG3   47.2     ST   195.8 SR  2760.6 SS  1439.0
 RD-13.3821 RRA-3.3691 RC3 -.1793 FAU-.02836   RRT  .1234 RRF -.9941 RTF -.0209     CRT  .6381 CRS  .9993 CST  .6081
 FDE 2.3119 FRA  .8346 FC3  .0316 BSP   8743   SGB 3083.0 R23 -.1063 R13 -.9937     LSA 3115.2 MSA  159.3 SSA    1.7
 BDE13.3989 BRA 3.8682 BC3  .1827 FSP   -144   SG1 3039.3 SG2  517.6 THA  88.75     EL1 2763.4 EL2  150.6 ALF  87.40
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LAUNCH DATE OCT 5 1970 FLIGHT TIME 126.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 377.905

RL 149.61 LAL .00 LOL 11.34 VL 27.538 GAL -8.85 AZL 157.60 HCA 183.30 SMA 130.64 ECC .21032 INC67.5936 V1 29.784
RP 107.86 LAP 3.05 LOP 192.60 VP 38.014 GAP 6.86 AZP 22.44 TAL 218.15 TAP 41.45 RCA 103.16 APO 158.12 V2 35.136
RC 121.402 GL -51.84 GP 57.95 ZAL 96.71 ZAP 95.98 ETS 175.75 ZAE 63.96 ETE 251.42 ZAC 135.76 ETC 268.55 CLP 101.31

PLANETOCENTRIC CONIC

C31023.450 VHL 31.991 DLA -75.29 RAL 271.08 RAD 6573.0 VEL 33.834 PTH 3.50 VHP 41.590 DPA 79.14 RAP 151.42 ECC17.8434

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.77	5 5 6	2452.60	-.47	81.20	181.19	165.28	5 45 59	1852.6	7.26	79.57
163.23	15 58 20	671.29	-.47	284.91	181.21	165.28	16 9 32	71.3	7.27	283.29
16.77	5 5 6	2452.60	-.47	81.20	181.19	165.28	5 45 59	1852.6	7.26	79.57
163.23	15 58 20	671.29	-.47	284.91	181.21	165.28	16 9 32	71.3	7.27	283.29
16.77	5 5 6	2452.60	-.47	81.20	181.19	165.28	5 45 59	1852.6	7.26	79.57
163.23	15 58 20	671.29	-.47	284.91	181.21	165.28	16 9 32	71.3	7.27	283.29

DIFFERENTIAL CORRECTIONS
TDE 5.1416 TRA .3254 TC3 -.0780 BAU 2.7535
RD-13.0724 RRA 1.3360 RC3 .1855 FAU-.04029
FDE-2.6877 FRA .2961 FC3 .0341 BSP 8520
BDE14.0472 BRA 1.3750 BC3 .2012 FSP -146

MID-COURSE EXECUTION ACCURACY
SGT 1072.1 SGR 2788.9 SG3 49.1
RRT -.8468 RRF .9987 RTF -.8276
SGB 2987.8 R23 -.0961 R13 .9946
SG1 2938.4 SG2 541.2 THA 108.69

ORBIT DETERMINATION ACCURACY
ST 923.5 SR 2358.5 SS 1744.5
CRT -.9811 CRS-1.0000 CST .9793
LSA 3070.6 MSA 174.0 SSA 2.2
EL1 2527.4 EL2 166.7 ALF 111.11

LAUNCH DATE OCT 5 1970 FLIGHT TIME 128.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 382.696

RL 149.61 LAL .00 LOL 11.34 VL 27.473 GAL -8.34 AZL 123.46 HCA 185.37 SMA 130.19 ECC .20699 INC33.4560 V1 29.784
RP 107.89 LAP 2.96 LOP 195.83 VP 37.957 GAP 6.78 AZP 56.66 TAL 216.17 TAP 41.54 RCA 103.24 APO 157.13 V2 35.124
RC 123.660 GL -62.17 GP 74.44 ZAL 101.88 ZAP 100.96 ETS 140.23 ZAE 84.98 ETE 217.87 ZAC 155.25 ETC 247.15 CLP 135.10

PLANETOCENTRIC CONIC

C3 287.167 VHL 16.946 DLA -82.26 RAL 207.54 RAD 6571.7 VEL 20.211 PTH 3.15 VHP 22.445 DPA 70.54 RAP 237.60 ECC 5.7260

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
8.80	0 35 58	2363.30	6.30	84.52	116.67	172.21	1 15 21	1763.3	14.22	83.82
171.20	12 0 34	5847.53	6.30	258.37	116.69	172.21	13 38 2	5247.5	14.23	257.67
8.80	0 35 58	2363.30	6.30	84.52	116.67	172.21	1 15 21	1763.3	14.22	83.82
171.20	12 0 34	5847.53	6.30	258.37	116.69	172.21	13 38 2	5247.5	14.23	257.67
8.80	0 35 58	2363.30	6.30	84.52	116.67	172.21	1 15 21	1763.3	14.22	83.82
171.20	12 0 34	5847.53	6.30	258.37	116.69	172.21	13 38 2	5247.5	14.23	257.67

DIFFERENTIAL CORRECTIONS
TDE-3.1203 TRA -.2544 TC3 -.0102 BAU .2745
RDE-5.7060 RRA-1.0368 RC3 .0708 FAU .00009
FDE-1.4124 FRA -.1809 FC3 -.0003 BSP 10717
BDE 6.5035 BRA 1.0675 BC3 .0715 FSP -184

MID-COURSE EXECUTION ACCURACY
SGT 1233.7 SGR 3248.1 SG3 56.9
RRT .9205 RRF .9824 RTF .9764
SGB 3474.5 R23 -.1383 R13 .9899
SG1 3444.6 SG2 454.5 THA 70.37

ORBIT DETERMINATION ACCURACY
ST 1072.3 SR 2081.2 SS 963.0
CRT .9791 CRS -.9943 CST -.9952
LSA 2523.4 MSA 202.8 SSA 1.1
EL1 2333.1 EL2 194.6 ALF 63.03

LAUNCH DATE OCT 5 1970 FLIGHT TIME 130.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 388.258

RL 149.61 LAL .00 LOL 11.34 VL 27.409 GAL -8.00 AZL 110.42 HCA 188.22 SMA 129.74 ECC .20580 INC20.4224 V1 29.784
RP 107.93 LAP 2.86 LOP 199.05 VP 37.899 GAP 6.92 AZP 69.77 TAL 214.53 TAP 42.75 RCA 103.04 APO 156.43 V2 35.112
RC 125.912 GL -60.02 GP 72.88 ZAL 107.65 ZAP 107.09 ETS 86.56 ZAE 96.10 ETE 165.74 ZAC 161.31 ETC 220.72 CLP 176.81

PLANETOCENTRIC CONIC

C3 119.553 VHL 10.934 DLA -76.75 RAL 197.10 RAD 6570.2 VEL 15.521 PTH 2.77 VHP 14.785 DPA 58.42 RAP 244.21 ECC 2.9675

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
15.09	0 6 40	2213.50	15.55	79.16	103.33	166.23	0 43 33	1613.5	23.31	77.51
164.91	11 6 36	5714.27	15.56	259.11	103.35	166.23	12 41 51	5114.3	23.32	257.46
15.09	0 6 40	2213.50	15.55	79.16	103.33	166.23	0 43 33	1613.5	23.31	77.51
164.91	11 6 36	5714.27	15.56	259.11	103.35	166.23	12 41 51	5114.3	23.32	257.46
15.09	0 6 40	2213.50	15.55	79.16	103.33	166.23	0 43 33	1613.5	23.31	77.51
164.91	11 6 36	5714.27	15.56	259.11	103.35	166.23	12 41 51	5114.3	23.32	257.46

DIFFERENTIAL CORRECTIONS
TDE-2.9963 TRA-1.3352 TC3 -.2759 BAU .4424
RDE .0717 RRA -.4619 RC3 -.0227 FAU .01365
FDE -.8884 FRA -.2809 FC3 -.0988 BSP 11198
BDE 2.9971 BRA 1.4129 BC3 .2768 FSP -231

MID-COURSE EXECUTION ACCURACY
SGT 3484.9 SGR 1057.7 SG3 71.0
RRT .8664 RRF .7721 RTF .9848
SGB 3641.9 R23 -.1999 R13 .9779
SG1 3606.0 SG2 510.4 THA 15.04

ORBIT DETERMINATION ACCURACY
ST 1817.7 SR 319.0 SS 643.6
CRT .3986 CRS -.2710 CST -.9908
LSA 1930.5 MSA 305.1 SSA 1.8
EL1 1822.2 EL2 291.8 ALF 4.11

LAUNCH DATE OCT 5 1970 FLIGHT TIME 132.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 394.009

RL 149.61 LAL .00 LOL 11.34 VL 27.344 GAL -7.68 AZL 104.23 HCA 191.27 SMA 129.29 ECC .20522 INC14.2254 V1 29.784
RP 107.97 LAP 2.75 LOP 202.27 VP 37.841 GAP 7.11 AZP 76.04 TAL 212.96 TAP 44.23 RCA 102.76 APO 155.82 V2 35.099
RC 128.158 GL -54.66 GP 66.09 ZAL 112.75 ZAP 113.28 ETS 69.29 ZAE 103.53 ETE 150.68 ZAC 160.10 ETC 229.78 CLP-167.30

PLANETOCENTRIC CONIC

C3 66.643 VHL 8.164 DLA -71.16 RAL 204.17 RAD 6569.3 VEL 13.711 PTH 2.51 VHP 11.286 DPA 48.98 RAP 244.83 ECC 2.0968

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.52	0 48 0	2070.96	23.37	71.73	105.68	159.41	1 22 31	1471.0	30.83	68.88
158.48	11 21 38	5598.53	23.38	258.18	105.70	159.41	12 54 56	4998.5	30.83	255.33
21.52	0 48 0	2070.96	23.37	71.73	105.68	159.41	1 22 31	1471.0	30.83	68.88
158.48	11 21 38	5598.53	23.38	258.18	105.70	159.41	12 54 56	4998.5	30.83	255.33
21.52	0 48 0	2070.96	23.37	71.73	105.68	159.41	1 22 31	1471.0	30.83	68.88
158.48	11 21 38	5598.53	23.38	258.18	105.70	159.41	12 54 56	4998.5	30.83	255.33

DIFFERENTIAL CORRECTIONS
TDE-2.3781 TRA-1.4296 TC3 -.7495 BAU .6718
RDE .6330 RRA -.0858 RC3 .0821 FAU .02219
FDE -.9028 FRA -.3084 FC3 -.2883 BSP 11690
BDE 2.4609 BRA 1.4322 BC3 .7540 FSP -294

MID-COURSE EXECUTION ACCURACY
SGT 3733.7 SGR 500.1 SG3 89.5
RRT -.1746 RRF -.4239 RTF .9613
SGB 3767.0 R23 .2571 R13 -.9621
SG1 3734.7 SG2 492.3 THA 178.64

ORBIT DETERMINATION ACCURACY
ST 1912.1 SR 447.8 SS 648.4
CRT -.8053 CRS .9078 CST -.9797
LSA 2048.8 MSA 282.3 SSA 2.6
EL1 1946.5 EL2 260.8 ALF 169.12

LAUNCH DATE OCT 5 1970 FLIGHT TIME 134.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 399.823

RL 149.61 LAL .00 LOL 11.34 VL 27.280 GAL -7.37 AZL 100.67 HCA 194.39 SMA 128.85 ECC .20492 INC10.6671 V1 29.784
RP 108.01 LAP 2.64 LOP 205.49 VP 37.783 GAP 7.32 AZP 79.66 TAL 211.41 TAP 45.79 RCA 102.45 APO 155.25 V2 35.086
RC 130.397 GL -48.81 GP 59.19 ZAL 116.83 ZAP 119.12 ETS 63.25 ZAE 109.06 ETE 147.44 ZAC 155.93 ETC 239.99 CLP-161.86

PLANETOCENTRIC CONIC

C3 44.291 VHL 6.655 DLA -65.89 RAL 211.53 RAD 6568.7 VEL 12.871 PTH 2.34 VHP 9.427 DPA 41.03 RAP 244.81 ECC 1.7289

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.64	1 30 46	1952.23	28.60	63.23	107.40	152.28	2 3 19	1352.2	35.61	59.08
152.36	11 37 36	5515.93	28.61	256.24	107.41	152.28	13 9 32	4915.9	35.62	252.08
27.64	1 30 46	1952.23	28.60	63.23	107.40	152.28	2 3 19	1352.2	35.61	59.08
152.36	11 37 36	5515.93	28.61	256.24	107.41	152.28	13 9 32	4915.9	35.62	252.08
27.64	1 30 46	1952.23	28.60	63.23	107.40	152.28	2 3 19	1352.2	35.61	59.08
152.36	11 37 36	5515.93	28.61	256.24	107.41	152.28	13 9 32	4915.9	35.62	252.08

DIFFERENTIAL CORRECTIONS
TDE-2.0372 TRA-1.3643 TC3-1.2831 BAU .7691
RDE .6207 RRA .0004 RC3 .2021 FAU .02846
FDE -.9009 FRA -.2914 FC3 -.5563 BSP 11614
BDE 2.1297 BRA 1.3643 BC3 1.2989 FSP -339

MID-COURSE EXECUTION ACCURACY
SGT 3776.7 SGR 598.3 SG3 106.8
RRT -.6191 RRF -.8306 RTF .9409
SGB 3823.8 R23 .3044 R13 -.9447
SG1 3795.1 SG2 467.6 THA 174.31

ORBIT DETERMINATION ACCURACY
ST 1955.3 SR 534.5 SS 649.6
CRT -.8975 CRS .9729 CST -.9751
LSA 2112.8 MSA 258.5 SSA 3.6
EL1 2014.0 EL2 228.9 ALF 166.03

LAUNCH DATE OCT 5 1970 FLIGHT TIME 136.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 405.655

RL 149.61 LAL .00 LOL 11.34 VL 27.216 GAL -7.07 AZL 98.36 HCA 197.54 SMA 128.42 ECC .20481 INC 8.3627 V1 29.784
RP 108.05 LAP 2.51 LOP 208.71 VP 37.725 GAP 7.54 AZP 82.02 TAL 209.85 TAP 47.39 RCA 102.11 APO 154.72 V2 35.074
RC 132.627 GL -43.22 GP 52.97 ZAL 119.79 ZAP 124.44 ETS 60.20 ZAE 113.32 ETE 147.58 ZAC 151.17 ETC 246.35 CLP-159.90

PLANETOCENTRIC CONIC

C3 32.901 VHL 5.736 DLA -61.06 RAL 217.81 RAD 6568.3 VEL 12.421 PTH 2.24 VHP 8.345 DPA 34.18 RAP 244.93 ECC 1.5415

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.35	2 9 19	1854.96	31.57	54.51	107.93	145.39	2 40 14	1255.0	38.02	49.17
146.65	11 49 8	5463.12	31.57	254.10	107.95	145.39	13 20 11	4863.1	38.03	248.76
33.35	2 9 19	1854.96	31.57	54.51	107.93	145.39	2 40 14	1255.0	38.02	49.17
146.65	11 49 8	5463.12	31.57	254.10	107.95	145.39	13 20 11	4863.1	38.03	248.76
33.35	2 9 19	1854.96	31.57	54.51	107.93	145.39	2 40 14	1255.0	38.02	49.17
146.65	11 49 8	5463.12	31.57	254.10	107.95	145.39	13 20 11	4863.1	38.03	248.76

DIFFERENTIAL CORRECTIONS
TDE-1.7980 TRA-1.3046 TC3-1.8772 BAU .8369
RDE .5430 RRA .0207 RC3 .3104 FAU .03397
FDE -.8723 FRA -.2644 FC3 -.8939 BSP 12178
BDE 1.8781 BRA 1.3047 BC3 1.9027 FSP -408

MID-COURSE EXECUTION ACCURACY
SGT 3887.7 SGR 650.2 SG3 125.5
RRT -.7341 RRF -.9119 RTF .9287
SGB 3941.7 R23 .3260 R13 -.9333
SG1 3917.3 SG2 438.2 THA 172.91

ORBIT DETERMINATION ACCURACY
ST 1970.3 SR 542.6 SS 639.6
CRT -.9214 CRS .9868 CST -.9721
LSA 2127.8 MSA 241.1 SSA 4.8
EL1 2033.5 EL2 204.3 ALF 165.61

LAUNCH DATE OCT 5 1970 FLIGHT TIME 138.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 411.492

RL 149.61 LAL .00 LOL 11.34 VL 27.153 GAL -6.75 AZL 96.74 HCA 200.71 SMA 127.99 ECC .20486 INC 6.7448 V1 29.784
RP 108.09 LAP 2.38 LOP 211.92 VP 37.667 GAP 7.76 AZP 83.69 TAL 208.28 TAP 48.99 RCA 101.77 APO 154.21 V2 35.061
RC 134.850 GL -38.13 GP 47.54 ZAL 121.70 ZAP 129.17 ETS 58.21 ZAE 116.60 ETE 148.94 ZAC 146.65 ETC 250.34 CLP-159.34

PLANETOCENTRIC CONIC

C3 26.305 VHL 5.129 DLA -56.71 RAL 223.19 RAD 6568.1 VEL 12.152 PTH 2.18 VHP 7.681 DPA 28.25 RAP 245.33 ECC 1.4329

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.57	2 44 18	1773.32	32.92	46.18	108.03	139.17	3 13 51	1173.3	38.80	39.89
141.43	11 57 9	5432.81	32.93	252.31	108.04	139.16	13 27 41	4832.8	38.81	246.02
38.57	2 44 18	1773.32	32.92	46.18	108.03	139.17	3 13 51	1173.3	38.80	39.89
141.43	11 57 9	5432.81	32.93	252.31	108.04	139.16	13 27 41	4832.8	38.81	246.02
38.57	2 44 18	1773.32	32.92	46.18	108.03	139.17	3 13 51	1173.3	38.80	39.89
141.43	11 57 9	5432.81	32.93	252.31	108.04	139.16	13 27 41	4832.8	38.81	246.02

DIFFERENTIAL CORRECTIONS
TDE-1.5934 TRA-1.2304 TC3-2.4754 BAU .8812
RDE .4632 RRA .0164 RC3 .3888 FAU .03795
FDE -.8104 FRA -.2168 FC3-1.2491 BSP 12551
BDE 1.6593 BRA 1.2305 BC3 2.5057 FSP -461

MID-COURSE EXECUTION ACCURACY
SGT 3986.0 SGR 654.2 SG3 140.8
RRT -.7737 RRF -.9326 RTF .9190
SGB 4039.3 R23 .3376 R13 -.9235
SG1 4018.3 SG2 411.1 THA 172.69

ORBIT DETERMINATION ACCURACY
ST 1933.6 SR 517.7 SS 607.7
CRT -.9286 CRS .9919 CST -.9679
LSA 2079.3 MSA 228.9 SSA 6.2
EL1 1993.0 EL2 186.4 ALF 165.91

LAUNCH DATE OCT 5 1970 FLIGHT TIME 140.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 417.328

RL 149.61 LAL .00 LOL 11.34 VL 27.089 GAL -6.43 AZL 95.54 HCA 203.89 SMA 127.57 ECC .20503 INC 5.5416 V1 29.784
RP 108.13 LAP 2.24 LOP 215.13 VP 37.609 GAP 7.98 AZP 84.93 TAL 206.70 TAP 50.59 RCA 101.41 APO 153.72 V2 35.047
RC 137.063 GL -33.55 GP 42.85 ZAL 122.66 ZAP 133.35 ETS 56.72 ZAE 119.13 ETE 150.75 ZAC 142.61 ETC 253.01 CLP-159.44

PLANETOCENTRIC CONIC

C3 22.119 VHL 4.703 DLA -52.85 RAL 227.99 RAD 6567.9 VEL 11.979 PTH 2.13 VHP 7.261 DPA 23.11 RAP 245.99 ECC 1.3640

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.32	3 16 53	1702.24	33.23	38.48	108.21	133.78	3 45 15	1102.2	38.55	31.52
136.68	12 2 48	5418.93	33.25	251.13	108.22	133.77	13 33 7	4818.9	38.57	244.16
43.32	3 16 53	1702.24	33.23	38.48	108.21	133.78	3 45 15	1102.2	38.55	31.52
136.68	12 2 48	5418.93	33.25	251.13	108.22	133.77	13 33 7	4818.9	38.57	244.16
43.32	3 16 53	1702.24	33.23	38.48	108.21	133.78	3 45 15	1102.2	38.55	31.52
136.68	12 2 48	5418.93	33.25	251.13	108.22	133.77	13 33 7	4818.9	38.57	244.16

DIFFERENTIAL CORRECTIONS
TDE-1.4179 TRA-1.1488 TC3-3.0619 BAU .9147
RDE .3974 RRA .0052 RC3 .4404 FAU .04061
FDE -.7300 FRA -.1564 FC3-1.5896 BSP 12854
BDE 1.4725 BRA 1.1488 BC3 3.0934 FSP -500

MID-COURSE EXECUTION ACCURACY
SGT 4080.2 SGR 637.3 SG3 152.8
RRT -.7899 RRF -.9348 RTF .9112
SGB 4129.7 R23 .3400 R13 -.9153
SG1 4111.4 SG2 387.9 THA 172.90

ORBIT DETERMINATION ACCURACY
ST 1864.0 SR 484.3 SS 561.8
CRT -.9300 CRS .9948 CST -.9621
LSA 1994.1 MSA 219.9 SSA 7.8
EL1 1918.1 EL2 173.0 ALF 166.30

LAUNCH DATE OCT 5 1970 FLIGHT TIME 142.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 423.158

RL 149.61 LAL .00 LOL 11.34 VL 27.027 GAL -6.11 AZL 94.61 HCA 207.07 SMA 127.15 ECC .20533 INC 4.6074 V1 29.784
RP 108.17 LAP 2.09 LOP 218.34 VP 37.551 GAP 8.20 AZP 85.90 TAL 205.11 TAP 52.18 RCA 101.04 APO 153.26 V2 35.034
RC 139.266 GL -29.45 GP 38.82 ZAL 122.80 ZAP 137.02 ETS 55.50 ZAE 121.08 ETE 152.68 ZAC 139.09 ETC 254.93 CLP-159.88

PLANETOCENTRIC CONIC

C3 19.274 VHL 4.390 DLA -49.42 RAL 232.40 RAD 6567.8 VEL 11.860 PTH 2.10 VHP 6.995 DPA 18.65 RAP 246.91 ECC 1.3172

LNCH AZMTH	LNCH TIME	-L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.65	3 48 1	1637.99	32.91	31.45	108.71	129.20	4 15 19	1038.0	37.73	24.03
132.35	12 6 51	5417.28	32.93	250.62	108.72	129.19	13 37 8	4817.3	37.74	243.20
47.65	3 48 1	1637.99	32.91	31.45	108.71	129.20	4 15 19	1038.0	37.73	24.03
132.35	12 6 51	5417.28	32.93	250.62	108.72	129.19	13 37 8	4817.3	37.74	243.20
47.65	3 48 1	1637.99	32.91	31.45	108.71	129.20	4 15 19	1038.0	37.73	24.03
132.35	12 6 51	5417.28	32.93	250.62	108.72	129.19	13 37 8	4817.3	37.74	243.20

DIFFERENTIAL CORRECTIONS
TDE-1.2623 TRA-1.0573 TC3-3.6192 BAU .9404
RDE .3457 RRA -.0081 RC3 .4690 FAU .04202
FDE -.6389 FRA -.0864 FC3-1.8876 BSP 13044
BDE 1.3087 BRA 1.0573 BC3 3.6494 FSP -521

MID-COURSE EXECUTION ACCURACY
SGT 4160.6 SGR 611.0 SG3 161.0
RRT -.7935 RRF -.9273 RTF .9039
SGB 4205.3 R23 .3358 R13 -.9074
SG1 4189.0 SG2 369.3 THA 173.30

ORBIT DETERMINATION ACCURACY
ST 1768.5 SR 451.3 SS 505.8
CRT -.9287 CRS .9968 CST -.9536
LSA 1882.0 MSA 212.7 SSA 9.9
EL1 1817.9 EL2 162.9 ALF 166.56

LAUNCH DATE OCT 5 1970 FLIGHT TIME 144.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 428.977

RL 149.61 LAL .00 LOL 11.34 VL 26.964 GAL -5.77 AZL 93.86 HCA 210.26 SMA 126.74 ECC .20577 INC 3.8572 V1 29.784
RP 108.21 LAP 1.94 LOP 221.54 VP 37.494 GAP 8.42 AZP 86.67 TAL 203.50 TAP 53.75 RCA 100.66 APO 152.82 V2 35.021
RC 141.459 GL -25.76 GP 35.36 ZAL 122.24 ZAP 140.24 ETS 54.49 ZAE 122.57 ETE 154.57 ZAC 136.05 ETC 256.41 CLP-160.50

PLANETOCENTRIC CONIC

C3 17.241 VHL 4.152 DLA -46.35 RAL 236.57 RAD 6567.7 VEL 11.774 PTH 2.08 VHP 6.829 DPA 14.76 RAP 248.03 ECC 1.2837

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
51.64	4 18 24	1577.97	32.21	24.98	109.61	125.33	4 44 42	978.0	36.58	17.27
128.36	12 9 45	5425.17	32.23	250.76	109.61	125.32	13 40 10	4825.2	36.59	243.04
51.64	4 18 24	1577.97	32.21	24.98	109.61	125.33	4 44 42	978.0	36.58	17.27
128.36	12 9 45	5425.17	32.23	250.76	109.61	125.32	13 40 10	4825.2	36.59	243.04
51.64	4 18 24	1577.97	32.21	24.98	109.61	125.33	4 44 42	978.0	36.58	17.27
128.36	12 9 45	5425.17	32.23	250.76	109.61	125.32	13 40 10	4825.2	36.59	243.04

DIFFERENTIAL CORRECTIONS
TDE-1.1399 TRA -.9751 TC3-4.1847 BAU .9712
RDE .3112 RRA -.0162 RC3 .4937 FAU .04320
FDE -.5600 FRA -.0268 FC3-2.1692 BSP 13598
BDE 1.1816 BRA .9752 BC3 4.2138 FSP -560

MID-COURSE EXECUTION ACCURACY
SGT 4283.7 SGR 594.6 SG3 169.4
RRT -.7998 RRF -.9166 RTF .9024
SGB 4324.8 R23 .3163 R13 -.9054
SG1 4310.2 SG2 354.8 THA 173.62

ORBIT DETERMINATION ACCURACY
ST 1681.3 SR 429.7 SS 457.1
CRT -.9288 CRS .9982 CST -.9446
LSA 1782.6 MSA 206.1 SSA 12.3
EL1 1728.4 EL2 154.9 ALF 166.54

LAUNCH DATE OCT 5 1970 FLIGHT TIME 146.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 434.789

RL 149.61 LAL .00 LOL 11.34 VL 26.902 GAL -5.43 AZL 93.24 HCA 213.44 SMA 126.34 ECC .20653 INC 3.2361 V1 29.784
RP 108.25 LAP 1.78 LOP 224.74 VP 37.437 GAP 8.63 AZP 87.30 TAL 201.88 TAP 55.32 RCA 100.27 APO 152.41 V2 35.008
RC 143.643 GL -22.42 GP 32.38 ZAL 121.10 ZAP 143.09 ETS 53.65 ZAE 123.73 ETE 156.34 ZAC 133.43 ETC 257.61 CLP-161.23

PLANETOCENTRIC CONIC

C3 15.751 VHL 3.966 DLA -43.56 RAL 240.60 RAD 6567.6 VEL 11.710 PTH 2.06 VHP 6.733 DPA 11.38 RAP 249.33 ECC 1.2589

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.37	4 48 38	1520.15	31.29	18.94	110.90	122.04	5 13 58	920.1	35.27	11.05
124.63	12 11 41	5441.06	31.30	251.50	110.91	122.03	13 42 22	4841.1	35.28	243.60
55.37	4 48 38	1520.15	31.29	18.94	110.90	122.04	5 13 58	920.1	35.27	11.05
124.63	12 11 41	5441.06	31.30	251.50	110.91	122.03	13 42 22	4841.1	35.28	243.60
55.37	4 48 38	1520.15	31.29	18.94	110.90	122.04	5 13 58	920.1	35.27	11.05
124.63	12 11 41	5441.06	31.30	251.50	110.91	122.03	13 42 22	4841.1	35.28	243.60

DIFFERENTIAL CORRECTIONS
TDE-1.0160 TRA -.8715 TC3-4.6877 BAU .9914
RDE .2819 RRA -.0280 RC3 .4981 FAU .04306
FDE -.4704 FRA .0460 FC3-2.3700 BSP 13763
BDE 1.0543 BRA .8720 BC3 4.7141 FSP -564

MID-COURSE EXECUTION ACCURACY
SGT 4359.1 SGR 570.1 SG3 172.9
RRT -.7926 RRF -.8861 RTF .8975
SGB 4396.3 R23 .2900 R13 -.8999
SG1 4382.6 SG2 345.7 THA 174.04

ORBIT DETERMINATION ACCURACY
ST 1561.5 SR 407.7 SS 397.0
CRT -.9271 CRS .9986 CST -.9284
LSA 1649.8 MSA 200.6 SSA 15.2
EL1 1607.0 EL2 148.5 ALF 166.27

LAUNCH DATE OCT 5 1970 FLIGHT TIME 148.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 440.589

RL 149.61 LAL .00 LOL 11.34 VL 26.841 GAL -5.08 AZL 92.72 HCA 216.63 SMA 125.94 ECC .20703 INC 2.7157 V1 29.784
RP 108.29 LAP 1.62 LOP 227.94 VP 37.381 GAP 8.85 AZP 87.82 TAL 200.24 TAP 56.87 RCA 99.87 APO 152.02 V2 34.995
RC 145.816 GL -19.37 GP 29.01 ZAL 119.46 ZAP 145.61 ETS 52.90 ZAE 124.62 ETE 157.97 ZAC 131.17 ETC 258.63 CLP-162.01

PLANETOCENTRIC CONIC

C3 14.582 VHL 3.819 DLA -41.06 RAL 244.56 RAD 6567.6 VEL 11.661 PTH 2.05 VHP 6.685 DPA 8.40 RAP 250.79 ECC 1.2400

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.93	5 19 17	1482.64	30.23	13.15	112.56	119.23	5 43 30	882.6	33.87	5.16
121.07	12 12 36	5464.56	30.24	252.83	112.57	119.21	13 43 40	4864.6	33.88	244.83
58.93	5 19 17	1482.64	30.23	13.15	112.56	119.23	5 43 30	882.6	33.87	5.16
121.07	12 12 36	5464.56	30.24	252.83	112.57	119.21	13 43 40	4864.6	33.88	244.83
58.93	5 19 17	1482.64	30.23	13.15	112.56	119.23	5 43 30	882.6	33.87	5.16
121.07	12 12 36	5464.56	30.24	252.83	112.57	119.21	13 43 40	4864.6	33.88	244.83

DIFFERENTIAL CORRECTIONS
TDE -.9062 TRA -.7881 TC3-5.1706 BAU 1.0127
RDE .2611 RRA -.0377 RC3 .4996 FAU .04263
FDE -.3893 FRA .1135 FC3-2.5308 BSP 14039
BDE .9431 BRA .7671 BC3 5.1947 FSP -572

MID-COURSE EXECUTION ACCURACY
SGT 4446.1 SGR 552.0 SG3 175.6
RRT -.7844 RRF -.8767 RTF .8948
SGB 4480.2 R23 .2752 R13 -.8969
SG1 4467.2 SG2 340.8 THA 174.40

ORBIT DETERMINATION ACCURACY
ST 1430.5 SR 392.6 SS 341.3
CRT -.9268 CRS .9959 CST -.9054
LSA 1510.0 MSA 195.3 SSA 18.8
EL1 1485.2 EL2 142.9 ALF 165.68

LAUNCH DATE OCT 5 1970 FLIGHT TIME 150.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 446.377
RL 149.61 LAL .00 LOL 11.34 VL 26.780 GAL -4.72 AZL 92.27 HCA 219.81 SMA 125.55 ECC .20787 INC 2.2663 V1 29.784
RP 108.33 LAP 1.45 LOP 231.14 VP 37.325 GAP 9.07 AZP 88.26 TAL 198.59 TAP 58.40 RCA 99.46 APO 151.65 V2 34.982
RC 147.979 GL -16.57 GP 27.59 ZAL 117.42 ZAP 147.86 ETS 52.46 ZAE 125.32 ETE 159.44 ZAC 129.22 ETC 259.54 CLP-162.82
PLANETOCENTRIC CONIC
C3 13.698 VHL 3.701 DLA -38.72 RAL 248.48 RAD 6567.5 VEL 11.623 PTH 2.04 VHP 6.674 DPA 5.79 RAP 252.38 ECC 1.2254

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.40	5 50 55	1403.64	29.08	7.46	114.55	116.79	6 14 18	803.6	32.42	359.42
117.60	12 12 14	5495.97	29.09	254.78	114.56	116.77	13 43 50	4896.0	32.43	246.73
62.40	5 50 55	1403.64	29.08	7.46	114.55	116.79	6 14 18	803.6	32.42	359.42
117.60	12 12 14	5495.97	29.09	254.78	114.56	116.77	13 43 50	4896.0	32.43	246.73
62.40	5 50 55	1403.64	29.08	7.46	114.55	116.79	6 14 18	803.6	32.42	359.42
117.60	12 12 14	5495.97	29.09	254.78	114.56	116.77	13 43 50	4896.0	32.43	246.73

DIFFERENTIAL CORRECTIONS
TDE -.8037 TRA -.6549 TC3-5.6213 BAU 1.0334
RDE .2460 RRA -.0467 RC3 .4980 FAU .04188
FDE -.3141 FRA .1779 FC3-2.6467 BSP 14335
BDE .8405 BRA .6565 BC3 5.6433 FSP -577

MID-COURSE EXECUTION ACCURACY
SGT 4533.2 SGR 538.1 SG3 177.0
RRT -.7736 RRF -.8526 RTF .8933
SGB 4565.0 R23 .2487 R13 -.8950
SG1 4552.4 SG2 339.5 THA 174.72

ORBIT DETERMINATION ACCURACY
ST 1309.9 SR 382.0 SS 288.9
CRT -.9281 CRS .9861 CST -.8700
LSA 1381.5 MSA 189.9 SSA 23.2
EL1 1357.5 EL2 137.3 ALF 164.69

LAUNCH DATE OCT 5 1970 FLIGHT TIME 152.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 452.152
RL 149.61 LAL .00 LOL 11.34 VL 26.720 GAL -4.35 AZL 91.87 HCA 223.00 SMA 125.17 ECC .20885 INC 1.8736 V1 29.784
RP 108.37 LAP 1.28 LOP 234.33 VP 37.269 GAP 9.29 AZP 88.63 TAL 196.93 TAP 59.93 RCA 99.03 APO 151.32 V2 34.969
RC 150.132 GL -13.97 GP 25.65 ZAL 115.04 ZAP 149.88 ETS 52.10 ZAE 125.87 ETE 160.75 ZAC 127.52 ETC 260.36 CLP-163.64
PLANETOCENTRIC CONIC
C3 13.016 VHL 3.608 DLA -36.53 RAL 252.39 RAD 6567.5 VEL 11.593 PTH 2.03 VHP 6.690 DPA 3.47 RAP 254.09 ECC 1.2142

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.89	6 24 14	1340.86	27.86	1.66	116.84	114.65	6 46 35	740.9	30.94	353.60
114.11	12 10 6	5536.60	27.87	257.43	116.85	114.64	13 42 23	4936.6	30.95	249.37
65.89	6 24 14	1340.86	27.86	1.66	116.84	114.65	6 46 35	740.9	30.94	353.60
114.11	12 10 6	5536.60	27.87	257.43	116.85	114.64	13 42 23	4936.6	30.95	249.37
65.89	6 24 14	1340.86	27.86	1.66	116.84	114.65	6 46 35	740.9	30.94	353.60
114.11	12 10 6	5536.60	27.87	257.43	116.85	114.64	13 42 23	4936.6	30.95	249.37

DIFFERENTIAL CORRECTIONS
TDE -.7045 TRA -.5363 TC3-6.0313 BAU 1.0530
RDE .2347 RRA -.0557 RC3 .4933 FAU .04083
FDE -.2433 FRA .2400 FC3-2.7159 BSP 14621
BDE .7426 BRA .5392 BC3 6.0514 FSP -578

MID-COURSE EXECUTION ACCURACY
SGT 4616.8 SGR 527.1 SG3 177.4
RRT -.7601 RRF -.8260 RTF .8924
SGB 4646.7 R23 .2217 R13 -.8938
SG1 4634.2 SG2 341.2 THA 175.01

ORBIT DETERMINATION ACCURACY
ST 1170.4 SR 374.4 SS 240.4
CRT -.9310 CRS .9591 CST -.8108
LSA 1238.2 MSA 184.3 SSA 28.9
EL1 1221.9 EL2 130.9 ALF 163.22

LAUNCH DATE OCT 5 1970 FLIGHT TIME 154.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 457.914
RL 149.61 LAL .00 LOL 11.34 VL 26.660 GAL -3.96 AZL 91.53 HCA 226.18 SMA 124.80 ECC .20999 INC 1.5253 V1 29.784
RP 108.41 LAP 1.10 LOP 237.52 VP 37.215 GAP 9.51 AZP 88.94 TAL 195.25 TAP 61.44 RCA 98.59 APO 151.01 V2 34.956
RC 152.275 GL -11.55 GP 23.95 ZAL 112.35 ZAP 151.71 ETS 51.90 ZAE 126.31 ETE 161.93 ZAC 126.04 ETC 261.13 CLP-164.47
PLANETOCENTRIC CONIC
C3 12.500 VHL 3.536 DLA -34.45 RAL 256.30 RAD 6567.5 VEL 11.571 PTH 2.02 VHP 6.727 DPA 1.42 RAP 255.90 ECC 1.2057

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.51	7 0 11	1271.18	26.60	355.50	119.41	112.75	7 21 22	671.2	29.44	347.45
110.49	12 5 22	5588.94	26.61	260.97	119.41	112.73	13 38 31	4988.9	29.45	252.91
69.51	7 0 11	1271.18	26.60	355.50	119.41	112.75	7 21 22	671.2	29.44	347.45
110.49	12 5 22	5588.94	26.61	260.97	119.41	112.73	13 38 31	4988.9	29.45	252.91
69.51	7 0 11	1271.18	26.60	355.50	119.41	112.75	7 21 22	671.2	29.44	347.45
110.49	12 5 22	5588.94	26.61	260.97	119.41	112.73	13 38 31	4988.9	29.45	252.91

DIFFERENTIAL CORRECTIONS
TDE -.6065 TRA -.4105 TC3-6.3939 BAU 1.0716
RDE .2264 RRA -.0647 RC3 .4868 FAU .03960
FDE -.1773 FRA .2993 FC3-2.7423 BSP 14893
BDE .6474 BRA .4156 BC3 6.4124 FSP -577

MID-COURSE EXECUTION ACCURACY
SGT 4696.6 SGR 518.9 SG3 176.8
RRT -.7444 RRF -.7981 RTF .8921
SGB 4725.2 R23 .1953 R13 -.8933
SG1 4712.6 SG2 345.3 THA 175.27

ORBIT DETERMINATION ACCURACY
ST 1021.3 SR 369.1 SS 198.9
CRT -.9361 CRS .8929 CST -.7084
LSA 1088.9 MSA 178.1 SSA 36.4
EL1 1079.0 EL2 122.9 ALF 161.06

LAUNCH DATE OCT 5 1970 FLIGHT TIME 156.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 463.662
RL 149.61 LAL .00 LOL 11.34 VL 26.601 GAL -3.57 AZL 91.21 HCA 229.37 SMA 124.43 ECC .21130 INC 1.2125 V1 29.784
RP 108.45 LAP .92 LOP 240.70 VP 37.161 GAP 9.74 AZP 89.21 TAL 193.57 TAP 62.93 RCA 98.14 APO 150.72 V2 34.943
RC 154.408 GL -9.29 GP 22.46 ZAL 109.43 ZAP 153.37 ETS 51.85 ZAE 126.66 ETE 162.97 ZAC 124.74 ETC 261.87 CLP-165.30
PLANETOCENTRIC CONIC
C3 12.126 VHL 3.482 DLA -32.45 RAL 260.22 RAD 6567.5 VEL 11.555 PTH 2.02 VHP 6.783 DPA -.40 RAP 257.80 ECC 1.1996

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.46	7 40 29	1188.93	25.28	348.55	122.21	111.04	8 0 18	588.9	27.91	340.52
106.54	11 56 21	5658.30	25.29	265.75	122.22	111.03	13 30 39	5058.3	27.92	257.71
73.46	7 40 29	1188.93	25.28	348.55	122.21	111.04	8 0 18	588.9	27.91	340.52
106.54	11 56 21	5658.30	25.29	265.75	122.22	111.03	13 30 39	5058.3	27.92	257.71
110.00	10 55 49	5845.40	19.04	276.99	119.07	118.94	12 33 14	5245.4	22.75	269.82
110.00	13 40 12	5337.86	31.88	243.35	124.51	103.05	15 9 9	4737.9	33.34	234.42

DIFFERENTIAL CORRECTIONS
TDE -.5078 TRA -.2770 TC3-6.7021 BAU 1.0893
RDE .2203 RRA -.0740 RC3 .4782 FAU .03821
FDE -.1153 FRA .3563 FC3-2.7276 BSP 15154
BDE .5535 BRA .2867 BC3 6.7192 FSP -574

MID-COURSE EXECUTION ACCURACY
SGT 4772.6 SGR 513.0 SG3 175.5
RRT -.7269 RRF -.7693 RTF .8922
SGB 4800.1 R23 .1707 R13 -.8932
SG1 4787.2 SG2 351.2 THA 175.51

ORBIT DETERMINATION ACCURACY
ST 862.5 SR 365.2 SS 168.5
CRT -.9437 CRS .7462 CST -.5351
LSA 935.0 MSA 171.2 SSA 46.8
EL1 929.9 EL2 112.1 ALF 157.88

LAUNCH DATE OCT 5 1970 FLIGHT TIME 158.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 469.395

RL	149.61	LAL	.00	LOL	11.34	VL	26.543	GAL	-3.16	AZL	90.93	HCA	232.55	SMA	124.07	ECC	.21277	INC	.9283
RP	108.49	LAP	.74	LOP	243.89	VP	37.107	GAP	9.97	AZP	89.44	TAL	191.87	TAP	64.42	RCA	97.67	APO	150.47
RC	156.530	GL	-7.16	GP	21.14	ZAL	106.30	ZAP	154.88	ETS	51.95	ZAE	126.95	ETE	163.91	ZAC	123.58	ETC	262.58

V1 29.784 VE 34.931 CLP-166.12

PLANETOCENTRIC CONIC

C3	11.880	VHL	3.447	DLA	-30.50	RAL	284.14	RAD	6567.5	VEL	11.544	PTH	2.01	VHP	6.853	DPA	-2.03	RAP	259.79

ECC 1.1955

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
78.17	8 28 58	1081.43	23.93	339.88	125.24	109.50	8 47 0	481.4	26.37	331.87
101.83	11 30 10	5757.14	23.94	272.67	125.25	109.48	13 15 7	5157.1	26.37	264.66
78.17	8 28 58	1081.43	23.93	339.88	125.24	109.50	8 47 0	481.4	26.37	331.87
101.83	11 30 10	5757.14	23.94	272.67	125.25	109.48	13 15 7	5157.1	26.37	264.66
110.00	10 34 32	672.44	15.12	305.71	120.84	121.03	10 45 45	72.4	19.12	298.87
110.00	14 32 47	5214.13	33.40	234.02	127.85	97.73	15 59 41	4614.1	34.11	224.85

DIFFERENTIAL CORRECTIONS

TDE	-.4071	TRA	-.1390	TC3	-6.9521	BAU	1.1067
RDE	.2159	RRA	-.0837	RC3	.4686	FAU	.03676
FDE	-.0572	FRA	.4104	FC3	-2.6790	BSP	15420
BDE	.4608	BRA	.1996	BC3	6.9678	FSP	-569

MID-COURSE EXECUTION ACCURACY

SGT	4847.0	SGR	509.1	SG3	173.8		
RRT	-.7086	RRF	-.7407	RTF	.0030		
SGB	4873.7	RZS	.1479	RIS	-.0938		
SG1	4860.5	SG2	358.2	THA	175.72		

ORBIT DETERMINATION ACCURACY

ST	696.5	SR	362.2	SS	155.0
CRT	-.9532	CRS	.4866	CST	-.2940
LSA	780.5	MSA	164.3	SSA	61.6
EL1	778.7	EL2	97.9	ALF	153.16

LAUNCH DATE OCT 5 1970 FLIGHT TIME 160.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 475.113

RL	149.61	LAL	.00	LOL	11.34	VL	26.486	GAL	-2.75	AZL	90.67	HCA	235.73	SMA	123.72	ECC	.21442	INC	.6677
RP	108.53	LAP	.55	LOP	247.07	VP	37.055	GAP	10.20	AZP	89.62	TAL	190.17	TAP	65.89	RCA	97.19	APO	150.25
RC	158.641	GL	-5.16	GP	19.98	ZAL	103.00	ZAP	156.27	ETS	52.21	ZAE	127.20	ETE	164.73	ZAC	122.55	ETC	263.27

V1 29.784 VE 34.919 CLP-166.93

PLANETOCENTRIC CONIC

C3	11.753	VHL	3.428	DLA	-28.59	RAL	268.06	RAD	6567.4	VEL	11.539	PTH	2.01	VHP	6.935	DPA	-3.48	RAP	261.84

ECC 1.1934

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
85.87	9 45 4	885.18	22.53	324.85	129.47	108.08	9 59 50	285.2	24.80	316.88
94.13	10 54 21	660.83	22.54	309.42	128.47	108.07	11 5 21	60.8	24.81	300.46
100.00	10 27 8	748.65	17.46	312.76	126.36	114.65	10 39 36	148.7	20.64	305.41
100.00	12 54 58	5560.64	27.81	259.24	130.01	101.42	14 27 39	4960.6	29.11	250.68
110.00	10 23 11	781.07	11.95	310.02	123.27	122.27	10 35 52	161.1	16.13	304.00
110.00	15 15 86	5120.99	34.02	226.02	130.95	93.51	16 40 46	4521.0	34.14	217.58

DIFFERENTIAL CORRECTIONS

TDE	-.2983	TRA	.0179	TC3	-7.1160	BAU	1.1204
RDE	.2121	RRA	-.0945	RC3	.4542	FAU	.03506
FDE	.0011	FRA	.4658	FC3	-2.5823	BSP	15553
BDE	.3660	BRA	.0982	BC3	7.1305	FSP	-556

MID-COURSE EXECUTION ACCURACY

SGT	4904.6	SGR	504.9	SG3	171.1		
RRT	-.6873	RRF	-.7103	RTF	.0025		
SGB	4930.5	RZS	.1286	RIS	-.0932		
SG1	4916.9	SG2	365.8	THA	175.93		

ORBIT DETERMINATION ACCURACY

ST	519.7	SR	350.7	SS	162.5
CRT	-.9584	CRS	.1461	CST	-.0681
LSA	625.9	MSA	164.0	SSA	80.6
EL1	625.7	EL2	85.1	ALF	145.80

LAUNCH DATE OCT 5 1970 FLIGHT TIME 162.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 480.014

RL	149.61	LAL	.00	LOL	11.34	VL	26.429	GAL	-2.32	AZL	90.43	HCA	238.91	SMA	123.37	ECC	.21627	INC	.4261
RP	108.56	LAP	.37	LOP	250.25	VP	37.003	GAP	10.44	AZP	89.78	TAL	188.45	TAP	67.36	RCA	96.69	APO	150.05
RC	160.740	GL	-3.29	GP	18.94	ZAL	99.57	ZAP	157.56	ETS	52.63	ZAE	127.40	ETE	165.48	ZAC	121.63	ETC	263.95

V1 29.784 VE 34.907 CLP-167.74

PLANETOCENTRIC CONIC

C3	11.741	VHL	3.427	DLA	-26.72	RAL	271.97	RAD	6567.4	VEL	11.538	PTH	2.01	VHP	7.050	DPA	-4.76	RAP	263.96

ECC 1.1932

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 11 55	1045.83	15.65	335.77	129.74	113.91	9 29 18	445.8	18.75	326.47
90.00	11 58 40	5787.82	26.79	275.73	133.33	99.54	13 35 8	5187.8	27.83	267.22
100.00	10 1 25	885.84	13.39	320.91	128.63	116.98	10 16 10	285.8	16.90	313.88
100.00	13 51 50	5423.04	29.27	249.28	133.72	96.37	15 22 13	4823.0	29.84	240.52
110.00	10 16 38	838.04	9.12	314.78	126.12	123.09	10 30 36	238.0	13.41	308.32
110.00	15 53 5	5043.60	34.18	220.79	134.04	89.94	17 17 9	4443.6	33.80	211.56

DIFFERENTIAL CORRECTIONS

TDE	-.1896	TRA	.1753	TC3	-7.2228	BAU	1.1359
RDE	.2101	RRA	-.1051	RC3	.4405	FAU	.03350
FDE	.0532	FRA	.5156	FC3	-2.4701	BSP	15786
BDE	.2830	BRA	.2044	BC3	7.2362	FSP	-550

MID-COURSE EXECUTION ACCURACY

SGT	4970.8	SGR	503.2	SG3	168.5		
RRT	-.6677	RRF	-.6823	RTF	.0939		
SGB	4996.2	RZS	.1102	RIS	-.0945		
SG1	4982.2	SG2	373.7	THA	176.11		

ORBIT DETERMINATION ACCURACY

ST	363.7	SR	356.3	SS	186.5
CRT	-.9146	CRS	-.1249	CST	-.0705
LSA	498.1	MSA	194.9	SSA	88.6
EL1	498.1	EL2	105.1	ALF	135.64

LAUNCH DATE OCT 5 1970 FLIGHT TIME 164.00 ARRIVAL DATE MAR 18 1971

HELIOCENTRIC CONIC DISTANCE 486.497

RL	149.61	LAL	.00	LOL	11.34	VL	26.372	GAL	-1.87	AZL	90.20	HCA	242.08	SMA	123.03	ECC	.21832	INC	.1998
RP	108.60	LAP	.18	LOP	253.42	VP	36.952	GAP	10.68	AZP	89.91	TAL	186.73	TAP	68.81	RCA	96.17	APO	149.89
RC	162.826	GL	-1.54	GP	18.01	ZAL	96.05	ZAP	158.75	ETS	53.21	ZAE	127.57	ETE	166.14	ZAC	120.79	ETC	264.63

V1 29.784 VE 34.896 CLP-168.53

PLANETOCENTRIC CONIC

C3	11.845	VHL	3.442	DLA	-24.87	RAL	275.84	RAD	6567.5	VEL	11.543	PTH	2.01	VHP	7.135	DPA	-5.91	RAP	266.13

ECC 1.1949

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 48 29	1179.19	11.81	341.69	132.35	115.92	9 8 8	579.2	15.21	334.65
90.00	12 52 56	5858.16	27.91	266.41	137.07	95.00	14 27 14	5058.2	28.31	257.77
100.00	9 47 28	988.79	10.13	326.82	131.48	118.27	10 3 56	388.8	13.83	319.99
100.00	14 36 39	5323.79	29.79	241.95	137.21	92.55	16 5 23	4723.8	29.83	233.15
110.00	10 13 0	908.88	6.48	318.54	129.26	123.64	10 28 9	308.7	10.85	312.18
110.00	16 27 36	4976.66	34.06	215.56	137.19	86.86	17 50 32	4376.7	33.25	206.42

DIFFERENTIAL CORRECTIONS

TDE	-.0753	TRA	.3428	TC3	-7.2504	BAU	1.1502
RDE	.2080	RRA	-.1164	RC3	.4242	FAU	.03189
FDE	.1026	FRA	.5645	FC3	-2.3308	BSP	15989
BDE	.2222	BRA	.3618	BC3	7.2628	FSP	-540

MID-COURSE EXECUTION ACCURACY

SGT	5031.8	SGR	502.0	SG3	165.7		
RRT	-.6474	RRF	-.6550	RTF	.0952		
SGB	5056.7	RZS	.0845	RIS	-.0957		
SG1	5042.3	SG2	381.8	THA	176.28		

ORBIT DETERMINATION ACCURACY

ST	271.5	SR	353.9	SS	220.6
CRT	-.5936	CRS	-.3088	CST	-.4568
LSA	402.9	MSA	281.3	SSA	78.5
EL1	402.6	EL2	192.1	ALF	122.85

LAUNCH DATE OCT 5 1970 FLIGHT TIME 166.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 492.160

RL 149.61 LAL .00 LOL 11.34 VL 26.317 GAL -1.41 AZL 89.99 HCA 245.26 SMA 122.70 ECC .22060 INC .0000 V1 29.784
RP 108.63 LAP -.01 LOP 256.60 VP 36.902 GAP 10.94 AZP 90.00 TAL 184.99 TAP 70.25 RCA 95.63 APO 149.77 V2 34.885
RC 164.900 GL .09 GP 17.18 ZAL 92.47 ZAP 159.85 ETS 53.96 ZAE 127.73 ETE 166.73 ZAC 120.02 ETC 265.30 CLP-169.31

PLANETOCENTRIC CONIC

C3 12.068 VHL 3.474 DLA -23.05 RAL 279.65 RAD 6567.5 VEL 11.552 PTH 2.02 VHP 7.251 DPA -6.92 RAP 268.35 ECC 1.1986

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 35 3	1283.19	8.65	347.69	135.42	117.07	8 56 26	683.2	12.21	340.83
90.00	13 36 50	5561.99	28.28	259.40	140.66	91.51	15 9 32	4962.0	28.19	250.74
100.00	9 38 48	1077.42	7.23	331.81	134.66	119.08	9 56 45	477.4	11.06	325.11
100.00	15 15 46	5243.00	29.89	235.95	140.68	89.40	16 43 9	4643.0	29.48	227.17
110.00	10 11 18	975.50	3.94	322.06	132.63	123.98	10 27 33	375.5	8.38	315.78
110.00	16 59 45	4917.68	33.74	210.98	140.42	84.16	18 21 43	4317.7	32.57	201.95

DIFFERENTIAL CORRECTIONS
TDE .0326 TRA .5064 TC3-7.2378 BAU 1.1696
RDE .2102 RRA -.1268 RC3 .4100 FAU .03061
FDE .1424 FRA .6039 FC3-2.1957 BSP 16465
BDE .2127 BRA .5220 BC3 7.2494 FSP -547

MID-COURSE EXECUTION ACCURACY
SGT 5110.2 SGR 503.0 SG3 162.9
RRT -.6304 RRF -.6319 RTF .8996
SGB 5134.9 R23 .0793 R13 -.9000
SG1 5120.1 SG2 389.7 THA 176.43

ORBIT DETERMINATION ACCURACY
ST 315.9 SR 353.4 SS 252.7
CRT -.0109 CRS -.4130 CST -.8473
LSA 406.5 MSA 345.1 SSA 64.8
EL1 353.5 EL2 315.8 ALF 92.76

LAUNCH DATE OCT 5 1970 FLIGHT TIME 168.00 ARRIVAL DATE MAR 22 1971

HELIOCENTRIC CONIC DISTANCE 497.804

RL 149.61 LAL .00 LOL 11.34 VL 26.262 GAL -.93 AZL 89.79 HCA 248.43 SMA 122.37 ECC .22310 INC .2133 V1 29.784
RP 108.66 LAP -.20 LOP 259.77 VP 36.853 GAP 11.20 AZP 90.08 TAL 183.26 TAP 71.68 RCA 95.07 APO 149.67 V2 34.874
RC 166.961 GL 1.60 GP 16.44 ZAL 88.86 ZAP 160.88 ETS 54.87 ZAE 127.86 ETE 167.26 ZAC 119.31 ETC 265.97 CLP-170.09

PLANETOCENTRIC CONIC

C3 12.413 VHL 3.523 DLA -21.27 RAL 283.41 RAD 6567.5 VEL 11.567 PTH 2.02 VHP 7.377 DPA -7.81 RAP 270.62 ECC 1.2043

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 26 24	1373.85	5.81	352.84	138.78	117.76	8 49 18	773.9	9.48	346.08
90.00	14 15 25	5483.29	28.29	253.65	144.25	88.62	15 46 48	4883.3	27.80	245.01
100.00	9 33 15	1158.11	4.54	336.28	138.08	119.58	9 52 33	558.1	8.45	329.67
100.00	15 51 15	5174.27	29.73	230.85	144.18	86.72	17 17 29	4574.3	28.96	222.13
110.00	10 10 58	1039.87	1.49	325.42	136.18	124.15	10 28 18	439.9	5.96	319.19
110.00	17 30 1	4865.27	33.31	206.96	143.76	81.82	18 51 6	4265.3	31.82	198.04

DIFFERENTIAL CORRECTIONS
TDE .1654 TRA .6998 TC3-7.0848 BAU 1.1775
RDE .2101 RRA -.1399 RC3 .3859 FAU .02875
FDE .1913 FRA .6543 FC3-2.0051 BSP 16433
BDE .2674 BRA .7136 BC3 7.0953 FSP -526

MID-COURSE EXECUTION ACCURACY
SGT 5146.6 SGR 500.4 SG3 159.2
RRT -.6074 RRF -.6038 RTF .8995
SGB 5170.8 R23 .0682 R13 -.8998
SG1 5155.6 SG2 396.8 THA 176.60

ORBIT DETERMINATION ACCURACY
ST 478.5 SR 349.6 SS 296.1
CRT .3816 CRS -.4978 CST -.9692
LSA 585.5 MSA 305.5 SSA 52.1
EL1 508.7 EL2 303.9 ALF 25.05

LAUNCH DATE OCT 5 1970 FLIGHT TIME 170.00 ARRIVAL DATE MAR 24 1971

HELIOCENTRIC CONIC DISTANCE 503.425

RL 149.61 LAL .00 LOL 11.34 VL 26.208 GAL -.44 AZL 89.59 HCA 251.60 SMA 122.05 ECC .22586 INC .4069 V1 29.784
RP 108.69 LAP -.39 LOP 262.94 VP 36.805 GAP 11.46 AZP 90.13 TAL 181.51 TAP 73.11 RCA 94.49 APO 149.62 V2 34.864
RC 169.007 GL 2.97 GP 15.76 ZAL 85.26 ZAP 161.83 ETS 55.97 ZAE 127.98 ETE 167.74 ZAC 118.65 ETC 266.64 CLP-170.85

PLANETOCENTRIC CONIC

C3 12.890 VHL 3.590 DLA -19.52 RAL 287.07 RAD 6567.5 VEL 11.588 PTH 2.03 VHP 7.513 DPA -8.59 RAP 272.93 ECC 1.2121

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 20 38	1456.78	3.16	357.49	142.34	118.15	8 44 55	856.8	6.90	350.81
90.00	14 50 25	5416.47	28.08	248.77	147.87	86.19	16 20 42	4816.5	27.26	240.20
100.00	9 29 45	1233.77	1.99	340.45	141.69	119.83	9 50 19	633.8	5.94	333.89
100.00	16 24 0	5114.72	29.41	226.45	147.74	84.42	17 49 14	4514.7	28.33	217.81
110.00	10 11 37	1102.55	-.91	328.69	139.88	124.17	10 30 0	502.6	3.58	322.48
110.00	17 58 37	4818.70	32.80	203.42	147.20	79.78	19 18 55	4218.7	31.04	194.64

DIFFERENTIAL CORRECTIONS
TDE .2971 TRA .8960 TC3-6.8879 BAU 1.1886
RDE .2117 RRA -.1529 RC3 .3634 FAU .02717
FDE .2341 FRA .7006 FC3-1.8250 BSP 16593
BDE .3648 BRA .9089 BC3 6.8975 FSP -516

MID-COURSE EXECUTION ACCURACY
SGT 5194.9 SGR 499.3 SG3 156.1
RRT -.5873 RRF -.5797 RTF .9012
SGB 5218.9 R23 .0584 R13 -.9014
SG1 5203.3 SG2 403.5 THA 176.75

ORBIT DETERMINATION ACCURACY
ST 673.8 SR 346.7 SS 335.9
CRT .5293 CRS -.5477 CST -.9894
LSA 777.7 MSA 283.5 SSA 43.1
EL1 703.4 EL2 281.8 ALF 18.27

LAUNCH DATE OCT 5 1970 FLIGHT TIME 172.00 ARRIVAL DATE MAR 26 1971

HELIOCENTRIC CONIC DISTANCE 509.021

RL 149.61 LAL .00 LOL 11.34 VL 26.154 GAL .07 AZL 89.41 HCA 254.77 SMA 121.74 ECC .22890 INC .5931 V1 29.784
RP 108.72 LAP -.57 LOP 266.11 VP 36.758 GAP 11.75 AZP 90.16 TAL 179.76 TAP 74.53 RCA 93.87 APO 149.61 V2 34.855
RC 171.039 GL 4.23 GP 15.16 ZAL 81.70 ZAP 162.72 ETS 57.26 ZAE 128.09 ETE 168.18 ZAC 118.03 ETC 267.30 CLP-171.61

PLANETOCENTRIC CONIC

C3 13.506 VHL 3.675 DLA -17.82 RAL 290.64 RAD 6567.5 VEL 11.614 PTH 2.04 VHP 7.660 DPA -9.27 RAP 275.26 ECC 1.2223

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 16 50	1534.60	.65	1.84	146.05	118.31	8 42 24	934.6	4.43	355.19
90.00	15 22 41	5358.87	27.75	244.59	151.54	84.12	16 52 0	4758.9	26.64	236.10
100.00	9 27 42	1305.91	-.46	344.41	145.43	119.89	9 49 28	705.9	3.52	337.88
100.00	16 54 30	5062.80	29.01	222.64	151.37	82.46	18 18 52	4462.8	27.66	214.10
110.00	10 13 0	1163.97	-3.25	331.90	143.69	124.05	10 32 24	564.0	1.24	325.69
110.00	18 25 41	4777.51	32.26	200.32	150.72	78.02	19 45 18	4177.5	30.27	191.67

DIFFERENTIAL CORRECTIONS
TDE .4398 TRA 1.1033 TC3-6.6207 BAU 1.1970
RDE .2132 RRA -.1664 RC3 .3367 FAU .02539
FDE .2809 FRA .7467 FC3-1.6278 BSP 16649
BDE .4888 BRA 1.1158 BC3 6.6292 FSP -494

MID-COURSE EXECUTION ACCURACY
SGT 5236.0 SGR 495.9 SG3 152.6
RRT -.5656 RRF -.5524 RTF .9011
SGB 5259.4 R23 .0480 R13 -.9013
SG1 5243.5 SG2 408.4 THA 176.91

ORBIT DETERMINATION ACCURACY
ST 886.2 SR 342.3 SS 378.8
CRT .6016 CRS -.5883 CST -.9943
LSA 986.5 MSA 267.4 SSA 36.8
EL1 912.1 EL2 265.7 ALF 14.32

LAUNCH DATE OCT 5 1970 FLIGHT TIME 174.00 ARRIVAL DATE MAR 28 1971

HELIOCENTRIC CONIC DISTANCE 514.591

RL 149.61 LAL .00 LOL 11.34 VL 26.102 GAL .60 AZL 89.23 HCA 257.94 SMA 121.43 ECC .23223 INC .7736 V1 29.784
RP 108.75 LAP -.76 LOP 269.28 VP 36.712 GAP 12.04 AZP 90.16 TAL 178.01 TAP 75.95 RCA 93.23 APO 149.63 V2 34.846
RC 173.056 GL 5.35 GP 14.61 ZAL 78.21 ZAP 163.56 ETS 58.74 ZAE 128.20 ETE 168.57 ZAC 117.44 ETC 267.96 CLP-172.36

PLANETOCENTRIC CONIC

C3 14.275 VHL 3.778 DLA -16.17 RAL 294.09 RAD 6567.6 VEL 11.647 PTH 2.04 VHP 7.818 DPA -9.84 RAP 277.63 ECC 1.2349

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 14 24	1608.70	-1.74	5.97	149.88	118.27	8 41 12	1008.7	2.05	359.34
90.00	15 52 30	5309.04	27.35	241.00	155.25	82.36	17 21 8	4709.0	26.01	232.59
100.00	9 26 42	1375.41	-2.81	348.22	149.29	119.77	9 49 38	775.4	1.17	341.70
100.00	17 23 2	5017.58	28.56	219.35	155.05	80.78	18 46 40	4417.6	26.99	210.90
110.00	10 14 55	1224.36	-5.55	355.07	147.59	123.78	10 35 20	624.4	-1.07	328.84
110.00	18 51 18	4741.41	31.72	197.65	154.31	76.53	20 10 20	4141.4	29.54	189.12

DIFFERENTIAL CORRECTIONS

TDE .5737 TRA 1.3132 TC3-6.3202 BAU 1.2076
RDE .2179 RRA -.1790 RC3 .3120 FAU .02383
FDE .3126 FRA .7862 FC3-1.4510 BSP 16870
BDE .6137 BRA 1.3253 BC3 6.3279 FSP -493

MID-COURSE EXECUTION ACCURACY

SGT 5278.7 SGR 494.7 SG3 148.8
RRT -.5456 RRF -.5313 RTF .9042
SGB 5301.8 RZS .0416 R13 -.9044
SG1 5285.7 SG2 414.0 THA 177.06

ORBIT DETERMINATION ACCURACY

ST 1079.0 SR 341.2 SS 407.8
CRT .6348 CRS -.6060 CST -.9959
LSA 1174.0 MSA 260.2 SSA 31.9
EL1 1101.8 EL2 258.2 ALF 12.02

LAUNCH DATE OCT 5 1970 FLIGHT TIME 176.00 ARRIVAL DATE MAR 30 1971

HELIOCENTRIC CONIC DISTANCE 520.131

RL 149.61 LAL .00 LOL 11.34 VL 26.050 GAL 1.15 AZL 89.05 HCA 261.11 SMA 121.13 ECC .23587 INC .9498 V1 29.784
RP 108.78 LAP -.94 LOP 272.45 VP 36.667 GAP 12.35 AZP 90.15 TAL 176.26 TAP 77.36 RCA 92.56 APO 149.70 V2 34.837
RC 175.059 GL 6.36 GP 14.11 ZAL 74.80 ZAP 164.33 ETS 60.42 ZAE 128.29 ETE 168.92 ZAC 116.87 ETC 268.62 CLP-173.11

PLANETOCENTRIC CONIC

C3 15.210 VHL 3.900 DLA -14.59 RAL 297.42 RAD 6567.6 VEL 11.687 PTH 2.06 VHP 7.988 DPA -10.33 RAP 280.02 ECC 1.2503

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 12 50	1679.90	-4.03	9.95	153.81	118.05	8 40 59	1080.0	-.25	3.32
90.00	16 20 37	5266.06	26.92	237.82	159.01	80.88	17 48 23	4666.1	25.38	229.59
100.00	9 26 30	1442.78	-5.08	351.94	153.23	119.50	9 50 33	842.8	-1.11	345.40
100.00	17 49 48	4978.49	28.10	216.54	158.78	79.37	19 12 46	4378.5	26.35	208.18
110.00	10 17 15	1283.83	-7.79	338.21	151.57	123.39	10 38 38	683.8	-3.34	331.95
110.00	19 15 32	4710.20	31.20	195.36	157.97	75.27	20 34 2	4110.2	28.86	186.94

DIFFERENTIAL CORRECTIONS

TDE .7188 TRA 1.5367 TC3-5.9734 BAU 1.2161
RDE .2227 RRA -.1922 RC3 .2859 FAU .02243
FDE .3480 FRA .8277 FC3-1.2764 BSP 17041
BDE .7525 BRA 1.5486 BC3 5.9803 FSP -484

MID-COURSE EXECUTION ACCURACY

SGT 5316.6 SGR 491.9 SG3 145.4
RRT -.5254 RRF -.5091 RTF .9065
SGB 5330.3 RZS .0550 R13 -.9067
SG1 5322.9 SG2 418.0 THA 177.20

ORBIT DETERMINATION ACCURACY

ST 1274.5 SR 338.8 SS 438.8
CRT .6562 CRS -.6224 CST -.9968
LSA 1366.2 MSA 253.8 SSA 28.2
EL1 1294.5 EL2 251.7 ALF 10.29

LAUNCH DATE OCT 5 1970 FLIGHT TIME 178.00 ARRIVAL DATE APR 1 1971

HELIOCENTRIC CONIC DISTANCE 525.637

RL 149.61 LAL .00 LOL 11.34 VL 25.998 GAL 1.73 AZL 88.88 HCA 264.27 SMA 120.84 ECC .23987 INC 1.1230 V1 29.784
RP 108.80 LAP -1.12 LOP 275.61 VP 36.623 GAP 12.67 AZP 90.11 TAL 174.50 TAP 78.77 RCA 91.85 APO 149.82 V2 34.829
RC 177.047 GL 7.24 GP 13.65 ZAL 71.50 ZAP 165.05 ETS 62.33 ZAE 128.37 ETE 169.25 ZAC 116.33 ETC 269.28 CLP-173.85

PLANETOCENTRIC CONIC

C3 16.329 VHL 4.041 DLA -13.07 RAL 300.61 RAD 6567.7 VEL 11.735 PTH 2.07 VHP 8.170 DPA -10.73 RAP 282.43 ECC 1.2687

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 12 21	1748.84	-6.22	13.83	157.81	117.68	8 41 29	1148.8	-2.47	7.16
90.00	16 46 45	5229.35	26.50	235.32	162.80	79.64	18 13 55	4629.3	24.80	227.06
100.00	9 26 54	1508.30	-7.26	355.58	157.24	119.08	9 52 2	908.3	-3.33	349.00
100.00	18 14 53	4945.11	27.66	214.16	162.55	78.19	19 37 18	4345.1	25.75	205.88
110.00	10 19 51	1342.43	-9.97	341.35	155.60	122.87	10 42 14	742.4	-5.57	335.02
110.00	19 38 25	4683.75	30.73	193.45	161.68	74.22	20 56 29	4083.7	28.26	185.12

DIFFERENTIAL CORRECTIONS

TDE .8565 TRA 1.7590 TC3-5.6270 BAU 1.2297
RDE .2297 RRA -.2045 RC3 .2618 FAU .02123
FDE .3756 FRA .8633 FC3-1.1254 BSP 17467
BDE .8867 BRA 1.7708 BC3 5.6330 FSP -487

MID-COURSE EXECUTION ACCURACY

SGT 5358.3 SGR 489.3 SG3 141.7
RRT -.5068 RRF -.4898 RTF .9103
SGB 5380.6 RZS .0296 R13 -.9105
SG1 5364.1 SG2 421.3 THA 177.33

ORBIT DETERMINATION ACCURACY

ST 1443.4 SR 337.7 SS 461.0
CRT .6688 CRS -.6329 CST -.9973
LSA 1531.9 MSA 250.1 SSA 25.4
EL1 1461.5 EL2 248.0 ALF 9.16

LAUNCH DATE OCT 5 1970 FLIGHT TIME 180.00 ARRIVAL DATE APR 3 1971

HELIOCENTRIC CONIC DISTANCE 531.108

RL 149.61 LAL .00 LOL 11.34 VL 25.948 GAL 2.33 AZL 88.71 HCA 267.44 SMA 120.55 ECC .24424 INC 1.2941 V1 29.784
RP 108.83 LAP -1.29 LOP 278.78 VP 36.580 GAP 13.01 AZP 90.06 TAL 172.75 TAP 80.18 RCA 91.11 APO 149.99 V2 34.822
RC 179.021 GL 8.01 GP 13.24 ZAL 68.31 ZAP 165.72 ETS 64.46 ZAE 128.45 ETE 169.55 ZAC 115.81 ETC 269.93 CLP-174.59

PLANETOCENTRIC CONIC

C3 17.653 VHL 4.202 DLA -11.63 RAL 303.67 RAD 6567.7 VEL 11.791 PTH 2.08 VHP 8.366 DPA -11.04 RAP 284.85 ECC 1.2905

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 12 18	1815.66	-8.32	17.02	161.87	117.16	8 42 34	1215.7	-4.61	10.90
90.00	17 11 12	5198.42	26.10	233.14	166.62	78.61	18 37 51	4598.4	24.27	224.95
100.00	9 27 45	1572.22	-9.36	359.16	161.31	118.52	9 53 58	972.2	-5.48	352.52
100.00	18 38 26	4917.09	27.25	212.17	166.35	77.22	20 0 23	4317.1	25.22	203.96
110.00	10 22 41	1400.20	-12.09	344.49	159.69	122.22	10 46 1	800.2	-7.75	338.08
110.00	20 0 0	4661.86	30.31	191.88	165.43	73.38	21 17 42	4061.9	27.74	183.63

DIFFERENTIAL CORRECTIONS

TDE 1.0220 TRA 2.0190 TC3-5.2082 BAU 1.2299
RDE .2359 RRA -.2183 RC3 .2333 FAU .01955
FDE .4129 FRA .9090 FC3 -.9590 BSP 17351
BDE 1.0488 BRA 2.0268 BC3 5.2114 FSP -487

MID-COURSE EXECUTION ACCURACY

SGT 5380.6 SGR 484.1 SG3 138.5
RRT -.4847 RRF -.4662 RTF .9116
SGB 5402.4 RZS .0247 R13 -.9117
SG1 5385.8 SG2 423.0 THA 177.49

ORBIT DETERMINATION ACCURACY

ST 1633.4 SR 334.4 SS 491.2
CRT .6788 CRS -.6440 CST -.9977
LSA 1720.6 MSA 245.1 SSA 23.1
EL1 1649.4 EL2 243.1 ALF 8.09

LAUNCH DATE OCT 5 1970 FLIGHT TIME 182.00 ARRIVAL DATE APR 5 1971

HELIOCENTRIC CONIC DISTANCE 536.537

RL 149.61 LAL .00 LOL 11.34 VL 25.898 GAL 2.96 AZL 88.54 HCA 270.60 SMA 120.27 ECC .24902 INC 1.4642 V1 29.784
RP 108.85 LAP -1.46 LOP 281.94 VP 36.538 GAP 13.37 AZP 89.98 TAL 171.00 TAP 81.60 RCA 90.32 APO 150.22 V2 34.815
RC 180.980 GL 8.67 GP 12.86 ZAL 65.25 ZAP 166.33 ETS 66.83 ZAE 128.53 ETE 169.82 ZAC 115.30 ETC 270.58 CLP-175.32

PLANETOCENTRIC CONIC

C3 19.204 VHL 4.382 DLA -10.27 RAL 306.59 RAD 6567.8 VEL 11.857 PTH 2.10 VHP 8.577 DPA -11.28 RAP 287.29 ECC 1.3161

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 12 44	1880.63	-10.32	21.35	165.98	116.52	8 44 4	1280.6	-6.67	14.56
90.00	17 34 4	5172.92	25.75	231.36	170.47	77.79	19 0 17	4572.9	23.81	223.23
100.00	9 28 59	1634.63	-11.37	2.71	165.43	117.83	9 56 13	1034.6	-7.56	355.99
100.00	19 0 30	4894.15	26.90	210.56	170.17	76.44	20 22 4	4294.1	24.77	202.41
110.00	10 25 40	1457.12	-14.13	347.63	163.82	121.45	10 49 57	857.1	-9.87	341.12
110.00	20 20 19	4644.42	29.96	190.64	169.21	72.72	21 37 43	4044.4	27.31	182.45

DIFFERENTIAL CORRECTIONS
TDE 1.1841 TRA 2.2749 TC3-4.7962 BAU 1.2325
RDE .2439 RRA -.2312 RC3 .2072 FAU .01810
FDE .4449 FRA .9509 FC3 -.8159 BSP 17413
BDE 1.2090 BRA 2.2866 BC3 4.8006 FSP -455

MID-COURSE EXECUTION ACCURACY
SGT 5404.0 SGR 478.6 SG3 135.1
RRT -.4633 RRF -.4442 RTF .9141
SGB 5425.2 R23 .0205 R13 -.9141
SG1 5408.6 SG2 423.8 THA 177.64

ORBIT DETERMINATION ACCURACY
ST 1798.6 SR 332.0 SS 514.7
CRT .6857 CRS -.6524 CST -.9981
LSA 1884.5 MSA 241.6 SSA 21.3
EL1 1813.3 EL2 239.7 ALF 7.34

LAUNCH DATE OCT 5 1970 FLIGHT TIME 184.00 ARRIVAL DATE APR 7 1971

HELIOCENTRIC CONIC DISTANCE 541.919

RL 149.61 LAL .00 LOL 11.34 VL 25.849 GAL 3.62 AZL 88.37 HCA 273.76 SMA 119.99 ECC .25426 INC 1.6345 V1 29.784
RP 108.87 LAP -1.63 LOP 285.10 VP 36.498 GAP 13.76 AZP 89.89 TAL 169.25 TAP 83.01 RCA 89.48 APO 150.50 V2 34.809
RC 182.925 GL 9.24 GP 12.52 ZAL 62.34 ZAP 166.89 ETS 69.46 ZAE 128.59 ETE 170.07 ZAC 114.79 ETC 271.22 CLP-176.06

PLANETOCENTRIC CONIC

C3 21.013 VHL 4.584 DLA -8.98 RAL 309.37 RAD 6567.9 VEL 11.933 PTH 2.12 VHP 8.804 DPA -11.44 RAP 289.73 ECC 1.3458

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 13 31	1943.90	-12.22	25.02	170.12	115.75	8 45 55	1343.9	-8.65	18.16
90.00	17 55 26	5152.52	25.45	229.94	174.32	77.14	19 21 19	4552.5	23.42	221.86
100.00	9 30 28	1695.62	-13.28	6.23	169.58	117.03	9 58 44	1095.6	-9.55	359.42
100.00	19 21 10	4876.03	26.60	209.30	174.01	75.84	20 42 26	4276.0	24.39	201.19
110.00	10 28 44	1513.18	-16.10	350.78	167.97	120.57	10 53 57	913.2	-11.92	344.17
110.00	20 30 23	4631.23	29.69	189.71	173.01	72.23	21 56 35	4031.2	26.98	181.57

DIFFERENTIAL CORRECTIONS
TDE 1.3502 TRA 2.5462 TC3-4.3904 BAU 1.2344
RDE .2532 RRA -.2435 RC3 .1824 FAU .01673
FDE .4753 FRA .9924 FC3 -.6892 BSP 17509
BDE 1.3737 BRA 2.5578 BC3 4.3942 FSP -445

MID-COURSE EXECUTION ACCURACY
SGT 5425.0 SGR 472.3 SG3 131.9
RRT -.4417 RRF -.4226 RTF .9170
SGB 5445.6 R23 .0168 R13 -.9170
SG1 5429.1 SG2 423.4 THA 177.78

ORBIT DETERMINATION ACCURACY
ST 1948.6 SR 329.7 SS 535.3
CRT .6913 CRS -.6598 CST -.9984
LSA 2033.5 MSA 238.4 SSA 19.7
EL1 1962.1 EL2 236.6 ALF 6.77

LAUNCH DATE OCT 5 1970 FLIGHT TIME 186.00 ARRIVAL DATE APR 9 1971

HELIOCENTRIC CONIC DISTANCE 547.248

RL 149.61 LAL .00 LOL 11.34 VL 25.800 GAL 4.31 AZL 88.19 HCA 276.92 SMA 119.72 ECC .26000 INC 1.8060 V1 29.784
RP 108.88 LAP -1.79 LOP 288.27 VP 36.458 GAP 14.17 AZP 89.78 TAL 167.52 TAP 84.44 RCA 88.59 APO 150.85 V2 34.804
RC 184.854 GL 9.71 GP 12.20 ZAL 59.56 ZAP 167.39 ETS 72.34 ZAE 128.64 ETE 170.31 ZAC 114.30 ETC 271.86 CLP-176.80

PLANETOCENTRIC CONIC

C3 23.112 VHL 4.807 DLA -7.78 RAL 312.01 RAD 6567.9 VEL 12.020 PTH 2.15 VHP 9.049 DPA -11.53 RAP 292.17 ECC 1.3804

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 14 35	2005.59	-14.01	28.66	174.29	114.86	8 48 1	1405.6	-10.54	21.70
90.00	18 15 24	5136.91	25.20	228.86	178.18	76.65	19 41 1	4536.9	23.12	220.81
100.00	9 32 11	1755.26	-15.10	9.72	173.75	116.11	10 1 26	1155.3	-11.47	2.81
100.00	19 40 29	4862.47	26.37	208.35	177.85	75.39	21 1 32	4262.5	24.11	200.29
110.00	10 31 52	1568.37	-17.98	353.95	172.16	119.57	10 58 1	968.4	-13.91	347.21
110.00	20 57 17	4622.12	29.50	189.07	176.82	71.90	22 14 19	4022.1	26.75	180.97

DIFFERENTIAL CORRECTIONS
TDE 1.5209 TRA 2.8305 TC3-3.9920 BAU 1.2345
RDE .2638 RRA -.2551 RC3 .1589 FAU .01540
FDE .5045 FRA 1.0343 FC3 -.5768 BSP 17597
BDE 1.5436 BRA 2.8420 BC3 3.9952 FSP -435

MID-COURSE EXECUTION ACCURACY
SGT 5441.6 SGR 465.1 SG3 128.6
RRT -.4193 RRF -.4006 RTF .9201
SGB 5461.5 R23 .0137 R13 -.9201
SG1 5445.1 SG2 422.0 THA 177.93

ORBIT DETERMINATION ACCURACY
ST 2083.8 SR 327.6 SS 553.4
CRT .6963 CRS -.6666 CST -.9986
LSA 2168.0 MSA 235.4 SSA 18.5
EL1 2096.4 EL2 233.7 ALF 6.33

LAUNCH DATE OCT 5 1970 FLIGHT TIME 188.00 ARRIVAL DATE APR 11 1971

HELIOCENTRIC CONIC DISTANCE 552.517

RL 149.61 LAL .00 LOL 11.34 VL 25.753 GAL 5.03 AZL 88.02 HCA 280.08 SMA 119.46 ECC .26629 INC 1.9798 V1 29.784
RP 108.90 LAP -1.95 LOP 291.43 VP 36.420 GAP 14.61 AZP 89.65 TAL 165.79 TAP 85.87 RCA 87.65 APO 151.27 V2 34.799
RC 186.768 GL 10.10 GP 11.91 ZAL 56.93 ZAP 167.84 ETS 75.49 ZAE 128.69 ETE 170.53 ZAC 113.80 ETC 272.48 CLP-177.54

PLANETOCENTRIC CONIC

C3 25.543 VHL 5.054 DLA -6.66 RAL 314.50 RAD 6568.0 VEL 12.121 PTH 2.17 VHP 9.314 DPA -11.55 RAP 294.60 ECC 1.4204

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 15 54	2065.77	-15.70	32.27	178.47	113.87	8 50 19	1465.8	-12.34	25.21
90.00	18 34 1	5125.80	25.03	228.10	182.03	76.30	19 59 27	4525.8	22.90	220.07
100.00	9 34 4	1813.61	-16.82	13.20	177.95	115.08	10 4 17	1213.6	-13.30	6.18
100.00	19 58 32	4853.20	26.21	207.71	181.70	75.09	21 19 25	4253.2	23.91	199.67
110.00	10 35 2	1622.69	-19.78	357.14	176.37	118.47	11 2 5	1022.7	-15.82	350.25
110.00	21 14 3	4616.89	29.39	188.70	180.63	71.70	22 31 0	4016.9	26.61	180.62

DIFFERENTIAL CORRECTIONS
TDE 1.6973 TRA 3.1295 TC3-3.6054 BAU 1.2321
RDE .2756 RRA -.2658 RC3 .1369 FAU .01410
FDE .5332 FRA 1.0771 FC3 -.4779 BSP 17682
BDE 1.7195 BRA 3.1408 BC3 3.6080 FSP -425

MID-COURSE EXECUTION ACCURACY
SGT 5453.7 SGR 456.9 SG3 125.5
RRT -.3960 RRF -.3780 RTF .9233
SGB 5472.8 R23 .0112 R13 -.9234
SG1 5456.7 SG2 419.4 THA 178.09

ORBIT DETERMINATION ACCURACY
ST 2205.2 SR 325.4 SS 570.0
CRT .7012 CRS -.6735 CST -.9988
LSA 2288.9 MSA 232.4 SSA 17.4
EL1 2217.1 EL2 230.8 ALF 5.97

LAUNCH DATE OCT 5 1970 FLIGHT TIME 190.00 ARRIVAL DATE APR 13 1971

HELIOCENTRIC CONIC DISTANCE 557.715

RL	149.61	LAL	.00	LOL	11.34	VL	25.706	GAL	5.80	AZL	87.84	HCA	283.24	SMA	119.20	ECC	.27319	INC	2.1569
RP	108.91	LAP	-2.10	LOP	294.59	VP	36.383	GAP	15.08	AZP	89.51	TAL	164.08	TAP	87.32	RCA	86.63	APO	151.76
RC	188.667	GL	10.41	GP	11.65	ZAL	54.44	ZAP	168.23	ETS	78.91	ZAE	128.73	ETE	170.73	ZAC	113.31	ETC	273.10

V1	29.784	V2	34.795	CLP	-178.28														

PLANETOCENTRIC CONIC

C3	28.353	VHL	5.325	DLA	-5.63	RAL	316.86	RAD	6568.1	VEL	12.236	PTH	2.20	VHP	9.600	DPA	-11.50	RAP	297.03
ECC	1.4666																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 17 23	2124.51	-17.29	35.86	182.67	112.78	8 52 47	1524.5	-14.05	28.68
90.00	18 51 22	5118.91	24.92	227.62	185.88	76.09	20 16 41	4518.9	22.76	219.62
100.00	9 36 3	1870.69	-18.43	16.68	182.16	113.96	10 7 14	1270.7	-15.04	9.53
100.00	20 15 23	4847.96	26.12	207.35	185.54	74.92	21 36 11	4248.0	23.80	199.32
110.00	10 38 13	1676.10	-21.48	.35	180.60	117.26	11 6 9	1076.1	-17.65	353.31
110.00	21 29 43	4615.31	29.36	188.59	184.44	71.65	22 46 38	4015.3	26.57	180.51

DIFFERENTIAL CORRECTIONS

TDE	1.8790	TRA	3.4435	TC3	-3.2358	BAU	1.2273
RDE	.2887	RRA	-.2754	RC3	.1167	FAU	.01286
FDE	.5613	FRA	1.1208	FC3	-.3927	BSP	17769
BDE	1.9011	BRA	3.4545	BC3	3.2379	FSP	-416

MID-COURSE EXECUTION ACCURACY

SGT	5461.2	SGR	447.9	SG3	122.4		
RRT	-.3715	RRF	-.3548	RTF	.9270		
SGB	5479.5	R23	.0091	R13	-.9270		
SG1	5463.8	SG2	415.6	THA	178.24		

ORBIT DETERMINATION ACCURACY

ST	2312.2	SR	323.3	SS	584.8		
CRT	.7063	CRS	-.6805	CST	-.9989		
LSA	2395.8	NSA	229.2	SSA	16.4		
EL1	2323.6	EL2	227.7	ALF	5.69		

LAUNCH DATE OCT 5 1970 FLIGHT TIME 192.00 ARRIVAL DATE APR 15 1971

HELIOCENTRIC CONIC DISTANCE 562.832

RL	149.61	LAL	.00	LOL	11.34	VL	25.660	GAL	6.61	AZL	87.66	HCA	286.40	SMA	118.94	ECC	.28078	INC	2.3387
RP	108.92	LAP	-2.24	LOP	297.75	VP	36.347	GAP	15.59	AZP	89.34	TAL	162.39	TAP	88.79	RCA	85.55	APO	152.34
RC	190.549	GL	10.66	GP	11.40	ZAL	52.09	ZAP	168.56	ETS	82.59	ZAE	128.75	ETE	170.93	ZAC	112.83	ETC	273.71

V1	29.784	V2	34.791	CLP	-179.04														

PLANETOCENTRIC CONIC

C3	31.601	VHL	5.622	DLA	-4.67	RAL	319.09	RAD	6568.3	VEL	12.368	PTH	2.23	VHP	9.912	DPA	-11.40	RAP	299.45
ECC	1.5201																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 19 0	2181.85	-18.76	39.42	186.88	111.61	8 55 22	1581.8	-15.66	32.11
90.00	19 7 32	5115.94	24.87	227.42	189.72	76.00	20 32 48	4515.9	22.70	219.42
100.00	9 38 9	1926.52	-19.94	20.14	186.37	112.75	10 10 15	1326.5	-16.68	12.85
100.00	20 31 4	4846.50	26.09	207.25	189.36	74.88	21 51 50	4246.5	23.76	199.23
110.00	10 41 22	1728.61	-23.08	3.59	184.85	115.95	11 10 11	1128.6	-19.40	356.38
110.00	21 44 80	4617.18	29.40	188.72	188.24	71.71	23 1 17	4017.2	26.62	180.64

DIFFERENTIAL CORRECTIONS

TDE	2.0660	TRA	3.7734	TC3	-2.8869	BAU	1.2204
RDE	.3031	RRA	-.2836	RC3	.0982	FAU	.01167
FDE	.5891	FRA	1.1657	FC3	-.3196	BSP	17878
BDE	2.0890	BRA	3.7841	BC3	2.8886	FSP	-408

MID-COURSE EXECUTION ACCURACY

SGT	5464.7	SGR	437.9	SG3	119.4		
RRT	-.3454	RRF	-.3302	RTF	.9308		
SGB	5482.2	R23	.0073	R13	-.9308		
SG1	5466.8	SG2	410.8	THA	178.41		

ORBIT DETERMINATION ACCURACY

ST	2405.7	SR	321.0	SS	598.6		
CRT	.7120	CRS	-.6880	CST	-.9991		
LSA	2489.5	NSA	225.7	SSA	15.6		
EL1	2416.7	EL2	224.4	ALF	5.47		

LAUNCH DATE OCT 5 1970 FLIGHT TIME 194.00 ARRIVAL DATE APR 17 1971

HELIOCENTRIC CONIC DISTANCE 567.854

RL	149.61	LAL	.00	LOL	11.34	VL	25.615	GAL	7.48	AZL	87.47	HCA	289.55	SMA	118.70	ECC	.28912	INC	2.5264
RP	108.93	LAP	-2.38	LOP	300.91	VP	36.313	GAP	16.15	AZP	89.15	TAL	160.73	TAP	90.28	RCA	84.38	APO	153.02
RC	192.414	GL	10.85	GP	11.18	ZAL	49.88	ZAP	168.82	ETS	86.53	ZAE	128.75	ETE	171.11	ZAC	112.34	ETC	274.30

V1	29.784	V2	34.789	CLP	-179.80														

PLANETOCENTRIC CONIC

C3	35.368	VHL	5.946	DLA	-3.78	RAL	321.19	RAD	6568.4	VEL	12.519	PTH	2.27	VHP	10.251	DPA	-11.24	RAP	301.85
ECC	1.5819																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 20 44	2237.79	-20.12	42.96	191.09	110.35	8 58 2	1637.8	-17.17	35.52
90.00	19 22 33	5116.64	24.86	227.47	193.53	76.02	20 47 49	4516.6	22.71	219.46
100.00	9 40 18	1981.10	-21.33	23.59	190.59	111.45	10 13 19	1381.1	-18.23	16.17
100.00	20 45 39	4848.56	26.13	207.39	193.17	74.94	22 6 28	4248.6	23.81	199.36
110.00	10 44 29	1780.17	-24.57	6.84	189.10	114.54	11 14 9	1180.2	-21.05	359.47
110.00	21 57 58	4622.26	29.51	189.06	192.04	71.90	23 15 0	4022.3	26.75	180.97

DIFFERENTIAL CORRECTIONS

TDE	2.2903	TRA	4.1224	TC3	-2.5581	BAU	1.2098
RDE	.3193	RRA	-.2902	RC3	.0815	FAU	.01051
FDE	.6174	FRA	1.2122	FC3	-.2574	BSP	18002
BDE	2.3124	BRA	4.1326	BC3	2.5594	FSP	-401

MID-COURSE EXECUTION ACCURACY

SGT	5474.7	SGR	427.3	SG3	116.5		
RRT	-.3127	RRF	-.3032	RTF	.9353		
SGB	5491.3	R23	.0096	R13	-.9353		
SG1	5476.3	SG2	405.8	THA	178.59		

ORBIT DETERMINATION ACCURACY

ST	2510.9	SR	319.0	SS	611.9		
CRT	.7221	CRS	-.6965	CST	-.9990		
LSA	2594.5	NSA	221.3	SSA	14.7		
EL1	2521.5	EL2	219.7	ALF	5.28		

LAUNCH DATE OCT 5 1970 FLIGHT TIME 196.00 ARRIVAL DATE APR 19 1971

HELIOCENTRIC CONIC DISTANCE 572.765

RL	149.61	LAL	.00	LOL	11.34	VL	25.570	GAL	8.40	AZL	87.28	HCA	292.71	SMA	118.46	ECC	.29831	INC	2.7216
RP	108.94	LAP	-2.51	LOP	304.08	VP	36.280	GAP	16.75	AZP	88.95	TAL	159.09	TAP	91.80	RCA	83.12	APO	153.79
RC	194.261	GL	10.99	GP	10.98	ZAL	47.81	ZAP	169.01	ETS	90.70	ZAE	128.74	ETE	171.29	ZAC	111.85	ETC	274.88

V1	29.784	V2	34.787	CLP	179.42														

PLANETOCENTRIC CONIC

C3	39.708	VHL	6.301	DLA	-2.97	RAL	323.16	RAD	6568.5	VEL	12.692	PTH	2.31	VHP	10.622	DPA	-11.02	RAP	304.24
ECC	1.6535																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 22 33	2292.35	-21.38	46.47	195.28	109.03	9 0 45	1692.3	-18.58	38.91
90.00	19 36 28	5120.72	24.95	227.75	197.32	76.15	21 1 49	4520.7	22.79	219.74
100.00	9 42 30	2034.42	-22.62	27.03	194.81	110.08	10 16 25	1434.4	-19.68	19.46
100.00	20 59 12	4853.88	26.22	207.76	196.96	75.11	22 20 6	4253.9	23.92	199.72
110.00	10 47 34	1830.74	-25.96	10.12	193.36	113.06	11 18 5	1230.7	-22.62	2.56
110.00	22 10 37	4630.32	29.67	189.64	195.81	72.20	23 27 48	4030.3	26.95	181.51

DIFFERENTIAL CORRECTIONS

TDE	2.4627	TRA	4.4876	TC3	-2.2530	BAU	1.1966
RDE	.3361	RRA	-.2949	RC3	.0666	FAU	.00941
FDE	.6449	FRA	1.2605	FC3	-.2051	BSP	18137
BDE	2.4855	BRA	4.4973	BC3	2.2540	FSP	-394

MID-COURSE EXECUTION ACCURACY

SGT	5456.2	SGR	415.4	SG3	113.6		
RRT	-.2873	RRF	-.2759	RTF	.9392		
SGB	5472.0	R23	.0049	R13	-.9392		
SG1	5457.5	SG2	397.8	THA	178.74		

ORBIT DETERMINATION ACCURACY

ST	2554.1	SR	316.1	SS	624.1		
CRT	.7251	CRS	-.7047	CST	-.9993		
LSA	2639.2	NSA	217.9	SSA	14.1		
EL1	2564.5	EL2	216.8	ALF	5.16		

LAUNCH DATE OCT 5 1970 FLIGHT TIME 198.00 ARRIVAL DATE APR 21 1971

HELIOCENTRIC CONIC DISTANCE 577.545

RL	149.61	LAL	.00	LOL	11.34	VL	25.527	GAL	9.38	AZL	87.07	HCA	295.87	SMA	118.22	ECC	.30847	INC	2.9260
RP	108.94	LAP	-2.63	LOP	307.24	VP	36.248	GAP	17.41	AZP	88.72	TAL	157.49	TAP	93.35	RCA	81.76	APO	154.69
RC	196.090	GL	11.08	GP	10.79	ZAL	45.87	ZAP	169.12	ETS	95.08	ZAE	128.71	ETE	171.46	ZAC	111.36	ETC	275.44

PLANETOCENTRIC CONIC

C3	44.757	VHL	6.690	DLA	-2.23	RAL	325.02	RAD	6568.7	VEL	12.889	PTH	2.35	VHP	11.028	DPA	-10.75	RAP	306.59

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 24 26	2345.48	-22.51	49.95	199.46	107.64	9 3 31	1745.5	-19.89	42.26
90.00	19 49 21	5127.94	25.06	228.24	201.08	76.37	21 14 49	4527.9	22.94	220.21
100.00	9 44 44	2086.44	-23.80	30.44	199.00	108.65	10 19 31	1486.4	-21.03	22.74
100.00	21 11 44	4862.21	26.37	208.34	200.71	75.39	22 32 46	4262.2	24.10	200.27
110.00	10 50 36	1880.28	-27.24	13.40	197.61	111.49	11 21 56	1280.3	-24.08	5.66
110.00	22 22 22	4641.14	29.90	190.41	199.56	72.60	23 39 43	4041.1	27.23	182.23

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.6731	TRA	4.8763	TC3	-1.9688	BAU	1.1785	SGT	5445.0	SGR	403.0	SG3	110.7	ST	2611.4	SR	313.3	SS	636.9
RDE	.3548	RRA	-.2975	RC3	.0534	FAU	.00831	RRT	-.2544	RRF	-.2452	RTF	.9437	CRT	.7327	CRS	-.7139	CST	-.9994
FDE	.6737	FRA	1.3116	FC3	-.1608	BSP	18272	SGB	5459.9	R23	.0041	R13	-.9437	LSA	2697.6	MSA	213.5	SSA	13.4
BDE	2.6965	BRA	4.8854	BC3	1.9696	FSP	-388	SG1	5446.0	SG2	389.7	THA	178.92	EL1	2621.5	EL2	212.4	ALF	5.06

LAUNCH DATE OCT 5 1970 FLIGHT TIME 200.00 ARRIVAL DATE APR 23 1971

HELIOCENTRIC CONIC DISTANCE 582.170

RL	149.61	LAL	.00	LOL	11.34	VL	25.484	GAL	10.43	AZL	86.86	HCA	299.02	SMA	117.99	ECC	.31970	INC	3.1417
RP	108.94	LAP	-2.75	LOP	310.40	VP	36.218	GAP	18.14	AZP	88.47	TAL	155.93	TAP	94.95	RCA	80.27	APO	155.72
RC	197.900	GL	11.13	GP	10.61	ZAL	44.06	ZAP	169.16	ETS	99.63	ZAE	128.65	ETE	171.62	ZAC	110.88	ETC	275.99

PLANETOCENTRIC CONIC

C3	50.633	VHL	7.116	DLA	-1.56	RAL	326.75	RAD	6568.9	VEL	13.115	PTH	2.39	VHP	11.475	DPA	-10.44	RAP	308.92

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 26 22	2397.15	-23.54	53.39	203.60	106.21	9 6 19	1797.1	-21.09	45.57
90.00	20 1 14	5138.03	25.22	228.94	204.79	76.68	21 26 52	4538.0	23.14	220.89
100.00	9 46 59	2137.10	-24.86	33.83	203.16	107.16	10 22 36	1537.1	-22.27	25.99
100.00	21 23 18	4873.31	26.56	209.11	204.43	75.75	22 44 31	4273.3	24.34	201.01
110.00	10 53 33	1928.69	-28.41	16.68	201.83	109.87	11 25 42	1328.7	-25.44	8.77
110.00	22 33 13	4654.48	30.16	191.35	203.29	73.10	23 50 47	4054.5	27.56	183.13

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.8948	TRA	5.2909	TC3	-1.7048	BAU	1.1544	SGT	5429.8	SGR	390.0	SG3	108.0	ST	2659.5	SR	310.3	SS	650.4
RDE	.3749	RRA	-.2974	RC3	.0419	FAU	.00721	RRT	-.2182	RRF	-.2113	RTF	.9482	CRT	.7411	CRS	-.7239	CST	-.9995
FDE	.7040	FRA	1.3663	FC3	-.1234	BSP	18389	SGB	5443.8	R23	.0035	R13	-.9482	LSA	2747.5	MSA	208.5	SSA	12.8
BDE	2.9190	BRA	5.2993	BC3	1.7053	FSP	-381	SG1	5430.5	SG2	380.5	THA	179.10	EL1	2669.5	EL2	207.6	ALF	4.97

LAUNCH DATE OCT 5 1970 FLIGHT TIME 202.00 ARRIVAL DATE APR 25 1971

HELIOCENTRIC CONIC DISTANCE 586.607

RL	149.61	LAL	.00	LOL	11.34	VL	25.443	GAL	11.57	AZL	86.63	HCA	302.18	SMA	117.77	ECC	.33217	INC	3.3709
RP	108.94	LAP	-2.85	LOP	313.56	VP	36.189	GAP	18.94	AZP	88.20	TAL	154.43	TAP	96.60	RCA	78.65	APO	156.89
RC	199.690	GL	11.14	GP	10.46	ZAL	42.38	ZAP	169.12	ETS	104.30	ZAE	128.57	ETE	171.79	ZAC	110.39	ETC	276.52

PLANETOCENTRIC CONIC

C3	57.498	VHL	7.583	DLA	-.96	RAL	328.36	RAD	6569.0	VEL	13.374	PTH	2.44	VHP	11.969	DPA	-10.09	RAP	311.21

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 28 20	2447.25	-24.45	56.78	207.69	104.75	9 9 7	1847.2	-22.19	48.84
90.00	20 12 8	5150.77	25.42	229.82	208.46	77.08	21 37 59	4550.8	23.39	221.74
100.00	9 49 14	2186.30	-25.80	37.18	207.28	105.64	10 25 40	1586.3	-23.41	29.20
100.00	21 33 56	4886.95	26.78	210.06	208.10	76.20	22 55 23	4286.9	24.62	201.93
110.00	10 56 27	1975.88	-29.46	19.96	206.03	108.19	11 29 23	1375.9	-26.69	11.86
110.00	22 43 12	4670.13	30.47	192.47	206.97	73.70	24 1 2	4070.1	27.93	184.19

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	3.1305	TRA	5.7345	TC3	-1.4604	BAU	1.1228	SGT	5411.2	SGR	376.4	SG3	105.4	ST	2700.0	SR	307.0	SS	665.4
RDE	.3966	RRA	-.2945	RC3	.0319	FAU	.00609	RRT	-.1781	RRF	-.1736	RTF	.9529	CRT	.7503	CRS	-.7347	CST	-.9996
FDE	.7363	FRA	1.4255	FC3	-.0917	BSP	18461	SGB	5424.2	R23	.0031	R13	-.9529	LSA	2790.2	MSA	203.1	SSA	12.2
BDE	3.1555	BRA	5.7421	BC3	1.4607	FSP	-374	SG1	5411.6	SG2	370.3	THA	179.29	EL1	2709.8	EL2	202.2	ALF	4.90

LAUNCH DATE OCT 5 1970 FLIGHT TIME 204.00 ARRIVAL DATE APR 27 1971

HELIOCENTRIC CONIC DISTANCE 590.819

RL	149.61	LAL	.00	LOL	11.34	VL	25.403	GAL	12.80	AZL	86.38	HCA	305.33	SMA	117.56	ECC	.34605	INC	3.6166
RP	108.94	LAP	-2.95	LOP	316.73	VP	36.161	GAP	19.82	AZP	87.91	TAL	152.99	TAP	98.32	RCA	76.88	APO	158.24
RC	201.461	GL	11.13	GP	10.31	ZAL	40.83	ZAP	168.98	ETS	109.05	ZAE	128.45	ETE	171.95	ZAC	109.90	ETC	277.02

PLANETOCENTRIC CONIC

C3	65.552	VHL	8.096	DLA	-.42	RAL	329.86	RAD	6569.2	VEL	13.671	PTH	2.50	VHP	12.516	DPA	-9.70	RAP	313.46

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 30 19	2495.67	-25.25	60.10	211.71	103.27	9 11 55	1895.7	-23.17	52.04
90.00	20 22 5	5165.92	25.65	230.87	212.07	77.56	21 48 11	4565.9	23.68	222.76
100.00	9 51 28	2235.92	-26.63	40.48	211.34	104.10	10 28 42	1633.9	-24.45	32.37
100.00	21 43 37	4902.90	27.04	211.18	211.71	76.74	23 5 20	4302.9	24.94	203.00
110.00	10 59 15	2021.71	-30.38	23.20	210.17	106.47	11 32 57	1421.7	-27.83	14.94
110.00	22 52 19	4687.88	30.80	193.75	210.61	74.39	24 10 27	4087.9	28.35	185.40

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	3.3824	TRA	6.2117	TC3	-1.2346	BAU	1.0821	SGT	5389.8	SGR	362.5	SG3	103.0	ST	2753.5	SR	303.5	SS	682.2
RDE	.4201	RRA	-.2880	RC3	.0235	FAU	.00491	RRT	-.1333	RRF	-.1311	RTF	.9576	CRT	.7604	CRS	-.7464	CST	-.9996
FDE	.7713	FRA	1.4900	FC3	-.0649	BSP	18469	SGB	5402.0	R23	.0029	R13	-.9576	LSA	2826.8	MSA	197.2	SSA	11.6
BDE	3.4084	BRA	6.2184	BC3	1.2348	FSP	-365	SG1	5390.0	SG2	359.2	THA	179.48	EL1	2743.3	EL2	196.4	ALF	4.85

LAUNCH DATE OCT 5 1970 FLIGHT TIME 206.00 ARRIVAL DATE APR 29 1971

HELIOCENTRIC CONIC DISTANCE 594.756

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RL  149.61 LAL    .00 LOL  11.34 VL  25.363 GAL  14.14 AZL  86.12 HCA 308.49 SMA 117.35 ECC .36153 INC 3.8823 V1  29.784
RP  108.93 LAP  -3.04 LOP 319.89 VP  36.135 GAP  20.81 AZP  87.58 TAL 151.63 TAP 100.12 RCA  74.93 APO 159.78 V2  34.788
RC 203.212 GL   11.08 GP   10.17 ZAL  39.40 ZAP 168.75 ETS 113.82 ZAE 128.28 ETE 172.12 ZAC 109.42 ETC 277.51 CLP 175.16
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PLANETOCENTRIC CONIC

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C3  75.050 VHL  8.663 DLA    .05 RAL 331.23 RAD 6569.5 VEL 14.014 PTH   2.56 VHP 13.125 DPA  -9.28 RAP 315.66 ECC 2.2351
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 32 19	2542.25	-25.94	63.34	215.65	101.78	9 14 42	1942.2	-24.05	55.18
90.00	20 31 4	5183.28	25.09	232.08	215.60	78.12	21 57 28	4583.3	24.00	223.93
100.00	9 53 41	2279.79	-27.35	43.70	215.30	102.55	10 31 41	1679.8	-25.35	35.47
100.00	21 52 23	4920.97	27.31	212.45	215.26	77.35	23 14 24	4321.0	25.30	204.23
110.00	11 1 50	2066.02	-31.20	26.40	214.24	104.74	11 36 25	1466.0	-28.86	17.98
110.00	23 0 35	4707.51	31.15	195.17	214.18	75.16	24 19 3	4107.5	28.80	186.75

DIFFERENTIAL CORRECTIONS

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TDE 3.6538 TRA 6.7272 TC3-1.0265 BAU 1.0300
RDE  .4456 RRA -.2775 RC3  .0166 FAU .00366
FDE  .8095 FRA 1.5800 FC3 -.0422 BSP  18390
BDE 3.6809 BRA 6.7330 BC3 1.0266 FSP   -355
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MID-COURSE EXECUTION ACCURACY

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SGT 5366.4 SGR  348.4 SG3  100.7
RRT -.0831 RRF -.0832 RTF  .9622
SGB 5377.7 RZ3  .0029 R13 -.9622
SG1 5366.5 SG2  347.2 THA 179.69
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ORBIT DETERMINATION ACCURACY

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ST  2761.2 SR   299.8 SS   701.4
CRT  .7715 CRS -.7589 CST -.9997
LSA 2858.2 MSA  190.9 SSA   11.1
EL1 2770.9 EL2  190.1 ALF   4.81
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LAUNCH DATE OCT 5 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAY 1 1971

HELIOCENTRIC CONIC DISTANCE 598.354

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RL  149.61 LAL    .00 LOL  11.34 VL  25.326 GAL  15.60 AZL  85.83 HCA 311.64 SMA 117.16 ECC .37885 INC 4.1724 V1  29.784
RP  108.92 LAP  -3.12 LOP 323.06 VP  36.111 GAP  21.91 AZP  87.22 TAL 150.37 TAP 102.01 RCA  72.77 APO 161.54 V2  34.790
RC 204.943 GL   11.01 GP   10.04 ZAL  38.11 ZAP 168.42 ETS 118.57 ZAE 128.07 ETE 172.29 ZAC 108.94 ETC 277.97 CLP 174.20
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PLANETOCENTRIC CONIC

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C3  86.318 VHL  9.291 DLA    .45 RAL 332.49 RAD 6569.7 VEL 14.411 PTH   2.62 VHP 13.807 DPA  -8.83 RAP 317.81 ECC 2.4206
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 34 20	2506.78	-26.52	66.47	219.47	100.32	9 17 27	1986.8	-24.82	58.21
90.00	20 39 6	5202.66	26.16	233.44	219.05	78.75	22 5 48	4602.7	24.34	225.24
100.00	9 55 53	2323.72	-27.97	46.82	219.16	101.01	10 34 37	1723.7	-26.16	38.48
100.00	22 0 14	4940.96	27.60	213.06	218.72	78.04	23 22 34	4341.0	25.68	205.59
110.00	11 4 37	2108.59	-31.89	29.52	218.20	103.01	11 39 45	1508.6	-29.77	20.95
110.00	23 7 50	4728.85	31.51	196.73	217.09	76.02	24 26 48	4128.9	29.27	188.24

DIFFERENTIAL CORRECTIONS

```
TDE 3.9479 TRA 7.2871 TC3 -.8353 BAU  .9640
RDE  .4735 RRA -.2822 RC3  .0110 FAU .00228
FDE  .8518 FRA 1.6394 FC3 -.0228 BSP  18195
BDE 3.9762 BRA 7.2918 BC3  .8354 FSP   -343
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5341.7 SGR  334.4 SG3   98.5
RRT -.0286 RRF -.0287 RTF  .9669
SGB 5352.1 RZ3  .0029 R13 -.9669
SG1 5341.7 SG2  334.3 THA 179.90
```

ORBIT DETERMINATION ACCURACY

```
ST  2783.4 SR   296.0 SS   723.6
CRT  .7835 CRS -.7724 CST -.9997
LSA 2885.3 MSA  184.0 SSA   10.5
EL1 2793.1 EL2  183.3 ALF   4.78
```

LAUNCH DATE OCT 5 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAY 3 1971

HELIOCENTRIC CONIC DISTANCE 601.534

```
RL  149.61 LAL    .00 LOL  11.34 VL  25.290 GAL  17.22 AZL  85.51 HCA 314.79 SMA 116.97 ECC .39831 INC 4.4925 V1  29.784
RP  108.91 LAP  -3.19 LOP 326.23 VP  36.089 GAP  23.16 AZP  86.83 TAL 149.22 TAP 104.01 RCA  70.38 APO 163.56 V2  34.793
RC 206.655 GL   10.92 GP    9.92 ZAL  36.94 ZAP 167.97 ETS 123.25 ZAE 127.80 ETE 172.46 ZAC 108.46 ETC 278.41 CLP 173.17
```

PLANETOCENTRIC CONIC

```
C3  99.775 VHL  9.989 DLA    .79 RAL 333.82 RAD 6569.8 VEL 14.870 PTH   2.68 VHP 14.574 DPA  -8.37 RAP 319.69 ECC 2.6420
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 36 20	2629.02	-27.00	69.47	223.15	98.89	9 20 9	2029.0	-25.49	61.12
90.00	20 46 7	5223.90	26.43	234.93	222.40	79.45	22 13 11	4623.9	24.71	226.69
100.00	9 58 3	2365.45	-28.47	49.82	222.88	99.51	10 37 28	1765.4	-26.86	41.38
100.00	22 7 6	4962.70	27.90	215.41	222.08	78.81	23 29 48	4362.7	26.07	207.09
110.00	11 7 8	2149.19	-32.47	32.55	222.02	101.31	11 42 58	1549.2	-30.57	23.84
110.00	23 14 30	4751.73	31.88	198.41	221.10	76.95	24 33 41	4151.7	29.76	189.84

DIFFERENTIAL CORRECTIONS

```
TDE 4.2683 TRA 7.8971 TC3 -.6603 BAU  .8808
RDE  .5042 RRA -.2411 RC3  .0068 FAU .00074
FDE  .8988 FRA 1.7268 FC3 -.0064 BSP  17880
BDE 4.2979 BRA 7.9008 BC3  .6603 FSP   -329
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5315.8 SGR  320.9 SG3   96.5
RRT  .0373 RRF  .0333 RTF  .9714
SGB 5325.5 RZ3 -.0030 R13  .9714
SG1 5315.8 SG2  320.6 THA    .13
```

ORBIT DETERMINATION ACCURACY

```
ST  2800.5 SR   292.2 SS   749.3
CRT  .7964 CRS -.7867 CST -.9998
LSA 2908.3 MSA  176.7 SSA   10.0
EL1 2810.2 EL2  176.1 ALF   4.77
```

LAUNCH DATE OCT 5 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAY 5 1971

HELIOCENTRIC CONIC DISTANCE 604.189

```
RL  149.61 LAL    .00 LOL  11.34 VL  25.255 GAL  19.00 AZL  85.15 HCA 317.95 SMA 116.79 ECC .42024 INC 4.8496 V1  29.784
RP  108.90 LAP  -3.25 LOP 329.39 VP  36.068 GAP  24.57 AZP  86.40 TAL 148.22 TAP 106.16 RCA  67.71 APO 165.87 V2  34.797
RC 208.346 GL   10.81 GP    9.81 ZAL  35.92 ZAP 167.41 ETS 127.83 ZAE 127.46 ETE 172.65 ZAC 107.99 ETC 278.82 CLP 172.07
```

PLANETOCENTRIC CONIC

```
C3 115.962 VHL 10.769 DLA   1.06 RAL 334.62 RAD 6570.2 VEL 15.405 PTH   2.75 VHP 15.440 DPA  -7.90 RAP 321.89 ECC 2.9084
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 38 20	2668.64	-27.38	72.30	226.65	97.51	9 22 49	2068.6	-26.06	63.89
90.00	20 52 6	5246.87	26.71	236.56	225.62	80.22	22 19 33	4646.9	25.08	228.27
100.00	10 0 11	2404.67	-28.88	52.66	226.42	98.07	10 40 15	1804.7	-27.46	44.14
100.00	22 12 57	4986.07	28.20	217.08	225.32	79.64	23 36 3	4386.1	26.48	208.70
110.00	11 9 33	2187.52	-32.95	35.43	225.08	99.66	11 46 1	1587.5	-31.27	26.62
110.00	23 20 4	4775.99	32.24	200.21	224.40	77.96	24 39 40	4176.0	30.24	191.56

DIFFERENTIAL CORRECTIONS

```
TDE 4.6184 TRA 8.9637 TC3 -.5011 BAU  .7769
RDE  .5383 RRA -.2131 RC3  .0039 FAU-.00102
FDE  .9513 FRA 1.8246 FC3  .0076 BSP  17422
BDE 4.6497 BRA 8.5664 BC3  .5011 FSP   -313
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5288.8 SGR  308.2 SG3   94.6
RRT  .1098 RRF  .1036 RTF  .9757
SGB 5297.8 RZ3 -.0032 R13  .9757
SG1 5288.9 SG2  306.3 THA    .37
```

ORBIT DETERMINATION ACCURACY

```
ST  2812.2 SR   288.4 SS   779.0
CRT  .8103 CRS -.8018 CST -.9998
LSA 2927.4 MSA  169.0 SSA    9.4
EL1 2821.9 EL2  168.4 ALF   4.77
```

LAUNCH DATE OCT 5 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAY 7 1971

HELIOCENTRIC CONIC DISTANCE 606.177

```
RL  149.61 LAL    .00 LOL  11.34 VL  25.223 GAL  20.99 AZL  84.75 HCA 321.10 SMA 116.62 ECC .44504 INC 5.2533 V1  29.784
RP  108.89 LAP  -3.30 LOP 332.56 VP  36.050 GAP  26.17 AZP  85.91 TAL 147.39 TAP 108.49 RCA  64.72 APO 168.52 V2  34.802
RC 210.017 GL   10.67 GP    9.70 ZAL  35.05 ZAP 166.72 ETS 132.28 ZAE 127.03 ETE 172.85 ZAC 107.53 ETC 279.20 CLP 170.88
```

PLANETOCENTRIC CONIC

```
C3 135.600 VHL 11.645 DLA   1.26 RAL 335.48 RAD 6570.5 VEL 16.029 PTH   2.83 VHP 16.426 DPA  -7.43 RAP 323.80 ECC 3.2316
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 40 20	2705.27	-27.68	74.94	229.94	96.22	9 25 25	2105.3	-26.53	66.46
90.00	20 56 58	5271.49	26.98	238.31	228.69	81.06	22 24 49	4671.5	25.47	229.97
100.00	10 2 15	2441.01	-29.20	55.31	229.74	96.71	10 42 56	1841.0	-27.96	46.73
100.00	22 17 43	5010.98	28.49	218.88	228.42	80.54	23 41 14	4411.0	26.89	210.44
110.00	11 11 50	2223.20	-33.32	38.15	229.12	98.10	11 48 53	1623.2	-31.85	29.24
110.00	23 24 38	4801.55	32.58	202.12	227.56	79.04	24 44 39	4201.5	30.73	193.40

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 4.9677 TRA 9.2592 TC3 -.3675 BAU  .6663   SGT 5241.4 SGR  296.7 SG3   92.4   ST  2800.7 SR   284.8 SS   807.9
 RDE  .5764 RRA -.1770 RC3  .0021 FAU-.00270   RRT  .1878 RRF  .1810 RTF  .9797   CRT  .8242 CRS -.8167 CST -.9998
 FDE 1.0022 FRA 1.9264 FC3  .0172 BSP  17653   SGB 5249.8 RZS -.0036 R13  .9797   LSA 2924.3 MSA  161.3 SSA    8.9
 BDE 5.0010 BRA 9.2609 BC3  .3675 FSP   -312   SG1 5241.7 SG2  291.4 THA   .61   EL1 2810.6 EL2  160.7 ALF   4.81
```

LAUNCH DATE OCT 5 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAY 9 1971

HELIOCENTRIC CONIC DISTANCE 607.320

```
RL  149.61 LAL    .00 LOL  11.34 VL  25.193 GAL  23.23 AZL  84.28 HCA 324.25 SMA 116.47 ECC .47317 INC 5.7163 V1  29.784
RP  108.87 LAP  -3.34 LOP 335.73 VP  36.034 GAP  28.01 AZP  85.36 TAL 146.77 TAP 111.05 RCA  61.36 APO 171.57 V2  34.807
RC 211.667 GL   10.52 GP    9.59 ZAL  34.34 ZAP 165.88 ETS 136.58 ZAE 126.49 ETE 173.07 ZAC 107.08 ETC 279.55 CLP 169.59
```

PLANETOCENTRIC CONIC

```
C3 150.658 VHL 12.635 DLA   1.37 RAL 336.18 RAD 6570.7 VEL 16.762 PTH   2.90 VHP 17.553 DPA  -6.97 RAP 325.60 ECC 3.6272
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 42 17	2738.45	-27.90	77.34	232.97	95.04	9 27 56	2138.4	-26.91	68.82
90.00	21 0 35	5297.72	27.24	240.18	231.58	81.96	22 28 53	4697.7	25.85	231.79
100.00	10 4 18	2474.02	-29.44	57.74	232.81	95.45	10 45 30	1874.0	-28.37	49.10
100.00	22 21 18	5037.38	28.77	220.79	231.33	81.51	23 45 15	4437.4	27.30	212.30
110.00	11 15 58	2255.84	-33.61	40.66	232.29	96.84	11 51 34	1655.8	-32.33	31.66
110.00	23 28 8	4828.32	32.91	204.14	230.56	80.20	24 48 33	4228.3	31.21	195.33

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 5.3618 TRA10.0332 TC3 -.2440 BAU  .5209   SGT 5196.5 SGR  287.1 SG3   90.5   ST  2788.5 SR   281.4 SS   843.7
 RDE  .6194 RRA -.1313 RC3  .0013 FAU-.00485   RRT  .2747 RRF  .2672 RTF  .9833   CRT  .8391 CRS -.8325 CST -.9999
 FDE 1.0624 FRA 2.0441 FC3  .0263 BSP  17570   SGB 5204.5 RZS -.0039 R13  .9833   LSA 2922.9 MSA  153.1 SSA    8.3
 BDE 5.3971 BRA10.0341 BC3  .2440 FSP   -306   SG1 5197.1 SG2  276.1 THA   .87   EL1 2798.5 EL2  152.6 ALF   4.86
```

LAUNCH DATE OCT 5 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAY 11 1971

HELIOCENTRIC CONIC DISTANCE 607.377

```
RL  149.61 LAL    .00 LOL  11.34 VL  25.166 GAL  25.75 AZL  83.74 HCA 327.40 SMA 116.33 ECC .50516 INC 6.2562 V1  29.784
RP  108.86 LAP  -3.37 LOP 338.90 VP  36.021 GAP  30.14 AZP  84.72 TAL 146.42 TAP 113.82 RCA  57.56 APO 175.09 V2  34.813
RC 213.296 GL   10.34 GP    9.48 ZAL  33.81 ZAP 164.87 ETS 140.72 ZAE 125.83 ETE 173.30 ZAC 106.65 ETC 279.86 CLP 168.16
```

PLANETOCENTRIC CONIC

```
C3 189.351 VHL 13.760 DLA   1.39 RAL 336.71 RAD 6571.0 VEL 17.626 PTH   2.98 VHP 18.850 DPA  -6.53 RAP 327.27 ECC 4.1162
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 44 14	2767.64	-28.06	79.47	235.70	93.99	9 30 21	2167.6	-27.21	70.90
90.00	21 2 50	5325.62	27.49	242.19	234.27	82.94	22 31 36	4725.6	26.23	233.75
100.00	10 6 13	2503.18	-29.61	59.89	235.57	94.33	10 47 56	1903.2	-28.69	51.20
100.00	22 23 32	5065.31	29.03	222.82	234.05	82.55	23 47 57	4465.3	27.70	214.28
110.00	11 15 57	2284.93	-33.82	42.90	235.15	95.32	11 54 1	1684.9	-32.71	33.84
110.00	23 30 18	4856.32	33.22	206.27	233.36	81.42	24 51 14	4256.3	31.68	197.38

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 5.7914 TRA10.8810 TC3 -.1341 BAU  .3395   SGT 5146.8 SGR  280.0 SG3   88.6   ST  2768.3 SR   278.4 SS   885.2
 RDE  .6683 RRA -.0739 RC3  .0014 FAU-.00745   RRT  .3679 RRF  .3600 RTF  .9866   CRT  .8543 CRS -.8487 CST -.9999
 FDE 1.1301 FRA 2.1771 FC3  .0341 BSP  17465   SGB 5154.4 RZS -.0042 R13  .9866   LSA 2916.1 MSA  144.8 SSA    7.8
 BDE 5.8298 BRA10.8812 BC3  .1341 FSP   -299   SG1 5147.8 SG2  260.3 THA   1.15   EL1 2778.5 EL2  144.2 ALF   4.92
```

LAUNCH DATE OCT 5 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAY 13 1971

HELIOCENTRIC CONIC DISTANCE 606.028

```
RL  149.61 LAL    .00 LOL  11.34 VL  25.143 GAL  28.64 AZL  83.10 HCA 330.55 SMA 116.21 ECC .54159 INC 6.8980 V1  29.784
RP  108.83 LAP  -3.38 LOP 342.07 VP  36.011 GAP  32.61 AZP  83.99 TAL 146.39 TAP 116.95 RCA  53.27 APO 179.15 V2  34.819
RC 214.903 GL   10.14 GP    9.37 ZAL  33.50 ZAP 163.67 ETS 144.69 ZAE 125.00 ETE 173.57 ZAC 106.25 ETC 280.14 CLP 166.56
```

PLANETOCENTRIC CONIC

```
C3 228.454 VHL 15.048 DLA   1.31 RAL 337.03 RAD 6571.3 VEL 18.649 PTH   3.05 VHP 20.351 DPA  -6.14 RAP 328.78 ECC 4.7269
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 46 8	2792.17	-28.16	81.25	238.07	93.10	9 32 40	2192.2	-27.43	72.66
90.00	21 3 30	5355.33	27.72	244.33	236.70	83.99	22 32 45	4755.3	26.60	235.84
100.00	10 8 5	2527.84	-29.72	61.71	237.97	93.38	10 50 13	1927.8	-28.93	53.00
100.00	22 24 14	5094.89	29.27	224.99	236.51	83.67	23 49 9	4494.9	28.09	216.39
110.00	11 17 43	2309.87	-33.96	44.84	237.64	94.19	11 56 13	1709.9	-33.00	35.73
110.00	23 31 5	4885.62	33.49	208.52	235.92	82.72	24 52 31	4285.6	32.12	199.55

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 6.2807 TRA11.8092 TC3 -.0370 BAU  .1123   SGT 5091.3 SGR  276.0 SG3   86.9   ST  2739.1 SR   275.9 SS   933.5
 RDE  .7247 RRA -.0024 RC3  .0024 FAU-.01070   RRT  .4646 RRF  .4568 RTF  .9895   CRT  .8698 CRS -.8649 CST -.9999
 FDE 1.2066 FRA 2.3280 FC3  .0409 BSP  17342   SGB 5098.8 RZS -.0044 R13  .9895   LSA 2903.7 MSA  136.2 SSA    7.2
 BDE 6.3025 BRA11.8092 BC3  .0371 FSP   -293   SG1 5092.9 SG2  244.4 THA   1.45   EL1 2749.6 EL2  135.6 ALF   5.02
```

LAUNCH DATE OCT 6 1970 FLIGHT TIME 70.00 ARRIVAL DATE DEC 15 1970

HELIOCENTRIC CONIC DISTANCE 200.368

RL	149.56	LAL	.00	LOL	12.33	VL	28.517	GAL	-13.27	AZL	88.46	HCA	91.04	SMA	138.03	ECC	.24357	INC	1.5401	V1	29.792
RP	107.56	LAP	1.54	LOP	103.37	VP	38.810	GAP	-6.06	AZP	90.03	TAL	237.23	TAP	328.26	RCA	104.41	APO	171.65	V2	35.232
RC	60.358	GL	6.66	GP	-21.65	ZAL	160.23	ZAP	44.33	ETS	20.43	ZAE	149.89	ETE	310.58	ZAC	79.79	ETC	260.29	CLP	-39.68

PLANETOCENTRIC CONIC

C3	41.327	VHL	6.429	DLA	-5.57	RAL	211.18	RAD	6568.6	VEL	12.755	PTH	2.32	VHP	5.572	DPA	-41.02	RAP	235.03	ECC	1.6801

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 11 25	2221.31	-19.73	41.91	83.33	110.73	1 48 27	1621.3	-16.74	34.51
90.00	11 46 20	5211.94	26.28	234.09	87.17	79.06	13 13 12	4611.9	24.50	225.87
100.00	2 30 8	1967.39	-20.99	22.71	82.81	111.79	3 2 55	1367.4	-17.85	15.33
100.00	13 10 18	4941.09	27.60	213.87	86.87	78.05	14 32 39	4341.1	25.68	205.60
110.00	3 32 21	1772.60	-24.36	6.36	81.24	114.76	4 1 54	1172.6	-20.82	359.01
110.00	14 24 34	4708.65	31.17	195.25	85.90	75.20	15 43 3	4108.6	28.83	186.83

DIFFERENTIAL CORRECTIONS

TDE	.1157	TRA	-.4054	TC3	.1942	BAU	.1939
RDE	-.2717	RRA	-.2860	RC3	-.2923	FAU	.06904
FDE	.9101	FRA	-.7330	FC3	-1.4463	BSP	1139
BDE	.2953	BRA	.4962	BC3	.3509	FSP	-499

MID-COURSE EXECUTION ACCURACY

SGT	452.5	SGR	515.2	SG3	184.3		
RRT	-.1107	RRF	.6104	RTF	-.1472		
SGB	685.7	RZS	-.1043	R13	.6068		
SG1	524.3	SG2	441.9	THA	110.20		

ORBIT DETERMINATION ACCURACY

ST	150.2	SR	254.3	SS	402.8
CRT	-.4371	CRS	.8491	CST	-.8334
LSA	475.9	MSA	149.9	SSA	23.7
EL1	265.5	EL2	129.4	ALF	109.21

LAUNCH DATE OCT 6 1970 FLIGHT TIME 72.00 ARRIVAL DATE DEC 17 1970

HELIOCENTRIC CONIC DISTANCE 207.096

RL	149.56	LAL	.00	LOL	12.33	VL	28.565	GAL	-13.15	AZL	88.29	HCA	94.27	SMA	138.42	ECC	.24057	INC	1.7133	V1	29.792
RP	107.54	LAP	1.71	LOP	106.61	VP	38.851	GAP	-5.30	AZP	90.13	TAL	237.84	TAP	332.11	RCA	105.12	APO	171.72	V2	35.238
RC	62.346	GL	7.50	GP	-23.00	ZAL	160.27	ZAP	48.68	ETS	18.35	ZAE	150.05	ETE	305.15	ZAC	78.32	ETC	260.00	CLP	-44.17

PLANETOCENTRIC CONIC

C3	40.616	VHL	6.373	DLA	-4.66	RAL	211.14	RAD	6568.6	VEL	12.727	PTH	2.31	VHP	5.288	DPA	-41.95	RAP	233.01	ECC	1.6684

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 4 24	2245.32	-20.30	43.44	83.21	110.17	1 41 50	1645.3	-17.37	35.99
90.00	11 53 0	5179.16	25.84	231.79	86.41	77.99	13 19 19	4579.2	23.92	223.65
100.00	2 23 34	1989.99	-21.55	24.16	82.70	111.23	2 56 43	1390.0	-18.48	16.71
100.00	13 16 32	4909.73	27.14	211.66	86.09	76.97	14 38 22	4309.7	25.08	203.46
110.00	3 26 47	1792.06	-24.91	7.61	81.17	114.20	3 56 39	1192.1	-21.43	.19
110.00	14 29 48	4680.42	30.66	193.21	85.05	74.09	15 47 48	4080.4	28.18	184.89

DIFFERENTIAL CORRECTIONS

TDE	.1275	TRA	-.4282	TC3	.1659	BAU	.1993
RDE	-.2437	RRA	-.2988	RC3	-.3274	FAU	.07520
FDE	1.0409	FRA	-.8056	FC3	-1.6030	BSP	1208
BDE	.2750	BRA	.5205	BC3	.3670	FSP	-563

MID-COURSE EXECUTION ACCURACY

SGT	453.5	SGR	542.9	SG3	204.1		
RRT	-.0396	RRF	.6577	RTF	-.0424		
SGB	707.4	RZS	-.0425	R13	.6566		
SG1	543.8	SG2	452.4	THA	96.17		

ORBIT DETERMINATION ACCURACY

ST	162.7	SR	233.8	SS	439.9
CRT	-.4168	CRS	.8288	CST	-.8426
LSA	500.8	MSA	152.6	SSA	23.5
EL1	248.6	EL2	139.1	ALF	114.18

LAUNCH DATE OCT 6 1970 FLIGHT TIME 74.00 ARRIVAL DATE DEC 19 1970

HELIOCENTRIC CONIC DISTANCE 213.786

RL	149.56	LAL	.00	LOL	12.33	VL	28.600	GAL	-13.03	AZL	88.11	HCA	97.51	SMA	138.71	ECC	.23791	INC	1.8879	V1	29.792
RP	107.53	LAP	1.87	LOP	109.85	VP	38.881	GAP	-4.58	AZP	90.25	TAL	238.30	TAP	335.81	RCA	105.71	APO	171.71	V2	35.243
RC	64.375	GL	8.35	GP	-24.40	ZAL	160.17	ZAP	53.22	ETS	16.26	ZAE	150.10	ETE	299.10	ZAC	76.78	ETC	259.65	CLP	-48.89

PLANETOCENTRIC CONIC

C3	39.980	VHL	6.325	DLA	-3.78	RAL	211.20	RAD	6568.5	VEL	12.702	PTH	2.31	VHP	5.041	DPA	-42.83	RAP	230.67	ECC	1.6580

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 58 1	2268.94	-20.85	44.95	83.22	109.61	1 35 50	1668.9	-17.99	37.45
90.00	11 59 53	5147.57	25.37	229.60	85.81	76.98	13 25 40	4547.6	23.33	221.52
100.00	2 17 35	2012.25	-22.10	25.59	82.73	110.66	2 51 7	1412.2	-19.09	18.08
100.00	13 22 59	4879.50	26.66	209.54	85.46	75.95	14 44 19	4279.5	24.47	201.43
110.00	3 21 47	1811.30	-25.44	8.85	81.24	113.64	3 51 58	1211.3	-22.02	1.36
110.00	14 35 17	4653.21	30.14	191.26	84.37	73.05	15 52 50	4053.2	27.53	183.05

DIFFERENTIAL CORRECTIONS

TDE	.1449	TRA	-.4527	TC3	.1287	BAU	.2065
RDE	-.2130	RRA	-.3108	RC3	-.3643	FAU	.08133
FDE	1.1777	FRA	-.8730	FC3	-1.7613	BSP	1307
BDE	.2576	BRA	.5491	BC3	.3864	FSP	-629

MID-COURSE EXECUTION ACCURACY

SGT	461.2	SGR	573.7	SG3	224.1		
RRT	.0593	RRF	.7015	RTF	.0865		
SGB	736.1	RZS	.0290	R13	.7024		
SG1	575.5	SG2	458.9	THA	82.45		

ORBIT DETERMINATION ACCURACY

ST	180.2	SR	211.2	SS	477.1
CRT	-.3932	CRS	.7992	CST	-.8568
LSA	529.4	MSA	154.5	SSA	23.4
EL1	233.9	EL2	149.6	ALF	123.97

LAUNCH DATE OCT 6 1970 FLIGHT TIME 76.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 220.437

RL	149.56	LAL	.00	LOL	12.33	VL	28.625	GAL	-12.91	AZL	87.93	HCA	100.76	SMA	138.92	ECC	.23553	INC	2.0653	V1	29.792
RP	107.51	LAP	2.03	LOP	113.09	VP	38.903	GAP	-3.89	AZP	90.39	TAL	238.60	TAP	339.36	RCA	106.20	APO	171.64	V2	35.247
RC	66.441	GL	9.22	GP	-25.83	ZAL	159.93	ZAP	57.90	ETS	14.10	ZAE	149.94	ETE	292.52	ZAC	75.18	ETC	259.27	CLP	-53.81

PLANETOCENTRIC CONIC

C3	39.402	VHL	6.277	DLA	-2.91	RAL	211.36	RAD	6568.5	VEL	12.680	PTH	2.30	VHP	4.831	DPA	-43.65	RAP	228.04	ECC	1.6485

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 52 10	2292.30	-21.38	46.47	83.36	109.03	1 30 22	1692.3	-18.58	38.90
90.00	12 7 0	5116.86	24.88	227.48	85.35	76.03	13 32 17	4516.9	22.72	219.48
100.00	2 12 9	2034.28	-22.62	27.02	82.89	110.08	2 46 3	1434.3	-19.68	19.45
100.00	13 29 42	4850.11	26.16	207.50	84.98	74.99	14 50 32	4250.1	23.84	199.46
110.00	3 17 17	1830.40	-25.96	10.09	81.44	113.07	3 47 47	1230.4	-22.61	2.54
110.00	14 41 4	4626.76	29.60	189.39	83.83	72.07	15 58 10	4026.8	26.86	181.27

DIFFERENTIAL CORRECTIONS

TDE	.1690	TRA	-.4847	TC3	.0823	BAU	.2164
RDE	-.1799	RRA	-.3215	RC3	-.4025	FAU	.08720
FDE	1.3164	FRA	-.9322	FC3	-1.9159	BSP	1443
BDE	.2468	BRA	.5817	BC3	.4108	FSP	-694

MID-COURSE EXECUTION ACCURACY

SGT	480.4	SGR	607.1	SG3	243.7		
RRT	.1805	RRF	.7407	RTF	.2319		
SGB	774.2	RZS	.0835	R13	.7427		
SG1	621.6	SG2	461.5	THA	71.32		

ORBIT DETERMINATION ACCURACY

ST	203.6	SR	187.0	SS	513.6
CRT	-.3587	CRS	.7548	CST	-.8743
LSA	561.7	MSA	155.5	SSA	23.1
EL1	228.6	EL2	155.5	ALF	141.71

LAUNCH DATE OCT 6 1970 FLIGHT TIME 78.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 227.050

RL	149.56	LAL	.00	LOL	12.33	VL	28.639	GAL	-12.79	AZL	87.75	HCA	104.00	SMA	139.04	ECC	.23338	INC	2.2466
RP	107.50	LAP	2.18	LOP	116.34	VP	38.917	GAP	-3.24	AZP	90.54	TAL	238.77	TAP	342.76	RCA	106.59	APO	171.48
RC	68.539	GL	10.11	GP	-27.26	ZAL	159.56	ZAP	62.69	ETS	11.85	ZAE	149.51	ETE	285.55	ZAC	73.54	ETC	258.84

V1	29.792	V2	35.251	CLP	-58.93	C3	38.872	VHL	6.235	DLA	-2.05	RAL	211.62	RAD	6568.5	VEL	12.659	PTH	2.30
VHP	4.657	DPA	-44.38	RAP	225.15	ECC	1.6397												

PLANETOCENTRIC CONIC

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 46 48	2315.59	-21.88	47.98	83.63	108.43	1 25 23	1715.6	-19.16	40.37
90.00	12 14 25	5086.73	24.37	225.42	85.02	75.12	13 39 12	4486.7	22.09	217.49
100.00	2 7 11	2056.27	-23.13	28.45	83.17	109.49	2 41 27	1456.3	-20.26	20.83
100.00	13 36 43	4821.28	25.64	205.52	84.64	74.07	14 57 4	4221.3	23.20	197.56
110.00	3 13 14	1849.50	-26.46	11.35	81.76	112.48	3 44 4	1249.5	-23.18	3.73
110.00	14 47 9	4600.82	29.04	187.58	83.44	71.12	16 3 50	4000.8	26.19	179.56

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2004	TRA	-.5223	TC3	.0266	BAU	.2296	SGT	515.5	SGR	642.2	SG3	262.1	ST	233.9	SR	162.2
RDE	-.1449	RRA	-.3303	RC3	-.4410	FAU	.09255	RRT	.3115	RRF	.7750	RTF	.3795	CRT	-.3008	CRS	.6862
FDE	1.4525	FRA	-.9800	FC3	-2.0612	BSP	1624	SGB	823.5	RZ3	.1178	RI3	.7796	LSA	597.9	MSA	155.5
BDE	.2473	BRA	.6180	BC3	.4418	FSP	-757	SG1	682.3	SG2	461.0	THA	62.71	EL1	242.3	EL2	149.3

SS	548.9	C3T	233.9	SS	548.9												
CST	-.8926	LSA	597.9	MSA	155.5	SSA	22.9										
ALF	160.61																

LAUNCH DATE OCT 6 1970 FLIGHT TIME 80.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 233.624

RL	149.56	LAL	.00	LOL	12.33	VL	28.644	GAL	-12.67	AZL	87.57	HCA	107.24	SMA	139.08	ECC	.23140	INC	2.4331
RP	107.49	LAP	2.32	LOP	119.58	VP	38.924	GAP	-2.61	AZP	90.72	TAL	238.79	TAP	346.03	RCA	106.89	APO	171.26
RC	70.666	GL	11.04	GP	-28.68	ZAL	159.08	ZAP	67.54	ETS	9.50	ZAE	148.76	ETE	278.41	ZAC	71.89	ETC	258.39

V1	29.792	V2	35.254	CLP	-64.19	C3	38.378	VHL	6.195	DLA	-1.19	RAL	211.97	RAD	6568.5	VEL	12.639	PTH	2.29
VHP	4.519	DPA	-45.02	RAP	222.07	ECC	1.6316												

PLANETOCENTRIC CONIC

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 41 50	2338.98	-22.38	49.52	84.02	107.82	1 20 49	1739.0	-19.74	41.84
90.00	12 22 12	5056.87	-23.83	223.40	84.83	74.24	13 46 29	4456.9	21.44	215.54
100.00	2 2 37	2078.38	-23.62	29.91	83.57	108.87	2 37 15	1478.4	-20.82	22.23
100.00	13 44 6	4792.70	25.09	203.57	84.42	73.19	15 3 58	4192.7	22.55	195.69
110.00	3 9 35	1868.73	-26.95	12.63	82.20	111.87	3 40 44	1268.7	-23.74	4.93
110.00	14 53 37	4575.11	28.46	185.80	83.17	70.22	16 9 52	3975.1	25.50	177.88

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2361	TRA	-.5688	TC3	-.0424	BAU	.2445	SGT	572.1	SGR	670.4	SG3	276.7	ST	269.4	SR	134.6
RDE	-.1043	RRA	-.3321	RC3	-.4746	FAU	.09614	RRT	.4470	RRF	.8005	RTF	.5170	CRT	-.1789	CRS	.5719
FDE	1.6024	FRA	-.9915	FC3	-2.1686	BSP	1790	SGB	881.3	RZ3	.1490	RI3	.8064	LSA	643.0	MSA	155.2
BDE	.2581	BRA	.6587	BC3	.4765	FSP	-770	SG1	755.2	SG2	454.3	THA	54.80	EL1	270.9	EL2	131.7

SS	589.3	C3T	269.4	SS	589.3												
CST	-.9027	LSA	643.0	MSA	155.2	SSA	22.1										
ALF	173.31																

LAUNCH DATE OCT 6 1970 FLIGHT TIME 82.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 240.159

RL	149.56	LAL	.00	LOL	12.33	VL	28.641	GAL	-12.56	AZL	87.37	HCA	110.48	SMA	139.05	ECC	.22958	INC	2.6263
RP	107.48	LAP	2.46	LOP	122.83	VP	38.923	GAP	-2.01	AZP	90.92	TAL	238.70	TAP	349.18	RCA	107.13	APO	170.97
RC	72.818	GL	12.01	GP	-30.07	ZAL	158.47	ZAP	72.41	ETS	7.02	ZAE	147.67	ETE	271.32	ZAC	70.25	ETC	257.92

V1	29.792	V2	35.256	CLP	-69.56	C3	37.922	VHL	6.158	DLA	-.33	RAL	212.41	RAD	6568.5	VEL	12.621	PTH	2.29
VHP	4.415	DPA	-45.55	RAP	218.87	ECC	1.6241												

PLANETOCENTRIC CONIC

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 37 10	2362.80	-22.87	51.10	84.53	107.17	1 16 33	1762.8	-20.30	43.36
90.00	12 30 23	5027.00	23.27	221.39	84.75	73.39	13 54 10	4427.0	20.77	213.61
100.00	1 58 22	2100.90	-24.11	31.40	84.09	108.23	2 33 23	1500.9	-21.39	23.66
100.00	13 51 52	4764.13	24.51	201.64	84.33	72.33	15 11 16	4164.1	21.86	193.85
110.00	3 6 15	1888.37	-27.44	13.94	82.77	111.23	3 37 44	1288.4	-24.31	6.18
110.00	15 0 28	4549.43	27.86	184.05	83.03	69.34	16 16 17	3949.4	24.79	176.22

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2857	TRA	-.6138	TC3	-.1136	BAU	.2661	SGT	645.2	SGR	707.3	SG3	291.0	ST	316.2	SR	115.4
RDE	-.0691	RRA	-.3364	RC3	-.5124	FAU	.10011	RRT	.5476	RRF	.8269	RTF	.6241	CRT	-.0255	CRS	.3968
FDE	1.7088	FRA	-1.0164	FC3	-2.2855	BSP	2090	SGB	957.4	RZ3	.1554	RI3	.8375	LSA	685.4	MSA	153.5
BDE	.2939	BRA	.6999	BC3	.5248	FSP	-839	SG1	843.6	SG2	452.7	THA	49.77	EL1	316.3	EL2	115.3

SS	616.9	C3T	316.2	SS	616.9												
CST	-.9220	LSA	685.4	MSA	153.5	SSA	22.0										
ALF	179.38																

LAUNCH DATE OCT 6 1970 FLIGHT TIME 84.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 246.655

RL	149.56	LAL	.00	LOL	12.33	VL	28.630	GAL	-12.44	AZL	87.17	HCA	113.72	SMA	138.96	ECC	.22787	INC	2.8279
RP	107.48	LAP	2.59	LOP	126.08	VP	38.917	GAP	-1.44	AZP	91.14	TAL	238.48	TAP	352.20	RCA	107.30	APO	170.63
RC	74.992	GL	13.02	GP	-31.41	ZAL	157.75	ZAP	77.23	ETS	4.41	ZAE	146.25	ETE	264.50	ZAC	68.64	ETC	257.44

V1	29.792	V2	35.258	CLP	-74.99	C3	37.496	VHL	6.123	DLA	.56	RAL	212.94	RAD	6568.5	VEL	12.604	PTH	2.29
VHP	4.344	DPA	-45.97	RAP	215.63	ECC	1.6171												

PLANETOCENTRIC CONIC

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 32 45	2387.29	-23.35	52.73	85.15	106.49	1 12 32	1787.3	-20.87	44.93
90.00	12 39 2	4996.80	22.66	219.38	84.78	72.56	14 2 19	4396.8	20.07	211.68
100.00	1 54 21	2124.07	-24.59	32.96	84.74	107.55	2 29 45	1524.1	-21.96	25.15
100.00	14 0 7	4735.25	23.90	199.71	84.35	71.49	15 19 3	4135.3	21.15	192.00
110.00	3 3 12	1908.60	-27.94	15.31	83.45	110.55	3 35 0	1308.6	-24.88	7.47
110.00	15 7 46	4523.49	27.22	182.30	83.00	68.48	16 23 10	3923.5	24.05	174.57

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.3424	TRA	-.6632	TC3	-.1933	BAU	.2906	SGT	737.4	SGR	740.3	SG3	301.6	ST	370.6	SR	101.5
RDE	-.0336	RRA	-.3361	RC3	-.5466	FAU	.10273	RRT	.6293	RRF	.8479	RTF	.7067	CRT	.2031	CRS	.1395
FDE	1.8013	FRA	-1.0190	FC3	-2.3718	BSP	2420	SGB	1044.9	RZ3	.1620	RI3	.8616	LSA	732.8	MSA	151.1
BDE	.3441	BRA	.7435	BC3	.5797	FSP	-891	SG1	943.1	SG2	449.8	THA	45.18	EL1	371.3	EL2	99.2

SS	642.4	C3T	370.6	SS	642.4												
CST	-.9361	LSA	732.8	MSA	151.1	SSA	21.7										
ALF	3.43																

LAUNCH DATE OCT 6 1970 FLIGHT TIME 86.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 253.115

RL	149.56	LAL	.00	LOL	12.33	VL	28.612	GAL	-12.31	AZL	86.96	HCA	116.97	SMA	138.81	ECC	.22626	INC	3.0398	V1	29.792
RP	107.48	LAP	2.71	LOP	129.33	VP	38.905	GAP	-.90	AZP	91.38	TAL	238.16	TAP	355.12	RCA	107.41	APO	170.22	V2	35.259
RC	77.186	GL	14.09	GP	-32.69	ZAL	156.91	ZAP	81.94	ETS	1.70	ZAE	144.54	ETE	258.13	ZAC	67.08	ETC	256.97	CLP	-80.41

PLANETOCENTRIC CONIC

C3	37.101	VHL	6.091	DLA	1.47	RAL	213.56	RAD	6568.4	VEL	12.589	PTH	2.28	VHP	4.304	DPA	-46.32	RAP	212.43	ECC	1.6106		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 28 30	2412.80	-23.83	54.44	85.91	105.76	1 8 42	1812.8	-21.44	46.59
90.00	12 48 15	4965.95	22.02	217.35	84.93	71.73	14 11 1	4365.9	19.32	209.72
100.00	1 50 31	2148.23	-25.08	34.59	85.51	106.82	2 26 19	1548.2	-22.53	26.71
100.00	14 8 55	4705.76	23.25	197.77	84.48	70.66	15 27 21	4105.8	20.40	190.13
110.00	3 0 20	1929.72	-28.43	16.75	84.26	109.83	3 32 29	1329.7	-25.46	8.83
110.00	15 15 36	4497.03	26.55	180.54	83.09	67.63	16 30 33	3897.0	23.28	172.90

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.4070	TRA	-.7152	TC3	-.2795	BAU	.3177	SGT	845.8	SGR	768.1	SG3	308.2	ST	432.9	SR	95.8
RDE	.0018	RRA	-.3309	RC3	-.5764	FAU	.10392	RRT	.6916	RRF	.6649	RTF	.7671	CRT	.4755	CRS	-.1819
FDE	1.8770	FRA	-.9986	FC3	-2.4248	BSP	2773	SGB	1142.5	RZ3	.1687	R13	.8799	LSA	785.7	MSA	148.3
BDE	.4070	BRA	.7880	BC3	.6406	FSP	-926	SG1	1051.8	SG2	446.2	THA	41.03	EL1	435.4	EL2	83.8

SS	665.7	CST	-.9468	SSA	21.4	ALF	6.24										

LAUNCH DATE OCT 6 1970 FLIGHT TIME 88.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 259.537

RL	149.56	LAL	.00	LOL	12.33	VL	28.580	GAL	-12.18	AZL	86.74	HCA	120.21	SMA	138.61	ECC	.22472	INC	3.2642	V1	29.792
RP	107.48	LAP	2.82	LOP	132.58	VP	38.887	GAP	-.38	AZP	91.64	TAL	237.73	TAP	357.93	RCA	107.46	APO	169.76	V2	35.259
RC	79.306	GL	15.22	GP	-33.93	ZAL	155.95	ZAP	86.48	ETS	358.88	ZAE	142.58	ETE	252.31	ZAC	65.56	ETC	256.51	CLP	-85.76

PLANETOCENTRIC CONIC

C3	36.742	VHL	6.062	DLA	2.41	RAL	214.28	RAD	6568.4	VEL	12.574	PTH	2.28	VHP	4.294	DPA	-46.62	RAP	209.34	ECC	1.6047		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 24 18	2439.74	-24.32	56.27	86.79	104.97	1 4 58	1839.7	-22.03	48.34
90.00	12 58 8	4934.09	21.33	215.27	85.20	70.92	14 20 22	4334.1	18.53	207.72
100.00	1 46 46	2173.74	-25.57	36.32	86.41	106.04	2 23 0	1573.7	-23.12	28.38
100.00	14 18 21	4675.33	22.55	195.78	84.73	69.84	15 36 16	4075.3	19.60	188.22
110.00	2 57 35	1952.08	-28.94	18.30	85.21	109.04	3 30 7	1352.1	-26.07	10.29
110.00	15 24 1	4469.77	25.83	178.74	83.30	66.79	16 38 31	3869.8	22.46	171.20

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.4792	TRA	-.7685	TC3	-.3705	BAU	.3469	SGT	987.3	SGR	790.2	SG3	310.8	ST	502.9	SR	99.7
RDE	.0362	RRA	-.3200	RC3	-.6011	FAU	.10370	RRT	.7374	RRF	.6786	RTF	.8103	CRT	.7110	CRS	-.4843
FDE	1.9326	FRA	-.9615	FC3	-2.4434	BSP	3154	SGB	1249.0	RZ3	.1755	R13	.8938	LSA	843.9	MSA	145.0
BDE	.4805	BRA	.8328	BC3	.7061	FSP	-946	SG1	1168.2	SG2	441.9	THA	37.28	EL1	508.0	EL2	69.4

SS	686.1	CST	-.9550	SSA	20.9	ALF	8.18										

LAUNCH DATE OCT 6 1970 FLIGHT TIME 90.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 265.923

RL	149.56	LAL	.00	LOL	12.33	VL	28.559	GAL	-12.05	AZL	86.50	HCA	123.45	SMA	138.37	ECC	.22325	INC	3.5040	V1	29.792		
RP	107.48	LAP	2.92	LOP	135.83	VP	38.865	GAP	.12	AZP	91.93	TAL	237.20	TAP	.65	RCA	107.48	APO	169.26	V2	35.258		
RC	81.621	GL	16.43	GP	-35.12	ZAL	154.88	ZAP	90.81	ETS	355.97	ZAE	140.44	ETE	247.10	ZAC	64.10	ETC	256.07	CLP	-90.99		

PLANETOCENTRIC CONIC

C3	36.424	VHL	6.035	DLA	3.41	RAL	215.08	RAD	6568.4	VEL	12.562	PTH	2.28	VHP	4.313	DPA	-46.90	RAP	206.42	ECC	1.5994		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 20 4	2468.57	-24.81	58.23	87.82	104.10	1 1 13	1868.6	-22.63	50.24
90.00	13 8 47	4900.87	20.57	213.13	85.58	70.10	14 30 27	4300.9	17.67	205.65
100.00	1 43 0	2201.06	-26.07	38.20	87.46	105.17	2 19 41	1601.1	-23.73	30.18
100.00	14 28 31	4643.62	21.79	193.73	85.09	69.01	15 45 55	4043.6	18.74	186.26
110.00	2 54 54	1976.01	-29.46	19.97	86.31	108.18	3 27 50	1376.0	-26.69	11.87
110.00	15 33 7	4441.42	25.06	176.90	83.62	65.95	16 47 8	3841.4	21.59	169.46

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.5593	TRA	-.8214	TC3	-.4640	BAU	.3773	SGT	1090.1	SGR	806.3	SG3	309.4	ST	580.7	SR	111.6
RDE	.0693	RRA	-.3061	RC3	-.6205	FAU	.10217	RRT	.7701	RRF	.8898	RTF	.8408	CRT	.8606	CRS	-.6997
FDE	1.9678	FRA	-.9058	FC3	-2.4283	BSP	3552	SGB	1362.3	RZ3	.1833	R13	.9042	LSA	907.8	MSA	141.5
BDE	.5636	BRA	.8766	BC3	.7748	FSP	-952	SG1	1290.1	SG2	437.8	THA	33.91	EL1	588.6	EL2	56.1

SS	703.5	CST	-.9615	SSA	20.4	ALF	9.48										

LAUNCH DATE OCT 6 1970 FLIGHT TIME 92.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 272.275

RL	149.56	LAL	.00	LOL	12.33	VL	28.524	GAL	-11.91	AZL	86.24	HCA	126.69	SMA	138.09	ECC	.22184	INC	3.7624	V1	29.792		
RP	107.48	LAP	3.02	LOP	139.08	VP	38.838	GAP	.59	AZP	92.25	TAL	236.59	TAP	3.28	RCA	107.45	APO	168.72	V2	35.256		
RC	83.861	GL	17.73	GP	-36.29	ZAL	153.67	ZAP	94.87	ETS	352.98	ZAE	138.17	ETE	242.49	ZAC	62.68	ETC	255.65	CLP	-96.05		

PLANETOCENTRIC CONIC

C3	36.158	VHL	6.013	DLA	4.47	RAL	215.98	RAD	6568.4	VEL	12.551	PTH	2.27	VHP	4.359	DPA	-47.20	RAP	203.69	ECC	1.5951		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 15 41	2499.86	-25.31	60.39	89.01	103.13	0 57 21	1899.9	-23.25	52.32
90.00	13 20 19	4965.87	19.74	210.90	86.10	69.28	14 41 25	4265.9	16.75	203.50
100.00	1 39 8	2230.72	-26.58	40.25	88.67	104.20	2 16 19	1630.7	-24.37	32.15
100.00	14 39 34	4610.24	20.96	191.59	85.59	68.19	15 56 24	4010.2	17.82	184.21
110.00	2 52 11	2002.06	-30.00	21.80	87.57	107.22	3 25 33	1402.1	-27.35	13.61
110.00	15 43 0	4411.67	24.22	175.00	84.07	65.10	16 56 31	3811.7	20.66	167.66

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.6474	TRA	-.8727	TC3	-.5579	BAU	.4083	SGT	1235.4	SGR	816.3	SG3	304.4	ST	666.0	SR	128.7
RDE	.1011	RRA	-.2868	RC3	-.6343	FAU	.09944	RRT	.7931	RRF	.8991	RTF	.8625	CRT	.9387	CRS	-.8302
FDE	1.9838	FRA	-.8362	FC3	-2.3810	BSP	3963	SGB	1480.7	RZ3	.1919	R13	.9120	LSA	978.0	MSA	138.0
BDE	.6552	BRA	.9186	BC3	.8448	FSP	-945	SG1	1415.8	SG2	433.9	THA	30.87	EL1	676.9	EL2	43.6

SS	718.3	CST	-.9665	SSA	19.7	ALF	10.35										

LAUNCH DATE OCT 6 1970 FLIGHT TIME 94.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 278.594

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RL  149.56 LAL    .00 LOL  12.33 VL  28.485 GAL -11.77 AZL  85.96 HCA 129.93 SMA 137.77 ECC .22048 INC 4.0435 V1  29.792
RP  107.49 LAP   3.10 LOP 142.33 VP  38.807 GAP   1.05 AZP  92.60 TAL 235.89 TAP   5.82 RCA 107.39 APO 168.14 V2  35.254
RC  86.111 GL   19.14 GP  -37.47 ZAL 152.53 ZAP  98.64 ETS 349.90 ZAE 135.82 ETE 238.46 ZAC  61.27 ETC 255.26 CLP-100.91
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PLANETOCENTRIC CONIC

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C3  35.958 VHL  5.996 DLA   5.62 RAL 216.98 RAD 6568.4 VEL 12.543 PTH   2.27 VHP  4.430 DPA -47.58 RAP 201.17 ECC 1.5918
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 11 2	2534.31	-25.82	62.78	90.38	102.04	0 53 16	1934.3	-23.91	54.64
90.00	13 32 57	4828.61	18.83	208.54	86.75	68.45	14 53 25	4228.6	15.74	201.23
100.00	1 35 2	2263.38	-27.11	42.54	90.06	103.11	2 12 45	1663.4	-25.03	34.35
100.00	14 51 38	4574.77	20.05	189.36	86.23	67.35	16 7 53	3974.8	16.80	182.06
110.00	2 49 21	2030.77	-30.56	23.85	89.03	106.12	3 23 12	1430.8	-28.05	15.56
110.00	15 53 48	4380.15	23.30	173.01	84.66	64.25	17 6 48	3780.1	19.64	165.78

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE   .7439 TRA -.9210 TC3 -.6501 BAU  .4394   SGT 1376.6 SGR  820.5 SG3  296.1    ST   759.0 SR   148.9 SS   730.7
 RDE   .1319 RRA -.2631 RC3 -.6424 FAU .09567   RRT  .8089 RRF  .9069 RTF  .8779   CRT  .9755 CRS -.9051 CST -.9706
 FDE 1.9830 FRA -.7559 FC3-2.3034 BSP   4380   SGB 1602.6 R23  .2016 R13  .9176   LSA 1055.4 MSA  134.5 SSA   18.9
 BDE   .7555 BRA  .9578 BC3  .9140 FSP   -926   SG1 1543.8 SG2  430.2 THA  28.12   EL1  772.8 EL2   32.2 ALF  10.85
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LAUNCH DATE OCT 6 1970 FLIGHT TIME 96.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 284.880

```
RL  149.56 LAL    .00 LOL  12.33 VL  28.442 GAL -11.62 AZL  85.65 HCA 133.17 SMA 137.42 ECC .21916 INC 4.3525 V1  29.792
RP  107.50 LAP   3.17 LOP 145.58 VP  38.773 GAP   1.49 AZP  92.98 TAL 235.12 TAP   8.28 RCA 107.30 APO 167.53 V2  35.251
RC  88.372 GL   20.68 GP  -38.69 ZAL 150.84 ZAP 102.07 ETS 346.73 ZAE 133.41 ETE 234.97 ZAC  59.85 ETC 254.88 CLP-105.54
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PLANETOCENTRIC CONIC

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C3  35.843 VHL  5.987 DLA   6.86 RAL 218.08 RAD 6568.4 VEL 12.538 PTH   2.27 VHP  4.528 DPA -48.07 RAP 198.84 ECC 1.5899
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 5 57	2572.76	-26.34	65.48	91.96	100.78	0 48 49	1972.8	-24.59	57.25
90.00	13 46 51	4788.56	17.81	206.05	87.57	67.62	15 6 39	4188.6	14.62	198.82
100.00	1 30 34	2299.84	-27.64	45.12	91.67	101.85	2 8 53	1699.8	-25.73	36.84
100.00	15 4 55	4536.71	19.03	186.98	87.03	66.50	16 20 32	3936.7	15.69	179.78
110.00	2 46 17	2062.85	-31.14	26.17	90.71	104.87	3 20 40	1462.8	-28.79	17.76
110.00	16 5 41	4346.47	22.29	170.92	85.40	63.39	17 18 7	3746.5	18.54	163.80

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE   .8511 TRA -.9842 TC3 -.7375 BAU  .4686   SGT 1518.9 SGR  816.2 SG3  284.6    ST   861.3 SR   172.6 SS   744.6
 RDE   .1643 RRA -.2328 RC3 -.6421 FAU .09060   RRT  .8192 RRF  .9130 RTF  .8884   CRT  .9919 CRS -.9502 CST -.9738
 FDE 1.9772 FRA -.6582 FC3-2.1884 BSP   4746   SGB 1724.3 R23  .2133 R13  .9209   LSA 1143.9 MSA  132.2 SSA   17.8
 BDE   .8669 BRA  .9919 BC3  .9779 FSP   -879   SG1 1671.0 SG2  425.5 THA  25.54   EL1  878.2 EL2   21.5 ALF  11.25
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LAUNCH DATE OCT 6 1970 FLIGHT TIME 98.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 291.134

```
RL  149.56 LAL    .00 LOL  12.33 VL  28.395 GAL -11.46 AZL  85.30 HCA 136.41 SMA 137.04 ECC .21789 INC 4.6961 V1  29.792
RP  107.51 LAP   3.24 LOP 148.83 VP  38.735 GAP   1.90 AZP  93.40 TAL 234.27 TAP  10.68 RCA 107.18 APO 166.90 V2  35.247
RC  90.641 GL   22.37 GP  -40.00 ZAL 149.19 ZAP 105.14 ETS 343.46 ZAE 130.96 ETE 231.97 ZAC  58.39 ETC 254.50 CLP-109.94
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PLANETOCENTRIC CONIC

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C3  35.847 VHL  5.987 DLA   8.22 RAL 219.30 RAD 6568.4 VEL 12.539 PTH   2.27 VHP  4.653 DPA -48.71 RAP 196.67 ECC 1.5899
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 0 14	2616.28	-26.86	68.56	93.79	99.32	0 43 50	2016.3	-25.30	60.24
90.00	14 2 18	4745.09	16.66	203.37	88.59	66.77	15 21 23	4145.1	13.38	196.24
100.00	1 25 33	2341.10	-28.19	48.06	93.53	100.39	2 4 34	1741.1	-26.46	39.68
100.00	15 19 40	4495.49	17.89	184.45	88.02	65.65	16 34 35	3895.5	14.46	177.35
110.00	2 42 51	2099.16	-31.75	28.83	92.66	103.40	3 17 51	1499.2	-29.58	20.29
110.00	16 18 50	4310.20	21.17	168.71	86.33	62.51	17 30 41	3710.2	17.32	161.69

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE   .9659 TRA-1.0054 TC3 -.8220 BAU  .4999   SGT 1663.8 SGR  814.5 SG3  272.0    ST   969.7 SR   193.8 SS   750.0
 RDE   .1913 RRA -.2040 RC3 -.6420 FAU .08577   RRT  .8248 RRF  .9191 RTF  .8972   CRT  .9960 CRS -.9723 CST -.9768
 FDE 1.9403 FRA -.5766 FC3-2.0715 BSP   5237   SGB 1852.5 R23  .2242 R13  .9247   LSA 1234.3 MSA  128.8 SSA   16.9
 BDE   .9847 BRA 1.0259 BC3 1.0430 FSP   -865   SG1 1803.1 SG2  425.0 THA  23.36   EL1  988.7 EL2   16.9 ALF  11.26
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LAUNCH DATE OCT 6 1970 FLIGHT TIME 100.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 297.358

```
RL  149.56 LAL    .00 LOL  12.33 VL  28.345 GAL -11.29 AZL  84.92 HCA 139.64 SMA 136.64 ECC .21666 INC 5.0830 V1  29.792
RP  107.53 LAP   3.29 LOP 152.08 VP  38.694 GAP   2.31 AZP  93.88 TAL 233.36 TAP  13.01 RCA 107.03 APO 166.24 V2  35.243
RC  92.917 GL   24.23 GP  -41.43 ZAL 147.35 ZAP 107.83 ETS 340.07 ZAE 128.47 ETE 229.39 ZAC  56.85 ETC 254.12 CLP-114.10
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PLANETOCENTRIC CONIC

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C3  36.005 VHL  6.000 DLA   9.73 RAL 220.65 RAD 6568.4 VEL 12.545 PTH   2.27 VHP  4.806 DPA -49.53 RAP 194.58 ECC 1.5926
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 49 43	2666.22	-27.36	72.13	95.92	97.60	24 34 9	2066.2	-26.02	63.72
90.00	14 19 38	4697.37	15.36	200.48	89.84	65.91	15 37 56	4097.4	11.98	193.43
100.00	1 19 46	2388.43	-28.72	51.48	95.70	98.67	1 59 35	1788.4	-27.22	43.00
100.00	15 36 12	4450.39	16.61	181.72	89.25	64.78	16 50 22	3850.4	13.07	174.71
110.00	2 38 54	2140.80	-32.36	31.92	94.94	101.67	3 14 35	1540.8	-30.42	23.24
110.00	16 33 33	4270.79	19.91	166.34	87.49	61.62	17 44 44	3670.8	15.96	159.44

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.0956 TRA-1.0393 TC3 -.8970 BAU  .5285   SGT 1807.5 SGR  805.2 SG3  257.0    ST  1089.3 SR   217.9 SS   758.1
 RDE   .2211 RRA -.1684 RC3 -.6331 FAU .07992   RRT  .8265 RRF  .9238 RTF  .9033   CRT  .9958 CRS -.9865 CST -.9792
 FDE 1.9050 FRA -.4819 FC3-1.9217 BSP   5662   SGB 1978.7 R23  .2368 R13  .9268   LSA 1338.8 MSA  126.6 SSA   15.6
 BDE 1.1176 BRA 1.0529 BC3 1.0979 FSP   -822   SG1 1932.8 SG2  423.9 THA  21.29   EL1 1110.7 EL2   19.6 ALF  11.27
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LAUNCH DATE OCT 6 1970 FLIGHT TIME 102.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 303.553

RL 149.56 LAL .00 LOL 12.33 VL 28.292 GAL -11.12 AZL 84.48 HCA 142.87 SMA 136.22 ECC .21547 INC 5.5248 V1 29.792
RP 107.54 LAP 3.33 LOP 155.33 VP 38.651 GAP 2.69 AZP 94.41 TAL 232.39 TAP 15.27 RCA 106.87 APO 165.57 V2 35.238
RC 95.197 GL 26.31 GP -43.04 ZAL 145.29 ZAP 110.11 ETS 336.53 ZAE 125.93 ETE 227.19 ZAC 55.16 ETC 253.71 CLP-118.06

PLANETOCENTRIC CONIC

C3 36.376 VHL 6.031 DLA 11.41 RAL 222.14 RAD 6568.4 VEL 12.560 PTH 2.28 VHP 4.992 DPA -50.58 RAP 192.51 ECC 1.5987

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 41 55	2724.39	-27.81	76.33	98.40	95.54	24 27 19	2124.4	-26.75	67.82
90.00	14 39 21	4644.38	13.86	197.31	91.39	65.06	15 56 45	4044.4	10.38	190.35
100.00	1 12 57	2443.49	-29.22	55.49	98.23	96.61	1 53 40	1843.5	-27.99	46.90
100.00	15 54 56	4400.52	15.14	178.75	90.76	63.91	17 8 17	3800.5	11.51	171.84
110.00	2 34 13	2189.17	-32.97	35.56	97.61	99.59	3 10 42	1589.2	-31.29	26.74
110.00	16 50 9	4227.60	18.49	163.79	88.93	60.72	18 0 37	3627.6	14.45	157.01

DIFFERENTIAL CORRECTIONS
TDE 1.2456 TRA-1.0630 TC3 -.9573 BAU .5528
RDE .2548 RRA -.1243 RC3 -.6130 FAU .07302
FDE 1.8748 FRA -.3744 FC3-1.7379 BSP 5967
BDE 1.2714 BRA 1.0702 BC3 1.1367 FSP -748

MID-COURSE EXECUTION ACCURACY
SGT 1948.0 SGR 787.3 SG3 239.7
RRT .8244 RRF .9269 RTF .9069
SGB 2101.1 RZ3 .2511 R13 .9272
SG1 2058.3 SG2 421.7 THA 19.27

ORBIT DETERMINATION ACCURACY
ST 1223.5 SR 245.7 SS 770.1
CRT .9924 CRS -.9947 CST -.9812
LSA 1460.8 MSA 127.1 SSA 14.0
EL1 1247.6 EL2 29.7 ALF 11.28

LAUNCH DATE OCT 6 1970 FLIGHT TIME 104.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 309.719

RL 149.56 LAL .00 LOL 12.33 VL 28.237 GAL -10.94 AZL 83.96 HCA 146.10 SMA 135.79 ECC .21433 INC 6.0378 V1 29.792
RP 107.56 LAP 3.36 LOP 158.58 VP 38.605 GAP 3.06 AZP 95.02 TAL 231.37 TAP 17.47 RCA 106.68 APO 164.89 V2 35.232
RC 97.481 GL 28.63 GP -44.87 ZAL 142.99 ZAP 111.94 ETS 332.80 ZAE 123.31 ETE 225.29 ZAC 53.29 ETC 253.24 CLP-121.82

PLANETOCENTRIC CONIC

C3 37.049 VHL 6.087 DLA 13.30 RAL 223.80 RAD 6568.4 VEL 12.586 PTH 2.28 VHP 5.219 DPA -51.86 RAP 190.34 ECC 1.6097

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 32 27	2793.23	-28.17	81.33	101.32	93.06	24 19 0	2193.2	-27.44	72.74
90.00	15 2 4	4584.81	12.12	193.79	93.32	64.21	16 18 29	3984.8	8.56	186.93
100.00	1 4 40	2508.50	-29.63	60.28	101.22	94.13	1 46 29	1908.5	-28.75	51.59
100.00	16 16 28	4344.76	13.44	175.48	92.66	63.05	17 28 52	3744.8	9.72	168.66
110.00	2 28 32	2246.11	-33.53	39.91	100.77	97.08	3 5 58	1646.1	-32.19	30.93
110.00	17 9 6	4179.92	16.88	161.03	90.72	59.82	18 18 46	3579.9	12.74	154.36

DIFFERENTIAL CORRECTIONS
TDE 1.4098 TRA-1.0858 TC3-1.0109 BAU .5809
RDE .2807 RRA -.0836 RC3 -.5946 FAU .06700
FDE 1.8141 FRA -.2950 FC3-1.5656 BSP 6512
BDE 1.4373 BRA 1.0890 BC3 1.1728 FSP -724

MID-COURSE EXECUTION ACCURACY
SGT 2092.4 SGR 774.8 SG3 222.5
RRT .8181 RRF .9292 RTF .9115
SGB 2231.2 RZ3 .2626 R13 .9294
SG1 2190.3 SG2 425.7 THA 17.54

ORBIT DETERMINATION ACCURACY
ST 1364.3 SR 266.2 SS 771.4
CRT .9885 CRS -.9980 CST -.9833
LSA 1584.7 MSA 125.4 SSA 12.7
EL1 1389.4 EL2 39.5 ALF 10.93

LAUNCH DATE OCT 6 1970 FLIGHT TIME 106.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 315.857

RL 149.56 LAL .00 LOL 12.33 VL 28.180 GAL -10.75 AZL 83.36 HCA 149.33 SMA 135.34 ECC .21322 INC 6.6445 V1 29.792
RP 107.58 LAP 3.38 LOP 161.83 VP 38.558 GAP 3.41 AZP 95.72 TAL 230.29 TAP 19.62 RCA 106.48 APO 164.20 V2 35.226
RC 99.767 GL 31.24 GP -47.00 ZAL 140.40 ZAP 113.29 ETS 328.84 ZAE 120.57 ETE 223.62 ZAC 51.16 ETC 252.67 CLP-125.44

PLANETOCENTRIC CONIC

C3 38.149 VHL 6.177 DLA 15.45 RAL 225.67 RAD 6568.5 VEL 12.630 PTH 2.29 VHP 5.495 DPA -53.42 RAP 187.91 ECC 1.6278

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 20 37	2876.17	-28.32	87.39	104.76	90.02	24 8 33	2276.2	-28.01	78.74
90.00	15 28 44	4516.65	10.07	189.84	95.77	63.40	16 44 1	3916.7	6.42	183.06
100.00	0 54 22	2586.55	-29.87	66.07	104.75	91.09	1 37 28	1986.6	-29.40	57.30
100.00	16 41 37	4281.51	11.46	171.83	95.04	62.20	17 52 58	3681.5	7.65	165.11
110.00	2 21 27	2314.08	-33.98	45.16	104.53	94.00	3 0 1	1714.1	-33.05	36.05
110.00	17 31 1	4126.75	15.04	158.01	92.97	58.93	18 39 48	3526.7	10.81	151.46

DIFFERENTIAL CORRECTIONS
TDE 1.6072 TRA-1.0951 TC3-1.0415 BAU .6036
RDE .3100 RRA -.0319 RC3 -.5621 FAU .06003
FDE 1.7625 FRA -.2047 FC3-1.3623 BSP 6921
BDE 1.6368 BRA 1.0955 BC3 1.1835 FSP -666

MID-COURSE EXECUTION ACCURACY
SGT 2233.5 SGR 752.2 SG3 203.4
RRT .8062 RRF .9287 RTF .9147
SGB 2356.7 RZ3 .2752 R13 .9303
SG1 2317.4 SG2 428.9 THA 15.74

ORBIT DETERMINATION ACCURACY
ST 1524.5 SR 288.4 SS 777.2
CRT .9833 CRS -.9991 CST -.9851
LSA 1730.7 MSA 126.1 SSA 11.1
EL1 1550.7 EL2 51.6 ALF 10.55

LAUNCH DATE OCT 6 1970 FLIGHT TIME 108.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 321.968

RL 149.56 LAL .00 LOL 12.33 VL 28.121 GAL -10.56 AZL 82.62 HCA 152.55 SMA 134.88 ECC .21215 INC 7.3782 V1 29.792
RP 107.60 LAP 3.39 LOP 165.07 VP 38.508 GAP 3.75 AZP 96.56 TAL 229.16 TAP 21.71 RCA 106.27 APO 163.50 V2 35.218
RC 102.053 GL 34.20 GP -49.49 ZAL 137.46 ZAP 114.11 ETS 324.60 ZAE 117.66 ETE 222.08 ZAC 48.70 ETC 251.96 CLP-128.97

PLANETOCENTRIC CONIC

C3 39.885 VHL 6.315 DLA 17.89 RAL 227.77 RAD 6568.5 VEL 12.699 PTH 2.31 VHP 5.840 DPA -55.25 RAP 185.00 ECC 1.6564

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 5 18	2978.42	-28.09	94.86	108.82	86.29	23 54 56	2378.4	-28.31	86.20
90.00	16 0 51	4436.89	7.61	185.27	98.92	62.64	17 14 47	3836.9	3.88	178.57
100.00	0 41 6	2682.14	-29.79	73.17	108.93	87.35	1 25 48	2082.1	-29.83	64.37
100.00	17 11 39	4208.40	9.11	167.67	98.12	61.41	18 21 47	3608.4	5.22	161.04
110.00	2 12 25	2396.44	-34.18	51.59	109.04	90.20	2 52 22	1796.4	-33.78	42.37
110.00	17 56 49	4066.87	12.91	154.68	95.86	58.07	19 4 36	3466.9	8.59	148.24

DIFFERENTIAL CORRECTIONS
TDE 1.8460 TRA-1.0915 TC3-1.0469 BAU .6228
RDE .3368 RRA .0288 RC3 -.5177 FAU .05277
FDE 1.7082 FRA -.1178 FC3-1.1453 BSP 7303
BDE 1.8765 BRA 1.0919 BC3 1.1679 FSP -601

MID-COURSE EXECUTION ACCURACY
SGT 2374.0 SGR 722.2 SG3 183.4
RRT .7859 RRF .9236 RTF .9177
SGB 2481.5 RZ3 .2867 R13 .9312
SG1 2443.2 SG2 434.0 THA 13.89

ORBIT DETERMINATION ACCURACY
ST 1704.1 SR 306.1 SS 782.5
CRT .9770 CRS -.9982 CST -.9868
LSA 1895.6 MSA 128.0 SSA 9.5
EL1 1730.1 EL2 64.3 ALF 9.97

LAUNCH DATE OCT 6 1970 FLIGHT TIME 110.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 328.050

RL 149.56 LAL .00 LOL 12.33 VL 28.060 GAL -10.35 AZL 81.71 HCA 155.77 SMA 134.42 ECC .21113 INC 8.2897 V1 29.792
RP 107.63 LAP 3.39 LOP 168.32 VP 38.457 GAP 4.08 AZP 97.57 TAL 227.98 TAP 23.74 RCA 106.04 APO 162.79 V2 35.211
RC 104.339 GL 37.57 GP -52.41 ZAL 134.12 ZAP 114.34 ETS 319.98 ZAE 114.49 ETE 220.55 ZAC 45.82 ETC 251.01 CLP-132.51

PLANETOCENTRIC CONIC

C3 42.603 VHL 6.527 DLA 20.67 RAL 230.18 RAD 6568.6 VEL 12.805 PTH 2.33 VHP 6.282 DPA -57.33 RAP 181.29 ECC 1.7011

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 44 24	3108.67	-27.16	104.27	113.53	81.66	23 36 12	2508.7	-28.03	95.71
90.00	16 40 57	4339.91	4.54	179.80	103.09	62.02	17 53 17	3739.9	.76	173.16
100.00	0 23 20	2802.35	-29.08	82.04	113.83	82.75	1 10 2	2202.3	-29.78	73.30
100.00	17 48 38	4121.47	6.24	162.81	102.16	60.71	18 57 20	3521.5	2.29	156.25
110.00	2 0 35	2498.05	-33.92	59.51	114.42	85.52	2 42 13	1898.1	-34.17	50.27
110.00	18 27 52	3998.53	10.42	150.95	99.63	57.26	19 34 30	3398.5	6.03	144.61

DIFFERENTIAL CORRECTIONS
TDE 2.1398 TRA-1.0746 TC3-1.0234 BAU .6394
RDE .3519 RRA .0992 RC3 -.4615 FAU .04554
FDE 1.6449 FRA -.0423 FC3 -.9254 BSP 7767
BDE 2.1685 BRA 1.0792 BC3 1.1226 FSP -544

MID-COURSE EXECUTION ACCURACY
SGT 2515.9 SGR 683.4 SG3 162.7
RRT .7510 RRF .9093 RTF .9216
SGB 2607.0 RZ3 .2953 R13 .9329
SG1 2569.3 SG2 441.8 THA 11.89

ORBIT DETERMINATION ACCURACY
ST 1903.0 SR 310.7 SS 784.0
CRT .9683 CRS -.9946 CST -.9886
LSA 2077.4 MSA 129.9 SSA 8.0
EL1 1926.6 EL2 76.6 ALF 9.00

LAUNCH DATE OCT 6 1970 FLIGHT TIME 112.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 334.104

RL 149.56 LAL .00 LOL 12.33 VL 27.998 GAL -10.14 AZL 80.54 HCA 158.97 SMA 133.94 ECC .21014 INC 9.4603 V1 29.792
RP 107.65 LAP 3.38 LOP 171.56 VP 38.404 GAP 4.39 AZP 98.84 TAL 226.75 TAP 25.73 RCA 105.80 APO 162.09 V2 35.202
RC 106.624 GL 41.40 GP -55.87 ZAL 130.30 ZAP 113.91 ETS 314.85 ZAE 110.98 ETE 218.80 ZAC 42.42 ETC 249.65 CLP-136.24

PLANETOCENTRIC CONIC

C3 46.918 VHL 6.850 DLA 23.84 RAL 232.98 RAD 6568.8 VEL 12.972 PTH 2.37 VHP 6.867 DPA -59.61 RAP 176.27 ECC 1.7722

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 13 6	3284.91	-24.81	116.63	118.79	75.90	23 7 51	2684.9	-26.51	108.37
90.00	17 34 36	4212.19	.43	172.66	108.87	61.69	18 44 48	3612.2	-3.36	166.03
100.00	23 53 49	2960.19	-27.19	93.38	119.42	77.07	24 43 9	2360.2	-28.70	84.90
100.00	18 36 34	4012.15	2.57	156.77	107.69	60.21	19 43 26	3412.1	-1.42	150.25
110.00	1 44 29	2626.27	-32.81	69.34	120.75	79.81	2 28 15	2026.3	-33.86	60.27
110.00	19 6 20	3918.82	7.45	146.69	104.67	56.54	20 11 39	3318.8	3.00	140.43

DIFFERENTIAL CORRECTIONS
TDE 2.5200 TRA-1.0330 TC3 -.9587 BAU .6485
RDE .3451 RRA .1878 RC3 -.3872 FAU .03803
FDE 1.5805 FRA .0284 FC3 -.7017 BSP 8180
BDE 2.5435 BRA 1.0500 BC3 1.0339 FSP -478

MID-COURSE EXECUTION ACCURACY
SGT 2657.2 SGR 627.8 SG3 141.2
RRT .6851 RRF .8730 RTF .9265
SGB 2730.4 RZ3 .3010 R13 .9353
SG1 2692.8 SG2 451.3 THA 9.46

ORBIT DETERMINATION ACCURACY
ST 2127.3 SR 293.6 SS 784.6
CRT .9517 CRS -.9850 CST -.9903
LSA 2282.4 MSA 132.9 SSA 6.5
EL1 2145.6 EL2 89.4 ALF 7.50

LAUNCH DATE OCT 6 1970 FLIGHT TIME 114.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 340.126

RL 149.56 LAL .00 LOL 12.33 VL 27.935 GAL -9.91 AZL 78.97 HCA 162.17 SMA 133.47 ECC .20918 INC11.0286 V1 29.792
RP 107.68 LAP 3.36 LOP 174.81 VP 38.349 GAP 4.68 AZP 100.51 TAL 225.49 TAP 27.66 RCA 105.55 APO 161.39 V2 35.193
RC 108.906 GL 45.74 GP -59.96 ZAL 125.92 ZAP 112.73 ETS 308.90 ZAE 106.97 ETE 216.42 ZAC 38.35 ETC 247.61 CLP-140.50

PLANETOCENTRIC CONIC

C3 54.024 VHL 7.350 DLA 27.41 RAL 236.31 RAD 6569.0 VEL 13.243 PTH 2.42 VHP 7.680 DPA -61.89 RAP 169.24 ECC 1.8891

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	21 10 6	3578.46	-18.59	135.88	123.46	68.25	22 9 44	2978.5	-21.38	128.31
90.00	19 4 12	3988.88	-6.72	160.15	117.89	62.43	20 10 41	3388.9	-10.37	153.36
100.00	23 10 31	3190.26	-22.72	108.99	125.14	70.03	24 3 42	2590.3	-25.23	101.09
100.00	19 46 28	3852.31	-2.85	148.00	115.77	60.23	20 50 40	3252.3	-6.79	141.43
110.00	1 21 9	2793.78	-30.11	81.64	127.90	73.00	2 7 43	2193.8	-32.14	73.02
110.00	19 56 16	3821.56	3.77	141.56	111.65	56.00	20 59 57	3221.6	-.72	135.35

DIFFERENTIAL CORRECTIONS
TDE 3.0323 TRA -.9520 TC3 -.8440 BAU .6453
RDE .2809 RRA .3030 RC3 -.2933 FAU .03036
FDE 1.5160 FRA .0921 FC3 -.4865 BSP 8537
BDE 3.0453 BRA .9991 BC3 .8935 FSP -406

MID-COURSE EXECUTION ACCURACY
SGT 2797.4 SGR 551.9 SG3 119.6
RRT .5377 RRF .7708 RTF .9334
SGB 2851.4 RZ3 .3022 R13 .9390
SG1 2813.6 SG2 462.7 THA 6.22

ORBIT DETERMINATION ACCURACY
ST 2377.3 SR 233.4 SS 784.4
CRT .8975 CRS -.9458 CST -.9920
LSA 2510.5 MSA 137.0 SSA 5.1
EL1 2386.6 EL2 102.5 ALF 5.05

LAUNCH DATE OCT 6 1970 FLIGHT TIME 116.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 346.110

RL 149.56 LAL .00 LOL 12.33 VL 27.871 GAL -9.68 AZL 76.75 HCA 165.34 SMA 132.99 ECC .20823 INC13.2516 V1 29.792
RP 107.71 LAP 3.32 LOP 178.05 VP 38.294 GAP 4.96 AZP 102.83 TAL 224.17 TAP 29.52 RCA 105.30 APO 160.68 V2 35.184
RC 111.186 GL 50.57 GP -64.77 ZAL 120.91 ZAP 110.71 ETS 301.42 ZAE 102.29 ETE 212.58 ZAC 33.45 ETC 244.26 CLP-146.07

PLANETOCENTRIC CONIC

C3 66.482 VHL 8.154 DLA 31.32 RAL 240.39 RAD 6569.3 VEL 13.705 PTH 2.50 VHP 8.878 DPA -63.77 RAP 159.24 ECC 2.0941

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
76.02	18 33 2	4188.64	-12.61	178.07	128.83	61.09	19 42 50	3588.6	-16.37	171.19
103.98	22 13 48	3479.69	-12.60	125.68	128.82	61.09	23 11 48	2879.7	-16.36	118.80
76.02	18 33 2	4188.64	-12.61	178.07	128.83	61.09	19 42 50	3588.6	-16.37	171.19
103.98	22 13 48	3479.69	-12.60	125.68	128.82	61.09	23 11 48	2879.7	-16.36	118.80
110.00	0 42 7	3030.63	-24.31	97.60	135.06	65.20	1 32 38	2430.6	-27.45	89.83
110.00	21 7 49	3685.69	-1.42	134.47	121.93	55.84	22 9 15	3085.7	-5.89	128.24

DIFFERENTIAL CORRECTIONS
TDE 3.7467 TRA -.8036 TC3 -.6759 BAU .6225
RDE .0624 RRA .4550 RC3 -.1834 FAU .02282
FDE 1.4545 FRA .1445 FC3 -.2972 BSP 8927
BDE 3.7472 BRA .9235 BC3 .7003 FSP -338

MID-COURSE EXECUTION ACCURACY
SGT 2929.8 SGR 481.1 SG3 98.3
RRT .1403 RRF .4281 RTF .9443
SGB 2969.0 RZ3 .2950 R13 .9454
SG1 2930.6 SG2 476.2 THA 1.36

ORBIT DETERMINATION ACCURACY
ST 2640.5 SR 120.9 SS 784.5
CRT .2930 CRS -.3961 CST -.9940
LSA 2753.6 MSA 141.8 SSA 3.9
EL1 2640.7 EL2 115.6 ALF .77

LAUNCH DATE OCT 6 1970 FLIGHT TIME 118.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 352.043

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RL  149.56 LAL    .00 LOL  12.33 VL  27.806 GAL  -9.43 AZL  73.34 HCA 168.48 SMA 132.51 ECC .20727 INC16.6608 V1  29.792
RP  107.74 LAP   3.28 LOP 181.28 VP  38.238 GAP   5.23 AZP 106.34 TAL 222.81 TAP  31.30 RCA 105.05 APO 159.98 V2  35.174
RC 113.462 GL   55.70 GP  -70.31 ZAL 115.23 ZAP 107.81 ETS 290.46 ZAE  96.62 ETE 205.15 ZAC  27.47 ETC 238.12 CLP-155.20
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PLANETOCENTRIC CONIC

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C3  90.637 VHL  9.520 DLA  35.34 RAL 245.54 RAD 6569.8 VEL 14.560 PTH   2.64 VHP 10.790 DPA -64.41 RAP 145.62 ECC 2.4917
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.92	18 2 18	4418.09	-11.40	195.02	139.04	56.32	19 15 57	3818.1	-15.74	188.53
112.08	23 25 37	3393.08	-11.38	118.25	139.03	56.32	24 22 10	2793.1	-15.73	111.75
67.92	18 2 18	4418.09	-11.40	195.02	139.04	56.32	19 15 57	3818.1	-15.74	188.53
112.08	23 25 37	3393.08	-11.38	118.25	139.03	56.32	24 22 10	2793.1	-15.73	111.75
67.92	18 2 18	4418.09	-11.40	195.02	139.04	56.32	19 15 57	3818.1	-15.74	188.53
112.08	23 25 37	3393.08	-11.38	118.25	139.03	56.32	24 22 10	2793.1	-15.73	111.75

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 4.7634 TRA -.5022 TC3 -.4532 BAU  .5554   SGT 3016.6 SGR  617.4 SG3   78.6     ST  2869.0 SR   390.9 SS   796.8
 RDE -.6034 RRA  .6532 RC3 -.0686 FAU .01536   RRT -.5943 RRF -.3656 RTF  .9609     CRT -.9425 CRS  .9094 CST -.9961
 FDE 1.4184 FRA  .1919 FC3 -.1468 BSP   9291   SGB 3079.2 RZS -.2749 R13 -.9555     LSA 2999.5 MSA  148.3 SSA    2.8
 BDE 4.8015 BRA  .8239 BC3  .4583 FSP   -272   SG1 3039.5 SG2  492.8 THA 172.88     EL1 2892.6 EL2  129.5 ALF 172.67
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LAUNCH DATE OCT 6 1970 FLIGHT TIME 120.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 357.887

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RL  149.56 LAL    .00 LOL  12.33 VL  27.741 GAL  -9.16 AZL  67.46 HCA 171.56 SMA 132.04 ECC .20621 INC22.5380 V1  29.792
RP  107.77 LAP   3.23 LOP 184.52 VP  38.181 GAP   5.46 AZP 112.32 TAL 221.38 TAP  32.94 RCA 104.81 APO 159.26 V2  35.164
RC 115.736 GL   60.41 GP  -75.94 ZAL 108.94 ZAP 104.02 ETS 270.05 ZAE  89.33 ETE 187.99 ZAC  20.07 ETC 225.46 CLP-175.73
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PLANETOCENTRIC CONIC

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C3 145.736 VHL 12.072 DLA  38.72 RAL 252.27 RAD 6570.6 VEL 16.342 PTH   2.86 VHP 14.210 DPA -62.33 RAP 129.52 ECC 3.3984
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.40	18 0 15	4599.27	-8.35	207.47	151.73	52.05	19 16 55	3999.3	-13.21	201.42
117.60	0 25 15	3404.30	-8.34	116.92	151.72	52.04	1 21 59	2804.3	-13.19	110.87
62.40	18 0 15	4599.27	-8.35	207.47	151.73	52.05	19 16 55	3999.3	-13.21	201.42
117.60	0 25 15	3404.30	-8.34	116.92	151.72	52.04	1 21 59	2804.3	-13.19	110.87
62.40	18 0 15	4599.27	-8.35	207.47	151.73	52.05	19 16 55	3999.3	-13.21	201.42
117.60	0 25 15	3404.30	-8.34	116.92	151.72	52.04	1 21 59	2804.3	-13.19	110.87

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 5.9383 TRA  .2018 TC3 -.1922 BAU  .3746   SGT 2859.0 SGR 1378.9 SG3   62.2     ST  2818.7 SR  1303.1 SS   854.3
 RDE-2.7293 RRA  .7768 RC3  .0053 FAU .00752   RRT -.9128 RRF -.8344 RTF  .9850     CRT -.9925 CRS  .9846 CST -.9986
 FDE 1.4628 FRA  .2538 FC3 -.0447 BSP   9450   SGB 3174.2 RZS -.2313 R13 -.9704     LSA 3216.9 MSA  156.9 SSA    1.8
 BDE 6.5355 BRA  .8026 BC3  .1923 FSP   -211   SG1 3132.3 SG2  513.9 THA 155.54     EL1 3102.0 EL2  144.3 ALF 155.29
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LAUNCH DATE OCT 6 1970 FLIGHT TIME 122.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 363.528

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RL  149.56 LAL    .00 LOL  12.33 VL  27.676 GAL  -8.84 AZL  55.29 HCA 174.44 SMA 131.56 ECC .20474 INC34.7126 V1  29.792
RP  107.80 LAP   3.16 LOP 187.75 VP  38.123 GAP   5.63 AZP 124.59 TAL 219.83 TAP  34.27 RCA 104.62 APO 158.50 V2  35.153
RC 118.005 GL   62.18 GP  -76.64 ZAL 102.32 ZAP  99.51 ETS 229.55 ZAE  78.67 ETE 150.37 ZAC  11.30 ETC 211.94 CLP 135.66
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PLANETOCENTRIC CONIC

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C3 310.048 VHL 17.608 DLA  39.19 RAL 261.11 RAD 6571.8 VEL 20.769 PTH   3.18 VHP 21.439 DPA -55.02 RAP 114.87 ECC 6.1026
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.68	18 32 6	4721.91	-3.63	213.91	166.67	50.95	19 50 48	4121.9	-8.64	208.05
118.32	1 3 57	3507.32	-3.61	121.73	166.65	50.95	2 2 24	2907.3	-8.62	115.87
61.68	18 32 6	4721.91	-3.63	213.91	166.67	50.95	19 50 48	4121.9	-8.64	208.05
118.32	1 3 57	3507.32	-3.61	121.73	166.65	50.95	2 2 24	2907.3	-8.62	115.87
61.68	18 32 6	4721.91	-3.63	213.91	166.67	50.95	19 50 48	4121.9	-8.64	208.05
118.32	1 3 57	3507.32	-3.61	121.73	166.65	50.95	2 2 24	2907.3	-8.62	115.87

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 4.7025 TRA 1.5013 TC3 -.0085 BAU  .3026   SGT 1655.2 SGR 2752.7 SG3   51.0     ST  1541.8 SR  2739.0 SS  1048.8
 RDE-8.4169 RRA -.2509 RC3 -.0725 FAU-.00380   RRT -.9327 RRF -.9678 RTF  .9918     CRT -.9938 CRS  .9969 CST -.9994
 FDE 1.7332 FRA  .4035 FC3  .0106 BSP   9545   SGB 3212.0 RZS -.1544 R13 -.9869     LSA 3309.7 MSA  158.2 SSA    1.5
 BDE 9.6415 BRA 1.5221 BC3  .0730 FSP   -168   SG1 3169.9 SG2  518.3 THA 120.18     EL1 3139.6 EL2  149.6 ALF 119.30
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LAUNCH DATE OCT 6 1970 FLIGHT TIME 124.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 368.447

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RL  149.56 LAL    .00 LOL  12.33 VL  27.610 GAL  -8.37 AZL  23.48 HCA 176.63 SMA 131.09 ECC .20163 INC66.5154 V1  29.792
RP  107.84 LAP   3.09 LOP 190.99 VP  38.065 GAP   5.59 AZP 156.48 TAL 217.87 TAP  34.50 RCA 104.65 APO 157.52 V2  35.141
RC 120.271 GL   52.49 GP  -60.43 ZAL  96.41 ZAP  95.09 ETS 194.35 ZAE  58.79 ETE 118.82 ZAC  17.87 ETC 261.44 CLP 100.36
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PLANETOCENTRIC CONIC

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C3 997.376 VHL 31.581 DLA  29.06 RAL 271.23 RAD 6573.0 VEL 33.446 PTH   3.50 VHP 39.497 DPA -36.41 RAP 106.52 ECC17.4143
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
83.19	21 30 11	4386.79	.19	185.60	181.59	60.94	22 43 18	3786.8	-3.69	179.01
96.81	23 22 44	4022.80	.21	158.90	181.59	60.94	24 29 46	3422.8	-3.67	152.31
100.00	0 51 1	3752.11	-6.22	142.47	185.17	60.70	1 53 33	3152.1	-10.07	135.80
100.00	22 48 31	4132.72	6.61	163.44	178.01	60.78	23 57 24	3532.7	2.67	156.87
110.00	3 20 1	3285.50	-16.20	112.91	191.02	59.48	4 14 46	2685.5	-20.13	105.99
110.00	22 36 0	4172.10	16.61	160.58	172.19	59.69	23 45 32	3572.1	12.46	153.93

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.9949 TRA 1.8986 TC3 -.0494 BAU 2.5572   SGT  613.8 SGR 2905.7 SG3   46.4     ST   380.1 SR  2527.0 SS  1544.2
 RD-13.8532 RRA-4.1910 RC3 -.1853 FAU-.03886   RRT  .5268 RRF -.9960 RTF -.4528     CRT  .9161 CRS  .9994 CST  .9021
 FDE 2.4706 FRA  .9920 FC3  .0337 BSP   8724   SGB 2969.9 RZS -.1048 R13 -.9941     LSA 2981.5 MSA  160.7 SSA    1.6
 BDE13.9961 BRA 4.5838 BC3  .1918 FSP   -146   SG1 2924.3 SG2  518.4 THA  83.44     EL1 2551.0 EL2  151.0 ALF  82.13
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LAUNCH DATE OCT 6 1970 FLIGHT TIME 126.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 378.148

```
RL  149.56 LAL    .00 LOL  12.33 VL  27.544 GAL  -8.89 AZL 147.91 HCA 183.55 SMA 130.62 ECC .21072 INC57.9077 V1  29.792
RP  107.87 LAP   3.00 LOP 194.21 VP  38.006 GAP   6.92 AZP  32.14 TAL 218.26 TAP  41.81 RCA 103.09 APO 158.14 V2  35.130
RC 122.531 GL  -55.60 GP   63.03 ZAL  97.73 ZAP  96.88 ETS 172.20 ZAE  69.50 ETE 248.13 ZAC 141.18 ETC 266.49 CLP 105.32
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PLANETOCENTRIC CONIC

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C3 780.664 VHL 27.940 DLA -79.03 RAL 265.72 RAD 6572.8 VEL 30.033 PTH   3.45 VHP 36.454 DPA  80.11 RAP 183.52 ECC13.8478
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
12.49	4 31 18	2445.92	.43	83.16	175.63	169.02	5 12 4	1845.9	8.28	82.04
167.51	15 41 33	650.69	.43	282.65	175.64	169.02	15 52 24	50.7	8.29	281.54
12.49	4 31 18	2445.92	.43	83.16	175.63	169.02	5 12 4	1845.9	8.28	82.04
167.51	15 41 33	650.69	.43	282.65	175.64	169.02	15 52 24	50.7	8.29	281.54
12.49	4 31 18	2445.92	.43	83.16	175.63	169.02	5 12 4	1845.9	8.28	82.04
167.51	15 41 33	650.69	.43	282.65	175.64	169.02	15 52 24	50.7	8.29	281.54

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 3.9290 TRA  .3508 TC3 -.0629 BAU 1.9940   SGT  956.8 SGR 2972.9 SG3   50.2     ST   813.7 SR  2730.8 SS  1689.1
RD-13.2836 RRA  .5885 RC3  .1804 FAU-.02733   RRT -.8119 RRF  .9977 RTF -.7786     CRT -.9781 CRS -.9999 CST  .9748
FDE-2.6056 FRA  .1410 FC3  .0303 BSP   9165   SGB 3123.1 R23 -.1010 R13  .9940     LSA 3308.1 MSA  169.0 SSA    2.1
BDE13.8525 BRA  .6852 BC3  .1911 FSP   -151   SG1 3076.1 SG2  539.8 THA 105.12     EL1 2844.8 EL2  162.4 ALF 106.30
```

LAUNCH DATE OCT 6 1970 FLIGHT TIME 128.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 383.190

```
RL  149.56 LAL    .00 LOL  12.33 VL  27.478 GAL  -8.43 AZL 119.71 HCA 185.88 SMA 130.15 ECC .20801 INC29.7051 V1  29.792
RP  107.91 LAP   2.91 LOP 197.44 VP  37.948 GAP   6.91 AZP  60.42 TAL 216.40 TAP  42.28 RCA 103.08 APO 157.22 V2  35.118
RC 124.786 GL  -62.15 GP   75.00 ZAL 103.40 ZAP 102.39 ETS 125.83 ZAE  87.88 ETE 203.46 ZAC 157.39 ETC 237.57 CLP 145.99
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PLANETOCENTRIC CONIC

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C3 232.073 VHL 15.234 DLA -81.31 RAL 202.26 RAD 6571.3 VEL 18.799 PTH   3.06 VHP 20.276 DPA  67.33 RAP 240.12 ECC 4.8193
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
9.88	0 13 3	2334.03	8.18	83.72	110.99	171.22	0 51 57	1734.0	16.08	82.87
170.12	11 33 29	5820.45	8.18	258.60	111.01	171.22	13 10 29	5220.5	16.09	257.75
9.88	0 13 3	2334.03	8.18	83.72	110.99	171.22	0 51 57	1734.0	16.08	82.87
170.12	11 33 29	5820.45	8.18	258.60	111.01	171.22	13 10 29	5220.5	16.09	257.75
9.88	0 13 3	2334.03	8.18	83.72	110.99	171.22	0 51 57	1734.0	16.08	82.87
170.12	11 33 29	5820.45	8.18	258.60	111.01	171.22	13 10 29	5220.5	16.09	257.75

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-3.6711 TRA -.5886 TC3 -.0289 BAU  .1212   SGT 2015.1 SGR 2865.7 SG3   58.8     ST  1449.0 SR  1504.3 SS   814.2
RDE-3.4411 RRA-1.0268 RC3  .0263 FAU .00398   RRT  .9566 RRF  .9686 RTF  .9983     CRT  .9744 CRS -.9813 CST -.9995
FDE-1.1646 FRA -.2082 FC3 -.0149 BSP  10771   SGB 3503.2 R23 -.1517 R13  .9878     LSA 2228.3 MSA  244.6 SSA    1.2
BDE 5.0317 BRA 1.1835 BC3  .0391 FSP   -190   SG1 3469.5 SG2  485.1 THA  55.30     EL1 2075.3 EL2  236.0 ALF  46.10
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LAUNCH DATE OCT 6 1970 FLIGHT TIME 130.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 388.804

```
RL  149.56 LAL    .00 LOL  12.33 VL  27.412 GAL  -8.09 AZL 108.69 HCA 188.79 SMA 129.69 ECC .20694 INC18.6879 V1  29.792
RP  107.95 LAP   2.81 LOP 200.66 VP  37.888 GAP   7.07 AZP  71.52 TAL 214.77 TAP  43.56 RCA 102.85 APO 156.53 V2  35.105
RC 127.036 GL  -58.71 GP   71.27 ZAL 109.28 ZAP 108.72 ETS  80.90 ZAE  98.04 ETE 160.26 ZAC 161.47 ETC 221.69 CLP-178.20
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PLANETOCENTRIC CONIC

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C3 103.554 VHL 10.176 DLA -75.43 RAL 199.54 RAD 6570.0 VEL 14.996 PTH   2.70 VHP 13.834 DPA  55.84 RAP 244.48 ECC 2.7042
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.60	0 15 27	2181.33	17.40	77.62	104.85	164.72	0 51 49	1581.3	25.10	75.72
163.40	11 9 24	5687.40	17.41	259.07	104.88	164.72	12 44 11	5087.4	25.11	257.17
16.60	0 15 27	2181.33	17.40	77.62	104.85	164.72	0 51 49	1581.3	25.10	75.72
163.40	11 9 24	5687.40	17.41	259.07	104.88	164.72	12 44 11	5087.4	25.11	257.17
16.60	0 15 27	2181.33	17.40	77.62	104.85	164.72	0 51 49	1581.3	25.10	75.72
163.40	11 9 24	5687.40	17.41	259.07	104.88	164.72	12 44 11	5087.4	25.11	257.17

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.8220 TRA-1.3944 TC3 -.3755 BAU  .5200   SGT 3585.4 SGR  782.6 SG3   74.1     ST  1844.5 SR   287.5 SS   637.5
RDE  .3091 RRA -.3407 RC3 -.0081 FAU .01587   RRT  .7547 RRF  .6110 RTF  .9786     CRT -.1172 CRS  .2749 CST -.9871
FDE -.8824 FRA -.2883 FC3 -.1327 BSP  11402   SGB 3669.8 R23 -.2172 R13  .9738     LSA 1949.6 MSA  300.8 SSA    2.0
BDE 2.8389 BRA 1.4355 BC3  .3756 FSP   -244   SG1 3634.7 SG2  506.5 THA   9.54     EL1 1844.9 EL2  285.5 ALF 178.93
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LAUNCH DATE OCT 6 1970 FLIGHT TIME 132.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 394.566

```
RL  149.56 LAL    .00 LOL  12.33 VL  27.346 GAL  -7.78 AZL 103.23 HCA 191.86 SMA 129.24 ECC .20638 INC13.2259 V1  29.792
RP  107.99 LAP   2.70 LOP 203.88 VP  37.829 GAP   7.27 AZP  77.05 TAL 213.19 TAP  45.05 RCA 102.56 APO 155.91 V2  35.093
RC 129.278 GL  -52.95 GP   64.20 ZAL 114.35 ZAP 114.96 ETS  67.72 ZAE 105.03 ETE 149.52 ZAC 159.18 ETC 232.92 CLP-165.81
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PLANETOCENTRIC CONIC

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C3  60.327 VHL  7.767 DLA -69.72 RAL 206.94 RAD 6569.1 VEL 13.479 PTH   2.46 VHP 10.800 DPA  46.68 RAP 244.94 ECC 1.9928
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
23.18	0 58 42	2042.57	24.66	69.67	107.16	157.58	1 32 44	1442.6	32.02	66.50
156.82	11 25 13	5578.89	24.67	257.86	107.18	157.58	12 58 11	4978.9	32.02	254.69
23.18	0 58 42	2042.57	24.66	69.67	107.16	157.58	1 32 44	1442.6	32.02	66.50
156.82	11 25 13	5578.89	24.67	257.86	107.18	157.58	12 58 11	4978.9	32.02	254.69
23.18	0 58 42	2042.57	24.66	69.67	107.16	157.58	1 32 44	1442.6	32.02	66.50
156.82	11 25 13	5578.89	24.67	257.86	107.18	157.58	12 58 11	4978.9	32.02	254.69

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.2837 TRA-1.4330 TC3 -.8700 BAU  .7071   SGT 3737.4 SGR  511.4 SG3   92.4     ST  1917.5 SR   466.5 SS   643.4
RDE  .6301 RRA -.0618 RC3  .1081 FAU .02383   RRT -.3187 RRF -.5686 RTF  .9554     CRT -.8352 CRS  .9316 CST -.9780
FDE -.8962 FRA -.3060 FC3 -.3420 BSP  11700   SGB 3772.2 R23  .2731 R13 -.9570     LSA 2057.4 MSA  275.0 SSA    2.8
BDE 2.3690 BRA 1.4343 BC3  .8767 FSP   -304   SG1 3741.0 SG2  484.3 THA 177.46     EL1 1957.4 EL2  251.3 ALF 168.32
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LAUNCH DATE OCT 6 1970 FLIGHT TIME 134.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 400.377

RL	149.56	LAL	.00	LOL	12.33	VL	27.280	GAL	-7.47	AZL	100.00	HCA	194.99	SMA	128.79	ECC	.20607	INC	10.0040
RP	108.03	LAP	2.58	LOP	207.10	VP	37.770	GAP	7.47	AZP	80.33	TAL	211.63	TAP	46.62	RCA	102.25	APO	155.33
RC	131.513	GL	-47.00	GP	57.36	ZAL	118.30	ZAP	120.76	ETS	62.66	ZAE	110.28	ETE	147.45	ZAC	154.65	ETC	242.16

V1	29.792	V2	35.080	CLP	-161.49														

PLANETOCENTRIC CONIC

C3	41.287	VHL	6.425	DLA	-64.39	RAL	213.95	RAD	6568.6	VEL	12.754	PTH	2.32	VHP	9.156	DPA	38.93	RAP	245.01

ECC	1.6795	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		29.40	1 40 33	1928.25	29.27	60.85	108.35	150.30	2 12 42	1328.3	36.13	56.37							
		150.60	11 39 16	5504.50	29.28	255.83	108.37	150.29	13 11 1	4904.5	36.14	251.35							
		29.40	1 40 33	1928.25	29.27	60.85	108.35	150.30	2 12 42	1328.3	36.13	56.37							
		150.60	11 39 16	5504.50	29.28	255.83	108.37	150.29	13 11 1	4904.5	36.14	251.35							
		29.40	1 40 33	1928.25	29.27	60.85	108.35	150.30	2 12 42	1328.3	36.13	56.37							
		150.60	11 39 16	5504.50	29.28	255.83	108.37	150.29	13 11 1	4904.5	36.14	251.35							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.9551	TRA	-1.3688	TC3	-1.4174	BAU	.7920	SGT	3785.7	SGR	596.4	SG3	109.2	ST	1939.1	SR	523.1	SS	635.5
RDE	.5866	RRA	.0004	RC3	.2229	FAU	.02976	RRT	-.6361	RRF	-.8488	RTF	.9354	CRT	-.8996	CRS	.9759	CST	-.9732
FDE	-.8787	FRA	-.2834	FC3	-.6239	BSP	11674	SGB	3832.4	RZ3	.3174	R13	-.9394	LSA	2091.2	MSA	253.8	SSA	3.8
BDE	2.0412	BRA	1.3688	BC3	1.4348	FSP	-348	SG1	3805.0	SG2	457.8	THA	174.19	EL1	1996.1	EL2	221.9	ALF	166.18

LAUNCH DATE OCT 6 1970 FLIGHT TIME 136.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 406.203

RL	149.56	LAL	.00	LOL	12.33	VL	27.215	GAL	-7.15	AZL	97.88	HCA	198.15	SMA	128.34	ECC	.20594	INC	7.8800
RP	108.07	LAP	2.45	LOP	210.32	VP	37.711	GAP	7.69	AZP	82.51	TAL	210.05	TAP	48.20	RCA	101.91	APO	154.78
RC	133.740	GL	-41.43	GP	51.29	ZAL	121.11	ZAP	125.98	ETS	59.91	ZAE	114.30	ETE	148.01	ZAC	149.85	ETC	247.79

V1	29.792	V2	35.067	CLP	-159.96														

PLANETOCENTRIC CONIC

C3	31.305	VHL	5.595	DLA	-59.55	RAL	219.89	RAD	6568.2	VEL	12.356	PTH	2.23	VHP	8.190	DPA	32.26	RAP	245.25

ECC	1.5152	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		35.14	2 18 10	1834.29	31.73	52.02	108.56	143.43	2 48 44	1234.3	38.01	46.40							
		144.86	11 49 1	5458.76	31.74	253.79	108.58	143.43	13 20 0	4858.8	38.03	248.17							
		35.14	2 18 10	1834.29	31.73	52.02	108.56	143.43	2 48 44	1234.3	38.01	46.40							
		144.86	11 49 1	5458.76	31.74	253.79	108.58	143.43	13 20 0	4858.8	38.03	248.17							
		35.14	2 18 10	1834.29	31.73	52.02	108.56	143.43	2 48 44	1234.3	38.01	46.40							
		144.86	11 49 1	5458.76	31.74	253.79	108.58	143.43	13 20 0	4858.8	38.03	248.17							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.7171	TRA	-1.3100	TC3	-2.0123	BAU	.8529	SGT	3895.0	SGR	632.8	SG3	126.9	ST	1930.6	SR	519.5	SS	616.1
RDE	.5071	RRA	.0147	RC3	.3221	FAU	.03485	RRT	-.7316	RRF	-.9134	RTF	.9235	CRT	-.9182	CRS	.9873	CST	-.9694
FDE	-.8365	FRA	-.2516	FC3	-.9639	BSP	12193	SGB	3946.1	RZ3	.3367	R13	-.9280	LSA	2078.4	MSA	238.3	SSA	5.1
BDE	1.7904	BRA	1.3101	BC3	2.0360	FSP	-412	SG1	3922.8	SG2	428.3	THA	173.14	EL1	1989.2	EL2	199.7	ALF	165.98

LAUNCH DATE OCT 6 1970 FLIGHT TIME 138.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 412.033

RL	149.56	LAL	.00	LOL	12.33	VL	27.150	GAL	-6.84	AZL	96.37	HCA	201.32	SMA	127.91	ECC	.20596	INC	6.3701
RP	108.11	LAP	2.31	LOP	213.53	VP	37.652	GAP	7.90	AZP	84.06	TAL	208.47	TAP	49.79	RCA	101.56	APO	154.25
RC	135.957	GL	-36.40	GP	46.01	ZAL	122.85	ZAP	130.61	ETS	58.04	ZAE	117.39	ETE	149.54	ZAC	145.40	ETC	251.35

V1	29.792	V2	35.054	CLP	-159.59														

PLANETOCENTRIC CONIC

C3	25.404	VHL	5.040	DLA	-55.25	RAL	225.02	RAD	6568.0	VEL	12.115	PTH	2.17	VHP	7.593	DPA	26.50	RAP	245.76

ECC	1.4181	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		40.35	2 52 32	1754.60	32.72	43.71	108.53	137.35	3 21 47	1154.6	38.42	37.21							
		139.65	11 55 35	5434.28	32.73	252.22	108.55	137.34	13 26 9	4834.3	38.43	245.72							
		40.35	2 52 32	1754.60	32.72	43.71	108.53	137.35	3 21 47	1154.6	38.42	37.21							
		139.65	11 55 35	5434.28	32.73	252.22	108.55	137.34	13 26 9	4834.3	38.43	245.72							
		40.35	2 52 32	1754.60	32.72	43.71	108.53	137.35	3 21 47	1154.6	38.42	37.21							
		139.65	11 55 35	5434.28	32.73	252.22	108.55	137.34	13 26 9	4834.3	38.43	245.72							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.5158	TRA	-1.2375	TC3	-2.6038	BAU	.8942	SGT	3993.6	SGR	630.9	SG3	141.1	ST	1877.1	SR	491.8	SS	577.9
RDE	.4325	RRA	.0099	RC3	.3918	FAU	.03847	RRT	-.7670	RRF	-.9301	RTF	.9140	CRT	-.9234	CRS	.9920	CST	-.9642
FDE	-.7669	FRA	-.2014	FC3	-1.3110	BSP	12559	SGB	4043.1	RZ3	.3458	R13	-.9183	LSA	2011.8	MSA	227.4	SSA	6.6
BDE	1.5762	BRA	1.2375	BC3	2.6331	FSP	-461	SG1	4023.1	SG2	401.9	THA	173.02	EL1	1931.7	EL2	183.4	ALF	166.27

LAUNCH DATE OCT 6 1970 FLIGHT TIME 140.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 417.860

RL	149.56	LAL	.00	LOL	12.33	VL	27.086	GAL	-6.51	AZL	95.24	HCA	204.50	SMA	127.48	ECC	.20612	INC	5.2368
RP	108.15	LAP	2.17	LOP	216.74	VP	37.593	GAP	8.12	AZP	85.23	TAL	206.88	TAP	51.37	RCA	101.20	APO	153.76
RC	138.166	GL	-31.91	GP	41.48	ZAL	123.64	ZAP	134.67	ETS	56.58	ZAE	119.77	ETE	151.41	ZAC	141.47	ETC	253.77

V1	29.792	V2	35.041	CLP	-159.78														

PLANETOCENTRIC CONIC

C3	21.596	VHL	4.647	DLA	-51.44	RAL	229.62	RAD	6567.9	VEL	11.957	PTH	2.13	VHP	7.216	DPA	21.52	RAP	246.53

ECC	1.3554	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		45.07	3 24 48	1684.38	32.79	36.09	108.71	132.15	3 52 52	1084.4	37.94	28.99							
		134.93	12 0 2	5425.21	32.80	251.31	108.72	132.14	13 30 27	4825.2	37.95	244.21							
		45.07	3 24 48	1684.38	32.79	36.09	108.71	132.15	3 52 52	1084.4	37.94	28.99							
		134.93	12 0 2	5425.21	32.80	251.31	108.72	132.14	13 30 27	4825.2	37.95	244.21							
		45.07	3 24 48	1684.38	32.79	36.09	108.71	132.15	3 52 52	1084.4	37.94	28.99							
		134.93	12 0 2	5425.21	32.80	251.31	108.72	132.14	13 30 27	4825.2	37.95	244.21							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.3457	TRA	-1.1588	TC3	-3.1811	BAU	.9271	SGT	4092.5	SGR	614.1	SG3	152.3	ST	1798.2	SR	460.4	SS	529.5
RDE	.3753	RRA	.0003	RC3	.4373	FAU	.04086	RRT	-.7827	RRF	-.9305	RTF	.9068	CRT	-.9238	CRS	.9948	CST	-.9573
FDE	-.6844	FRA	-.1415	FC3	-1.6381	BSP	12904	SGB	4138.3	RZ3	.3448	R13	-.9107	LSA	1917.8	MSA	219.1	SSA	8.4
BDE	1.3965	BRA	1.1588	BC3	3.2110	FSP	-499	SG1	4120.9	SG2	379.6	THA	173.24	EL1	1848.3	EL2	171.5	ALF	166.57

LAUNCH DATE OCT 6 1970 FLIGHT TIME 142.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 423.680

RL	149.56	LAL	.00	LOL	12.33	VL	27.022	GAL	-6.18	AZL	94.35	HCA	207.68	SMA	127.06	ECC	.20640	INC	4.3507
RP	108.19	LAP	2.02	LOP	219.94	VP	37.535	GAP	8.33	AZP	86.15	TAL	205.27	TAP	52.95	RCA	100.83	APO	153.28
RC	140.364	GL	-27.90	GP	37.60	ZAL	123.62	ZAP	138.22	ETS	55.39	ZAE	121.59	ETE	153.35	ZAC	138.07	ETC	255.55

PLANETOCENTRIC CONIC

C3	18.973	VHL	4.356	DLA	-48.08	RAL	233.89	RAD	6567.8	VEL	11.847	PTH	2.10	VHP	6.978	DPA	17.21	RAP	247.53

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.37	3 55 48	1620.23	32.32	29.13	109.25	127.76	4 22 48	1020.2	36.97	21.63
130.63	12 3 4	5427.60	32.33	251.08	109.26	127.75	13 33 32	4827.6	36.98	243.58
49.37	3 55 48	1620.23	32.32	29.13	109.25	127.76	4 22 48	1020.2	36.97	21.63
130.63	12 3 4	5427.60	32.33	251.08	109.26	127.75	13 33 32	4827.6	36.98	243.58
49.37	3 55 48	1620.23	32.32	29.13	109.25	127.76	4 22 48	1020.2	36.97	21.63
130.63	12 3 4	5427.60	32.33	251.08	109.26	127.75	13 33 32	4827.6	36.98	243.58

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.1944	TRA	-1.0886	TC3	-3.7255	BAU	.9522	SGT	4174.6	SGR	589.1	SG3	159.8	ST	1695.9	SR	430.3	SS	472.1
RDE	.3270	RRA	-.0116	RC3	.4614	FAU	.04203	RRT	-.7856	RRF	-.9214	RTF	.8998	CRT	-.9216	CRS	.9969	CST	-.9470
FDE	-.5932	FRA	-.0721	FC3	-1.9178	BSP	13111	SGB	4216.0	R23	.3380	R13	-.9031	LSA	1799.7	MSA	212.5	SSA	10.6
BDE	1.2383	BRA	1.0687	BC3	3.7539	FSP	-518	SG1	4200.4	SG2	362.3	THA	173.63	EL1	1742.1	EL2	162.6	ALF	166.72

LAUNCH DATE OCT 6 1970 FLIGHT TIME 144.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 429.491

RL	149.56	LAL	.00	LOL	12.33	VL	26.959	GAL	-5.84	AZL	93.63	HCA	210.86	SMA	126.64	ECC	.20682	INC	3.6349
RP	108.23	LAP	1.86	LOP	223.14	VP	37.477	GAP	8.55	AZP	86.88	TAL	203.64	TAP	54.51	RCA	100.45	APO	152.83
RC	142.552	GL	-24.30	GP	34.28	ZAL	122.93	ZAP	141.34	ETS	54.40	ZAE	122.99	ETE	155.21	ZAC	135.14	ETC	256.93

PLANETOCENTRIC CONIC

C3	17.078	VHL	4.133	DLA	-45.07	RAL	237.95	RAD	6567.7	VEL	11.767	PTH	2.08	VHP	6.831	DPA	13.47	RAP	248.73

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.34	4 26 14	1559.64	31.52	22.71	110.21	124.06	4 52 14	959.6	35.75	14.96
126.66	12 5 2	5439.10	31.54	251.50	110.22	124.05	13 35 41	4839.1	35.76	243.74
53.34	4 26 14	1559.64	31.52	22.71	110.21	124.06	4 52 14	959.6	35.75	14.96
126.66	12 5 2	5439.10	31.54	251.50	110.22	124.05	13 35 41	4839.1	35.76	243.74
53.34	4 26 14	1559.64	31.52	22.71	110.21	124.06	4 52 14	959.6	35.75	14.96
126.66	12 5 2	5439.10	31.54	251.50	110.22	124.05	13 35 41	4839.1	35.76	243.74

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-1.0755	TRA	-.9870	TC3	-4.2759	BAU	.9825	SGT	4297.5	SGR	574.5	SG3	167.5	ST	1604.0	SR	411.8	SS	423.6
RDE	.2968	RRA	-.0186	RC3	.4830	FAU	.04301	RRT	-.7914	RRF	-.9092	RTF	.8987	CRT	-.9212	CRS	.9982	CST	-.9361
FDE	-.5161	FRA	-.0141	FC3	-2.1804	BSP	13667	SGB	4335.7	R23	.3161	R13	-.9015	LSA	1696.8	MSA	206.4	SSA	13.1
BDE	1.1157	BRA	.9872	BC3	4.3031	FSP	-555	SG1	4321.6	SG2	349.2	THA	173.92	EL1	1648.7	EL2	155.9	ALF	166.57

LAUNCH DATE OCT 6 1970 FLIGHT TIME 146.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 435.293

RL	149.56	LAL	.00	LOL	12.33	VL	26.896	GAL	-5.49	AZL	93.04	HCA	214.05	SMA	126.24	ECC	.20736	INC	3.0415
RP	108.27	LAP	1.70	LOP	226.34	VP	37.419	GAP	8.76	AZP	87.48	TAL	202.01	TAP	56.06	RCA	100.06	APO	152.41
RC	144.730	GL	-21.04	GP	31.42	ZAL	121.67	ZAP	144.09	ETS	53.58	ZAE	124.07	ETE	156.94	ZAC	132.62	ETC	258.07

PLANETOCENTRIC CONIC

C3	15.657	VHL	3.957	DLA	-42.37	RAL	241.89	RAD	6567.6	VEL	11.706	PTH	2.06	VHP	6.748	DPA	10.20	RAP	250.11

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.06	4 56 44	1500.54	30.55	16.66	111.56	120.92	5 21 44	900.5	34.39	8.76
122.94	12 6 2	5458.53	30.56	252.52	111.57	120.91	13 37 0	4858.5	34.41	244.61
57.06	4 56 44	1500.54	30.55	16.66	111.56	120.92	5 21 44	900.5	34.39	8.76
122.94	12 6 2	5458.53	30.56	252.52	111.57	120.91	13 37 0	4858.5	34.41	244.61
57.06	4 56 44	1500.54	30.55	16.66	111.56	120.92	5 21 44	900.5	34.39	8.76
122.94	12 6 2	5458.53	30.56	252.52	111.57	120.91	13 37 0	4858.5	34.41	244.61

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.9517	TRA	-.8805	TC3	-4.7560	BAU	1.0006	SGT	4363.8	SGR	550.7	SG3	170.0	ST	1476.4	SR	391.8	SS	362.3
RDE	.2702	RRA	-.0302	RC3	.4840	FAU	.04262	RRT	-.7818	RRF	-.8885	RTF	.8929	CRT	-.9184	CRS	.9981	CST	-.9152
FDE	-.4267	FRA	.0597	FC3	-2.3565	BSP	13760	SGB	4398.4	R23	.2985	R13	-.8952	LSA	1556.8	MSA	201.4	SSA	16.3
BDE	.9893	BRA	.8810	BC3	4.7806	FSP	-553	SG1	4385.1	SG2	341.7	THA	174.33	EL1	1520.0	EL2	150.6	ALF	166.17

LAUNCH DATE OCT 6 1970 FLIGHT TIME 148.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 441.084

RL	149.56	LAL	.00	LOL	12.33	VL	26.834	GAL	-5.14	AZL	92.54	HCA	217.24	SMA	125.84	ECC	.20805	INC	2.5388
RP	108.31	LAP	1.54	LOP	229.54	VP	37.362	GAP	8.98	AZP	87.98	TAL	200.35	TAP	57.59	RCA	99.66	APO	152.01
RC	146.899	GL	-18.07	GP	28.95	ZAL	119.93	ZAP	146.53	ETS	52.94	ZAE	124.90	ETE	158.52	ZAC	130.45	ETC	259.06

PLANETOCENTRIC CONIC

C3	14.568	VHL	3.817	DLA	-39.90	RAL	245.78	RAD	6567.6	VEL	11.660	PTH	2.05	VHP	6.710	DPA	7.34	RAP	251.63

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.63	5 27 50	1441.10	29.46	10.83	113.27	118.23	5 51 51	841.1	32.98	2.84
119.37	12 5 55	5485.67	29.47	254.14	113.28	118.22	13 37 21	4885.7	32.99	246.15
60.63	5 27 50	1441.10	29.46	10.83	113.27	118.23	5 51 51	841.1	32.98	2.84
119.37	12 5 55	5485.67	29.47	254.14	113.28	118.22	13 37 21	4885.7	32.99	246.15
60.63	5 27 50	1441.10	29.46	10.83	113.27	118.23	5 51 51	841.1	32.98	2.84
119.37	12 5 55	5485.67	29.47	254.14	113.28	118.22	13 37 21	4885.7	32.99	246.15

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.8448	TRA	-.7755	TC3	-5.2240	BAU	1.0218	SGT	4451.2	SGR	535.2	SG3	172.4	ST	1352.6	SR	379.5	SS	308.6
RDE	.2522	RRA	-.0389	RC3	.4853	FAU	.04210	RRT	-.7732	RRF	-.8658	RTF	.8906	CRT	-.9177	CRS	.9939	CST	-.8863
FDE	-.3491	FRA	.1247	FC3	-2.5020	BSP	14048	SGB	4483.3	R23	.2730	R13	-.8926	LSA	1424.8	MSA	196.3	SSA	20.2
BDE	.8816	BRA	.7764	BC3	5.2465	FSP	-560	SG1	4470.5	SG2	337.9	THA	174.66	EL1	1397.3	EL2	145.9	ALF	165.40

LAUNCH DATE OCT 6 1970 FLIGHT TIME 150.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 446.863

RL	149.56	LAL	.00	LOL	12.33	VL	26.772	GAL	-4.77	AZL	92.11	HCA	220.42	SMA	125.44	ECC	.20888	INC	2.1052
RP	108.35	LAP	1.36	LOP	232.73	VP	37.306	GAP	9.20	AZP	88.40	TAL	198.69	TAP	59.11	RCA	99.24	APO	151.64
RC	149.057	GL	-15.34	GP	26.81	ZAL	117.81	ZAP	148.70	ETS	52.45	ZAE	125.56	ETE	159.94	ZAC	128.57	ETC	259.93

V1	29.792	V2	34.975	CLP	-163.22														

PLANETOCENTRIC CONIC

C3	13.725	VHL	3.705	DLA	-37.62	RAL	249.64	RAD	6567.5	VEL	11.624	PTH	2.04	VHP	6.705	DPA	4.82	RAP	253.28

ECC	1.2259	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
64.13	6 0 12	1379.26	28.29	5.01	115.31	115.89	6 23 11	779.3	31.53	356.98									
115.87	12 4 23	5521.22	28.30	256.42	115.32	115.88	13 36 24	4921.2	31.54	248.39									
64.13	6 0 12	1379.26	28.29	5.01	115.31	115.89	6 23 11	779.3	31.53	356.98									
115.87	12 4 23	5521.22	28.30	256.42	115.32	115.88	13 36 24	4921.2	31.54	248.39									
64.13	6 0 12	1379.26	28.29	5.01	115.31	115.89	6 23 11	779.3	31.53	356.98									
115.87	12 4 23	5521.22	28.30	256.42	115.32	115.88	13 36 24	4921.2	31.54	248.39									

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.7450	TRA	-.6641	TC3	-5.6601	BAU	1.0424	SGT	4538.4	SGR	523.4	SG3	173.7	ST	1222.5	SR	371.3	SS	258.7
RDE	.2393	RRA	-.0474	RC3	.4838	FAU	.04128	RRT	-.7618	RRF	-.8404	RTF	.8893	CRT	-.9186	CRS	.9797	CST	-.8407
FDE	-.2774	FRA	.1871	FC3	-2.6038	BSP	14353	SGB	4568.5	RZS	.2457	R13	-.8909	LSA	1289.2	MSA	191.3	SSA	25.0
BDE	.7825	BRA	.6658	BC3	5.6807	FSP	-565	SG1	4556.0	SG2	337.8	THA	174.95	EL1	1269.8	EL2	141.3	ALF	164.21

LAUNCH DATE OCT 6 1970 FLIGHT TIME 152.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 452.629

RL	149.56	LAL	.00	LOL	12.33	VL	26.711	GAL	-4.39	AZL	91.72	HCA	223.61	SMA	125.06	ECC	.20985	INC	1.7249
RP	108.39	LAP	1.19	LOP	235.92	VP	37.250	GAP	9.41	AZP	88.75	TAL	197.02	TAP	60.62	RCA	98.81	APO	151.30
RC	151.205	GL	-12.81	GP	24.95	ZAL	115.35	ZAP	150.66	ETS	52.12	ZAE	126.07	ETE	161.21	ZAC	126.94	ETC	260.74

V1	29.792	V2	34.962	CLP	-164.03														

PLANETOCENTRIC CONIC

C3	13.073	VHL	3.616	DLA	-35.47	RAL	253.51	RAD	6567.5	VEL	11.596	PTH	2.03	VHP	6.726	DPA	2.59	RAP	255.04

ECC	1.2152	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
67.69	6 34 36	1312.50	27.08	359.00	117.64	113.84	6 56 29	712.5	30.06	350.96									
112.31	12 0 48	5566.84	27.09	259.45	117.65	113.83	13 33 35	4966.8	30.07	251.41									
67.69	6 34 36	1312.50	27.08	359.00	117.64	113.84	6 56 29	712.5	30.06	350.96									
112.31	12 0 48	5566.84	27.09	259.45	117.65	113.83	13 33 35	4966.8	30.07	251.41									
67.69	6 34 36	1312.50	27.08	359.00	117.64	113.84	6 56 29	712.5	30.06	350.96									
112.31	12 0 48	5566.84	27.09	259.45	117.65	113.83	13 33 35	4966.8	30.07	251.41									

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.6475	TRA	-.5452	TC3	-6.0552	BAU	1.0616	SGT	4620.8	SGR	514.4	SG3	173.8	ST	1082.3	SR	365.5	SS	213.4
RDE	.2296	RRA	-.0559	RC3	.4798	FAU	.04020	RRT	-.7477	RRF	-.8129	RTF	.8886	CRT	-.9211	CRS	.9417	CST	-.7627
FDE	-.2100	FRA	.2470	FC3	-2.6620	BSP	14636	SGB	4649.3	RZS	.2181	R13	-.8900	LSA	1146.7	MSA	185.8	SSA	31.2
BDE	.6870	BRA	.5481	BC3	6.0741	FSP	-566	SG1	4636.8	SG2	340.4	THA	175.22	EL1	1134.2	EL2	135.8	ALF	162.46

LAUNCH DATE OCT 6 1970 FLIGHT TIME 154.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 458.382

RL	149.56	LAL	.00	LOL	12.33	VL	26.651	GAL	-4.01	AZL	91.39	HCA	226.79	SMA	124.68	ECC	.21099	INC	1.3868
RP	108.43	LAP	1.01	LOP	239.11	VP	37.195	GAP	9.63	AZP	89.05	TAL	195.33	TAP	62.12	RCA	98.37	APO	150.98
RC	153.343	GL	-10.45	GP	23.32	ZAL	112.61	ZAP	152.42	ETS	51.94	ZAE	126.49	ETE	162.34	ZAC	125.51	ETC	261.50

V1	29.792	V2	34.949	CLP	-164.85														

PLANETOCENTRIC CONIC

C3	12.579	VHL	3.547	DLA	-33.43	RAL	257.38	RAD	6567.5	VEL	11.574	PTH	2.02	VHP	6.768	DPA	.62	RAP	256.89

ECC	1.2070	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
71.44	7 12 19	1236.63	25.81	352.46	120.24	112.02	7 32 55	636.6	28.57	344.43									
108.56	11 54 0	5626.17	25.83	263.51	120.24	112.00	13 27 46	5026.2	28.58	255.47									
71.44	7 12 19	1236.63	25.81	352.46	120.24	112.02	7 32 55	636.6	28.57	344.43									
108.56	11 54 0	5626.17	25.83	263.51	120.24	112.00	13 27 46	5026.2	28.58	255.47									
110.00	11 8 27	5765.77	21.59	272.23	118.13	117.17	12 44 33	5165.8	25.06	264.79									
110.00	12 57 2	5433.08	30.21	250.26	121.99	106.82	14 27 35	4833.1	32.21	241.62									

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5515	TRA	-.4192	TC3	-6.4060	BAU	1.0803	SGT	4701.1	SGR	508.1	SG3	173.2	ST	933.6	SR	361.7	SS	176.5
RDE	.2226	RRA	-.0646	RC3	.4742	FAU	.03895	RRT	-.7317	RRF	-.7843	RTF	.8886	CRT	-.9258	CRS	.8500	CST	-.6276
FDE	-.1474	FRA	.3042	FC3	-2.6807	BSP	14915	SGB	4728.5	RZS	.1916	R13	-.8897	LSA	999.9	MSA	179.6	SSA	39.6
BDE	.5947	BRA	.4241	BC3	6.4235	FSP	-565	SG1	4715.9	SG2	345.2	THA	175.45	EL1	992.9	EL2	128.5	ALF	159.91

LAUNCH DATE OCT 6 1970 FLIGHT TIME 156.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 464.122

RL	149.56	LAL	.00	LOL	12.33	VL	26.591	GAL	-3.61	AZL	91.08	HCA	229.97	SMA	124.31	ECC	.21228	INC	1.0825
RP	108.47	LAP	.83	LOP	242.30	VP	37.141	GAP	9.86	AZP	89.30	TAL	193.63	TAP	63.60	RCA	97.92	APO	150.70
RC	155.470	GL	-8.25	GP	21.89	ZAL	109.64	ZAP	154.03	ETS	51.93	ZAE	126.83	ETE	163.35	ZAC	124.25	ETC	262.23

V1	29.792	V2	34.937	CLP	-165.67														

PLANETOCENTRIC CONIC

C3	12.223	VHL	3.496	DLA	-31.46	RAL	261.27	RAD	6567.5	VEL	11.559	PTH	2.02	VHP	6.826	DPA	-1.14	RAP	258.84

ECC	1.2012	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
75.68	7 55 46	1143.60	24.51	344.79	123.07	110.37	8 14 50	543.6	27.06	336.78									
104.32	11 41 33	5706.96	24.52	269.12	123.08	110.36	13 16 40	5107.0	27.07	261.12									
75.68	7 55 46	1143.60	24.51	344.79	123.07	110.37	8 14 50	543.6	27.06	336.78									
104.32	11 41 33	5706.96	24.52	269.12	123.08	110.36	13 16 40	5107.0	27.07	261.12									
110.00	10 35 39	624.40	16.79	302.98	119.18	120.22	10 46 3	24.4	20.68	296.01									
110.00	14 0 51	5274.16	32.76	238.59	125.65	100.36	15 28 45	4674.2	33.84	229.52									

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4538	TRA	-.2847	TC3	-6.7019	BAU	1.0978	SGT	4776.2	SGR	503.5	SG3	171.9	ST	774.5	SR	359.0	SS	152.5
RDE	.2174	RRA	-.0738	RC3	.4667	FAU	.03756	RRT	-.7138	RRF	-.7550	RTF	.8888	CRT	-.9330	CRS	.6543	CST	-.4048
FDE	-.0880	FRA	.3597	FC3	-2.6601	BSP	15177	SGB	4802.6	RZS	.1672	R13	-.8897	LSA	848.2	MSA	172.4	SSA	51.6
BDE	.5032	BRA	.2941	BC3	6.7182	FSP	-562	SG1	4789.7	SG2	351.6	THA	175.67	EL1	845.4	EL2	118.3	ALF	156.12

LAUNCH DATE OCT 6 1970 FLIGHT TIME 158.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 469.846

RL	149.56	LAL	.00	LOL	12.33	VL	26.532	GAL	-3.20	AZL	90.81	HCA	233.15	SMA	123.94	ECC	.21376	INC	.8056	V1	29.792
RP	108.51	LAP	.64	LOP	245.48	VP	37.087	GAP	10.08	AZP	89.52	TAL	191.92	TAP	65.08	RCA	97.45	APO	150.44	V2	34.925
RC	157.587	GL	-6.18	GP	20.63	ZAL	106.46	ZAP	155.50	ETS	52.07	ZAE	127.10	ETE	164.25	ZAC	123.14	ETC	262.93	CLP	-166.48

PLANETOCENTRIC CONIC

C3	11.990	VHL	3.463	DLA	-29.55	RAL	265.16	RAD	6567.5	VEL	11.549	PTH	2.02	VHP	6.898	DPA	-2.70	RAP	260.86	ECC	1.1973

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.19	8 51 56	1010.61	23.17	334.32	126.13	108.87	9 8 46	410.6	25.53	326.34
98.81	11 16 29	5831.84	23.18	277.94	126.13	108.86	12 53 41	5231.8	25.54	269.96
100.00	10 47 26	636.77	20.50	305.84	125.05	112.25	10 58 3	36.8	23.33	298.20
100.00	12 3 40	5680.92	25.91	267.67	127.06	105.46	13 38 20	5080.9	27.78	259.37
110.00	10 20 29	721.73	13.37	308.45	121.26	121.76	10 32 31	121.7	17.47	301.75
110.00	14 47 6	5168.72	33.76	230.53	128.75	95.69	16 13 15	4568.7	34.18	221.31

DIFFERENTIAL CORRECTIONS

TDE	-.3548	TRA	-.1434	TC3	-6.9406	BAU	1.1150
RDE	.2138	RRA	-.0832	RC3	.4580	FAU	.03611
FDE	-.0330	FRA	.4119	FC3	-2.6073	BSP	15442
BDE	.4142	BRA	.1658	BC3	6.9557	FSP	-558

MID-COURSE EXECUTION ACCURACY

SGT	4850.0	SGR	500.9	SG3	170.1		
RRT	-.6953	RRF	-.7261	RTF	.8898		
SGB	4875.8	R23	.1447	R13	-.8906		
SG1	4862.5	SG2	359.0	THA	175.87		

ORBIT DETERMINATION ACCURACY

ST	610.0	SR	357.1	SS	147.4
CRT	-.9419	CRS	.3509	CST	-.1366
LSA	699.7	MSA	164.5	SSA	69.1
EL1	699.1	EL2	104.7	ALF	150.40

LAUNCH DATE OCT 6 1970 FLIGHT TIME 160.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 475.556

RL	149.56	LAL	.00	LOL	12.33	VL	26.474	GAL	-2.77	AZL	90.55	HCA	236.33	SMA	123.59	ECC	.21541	INC	.5510	V1	29.792
RP	108.54	LAP	.46	LOP	248.66	VP	37.034	GAP	10.31	AZP	89.69	TAL	190.20	TAP	66.54	RCA	96.97	APO	150.21	V2	34.913
RC	159.692	GL	-4.23	GP	19.51	ZAL	103.13	ZAP	156.85	ETS	52.37	ZAE	127.34	ETE	165.04	ZAC	122.14	ETC	263.62	CLP	-167.28

PLANETOCENTRIC CONIC

C3	11.875	VHL	3.446	DLA	-27.67	RAL	269.06	RAD	6567.5	VEL	11.544	PTH	2.01	VHP	6.982	DPA	-4.08	RAP	262.95	ECC	1.1954

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 26 46	947.64	18.26	327.75	128.03	112.03	9 42 34	347.6	21.09	320.22
90.00	11 12 45	602.72	25.42	305.05	130.45	102.91	11 22 47	2.7	26.95	296.71
100.00	10 4 38	825.23	15.23	317.35	126.62	116.04	10 18 24	225.2	18.61	310.19
100.00	13 17 33	5488.40	28.68	254.05	131.16	98.82	14 49 2	4888.4	29.60	245.37
110.00	10 11 57	802.24	10.45	312.85	123.86	122.73	10 25 20	202.2	14.69	306.32
110.00	15 26 44	5084.16	34.14	223.95	131.75	91.82	16 51 28	4484.2	34.02	214.71

DIFFERENTIAL CORRECTIONS

TDE	-.2464	TRA	.0120	TC3	-7.0932	BAU	1.1283
RDE	.2106	RRA	-.0941	RC3	.4445	FAU	.03441
FDE	.0230	FRA	.4662	FC3	-2.5087	BSP	15564
BDE	.3241	BRA	.0949	BC3	7.1071	FSP	-544

MID-COURSE EXECUTION ACCURACY

SGT	4905.8	SGR	497.7	SG3	167.5		
RRT	-.6738	RRF	-.6955	RTF	.8893		
SGB	4931.0	R23	.1257	R13	-.8900		
SG1	4917.4	SG2	366.9	THA	176.07		

ORBIT DETERMINATION ACCURACY

ST	435.1	SR	354.3	SS	163.1
CRT	-.9415	CRS	.0104	CST	.0535
LSA	553.2	MSA	164.4	SSA	91.5
EL1	553.2	EL2	93.9	ALF	141.20

LAUNCH DATE OCT 6 1970 FLIGHT TIME 162.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 481.248

RL	149.56	LAL	.00	LOL	12.33	VL	26.417	GAL	-2.34	AZL	90.31	HCA	239.51	SMA	123.24	ECC	.21726	INC	.3149	V1	29.792
RP	108.58	LAP	.27	LOP	251.84	VP	36.982	GAP	10.55	AZP	89.84	TAL	188.48	TAP	67.99	RCA	96.46	APO	150.01	V2	34.901
RC	161.784	GL	-2.41	GP	18.51	ZAL	99.67	ZAP	158.10	ETS	52.83	ZAE	127.53	ETE	165.76	ZAC	121.24	ETC	264.31	CLP	-168.08

PLANETOCENTRIC CONIC

C3	11.875	VHL	3.446	DLA	-25.83	RAL	272.94	RAD	6567.5	VEL	11.544	PTH	2.01	VHP	7.078	DPA	-5.31	RAP	265.09	ECC	1.1954

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 51 16	1117.41	13.62	338.05	130.14	115.06	9 9 53	517.4	16.89	330.90
90.00	12 19 14	5720.99	27.45	270.95	134.41	97.24	13 54 35	5121.0	28.17	262.36
100.00	9 46 21	939.53	11.71	324.01	129.17	117.70	10 2 1	339.5	15.32	317.09
100.00	14 6 50	5374.10	29.58	245.68	134.66	94.50	15 36 24	4774.1	29.89	236.89
110.00	10 7 8	874.33	7.77	316.72	126.81	123.39	10 21 42	274.3	12.11	310.31
110.00	16 2 32	5012.06	34.15	218.32	134.80	88.49	17 26 4	4412.1	33.57	209.13

DIFFERENTIAL CORRECTIONS

TDE	-.1388	TRA	.1707	TC3	-7.1900	BAU	1.1435
RDE	.2091	RRA	-.1048	RC3	.4315	FAU	.03285
FDE	.0726	FRA	.5149	FC3	-2.3949	BSP	15797
BDE	.2509	BRA	.2002	BC3	7.2030	FSP	-538

MID-COURSE EXECUTION ACCURACY

SGT	4970.7	SGR	496.8	SG3	164.9		
RRT	-.6539	RRF	-.6675	RTF	.8907		
SGB	4995.5	R23	.1079	R13	-.8912		
SG1	4981.4	SG2	375.0	THA	176.24		

ORBIT DETERMINATION ACCURACY

ST	290.1	SR	352.6	SS	191.9
CRT	-.8500	CRS	-.2258	CST	-.0715
LSA	440.5	MSA	205.2	SSA	95.6
EL1	439.9	EL2	122.5	ALF	128.50

LAUNCH DATE OCT 6 1970 FLIGHT TIME 164.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 486.923

RL	149.56	LAL	.00	LOL	12.33	VL	26.360	GAL	-1.89	AZL	90.09	HCA	242.68	SMA	122.90	ECC	.21933	INC	.0928	V1	29.792
RP	108.61	LAP	.08	LOP	255.01	VP	36.931	GAP	10.79	AZP	89.96	TAL	186.74	TAP	69.43	RCA	95.94	APO	149.85	V2	34.890
RC	163.865	GL	-.71	GP	17.62	ZAL	96.12	ZAP	159.25	ETS	53.46	ZAE	127.71	ETE	166.39	ZAC	120.42	ETC	264.98	CLP	-168.86

PLANETOCENTRIC CONIC

C3	11.990	VHL	3.463	DLA	-24.01	RAL	276.80	RAD	6567.5	VEL	11.549	PTH	2.02	VHP	7.185	DPA	-6.40	RAP	267.30	ECC	1.1973

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 34 1	1231.60	10.24	344.73	132.97	116.55	8 54 32	631.6	13.72	337.78
90.00	13 7 14	5610.87	28.14	262.97	138.00	93.29	14 40 44	5010.9	28.30	254.31
100.00	9 35 33	1032.95	8.70	329.32	132.16	118.71	9 52 46	432.9	12.46	322.55
100.00	14 48 22	5284.75	29.88	239.05	138.08	91.03	16 16 27	4684.7	29.70	230.25
110.00	10 4 40	941.63	5.23	320.28	130.04	123.83	10 20 22	341.6	9.64	313.96
110.00	16 35 45	4948.83	33.93	213.40	137.93	85.58	17 58 13	4348.8	32.95	204.30

DIFFERENTIAL CORRECTIONS

TDE	-.0248	TRA	.3389	TC3	-7.2089	BAU	1.1575
RDE	.2085	RRA	-.1160	RC3	.4160	FAU	.03126
FDE	.1198	FRA	.5624	FC3	-2.2571	BSP	15991
BDE	.2100	BRA	.3582	BC3	7.2209	FSP	-529

MID-COURSE EXECUTION ACCURACY

SGT	5030.2	SGR	496.2	SG3	162.1		
RRT	-.6336	RRF	-.6402	RTF	.8923		
SGB	5054.6	R23	.0925	R13	-.8927		
SG1	5040.1	SG2	383.1	THA	176.40		

ORBIT DETERMINATION ACCURACY

ST	240.9	SR	350.8	SS	228.0
CRT	-.3203	CRS	-.3781	CST	-.6235
LSA	370.4	MSA	299.0	SSA	80.6
EL1	364.5	EL2	219.6	ALF	109.89

LAUNCH DATE OCT 6 1970 FLIGHT TIME 166.00 ARRIVAL DATE MAR 21 1971

HELIOCENTRIC CONIC DISTANCE 492.577

RL	149.56	LAL	.00	LOL	12.33	VL	26.304	GAL	-1.42	AZL	89.88	HCA	245.86	SMA	122.56	ECC	.22161	INC	.1145
RP	108.65	LAP	-.11	LOP	258.19	VP	36.881	GAP	11.04	AZP	90.05	TAL	185.00	TAP	70.86	RCA	95.40	APO	149.72
RC	165.932	GL	.87	GP	16.82	ZAL	92.52	ZAP	160.32	ETS	54.25	ZAE	127.86	ETE	166.96	ZAC	119.67	ETC	265.65

PLANETOCENTRIC CONIC

C3	12.225	VHL	3.496	DLA	-22.22	RAL	280.60	RAD	6567.5	VEL	11.559	PTH	2.02	VHP	7.302	DPA	-7.37	RAP	269.55

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 23 24	1326.92	7.29	350.18	136.16	117.44	8 45 31	726.9	10.91	343.37
90.00	13 48 12	5523.73	28.32	256.60	141.54	90.11	15 20 16	4923.7	28.03	247.95
100.00	9 28 44	1116.04	5.95	333.96	135.43	119.35	9 47 20	516.0	9.82	327.30
100.00	15 25 33	5209.83	29.84	233.48	141.51	88.10	16 52 23	4609.8	29.26	224.73
110.00	10 3 50	1005.99	2.78	323.65	133.47	124.08	10 20 36	406.0	7.24	317.40
110.00	17 6 56	4892.65	33.55	209.06	141.18	83.04	18 28 29	4292.6	32.22	200.07

DIFFERENTIAL CORRECTIONS

TDE	.0842	TRA	.5057	TC3	-7.1843	BAU	1.1760												
RDE	.2098	RRA	-.1267	RC3	.4019	FAU	.02996												
FDE	.1586	FRA	.6021	FC3	-2.1217	BSP	16425												
BDE	.2261	BRA	.5213	BC3	7.1955	FSP	-534												

MID-COURSE EXECUTION ACCURACY

SGT	5104.8	SGR	497.5	SG3	159.4		
RRT	-.6163	RRF	-.6173	RTF	.8964		
SGB	5129.0	R23	.0781	R13	-.8968		
SG1	5114.1	SG2	391.1	THA	176.54		

ORBIT DETERMINATION ACCURACY

ST	337.4	SR	350.5	SS	261.4
CRT	.2375	CRS	-.4645	CST	-.9183
LSA	451.9	MSA	310.9	SSA	65.0
EL1	383.1	EL2	299.9	ALF	49.55

LAUNCH DATE OCT 6 1970 FLIGHT TIME 168.00 ARRIVAL DATE MAR 23 1971

HELIOCENTRIC CONIC DISTANCE 498.212

RL	149.56	LAL	.00	LOL	12.33	VL	26.248	GAL	-.94	AZL	89.69	HCA	249.03	SMA	122.23	ECC	.22413	INC	.3133
RP	108.68	LAP	-.29	LOP	261.36	VP	36.832	GAP	11.30	AZP	90.11	TAL	183.25	TAP	72.28	RCA	94.84	APO	149.63
RC	167.985	GL	2.32	GP	16.10	ZAL	88.89	ZAP	161.32	ETS	55.22	ZAE	127.99	ETE	167.48	ZAC	118.98	ETC	266.32

PLANETOCENTRIC CONIC

C3	12.583	VHL	3.547	DLA	-20.46	RAL	284.35	RAD	6567.5	VEL	11.575	PTH	2.02	VHP	7.428	DPA	-8.21	RAP	271.84

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 16 28	1412.39	4.58	355.00	139.60	117.97	8 40 0	812.4	8.29	348.29
90.00	14 25 0	5450.55	28.21	251.25	145.11	87.43	15 55 50	4850.5	27.55	242.65
100.00	9 24 26	1193.03	3.37	338.21	138.93	119.72	9 44 19	593.0	7.30	331.63
100.00	15 59 43	5145.14	29.59	228.69	145.01	85.59	17 25 28	4545.1	28.67	220.01
110.00	10 4 11	1068.46	.39	326.91	137.08	124.18	10 21 59	468.5	4.88	320.69
110.00	17 36 27	4842.47	33.07	205.22	144.53	80.81	18 57 10	4242.5	31.45	196.37

DIFFERENTIAL CORRECTIONS

TDE	.2152	TRA	.6995	TC3	-7.0290	BAU	1.1842												
RDE	.2102	RRA	-.1399	RC3	.3788	FAU	.02814												
FDE	.2049	FRA	.6517	FC3	-1.9362	BSP	16422												
BDE	.3009	BRA	.7134	BC3	7.0392	FSP	-514												

MID-COURSE EXECUTION ACCURACY

SGT	5142.3	SGR	495.6	SG3	156.0		
RRT	-.5935	RRF	-.5897	RTF	.8963		
SGB	5166.1	R23	.0678	R13	-.8966		
SG1	5150.7	SG2	398.3	THA	176.71		

ORBIT DETERMINATION ACCURACY

ST	523.5	SR	347.3	SS	304.3
CRT	.4986	CRS	-.5324	CST	-.9795
LSA	635.6	MSA	283.9	SSA	51.9
EL1	562.3	EL2	280.3	ALF	24.88

LAUNCH DATE OCT 6 1970 FLIGHT TIME 170.00 ARRIVAL DATE MAR 25 1971

HELIOCENTRIC CONIC DISTANCE 503.825

RL	149.56	LAL	.00	LOL	12.33	VL	26.194	GAL	-.44	AZL	89.50	HCA	252.20	SMA	121.91	ECC	.22692	INC	.5037
RP	108.71	LAP	-.48	LOP	264.53	VP	36.784	GAP	11.57	AZP	90.15	TAL	181.50	TAP	73.70	RCA	94.25	APO	149.58
RC	170.025	GL	3.65	GP	15.45	ZAL	85.28	ZAP	162.25	ETS	56.38	ZAE	128.11	ETE	167.94	ZAC	118.33	ETC	266.99

PLANETOCENTRIC CONIC

C3	13.074	VHL	3.616	DLA	-18.73	RAL	288.01	RAD	6567.5	VEL	11.596	PTH	2.03	VHP	7.566	DPA	-8.94	RAP	274.16

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 11 53	1491.80	2.03	359.45	143.23	118.25	8 36 45	891.8	5.79	352.79
90.00	14 58 46	5387.58	27.93	246.67	148.73	85.14	16 28 34	4787.6	26.97	238.14
100.00	9 21 51	1266.01	.90	342.22	142.60	119.88	9 42 57	666.0	4.86	335.68
100.00	16 31 29	5088.59	29.23	224.53	148.58	83.43	17 56 18	4488.6	28.01	215.94
110.00	10 5 23	1129.62	-1.94	330.10	140.82	124.13	10 24 12	529.6	2.55	323.90
110.00	18 4 27	4797.75	32.53	201.84	147.98	78.88	19 24 25	4197.7	30.66	193.12

DIFFERENTIAL CORRECTIONS

TDE	.3465	TRA	.8950	TC3	-6.8305	BAU	1.1955												
RDE	.2120	RRA	-.1525	RC3	.3570	FAU	.02661												
FDE	.2465	FRA	.6951	FC3	-1.7624	BSP	16587												
BDE	.4063	BRA	.9080	BC3	6.8398	FSP	-505												

MID-COURSE EXECUTION ACCURACY

SGT	5190.7	SGR	494.6	SG3	152.8		
RRT	-.5737	RRF	-.5653	RTF	.8986		
SGB	5214.2	R23	.0568	R13	-.8989		
SG1	5198.5	SG2	404.5	THA	176.85		

ORBIT DETERMINATION ACCURACY

ST	724.8	SR	344.7	SS	343.3
CRT	.5962	CRS	-.5759	CST	-.9903
LSA	829.7	MSA	267.8	SSA	42.8
EL1	757.7	EL2	264.7	ALF	18.11

LAUNCH DATE OCT 6 1970 FLIGHT TIME 172.00 ARRIVAL DATE MAR 27 1971

HELIOCENTRIC CONIC DISTANCE 509.412

RL	149.56	LAL	.00	LOL	12.33	VL	26.140	GAL	.08	AZL	89.31	HCA	255.37	SMA	121.60	ECC	.22997	INC	.6870
RP	108.74	LAP	-.66	LOP	267.70	VP	36.736	GAP	11.85	AZP	90.17	TAL	179.74	TAP	75.11	RCA	93.63	APO	149.56
RC	172.049	GL	4.86	GP	14.87	ZAL	81.71	ZAP	163.12	ETS	57.72	ZAE	128.22	ETE	168.36	ZAC	117.72	ETC	267.65

PLANETOCENTRIC CONIC

C3	13.707	VHL	3.702	DLA	-17.05	RAL	291.57	RAD	6567.5	VEL	11.623	PTH	2.04	VHP	7.714	DPA	-9.58	RAP	276.52

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 8 56	1567.04	-.40	3.64	147.00	118.31	8 35 3	967.0	3.39	357.01
90.00	15 30 8	5332.88	27.55	242.71	152.40	83.20	16 59 1	4732.9	26.32	234.26
100.00	9 20 30	1336.11	-1.48	346.06	146.40	119.86	9 42 46	736.1	2.50	339.54
100.00	17 1 15	5039.04	28.79	220.91	152.22	81.57	18 25 14	4439.0	27.32	212.41
110.00	10 7 12	1189.80	-4.24	333.25	144.68	123.95	10 27 2	589.8	.25	327.04
110.00	18 31 2	4758.12	31.98	198.88	151.53	77.22	19 50 20	4158.1	29.89	190.30

DIFFERENTIAL CORRECTIONS

TDE	.4824	TRA	1.1064	TC3	-6.5598	BAU	1.2036												
RDE	.2146	RRA	-.1665	RC3	.3303	FAU	.02481												
FDE	.2870	FRA	.7438	FC3	-1.5668	BSP	16705												
BDE	.5280	BRA	1.1189	BC3	6.5681	FSP	-489												

MID-COURSE EXECUTION ACCURACY

SGT	5230.5	SGR	492.7	SG3	149.5		
RRT	-.5521	RRF	-.5406	RTF	.8977		
SGB	5253.7	R23	.0503	R13	-.8979		
SG1	5237.7	SG2	410.3	THA	177.00		

ORBIT DETERMINATION ACCURACY

ST	931.3	SR	341.9	SS	382.2
CRT	.6389	CRS	-.6020	CST	-.9936
LSA	1030.6	MSA	258.5	SSA	36.6
EL1	958.6	EL2	255.5	ALF	14.23

LAUNCH DATE OCT 6 1970 FLIGHT TIME 174.00 ARRIVAL DATE MAR 29 1971

HELIOCENTRIC CONIC DISTANCE 514.972

```
RL  149.56 LAL    .00 LOL  12.33 VL  26.087 GAL    .62 AZL  89.13 HCA 258.54 SMA 121.29 ECC .23333 INC  .8652 V1  29.792
RP  108.77 LAP   -.85 LOP 270.86 VP  36.690 GAP  12.14 AZP  90.17 TAL 177.97 TAP  76.51 RCA  92.99 APO 149.59 V2  34.841
RC 174.060 GL    5.94 GP   14.34 ZAL  78.20 ZAP 163.93 ETS  59.26 ZAE 128.33 ETE 168.73 ZAC 117.14 ETC 268.32 CLP-172.65
```

PLANETOCENTRIC CONIC

```
C3  14.495 VHL  3.807 DLA -15.43 RAL 295.02 RAD 6567.6 VEL 11.657 PTH   2.05 VHP  7.873 DPA -10.11 RAP 278.91 ECC 1.2386
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 7 10	1639.19	-2.72	7.67	150.89	118.20	8 34 29	1039.2	1.07	1.04
90.00	15 59 25	5285.34	27.12	239.30	156.13	81.54	17 27 31	4685.3	25.67	230.93
100.00	9 20 4	1404.00	-3.78	349.80	150.30	119.67	9 43 28	804.0	.20	343.27
100.00	17 29 13	4995.77	28.31	217.78	155.92	79.99	18 52 28	4395.8	26.64	209.38
110.00	10 9 30	1249.14	-6.49	336.37	148.63	123.64	10 30 19	649.1	-2.02	330.13
110.00	18 56 16	4723.39	31.42	196.33	155.15	75.80	20 14 59	4123.4	29.15	187.86

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .6223 TRA 1.3157 TC3-6.2573 BAU 1.2140   SGT 5272.3 SGR  490.7 SG3  145.9   ST  1130.1 SR   339.9 SS   413.1
RDE  .2188 RRA -.1787 RC3  .3063 FAU .02340   RRT -.5320 RRF -.5175 RTF  .9016   CRT  .6660 CRS -.6230 CST -.9952
FDE  .3217 FRA  .7802 FC3-1.3975 BSP  16881   SGB 5295.1 R23  .0412 R13 -.9018   LSA 1224.4 MSA  251.3 SSA   31.7
BDE  .6596 BRA 1.3277 BC3 6.2648 FSP   -484   SG1 5278.8 SG2  415.0 THA 177.15   EL1 1153.6 EL2  248.3 ALF   11.89
```

LAUNCH DATE OCT 6 1970 FLIGHT TIME 176.00 ARRIVAL DATE MAR 31 1971

HELIOCENTRIC CONIC DISTANCE 520.503

```
RL  149.56 LAL    .00 LOL  12.33 VL  26.034 GAL   1.18 AZL  88.96 HCA 261.70 SMA 120.99 ECC .23701 INC 1.0392 V1  29.792
RP  108.79 LAP  -1.03 LOP 274.03 VP  36.645 GAP  12.45 AZP  90.15 TAL 176.21 TAP  77.91 RCA  92.31 APO 149.66 V2  34.833
RC 176.055 GL    6.90 GP   13.85 ZAL  74.78 ZAP 164.68 ETS  61.01 ZAE 128.42 ETE 169.08 ZAC 116.58 ETC 268.98 CLP-173.39
```

PLANETOCENTRIC CONIC

```
C3  15.453 VHL  3.931 DLA -13.86 RAL 298.34 RAD 6567.6 VEL 11.698 PTH   2.06 VHP  8.044 DPA -10.56 RAP 281.31 ECC 1.2543
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 6 18	1708.88	-4.95	11.58	154.86	117.92	8 34 47	1108.9	-1.18	4.93
90.00	16 26 50	5244.27	26.68	236.37	159.91	80.14	17 54 15	4644.3	25.04	228.09
100.00	9 20 19	1470.05	-5.99	353.45	154.29	119.34	9 44 49	870.0	-2.04	346.89
100.00	17 55 30	4958.33	27.84	215.10	159.67	78.65	19 18 8	4358.3	25.99	206.78
110.00	10 12 9	1307.74	-8.68	339.49	152.65	123.19	10 33 56	707.7	-4.25	333.20
110.00	19 20 10	4693.40	30.90	194.15	158.83	74.60	20 38 24	4093.4	28.48	185.78

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .7677 TRA 1.5404 TC3-5.9095 BAU 1.2222   SGT 5309.0 SGR  488.0 SG3  142.5   ST  1324.0 SR   337.6 SS   443.3
RDE  .2239 RRA -.1919 RC3  .2807 FAU .02194   RRT -.5119 RRF -.4954 RTF  .9043   CRT  .6807 CRS -.6371 CST -.9962
FDE  .3561 FRA  .8209 FC3-1.2292 BSP  17027   SGB 5331.4 R23  .0345 R13 -.9044   LSA 1414.9 MSA  246.4 SSA   28.0
BDE  .7997 BRA 1.5523 BC3 5.9162 FSP   -475   SG1 5314.9 SG2  418.8 THA 177.29   EL1 1344.4 EL2  243.6 ALF   10.19
```

LAUNCH DATE OCT 6 1970 FLIGHT TIME 178.00 ARRIVAL DATE APR 2 1971

HELIOCENTRIC CONIC DISTANCE 525.999

```
RL  149.56 LAL    .00 LOL  12.33 VL  25.983 GAL   1.76 AZL  88.79 HCA 264.87 SMA 120.69 ECC .24105 INC 1.2104 V1  29.792
RP  108.82 LAP  -1.21 LOP 277.20 VP  36.601 GAP  12.78 AZP  90.11 TAL 174.45 TAP  79.31 RCA  91.60 APO 149.78 V2  34.825
RC 178.036 GL    7.74 GP   13.42 ZAL  71.46 ZAP 165.38 ETS  62.99 ZAE 128.51 ETE 169.39 ZAC 116.04 ETC 269.63 CLP-174.13
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PLANETOCENTRIC CONIC

```
C3  16.597 VHL  4.074 DLA -12.37 RAL 301.54 RAD 6567.7 VEL 11.747 PTH   2.07 VHP  8.227 DPA -10.92 RAP 283.73 ECC 1.2732
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 6 6	1776.47	-7.09	15.39	158.91	117.49	8 35 43	1176.5	-3.36	8.70
90.00	16 52 32	5209.16	26.24	233.90	163.73	78.97	18 19 21	4609.2	24.46	225.68
100.00	9 21 6	1534.49	-8.13	357.04	158.35	118.86	9 46 41	934.5	-4.22	350.44
100.00	18 20 13	4926.37	27.39	212.83	163.46	77.54	19 42 19	4326.4	25.40	204.59
110.00	10 15 2	1365.59	-10.82	342.60	156.73	122.62	10 37 48	765.6	-6.45	336.24
110.00	19 42 46	4668.04	30.43	192.32	162.57	73.62	21 0 34	4068.0	27.88	184.05

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .9075 TRA 1.7665 TC3-5.5582 BAU 1.2346   SGT 5348.6 SGR  485.4 SG3  139.0   ST  1493.2 SR   336.5 SS   465.5
RDE  .2309 RRA -.2042 RC3  .2566 FAU .02074   RRT -.4932 RRF -.4759 RTF  .9083   CRT  .6891 CRS -.6463 CST -.9968
FDE  .3837 FRA  .8567 FC3-1.0821 BSP  17409   SGB 5370.6 R23  .0289 R13 -.9084   LSA 1581.0 MSA  243.6 SSA   25.2
BDE  .9365 BRA 1.7782 BC3 5.5641 FSP   -476   SG1 5354.0 SG2  421.8 THA 177.42   EL1 1511.6 EL2  240.9 ALF    9.06
```

LAUNCH DATE OCT 6 1970 FLIGHT TIME 180.00 ARRIVAL DATE APR 4 1971

HELIOCENTRIC CONIC DISTANCE 531.459

```
RL  149.56 LAL    .00 LOL  12.33 VL  25.932 GAL   2.37 AZL  88.62 HCA 268.03 SMA 120.40 ECC .24547 INC 1.3798 V1  29.792
RP  108.84 LAP  -1.38 LOP 280.36 VP  36.559 GAP  13.12 AZP  90.05 TAL 172.68 TAP  80.72 RCA  90.85 APO 149.96 V2  34.818
RC 180.002 GL    8.47 GP   13.02 ZAL  68.27 ZAP 166.02 ETS  65.20 ZAE 128.59 ETE 169.68 ZAC 115.52 ETC 270.28 CLP-174.86
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PLANETOCENTRIC CONIC

```
C3  17.951 VHL  4.237 DLA -10.95 RAL 304.60 RAD 6567.7 VEL 11.804 PTH   2.09 VHP  8.425 DPA -11.19 RAP 286.17 ECC 1.2954
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 6 26	1842.23	-9.14	19.14	163.02	116.92	8 37 8	1242.2	-5.46	12.39
90.00	17 16 37	5179.63	25.84	231.83	167.57	78.00	18 42 57	4579.6	23.93	223.68
100.00	9 22 18	1597.49	-10.18	.59	162.47	118.26	9 48 55	997.5	-6.32	353.93
100.00	18 43 27	4899.60	26.98	210.94	167.29	76.63	20 5 6	4299.6	24.88	202.78
110.00	10 18 7	1422.71	-12.90	345.72	160.86	121.93	10 41 49	822.7	-8.59	339.28
110.00	20 4 7	4647.15	30.02	190.83	166.34	72.82	21 21 34	4047.1	27.38	182.64

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.0716 TRA 2.0226 TC3-5.1418 BAU 1.2352   SGT 5370.7 SGR  480.3 SG3  135.9   ST  1678.0 SR   333.5 SS   494.3
RDE  .2374 RRA -.2178 RC3  .2287 FAU .01912   RRT -.4710 RRF -.4524 RTF  .9098   CRT  .6957 CRS -.6557 CST -.9974
FDE  .4195 FRA  .9014 FC3 -.9220 BSP  17323   SGB 5392.2 R23  .0241 R13 -.9099   LSA 1764.4 MSA  239.8 SSA   23.0
BDE 1.0976 BRA 2.0343 BC3 5.1469 FSP   -458   SG1 5375.5 SG2  423.3 THA 177.57   EL1 1694.3 EL2  237.3 ALF    8.03
```

LAUNCH DATE OCT 6 1970 FLIGHT TIME 182.00 ARRIVAL DATE APR 6 1971

HELIOCENTRIC CONIC DISTANCE 536.877

RL	149.56	LAL	.00	LOL	12.33	VL	25.882	GAL	3.00	AZL	88.45	HCA	271.19	SMA	120.12	ECC	.25031	INC	1.5485	V1	29.792
RP	108.86	LAP	-1.55	LOP	283.52	VP	36.517	GAP	13.48	AZP	89.97	TAL	170.93	TAP	82.12	RCA	90.05	APO	150.19	V2	34.812
RC	181.954	GL	9.09	GP	12.65	ZAL	65.21	ZAP	166.61	ETS	67.65	ZAE	128.66	ETE	169.95	ZAC	115.00	ETC	270.93	CLP	-175.59

PLANETOCENTRIC CONIC

C3	19.537	VHL	4.420	DLA	-9.60	RAL	307.52	RAD	6567.8	VEL	11.871	PTH	2.11	VHP	8.637	DPA	-11.39	RAP	288.61	ECC	1.3215

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 7 11	1906.31	-11.09	22.83	167.17	116.22	8 38 57	1306.3	-7.48	16.02
90.00	17 39 11	5155.36	25.49	230.14	171.44	77.23	19 5 6	4555.4	23.48	222.05
100.00	9 23 48	1659.12	-12.14	4.11	166.62	117.53	9 51 27	1059.1	-8.36	357.37
100.00	19 5 15	4877.78	26.63	209.42	171.13	75.90	20 26 32	4277.8	24.43	201.31
110.00	10 21 18	1479.06	-14.91	348.85	165.03	121.12	10 45 57	879.1	-10.67	342.31
110.00	20 24 14	4630.62	29.68	189.66	170.15	72.21	21 41 24	4030.6	26.96	181.53

DIFFERENTIAL CORRECTIONS

TDE	1.2339	TRA	2.2842	TC3	-4.7347	BAU	1.2378
RDE	.2458	RRA	-.2305	RC3	.2030	FAU	.01770
FDE	.4505	FRA	.9430	FC3	-.7845	BSP	17393
BDE	1.2582	BRA	2.2958	BC3	4.7391	FSP	-447

MID-COURSE EXECUTION ACCURACY

SGT	5394.1	SGR	474.9	SG3	132.7		
RRT	-.4495	RRF	-.4306	RTF	.9125		
SGB	5414.9	RZ3	.0200	R13	-.9126		
SG1	5398.3	SG2	423.9	THA	177.72		

ORBIT DETERMINATION ACCURACY

ST	1840.1	SR	331.3	SS	516.9
CRT	.7003	CRS	-.6628	CST	-.9978
LSA	1925.1	MSA	237.0	SSA	21.1
EL1	1854.9	EL2	234.6	ALF	7.31

LAUNCH DATE OCT 6 1970 FLIGHT TIME 184.00 ARRIVAL DATE APR 8 1971

HELIOCENTRIC CONIC DISTANCE 542.244

RL	149.56	LAL	.00	LOL	12.33	VL	25.832	GAL	3.67	AZL	88.28	HCA	274.35	SMA	119.84	ECC	.25562	INC	1.7176	V1	29.792
RP	108.87	LAP	-1.71	LOP	286.69	VP	36.476	GAP	13.87	AZP	89.87	TAL	169.17	TAP	83.53	RCA	89.21	APO	150.48	V2	34.806
RC	183.891	GL	9.62	GP	12.32	ZAL	62.29	ZAP	167.15	ETS	70.35	ZAE	128.73	ETE	170.19	ZAC	114.50	ETC	271.57	CLP	-176.32

PLANETOCENTRIC CONIC

C3	21.386	VHL	4.625	DLA	-8.34	RAL	310.30	RAD	6567.9	VEL	11.948	PTH	2.13	VHP	8.867	DPA	-11.52	RAP	291.06	ECC	1.3520

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 8 15	1968.81	-12.95	26.49	171.35	115.40	8 41 3	1368.8	-9.42	19.58
90.00	18 0 17	5136.09	25.19	228.80	175.31	76.62	19 25 53	4536.1	23.10	220.76
100.00	9 25 33	1719.43	-14.01	7.61	170.81	116.68	9 54 12	1119.4	-10.32	.77
100.00	19 25 40	4860.70	26.34	208.23	174.99	75.34	20 46 40	4260.7	24.07	200.17
110.00	10 24 34	1534.60	-16.84	352.00	169.23	120.20	10 50 9	934.6	-12.70	345.34
110.00	20 43 7	4618.29	29.42	188.80	173.97	71.76	22 0 6	4018.3	26.65	180.71

DIFFERENTIAL CORRECTIONS

TDE	1.3739	TRA	2.5308	TC3	-4.3796	BAU	1.2533
RDE	.2570	RRA	-.2409	RC3	.1816	FAU	.01687
FDE	.4693	FRA	.9736	FC3	-.6827	BSP	18112
BDE	1.3977	BRA	2.5423	BC3	4.3834	FSP	-460

MID-COURSE EXECUTION ACCURACY

SGT	5417.5	SGR	469.7	SG3	128.8		
RRT	-.4300	RRF	-.4122	RTF	.9175		
SGB	5437.8	RZ3	.0168	R13	-.9176		
SG1	5421.3	SG2	423.8	THA	177.85		

ORBIT DETERMINATION ACCURACY

ST	1953.5	SR	331.1	SS	526.4
CRT	.7041	CRS	-.6679	CST	-.9980
LSA	2036.4	MSA	235.7	SSA	19.5
EL1	1967.6	EL2	233.4	ALF	6.90

LAUNCH DATE OCT 6 1970 FLIGHT TIME 186.00 ARRIVAL DATE APR 10 1971

HELIOCENTRIC CONIC DISTANCE 547.563

RL	149.56	LAL	.00	LOL	12.33	VL	25.784	GAL	4.37	AZL	88.11	HCA	277.51	SMA	119.57	ECC	.26143	INC	1.8880	V1	29.792
RP	108.89	LAP	-1.87	LOP	289.85	VP	36.437	GAP	14.28	AZP	89.75	TAL	167.43	TAP	84.94	RCA	88.31	APO	150.83	V2	34.801
RC	185.813	GL	10.06	GP	12.01	ZAL	59.50	ZAP	167.63	ETS	73.32	ZAE	128.79	ETE	170.42	ZAC	114.00	ETC	272.20	CLP	-177.05

PLANETOCENTRIC CONIC

C3	23.534	VHL	4.851	DLA	-7.16	RAL	312.94	RAD	6568.0	VEL	12.038	PTH	2.15	VHP	9.114	DPA	-11.57	RAP	293.51	ECC	1.3873

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 9 34	2029.86	-14.70	30.11	175.56	114.48	8 43 24	1429.9	-11.28	23.11
90.00	18 20 2	5121.47	24.96	227.80	179.20	76.17	19 45 23	4521.5	22.81	219.79
100.00	9 27 29	1778.50	-15.79	11.10	175.03	115.72	9 57 7	1178.5	-12.20	4.15
100.00	19 44 48	4848.05	26.12	207.36	178.86	74.93	21 5 36	4248.1	23.80	199.33
110.00	10 27 53	1589.36	-18.68	355.18	173.46	119.16	10 54 23	989.4	-14.65	348.38
110.00	21 0 53	4609.97	29.24	188.22	177.80	71.45	22 17 43	4010.0	26.43	180.16

DIFFERENTIAL CORRECTIONS

TDE	1.5714	TRA	2.8439	TC3	-3.9345	BAU	1.2388
RDE	.2662	RRA	-.2539	RC3	.1551	FAU	.01504
FDE	.5090	FRA	1.0264	FC3	-.5532	BSP	17576
BDE	1.5938	BRA	2.8552	BC3	3.9375	FSP	-428

MID-COURSE EXECUTION ACCURACY

SGT	5429.3	SGR	461.4	SG3	126.5		
RRT	-.4048	RRF	-.3866	RTF	.9187		
SGB	5448.8	RZ3	.0135	R13	-.9188		
SG1	5432.5	SG2	421.7	THA	178.02		

ORBIT DETERMINATION ACCURACY

ST	2118.8	SR	327.3	SS	554.5
CRT	.7080	CRS	-.6756	CST	-.9984
LSA	2202.2	MSA	231.7	SSA	18.4
EL1	2131.6	EL2	229.7	ALF	6.32

LAUNCH DATE OCT 6 1970 FLIGHT TIME 188.00 ARRIVAL DATE APR 12 1971

HELIOCENTRIC CONIC DISTANCE 552.816

RL	149.56	LAL	.00	LOL	12.33	VL	25.736	GAL	5.10	AZL	87.94	HCA	280.67	SMA	119.31	ECC	.26780	INC	2.0608	V1	29.792
RP	108.90	LAP	-2.03	LOP	293.01	VP	36.399	GAP	14.73	AZP	89.62	TAL	165.70	TAP	86.37	RCA	87.36	APO	151.26	V2	34.797
RC	187.719	GL	10.41	GP	11.74	ZAL	58.87	ZAP	168.06	ETS	76.55	ZAE	128.83	ETE	170.63	ZAC	113.51	ETC	272.82	CLP	-177.78

PLANETOCENTRIC CONIC

C3	26.021	VHL	5.101	DLA	-6.06	RAL	315.44	RAD	6568.1	VEL	12.141	PTH	2.18	VHP	9.381	DPA	-11.56	RAP	295.95	ECC	1.4282

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 11 5	2089.46	-16.35	33.71	179.79	113.45	8 45 55	1489.5	-13.04	26.60
90.00	18 38 27	5111.28	24.79	227.10	183.07	75.86	20 3 39	4511.3	22.60	219.11
100.00	9 29 33	1836.33	-17.47	14.58	179.27	114.65	10 0 9	1236.3	-14.00	7.51
100.00	20 2 41	4839.65	25.97	206.78	182.73	74.66	21 23 20	4239.6	23.61	198.77
110.00	10 31 13	1643.27	-20.44	358.37	177.71	118.02	10 58 36	1043.3	-16.53	351.43
110.00	21 17 30	4605.47	29.14	187.90	181.84	71.29	22 34 15	4005.5	26.31	179.86

DIFFERENTIAL CORRECTIONS

TDE	1.7486	TRA	3.1451	TC3	-3.5507	BAU	1.2361
RDE	.2784	RRA	-.2644	RC3	.1334	FAU	.01377
FDE	.5373	FRA	1.0891	FC3	-.4583	BSP	17650
BDE	1.7706	BRA	3.1562	BC3	3.5532	FSP	-418

MID-COURSE EXECUTION ACCURACY

SGT	5440.6	SGR	453.3	SG3	125.4		
RRT	-.3811	RRF	-.3637	RTF	.9223		
SGB	5459.4	RZ3	.0110	R13	-.9223		
SG1	5443.3	SG2	418.9	THA	178.17		

ORBIT DETERMINATION ACCURACY

ST	2237.2	SR	325.3	SS	570.6
CRT	.7121	CRS	-.6820	CST	-.9986
LSA	2320.3	MSA	229.0	SSA	17.3
EL1	2249.2	EL2	227.2	ALF	5.97

LAUNCH DATE OCT 6 1970 FLIGHT TIME 190.00 ARRIVAL DATE APR 14 1971

HELIOCENTRIC CONIC DISTANCE 557.998

```
RL  149.56 LAL    .00 LOL  12.33 VL  25.689 GAL   5.88 AZL  87.76 HCA 283.83 SMA 119.05 ECC .27480 INC 2.2373 V1  29.792
RP  108.92 LAP  -2.17 LOP 296.17 VP  36.362 GAP  15.20 AZP  89.46 TAL 163.98 TAP  87.81 RCA  86.33 APO 151.76 V2  34.793
RC 189.610 GL   10.69 GP   11.48 ZAL  54.38 ZAP 168.43 ETS  80.05 ZAE 128.87 ETE 170.83 ZAC 113.01 ETC 273.44 CLP-178.53
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PLANETOCENTRIC CONIC

```
C3  28.898 VHL  5.376 DLA  -5.04 RAL 317.81 RAD 6568.2 VEL 12.259 PTH   2.21 VHP  9.671 DPA -11.48 RAP 298.38 ECC 1.4756
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 12 46	2147.69	-17.89	37.29	184.03	112.32	8 48 33	1547.7	-14.71	30.06
90.00	18 55 39	5105.23	24.69	226.68	186.94	75.67	20 20 44	4505.2	22.48	218.71
100.00	9 31 44	1892.94	-19.04	18.05	183.52	113.49	10 3 17	1292.9	-15.70	10.85
100.00	20 19 22	4835.21	25.89	206.47	186.59	74.52	21 39 57	4235.2	23.52	198.48
110.00	10 34 32	1696.32	-22.10	1.59	181.99	116.77	11 2 48	1096.3	-18.33	354.49
110.00	21 33 3	4604.60	29.13	187.84	185.47	71.26	22 49 47	4004.6	26.29	179.81

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE 1.9313 TRA 3.4614 TC3-3.1844 BAU 1.2310   SGT 5447.4 SGR  444.2 SG3  120.5   ST  2341.4 SR   323.2 SS   585.4
RDE  .2918 RRA -.2736 RC3  .1134 FAU .01255   RRT -.3560 RRF -.3399 RTF  .9261   CRT  .7165 CRS -.6888 CST -.9988
FDE  .5653 FRA 1.1129 FC3 -.3761 BSP  17741   SGB 5465.5 R23  .0089 R13 -.9261   LSA 2424.4 MSA  226.0 SSA   16.3
BDE 1.9532 BRA 3.4722 BC3 3.1864 FSP   -410   SG1 5449.8 SG2  414.9 THA 178.33   EL1 2352.9 EL2  224.3 ALF   5.70
```

LAUNCH DATE OCT 6 1970 FLIGHT TIME 192.00 ARRIVAL DATE APR 16 1971

HELIOCENTRIC CONIC DISTANCE 563.097

```
RL  149.56 LAL    .00 LOL  12.33 VL  25.643 GAL   6.71 AZL  87.58 HCA 286.99 SMA 118.79 ECC .28250 INC 2.4186 V1  29.792
RP  108.93 LAP  -2.31 LOP 299.33 VP  36.327 GAP  15.72 AZP  89.29 TAL 162.29 TAP  89.28 RCA  85.24 APO 152.35 V2  34.790
RC 191.483 GL   10.91 GP   11.25 ZAL  52.03 ZAP 168.73 ETS  83.81 ZAE 128.89 ETE 171.02 ZAC 112.52 ETC 274.04 CLP-179.28
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PLANETOCENTRIC CONIC

```
C3  32.224 VHL  5.677 DLA  -4.10 RAL 320.04 RAD 6568.3 VEL 12.393 PTH   2.24 VHP  9.986 DPA -11.34 RAP 300.80 ECC 1.5303
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 14 34	2204.55	-19.32	40.85	188.28	111.11	8 51 18	1604.6	-16.28	33.49
90.00	19 11 39	5103.06	24.65	226.54	190.80	75.61	20 36 42	4503.1	22.43	218.57
100.00	9 33 59	1948.35	-20.50	21.51	187.78	112.24	10 6 27	1348.3	-17.31	14.17
100.00	20 34 55	4834.50	25.88	206.42	190.44	74.49	21 55 29	4234.5	23.50	198.43
110.00	10 37 49	1748.48	-23.66	4.83	186.27	115.42	11 6 58	1148.5	-20.04	357.56
110.00	21 47 34	4607.12	29.18	188.02	189.29	71.35	23 4 21	4007.1	26.36	179.97

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE 2.1196 TRA 3.7936 TC3-2.8389 BAU 1.2237   SGT 5449.9 SGR  434.2 SG3  117.6   ST  2431.6 SR   321.1 SS   598.8
RDE  .3066 RRA -.2814 RC3  .0951 FAU .01138   RRT -.3293 RRF -.3148 RTF  .9301   CRT  .7216 CRS -.6961 CST -.9990
FDE  .5928 FRA 1.1578 FC3 -.3058 BSP  17844   SGB 5467.2 R23  .0072 R13 -.9301   LSA 2514.8 MSA  222.8 SSA   15.5
BDE 2.1417 BRA 3.8040 BC3 2.8405 FSP   -402   SG1 5451.8 SG2  409.9 THA 178.49   EL1 2442.7 EL2  221.3 ALF   5.49
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LAUNCH DATE OCT 6 1970 FLIGHT TIME 194.00 ARRIVAL DATE APR 18 1971

HELIOCENTRIC CONIC DISTANCE 568.099

```
RL  149.56 LAL    .00 LOL  12.33 VL  25.597 GAL   7.58 AZL  87.39 HCA 290.15 SMA 118.55 ECC .29097 INC 2.6061 V1  29.792
RP  108.93 LAP  -2.45 LOP 302.49 VP  36.292 GAP  16.28 AZP  89.10 TAL 160.62 TAP  90.76 RCA  84.05 APO 153.04 V2  34.788
RC 193.340 GL   11.07 GP   11.03 ZAL  49.82 ZAP 168.97 ETS  87.82 ZAE 128.90 ETE 171.20 ZAC 112.03 ETC 274.63 CLP 179.96
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PLANETOCENTRIC CONIC

```
C3  36.074 VHL  6.006 DLA  -3.23 RAL 322.14 RAD 6568.4 VEL 12.548 PTH   2.27 VHP 10.330 DPA -11.15 RAP 303.20 ECC 1.5937
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 16 27	2260.06	-20.65	44.38	192.52	109.82	8 54 7	1660.1	-17.76	36.90
90.00	19 26 31	5104.49	24.68	226.63	194.63	75.65	20 51 36	4504.5	22.46	218.66
100.00	9 36 17	2002.53	-21.86	24.96	192.04	110.91	10 9 40	1402.5	-18.82	17.48
100.00	20 49 22	4837.25	25.93	206.61	194.26	74.58	22 10 0	4237.3	23.56	198.61
110.00	10 41 4	1799.72	-25.12	8.10	190.57	113.98	11 11 4	1199.7	-21.67	.65
110.00	22 1 5	4612.83	29.30	188.41	193.10	71.56	23 17 58	4012.8	26.51	180.35

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE 2.3148 TRA 4.1446 TC3-2.5139 BAU 1.2130   SGT 5447.7 SGR  423.4 SG3  114.7   ST  2509.2 SR   318.8 SS   611.6
RDE  .3228 RRA -.2876 RC3  .0787 FAU .01026   RRT -.3007 RRF -.2880 RTF  .9344   CRT  .7274 CRS -.7039 CST -.9991
FDE  .6205 FRA 1.2045 FC3 -.2461 BSP  17961   SGB 5464.1 R23  .0058 R13 -.9344   LSA 2592.9 MSA  219.2 SSA   14.7
BDE 2.3372 BRA 4.1546 BC3 2.5151 FSP   -395   SG1 5449.2 SG2  403.7 THA 178.65   EL1 2519.9 EL2  217.8 ALF   5.32
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LAUNCH DATE OCT 6 1970 FLIGHT TIME 196.00 ARRIVAL DATE APR 20 1971

HELIOCENTRIC CONIC DISTANCE 572.986

```
RL  149.56 LAL    .00 LOL  12.33 VL  25.553 GAL   8.51 AZL  87.20 HCA 293.30 SMA 118.31 ECC .30031 INC 2.8013 V1  29.792
RP  108.94 LAP  -2.57 LOP 305.66 VP  36.259 GAP  16.89 AZP  88.89 TAL 158.98 TAP  92.28 RCA  82.78 APO 153.84 V2  34.786
RC 195.178 GL   11.19 GP   10.83 ZAL  47.74 ZAP 169.14 ETS  92.06 ZAE 128.89 ETE 171.37 ZAC 111.54 ETC 275.20 CLP 179.18
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PLANETOCENTRIC CONIC

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C3  40.534 VHL  6.367 DLA  -2.44 RAL 324.12 RAD 6568.6 VEL 12.724 PTH   2.31 VHP 10.706 DPA -10.91 RAP 305.58 ECC 1.6671
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 18 25	2314.21	-21.86	47.89	196.75	108.47	8 56 59	1714.2	-19.13	40.28
90.00	19 40 19	5109.26	24.76	226.96	198.44	75.80	21 5 29	4509.3	22.56	218.98
100.00	9 38 38	2055.47	-23.11	28.40	196.28	109.51	10 12 53	1455.5	-20.24	20.78
100.00	21 2 48	4843.23	26.04	207.02	198.06	74.77	22 23 31	4243.2	23.69	199.01
110.00	10 44 16	1849.99	-26.47	11.38	194.86	112.46	11 15 6	1250.0	-23.19	3.76
110.00	22 13 39	4621.47	29.49	189.02	196.90	71.87	23 30 40	4021.5	26.73	180.92

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

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TDE 2.5172 TRA 4.5137 TC3-2.2106 BAU 1.1985   SGT 5439.2 SGR  411.8 SG3  111.9   ST  2574.2 SR   316.3 SS   624.1
RDE  .3404 RRA -.2917 RC3  .0641 FAU .00916   RRT -.2697 RRF -.2592 RTF  .9389   CRT  .7339 CRS -.7124 CST -.9993
FDE  .6484 FRA 1.2532 FC3 -.1957 BSP  18118   SGB 5454.8 R23  .0048 R13 -.9389   LSA 2658.8 MSA  215.3 SSA   14.0
BDE 2.5401 BRA 4.5231 BC3 2.2116 FSP   -389   SG1 5440.4 SG2  396.4 THA 178.82   EL1 2584.7 EL2  214.0 ALF   5.19
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LAUNCH DATE OCT 6 1970 FLIGHT TIME 198.00 ARRIVAL DATE APR 22 1971

HELIOCENTRIC CONIC DISTANCE 577.739

RL 149.56 LAL .00 LOL 12.33 VL 25.509 GAL 9.51 AZL 86.99 HCA 296.46 SMA 118.07 ECC .31063 INC 3.0059 V1 29.792
RP 108.94 LAP -2.69 LOP 308.82 VP 36.228 GAP 17.56 AZP 88.66 TAL 157.37 TAP 93.83 RCA 81.40 APO 154.75 V2 34.785
RC 196.997 GL 11.25 GP 10.65 ZAL 45.80 ZAP 169.23 ETS 96.49 ZAE 128.86 ETE 171.54 ZAC 111.05 ETC 275.76 CLP 178.39

PLANETOCENTRIC CONIC

C3 45.716 VHL 6.761 DLA -1.71 RAL 325.97 RAD 6568.7 VEL 12.926 PTH 2.36 VHP 11.118 DPA -10.61 RAP 307.94 ECC 1.7524

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 20 26	2366.95	-22.95	51.37	200.95	107.06	8 59 53	1766.9	-20.40	43.63
90.00	19 53 5	5117.12	24.89	227.50	202.21	76.04	21 18 22	4517.1	22.72	219.50
100.00	9 40 59	2107.13	-24.24	31.82	200.51	108.05	10 16 6	1507.1	-21.55	24.06
100.00	21 15 13	4852.17	26.20	207.64	201.83	75.06	22 36 6	4252.2	23.89	199.60
110.00	10 47 24	1899.22	-27.71	14.68	199.14	110.87	11 19 3	1299.2	-24.62	6.87
110.00	22 25 18	4632.84	29.73	189.82	200.66	72.29	23 42 31	4032.8	27.02	181.68

DIFFERENTIAL CORRECTIONS
TDE 2.7295 TRA 4.9065 TC3-1.9288 BAU 1.1792
RDE .3595 RRA -.2936 RC3 .0512 FAU .00808
FDE .6774 FRA 1.3050 FC3 -.1530 BSP 18245
BDE 2.7531 BRA 4.9153 BC3 1.9295 FSP -383

MID-COURSE EXECUTION ACCURACY
SGT 5427.3 SGR 399.4 SG3 109.2
RRT -.2359 RRF -.2275 RTF .9435
SGB 5442.0 R23 .0040 R13 -.9435
SG1 5428.1 SG2 388.1 THA 179.00

ORBIT DETERMINATION ACCURACY
ST 2629.3 SR 313.7 SS 637.0
CRT .7412 CRS -.7215 CST -.9994
LSA 2715.3 MSA 210.9 SSA 13.3
EL1 2639.6 EL2 209.7 ALF 5.09

LAUNCH DATE OCT 6 1970 FLIGHT TIME 200.00 ARRIVAL DATE APR 24 1971

HELIOCENTRIC CONIC DISTANCE 582.330

RL 149.56 LAL .00 LOL 12.33 VL 25.466 GAL 10.58 AZL 86.78 HCA 299.61 SMA 117.84 ECC .32206 INC 3.2221 V1 29.792
RP 108.94 LAP -2.80 LOP 311.98 VP 36.198 GAP 18.30 AZP 88.41 TAL 155.81 TAP 95.43 RCA 79.89 APO 155.80 V2 34.785
RC 198.798 GL 11.28 GP 10.48 ZAL 44.00 ZAP 169.24 ETS 101.07 ZAE 128.80 ETE 171.71 ZAC 110.56 ETC 276.29 CLP 177.57

PLANETOCENTRIC CONIC

C3 51.751 VHL 7.194 DLA -1.06 RAL 327.70 RAD 6568.9 VEL 13.157 PTH 2.40 VHP 11.572 DPA -10.28 RAP 310.26 ECC 1.8517

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 22 30	2418.21	-23.93	54.81	205.12	105.60	9 2 48	1818.2	-21.56	46.94
90.00	20 4 51	5127.82	25.06	228.23	205.94	76.37	21 30 19	4527.8	22.94	220.21
100.00	9 43 21	2157.41	-25.26	35.21	204.70	106.54	10 19 18	1557.4	-22.75	27.31
100.00	21 26 41	4863.86	26.40	208.45	205.56	75.44	22 47 45	4263.9	24.14	200.38
110.00	10 50 28	1947.32	-28.83	17.97	203.41	109.21	11 22 55	1347.3	-25.94	9.98
110.00	22 36 3	4646.71	30.01	190.80	204.40	72.81	23 53 30	4046.7	27.37	182.61

DIFFERENTIAL CORRECTIONS
TDE 2.9531 TRA 5.3251 TC3-1.6679 BAU 1.1543
RDE .3801 RRA -.2929 RC3 .0399 FAU .00700
FDE .7079 FRA 1.3604 FC3 -.1171 BSP 18356
BDE 2.9775 BRA 5.3331 BC3 1.6684 FSP -376

MID-COURSE EXECUTION ACCURACY
SGT 5411.5 SGR 386.5 SG3 106.5
RRT -.1986 RRF -.1926 RTF .9482
SGB 5425.3 R23 .0034 R13 -.9482
SG1 5412.1 SG2 378.8 THA 179.18

ORBIT DETERMINATION ACCURACY
ST 2675.2 SR 310.7 SS 650.8
CRT .7493 CRS -.7315 CST -.9995
LSA 2763.0 MSA 206.1 SSA 12.7
EL1 2685.4 EL2 205.0 ALF 5.00

LAUNCH DATE OCT 6 1970 FLIGHT TIME 202.00 ARRIVAL DATE APR 26 1971

HELIOCENTRIC CONIC DISTANCE 586.729

RL 149.56 LAL .00 LOL 12.33 VL 25.425 GAL 11.74 AZL 86.55 HCA 302.77 SMA 117.62 ECC .33476 INC 3.4524 V1 29.792
RP 108.94 LAP -2.90 LOP 315.15 VP 36.169 GAP 19.11 AZP 88.13 TAL 154.31 TAP 97.08 RCA 78.25 APO 157.00 V2 34.786
RC 200.578 GL 11.27 GP 10.33 ZAL 42.32 ZAP 169.17 ETS 105.76 ZAE 128.71 ETE 171.87 ZAC 110.07 ETC 276.81 CLP 176.72

PLANETOCENTRIC CONIC

C3 58.809 VHL 7.669 DLA -.47 RAL 329.31 RAD 6569.1 VEL 13.423 PTH 2.45 VHP 12.074 DPA -9.90 RAP 312.55 ECC 1.9678

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 24 35	2467.91	-24.80	58.19	209.23	104.12	9 5 43	1867.9	-22.62	50.20
90.00	20 15 38	5141.13	25.27	229.15	209.61	76.78	21 41 19	4541.1	23.20	221.09
100.00	9 45 42	2206.23	-26.16	38.56	208.84	105.00	10 22 28	1606.2	-23.85	30.52
100.00	21 37 12	4878.04	26.64	209.44	209.25	75.91	22 58 30	4278.0	24.44	201.33
110.00	10 53 27	1994.19	-29.84	21.25	207.63	107.51	11 26 41	1394.2	-27.15	13.08
110.00	22 45 56	4662.85	30.33	191.95	208.09	73.42	24 3 39	4062.9	27.76	183.70

DIFFERENTIAL CORRECTIONS
TDE 3.1907 TRA 5.7732 TC3-1.4261 BAU 1.1214
RDE .4024 RRA -.2891 RC3 .0302 FAU .00589
FDE .7406 FRA 1.4203 FC3 -.0866 BSP 18426
BDE 3.2159 BRA 5.7804 BC3 1.4264 FSP -369

MID-COURSE EXECUTION ACCURACY
SGT 5392.0 SGR 373.1 SG3 104.0
RRT -.1574 RRF -.1537 RTF .9529
SGB 5404.8 R23 .0031 R13 -.9529
SG1 5392.3 SG2 368.4 THA 179.37

ORBIT DETERMINATION ACCURACY
ST 2713.3 SR 307.5 SS 666.0
CRT .7583 CRS -.7422 CST -.9995
LSA 2803.5 MSA 200.7 SSA 12.1
EL1 2723.3 EL2 199.8 ALF 4.94

LAUNCH DATE OCT 6 1970 FLIGHT TIME 204.00 ARRIVAL DATE APR 28 1971

HELIOCENTRIC CONIC DISTANCE 590.894

RL 149.56 LAL .00 LOL 12.33 VL 25.384 GAL 12.99 AZL 86.30 HCA 305.92 SMA 117.41 ECC .34889 INC 3.6995 V1 29.792
RP 108.93 LAP -3.00 LOP 318.31 VP 36.142 GAP 20.01 AZP 87.83 TAL 152.88 TAP 98.80 RCA 76.45 APO 158.37 V2 34.787
RC 202.339 GL 11.24 GP 10.19 ZAL 40.77 ZAP 169.01 ETS 110.51 ZAE 128.59 ETE 172.03 ZAC 109.58 ETC 277.31 CLP 175.84

PLANETOCENTRIC CONIC

C3 67.098 VHL 8.191 DLA .05 RAL 330.81 RAD 6569.3 VEL 13.728 PTH 2.51 VHP 12.631 DPA -9.49 RAP 314.79 ECC 2.1043

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 26 41	2515.91	-25.56	61.50	213.27	102.63	9 8 37	1915.9	-23.56	53.40
90.00	20 25 27	5156.82	25.51	230.24	213.23	77.27	21 51 24	4556.8	23.50	222.14
100.00	9 48 3	2253.45	-26.95	41.84	212.91	103.44	10 25 36	1653.5	-24.83	33.68
100.00	21 46 47	4894.52	26.90	210.59	212.87	76.46	23 8 21	4294.5	24.77	202.44
110.00	10 56 21	2039.67	-30.72	24.49	211.79	105.78	11 30 20	1439.7	-28.26	16.16
110.00	22 54 58	4681.06	30.68	193.26	211.74	74.12	24 12 59	4081.1	28.19	184.94

DIFFERENTIAL CORRECTIONS
TDE 3.4456 TRA 6.2559 TC3-1.2028 BAU 1.0791
RDE .4264 RRA -.2817 RC3 .0221 FAU .00471
FDE .7761 FRA 1.4859 FC3 -.0608 BSP 18422
BDE 3.4719 BRA 6.2622 BC3 1.2030 FSP -360

MID-COURSE EXECUTION ACCURACY
SGT 5370.2 SGR 359.3 SG3 101.7
RRT -.1113 RRF -.1100 RTF .9577
SGB 5382.2 R23 .0029 R13 -.9577
SG1 5370.3 SG2 357.1 THA 179.57

ORBIT DETERMINATION ACCURACY
ST 2745.0 SR 304.1 SS 683.2
CRT .7682 CRS -.7537 CST -.9996
LSA 2838.4 MSA 194.9 SSA 11.5
EL1 2755.0 EL2 194.0 ALF 4.89

LAUNCH DATE OCT 6 1970 FLIGHT TIME 206.00 ARRIVAL DATE APR 30 1971

HELIOCENTRIC CONIC DISTANCE 594.774

RL 149.56 LAL .00 LOL 12.33 VL 25.345 GAL 14.35 AZL 86.03 HCA 309.08 SMA 117.20 ECC .36468 INC 3.9672 V1 29.792
RP 108.93 LAP -3.08 LOP 321.48 VP 36.116 GAP 21.02 AZP 87.50 TAL 151.53 TAP 100.61 RCA 74.46 APO 159.95 V2 34.789
RC 204.080 GL 11.17 GP 10.05 ZAL 39.34 ZAP 168.75 ETS 115.27 ZAE 128.42 ETE 172.19 ZAC 109.09 ETC 277.79 CLP 174.92

PLANETOCENTRIC CONIC

C3 76.886 VHL 8.768 DLA .51 RAL 332.18 RAD 6569.5 VEL 14.080 PTH 2.57 VHP 13.251 DPA -9.05 RAP 316.98 ECC 2.2653

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 28 47	2562.04	-26.20	64.73	217.22	101.14	9 11 29	1962.0	-24.40	56.52
90.00	20 34 19	5174.70	25.77	231.48	216.77	77.84	22 0 34	4574.7	23.84	223.35
100.00	9 50 22	2298.90	-27.63	45.05	216.89	101.89	10 28 41	1698.9	-25.71	36.77
100.00	21 55 26	4913.07	27.19	211.89	216.42	77.08	23 17 19	4313.1	25.14	203.69
110.00	10 59 9	2083.60	-31.49	27.68	215.87	104.03	11 33 53	1483.6	-29.25	19.20
110.00	23 3 8	4701.14	31.04	194.71	215.32	74.91	24 21 29	4101.1	28.66	186.31

DIFFERENTIAL CORRECTIONS
TDE 3.7205 TRA 6.7781 TC3 -.9968 BAU 1.0247
RDE .4526 RRA -.2702 RC3 .0154 FAU .00345
FDE .8151 FRA 1.5581 FC3 -.0388 BSP 18320
BDE 3.7480 BRA 6.7835 BC3 .9969 FSP -350

MID-COURSE EXECUTION ACCURACY
SGT 5346.4 SGR 345.5 SG3 99.5
RRT -.0596 RRF -.0605 RTF .9625
SGB 5357.5 R23 .0029 R13 -.9625
SG1 5346.4 SG2 344.9 THA 179.78

ORBIT DETERMINATION ACCURACY
ST 2771.0 SR 300.5 SS 703.0
CRT .7790 CRS -.7662 CST -.9997
LSA 2868.3 MSA 188.5 SSA 11.0
EL1 2780.9 EL2 187.7 ALF 4.85

LAUNCH DATE OCT 6 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAY 2 1971

HELIOCENTRIC CONIC DISTANCE 598.304

RL 149.56 LAL .00 LOL 12.33 VL 25.308 GAL 15.85 AZL 85.74 HCA 312.23 SMA 117.01 ECC .38236 INC 4.2601 V1 29.792
RP 108.92 LAP -3.15 LOP 324.64 VP 36.093 GAP 22.15 AZP 87.13 TAL 150.27 TAP 102.51 RCA 72.27 APO 161.75 V2 34.792
RC 205.802 GL 11.08 GP 9.93 ZAL 38.05 ZAP 168.39 ETS 119.99 ZAE 128.20 ETE 172.36 ZAC 108.60 ETC 278.25 CLP 173.95

PLANETOCENTRIC CONIC

C3 88.512 VHL 9.408 DLA .90 RAL 333.44 RAD 6569.7 VEL 14.486 PTH 2.63 VHP 13.947 DPA -8.58 RAP 319.12 ECC 2.4567

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 30 54	2606.08	-26.75	67.84	221.04	99.67	9 14 20	2006.1	-25.14	59.54
90.00	20 42 13	5194.57	26.05	232.87	220.22	78.49	22 8 47	4594.6	24.20	224.69
100.00	9 52 40	2342.36	-28.20	46.15	220.75	100.35	10 31 42	1742.4	-26.48	39.77
100.00	22 3 8	4933.53	27.50	213.34	219.88	77.79	23 25 22	4333.5	25.54	205.08
110.00	11 1 52	2125.76	-32.15	30.80	219.84	102.30	11 37 17	1525.8	-30.12	22.17
110.00	23 10 26	4722.90	31.42	196.29	218.82	75.78	24 29 9	4122.9	29.14	187.82

DIFFERENTIAL CORRECTIONS
TDE 4.0187 TRA 7.3453 TC3 -.8079 BAU .9561
RDE .4812 RRA -.2536 RC3 .0101 FAU .00206
FDE .8583 FRA 1.6382 FC3 -.0201 BSP 18113
BDE 4.0474 BRA 7.3497 BC3 .8080 FSP -338

MID-COURSE EXECUTION ACCURACY
SGT 5321.3 SGR 331.8 SG3 97.4
RRT -.0016 RRF -.0044 RTF .9672
SGB 5331.6 R23 .0029 R13 -.9672
SG1 5321.3 SG2 331.8 THA 179.99

ORBIT DETERMINATION ACCURACY
ST 2791.6 SR 296.7 SS 725.8
CRT .7908 CRS -.7795 CST -.9997
LSA 2893.9 MSA 181.7 SSA 10.4
EL1 2801.5 EL2 181.0 ALF 4.82

LAUNCH DATE OCT 6 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAY 4 1971

HELIOCENTRIC CONIC DISTANCE 601.397

RL 149.56 LAL .00 LOL 12.33 VL 25.271 GAL 17.49 AZL 85.42 HCA 315.39 SMA 116.82 ECC .40224 INC 4.5839 V1 29.792
RP 108.91 LAP -3.22 LOP 327.81 VP 36.071 GAP 23.42 AZP 86.73 TAL 149.14 TAP 104.53 RCA 69.83 APO 163.81 V2 34.795
RC 207.503 GL 10.97 GP 9.81 ZAL 36.90 ZAP 167.92 ETS 124.62 ZAE 127.93 ETE 172.54 ZAC 108.12 ETC 278.67 CLP 172.91

PLANETOCENTRIC CONIC

C3 102.417 VHL 10.120 DLA 1.22 RAL 334.56 RAD 6570.0 VEL 14.959 PTH 2.70 VHP 14.729 DPA -8.10 RAP 321.18 ECC 2.6855

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 33 0	2647.77	-27.19	70.81	224.71	98.24	9 17 8	2047.8	-25.77	62.43
90.00	20 49 6	5216.28	26.34	234.40	223.56	79.20	22 16 2	4616.3	24.58	226.17
100.00	9 54 55	2383.57	-28.67	51.13	224.46	98.85	10 34 39	1783.6	-27.15	42.65
100.00	22 9 52	4955.72	27.81	214.91	223.24	78.56	23 32 28	4355.7	25.95	206.60
110.00	11 4 28	2165.89	-32.69	33.80	223.66	100.60	11 40 34	1565.9	-30.88	25.05
110.00	23 16 49	4746.17	31.79	198.00	222.23	76.72	24 35 55	4146.2	29.64	189.45

DIFFERENTIAL CORRECTIONS
TDE 4.3437 TRA 7.9636 TC3 -.6351 BAU .8697
RDE .5128 RRA -.2311 RC3 .0062 FAU .00050
FDE .9062 FRA 1.7274 FC3 -.0042 BSP 17772
BDE 4.3759 BRA 7.9669 BC3 .6352 FSP -324

MID-COURSE EXECUTION ACCURACY
SGT 5295.0 SGR 318.7 SG3 95.4
RRT .0638 RRF .0592 RTF .9718
SGB 5304.6 R23 -.0031 R13 .9718
SG1 5295.1 SG2 318.0 THA .22

ORBIT DETERMINATION ACCURACY
ST 2807.1 SR 293.0 SS 752.2
CRT .8036 CRS -.7937 CST -.9998
LSA 2915.6 MSA 174.5 SSA 9.9
EL1 2816.9 EL2 173.8 ALF 4.81

LAUNCH DATE OCT 6 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAY 6 1971

HELIOCENTRIC CONIC DISTANCE 603.943

RL 149.56 LAL .00 LOL 12.33 VL 25.237 GAL 19.31 AZL 85.05 HCA 318.54 SMA 116.64 ECC .42465 INC 4.9461 V1 29.792
RP 108.90 LAP -3.27 LOP 330.98 VP 36.051 GAP 24.86 AZP 86.29 TAL 148.16 TAP 106.70 RCA 67.11 APO 166.17 V2 34.799
RC 209.184 GL 10.84 GP 9.70 ZAL 35.88 ZAP 167.32 ETS 129.15 ZAE 127.57 ETE 172.73 ZAC 107.65 ETC 279.07 CLP 171.80

PLANETOCENTRIC CONIC

C3 119.173 VHL 10.917 DLA 1.47 RAL 335.56 RAD 6570.2 VEL 15.508 PTH 2.77 VHP 15.615 DPA -7.62 RAP 323.17 ECC 2.9613

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 35 6	2686.78	-27.54	73.61	228.20	96.88	9 19 53	2086.8	-26.30	65.16
90.00	20 54 55	5239.72	26.62	236.05	226.77	79.98	22 22 15	4639.7	24.97	227.77
100.00	9 57 8	2422.20	-29.04	53.94	227.99	97.42	10 37 30	1822.2	-27.71	45.39
100.00	22 15 35	4979.53	28.12	216.61	226.47	79.41	23 38 34	4379.5	26.37	208.25
110.00	11 6 57	2203.68	-33.13	36.66	227.30	98.96	11 43 40	1603.7	-31.54	27.80
110.00	23 22 15	4770.81	32.16	199.83	225.52	77.74	24 41 46	4170.8	30.14	191.20

DIFFERENTIAL CORRECTIONS
TDE 4.6986 TRA 8.6392 TC3 -.4784 BAU .7622
RDE .5478 RRA -.2015 RC3 .0035 FAU-.00128
FDE .9597 FRA 1.8271 FC3 .0093 BSP 17309
BDE 4.7304 BRA 8.6416 BC3 .4784 FSP -309

MID-COURSE EXECUTION ACCURACY
SGT 5267.4 SGR 306.5 SG3 93.6
RRT .1370 RRF .1310 RTF .9762
SGB 5276.3 R23 -.0033 R13 .9762
SG1 5267.6 SG2 303.6 THA .46

ORBIT DETERMINATION ACCURACY
ST 2816.7 SR 289.3 SS 782.7
CRT .8172 CRS -.8086 CST -.9998
LSA 2933.0 MSA 166.8 SSA 9.3
EL1 2826.7 EL2 166.1 ALF 4.81

LAUNCH DATE OCT 6 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAY 8 1971

HELIOCENTRIC CONIC DISTANCE 605.792

```
RL  149.56 LAL    .00 LOL  12.33 VL  25.205 GAL  21.35 AZL  84.64 HCA 321.70 SMA 116.48 ECC .45002 INC 5.3565 V1  29.792
RP  108.88 LAP  -3.32 LOP 334.15 VP  36.033 GAP  28.50 AZP  85.79 TAL 147.36 TAP 109.05 RCA  64.06 APO 168.89 V2  34.804
RC 210.484 GL   10.69 GP    9.60 ZAL  35.02 ZAP 166.60 ETS 133.54 ZAE 127.13 ETE 172.93 ZAC 107.19 ETC 279.44 CLP 170.60
```

PLANETOCENTRIC CONIC

```
C3 139.535 VHL 11.812 DLA   1.65 RAL 336.40 RAD 6570.5 VEL 16.151 PTH   2.84 VHP 16.624 DPA  -7.13 RAP 325.06 ECC 3.2964
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 37 11	2722.71	-27.80	76.20	231.47	95.60	9 22 34	2122.7	-26.73	67.70
90.00	20 59 35	5264.80	26.91	237.83	229.83	80.83	22 27 20	4664.8	25.37	229.51
100.00	9 59 17	2457.86	-29.33	56.55	231.29	96.07	10 40 15	1857.9	-28.18	47.94
100.00	22 20 10	5004.87	28.42	219.44	229.55	80.32	23 43 35	4404.9	26.79	210.01
110.00	11 9 17	2238.76	-33.47	39.34	230.72	97.40	11 46 36	1638.8	-32.08	30.39
110.00	23 26 39	4796.74	32.52	201.76	228.87	78.84	24 46 36	4196.7	30.64	193.05

DIFFERENTIAL CORRECTIONS

```
TDE 5.0507 TRA 9.3422 TC3 -.3477 BAU  .6486
RDE  .5870 RRA -.1636 RC3  .0019 FAU-.00297
FDE 1.0114 FRA 1.9305 FC3  .0184 BSP  17593
BDE 5.0847 BRA 9.3436 BC3  .3477 FSP   -309
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5217.9 SGR  295.6 SG3   91.4
RRT  .2165 RRF  .2093 RTF  .9801
SGB 5226.3 RZS -.0036 R13  .9801
SG1 5218.3 SG2  280.6 THA    .70
```

ORBIT DETERMINATION ACCURACY

```
ST  2802.1 SR   285.7 SS   812.0
CRT  .8308 CRS -.8232 CST -.9998
LSA 2927.0 MSA  159.1 SSA    8.8
EL1 2812.2 EL2  158.5 ALF   4.86
```

LAUNCH DATE OCT 6 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAY 10 1971

HELIOCENTRIC CONIC DISTANCE 606.758

```
RL  149.56 LAL    .00 LOL  12.33 VL  25.176 GAL  23.64 AZL  84.17 HCA 324.85 SMA 116.32 ECC .47882 INC 5.8287 V1  29.792
RP  108.86 LAP  -3.35 LOP 337.32 VP  36.018 GAP  28.39 AZP  85.23 TAL 146.78 TAP 111.62 RCA  60.63 APO 172.02 V2  34.810
RC 212.484 GL   10.52 GP    9.49 ZAL  34.35 ZAP 165.72 ETS 137.77 ZAE 126.57 ETE 173.14 ZAC 106.75 ETC 279.78 CLP 169.29
```

PLANETOCENTRIC CONIC

```
C3 164.508 VHL 12.826 DLA   1.74 RAL 337.09 RAD 6570.8 VEL 16.907 PTH   2.91 VHP 17.779 DPA  -6.66 RAP 326.84 ECC 3.7074
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 39 14	2755.09	-28.00	78.55	234.47	94.44	9 25 9	2155.1	-27.09	70.01
90.00	21 3 0	5291.50	27.18	239.74	232.70	81.75	22 31 12	4691.5	25.76	231.36
100.00	10 1 23	2490.11	-29.53	58.92	234.33	94.84	10 42 53	1890.1	-28.55	50.26
100.00	22 23 32	5031.72	28.71	220.38	232.45	81.30	23 47 24	4431.7	27.21	211.90
110.00	11 11 29	2270.70	-33.72	41.80	233.86	95.97	11 49 20	1670.7	-32.53	32.77
110.00	23 29 56	4823.89	32.86	203.81	231.65	80.00	24 50 20	4223.9	31.13	195.01

DIFFERENTIAL CORRECTIONS

```
TDE 5.4506 TRA10.1274 TC3 -.2262 BAU  .4976
RDE  .6313 RRA -.1157 RC3  .0013 FAU-.00518
FDE 1.0730 FRA 2.0509 FC3  .0272 BSP  17508
BDE 5.4870 BRA10.1281 BC3  .2262 FSP   -303
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5172.1 SGR  286.7 SG3   89.6
RRT  .3038 RRF  .2960 RTF  .9838
SGB 5180.1 RZS -.0039 R13  .9838
SG1 5172.9 SG2  273.1 THA    .97
```

ORBIT DETERMINATION ACCURACY

```
ST  2787.9 SR   282.4 SS   848.9
CRT  .8453 CRS -.8387 CST -.9999
LSA 2924.0 MSA  151.0 SSA    8.2
EL1 2798.2 EL2  150.4 ALF   4.91
```

LAUNCH DATE OCT 6 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAY 12 1971

HELIOCENTRIC CONIC DISTANCE 606.586

```
RL  149.56 LAL    .00 LOL  12.33 VL  25.149 GAL  26.23 AZL  83.62 HCA 328.00 SMA 116.19 ECC .51158 INC 6.3811 V1  29.792
RP  108.85 LAP  -3.38 LOP 340.49 VP  36.005 GAP  30.58 AZP  84.58 TAL 146.47 TAP 114.47 RCA  56.75 APO 175.63 V2  34.816
RC 214.102 GL   10.33 GP    9.38 ZAL  33.83 ZAP 164.68 ETS 141.84 ZAE 125.88 ETE 173.39 ZAC 106.32 ETC 280.08 CLP 167.83
```

PLANETOCENTRIC CONIC

```
C3 195.439 VHL 13.980 DLA   1.73 RAL 337.59 RAD 6571.1 VEL 17.798 PTH   2.99 VHP 19.111 DPA  -6.23 RAP 328.49 ECC 4.2164
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 41 16	2783.35	-28.13	80.61	237.15	93.42	9 27 39	2183.4	-27.36	72.03
90.00	21 5 0	5319.90	27.45	241.78	235.36	82.74	22 33 40	4719.9	26.16	233.35
100.00	10 3 25	2518.38	-29.68	61.01	237.04	93.74	10 45 23	1918.4	-28.84	52.31
100.00	22 25 32	5060.11	28.99	222.44	235.13	82.36	23 49 52	4460.1	27.63	213.91
110.00	11 13 30	2298.98	-33.90	43.99	236.68	94.69	11 51 49	1699.0	-32.88	34.90
110.00	23 31 56	4852.28	33.18	205.96	234.43	81.24	24 52 48	4252.3	31.61	197.09

DIFFERENTIAL CORRECTIONS

```
TDE 5.8875 TRA10.9874 TC3 -.1183 BAU  .3090
RDE  .6817 RRA -.0558 RC3  .0016 FAU-.00787
FDE 1.1425 FRA 2.1870 FC3  .0349 BSP  17403
BDE 5.9268 BRA10.9876 BC3  .1183 FSP   -297
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5121.4 SGR  280.4 SG3   87.8
RRT  .3966 RRF  .3886 RTF  .9871
SGB 5129.0 RZS -.0042 R13  .9871
SG1 5122.6 SG2  257.3 THA   1.25
```

ORBIT DETERMINATION ACCURACY

```
ST  2765.7 SR   279.5 SS   891.7
CRT  .8602 CRS -.8546 CST -.9999
LSA 2915.8 MSA  142.6 SSA    7.7
EL1 2776.2 EL2  142.0 ALF   4.98
```

LAUNCH DATE OCT 6 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAY 14 1971

HELIOCENTRIC CONIC DISTANCE 604.937

```
RL  149.56 LAL    .00 LOL  12.33 VL  25.127 GAL  29.19 AZL  82.96 HCA 331.15 SMA 116.07 ECC .54891 INC 7.0405 V1  29.792
RP  108.82 LAP  -3.39 LOP 343.66 VP  35.996 GAP  33.12 AZP  83.83 TAL 146.50 TAP 117.65 RCA  52.36 APO 179.79 V2  34.823
RC 215.699 GL   10.12 GP    9.27 ZAL  33.55 ZAP 163.43 ETS 145.75 ZAE 125.02 ETE 173.66 ZAC 105.91 ETC 280.35 CLP 166.21
```

PLANETOCENTRIC CONIC

```
C3 234.142 VHL 15.302 DLA   1.62 RAL 337.89 RAD 6571.4 VEL 18.854 PTH   3.07 VHP 20.654 DPA  -5.83 RAP 329.97 ECC 4.8534
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 43 15	2806.82	-28.21	82.32	239.46	92.56	9 30 2	2206.8	-27.56	73.72
90.00	21 5 21	5350.17	27.69	243.96	237.76	83.81	22 34 32	4750.2	26.54	235.48
100.00	10 5 21	2542.00	-29.77	62.76	239.38	92.83	10 47 43	1942.0	-29.06	54.03
100.00	22 25 57	5090.22	29.24	224.65	237.56	83.49	23 50 47	4490.2	28.03	216.05
110.00	11 15 20	2322.97	-34.02	45.86	239.10	93.59	11 54 3	1723.0	-33.15	36.72
110.00	23 32 27	4882.02	33.46	208.24	236.96	82.56	24 53 49	4282.0	32.07	199.28

DIFFERENTIAL CORRECTIONS

```
TDE 6.3645 TRA11.9290 TC3 -.0231 BAU  .0730
RDE  .7400 RRA  .0186 RC3  .0028 FAU-.01124
FDE 1.2211 FRA 2.3415 FC3  .0416 BSP  17280
BDE 6.4074 BRA11.9290 BC3  .0233 FSP   -291
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5064.8 SGR  277.3 SG3   86.2
RRT  .4919 RRF  .4841 RTF  .9899
SGB 5072.3 RZS -.0045 R13  .9899
SG1 5066.6 SG2  241.3 THA   1.55
```

ORBIT DETERMINATION ACCURACY

```
ST  2734.3 SR   277.1 SS   941.4
CRT  .8752 CRS -.8704 CST -.9999
LSA 2902.0 MSA  134.1 SSA    7.1
EL1 2745.0 EL2  133.5 ALF   5.08
```

LAUNCH DATE OCT 7 1970 FLIGHT TIME 70.00 ARRIVAL DATE DEC 16 1970

HELIOCENTRIC CONIC DISTANCE 201.499

RL	149.52	LAL	.00	LOL	13.32	VL	28.644	GAL	-13.56	AZL	88.37	HCA	91.67	SMA	139.00	ECC	.24579	INC	1.6255	V1	29.801
RP	107.55	LAP	1.62	LOP	104.99	VP	38.900	GAP	-5.66	AZP	90.05	TAL	239.02	TAP	330.69	RCA	104.83	APO	173.17	V2	35.235
RC	61.346	GL	6.91	GP	-22.00	ZAL	161.21	ZAP	46.89	ETS	18.69	ZAE	150.60	ETE	307.34	ZAC	79.32	ETC	260.05	CLP	-42.52

PLANETOCENTRIC CONIC

C3	43.165	VHL	6.570	DLA	-5.29	RAL	211.12	RAD	6568.6	VEL	12.827	PTH	2.34	VHP	5.460	DPA	-41.01	RAP	233.47	ECC	1.7104

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 5 8	2241.06	-20.20	43.17	84.08	110.27	1 42 29	1641.1	-17.26	35.73
90.00	11 44 16	5214.12	26.31	234.25	87.81	79.13	13 11 10	4614.1	24.54	226.02
100.00	2 23 59	1986.71	-21.47	23.95	83.57	111.31	2 57 5	1386.7	-18.39	16.51
100.00	13 8 7	4943.71	27.64	214.06	87.51	78.14	14 30 30	4343.7	25.73	205.78
110.00	3 26 30	1790.94	-24.88	7.53	82.01	114.24	3 56 21	1190.9	-21.39	.12
110.00	14 22 4	4712.25	31.23	195.51	86.54	75.35	15 40 36	4112.2	28.91	187.08

DIFFERENTIAL CORRECTIONS

TDE	.1284	TRA	-.4283	TC3	.1643	BAU	.1923
RDE	-.2711	RRA	-.2956	RC3	-.2899	FAU	.07186
FDE	.9690	FRA	-.7772	FC3	-1.4412	BSP	1104
BDE	.2999	BRA	.5204	BC3	.3332	FSP	-514

MID-COURSE EXECUTION ACCURACY

SGT	447.0	SGR	517.6	SG3	188.6		
RRT	-.0501	RRF	.6176	RTF	-.0604		
SGB	684.0	R23	-.0575	R13	.6156		
SG1	519.5	SG2	444.9	THA	99.40		

ORBIT DETERMINATION ACCURACY

ST	158.9	SR	249.1	SS	410.9		
CRT	-.4499	CRS	.8445	CST	-.8469		
LSA	482.4	MSA	151.2	SSA	23.1		
EL1	263.1	EL2	134.3	ALF	112.03		

LAUNCH DATE OCT 7 1970 FLIGHT TIME 72.00 ARRIVAL DATE DEC 18 1970

HELIOCENTRIC CONIC DISTANCE 208.211

RL	149.52	LAL	.00	LOL	13.32	VL	28.683	GAL	-13.43	AZL	88.20	HCA	94.91	SMA	139.33	ECC	.24294	INC	1.7974	V1	29.801
RP	107.53	LAP	1.79	LOP	108.23	VP	38.933	GAP	-4.91	AZP	90.15	TAL	239.54	TAP	334.45	RCA	105.48	APO	173.17	V2	35.240
RC	63.355	GL	7.72	GP	-23.33	ZAL	161.16	ZAP	51.36	ETS	16.63	ZAE	150.74	ETE	301.47	ZAC	77.85	ETC	259.73	CLP	-47.16

PLANETOCENTRIC CONIC

C3	42.426	VHL	6.514	DLA	-4.42	RAL	211.14	RAD	6568.6	VEL	12.798	PTH	2.33	VHP	5.192	DPA	-41.86	RAP	231.28	ECC	1.6982

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 58 41	2263.75	-20.73	44.62	84.02	109.73	1 36 25	1663.8	-17.85	37.13
90.00	11 50 51	5182.74	25.89	232.04	87.12	78.10	13 17 14	4582.7	23.99	223.89
100.00	2 17 57	2008.05	-21.99	25.32	83.52	110.77	2 51 25	1408.1	-18.97	17.83
100.00	13 14 16	4913.67	27.20	211.93	86.80	77.10	14 36 10	4313.7	25.15	203.73
110.00	3 21 26	1809.31	-25.39	8.72	82.00	113.70	3 51 35	1209.3	-21.96	1.24
110.00	14 27 17	4685.18	30.75	193.55	85.77	74.28	15 45 22	4085.2	28.29	185.22

DIFFERENTIAL CORRECTIONS

TDE	.1436	TRA	-.4530	TC3	.1327	BAU	.1984
RDE	-.2428	RRA	-.3077	RC3	-.3235	FAU	.07803
FDE	1.1006	FRA	-.8475	FC3	-1.5923	BSP	1188
BDE	.2821	BRA	.5476	BC3	.3497	FSP	-578

MID-COURSE EXECUTION ACCURACY

SGT	453.4	SGR	544.9	SG3	208.1		
RRT	.0350	RRF	.6633	RTF	.0572		
SGB	708.9	R23	.0175	R13	.6640		
SG1	545.7	SG2	452.5	THA	84.64		

ORBIT DETERMINATION ACCURACY

ST	174.2	SR	228.9	SS	446.6		
CRT	-.4331	CRS	.8235	CST	-.8580		
LSA	508.0	MSA	153.8	SSA	23.0		
EL1	248.8	EL2	144.5	ALF	118.72		

LAUNCH DATE OCT 7 1970 FLIGHT TIME 74.00 ARRIVAL DATE DEC 20 1970

HELIOCENTRIC CONIC DISTANCE 214.884

RL	149.52	LAL	.00	LOL	13.32	VL	28.710	GAL	-13.30	AZL	88.03	HCA	98.15	SMA	139.56	ECC	.24039	INC	1.9711	V1	29.801
RP	107.52	LAP	1.95	LOP	111.47	VP	38.958	GAP	-4.20	AZP	90.28	TAL	239.90	TAP	338.05	RCA	106.01	APO	173.10	V2	35.245
RC	65.403	GL	8.55	GP	-24.69	ZAL	160.98	ZAP	55.99	ETS	14.53	ZAE	150.71	ETE	295.02	ZAC	76.32	ETC	259.37	CLP	-52.00

PLANETOCENTRIC CONIC

C3	41.757	VHL	6.462	DLA	-3.58	RAL	211.26	RAD	6568.6	VEL	12.772	PTH	2.32	VHP	4.962	DPA	-42.65	RAP	228.79	ECC	1.6872

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 52 50	2286.07	-21.24	46.06	84.08	109.18	1 30 56	1686.1	-18.43	38.52
90.00	11 57 39	5152.39	25.44	229.93	86.59	77.13	13 23 31	4552.4	23.42	221.85
100.00	2 12 30	2029.07	-22.50	26.68	83.60	110.22	2 46 19	1429.1	-19.54	19.13
100.00	13 20 40	4884.62	26.74	209.90	86.24	76.13	14 42 4	4284.6	24.57	201.77
110.00	3 16 54	1827.46	-25.88	9.90	82.12	113.16	3 47 21	1227.5	-22.52	2.36
110.00	14 32 45	4659.00	30.25	191.67	85.15	73.27	15 50 24	4059.0	27.67	183.44

DIFFERENTIAL CORRECTIONS

TDE	.1647	TRA	-.4834	TC3	.0924	BAU	.2067
RDE	-.2121	RRA	-.3186	RC3	-.3585	FAU	.08403
FDE	1.2362	FRA	-.9110	FC3	-1.7422	BSP	1304
BDE	.2686	BRA	.5789	BC3	.3702	FSP	-641

MID-COURSE EXECUTION ACCURACY

SGT	469.0	SGR	574.6	SG3	227.4		
RRT	.1437	RRF	.7050	RTF	.1933		
SGB	741.7	R23	.0785	R13	.7068		
SG1	585.2	SG2	455.8	THA	72.44		

ORBIT DETERMINATION ACCURACY

ST	194.8	SR	206.8	SS	482.1		
CRT	-.4116	CRS	.7936	CST	-.8724		
LSA	537.1	MSA	155.5	SSA	22.8		
EL1	239.0	EL2	153.6	ALF	130.85		

LAUNCH DATE OCT 7 1970 FLIGHT TIME 76.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 221.518

RL	149.52	LAL	.00	LOL	13.32	VL	28.727	GAL	-13.18	AZL	87.85	HCA	101.39	SMA	139.70	ECC	.23808	INC	2.1476	V1	29.801
RP	107.51	LAP	2.11	LOP	114.71	VP	38.974	GAP	-3.53	AZP	90.42	TAL	240.11	TAP	341.50	RCA	106.44	APO	172.96	V2	35.249
RC	67.486	GL	9.40	GP	-26.07	ZAL	160.67	ZAP	60.75	ETS	12.36	ZAE	150.44	ETE	288.09	ZAC	74.75	ETC	258.97	CLP	-57.05

PLANETOCENTRIC CONIC

C3	41.142	VHL	6.414	DLA	-2.75	RAL	211.47	RAD	6568.6	VEL	12.748	PTH	2.32	VHP	4.769	DPA	-43.36	RAP	226.05	ECC	1.6771

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 47 28	2308.18	-21.72	47.50	84.27	108.62	1 25 57	1708.2	-18.98	39.90
90.00	12 4 41	5122.81	24.98	227.89	86.19	76.21	13 30 4	4522.8	22.84	219.87
100.00	2 7 32	2049.92	-22.98	28.04	83.80	109.66	2 41 42	1449.9	-20.09	20.43
100.00	13 27 19	4856.30	26.27	207.93	85.82	75.19	14 48 15	4256.3	23.98	199.88
110.00	3 12 50	1845.49	-26.35	11.09	82.36	112.60	3 43 36	1245.5	-23.06	3.48
110.00	14 38 30	4633.48	29.74	189.87	84.68	72.31	15 55 44	4033.5	27.03	181.72

DIFFERENTIAL CORRECTIONS

TDE	.1928	TRA	-.5193	TC3	.0435	BAU	.2182
RDE	-.1795	RRA	-.3280	RC3	-.3942	FAU	.08968
FDE	1.3707	FRA	-.9653	FC3	-1.8870	BSP	1465
BDE	.2635	BRA	.6142	BC3	.3966	FSP	-704

MID-COURSE EXECUTION ACCURACY

SGT	498.5	SGR	606.2	SG3	246.0		
RRT	.2661	RRF	.7423	RTF	.3360		
SGB	784.9	R23	.1160	R13	.7471		
SG1	638.8	SG2	456.0	THA	63.26		

ORBIT DETERMINATION ACCURACY

ST	221.5	SR	183.6	SS	516.5		
CRT	-.3784	CRS	.7496	CST	-.8888		
LSA	569.8	MSA	156.3	SSA	22.6		
EL1	242.1	EL2	155.5	ALF	148.28		

LAUNCH DATE OCT 7 1970 FLIGHT TIME 78.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 228.112

RL	149.52	LAL	.00	LOL	13.32	VL	28.734	GAL	-13.06	AZL	87.67	HCA	104.63	SMA	139.76	ECC	.23597	INC	2.3283	V1	29.801
RP	107.50	LAP	2.25	LOP	117.96	VP	38.982	GAP	-2.88	AZP	90.59	TAL	240.19	TAP	344.82	RCA	106.78	APO	172.74	V2	35.253
RC	69.600	GL	10.28	GP	-27.44	ZAL	160.24	ZAP	65.59	ETS	10.09	ZAE	149.86	ETE	280.89	ZAC	73.16	ETC	258.54	CLP	-62.25

PLANETOCENTRIC CONIC

C3	40.571	VHL	6.370	DLA	-1.93	RAL	211.77	RAD	6568.6	VEL	12.726	PTH	2.31	VHP	4.612	DPA	-43.98	RAP	223.10	ECC	1.6677

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 42 34	2330.25	-22.20	48.94	84.58	108.05	1 21 24	1730.3	-19.52	41.29
90.00	12 12 2	5093.68	24.49	225.89	85.91	75.33	13 36 56	4493.7	22.24	217.95
100.00	2 3 0	2070.75	-23.45	29.41	84.12	109.09	2 37 31	1470.8	-20.63	21.74
100.00	13 34 17	4828.41	25.77	206.00	85.53	74.30	14 54 45	4228.4	23.36	198.03
110.00	3 9 12	1863.56	-26.82	12.28	82.72	112.03	3 40 15	1263.6	-23.59	4.61
110.00	14 44 35	4608.37	29.21	188.10	84.33	71.40	16 1 23	4008.4	26.39	180.05

DIFFERENTIAL CORRECTIONS

TDE	.2283	TRA	-.5607	TC3	-.0144	BAU	.2332
RDE	-.1455	RRA	-.3348	RC3	-.4297	FAU	.09465
FDE	1.5001	FRA	-1.0059	FC3	-2.0197	BSP	1669
BDE	.2707	BRA	.6530	BC3	.4299	FSP	-763

MID-COURSE EXECUTION ACCURACY

SGT	545.1	SGR	638.4	SG3	262.9
RRT	.3886	RRF	.7745	RTF	.4709
SGB	839.5	R23	.1380	R13	.7841
SG1	706.0	SG2	454.2	THA	56.10

ORBIT DETERMINATION ACCURACY

ST	255.2	SR	159.9	SS	549.3
CRT	-.3230	CRS	.6839	CST	-.9049
LSA	606.2	MSA	156.1	SSA	22.4
EL1	262.9	EL2	146.9	ALF	163.16

LAUNCH DATE OCT 7 1970 FLIGHT TIME 80.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 234.666

RL	149.52	LAL	.00	LOL	13.32	VL	28.732	GAL	-12.94	AZL	87.49	HCA	107.87	SMA	139.74	ECC	.23400	INC	2.5143	V1	29.801
RP	107.49	LAP	2.39	LOP	121.21	VP	38.983	GAP	-2.27	AZP	90.77	TAL	240.13	TAP	348.00	RCA	107.04	APO	172.44	V2	35.255
RC	71.740	GL	11.20	GP	-28.78	ZAL	159.69	ZAP	70.47	ETS	7.71	ZAE	148.94	ETE	273.67	ZAC	71.57	ETC	258.09	CLP	-67.57

PLANETOCENTRIC CONIC

C3	40.034	VHL	6.327	DLA	-1.10	RAL	212.17	RAD	6568.5	VEL	12.704	PTH	2.31	VHP	4.490	DPA	-44.50	RAP	220.02	ECC	1.6589

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 38 1	2352.49	-22.66	50.41	85.00	107.45	1 17 13	1752.5	-20.06	42.70
90.00	12 19 45	5064.70	23.98	223.93	85.76	74.47	13 44 9	4464.7	21.62	216.05
100.00	1 58 51	2091.75	-23.91	30.80	84.56	108.49	2 33 43	1491.8	-21.16	23.08
100.00	13 41 36	4800.67	25.24	204.11	85.36	73.43	15 1 37	4200.7	22.73	196.21
110.00	3 5 55	1881.80	-27.28	13.50	83.20	111.44	3 37 17	1281.8	-24.12	5.76
110.00	14 51 1	4583.39	28.65	186.37	84.11	70.51	16 7 24	3983.4	25.73	178.42

DIFFERENTIAL CORRECTIONS

TDE	.2677	TRA	-.6107	TC3	-.0847	BAU	.2497
RDE	-.1052	RRA	-.3334	RC3	-.4589	FAU	.09751
FDE	1.6465	FRA	-1.0038	FC3	-2.1087	BSP	1850
BDE	.2877	BRA	.6958	BC3	.4666	FSP	-760

MID-COURSE EXECUTION ACCURACY

SGT	613.4	SGR	661.4	SG3	275.5
RRT	.5082	RRF	.7974	RTF	.5881
SGB	902.0	R23	.1601	R13	.8095
SG1	784.4	SG2	445.4	THA	49.22

ORBIT DETERMINATION ACCURACY

ST	293.8	SR	132.6	SS	588.8
CRT	-.2056	CRS	.5761	CST	-.9126
LSA	652.6	MSA	155.7	SSA	21.6
EL1	295.4	EL2	129.1	ALF	173.44

LAUNCH DATE OCT 7 1970 FLIGHT TIME 82.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 241.181

RL	149.52	LAL	.00	LOL	13.32	VL	28.723	GAL	-12.81	AZL	87.29	HCA	111.12	SMA	139.66	ECC	.23217	INC	2.7074	V1	29.801
RP	107.48	LAP	2.53	LOP	124.45	VP	38.978	GAP	-1.68	AZP	90.98	TAL	239.95	TAP	351.07	RCA	107.24	APO	172.09	V2	35.257
RC	73.903	GL	12.15	GP	-30.08	ZAL	159.03	ZAP	75.32	ETS	5.22	ZAE	147.68	ETE	266.63	ZAC	70.01	ETC	257.63	CLP	-72.97

PLANETOCENTRIC CONIC

C3	39.533	VHL	6.288	DLA	-.26	RAL	212.65	RAD	6568.5	VEL	12.685	PTH	2.30	VHP	4.401	DPA	-44.92	RAP	216.87	ECC	1.6506

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 33 45	2375.21	-23.11	51.92	85.53	106.83	1 13 20	1775.2	-20.59	44.16
90.00	12 27 52	5035.62	23.43	221.97	85.71	73.63	13 51 47	4435.6	20.97	214.17
100.00	1 54 58	2113.22	-24.37	32.23	85.10	107.87	2 30 11	1513.2	-21.69	24.45
100.00	13 49 20	4772.85	24.69	202.23	85.30	72.59	15 8 52	4172.8	22.07	194.41
110.00	3 2 56	1900.49	-27.74	14.76	83.79	110.83	3 34 36	1300.5	-24.65	6.95
110.00	14 57 51	4558.35	28.07	184.65	84.00	69.64	16 13 49	3958.3	25.04	176.79

DIFFERENTIAL CORRECTIONS

TDE	.3211	TRA	-.6582	TC3	-.1561	BAU	.2733
RDE	-.0725	RRA	-.3358	RC3	-.4931	FAU	.10105
FDE	1.7387	FRA	-1.0227	FC3	-2.2130	BSP	2171
BDE	.3292	BRA	.7389	BC3	.5172	FSP	-828

MID-COURSE EXECUTION ACCURACY

SGT	695.6	SGR	694.6	SG3	288.2
RRT	.5917	RRF	.8228	RTF	.6762
SGB	983.0	R23	.1631	R13	.8400
SG1	877.0	SG2	444.1	THA	44.93

ORBIT DETERMINATION ACCURACY

ST	343.5	SR	114.6	SS	612.6
CRT	-.0686	CRS	.4194	CST	-.9294
LSA	694.5	MSA	153.8	SSA	21.5
EL1	343.6	EL2	114.3	ALF	178.53

LAUNCH DATE OCT 7 1970 FLIGHT TIME 84.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 247.657

RL	149.52	LAL	.00	LOL	13.32	VL	28.706	GAL	-12.68	AZL	87.09	HCA	114.36	SMA	139.52	ECC	.23044	INC	2.9091	V1	29.801
RP	107.48	LAP	2.65	LOP	127.70	VP	38.966	GAP	-1.12	AZP	91.20	TAL	239.66	TAP	354.02	RCA	107.37	APO	171.67	V2	35.258
RC	76.087	GL	13.14	GP	-31.32	ZAL	158.26	ZAP	80.09	ETS	2.62	ZAE	146.10	ETE	259.99	ZAC	68.48	ETC	257.17	CLP	-78.38

PLANETOCENTRIC CONIC

C3	39.063	VHL	6.250	DLA	.59	RAL	213.22	RAD	6568.5	VEL	12.666	PTH	2.30	VHP	4.345	DPA	-45.25	RAP	213.73	ECC	1.6429

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 29 41	2398.67	-23.57	53.49	86.18	106.17	1 9 40	1798.7	-21.13	45.67
90.00	12 36 28	5006.11	22.85	220.00	85.78	72.81	13 59 54	4406.1	20.29	212.27
100.00	1 51 18	2135.41	-24.82	33.72	85.77	107.21	2 26 53	1535.4	-22.23	25.88
100.00	13 57 32	4744.61	24.10	200.34	85.34	71.76	15 16 36	4144.6	21.38	192.59
110.00	3 0 10	1919.82	-28.20	16.08	84.49	110.17	3 32 10	1319.8	-25.19	8.19
110.00	15 5 9	4532.96	27.46	182.93	84.01	68.79	16 20 42	3933.0	24.33	175.17

DIFFERENTIAL CORRECTIONS

TDE	.3812	TRA	-.7096	TC3	-.2350	BAU	.2995
RDE	-.0395	RRA	-.3332	RC3	-.5232	FAU	.10313
FDE	1.8174	FRA	-1.0180	FC3	-2.2857	BSP	2513
BDE	.3832	BRA	.7839	BC3	.5736	FSP	-876

MID-COURSE EXECUTION ACCURACY

SGT	794.7	SGR	722.8	SG3	296.9
RRT	.6584	RRF	.8429	RTF	.7427
SGB	1074.2	R23	.1678	R13	.8628
SG1	979.4	SG2	441.5	THA	40.89

ORBIT DETERMINATION ACCURACY

ST	400.4	SR	100.5	SS	635.0
CRT	.1348	CRS	.1937	CST	-.9415
LSA	741.8	MSA	151.2	SSA	21.3
EL1	400.6	EL2	99.5	ALF	2.06

LAUNCH DATE OCT 7 1970 FLIGHT TIME 86.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 254.095

RL	149.52	LAL	.00	LOL	13.32	VL	28.682	GAL	-12.55	AZL	86.88	HCA	117.60	SMA	139.32	ECC	.22879	INC	3.1215	V1	29.801
RP	107.48	LAP	2.77	LOP	130.95	VP	38.950	GAP	-.58	AZP	91.45	TAL	239.26	TAP	356.86	RCA	107.45	APO	171.20	V2	35.259
RC	78.289	GL	14.20	GP	-32.52	ZAL	157.37	ZAP	84.73	ETS	359.92	ZAE	144.26	ETE	253.89	ZAC	67.01	ETC	256.73	CLP	-83.74

PLANETOCENTRIC CONIC

C3	38.623	VHL	6.215	DLA	1.48	RAL	213.88	RAD	6568.5	VEL	12.649	PTH	2.30	VHP	4.318	DPA	-45.51	RAP	210.69	ECC	1.6356

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 25 45	2423.22	-24.02	55.15	86.95	105.46	1 6 8	1823.2	-21.67	47.26
90.00	12 45 38	4975.85	22.23	218.00	85.95	71.99	14 8 34	4375.9	19.56	210.34
100.00	1 47 46	2158.63	-25.28	35.29	86.59	106.51	2 23 45	1558.6	-22.78	27.39
100.00	14 6 17	4715.67	23.47	198.42	85.50	70.94	15 24 53	4115.7	20.65	190.75
110.00	2 57 35	1940.10	-28.67	17.47	85.32	109.47	3 29 56	1340.1	-25.75	9.51
110.00	15 12 58	4506.97	26.81	181.20	84.12	67.95	16 28 5	3907.0	23.57	173.52

DIFFERENTIAL CORRECTIONS

TDE	.4483	TRA	-.7632	TC3	-.3195	BAU	.3280
RDE	-.0070	RRA	-.3258	RC3	-.5490	FAU	.10380
FDE	1.8782	FRA	-.9924	FC3	-2.3266	BSP	2882
BDE	.4483	BRA	.8299	BC3	.6352	FSP	-908

MID-COURSE EXECUTION ACCURACY

SGT	907.7	SGR	745.7	SG3	301.8		
RRT	.7089	RRF	.8591	RTF	.7912		
SGB	1174.7	R23	.1736	R13	.8801		
SG1	1090.0	SG2	437.9	THA	37.20		

ORBIT DETERMINATION ACCURACY

ST	464.2	SR	92.7	SS	654.9
CRT	.3862	CRS	-.0945	CST	-.9506
LSA	794.1	MSA	148.2	SSA	21.0
EL1	465.7	EL2	85.2	ALF	4.56

LAUNCH DATE OCT 7 1970 FLIGHT TIME 88.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 260.497

RL	149.52	LAL	.00	LOL	13.32	VL	28.653	GAL	-12.42	AZL	86.65	HCA	120.84	SMA	139.08	ECC	.22721	INC	3.3467	V1	29.801
RP	107.48	LAP	2.87	LOP	134.20	VP	38.928	GAP	-.07	AZP	91.72	TAL	238.76	TAP	359.60	RCA	107.48	APO	170.68	V2	35.258
RC	80.507	GL	15.32	GP	-33.66	ZAL	156.38	ZAP	89.17	ETS	357.13	ZAE	142.21	ETE	248.40	ZAC	65.59	ETC	256.30	CLP	-89.00

PLANETOCENTRIC CONIC

C3	38.220	VHL	6.182	DLA	2.40	RAL	214.62	RAD	6568.5	VEL	12.633	PTH	2.29	VHP	4.321	DPA	-45.75	RAP	207.80	ECC	1.6290

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 21 50	2449.26	-24.48	56.91	87.85	104.69	1 2 40	1849.3	-22.23	48.97
90.00	12 55 28	4944.50	21.56	215.95	86.23	71.18	14 17 52	4344.5	18.79	208.37
100.00	1 44 18	2183.28	-25.75	36.98	87.47	105.74	2 20 41	1583.3	-23.34	29.00
100.00	14 15 41	4685.71	22.79	196.45	85.76	70.12	15 33 47	4085.7	19.87	188.87
110.00	2 55 7	1961.65	-29.15	18.96	86.28	108.70	3 27 48	1361.6	-26.32	10.92
110.00	15 21 22	4480.11	26.11	179.42	84.34	67.11	16 36 2	3880.1	22.78	171.84

DIFFERENTIAL CORRECTIONS

TDE	.5226	TRA	-.8173	TC3	-.4075	BAU	.3580
RDE	.0247	RRA	-.3135	RC3	-.5698	FAU	.10305
FDE	1.9209	FRA	-.9476	FC3	-2.3343	BSP	3268
BDE	.5232	BRA	.8754	BC3	.7006	FSP	-924

MID-COURSE EXECUTION ACCURACY

SGT	1031.2	SGR	762.5	SG3	302.7		
RRT	.7460	RRF	.8721	RTF	.8258		
SGB	1282.5	R23	.1804	R13	.8929		
SG1	1206.9	SG2	433.9	THA	33.84		

ORBIT DETERMINATION ACCURACY

ST	535.3	SR	92.6	SS	672.6
CRT	.6300	CRS	-.3927	CST	-.9576
LSA	852.1	MSA	144.8	SSA	20.6
EL1	538.5	EL2	71.5	ALF	6.33

LAUNCH DATE OCT 7 1970 FLIGHT TIME 90.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 266.862

RL	149.52	LAL	.00	LOL	13.32	VL	28.619	GAL	-12.28	AZL	86.41	HCA	124.08	SMA	138.79	ECC	.22569	INC	3.5878	V1	29.801
RP	107.48	LAP	2.97	LOP	137.45	VP	38.901	GAP	.42	AZP	92.01	TAL	238.17	TAP	2.26	RCA	107.47	APO	170.11	V2	35.257
RC	82.739	GL	16.52	GP	-34.77	ZAL	155.27	ZAP	93.37	ETS	354.27	ZAE	140.01	ETE	243.53	ZAC	64.22	ETC	255.90	CLP	-94.10

PLANETOCENTRIC CONIC

C3	37.858	VHL	6.153	DLA	3.38	RAL	215.45	RAD	6568.5	VEL	12.619	PTH	2.29	VHP	4.350	DPA	-46.01	RAP	205.10	ECC	1.6231

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 17 52	2477.27	-24.95	58.83	88.89	103.84	0 59 10	1877.3	-22.81	50.82
90.00	13 6 4	4911.69	20.82	213.83	86.63	70.36	14 27 56	4311.7	17.95	206.32
100.00	1 40 48	2209.81	-26.22	38.80	88.53	104.89	2 17 37	1609.8	-23.92	30.76
100.00	14 25 50	4654.39	22.05	194.42	86.14	69.29	15 43 25	4054.4	19.04	186.92
110.00	2 52 39	1984.88	-29.64	20.59	87.39	107.86	3 25 44	1384.9	-26.92	12.46
110.00	15 30 28	4452.08	25.35	177.59	84.67	66.26	16 44 40	3852.1	21.92	170.12

DIFFERENTIAL CORRECTIONS

TDE	.6042	TRA	-.8705	TC3	-.4971	BAU	.3888
RDE	.0552	RRA	-.2967	RC3	-.5856	FAU	.10105
FDE	1.9448	FRA	-.8871	FC3	-2.3109	BSP	3666
BDE	.6068	BRA	.9197	BC3	.7681	FSP	-925

MID-COURSE EXECUTION ACCURACY

SGT	1162.0	SGR	773.6	SG3	299.9		
RRT	.7725	RRF	.8829	RTF	.8505		
SGB	1396.0	R23	.1884	R13	.9024		
SG1	1328.2	SG2	429.8	THA	30.79		

ORBIT DETERMINATION ACCURACY

ST	613.4	SR	100.0	SS	687.7
CRT	.8074	CRS	-.6311	CST	-.9631
LSA	915.9	MSA	141.2	SSA	20.1
EL1	618.8	EL2	58.5	ALF	7.57

LAUNCH DATE OCT 7 1970 FLIGHT TIME 92.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 273.193

RL	149.52	LAL	.00	LOL	13.32	VL	28.579	GAL	-12.13	AZL	86.15	HCA	127.33	SMA	138.46	ECC	.22422	INC	3.8481	V1	29.801
RP	107.49	LAP	3.06	LOP	140.70	VP	38.871	GAP	.88	AZP	92.34	TAL	237.50	TAP	4.82	RCA	107.42	APO	169.51	V2	35.255
RC	84.985	GL	17.82	GP	-35.88	ZAL	154.03	ZAP	97.29	ETS	351.33	ZAE	137.71	ETE	239.27	ZAC	62.88	ETC	255.53	CLP	-99.01

PLANETOCENTRIC CONIC

C3	37.551	VHL	6.128	DLA	4.42	RAL	216.38	RAD	6568.5	VEL	12.606	PTH	2.29	VHP	4.405	DPA	-46.31	RAP	202.61	ECC	1.6180

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 13 44	2507.83	-25.44	60.94	90.09	102.88	0 55 31	1907.8	-23.41	52.86
90.00	13 17 36	4877.02	20.01	211.60	87.15	69.54	14 38 53	4277.0	17.05	204.18
100.00	1 37 9	2238.76	-26.71	40.81	89.75	103.94	2 14 28	1638.8	-24.53	32.69
100.00	14 36 52	4621.31	21.24	192.30	86.65	68.46	15 53 53	4021.3	18.13	184.89
110.00	2 50 9	2010.28	-30.16	22.39	88.67	106.91	3 23 39	1410.3	-27.55	14.17
110.00	15 40 21	4422.56	24.53	175.69	85.13	65.41	16 54 3	3822.6	21.00	168.32

DIFFERENTIAL CORRECTIONS

TDE	.6933	TRA	-.9217	TC3	-.5865	BAU	.4200
RDE	.0846	RRA	-.2757	RC3	-.5965	FAU	.09798
FDE	1.9515	FRA	-.8146	FC3	-2.2590	BSP	4076
BDE	.6985	BRA	.9620	BC3	.8365	FSP	-914

MID-COURSE EXECUTION ACCURACY

SGT	1297.7	SGR	779.4	SG3	294.0		
RRT	.7912	RRF	.8920	RTF	.8681		
SGB	1513.8	R23	.1976	R13	.9095		
SG1	1452.7	SG2	425.8	THA	28.04		

ORBIT DETERMINATION ACCURACY

ST	698.5	SR	112.9	SS	700.6
CRT	.9109	CRS	-.7885	CST	-.9675
LSA	986.0	MSA	137.5	SSA	19.5
EL1	706.1	EL2	46.1	ALF	8.41

LAUNCH DATE OCT 7 1970 FLIGHT TIME 94.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 279.490

RL 149.52 LAL .00 LOL 13.32 VL 28.536 GAL -11.98 AZL 85.87 HCA 130.57 SMA 138.11 ECC .22279 INC 4.1317 V1 29.801
RP 107.50 LAP 3.14 LOP 143.95 VP 38.836 GAP 1.33 AZP 92.69 TAL 236.74 TAP 7.31 RCA 107.34 APO 168.87 V2 35.253
RC 87.241 GL 19.22 GP -37.01 ZAL 152.66 ZAP 100.91 ETS 348.30 ZAE 135.36 ETE 235.58 ZAC 61.54 ETC 255.17 CLP-103.71

PLANETOCENTRIC CONIC

C3 37.314 VHL 6.109 DLA 5.55 RAL 217.40 RAD 6568.5 VEL 12.597 PTH 2.28 VHP 4.484 DPA -46.71 RAP 200.33 ECC 1.6141

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 9 17	2541.63	-25.93	63.29	91.47	101.80	0 51 38	1941.6	-24.04	55.13
90.00	13 30 12	4840.01	19.11	209.26	87.82	68.70	14 50 52	4240.0	16.05	201.92
100.00	1 33 15	2270.81	-27.22	43.06	91.15	102.86	2 11 5	1670.8	-25.18	34.86
100.00	14 48 56	4586.06	20.34	190.06	87.29	67.61	16 5 22	3986.1	17.13	182.74
110.00	2 47 30	2038.42	-30.70	24.40	90.13	105.83	3 21 28	1438.4	-28.23	16.08
110.00	15 51 10	4391.22	23.63	173.71	85.72	64.55	17 4 21	3791.2	20.00	166.44

DIFFERENTIAL CORRECTIONS
TDE .7905 TRA -.9886 TC3 -.6738 BAU .4509
RDE .1132 RRA -.2508 RC3 -.6024 FAU .09399
FDE 1.9435 FRA -.7329 FC3-2.1806 BSP 4490
BDE .7986 BRA 1.0015 BC3 .9038 FSP -894

MID-COURSE EXECUTION ACCURACY
SGT 1436.1 SGR 780.3 SG3 285.2
RRT .8037 RRF .8997 RTF .8808
SG8 1634.4 R23 .2081 R13 .9146
SG1 1578.9 SG2 422.3 THA 25.55

ORBIT DETERMINATION ACCURACY
ST 790.9 SR 129.6 SS 711.5
CRT .9632 CRS -.8826 CST -.9711
LSA 1063.2 MSA 134.0 SSA 18.7
EL1 800.7 EL2 34.4 ALF 8.98

LAUNCH DATE OCT 7 1970 FLIGHT TIME 96.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 285.756

RL 149.52 LAL .00 LOL 13.32 VL 28.488 GAL -11.82 AZL 85.56 HCA 133.80 SMA 137.72 ECC .22141 INC 4.4443 V1 29.801
RP 107.51 LAP 3.21 LOP 147.21 VP 38.798 GAP 1.76 AZP 93.08 TAL 235.92 TAP 9.72 RCA 107.23 APO 168.21 V2 35.249
RC 89.506 GL 20.76 GP -38.20 ZAL 151.14 ZAP 104.18 ETS 345.19 ZAE 132.96 ETE 232.41 ZAC 60.18 ETC 254.82 CLP-108.16

PLANETOCENTRIC CONIC

C3 37.167 VHL 6.096 DLA 6.78 RAL 218.53 RAD 6568.4 VEL 12.591 PTH 2.28 VHP 4.589 DPA -47.24 RAP 198.23 ECC 1.6117

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 4 22	2579.55	-26.43	65.96	93.06	100.56	0 47 21	1979.5	-24.70	57.71
90.00	13 44 7	4800.09	18.11	206.76	88.64	67.85	15 4 7	4200.1	14.95	199.51
100.00	1 28 57	2306.75	-27.74	45.61	92.77	101.61	2 7 23	1706.8	-25.86	37.31
100.00	15 2 14	4568.12	19.34	187.09	88.10	66.75	16 18 2	3948.1	16.03	180.46
110.00	2 44 35	2070.02	-31.27	26.69	91.83	104.58	3 19 5	1470.0	-28.95	18.25
110.00	16 3 4	4357.62	22.63	171.61	86.47	63.67	17 15 42	3757.6	18.90	164.45

DIFFERENTIAL CORRECTIONS
TDE .8988 TRA-1.0117 TC3 -.7553 BAU .4793
RDE .1445 RRA -.2188 RC3 -.5999 FAU .08863
FDE 1.9355 FRA -.6323 FC3-2.0645 BSP 4831
BDE .9104 BRA 1.0351 BC3 .9646 FSP -839

MID-COURSE EXECUTION ACCURACY
SGT 1574.3 SGR 772.2 SG3 273.3
RRT .8115 RRF .9057 RTF .8892
SG8 1753.5 R23 .2206 R13 .9172
SG1 1703.2 SG2 417.1 THA 23.18

ORBIT DETERMINATION ACCURACY
ST 892.7 SR 150.9 SS 725.4
CRT .9883 CRS -.9409 CST -.9738
LSA 1152.4 MSA 131.8 SSA 17.5
EL1 905.1 EL2 22.7 ALF 9.49

LAUNCH DATE OCT 7 1970 FLIGHT TIME 98.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 291.989

RL 149.52 LAL .00 LOL 13.32 VL 28.437 GAL -11.66 AZL 85.21 HCA 137.04 SMA 137.31 ECC .22007 INC 4.7926 V1 29.801
RP 107.52 LAP 3.26 LOP 150.46 VP 38.757 GAP 2.17 AZP 93.51 TAL 235.03 TAP 12.07 RCA 107.09 APO 167.52 V2 35.245
RC 91.778 GL 22.44 GP -39.49 ZAL 149.46 ZAP 107.10 ETS 341.97 ZAE 130.54 ETE 229.70 ZAC 58.76 ETC 254.48 CLP-112.39

PLANETOCENTRIC CONIC

C3 37.144 VHL 6.095 DLA 8.14 RAL 219.77 RAD 6568.4 VEL 12.590 PTH 2.28 VHP 4.720 DPA -47.93 RAP 196.26 ECC 1.6113

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 54 52	2622.67	-26.93	69.02	94.90	99.10	24 38 34	2022.7	-25.39	60.68
90.00	13 59 36	4756.67	16.97	204.08	89.66	66.99	15 18 52	4156.7	13.71	196.92
100.00	1 24 4	2347.63	-28.26	48.53	94.64	100.16	2 3 12	1747.6	-26.57	40.14
100.00	15 17 0	4506.94	18.21	185.15	89.09	65.88	16 32 7	3906.9	14.80	178.02
110.00	2 41 17	2105.99	-31.85	29.33	93.79	103.12	3 16 23	1506.0	-29.72	20.77
110.00	16 16 17	4321.35	21.51	169.38	87.40	62.77	17 28 18	3721.3	17.69	162.34

DIFFERENTIAL CORRECTIONS
TDE 1.0139 TRA-1.0523 TC3 -.8349 BAU .5104
RDE .1694 RRA -.1888 RC3 -.5996 FAU .08386
FDE 1.8937 FRA -.5537 FC3-1.9545 BSP 5324
BDE 1.0279 BRA 1.0693 BC3 1.0279 FSP -829

MID-COURSE EXECUTION ACCURACY
SGT 1715.5 SGR 769.5 SG3 260.9
RRT .8150 RRF .9121 RTF .8969
SG8 1880.1 R23 .2324 R13 .9209
SG1 1833.3 SG2 417.2 THA 21.23

ORBIT DETERMINATION ACCURACY
ST 999.6 SR 169.6 SS 729.4
CRT .9948 CRS -.9678 CST -.9767
LSA 1242.3 MSA 128.2 SSA 16.7
EL1 1013.8 EL2 17.0 ALF 9.58

LAUNCH DATE OCT 7 1970 FLIGHT TIME 100.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 298.193

RL 149.52 LAL .00 LOL 13.32 VL 28.384 GAL -11.49 AZL 84.81 HCA 140.27 SMA 136.87 ECC .21876 INC 5.1858 V1 29.801
RP 107.53 LAP 3.31 LOP 153.71 VP 38.714 GAP 2.56 AZP 93.99 TAL 234.07 TAP 14.35 RCA 106.93 APO 166.82 V2 35.240
RC 94.056 GL 24.31 GP -40.92 ZAL 147.59 ZAP 109.82 ETS 338.62 ZAE 128.08 ETE 227.39 ZAC 57.23 ETC 254.13 CLP-116.39

PLANETOCENTRIC CONIC

C3 37.286 VHL 6.106 DLA 9.64 RAL 221.14 RAD 6568.5 VEL 12.596 PTH 2.28 VHP 4.879 DPA -48.83 RAP 194.37 ECC 1.6136

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 48 23	2672.39	-27.41	72.57	97.04	97.38	24 32 55	2072.4	-26.11	64.15
90.00	14 17 0	4708.87	15.68	201.17	90.91	66.11	15 35 29	4108.9	12.32	194.10
100.00	1 18 24	2394.74	-28.78	51.94	96.82	98.44	1 58 19	1794.7	-27.32	43.44
100.00	15 33 36	4461.74	16.93	182.41	90.31	64.99	16 47 58	3861.7	13.42	175.37
110.00	2 37 26	2147.43	-32.45	32.41	96.08	101.39	3 13 13	1547.4	-30.54	23.72
110.00	16 31 3	4281.83	20.26	167.00	88.56	61.86	17 42 25	3681.8	16.34	160.07

DIFFERENTIAL CORRECTIONS
TDE 1.1436 TRA-1.0899 TC3 -.9050 BAU .5388
RDE .1972 RRA -.1541 RC3 -.5910 FAU .07808
FDE 1.8551 FRA -.4625 FC3-1.8130 BSP 5759
BDE 1.1605 BRA 1.0968 BC3 1.0809 FSP -791

MID-COURSE EXECUTION ACCURACY
SGT 1855.1 SGR 759.4 SG3 246.3
RRT .8149 RRF .9168 RTF .9020
SG8 2004.5 R23 .2457 R13 .9229
SG1 1960.7 SG2 416.5 THA 19.35

ORBIT DETERMINATION ACCURACY
ST 1117.5 SR 191.4 SS 736.4
CRT .9954 CRS -.9848 CST -.9789
LSA 1346.0 MSA 126.1 SSA 15.4
EL1 1133.6 EL2 18.1 ALF 9.68

LAUNCH DATE OCT 7 1970 FLIGHT TIME 102.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 304.369

RL	149.52	LAL	.00	LOL	13.32	VL	28.328	GAL	-11.31	AZL	84.36	HCA	143.51	SMA	136.43	ECC	.21750	INC	5.6362	V1	29.801
RP	107.55	LAP	3.35	LOP	156.96	VP	38.667	GAP	2.94	AZP	94.54	TAL	233.06	TAP	16.56	RCA	106.75	APO	166.10	V2	35.235
RC	96.339	GL	26.40	GP	-42.55	ZAL	145.50	ZAP	111.74	ETS	335.10	ZAE	125.57	ETE	225.42	ZAC	55.56	ETC	253.74	CLP	-120.18

PLANETOCENTRIC CONIC

C3	37.653	VHL	6.136	DLA	11.33	RAL	222.66	RAD	6568.5	VEL	12.610	PTH	2.29	VHP	5.071	DPA	-49.97	RAP	192.46	ECC	1.6197

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 40 39	2730.56	-27.85	76.77	99.54	95.32	24 26 10	2130.6	-26.82	68.26
90.00	14 36 49	4655.65	14.18	197.98	92.46	65.23	15 54 25	4055.6	10.73	191.00
100.00	1 11 38	2449.80	-29.27	55.96	99.38	96.37	1 52 28	1849.8	-28.08	47.36
100.00	15 52 27	4411.64	15.47	179.41	91.83	64.10	17 5 59	3811.6	11.86	172.48
110.00	2 32 49	2195.80	-33.04	36.06	98.77	99.30	3 9 25	1595.8	-31.41	27.22
110.00	16 47 46	4238.41	18.85	164.43	90.00	60.94	17 58 25	3638.4	14.83	157.61

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.2941	TRA	-1.1094	TC3	-.9611	BAU	.5633	SGT	1991.9	SGR	742.3	SG3	229.8	ST	1249.7	SR	216.8	SS	747.2
RDE	.2286	RRA	-.1108	RC3	-.5729	FAU	.07142	RRT	.8107	RRF	.9200	RTF	.9053	CRT	.9917	CRS	-.9943	CST	-.9808
FDE	1.8219	FRA	-.3609	FC3	-1.6422	BSP	6087	SGB	2125.7	R23	.2604	R13	.9234	LSA	1466.6	MSA	126.0	SSA	13.8
BDE	1.3141	BRA	1.1149	BC3	1.1189	FSP	-726	SG1	2084.8	SG2	415.2	THA	17.53	EL1	1268.1	EL2	27.5	ALF	9.77

LAUNCH DATE OCT 7 1970 FLIGHT TIME 104.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 310.516

RL	149.52	LAL	.00	LOL	13.32	VL	28.269	GAL	-11.12	AZL	83.84	HCA	146.74	SMA	135.96	ECC	.21629	INC	6.1609	V1	29.801
RP	107.57	LAP	3.37	LOP	160.20	VP	38.619	GAP	3.30	AZP	95.16	TAL	231.99	TAP	18.73	RCA	106.56	APO	165.37	V2	35.229
RC	98.624	GL	28.74	GP	-44.43	ZAL	143.16	ZAP	113.40	ETS	331.39	ZAE	122.97	ETE	223.73	ZAC	53.67	ETC	253.29	CLP	-123.80

PLANETOCENTRIC CONIC

C3	38.340	VHL	6.192	DLA	13.24	RAL	224.34	RAD	6568.5	VEL	12.638	PTH	2.29	VHP	5.303	DPA	-51.36	RAP	190.43	ECC	1.6310

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 31 12	2799.71	-28.19	81.80	102.49	92.82	24 17 52	2199.7	-27.50	73.20
90.00	14 59 43	4595.64	12.44	194.43	94.40	64.36	16 16 18	3995.6	8.89	187.55
100.00	1 3 23	2515.12	-29.66	60.77	102.40	93.87	1 45 18	1915.1	-28.81	52.07
100.00	16 14 9	4355.47	13.77	176.10	93.73	63.20	17 26 45	3755.5	10.06	169.27
110.00	2 27 9	2253.01	-33.59	40.44	101.97	96.77	3 4 42	1653.0	-32.29	31.45
110.00	17 6 52	4190.34	17.24	161.63	91.79	60.01	18 16 43	3590.3	13.12	154.94

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.4618	TRA	-1.1299	TC3	-1.0081	BAU	.5896	SGT	2131.2	SGR	728.0	SG3	213.0	ST	1391.0	SR	237.4	SS	750.7
RDE	.2548	RRA	-.0680	RC3	-.5538	FAU	.06526	RRT	.8021	RRF	.9218	RTF	.9091	CRT	.9868	CRS	-.9980	CST	-.9829
FDE	1.7675	FRA	-.2793	FC3	-1.4737	BSP	6573	SGB	2252.1	R23	.2731	R13	.9252	LSA	1593.4	MSA	124.9	SSA	12.5
BDE	1.4838	BRA	1.1320	BC3	1.1502	FSP	-692	SG1	2212.8	SG2	418.7	THA	15.91	EL1	1410.6	EL2	38.0	ALF	9.57

LAUNCH DATE OCT 7 1970 FLIGHT TIME 106.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 316.635

RL	149.52	LAL	.00	LOL	13.32	VL	28.209	GAL	-10.93	AZL	83.22	HCA	149.96	SMA	135.49	ECC	.21511	INC	6.7841	V1	29.801
RP	107.59	LAP	3.39	LOP	163.45	VP	38.569	GAP	3.64	AZP	95.88	TAL	230.87	TAP	20.83	RCA	106.34	APO	164.64	V2	35.222
RC	100.910	GL	31.38	GP	-46.61	ZAL	140.51	ZAP	114.59	ETS	327.42	ZAE	120.25	ETE	222.25	ZAC	51.50	ETC	252.74	CLP	-127.28

PLANETOCENTRIC CONIC

C3	39.485	VHL	6.284	DLA	15.41	RAL	226.23	RAD	6568.5	VEL	12.683	PTH	2.30	VHP	5.588	DPA	-53.02	RAP	188.10	ECC	1.6498

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 19 18	2883.41	-28.32	87.92	105.98	89.76	24 7 22	2283.4	-28.05	79.27
90.00	15 26 40	4526.81	10.38	190.42	96.86	63.51	16 42 7	3926.8	6.74	183.64
100.00	0 53 1	2593.89	-29.88	66.62	105.97	90.80	1 36 15	1993.9	-29.45	57.84
100.00	16 39 34	4291.57	11.78	172.40	96.14	62.33	17 51 6	3691.6	7.98	165.67
110.00	2 20 2	2321.61	-34.01	45.75	105.78	93.65	2 58 43	1721.6	-33.13	36.62
110.00	17 29 3	4136.61	15.38	158.57	94.06	59.09	18 37 59	3536.6	11.17	152.00

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.6620	TRA	-1.1388	TC3	-1.0344	BAU	.6119	SGT	2268.6	SGR	706.3	SG3	194.7	ST	1550.0	SR	258.0	SS	756.5
RDE	.2821	RRA	-.0162	RC3	-.5232	FAU	.05847	RRT	.7871	RRF	.9203	RTF	.9121	CRT	.9803	CRS	-.9988	CST	-.9847
FDE	1.7167	FRA	-.1933	FC3	-1.2820	BSP	6993	SGB	2376.0	R23	.2859	R13	.9262	LSA	1739.4	MSA	125.5	SSA	10.9
BDE	1.6858	BRA	1.1389	BC3	1.1592	FSP	-639	SG1	2338.1	SG2	422.7	THA	14.24	EL1	1570.5	EL2	50.3	ALF	9.28

LAUNCH DATE OCT 7 1970 FLIGHT TIME 108.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 322.727

RL	149.52	LAL	.00	LOL	13.32	VL	28.147	GAL	-10.73	AZL	82.46	HCA	153.18	SMA	135.01	ECC	.21397	INC	7.5414	V1	29.801
RP	107.61	LAP	3.39	LOP	166.70	VP	38.516	GAP	3.98	AZP	96.74	TAL	229.70	TAP	22.89	RCA	106.12	APO	163.90	V2	35.215
RC	103.196	GL	34.38	GP	-49.18	ZAL	137.52	ZAP	115.23	ETS	323.16	ZAE	117.33	ETE	220.88	ZAC	48.98	ETC	252.03	CLP	-130.69

PLANETOCENTRIC CONIC

C3	41.313	VHL	6.428	DLA	17.88	RAL	228.36	RAD	6568.6	VEL	12.755	PTH	2.32	VHP	5.943	DPA	-54.97	RAP	185.24	ECC	1.6799

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 3 47	2987.09	-28.05	95.49	110.09	85.97	23 53 34	2387.1	-28.32	86.84
90.00	15 59 13	4445.98	7.89	185.79	100.05	62.72	17 13 19	3846.0	4.17	179.08
100.00	0 39 36	2690.82	-29.76	73.82	110.21	87.02	1 24 26	2090.8	-29.85	65.01
100.00	17 10 2	4217.48	9.40	168.19	99.25	61.49	18 20 19	3617.5	5.52	161.55
110.00	2 10 54	2405.16	-34.18	52.27	110.36	89.80	2 50 59	1805.2	-33.83	43.04
110.00	17 55 13	4075.91	13.23	155.18	96.98	58.19	19 3 9	3475.9	8.93	148.72

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.9065	TRA	-1.1338	TC3	-1.0348	BAU	.6302	SGT	2405.3	SGR	677.0	SG3	175.5	ST	1729.5	SR	274.2	SS	762.8
RDE	.3066	RRA	.0457	RC3	-.4807	FAU	.05131	RRT	.7621	RRF	.9131	RTF	.9150	CRT	.9722	CRS	-.9969	CST	-.9865
FDE	1.6655	FRA	-.1090	FC3	-1.0752	BSP	7367	SGB	2498.7	R23	.2977	R13	.9272	LSA	1905.7	MSA	127.5	SSA	9.3
BDE	1.9309	BRA	1.1347	BC3	1.1410	FSP	-576	SG1	2461.8	SG2	428.3	THA	12.49	EL1	1750.0	EL2	63.4	ALF	8.77

LAUNCH DATE OCT 7 1970 FLIGHT TIME 110.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 328.791

```
RL  149.52 LAL    .00 LOL  13.32 VL  28.083 GAL -10.51 AZL  81.51 HCA 156.40 SMA 134.52 ECC .21288 INC 8.4878 V1  29.801
RP  107.64 LAP   3.39 LOP 169.94 VP  38.463 GAP   4.29 AZP  97.79 TAL 228.49 TAP  24.89 RCA 105.88 APO 163.16 V2  35.207
RC 105.482 GL   37.80 GP  -52.22 ZAL 134.10 ZAP 115.26 ETS 318.50 ZAE 114.14 ETE 219.47 ZAC  46.01 ETC 251.07 CLP-134.15
```

PLANETOCENTRIC CONIC

```
C3  44.206 VHL  6.649 DLA  20.72 RAL 230.81 RAD 6568.7 VEL 12.867 PTH   2.34 VHP  6.400 DPA -57.18 RAP 181.51 ECC 1.7275
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 42 28	3119.91	-27.05	105.08	114.89	81.27	23 34 28	2519.9	-27.97	96.53
90.00	16 40 5	4347.27	4.78	180.21	104.31	62.06	17 52 32	3747.3	1.00	173.57
100.00	0 21 28	2813.39	-28.98	82.84	115.20	82.33	1 8 21	2213.4	-29.74	74.12
100.00	17 47 43	4129.02	6.49	163.23	103.37	60.76	18 56 32	3529.0	2.55	156.67
110.00	1 58 50	2508.76	-33.86	60.34	115.84	85.03	2 40 39	1908.8	-34.18	51.11
110.00	18 26 50	4006.42	10.71	151.38	100.81	57.34	19 33 36	3406.4	6.33	145.03

DIFFERENTIAL CORRECTIONS

```
TDE 2.2090 TRA-1.1151 TC3-1.0058 BAU  .6456
RDE  .3183 RRA  .1178 RC3 -.4263 FAU .04417
FDE 1.6057 FRA -.0362 FC3 -.8651 BSP   7814
BDE 2.2318 BRA 1.1213 BC3 1.0924 FSP   -520
```

MID-COURSE EXECUTION ACCURACY

```
SGT 2543.2 SGR  639.0 SG3  155.5
RRT  .7192 RRF  .8939 RTF  .9191
SGB 2622.3 RZS  .3061 R13  .9292
SG1 2585.7 SG2  436.7 THA  10.55
```

ORBIT DETERMINATION ACCURACY

```
ST  1928.8 SR   276.7 SS   765.4
CRT  .9607 CRS -.9915 CST -.9883
LSA 2089.5 MSA  129.6 SSA    7.7
EL1 1947.1 EL2   76.1 ALF   7.86
```

LAUNCH DATE OCT 7 1970 FLIGHT TIME 112.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 334.827

```
RL  149.52 LAL    .00 LOL  13.32 VL  28.019 GAL -10.29 AZL  80.29 HCA 159.60 SMA 134.03 ECC .21183 INC 9.7121 V1  29.801
RP  107.66 LAP   3.37 LOP 173.19 VP  38.408 GAP   4.60 AZP  99.11 TAL 227.24 TAP  26.84 RCA 105.64 APO 162.42 V2  35.198
RC 107.765 GL   41.71 GP  -55.82 ZAL 130.18 ZAP 114.61 ETS 313.29 ZAE 110.57 ETE 217.79 ZAC  42.47 ETC 249.68 CLP-137.84
```

PLANETOCENTRIC CONIC

```
C3  48.851 VHL  6.989 DLA  23.95 RAL 233.68 RAD 6568.8 VEL 13.047 PTH   2.38 VHP  7.012 DPA -59.58 RAP 176.37 ECC 1.8040
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 10 13	3301.11	-24.54	117.74	120.22	75.41	23 5 14	2701.1	-26.31	109.52
90.00	17 35 12	4216.19	.56	172.88	110.25	61.69	18 45 28	3616.2	-3.23	166.25
100.00	23 51 13	2975.47	-26.95	94.45	120.89	76.55	24 40 48	2375.5	-28.53	86.01
100.00	18 36 53	4017.06	2.73	157.05	109.04	60.22	19 43 50	3417.1	-1.25	150.52
110.00	1 42 18	2640.24	-32.63	70.40	122.30	79.21	2 26 18	2040.2	-33.78	61.35
110.00	19 6 13	3925.06	7.68	147.02	105.98	56.59	20 11 38	3325.1	3.24	140.75

DIFFERENTIAL CORRECTIONS

```
TDE 2.6039 TRA-1.0704 TC3 -.9351 BAU  .6530
RDE  .3041 RRA  .2005 RC3 -.3543 FAU .03675
FDE 1.5450 FRA  .0317 FC3 -.8513 BSP   8219
BDE 2.6216 BRA 1.0907 BC3  .9999 FSP   -457
```

MID-COURSE EXECUTION ACCURACY

```
SGT 2680.8 SGR  585.4 SG3  134.8
RRT  .6366 RRF  .8453 RTF  .9244
SGB 2744.0 RZS  .3110 R13  .9320
SG1 2707.3 SG2  447.0 THA   8.14
```

ORBIT DETERMINATION ACCURACY

```
ST  2154.3 SR   256.0 SS   767.5
CRT  .9364 CRS -.9762 CST -.9901
LSA 2297.3 MSA  132.7 SSA    6.3
EL1 2167.6 EL2   89.3 ALF   6.36
```

LAUNCH DATE OCT 7 1970 FLIGHT TIME 114.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 340.831

```
RL  149.52 LAL    .00 LOL  13.32 VL  27.953 GAL -10.07 AZL  78.63 HCA 162.79 SMA 133.53 ECC .21080 INC11.3686 V1  29.801
RP  107.69 LAP   3.34 LOP 176.43 VP  38.351 GAP   4.89 AZP 100.87 TAL 225.94 TAP  28.73 RCA 105.38 APO 161.68 V2  35.189
RC 110.046 GL   46.15 GP  -60.08 ZAL 125.67 ZAP 113.19 ETS 307.18 ZAE 106.47 ETE 215.40 ZAC  38.23 ETC 247.55 CLP-142.13
```

PLANETOCENTRIC CONIC

```
C3  56.602 VHL  7.523 DLA  27.60 RAL 237.10 RAD 6569.0 VEL 13.340 PTH   2.44 VHP  7.870 DPA -61.96 RAP 169.03 ECC 1.9315
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	21 2 9	3613.51	-17.69	138.06	124.78	67.53	22 2 23	3013.5	-20.59	130.58
90.00	19 10 35	3976.80	-7.10	159.47	119.74	62.52	20 16 52	3376.8	-10.73	152.67
100.00	23 5 40	3215.35	-22.13	110.62	126.64	69.37	23 59 15	2615.3	-24.73	102.79
100.00	19 49 45	3850.20	-2.92	147.89	117.45	60.24	20 53 55	3250.2	-6.86	141.31
110.00	1 18 6	2813.22	-29.72	83.02	129.58	72.27	2 4 59	2213.2	-31.85	74.46
110.00	19 57 45	3825.08	3.91	141.75	113.21	56.01	21 1 30	3225.1	-.58	135.54

DIFFERENTIAL CORRECTIONS

```
TDE 3.1394 TRA -.9842 TC3 -.8143 BAU  .6476
RDE  .2231 RRA  .3298 RC3 -.2631 FAU .02919
FDE 1.4843 FRA  .0920 FC3 -.4464 BSP   8588
BDE 3.1473 BRA 1.0380 BC3  .8558 FSP   -388
```

MID-COURSE EXECUTION ACCURACY

```
SGT 2816.5 SGR  515.7 SG3  113.8
RRT  .4486 RRF  .7072 RTF  .9322
SGB 2863.4 RZS  .3106 R13  .9366
SG1 2826.3 SG2  459.3 THA   4.82
```

ORBIT DETERMINATION ACCURACY

```
ST  2404.5 SR   190.4 SS   769.0
CRT  .8412 CRS -.9027 CST -.9920
LSA 2528.0 MSA  136.9 SSA    6.9
EL1 2409.9 EL2  102.7 ALF   3.82
```

LAUNCH DATE OCT 7 1970 FLIGHT TIME 116.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 346.795

```
RL  149.52 LAL    .00 LOL  13.32 VL  27.887 GAL  -9.82 AZL  76.25 HCA 165.96 SMA 133.04 ECC .20979 INC13.7481 V1  29.801
RP  107.72 LAP   3.30 LOP 179.67 VP  38.294 GAP   5.16 AZP 103.35 TAL 224.60 TAP  30.56 RCA 105.13 APO 160.95 V2  35.179
RC 112.324 GL   51.08 GP  -65.10 ZAL 120.50 ZAP 110.91 ETS 299.36 ZAE 101.63 ETE 211.35 ZAC  33.10 ETC 243.97 CLP-147.96
```

PLANETOCENTRIC CONIC

```
C3  70.443 VHL  8.393 DLA  31.60 RAL 241.32 RAD 6569.4 VEL 13.849 PTH   2.53 VHP  9.155 DPA -63.85 RAP 158.47 ECC 2.1593
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
75.35	18 28 9	4217.09	-12.26	180.02	130.66	60.64	19 38 26	3617.1	-16.08	173.19
104.65	22 18 17	3478.74	-12.24	125.41	130.65	60.64	23 16 15	2878.7	-16.06	118.57
75.35	18 28 9	4217.09	-12.26	180.02	130.66	60.64	19 38 26	3617.1	-16.08	173.19
104.65	22 18 17	3478.74	-12.24	125.41	130.65	60.64	23 16 15	2878.7	-16.06	118.57
110.00	0 36 40	3061.41	-23.42	99.54	136.75	64.36	1 27 41	2461.4	-26.67	91.89
110.00	21 12 52	3682.42	-1.54	134.30	124.00	55.85	22 14 15	3082.4	-6.02	128.07

DIFFERENTIAL CORRECTIONS

```
TDE 3.8944 TRA -.8217 TC3 -.6386 BAU  .6192
RDE -.0396 RRA  .4908 RC3 -.1568 FAU .02171
FDE 1.4292 FRA  .1419 FC3 -.2668 BSP   8960
BDE 3.8946 BRA  .9572 BC3  .6575 FSP   -322
```

MID-COURSE EXECUTION ACCURACY

```
SGT 2941.2 SGR  474.1 SG3   93.3
RRT -.0351 RRF  .2662 RTF  .9445
SGB 2979.1 RZS -.3003 R13 -.9442
SG1 2941.2 SG2  473.8 THA 179.67
```

ORBIT DETERMINATION ACCURACY

```
ST  2666.1 SR   121.3 SS   772.3
CRT -.2933 CRS  .1876 CST -.9941
LSA 2774.7 MSA  141.6 SSA    3.7
EL1 2666.3 EL2  116.0 ALF 179.23
```

```
LAUNCH DATE  OCT  7 1970                          FLIGHT TIME 118.00                          ARRIVAL DATE  FEB  2 1971

 HELIOCENTRIC CONIC                                DISTANCE 352.704
  RL  149.52 LAL     .00 LOL  13.32 VL  27.820 GAL  -9.57 AZL  72.53 HCA 169.10 SMA 132.54 ECC .20875 INC17.4691 V1  29.801
  RP  107.75 LAP    3.26 LOP 182.90 VP  38.236 GAP   5.42 AZP 107.17 TAL 223.20 TAP  32.30 RCA 104.87 APO 160.21 V2  35.169
  RC 114.599 GL    56.29 GP  -70.84 ZAL 114.63 ZAP 107.71 ETS 287.51 ZAE  95.70 ETE 203.06 ZAC  26.82 ETC 237.25 CLP-157.99
 PLANETOCENTRIC CONIC
  C3  98.013 VHL  9.900 DLA  35.66 RAL 246.72 RAD 6569.9 VEL 14.811 PTH   2.68 VHP 11.250 DPA -64.28 RAP 144.12 ECC 2.6131
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     67.35    17 59 53   4444.71     -10.84     196.75     141.26      55.81   19 13 58     3844.7     -15.25     190.32
    112.65    23 29 34   3400.58     -10.82     118.46     141.25      55.81   24 26 15     2800.6     -15.23     112.03
     67.35    17 59 53   4444.71     -10.84     196.75     141.26      55.81   19 13 58     3844.7     -15.25     190.32
    112.65    23 29 34   3400.58     -10.82     118.46     141.25      55.81   24 26 15     2800.6     -15.23     112.03
     67.35    17 59 53   4444.71     -10.84     196.75     141.26      55.81   19 13 58     3844.7     -15.25     190.32
    112.65    23 29 34   3400.58     -10.82     118.46     141.25      55.81   24 26 15     2800.6     -15.23     112.03
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE 4.9659 TRA -.4819 TC3 -.4087 BAU  .5393      SGT 3005.4 SGR  703.7 SG3   74.4            ST  2875.9 SR   509.3 SS   791.7
  RDE -.8412 RRA  .7005 RC3 -.0486 FAU .01423      RRT -.7057 RRF -.5031 RTF  .9632            CRT -.9656 CRS  .9400 CST -.9964
  FDE 1.4057 FRA  .1889 FC3 -.1257 BSP   9300      SGB 3086.7 RZS -.2755 RIS -.9560            LSA 3022.4 MSA  148.5 SSA    2.6
  BDE 5.0366 BRA  .8502 BC3  .4116 FSP   -258      SG1 3047.2 SG2  491.7 THA 170.36            EL1 2917.7 EL2  130.5 ALF 170.28

LAUNCH DATE  OCT  7 1970                          FLIGHT TIME 120.00                          ARRIVAL DATE  FEB  4 1971

 HELIOCENTRIC CONIC                                DISTANCE 358.514
  RL  149.52 LAL     .00 LOL  13.32 VL  27.753 GAL  -9.29 AZL  65.92 HCA 172.15 SMA 132.05 ECC .20758 INC24.0800 V1  29.801
  RP  107.79 LAP    3.20 LOP 186.14 VP  38.177 GAP   5.64 AZP 113.88 TAL 221.74 TAP  33.89 RCA 104.64 APO 159.46 V2  35.158
  RC 116.871 GL    60.86 GP  -76.38 ZAL 108.13 ZAP 103.62 ETS 264.49 ZAE  87.92 ETE 183.30 ZAC  19.02 ETC 223.31 CLP 178.12
 PLANETOCENTRIC CONIC
  C3 163.685 VHL 12.794 DLA  38.89 RAL 253.85 RAD 6570.8 VEL 16.882 PTH   2.91 VHP 15.108 DPA -61.58 RAP 127.60 ECC 3.6938
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     62.14    18  1 24   4623.49      -7.51     208.82     154.45      51.73   19 18 27     4023.5     -12.41     202.82
    117.86     0 28 53   3421.38      -7.50     117.68     154.44      51.72    1 25 54     2821.4     -12.40     111.68
     62.14    18  1 24   4623.49      -7.51     208.82     154.45      51.73   19 18 27     4023.5     -12.41     202.82
    117.86     0 28 53   3421.38      -7.50     117.68     154.44      51.72    1 25 54     2821.4     -12.40     111.68
     62.14    18  1 24   4623.49      -7.51     208.82     154.45      51.73   19 18 27     4023.5     -12.41     202.82
    117.86     0 28 53   3421.38      -7.50     117.68     154.44      51.72    1 25 54     2821.4     -12.40     111.68
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE 6.0801 TRA  .3261 TC3 -.1499 BAU  .3283      SGT 2742.9 SGR 1595.9 SG3   59.0            ST  2710.1 SR  1537.0 SS   866.0
  RDE-3.4189 RRA  .7819 RC3  .0065 FAU .00621      RRT -.9299 RRF -.8704 RTF  .9890            CRT -.9941 CRS  .9881 CST -.9990
  FDE 1.4781 FRA  .2548 FC3 -.0328 BSP   9602      SGB 3173.4 RZS -.2240 RIS -.9726            LSA 3229.9 MSA  157.2 SSA    1.6
  BDE 6.9493 BRA  .8472 BC3  .1500 FSP   -203      SG1 3131.4 SG2  514.3 THA 150.72            EL1 3112.2 EL2  145.3 ALF 150.51

LAUNCH DATE  OCT  7 1970                          FLIGHT TIME 122.00                          ARRIVAL DATE  FEB  6 1971

 HELIOCENTRIC CONIC                                DISTANCE 364.077
  RL  149.52 LAL     .00 LOL  13.32 VL  27.685 GAL  -8.95 AZL  51.55 HCA 174.97 SMA 131.56 ECC .20589 INC38.4470 V1  29.801
  RP  107.82 LAP    3.13 LOP 189.37 VP  38.118 GAP   5.79 AZP 128.34 TAL 220.14 TAP  35.10 RCA 104.47 APO 158.65 V2  35.147
  RC 119.138 GL    61.58 GP  -75.10 ZAL 101.36 ZAP  98.86 ETS 221.44 ZAE  76.11 ETE 143.17 ZAC  10.51 ETC 217.33 CLP 126.81
 PLANETOCENTRIC CONIC
  C3 373.875 VHL 19.336 DLA  38.39 RAL 263.26 RAD 6572.0 VEL 22.253 PTH   3.25 VHP 23.627 DPA -52.82 RAP 113.47 ECC 7.1530
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     62.91    18 42 41   4725.44      -2.70     213.46     169.87      51.69   20  1 27     4125.4      -7.63     207.55
    117.09     1  2 43   3544.78      -2.68     124.10     169.86      51.69    2  1 47     2944.8      -7.62     118.19
     62.91    18 42 41   4725.44      -2.70     213.46     169.87      51.69   20  1 27     4125.4      -7.63     207.55
    117.09     1  2 43   3544.78      -2.68     124.10     169.86      51.69    2  1 47     2944.8      -7.62     118.19
     62.91    18 42 41   4725.44      -2.70     213.46     169.87      51.69   20  1 27     4125.4      -7.63     207.55
    117.09     1  2 43   3544.78      -2.68     124.10     169.86      51.69    2  1 47     2944.8      -7.62     118.19
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE 3.8364 TRA 1.8634 TC3 -.0030 BAU  .5060      SGT 1299.2 SGR 2914.7 SG3   49.3            ST  1152.3 SR  2879.1 SS  1110.1
  RDE-9.7130 RRA -.6425 RC3 -.1012 FAU-.00705      RRT -.9031 RRF -.9769 RTF  .9719            CRT -.9903 CRS  .9977 CST -.9974
  FDE 1.8274 FRA  .4428 FC3  .0163 BSP   9440      SGB 3191.2 RZS -.1419 RIS -.9888            LSA 3290.1 MSA  156.9 SSA    1.5
  BDE10.4431 BRA 1.7831 BC3  .1012 FSP   -161      SG1 3149.1 SG2  516.3 THA 112.57            EL1 3097.6 EL2  148.6 ALF 111.67

LAUNCH DATE  OCT  7 1970                          FLIGHT TIME 124.00                          ARRIVAL DATE  FEB  8 1971

 HELIOCENTRIC CONIC                                DISTANCE 368.690
  RL  149.52 LAL     .00 LOL  13.32 VL  27.617 GAL  -8.42 AZL  13.19 HCA 176.87 SMA 131.07 ECC .20198 INC76.8097 V1  29.801
  RP  107.86 LAP    3.05 LOP 192.60 VP  38.058 GAP   5.66 AZP 186.79 TAL 218.02 TAP  34.89 RCA 104.60 APO 157.55 V2  35.136
  RC 121.402 GL    48.15 GP  -54.88 ZAL  95.69 ZAP  94.54 ETS 191.15 ZAE  53.28 ETE 117.34 ZAC  23.22 ETC 264.36 CLP  97.91
 PLANETOCENTRIC CONIC
  C31275.298 VHL 35.711 DLA  24.76 RAL 273.50 RAD 6573.1 VEL 37.371 PTH   3.54 VHP 44.786 DPA -30.84 RAP 106.77 ECC21.9882
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     90.00     0 30 40   3803.58     -12.40     149.49     190.56      64.34    1 43  4     3203.6     -15.75     142.42
     90.00    20 27 22   4626.15      13.33     196.23     178.46      64.79   21 44 28     4026.2       9.83     189.30
    100.00     2 23  1   3470.40     -15.19     126.38     191.95      63.94    3 20 51     2870.4     -18.57     119.21
    100.00    21 26 43   4434.56      16.14     180.77     177.09      64.50   22 40 37     3834.6      12.58     173.80
    110.00     4 13 28   3124.84     -21.50     103.46     195.28      62.76    5  5 33     2524.8     -24.97      96.03
    110.00    21 52 45   4352.89      22.48     171.32     173.82      63.55   23  5 18     3752.9      18.75     164.17
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE-3.1991 TRA 1.7616 TC3 -.0625 BAU 3.3281      SGT  748.1 SGR 2728.3 SG3   46.1            ST   521.9 SR  2230.7 SS  1637.2
  RD-13.8005 RRA-5.0512 RC3 -.1849 FAU-.05246      RRT  .7096 RRF -.9972 RTF -.6584            CRT  .9552 CRS  .9996 CST  .9460
  FDE 2.6070 FRA 1.1944 FC3  .0356 BSP   7762      SGB 2829.0 RZS -.1073 RIS -.9939            LSA 2811.1 MSA  161.9 SSA    1.5
  BDE14.1665 BRA 5.3496 BC3  .1952 FSP   -135      SG1 2781.3 SG2  517.1 THA  78.59            EL1 2285.9 EL2  150.7 ALF  77.35
```

LAUNCH DATE OCT 7 1970 FLIGHT TIME 126.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 378.472

```
RL  149.52 LAL    .00 LOL  13.32 VL  27.550 GAL  -8.94 AZL 139.69 HCA 183.88 SMA 130.59 ECC .21133 INC49.6878 V1  29.801
RP  107.89 LAP   2.96 LOP 195.83 VP  37.998 GAP   7.01 AZP  40.38 TAL 218.41 TAP  42.29 RCA 102.99 APO 158.19 V2  35.124
RC 123.660 GL  -58.40 GP   67.22 ZAL  98.94 ZAP  97.97 ETS 166.79 ZAE  74.42 ETE 242.84 ZAC 145.88 ETC 263.17 CLP 110.98
```

PLANETOCENTRIC CONIC

```
C3 503.578 VHL 24.363 DLA -81.65 RAL 255.67 RAD 6572.5 VEL 26.737 PTH   3.39 VHP 31.917 DPA  78.20 RAP 209.44 ECC10.7688
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
9.49	3 41 26	2432.09	1.61	84.52	165.42	171.65	4 21 58	1832.1	9.52	83.77
170.51	15 3 23	629.64	1.61	281.12	165.45	171.65	15 13 53	29.6	9.53	280.37
9.49	3 41 26	2432.09	1.61	84.52	165.42	171.65	4 21 58	1832.1	9.52	83.77
170.51	15 3 23	629.64	1.61	281.12	165.45	171.65	15 13 53	29.6	9.53	280.37
9.49	3 41 26	2432.09	1.61	84.52	165.42	171.65	4 21 58	1832.1	9.52	83.77
170.51	15 3 23	629.64	1.61	281.12	165.45	171.65	15 13 53	29.6	9.53	280.37

DIFFERENTIAL CORRECTIONS

```
TDE 2.1295 TRA  .3179 TC3 -.0441 BAU 1.3494
RD-12.8983 RRA -.0283 RC3  .1642 FAU-.01699
FDE-2.4727 FRA  .0239 FC3  .0248 BSP   9977
BDE13.0729 BRA  .3189 BC3  .1700 FSP   -163
```

MID-COURSE EXECUTION ACCURACY

```
SGT  749.7 SGR 3137.4 SG3   51.4
RRT -.7283 RRF  .9955 RTF -.6661
SGB 3225.7 RZS -.1142 R13  .9926
SG1 3185.8 SG2  508.0 THA 100.13
```

ORBIT DETERMINATION ACCURACY

```
ST   524.1 SR  3033.4 SS  1603.9
CRT -.9568 CRS -.9997 CST  .9495
LSA 3467.6 NSA  157.2 SSA    1.8
EL1 3074.7 EL2  150.3 ALF  99.41
```

LAUNCH DATE OCT 7 1970 FLIGHT TIME 128.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 383.700

```
RL  149.52 LAL    .00 LOL  13.32 VL  27.482 GAL  -8.52 AZL 116.55 HCA 186.41 SMA 130.11 ECC .20909 INC26.5502 V1  29.801
RP  107.93 LAP   2.86 LOP 199.05 VP  37.938 GAP   7.06 AZP  63.59 TAL 216.62 TAP  43.03 RCA 102.91 APO 157.32 V2  35.112
RC 125.912 GL  -61.68 GP   74.78 ZAL 105.02 ZAP 103.92 ETS 111.79 ZAE  90.52 ETE 189.45 ZAC 159.05 ETC 229.16 CLP 156.39
```

PLANETOCENTRIC CONIC

```
C3 190.445 VHL 13.800 DLA -80.14 RAL 200.29 RAD 6571.0 VEL 17.657 PTH   2.98 VHP 18.460 DPA  64.27 RAP 241.73 ECC 4.1342
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
11.21	0 3 50	2302.80	10.14	82.68	108.49	169.98	0 42 13	1702.8	18.02	81.64
168.79	11 19 6	5792.28	10.15	258.05	108.52	169.98	12 55 39	5192.3	18.02	257.81
11.21	0 3 50	2302.80	10.14	82.68	108.49	169.98	0 42 13	1702.8	18.02	81.64
168.79	11 19 6	5792.28	10.15	258.05	108.52	169.98	12 55 39	5192.3	18.02	257.81
11.21	0 3 50	2302.80	10.14	82.68	108.49	169.98	0 42 13	1702.8	18.02	81.64
168.79	11 19 6	5792.28	10.15	258.05	108.52	169.98	12 55 39	5192.3	18.02	257.81

DIFFERENTIAL CORRECTIONS

```
TDE-3.7098 TRA -.9006 TC3 -.0774 BAU  .1906
RDE-1.8494 RRA -.9082 RC3 -.0100 FAU .00737
FDE-1.0239 FRA -.2312 FC3 -.0335 BSP  11112
BDE 4.1447 BRA 1.2790 BC3  .0780 FSP   -202
```

MID-COURSE EXECUTION ACCURACY

```
SGT 2880.8 SGR 2332.6 SG3   61.3
RRT  .9592 RRF  .9447 RTF  .9981
SGB 3553.3 RZS -.1871 R13  .9850
SG1 3517.8 SG2  502.4 THA  40.86
```

ORBIT DETERMINATION ACCURACY

```
ST  1673.6 SR  1013.0 SS   729.2
CRT  .9528 CRS -.9448 CST -.9997
LSA 2069.5 NSA  275.1 SSA    1.3
EL1 1938.2 EL2  265.4 ALF  30.61
```

LAUNCH DATE OCT 7 1970 FLIGHT TIME 130.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 389.352

```
RL  149.52 LAL    .00 LOL  13.32 VL  27.415 GAL  -8.19 AZL 107.16 HCA 189.37 SMA 129.64 ECC .20810 INC17.1555 V1  29.801
RP  107.97 LAP   2.75 LOP 202.27 VP  37.878 GAP   7.22 AZP  73.06 TAL 215.00 TAP  44.37 RCA 102.67 APO 156.62 V2  35.099
RC 128.158 GL  -57.22 GP   69.50 ZAL 110.97 ZAP 110.40 ETS  76.74 ZAE  99.88 ETE 156.36 ZAC 161.28 ETC 224.05 CLP-174.37
```

PLANETOCENTRIC CONIC

```
C3  90.638 VHL  9.520 DLA -74.04 RAL 202.22 RAD 6569.8 VEL 14.560 PTH   2.64 VHP 13.013 DPA  53.30 RAP 244.71 ECC 2.4917
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.20	0 25 28	2149.38	19.16	75.91	106.50	163.07	1 1 18	1549.4	26.79	73.72
161.80	11 12 52	5661.79	19.16	258.96	106.52	163.07	12 47 14	5061.8	26.80	256.78
18.20	0 25 28	2149.38	19.16	75.91	106.50	163.07	1 1 18	1549.4	26.79	73.72
161.80	11 12 52	5661.79	19.16	258.96	106.52	163.07	12 47 14	5061.8	26.80	256.78
18.20	0 25 28	2149.38	19.16	75.91	106.50	163.07	1 1 18	1549.4	26.79	73.72
161.80	11 12 52	5661.79	19.16	258.96	106.52	163.07	12 47 14	5061.8	26.80	256.78

DIFFERENTIAL CORRECTIONS

```
TDE-2.6660 TRA-1.4244 TC3 -.4790 BAU  .5806
RDE  .4444 RRA -.2513 RC3  .0128 FAU .01786
FDE -.8781 FRA -.2919 FC3 -.1706 BSP  11381
BDE 2.7036 BRA 1.4464 BC3  .4792 FSP   -253
```

MID-COURSE EXECUTION ACCURACY

```
SGT 3622.7 SGR  612.1 SG3   76.9
RRT  .5696 RRF  .3708 RTF  .9721
SGB 3674.1 RZS -.2356 R13  .9690
SG1 3639.8 SG2  500.8 THA   5.60
```

ORBIT DETERMINATION ACCURACY

```
ST  1857.7 SR   314.3 SS   632.1
CRT -.4710 CRS  .6210 CST -.9839
LSA 1965.5 NSA  293.8 SSA    2.1
EL1 1863.7 EL2  276.3 ALF 175.34
```

LAUNCH DATE OCT 7 1970 FLIGHT TIME 132.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 395.121

```
RL  149.52 LAL    .00 LOL  13.32 VL  27.347 GAL  -7.87 AZL 102.31 HCA 192.46 SMA 129.18 ECC .20755 INC12.3136 V1  29.801
RP  108.01 LAP   2.64 LOP 205.49 VP  37.817 GAP   7.42 AZP  77.97 TAL 213.42 TAP  45.87 RCA 102.37 APO 155.99 V2  35.086
RC 130.397 GL  -51.18 GP   62.28 ZAL 115.96 ZAP 116.66 ETS  66.48 ZAE 106.48 ETE 148.76 ZAC 158.10 ETC 235.88 CLP-164.68
```

PLANETOCENTRIC CONIC

```
C3  55.013 VHL  7.417 DLA -68.21 RAL 209.63 RAD 6569.0 VEL 13.281 PTH   2.43 VHP 10.371 DPA  44.40 RAP 245.09 ECC 1.9054
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
24.94	1 9 19	2014.95	25.80	67.46	108.48	155.65	1 42 54	1414.9	33.04	63.95
155.06	11 28 12	5561.34	25.81	257.51	108.50	155.65	13 0 54	4961.3	33.04	254.01
24.94	1 9 19	2014.95	25.80	67.46	108.48	155.65	1 42 54	1414.9	33.04	63.95
155.06	11 28 12	5561.34	25.81	257.51	108.50	155.65	13 0 54	4961.3	33.04	254.01
24.94	1 9 19	2014.95	25.80	67.46	108.48	155.65	1 42 54	1414.9	33.04	63.95
155.06	11 28 12	5561.34	25.81	257.51	108.50	155.65	13 0 54	4961.3	33.04	254.01

DIFFERENTIAL CORRECTIONS

```
TDE-2.1921 TRA-1.4303 TC3 -.9964 BAU  .7394
RDE  .6147 RRA -.0460 RC3  .1333 FAU .02541
FDE -.8853 FRA -.3025 FC3 -.3999 BSP  11752
BDE 2.2767 BRA 1.4400 BC3 1.0053 FSP   -314
```

MID-COURSE EXECUTION ACCURACY

```
SGT 3749.2 SGR  523.2 SG3   95.3
RRT -.4133 RRF -.6618 RTF  .9494
SGB 3781.5 RZS  .2888 R13 -.9516
SG1 3751.5 SG2  475.6 THA 176.64
```

ORBIT DETERMINATION ACCURACY

```
ST  1917.6 SR   475.8 SS   635.9
CRT -.8534 CRS  .9460 CST -.9763
LSA 2058.1 NSA  268.5 SSA    3.0
EL1 1960.8 EL2  242.5 ALF 167.86
```

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LAUNCH DATE  OCT  7 1970                          FLIGHT TIME 134.00                          ARRIVAL DATE  FEB 18 1971

 HELIOCENTRIC CONIC                                DISTANCE 400.929
  RL  149.52 LAL     .00 LOL  13.32 VL  27.281 GAL  -7.56 AZL  99.39 HCA 195.59 SMA 128.72 ECC .20723 INC 9.3855 V1  29.801
  RP  108.05 LAP    2.51 LOP 208.71 VP  37.757 GAP   7.62 AZP  80.95 TAL 211.84 TAP  47.43 RCA 102.05 APO 155.40 V2  35.074
  RC 132.627 GL  -45.15 GP   55.54 ZAL 119.78 ZAP 122.40 ETS  62.16 ZAE 111.44 ETE 147.60 ZAC 153.32 ETC 244.12 CLP-161.25
 PLANETOCENTRIC CONIC
  C3  38.702 VHL  6.221 DLA -62.85 RAL 216.27 RAD 6568.5 VEL 12.652 PTH   2.30 VHP  8.916 DPA  36.85 RAP 245.25 ECC 1.6369
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     31.23     1 50 11   1904.90      29.80      58.37     109.18     148.27    2 21 55     1304.9      36.50      53.57
    148.77    11 40 18   5495.19      29.80     255.46     109.20     148.27   13 11 53     4895.2      36.51     250.65
     31.23     1 50 11   1904.90      29.80      58.37     109.18     148.27    2 21 55     1304.9      36.50      53.57
    148.77    11 40 18   5495.19      29.80     255.46     109.20     148.27   13 11 53     4895.2      36.51     250.65
     31.23     1 50 11   1904.90      29.80      58.37     109.18     148.27    2 21 55     1304.9      36.50      53.57
    148.77    11 40 18   5495.19      29.80     255.46     109.20     148.27   13 11 53     4895.2      36.51     250.65
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE-1.8697 TRA-1.3740 TC3-1.5510 BAU  .8121      SGT 3791.8 SGR  589.6 SG3  111.3            ST  1913.3 SR   507.8 SS   617.7
  RDE  .5512 RRA -.0016 RC3  .2410 FAU .03092      RRT -.6459 RRF -.8613 RTF  .9296            CRT -.8996 CRS  .9779 CST -.9709
  FDE -.8513 FRA -.2736 FC3 -.6916 BSP  11689      SGB 3837.3 R23  .3305 R13 -.9337            LSA 2058.5 MSA  249.7 SSA    4.1
  BDE 1.9493 BRA 1.3740 BC3 1.5696 FSP   -354      SG1 3811.1 SG2  447.8 THA 174.18            EL1 1967.7 EL2  215.6 ALF 166.41

LAUNCH DATE  OCT  7 1970                          FLIGHT TIME 136.00                          ARRIVAL DATE  FEB 20 1971

 HELIOCENTRIC CONIC                                DISTANCE 406.749
  RL  149.52 LAL     .00 LOL  13.32 VL  27.214 GAL  -7.24 AZL  97.42 HCA 198.75 SMA 128.27 ECC .20708 INC 7.4230 V1  29.801
  RP  108.09 LAP    2.38 LOP 211.92 VP  37.697 GAP   7.83 AZP  82.97 TAL 210.25 TAP  49.00 RCA 101.71 APO 154.83 V2  35.061
  RC 134.850 GL  -39.62 GP   49.62 ZAL 122.41 ZAP 127.52 ETS  59.65 ZAE 115.24 ETE 148.50 ZAC 148.52 ETC 249.09 CLP-160.07
 PLANETOCENTRIC CONIC
  C3  29.919 VHL  5.470 DLA -58.03 RAL 221.89 RAD 6568.2 VEL 12.300 PTH   2.22 VHP  8.052 DPA  30.36 RAP 245.61 ECC 1.4924
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     36.97     2 26 58   1813.86      31.77      49.49     109.13     141.48    2 57 12     1213.9      37.88      43.60
    143.03    11 48 19   5456.45      31.78     253.56     109.15     141.47   13 19 16     4856.5      37.89     247.67
     36.97     2 26 58   1813.86      31.77      49.49     109.13     141.48    2 57 12     1213.9      37.88      43.60
    143.03    11 48 19   5456.45      31.78     253.56     109.15     141.47   13 19 16     4856.5      37.89     247.67
     36.97     2 26 58   1813.86      31.77      49.49     109.13     141.48    2 57 12     1213.9      37.88      43.60
    143.03    11 48 19   5456.45      31.78     253.56     109.15     141.47   13 19 16     4856.5      37.89     247.67
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE-1.6352 TRA-1.3166 TC3-2.1443 BAU  .8679      SGT 3901.4 SGR  614.0 SG3  127.9            ST  1884.0 SR   495.7 SS   590.3
  RDE  .4731 RRA  .0006 RC3  .3311 FAU .03563      RRT -.7276 RRF -.9138 RTF  .9180            CRT -.9140 CRS  .9876 CST -.9662
  FDE -.7980 FRA -.2377 FC3-1.0310 BSP  12199      SGB 3949.4 R23  .3471 R13 -.9224            LSA 2021.8 MSA  236.0 SSA    5.4
  BDE 1.7023 BRA 1.3166 BC3 2.1697 FSP   -415      SG1 3927.2 SG2  418.5 THA 173.39            EL1 1938.3 EL2  195.5 ALF 166.34

LAUNCH DATE  OCT  7 1970                          FLIGHT TIME 138.00                          ARRIVAL DATE  FEB 22 1971

 HELIOCENTRIC CONIC                                DISTANCE 412.570
  RL  149.52 LAL     .00 LOL  13.32 VL  27.148 GAL  -6.92 AZL  96.01 HCA 201.93 SMA 127.83 ECC .20708 INC 6.0115 V1  29.801
  RP  108.13 LAP    2.24 LOP 215.13 VP  37.637 GAP   8.05 AZP  84.42 TAL 208.65 TAP  50.58 RCA 101.36 APO 154.30 V2  35.047
  RC 137.063 GL  -34.67 GP   44.51 ZAL 123.97 ZAP 132.03 ETS  57.86 ZAE 118.15 ETE 150.17 ZAC 144.16 ETC 252.28 CLP-159.86
 PLANETOCENTRIC CONIC
  C3  24.620 VHL  4.962 DLA -53.78 RAL 226.78 RAD 6568.0 VEL 12.083 PTH   2.16 VHP  7.517 DPA  24.78 RAP 246.23 ECC 1.4052
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     42.16     3  0 49   1735.81      32.43      41.22     109.03     135.57    3 29 45     1135.8      37.95      34.54
    137.84    11 53 30   5437.64      32.44     252.24     109.04     135.56   13 24  7     4837.6      37.96     245.56
     42.16     3  0 49   1735.81      32.43      41.22     109.03     135.57    3 29 45     1135.8      37.95      34.54
    137.84    11 53 30   5437.64      32.44     252.24     109.04     135.56   13 24  7     4837.6      37.96     245.56
     42.16     3  0 49   1735.81      32.43      41.22     109.03     135.57    3 29 45     1135.8      37.95      34.54
    137.84    11 53 30   5437.64      32.44     252.24     109.04     135.56   13 24  7     4837.6      37.96     245.56
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE-1.4392 TRA-1.2467 TC3-2.7284 BAU  .9073      SGT 4003.5 SGR  608.6 SG3  141.3            ST  1817.3 SR   467.3 SS   547.5
  RDE  .4045 RRA  .0041 RC3  .3930 FAU .03892      RRT -.7601 RRF -.9271 RTF  .9090            CRT -.9174 CRS  .9920 CST -.9599
  FDE -.7230 FRA -.1861 FC3-1.3686 BSP  12590      SGB 4049.5 R23  .3531 R13 -.9131            LSA 1941.5 MSA  226.2 SSA    7.0
  BDE 1.4949 BRA 1.2467 BC3 2.7566 FSP   -461      SG1 4030.4 SG2  392.8 THA 173.35            EL1 1867.6 EL2  181.0 ALF 166.60

LAUNCH DATE  OCT  7 1970                          FLIGHT TIME 140.00                          ARRIVAL DATE  FEB 24 1971

 HELIOCENTRIC CONIC                                DISTANCE 418.388
  RL  149.52 LAL     .00 LOL  13.32 VL  27.083 GAL  -6.59 AZL  94.94 HCA 205.11 SMA 127.39 ECC .20721 INC 4.9428 V1  29.801
  RP  108.17 LAP    2.09 LOP 218.34 VP  37.578 GAP   8.26 AZP  85.52 TAL 207.04 TAP  52.15 RCA 101.00 APO 153.79 V2  35.034
  RC 139.266 GL  -30.27 GP   40.14 ZAL 124.58 ZAP 135.96 ETS  56.44 ZAE 120.38 ETE 152.08 ZAC 140.35 ETC 254.49 CLP-160.13
 PLANETOCENTRIC CONIC
  C3  21.148 VHL  4.598 DLA -50.04 RAL 231.20 RAD 6567.9 VEL 11.938 PTH   2.12 VHP  7.179 DPA  19.97 RAP 247.10 ECC 1.3480
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     46.85     3 32 47   1666.27      32.29      33.69     109.22     130.56    4  0 33     1066.3      37.26      26.47
    133.15    11 56 49   5433.19      32.30     251.61     109.23     130.55   13 27 23     4833.2      37.27     244.39
     46.85     3 32 47   1666.27      32.29      33.69     109.22     130.56    4  0 33     1066.3      37.26      26.47
    133.15    11 56 49   5433.19      32.30     251.61     109.23     130.55   13 27 23     4833.2      37.27     244.39
     46.85     3 32 47   1666.27      32.29      33.69     109.22     130.56    4  0 33     1066.3      37.26      26.47
    133.15    11 56 49   5433.19      32.30     251.61     109.23     130.55   13 27 23     4833.2      37.27     244.39
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
  TDE-1.2728 TRA-1.1686 TC3-3.2913 BAU  .9384      SGT 4100.9 SGR  590.9 SG3  151.5            ST  1728.0 SR   437.5 SS   496.0
  RDE  .3510 RRA -.0046 RC3  .4319 FAU .04099      RRT -.7742 RRF -.9254 RTF  .9020            CRT -.9165 CRS  .9948 CST -.9514
  FDE -.6380 FRA -.1255 FC3-1.6780 BSP  12924      SGB 4143.2 R23  .3497 R13 -.9056            LSA 1837.2 MSA  218.7 SSA    9.0
  BDE 1.3203 BRA 1.1686 BC3 3.3195 FSP   -495      SG1 4126.5 SG2  371.7 THA 173.58            EL1 1774.3 EL2  170.5 ALF 166.81
```

LAUNCH DATE OCT 7 1970 FLIGHT TIME 142.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 424.199

```
RL  149.52 LAL    .00 LOL  13.32 VL  27.018 GAL  -6.25 AZL  94.10 HCA 208.29 SMA 126.96 ECC .20747 INC 4.1014 V1  29.801
RP  108.21 LAP   1.94 LOP 221.54 VP  37.519 GAP   8.47 AZP  86.39 TAL 205.42 TAP  53.70 RCA 100.62 APO 153.31 V2  35.021
RC 141.459 GL  -26.36 GP   36.41 ZAL 124.41 ZAP 139.40 ETS  55.27 ZAE 122.08 ETE 154.01 ZAC 137.06 ETC 256.14 CLP-160.64
```

PLANETOCENTRIC CONIC

```
C3  18.721 VHL  4.327 DLA -46.74 RAL 235.34 RAD 6567.8 VEL 11.837 PTH   2.10 VHP  6.966 DPA  15.81 RAP 248.19 ECC 1.3081
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
51.12	4 3 44	1601.96	31.68	26.80	109.82	126.36	4 30 26	1002.0	36.18	19.24
128.88	11 58 52	5439.58	31.70	251.67	109.83	126.35	13 29 31	4859.6	36.19	244.11
51.12	4 3 44	1601.96	31.68	26.80	109.82	126.36	4 30 26	1002.0	36.18	19.24
128.88	11 58 52	5439.58	31.70	251.67	109.83	126.35	13 29 31	4859.6	36.19	244.11
51.12	4 3 44	1601.96	31.68	26.80	109.82	126.36	4 30 26	1002.0	36.18	19.24
128.88	11 58 52	5439.58	31.70	251.67	109.83	126.35	13 29 31	4859.6	36.19	244.11

DIFFERENTIAL CORRECTIONS

```
TDE-1.1256 TRA-1.0792 TC3-3.8203 BAU  .9628
RDE  .3099 RRA -.0151 RC3  .4521 FAU .04193
FDE -.5479 FRA -.0571 FC3-1.9391 BSP  13137
BDE 1.1675 BRA 1.0793 BC3 3.8470 FSP   -513
```

MID-COURSE EXECUTION ACCURACY

```
SGT 4183.3 SGR  567.8 SG3  158.2
RRT -.7766 RRF -.9146 RTF  .8952
SGB 4221.6 RZS  .3402 R13 -.8983
SG1 4206.6 SG2  355.7 THA 173.94
```

ORBIT DETERMINATION ACCURACY

```
ST  1619.6 SR   410.7 SS   438.1
CRT -.9133 CRS  .9969 CST -.9390
LSA 1714.2 MSA  212.6 SSA   11.3
EL1 1662.9 EL2  162.9 ALF 166.83
```

LAUNCH DATE OCT 7 1970 FLIGHT TIME 144.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 430.001

```
RL  149.52 LAL    .00 LOL  13.32 VL  26.953 GAL  -5.91 AZL  93.42 HCA 211.47 SMA 126.54 ECC .20787 INC 3.4181 V1  29.801
RP  108.25 LAP   1.78 LOP 224.74 VP  37.460 GAP   8.68 AZP  87.08 TAL 203.78 TAP  55.25 RCA 100.24 APO 152.85 V2  35.008
RC 143.643 GL  -22.85 GP   33.21 ZAL 123.58 ZAP 142.42 ETS  54.30 ZAE 123.38 ETE 155.84 ZAC 134.24 ETC 257.44 CLP-161.30
```

PLANETOCENTRIC CONIC

```
C3  18.950 VHL  4.117 DLA -43.81 RAL 239.30 RAD 6567.7 VEL 11.761 PTH   2.08 VHP  6.837 DPA  12.20 RAP 249.47 ECC 1.2789
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.06	4 34 20	1540.44	30.81	20.41	110.84	122.83	5 0 1	940.4	34.89	12.63
124.94	11 59 51	5454.83	30.82	252.38	110.85	122.82	13 30 46	4854.8	34.90	244.60
55.06	4 34 20	1540.44	30.81	20.41	110.84	122.83	5 0 1	940.4	34.89	12.63
124.94	11 59 51	5454.83	30.82	252.38	110.85	122.82	13 30 46	4854.8	34.90	244.60
55.06	4 34 20	1540.44	30.81	20.41	110.84	122.83	5 0 1	940.4	34.89	12.63
124.94	11 59 51	5454.83	30.82	252.38	110.85	122.82	13 30 46	4854.8	34.90	244.60

DIFFERENTIAL CORRECTIONS

```
TDE-1.0113 TRA -.9980 TC3-4.3565 BAU  .9930
RDE  .2839 RRA -.0208 RC3  .4715 FAU .04276
FDE -.4736 FRA -.0014 FC3-2.1839 BSP  13720
BDE 1.0504 BRA  .9992 BC3 4.3820 FSP   -550
```

MID-COURSE EXECUTION ACCURACY

```
SGT 4308.2 SGR  555.3 SG3  165.5
RRT -.7823 RRF -.9011 RTF  .8948
SGB 4343.8 RZS  .3156 R13 -.8974
SG1 4330.2 SG2  344.2 THA 174.21
```

ORBIT DETERMINATION ACCURACY

```
ST  1525.3 SR   395.4 SS   390.6
CRT -.9125 CRS  .9981 CST -.9259
LSA 1610.1 MSA  207.1 SSA   14.0
EL1 1567.9 EL2  157.4 ALF 166.55
```

LAUNCH DATE OCT 7 1970 FLIGHT TIME 146.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 435.794

```
RL  149.52 LAL    .00 LOL  13.32 VL  26.890 GAL  -5.56 AZL  92.85 HCA 214.66 SMA 126.13 ECC .20840 INC 2.8492 V1  29.801
RP  108.29 LAP   1.62 LOP 227.94 VP  37.402 GAP   8.89 AZP  87.66 TAL 202.13 TAP  56.79 RCA  99.84 APO 152.42 V2  34.995
RC 145.816 GL  -19.68 GP   30.47 ZAL 122.20 ZAP 145.07 ETS  53.51 ZAE 124.39 ETE 157.53 ZAC 131.82 ETC 258.52 CLP-162.04
```

PLANETOCENTRIC CONIC

```
C3  15.609 VHL  3.951 DLA -41.17 RAL 243.16 RAD 6567.6 VEL 11.704 PTH   2.06 VHP  6.766 DPA   9.05 RAP 250.91 ECC 1.2569
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.77	5 5 10	1479.79	29.79	14.34	112.26	119.84	5 29 50	879.8	33.51	6.44
121.23	11 59 52	5477.89	29.80	253.69	112.26	119.83	13 31 10	4877.9	33.52	245.78
58.77	5 5 10	1479.79	29.79	14.34	112.26	119.84	5 29 50	879.8	33.51	6.44
121.23	11 59 52	5477.89	29.80	253.69	112.26	119.83	13 31 10	4877.9	33.52	245.78
58.77	5 5 10	1479.79	29.79	14.34	112.26	119.84	5 29 50	879.8	33.51	6.44
121.23	11 59 52	5477.89	29.80	253.69	112.26	119.83	13 31 10	4877.9	33.52	245.78

DIFFERENTIAL CORRECTIONS

```
TDE -.8887 TRA -.8908 TC3-4.8165 BAU 1.0099
RDE  .2599 RRA -.0318 RC3  .4703 FAU .04216
FDE -.3854 FRA  .0722 FC3-2.3385 BSP  13774
BDE  .9259 BRA  .8913 BC3 4.8394 FSP   -543
```

MID-COURSE EXECUTION ACCURACY

```
SGT 4369.2 SGR  532.9 SG3  167.2
RRT -.7709 RRF -.8783 RTF  .8885
SGB 4401.6 RZS  .2971 R13 -.8907
SG1 4388.6 SG2  337.9 THA 174.60
```

ORBIT DETERMINATION ACCURACY

```
ST  1392.5 SR   377.6 SS   329.2
CRT -.9084 CRS  .9973 CST -.8991
LSA 1465.9 MSA  202.4 SSA   17.5
EL1 1434.6 EL2  153.2 ALF 166.00
```

LAUNCH DATE OCT 7 1970 FLIGHT TIME 148.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 441.576

```
RL  149.52 LAL    .00 LOL  13.32 VL  26.826 GAL  -5.19 AZL  92.37 HCA 217.84 SMA 125.73 ECC .20907 INC 2.3654 V1  29.801
RP  108.33 LAP   1.45 LOP 231.14 VP  37.344 GAP   9.11 AZP  88.13 TAL 200.46 TAP  58.31 RCA  99.44 APO 152.01 V2  34.982
RC 147.979 GL  -16.79 GP   28.11 ZAL 120.38 ZAP 147.42 ETS  52.89 ZAE 125.17 ETE 159.06 ZAC 129.74 ETC 259.47 CLP-162.81
```

PLANETOCENTRIC CONIC

```
C3  14.575 VHL  3.818 DLA -38.76 RAL 246.99 RAD 6567.6 VEL 11.660 PTH   2.05 VHP  6.736 DPA   6.29 RAP 252.49 ECC 1.2399
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.35	5 36 50	1418.07	28.68	8.43	114.02	117.27	6 0 28	818.1	32.09	.45
117.65	11 58 41	5508.89	28.69	255.62	114.03	117.26	13 30 30	4908.9	32.10	247.64
62.35	5 36 50	1418.07	28.68	8.43	114.02	117.27	6 0 28	818.1	32.09	.45
117.65	11 58 41	5508.89	28.69	255.62	114.03	117.26	13 30 30	4908.9	32.10	247.64
62.35	5 36 50	1418.07	28.68	8.43	114.02	117.27	6 0 28	818.1	32.09	.45
117.65	11 58 41	5508.89	28.69	255.62	114.03	117.26	13 30 30	4908.9	32.10	247.64

DIFFERENTIAL CORRECTIONS

```
TDE -.7845 TRA -.7856 TC3-5.2894 BAU 1.0308
RDE  .2445 RRA -.0309 RC3  .4713 FAU .04156
FDE -.3110 FRA  .1354 FC3-2.4687 BSP  14065
BDE  .8217 BRA  .7866 BC3 5.2904 FSP   -550
```

MID-COURSE EXECUTION ACCURACY

```
SGT 4456.4 SGR  519.6 SG3  169.3
RRT -.7616 RRF -.8541 RTF  .8864
SGB 4486.6 RZS  .2704 R13 -.8882
SG1 4474.1 SG2  335.4 THA 174.90
```

ORBIT DETERMINATION ACCURACY

```
ST  1267.5 SR   367.8 SS   277.4
CRT -.9070 CRS  .9907 CST -.8623
LSA 1333.9 MSA  197.7 SSA   21.7
EL1 1311.3 EL2  149.7 ALF 165.06
```

LAUNCH DATE OCT 7 1970 FLIGHT TIME 150.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 447.345

RL 149.52 LAL .00 LOL 13.32 VL 26.764 GAL -4.82 AZL 91.95 HCA 221.03 SMA 125.33 ECC .20989 INC 1.9466 V1 29.801
RP 108.37 LAP 1.28 LOP 234.33 VP 37.287 GAP 9.32 AZP 88.53 TAL 198.79 TAP 59.82 RCA 99.02 APO 151.63 V2 34.969
RC 150.132 GL -14.13 GP 26.06 ZAL 118.17 ZAP 149.53 ETS 52.43 ZAE 125.79 ETE 160.44 ZAC 127.93 ETC 260.32 CLP-163.61

PLANETOCENTRIC CONIC

C3 13.769 VHL 3.711 DLA -36.53 RAL 250.80 RAD 6567.5 VEL 11.626 PTH 2.04 VHP 6.738 DPA 3.87 RAP 254.19 ECC 1.2266

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.90	6 10 5	1352.89	27.51	2.45	116.10	115.04	6 32 38	752.9	30.64	354.44
114.10	11 55 50	5548.99	27.52	258.25	116.11	115.03	13 28 19	4949.0	30.65	250.24
65.90	6 10 5	1352.89	27.51	2.45	116.10	115.04	6 32 38	752.9	30.64	354.44
114.10	11 55 50	5548.99	27.52	258.25	116.11	115.03	13 28 19	4949.0	30.65	250.24
65.90	6 10 5	1352.89	27.51	2.45	116.10	115.04	6 32 38	752.9	30.64	354.44
114.10	11 55 50	5548.99	27.52	258.25	116.11	115.03	13 28 19	4949.0	30.65	250.24

DIFFERENTIAL CORRECTIONS
TDE -.6865 TRA -.6736 TC3-5.6900 BAU 1.0510
RDE .2333 RRA -.0479 RC3 .4699 FAU .04067
FDE -.2423 FRA .1959 FC3-2.5572 BSP 14359
BDE .7250 BRA .6753 BC3 5.7094 FSP -553

MID-COURSE EXECUTION ACCURACY
SGT 4542.0 SGR 509.8 SG3 170.3
RRT -.7495 RRF -.8275 RTF .8852
SGB 4570.6 R23 .2423 R13 -.8868
SG1 4558.2 SG2 336.3 THA 175.17

ORBIT DETERMINATION ACCURACY
ST 1135.9 SR 361.4 SS 229.9
CRT -.9071 CRS .9702 CST -.8023
LSA 1198.3 MSA 193.0 SSA 26.9
EL1 1183.1 EL2 146.1 ALF 163.64

LAUNCH DATE OCT 7 1970 FLIGHT TIME 152.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 453.103

RL 149.52 LAL .00 LOL 13.32 VL 26.702 GAL -4.44 AZL 91.58 HCA 224.21 SMA 124.94 ECC .21086 INC 1.5783 V1 29.801
RP 108.41 LAP 1.10 LOP 237.52 VP 37.231 GAP 9.54 AZP 88.87 TAL 197.10 TAP 61.31 RCA 98.60 APO 151.28 V2 34.956
RC 152.275 GL -11.67 GP 24.27 ZAL 115.65 ZAP 151.42 ETS 52.13 ZAE 126.27 ETE 161.66 ZAC 126.36 ETC 261.12 CLP-164.42

PLANETOCENTRIC CONIC

C3 13.144 VHL 3.625 DLA -34.43 RAL 254.61 RAD 6567.5 VEL 11.599 PTH 2.03 VHP 6.764 DPA 1.73 RAP 256.00 ECC 1.2163

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.55	5 45 51	1281.21	26.29	356.15	118.47	113.07	7 7 12	681.2	29.18	348.13
110.45	11 50 32	5600.47	26.31	261.73	118.47	113.05	13 23 53	5000.5	29.19	253.71
69.55	6 45 51	1281.21	26.29	356.15	118.47	113.07	7 7 12	681.2	29.18	348.13
110.45	11 50 32	5600.47	26.31	261.73	118.47	113.05	13 23 53	5000.5	29.19	253.71
69.55	6 45 51	1281.21	26.29	356.15	118.47	113.07	7 7 12	681.2	29.18	348.13
110.45	11 50 32	5600.47	26.31	261.73	118.47	113.05	13 23 53	5000.5	29.19	253.71

DIFFERENTIAL CORRECTIONS
TDE -.5911 TRA -.5543 TC3-6.0716 BAU 1.0701
RDE .2252 RRA -.0560 RC3 .4666 FAU .03956
FDE -.1783 FRA .2539 FC3-2.6054 BSP 14641
BDE .6325 BRA .5571 BC3 6.0895 FSP -554

MID-COURSE EXECUTION ACCURACY
SGT 4624.1 SGR 502.6 SG3 170.3
RRT -.7348 RRF -.7991 RTF .8847
SGB 4651.3 R23 .2145 R13 -.8860
SG1 4638.9 SG2 339.8 THA 175.41

ORBIT DETERMINATION ACCURACY
ST 995.7 SR 357.5 SS 188.4
CRT -.9088 CRS .9161 CST -.6986
LSA 1057.5 MSA 187.9 SSA 33.8
EL1 1048.4 EL2 141.6 ALF 161.58

LAUNCH DATE OCT 7 1970 FLIGHT TIME 154.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 458.847

RL 149.52 LAL .00 LOL 13.32 VL 26.641 GAL -4.05 AZL 91.25 HCA 227.39 SMA 124.56 ECC .21198 INC 1.2502 V1 29.801
RP 108.45 LAP .92 LOP 240.70 VP 37.175 GAP 9.75 AZP 89.15 TAL 195.40 TAP 62.79 RCA 98.15 APO 150.96 V2 34.943
RC 154.408 GL -9.38 GP 22.71 ZAL 112.85 ZAP 153.13 ETS 51.99 ZAE 126.67 ETE 162.75 ZAC 124.99 ETC 261.86 CLP-165.23

PLANETOCENTRIC CONIC

C3 12.670 VHL 3.560 DLA -32.42 RAL 258.45 RAD 6567.5 VEL 11.578 PTH 2.02 VHP 6.809 DPA -.17 RAP 257.90 ECC 1.2085

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.50	7 25 52	1197.33	25.04	349.09	121.09	111.31	7 45 50	597.3	27.70	341.09
106.50	11 41 8	5668.56	25.05	266.43	121.10	111.29	13 15 36	5068.6	27.71	258.42
73.50	7 25 52	1197.33	25.04	349.09	121.09	111.31	7 45 50	597.3	27.70	341.09
106.50	11 41 8	5668.56	25.05	266.43	121.10	111.29	13 15 36	5068.6	27.71	258.42
110.00	10 40 24	5856.30	18.68	277.63	117.87	119.16	12 18 0	5256.3	22.42	270.50
110.00	13 25 46	5345.62	31.76	243.92	123.48	103.37	14 54 52	4745.6	33.27	235.02

DIFFERENTIAL CORRECTIONS
TDE -.4963 TRA -.4274 TC3-6.4078 BAU 1.0882
RDE .2193 RRA -.0645 RC3 .4616 FAU .03827
FDE -.1185 FRA .3094 FC3-2.6151 BSP 14915
BDE .5425 BRA .4323 BC3 6.4244 FSP -552

MID-COURSE EXECUTION ACCURACY
SGT 4702.3 SGR 497.7 SG3 169.5
RRT -.7182 RRF -.7697 RTF .8848
SGB 4728.6 R23 .1881 R13 -.8858
SG1 4716.0 SG2 345.3 THA 175.63

ORBIT DETERMINATION ACCURACY
ST 846.5 SR 355.0 SS 156.6
CRT -.9126 CRS .7875 CST -.5181
LSA 912.3 MSA 181.8 SSA 43.3
EL1 907.9 EL2 135.3 ALF 158.56

LAUNCH DATE OCT 7 1970 FLIGHT TIME 156.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 464.578

RL 149.52 LAL .00 LOL 13.32 VL 26.581 GAL -3.64 AZL 90.95 HCA 230.58 SMA 124.18 ECC .21328 INC .9542 V1 29.801
RP 108.49 LAP .74 LOP 243.89 VP 37.120 GAP 9.97 AZP 89.39 TAL 193.69 TAP 64.27 RCA 97.70 APO 150.67 V2 34.931
RC 156.530 GL -7.23 GP 21.33 ZAL 109.83 ZAP 154.68 ETS 52.01 ZAE 126.99 ETE 163.72 ZAC 123.78 ETC 262.59 CLP-166.04

PLANETOCENTRIC CONIC

C3 12.329 VHL 3.511 DLA -30.49 RAL 262.31 RAD 6567.5 VEL 11.564 PTH 2.02 VHP 6.869 DPA -1.85 RAP 259.89 ECC 1.2029

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
78.19	8 13 53	1088.95	23.75	340.37	123.96	109.71	8 32 2	489.0	26.21	332.39
101.81	11 23 53	5765.29	23.76	273.21	123.96	109.70	12 59 58	5165.3	26.22	265.22
78.19	8 13 53	1088.95	23.75	340.37	123.96	109.71	8 32 2	489.0	26.21	332.39
101.81	11 23 53	5765.29	23.76	273.21	123.96	109.70	12 59 58	5165.3	26.22	265.22
110.00	10 19 17	680.53	14.84	306.16	119.47	121.15	10 30 38	80.5	18.85	299.34
110.00	14 17 40	5221.71	33.33	234.60	126.65	98.07	15 44 42	4621.7	34.09	225.44

DIFFERENTIAL CORRECTIONS
TDE -.4003 TRA -.2926 TC3-6.6931 BAU 1.1058
RDE .2190 RRA -.0735 RC3 .4553 FAU .03689
FDE -.0623 FRA .3628 FC3-2.5903 BSP 15178
BDE .4544 BRA .3017 BC3 6.7086 FSP -549

MID-COURSE EXECUTION ACCURACY
SGT 4777.7 SGR 494.7 SG3 168.2
RRT -.7003 RRF -.7402 RTF .8853
SGB 4803.2 R23 .1637 R13 -.8862
SG1 4790.3 SG2 352.2 THA 175.83

ORBIT DETERMINATION ACCURACY
ST 688.6 SR 353.4 SS 140.2
CRT -.9186 CRS .5368 CST -.2452
LSA 764.9 MSA 174.2 SSA 57.1
EL1 763.7 EL2 125.9 ALF 154.00

LAUNCH DATE OCT 7 1970 FLIGHT TIME 158.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 470.294

RL	149.52	LAL	.00	LOL	13.32	VL	26.521	GAL	-3.23	AZL	90.68	HCA	233.76	SMA	123.82	ECC	.21475	INC	.6841	V1	29.801
RP	108.53	LAP	.55	LOP	247.07	VP	37.067	GAP	10.20	AZP	89.60	TAL	191.97	TAP	65.72	RCA	97.23	APO	150.41	V2	34.919
RC	158.641	GL	-5.21	GP	20.12	ZAL	106.61	ZAP	156.11	ETS	52.19	ZAE	127.25	ETE	164.58	ZAC	122.70	ETC	263.29	CLP	-166.84

PLANETOCENTRIC CONIC

C3	12.109	VHL	3.480	DLA	-28.61	RAL	266.18	RAD	6567.5	VEL	11.554	PTH	2.02	VHP	6.943	DPA	-3.35	RAP	261.94	ECC	1.1993

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
85.72	9 28 27	895.49	22.42	325.56	127.03	108.26	9 43 22	295.5	24.70	317.61
94.28	10 40 12	663.10	22.43	308.55	127.04	108.25	10 51 15	63.1	24.71	300.60
100.00	10 12 19	753.05	17.34	313.03	124.90	114.74	10 24 52	153.0	20.53	305.69
100.00	12 39 1	5568.81	27.70	259.83	128.59	101.71	14 11 50	4968.8	29.04	251.28
110.00	10 8 3	766.46	11.76	310.91	121.77	122.33	10 20 50	166.5	15.94	304.30
110.00	14 59 46	5128.17	33.99	227.38	129.59	93.84	16 25 14	4528.2	34.15	218.14

DIFFERENTIAL CORRECTIONS

TDE	-.3018	TRA	-.1408	TC3	-6.9196	BAU	1.1226														
RDE	.2121	RRA	-.0830	RC3	.4474	FAU	.03544														
FDE	-.0097	FRA	.4140	FC3	-2.5336	BSP	15433														
BDE	.3609	BRA	.1713	BC3	6.9340	FSP	-545														

MID-COURSE EXECUTION ACCURACY

SGT	4849.5	SGR	493.1	SG3	166.5				
RRT	-.6815	RRF	-.7111	RTF	.8863				
SGB	4874.5	RZS	.1417	R13	-.8871				
SG1	4861.2	SG2	360.0	THA	176.01				

ORBIT DETERMINATION ACCURACY

ST	524.3	SR	352.4	SS	143.6
CRT	-.9251	CRS	.2007	CST	.0325
LSA	621.6	MSA	165.1	SSA	77.9
EL1	621.6	EL2	112.9	ALF	146.90

LAUNCH DATE OCT 7 1970 FLIGHT TIME 160.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 475.995

RL	149.52	LAL	.00	LOL	13.32	VL	26.463	GAL	-2.80	AZL	90.44	HCA	236.93	SMA	123.46	ECC	.21641	INC	.4354	V1	29.801
RP	108.56	LAP	.37	LOP	250.25	VP	37.013	GAP	10.43	AZP	89.76	TAL	190.24	TAP	67.17	RCA	96.74	APO	150.17	V2	34.907
RC	160.740	GL	-3.32	GP	19.04	ZAL	103.24	ZAP	157.42	ETS	52.53	ZAE	127.48	ETE	165.35	ZAC	121.73	ETC	263.98	CLP	-167.63

PLANETOCENTRIC CONIC

C3	12.006	VHL	3.465	DLA	-26.77	RAL	270.06	RAD	6567.5	VEL	11.550	PTH	2.02	VHP	7.030	DPA	-4.67	RAP	264.07	ECC	1.1976

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 57 41	1046.17	15.64	333.79	128.18	113.91	9 15 7	446.2	18.74	326.49
90.00	11 41 53	5796.82	26.68	276.37	131.77	99.85	13 18 30	5196.8	27.77	267.87
100.00	9 46 49	887.48	13.33	321.01	127.05	117.00	10 1 36	287.5	16.85	313.98
100.00	13 35 27	5430.75	29.21	249.85	132.18	96.67	15 5 57	4830.7	29.82	241.10
110.00	10 1 41	840.79	9.02	314.83	124.50	123.11	10 15 42	240.8	13.32	308.47
110.00	15 37 4	5050.21	34.18	221.30	132.53	90.25	17 1 14	4450.2	33.84	212.07

DIFFERENTIAL CORRECTIONS

TDE	-.1944	TRA	.0084	TC3	-7.0623	BAU	1.1357														
RDE	.2094	RRA	-.0856	RC3	.4350	FAU	.03375														
FDE	.0439	FRA	.4667	FC3	-2.4339	BSP	15556														
BDE	.2857	BRA	.0940	BC3	7.0757	FSP	-532														

MID-COURSE EXECUTION ACCURACY

SGT	4904.6	SGR	490.8	SG3	163.9				
RRT	-.6599	RRF	-.6803	RTF	.8860				
SGB	4929.1	RZS	.1230	R13	-.8866				
SG1	4915.4	SG2	368.0	THA	176.20				

ORBIT DETERMINATION ACCURACY

ST	353.4	SR	350.3	SS	166.4
CRT	-.9114	CRS	-.1164	CST	.1548
LSA	487.1	MSA	165.0	SSA	104.0
EL1	486.5	EL2	104.8	ALF	135.28

LAUNCH DATE OCT 7 1970 FLIGHT TIME 162.00 ARRIVAL DATE MAR 18 1971

HELIOCENTRIC CONIC DISTANCE 481.678

RL	149.52	LAL	.00	LOL	13.32	VL	26.404	GAL	-2.36	AZL	90.20	HCA	240.11	SMA	123.11	ECC	.21826	INC	.2038	V1	29.801
RP	108.60	LAP	.18	LOP	253.42	VP	36.961	GAP	10.66	AZP	89.90	TAL	188.50	TAP	68.61	RCA	96.24	APO	149.98	V2	34.896
RC	162.826	GL	-1.56	GP	18.08	ZAL	99.76	ZAP	158.63	ETS	53.04	ZAE	127.67	ETE	166.03	ZAC	120.86	ETC	264.66	CLP	-168.41

PLANETOCENTRIC CONIC

C3	12.016	VHL	3.466	DLA	-24.95	RAL	273.92	RAD	6567.5	VEL	11.550	PTH	2.02	VHP	7.127	DPA	-5.85	RAP	266.25	ECC	1.1978

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 34 23	1177.41	11.87	341.58	130.68	115.90	8 54 0	577.4	15.26	334.55
90.00	12 36 2	5665.97	27.86	266.90	135.40	95.28	14 10 28	5066.0	28.30	258.34
100.00	9 33 5	987.88	10.16	326.77	129.79	118.26	9 49 33	387.9	13.86	319.94
100.00	14 20 1	5330.73	29.77	242.47	135.56	92.82	15 48 52	4730.7	29.84	233.66
110.00	9 58 16	908.88	6.47	318.55	127.55	123.64	10 13 25	308.9	10.85	312.19
110.00	16 11 20	4982.49	34.08	216.02	135.56	87.12	17 34 22	4382.5	33.30	206.86

DIFFERENTIAL CORRECTIONS

TDE	-.0873	TRA	.1664	TC3	-7.1500	BAU	1.1506														
RDE	.2084	RRA	-.1045	RC3	.4227	FAU	.03221														
FDE	.0913	FRA	.5144	FC3	-2.3203	BSP	15785														
BDE	.2259	BRA	.1965	BC3	7.1625	FSP	-526														

MID-COURSE EXECUTION ACCURACY

SGT	4968.4	SGR	490.7	SG3	161.4				
RRT	-.6400	RRF	-.6524	RTF	.8874				
SGB	4992.6	RZS	.1057	R13	-.8880				
SG1	4978.4	SG2	376.3	THA	176.36				

ORBIT DETERMINATION ACCURACY

ST	226.3	SR	349.2	SS	198.8
CRT	-.7109	CRS	-.3145	CST	-.1509
LSA	393.9	MSA	217.3	SSA	101.4
EL1	391.1	EL2	142.1	ALF	118.90

LAUNCH DATE OCT 7 1970 FLIGHT TIME 164.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 487.344

RL	149.52	LAL	.00	LOL	13.32	VL	26.347	GAL	-1.90	AZL	89.99	HCA	243.28	SMA	122.76	ECC	.22033	INC	.0099	V1	29.801
RP	108.63	LAP	-.01	LOP	256.60	VP	36.910	GAP	10.90	AZP	90.01	TAL	186.75	TAP	70.04	RCA	95.71	APO	149.81	V2	34.885
RC	164.900	GL	.09	GP	17.23	ZAL	96.18	ZAP	159.75	ETS	53.71	ZAE	127.84	ETE	166.65	ZAC	120.06	ETC	265.33	CLP	-169.19

PLANETOCENTRIC CONIC

C3	12.143	VHL	3.485	DLA	-23.16	RAL	277.76	RAD	6567.5	VEL	11.556	PTH	2.02	VHP	7.234	DPA	-6.88	RAP	268.48	ECC	1.1998

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 21 7	1279.24	8.77	347.47	133.66	117.03	8 42 26	679.2	12.33	340.59
90.00	13 19 56	5568.55	28.27	259.88	138.91	91.75	14 52 45	4968.6	28.21	251.22
100.00	9 24 39	1074.16	7.34	331.63	132.89	119.06	9 42 33	474.2	11.16	324.92
100.00	14 59 5	5248.86	29.89	236.38	138.93	89.63	16 26 34	4648.9	29.52	227.60
110.00	9 56 49	973.32	4.03	321.94	130.85	123.97	10 13 2	373.3	8.46	315.66
110.00	16 43 25	4922.46	33.77	211.35	138.89	84.38	18 5 27	4322.5	32.63	202.31

DIFFERENTIAL CORRECTIONS

TDE	.0252	TRA	.3350	TC3	-7.1619	BAU	1.1645														
RDE	.2082	RRA	-.1157	RC3	.4079	FAU	.03063														
FDE	.1361	FRA	.5603	FC3	-2.1838	BSP	15991														
BDE	.2097	BRA	.3545	BC3	7.1735	FSP	-518														

MID-COURSE EXECUTION ACCURACY

SGT	5027.3	SGR	490.7	SG3	158.6				
RRT	-.6196	RRF	-.6254	RTF	.8891				
SGB	5051.2	RZS	.0907	R13	-.8896				
SG1	5036.5	SG2	384.5	THA	176.52				

ORBIT DETERMINATION ACCURACY

ST	237.6	SR	348.0	SS	235.9
CRT	.0210	CRS	-.4379	CST	-.7020
LSA	377.2	MSA	290.3	SSA	81.8
EL1	348.1	EL2	237.5	ALF	88.46

LAUNCH DATE OCT 7 1970 FLIGHT TIME 166.00 ARRIVAL DATE MAR 22 1971

HELIOCENTRIC CONIC DISTANCE 492.990

RL	149.52	LAL	.00	LOL	13.32	VL	26.291	GAL	-1.43	AZL	89.78	HCA	246.46	SMA	122.42	ECC	.22263	INC	.2168
RP	108.66	LAP	-.20	LOP	259.77	VP	36.860	GAP	11.15	AZP	90.09	TAL	185.00	TAP	71.46	RCA	95.17	APO	149.68
RC	166.961	GL	1.62	GP	16.46	ZAL	92.56	ZAP	160.79	ETS	54.56	ZAE	127.99	ETE	167.19	ZAC	119.33	ETC	266.01

V1 29.801 V2 34.874 CLP-169.96

PLANETOCENTRIC CONIC

C3 12.389 VHL 3.520 DLA -21.39 RAL 281.55 RAD 6567.5 VEL 11.566 PTH 2.02 VHP 7.352 DPA -7.80 RAP 270.75 ECC 1.2039

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 12 40	1367.92	6.00	352.50	136.95	117.73	8 35 28	767.9	9.66	345.74
90.00	13 58 39	5488.37	28.29	254.02	142.41	88.81	15 30 7	4888.4	27.83	245.38
100.00	9 19 20	1152.76	4.72	335.99	136.25	119.55	9 38 33	552.8	8.62	329.37
100.00	15 34 40	5178.77	29.75	231.18	142.35	86.89	17 0 59	4578.8	29.00	222.45
110.00	9 56 44	1035.53	1.65	325.19	134.34	124.15	10 14 0	435.5	6.12	318.96
110.00	17 13 45	4868.76	33.34	207.22	141.94	81.97	18 34 54	4268.8	31.87	198.30

DIFFERENTIAL CORRECTIONS

TDE	.1350	TRA	.5049	TC3	-7.1255	BAU	1.1820
RDE	.2097	RRA	-.1266	RC3	.3939	FAU	.02931
FDE	.1737	FRA	.6001	FC3	-2.0483	BSP	16376
BDE	.2494	BRA	.5205	BC3	7.1364	FSP	-520

MID-COURSE EXECUTION ACCURACY

SGT	5097.8	SGR	492.4	SG3	156.0		
RRT	-.6021	RRF	-.6024	RTF	.8932		
SGB	5121.5	R23	.0769	R13	-.8935		
SG1	5106.5	SG2	392.5	THA	176.65		

ORBIT DETERMINATION ACCURACY

ST	375.6	SR	347.9	SS	270.2
CRT	.4302	CRS	-.5088	CST	-.9515
LSA	501.1	MSA	282.6	SSA	64.6
EL1	433.8	EL2	272.0	ALF	39.94

LAUNCH DATE OCT 7 1970 FLIGHT TIME 168.00 ARRIVAL DATE MAR 24 1971

HELIOCENTRIC CONIC DISTANCE 498.617

RL	149.52	LAL	.00	LOL	13.32	VL	26.235	GAL	-.94	AZL	89.59	HCA	249.63	SMA	122.09	ECC	.22517	INC	.4118
RP	108.69	LAP	-.39	LOP	262.94	VP	36.810	GAP	11.41	AZP	90.14	TAL	183.24	TAP	72.87	RCA	94.60	APO	149.59
RC	169.007	GL	3.03	GP	15.77	ZAL	88.92	ZAP	161.76	ETS	55.58	ZAE	128.12	ETE	167.69	ZAC	118.65	ETC	266.68

V1 29.801 V2 34.864 CLP-170.71

PLANETOCENTRIC CONIC

C3 12.760 VHL 3.572 DLA -19.65 RAL 285.29 RAD 6567.5 VEL 11.582 PTH 2.03 VHP 7.480 DPA -8.59 RAP 273.06 ECC 1.2100

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 7 9	1449.13	3.41	357.06	140.46	118.13	8 31 18	849.1	7.14	350.38
90.00	14 33 58	5419.77	28.10	249.01	145.97	86.31	16 4 18	4819.8	27.29	240.44
100.00	9 16 6	1226.60	2.23	340.06	139.81	119.82	9 36 32	626.6	6.18	333.50
100.00	16 7 42	5117.53	29.43	226.65	145.85	84.53	17 32 59	4517.5	28.36	218.01
110.00	9 57 41	1096.30	-.67	328.36	138.00	124.18	10 15 57	496.3	3.82	322.16
110.00	17 42 36	4820.60	32.82	203.56	145.31	79.86	19 2 57	4220.6	31.07	194.77

DIFFERENTIAL CORRECTIONS

TDE	.2656	TRA	.6969	TC3	-6.9700	BAU	1.1907
RDE	.2104	RRA	-.1306	RC3	.3720	FAU	.02757
FDE	.2186	FRA	.6479	FC3	-1.8704	BSP	16399
BDE	.3388	BRA	.7127	BC3	6.9799	FSP	-503

MID-COURSE EXECUTION ACCURACY

SGT	5137.4	SGR	491.0	SG3	152.8		
RRT	-.5799	RRF	-.5752	RTF	.8935		
SGB	5160.8	R23	.0661	R13	-.8938		
SG1	5145.4	SG2	399.4	THA	176.81		

ORBIT DETERMINATION ACCURACY

ST	575.6	SR	345.0	SS	312.7
CRT	.5896	CRS	-.5653	CST	-.9822
LSA	689.4	MSA	264.9	SSA	51.3
EL1	619.0	EL2	259.1	ALF	23.90

LAUNCH DATE OCT 7 1970 FLIGHT TIME 170.00 ARRIVAL DATE MAR 26 1971

HELIOCENTRIC CONIC DISTANCE 504.220

RL	149.52	LAL	.00	LOL	13.32	VL	26.180	GAL	-.44	AZL	89.40	HCA	252.80	SMA	121.77	ECC	.22797	INC	.5992
RP	108.72	LAP	-.57	LOP	266.11	VP	36.762	GAP	11.68	AZP	90.18	TAL	181.47	TAP	74.27	RCA	94.01	APO	149.53
RC	171.039	GL	4.31	GP	15.14	ZAL	85.29	ZAP	162.66	ETS	56.79	ZAE	128.24	ETE	168.13	ZAC	118.01	ETC	267.34

V1 29.801 V2 34.855 CLP-171.46

PLANETOCENTRIC CONIC

C3 13.265 VHL 3.642 DLA -17.95 RAL 288.94 RAD 6567.5 VEL 11.604 PTH 2.03 VHP 7.618 DPA -9.28 RAP 275.41 ECC 1.2183

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 3 34	1525.51	.95	1.33	144.15	118.30	8 28 59	925.5	4.72	354.68
90.00	15 6 41	5360.13	27.76	244.68	149.59	84.16	16 36 1	4760.1	26.66	236.18
100.00	9 14 19	1297.23	-.16	343.93	143.53	119.89	9 35 56	697.2	3.81	337.40
100.00	16 38 38	5063.64	29.02	222.70	149.43	82.49	18 3 1	4463.6	27.67	214.16
110.00	9 59 22	1156.08	-2.95	331.48	141.79	124.07	10 18 38	556.1	1.54	325.28
110.00	18 10 4	4777.56	32.26	200.33	148.78	78.03	19 29 42	4177.6	30.27	191.68

DIFFERENTIAL CORRECTIONS

TDE	.3950	TRA	.8949	TC3	-6.7689	BAU	1.2020
RDE	.2127	RRA	-.1522	RC3	.3505	FAU	.02604
FDE	.2572	FRA	.6901	FC3	-1.6996	BSP	16588
BDE	.4486	BRA	.9077	BC3	6.7780	FSP	-496

MID-COURSE EXECUTION ACCURACY

SGT	5185.3	SGR	490.4	SG3	149.6		
RRT	-.5598	RRF	-.5511	RTF	.8959		
SGB	5208.4	R23	.0561	R13	-.8961		
SG1	5192.6	SG2	405.8	THA	176.95		

ORBIT DETERMINATION ACCURACY

ST	777.9	SR	343.1	SS	349.7
CRT	.6492	CRS	-.5992	CST	-.9894
LSA	882.3	MSA	254.7	SSA	42.3
EL1	812.7	EL2	249.8	ALF	17.70

LAUNCH DATE OCT 7 1970 FLIGHT TIME 172.00 ARRIVAL DATE MAR 28 1971

HELIOCENTRIC CONIC DISTANCE 509.798

RL	149.52	LAL	.00	LOL	13.32	VL	26.125	GAL	.09	AZL	89.22	HCA	255.97	SMA	121.46	ECC	.23106	INC	.7799
RP	108.75	LAP	-.76	LOP	269.28	VP	36.715	GAP	11.96	AZP	90.19	TAL	179.71	TAP	75.67	RCA	93.39	APO	149.52
RC	173.056	GL	5.47	GP	14.58	ZAL	81.70	ZAP	163.51	ETS	58.19	ZAE	128.35	ETE	168.54	ZAC	117.41	ETC	268.01

V1 29.801 V2 34.846 CLP-172.20

PLANETOCENTRIC CONIC

C3 13.915 VHL 3.730 DLA -16.30 RAL 292.50 RAD 6567.5 VEL 11.632 PTH 2.04 VHP 7.767 DPA -9.87 RAP 277.79 ECC 1.2290

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 1 23	1598.49	-1.41	5.40	147.98	118.28	8 28 1	998.5	2.38	358.77
90.00	15 37 15	5308.01	27.34	240.92	153.28	82.32	17 5 43	4708.0	25.99	232.51
100.00	9 13 35	1365.51	-2.48	347.68	147.39	119.80	9 36 21	765.5	1.51	341.16
100.00	17 7 44	5016.23	28.55	219.26	153.08	80.73	18 31 20	4416.2	26.97	210.81
110.00	10 1 36	1215.11	-5.20	334.58	145.69	123.83	10 21 51	615.1	-.72	328.36
110.00	18 36 13	4739.39	31.68	197.50	152.35	76.45	19 55 12	4139.4	29.50	188.98

DIFFERENTIAL CORRECTIONS

TDE	.5297	TRA	1.1016	TC3	-6.5032	BAU	1.2113
RDE	.2159	RRA	-.1651	RC3	.3267	FAU	.02449
FDE	.2937	FRA	.7312	FC3	-1.5240	BSP	16473
BDE	.5720	BRA	1.1139	BC3	6.5114	FSP	-462

MID-COURSE EXECUTION ACCURACY

SGT	5225.8	SGR	489.1	SG3	146.3		
RRT	-.5394	RRF	-.5274	RTF	.8983		
SGB	5248.6	R23	.0474	R13	-.8985		
SG1	5232.5	SG2	411.3	THA	177.09		

ORBIT DETERMINATION ACCURACY

ST	981.2	SR	341.1	SS	384.3
CRT	.6779	CRS	-.6223	CST	-.9925
LSA	1078.8	MSA	248.0	SSA	35.9
EL1	1009.8	EL2	243.6	ALF	14.10

LAUNCH DATE OCT 7 1970 FLIGHT TIME 174.00 ARRIVAL DATE MAR 30 1971

HELIOCENTRIC CONIC DISTANCE 515.350

RL 149.52 LAL .00 LOL 13.32 VL 26.072 GAL .63 AZL 89.04 HCA 259.13 SMA 121.15 ECC .23444 INC .9556 V1 29.801
RP 108.78 LAP -.94 LOP 272.45 VP 36.669 GAP 12.25 AZP 90.18 TAL 177.93 TAP 77.07 RCA 92.74 APO 149.55 V2 34.837
RC 175.059 GL 6.51 GP 14.07 ZAL 78.18 ZAP 164.29 ETS 59.80 ZAE 128.46 ETE 168.90 ZAC 116.83 ETC 268.67 CLP-172.94

PLANETOCENTRIC CONIC

C3 14.722 VHL 3.837 DLA -14.69 RAL 295.95 RAD 6567.6 VEL 11.666 PTH 2.05 VHP 7.927 DPA -10.37 RAP 280.19 ECC 1.2423

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 0 13	1668.88	-3.68	9.33	151.91	118.10	8 28 2	1068.9	.11	2.70
90.00	16 5 55	5262.55	26.88	237.67	157.03	80.76	17 33 38	4662.6	25.33	229.35
100.00	9 13 39	1431.93	-4.72	351.34	151.34	119.55	9 37 31	831.9	-.75	344.80
100.00	17 35 10	4974.74	28.06	216.27	156.80	79.24	18 58 5	4374.7	26.28	207.92
110.00	10 4 14	1273.50	-7.40	337.66	149.69	123.47	10 25 28	673.5	-2.95	331.41
110.00	19 1 4	4705.94	31.13	195.05	155.99	75.10	20 19 30	4105.9	28.77	186.65

DIFFERENTIAL CORRECTIONS
TDE .6715 TRA 1.3183 TC3-6.1920 BAU 1.2201
RDE .2197 RRA -.1785 RC3 .3011 FAU .02292
FDE .3311 FRA .7742 FC3-1.3478 BSP 16852
BDE .7066 BRA 1.3303 BC3 6.1993 FSP -474

MID-COURSE EXECUTION ACCURACY
SGT 5265.5 SGR 486.8 SG3 143.1
RRT -.5187 RRF -.5037 RTF .8994
SGB 5287.9 RZS .0400 R13 -.8995
SG1 5271.6 SG2 415.7 THA 177.24

ORBIT DETERMINATION ACCURACY
ST 1182.7 SR 338.4 SS 418.9
CRT .6935 CRS -.6396 CST -.9943
LSA 1276.2 MSA 243.0 SSA 31.4
EL1 1206.7 EL2 239.0 ALF 11.69

LAUNCH DATE OCT 7 1970 FLIGHT TIME 176.00 ARRIVAL DATE APR 1 1971

HELIOCENTRIC CONIC DISTANCE 520.871

RL 149.52 LAL .00 LOL 13.32 VL 26.019 GAL 1.20 AZL 88.87 HCA 262.30 SMA 120.84 ECC .23816 INC 1.1275 V1 29.801
RP 108.80 LAP -1.12 LOP 275.61 VP 36.624 GAP 12.56 AZP 90.15 TAL 176.16 TAP 78.46 RCA 92.06 APO 149.62 V2 34.829
RC 177.047 GL 7.42 GP 13.60 ZAL 74.75 ZAP 165.02 ETS 61.62 ZAE 128.55 ETE 169.23 ZAC 116.28 ETC 269.33 CLP-173.67

PLANETOCENTRIC CONIC

C3 15.702 VHL 3.963 DLA -13.15 RAL 299.27 RAD 6567.6 VEL 11.708 PTH 2.06 VHP 8.100 DPA -10.77 RAP 282.61 ECC 1.2584

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 59 50	1737.15	-5.85	13.17	155.94	117.75	8 28 47	1137.1	-2.09	6.51
90.00	16 32 51	5223.22	26.42	234.89	160.83	79.43	17 59 54	4623.2	24.70	226.64
100.00	9 14 20	1496.78	-6.88	354.93	155.38	119.16	9 39 17	896.8	-2.94	348.36
100.00	18 1 2	4938.81	27.57	213.71	160.57	77.97	19 23 21	4338.8	25.64	205.44
110.00	10 7 11	1331.27	-9.56	340.75	153.75	122.98	10 29 22	731.3	-5.15	334.44
110.00	19 24 40	4677.09	30.60	192.97	159.70	73.97	20 42 38	4077.1	28.10	184.67

DIFFERENTIAL CORRECTIONS
TDE .8184 TRA 1.5451 TC3-5.8447 BAU 1.2283
RDE .2252 RRA -.1916 RC3 .2759 FAU .02150
FDE .3635 FRA .8146 FC3-1.1054 BSP 17003
BDE .8469 BRA 1.5570 BC3 5.8512 FSP -465

MID-COURSE EXECUTION ACCURACY
SGT 5302.1 SGR 484.5 SG3 139.9
RRT -.4907 RRF -.4823 RTF .9024
SGB 5324.2 RZS .0340 R13 -.9025
SG1 5307.7 SG2 419.5 THA 177.37

ORBIT DETERMINATION ACCURACY
ST 1373.5 SR 336.6 SS 447.4
CRT .7022 CRS -.6504 CST -.9955
LSA 1463.5 MSA 239.8 SSA 27.8
EL1 1394.3 EL2 236.1 ALF 10.06

LAUNCH DATE OCT 7 1970 FLIGHT TIME 178.00 ARRIVAL DATE APR 3 1971

HELIOCENTRIC CONIC DISTANCE 526.357

RL 149.52 LAL .00 LOL 13.32 VL 25.967 GAL 1.79 AZL 88.70 HCA 265.46 SMA 120.55 ECC .24224 INC 1.2968 V1 29.801
RP 108.83 LAP -1.29 LOP 278.78 VP 36.580 GAP 12.88 AZP 90.10 TAL 174.39 TAP 79.85 RCA 91.34 APO 149.75 V2 34.822
RC 179.021 GL 8.22 GP 13.18 ZAL 71.43 ZAP 165.70 ETS 63.67 ZAE 128.64 ETE 169.54 ZAC 115.74 ETC 269.98 CLP-174.40

PLANETOCENTRIC CONIC

C3 16.872 VHL 4.108 DLA -11.68 RAL 302.47 RAD 6567.7 VEL 11.758 PTH 2.08 VHP 8.285 DPA -11.09 RAP 285.04 ECC 1.2777

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 0 3	1803.57	-7.94	16.93	160.03	117.27	8 30 6	1203.6	-4.23	10.22
90.00	16 58 8	5189.60	25.98	232.52	164.66	78.33	18 24 38	4589.6	24.11	224.35
100.00	9 15 28	1560.23	-8.97	358.49	159.48	118.63	9 41 28	960.2	-5.08	351.86
100.00	18 25 24	4908.18	27.12	211.55	164.39	76.92	19 47 12	4308.2	25.05	203.36
110.00	10 10 20	1388.42	-11.66	343.84	157.87	122.36	10 33 28	788.4	-7.30	337.45
110.00	19 47 1	4652.75	30.13	191.23	163.46	73.03	21 4 34	4052.8	27.51	183.02

DIFFERENTIAL CORRECTIONS
TDE .9585 TRA 1.7740 TC3-5.4874 BAU 1.2391
RDE .2322 RRA -.2040 RC3 .2512 FAU .02023
FDE .3916 FRA .8507 FC3-1.0382 BSP 17332
BDE .9862 BRA 1.7857 BC3 5.4931 FSP -464

MID-COURSE EXECUTION ACCURACY
SGT 5338.0 SGR 481.5 SG3 136.5
RRT -.4791 RRF -.4618 RTF .9059
SGB 5359.7 RZS .0285 R13 -.9060
SG1 5343.0 SG2 422.3 THA 177.51

ORBIT DETERMINATION ACCURACY
ST 1542.8 SR 335.4 SS 470.0
CRT .7073 CRS -.6585 CST -.9963
LSA 1629.9 MSA 237.7 SSA 25.0
EL1 1561.4 EL2 234.3 ALF 8.95

LAUNCH DATE OCT 7 1970 FLIGHT TIME 180.00 ARRIVAL DATE APR 5 1971

HELIOCENTRIC CONIC DISTANCE 531.806

RL 149.52 LAL .00 LOL 13.32 VL 25.916 GAL 2.40 AZL 88.54 HCA 268.63 SMA 120.26 ECC .24671 INC 1.4646 V1 29.801
RP 108.85 LAP -1.46 LOP 281.94 VP 36.537 GAP 13.22 AZP 90.04 TAL 172.62 TAP 81.24 RCA 90.59 APO 149.92 V2 34.815
RC 180.980 GL 8.91 GP 12.80 ZAL 68.23 ZAP 166.32 ETS 65.95 ZAE 128.73 ETE 169.82 ZAC 115.22 ETC 270.63 CLP-175.12

PLANETOCENTRIC CONIC

C3 18.256 VHL 4.273 DLA -10.28 RAL 305.53 RAD 6567.7 VEL 11.817 PTH 2.09 VHP 8.484 DPA -11.33 RAP 287.49 ECC 1.3004

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 0 43	1868.36	-9.94	20.64	164.18	116.65	8 31 52	1268.4	-6.29	13.87
90.00	17 21 53	5161.38	25.58	230.56	168.53	77.42	18 47 55	4561.4	23.59	222.45
100.00	9 16 58	1622.39	-10.98	2.01	163.84	117.98	9 44 1	1022.4	-7.15	355.31
100.00	18 48 20	4882.59	26.71	209.75	168.24	76.06	20 9 42	4282.6	24.53	201.63
110.00	10 13 38	1444.92	-13.70	346.95	162.04	121.63	10 37 43	844.9	-9.41	340.47
110.00	20 8 9	4632.81	29.73	189.82	167.27	72.29	21 25 22	4032.8	27.02	181.68

DIFFERENTIAL CORRECTIONS
TDE 1.1215 TRA 2.0308 TC3-5.0768 BAU 1.2403
RDE .2391 RRA -.2173 RC3 .2242 FAU .01870
FDE .4256 FRA .8945 FC3 -.8867 BSP 17288
BDE 1.1468 BRA 2.0424 BC3 5.0817 FSP -449

MID-COURSE EXECUTION ACCURACY
SGT 5361.2 SGR 476.7 SG3 133.5
RRT -.4572 RRF -.4389 RTF .9080
SGB 5382.4 RZS .0238 R13 -.9081
SG1 5365.7 SG2 423.6 THA 177.66

ORBIT DETERMINATION ACCURACY
ST 1722.8 SR 332.8 SS 497.1
CRT .7112 CRS -.6663 CST -.9970
LSA 1808.4 MSA 234.9 SSA 22.8
EL1 1739.3 EL2 231.8 ALF 7.96

LAUNCH DATE OCT 7 1970 FLIGHT TIME 182.00 ARRIVAL DATE APR 7 1971

HELIOCENTRIC CONIC DISTANCE 537.213

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RL  149.52 LAL    .00 LOL  13.32 VL  25.865 GAL   3.05 AZL  88.37 HCA 271.79 SMA 119.97 ECC .25161 INC 1.6318 V1  29.801
RP  108.87 LAP  -1.63 LOP 285.10 VP  36.495 GAP  13.59 AZP  89.95 TAL 170.85 TAP  82.64 RCA  89.79 APO 150.16 V2  34.809
RC 182.925 GL    9.50 GP   12.44 ZAL  65.16 ZAP 166.89 ETS  68.48 ZAE 128.80 ETE 170.07 ZAC 114.71 ETC 271.28 CLP-175.85
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PLANETOCENTRIC CONIC

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C3  19.878 VHL  4.458 DLA  -8.95 RAL 308.46 RAD 6567.8 VEL 11.885 PTH   2.11 VHP  8.698 DPA -11.49 RAP 289.94 ECC 1.3271
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 1 46	1931.62	-11.85	24.31	168.37	115.91	8 33 58	1331.6	-8.27	17.46
90.00	17 44 10	5138.27	25.23	228.96	172.42	76.69	19 9 48	4538.3	23.14	220.90
100.00	9 18 44	1683.29	-12.90	5.51	167.84	117.20	9 46 48	1083.3	-9.15	358.73
100.00	19 9 53	4861.84	26.36	208.31	172.11	75.37	20 30 55	4261.8	24.09	200.24
110.00	10 17 2	1500.74	-15.67	350.08	166.26	120.78	10 42 3	900.7	-11.47	343.49
110.00	20 28 4	4617.16	29.40	188.72	171.09	71.71	21 45 1	4017.2	26.62	180.64

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.2837 TRA 2.2936 TC3-4.6723 BAU 1.2428   SGT 5383.6 SGR  471.3 SG3  130.4     ST  1881.1 SR   330.8 SS   519.2
 RDE  .2477 RRA -.2298 RC3  .1987 FAU .01731   RRT -.4355 RRF -.4168 RTF  .9108    CRT  .7139 CRS -.6727 CST -.9975
 FDE  .4561 FRA  .9355 FC3 -.7537 BSP  17364   SGB 5404.2 R23  .0195 R13 -.9109   LSA 1965.4 MSA  232.6 SSA   21.0
 BDE 1.3074 BRA 2.3051 BC3 4.6765 FSP   -438   SG1 5387.5 SG2  423.9 THA 177.60   EL1 1896.1 EL2  229.8 ALF   7.26
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LAUNCH DATE OCT 7 1970 FLIGHT TIME 184.00 ARRIVAL DATE APR 9 1971

HELIOCENTRIC CONIC DISTANCE 542.570

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RL  149.52 LAL    .00 LOL  13.32 VL  25.816 GAL   3.72 AZL  88.20 HCA 274.95 SMA 119.69 ECC .25698 INC 1.7996 V1  29.801
RP  108.88 LAP  -1.79 LOP 288.27 VP  36.455 GAP  13.98 AZP  89.84 TAL 169.09 TAP  84.04 RCA  88.93 APO 150.45 V2  34.804
RC 184.854 GL    9.99 GP   12.12 ZAL  62.23 ZAP 167.41 ETS  71.27 ZAE 128.87 ETE 170.31 ZAC 114.20 ETC 271.91 CLP-176.57
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PLANETOCENTRIC CONIC

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C3  21.769 VHL  4.666 DLA  -7.71 RAL 311.24 RAD 6567.9 VEL 11.964 PTH   2.13 VHP  8.929 DPA -11.58 RAP 292.40 ECC 1.3583
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 3 5	1993.42	-13.66	27.94	172.60	115.05	8 36 19	1393.4	-10.17	21.00
90.00	18 5 3	5120.03	24.93	227.70	176.32	76.13	19 30 23	4520.0	22.78	219.69
100.00	9 20 43	1742.98	-14.73	9.00	172.07	116.31	9 49 46	1143.0	-11.08	2.11
100.00	19 30 6	4845.71	26.08	207.19	175.99	74.85	20 50 51	4245.7	23.75	199.17
110.00	10 20 30	1555.81	-17.56	353.22	170.50	119.81	10 46 26	955.8	-13.46	346.51
110.00	20 46 40	4605.64	29.15	187.91	174.94	71.30	22 3 34	4005.6	26.32	179.87

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.4456 TRA 2.5637 TC3-4.2791 BAU 1.2464   SGT 5402.7 SGR  465.2 SG3  127.2     ST  2018.4 SR   329.2 SS   536.4
 RDE  .2579 RRA -.2414 RC3  .1749 FAU .01607   RRT -.4137 RRF -.3954 RTF  .9145    CRT  .7165 CRS -.6783 CST -.9979
 FDE  .4830 FRA  .9746 FC3 -.6391 BSP  17567   SGB 5422.7 R23  .0162 R13 -.9145   LSA 2101.5 MSA  230.7 SSA   19.5
 BDE 1.4684 BRA 2.5751 BC3 4.2826 FSP   -433   SG1 5406.1 SG2  423.3 THA 177.95   EL1 2032.3 EL2  228.1 ALF   6.75
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LAUNCH DATE OCT 7 1970 FLIGHT TIME 186.00 ARRIVAL DATE APR 11 1971

HELIOCENTRIC CONIC DISTANCE 547.873

```
RL  149.52 LAL    .00 LOL  13.32 VL  25.767 GAL   4.43 AZL  88.03 HCA 278.11 SMA 119.42 ECC .26287 INC 1.9689 V1  29.801
RP  108.90 LAP  -1.95 LOP 291.43 VP  36.416 GAP  14.40 AZP  89.72 TAL 167.34 TAP  85.45 RCA  88.03 APO 150.81 V2  34.799
RC 186.768 GL   10.39 GP   11.83 ZAL  59.45 ZAP 167.87 ETS  74.32 ZAE 128.93 ETE 170.53 ZAC 113.70 ETC 272.54 CLP-177.30
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PLANETOCENTRIC CONIC

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C3  23.966 VHL  4.895 DLA  -6.55 RAL 313.88 RAD 6568.0 VEL 12.056 PTH   2.15 VHP  9.179 DPA -11.60 RAP 294.85 ECC 1.3944
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 4 38	2053.84	-15.37	31.55	176.85	114.08	8 38 52	1453.8	-11.99	24.51
90.00	18 24 35	5106.39	24.71	226.76	180.23	75.71	19 49 41	4506.4	22.50	218.79
100.00	9 22 52	1801.48	-16.46	12.48	176.33	115.31	9 52 53	1201.5	-12.92	5.48
100.00	19 49 2	4833.97	25.87	206.39	179.88	74.48	21 9 36	4234.0	23.49	198.40
110.00	10 23 59	1610.18	-19.37	356.40	174.78	118.73	10 50 49	1010.2	-15.38	349.55
110.00	21 4 25	4598.08	28.98	187.39	178.79	71.03	22 21 3	3998.1	26.12	179.38

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.6221 TRA 2.8574 TC3-3.8766 BAU 1.2430   SGT 5416.8 SGR  457.8 SG3  124.3     ST  2153.4 SR   327.1 SS   555.6
 RDE  .2688 RRA -.2528 RC3  .1514 FAU .01469   RRT -.3902 RRF -.3724 RTF  .9176    CRT  .7192 CRS -.6843 CST -.9982
 FDE  .5134 FRA 1.0185 FC3 -.5308 BSP  17538   SGB 5436.1 R23  .0132 R13 -.9176   LSA 2236.1 MSA  228.2 SSA   18.3
 BDE 1.6442 BRA 2.8686 BC3 3.8796 FSP   -420   SG1 5419.8 SG2  421.3 THA 178.10   EL1 2166.3 EL2  225.9 ALF   6.30
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LAUNCH DATE OCT 7 1970 FLIGHT TIME 188.00 ARRIVAL DATE APR 13 1971

HELIOCENTRIC CONIC DISTANCE 553.112

```
RL  149.52 LAL    .00 LOL  13.32 VL  25.719 GAL   5.18 AZL  87.86 HCA 281.27 SMA 119.16 ECC .26933 INC 2.1409 V1  29.801
RP  108.91 LAP  -2.10 LOP 294.59 VP  36.378 GAP  14.84 AZP  89.58 TAL 165.60 TAP  86.87 RCA  87.06 APO 151.25 V2  34.795
RC 188.667 GL   10.71 GP   11.56 ZAL  56.80 ZAP 168.27 ETS  77.64 ZAE 128.98 ETE 170.74 ZAC 113.20 ETC 273.16 CLP-178.03
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PLANETOCENTRIC CONIC

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C3  26.510 VHL  5.149 DLA  -5.46 RAL 316.38 RAD 6568.1 VEL 12.161 PTH   2.18 VHP  9.449 DPA -11.55 RAP 297.29 ECC 1.4363
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 6 22	2112.90	-16.98	35.14	181.12	113.01	8 41 35	1512.9	-13.72	27.99
90.00	18 42 50	5097.08	24.55	226.13	184.13	75.43	20 7 47	4497.1	22.31	218.17
100.00	9 25 8	1858.82	-18.10	15.95	180.61	114.20	9 56 6	1258.8	-14.68	8.83
100.00	20 8 45	4826.39	25.73	205.87	183.77	74.24	21 27 11	4226.4	23.32	197.90
110.00	10 27 28	1663.67	-21.09	359.60	179.07	117.55	10 55 11	1063.7	-17.23	352.59
110.00	21 20 54	4594.31	28.90	187.13	182.65	70.89	22 37 29	3994.3	26.02	179.13

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.7999 TRA 3.1609 TC3-3.4958 BAU 1.2398   SGT 5427.4 SGR  449.7 SG3  121.4     ST  2268.7 SR   325.2 SS   571.4
 RDE  .2812 RRA -.2629 RC3  .1299 FAU .01344   RRT -.3659 RRF -.3491 RTF  .9212    CRT  .7224 CRS -.6904 CST -.9985
 FDE  .5414 FRA 1.0613 FC3 -.4390 BSP  17621   SGB 5446.0 R23  .0107 R13 -.9212   LSA 2351.2 MSA  225.7 SSA   17.2
 BDE 1.8218 BRA 3.1719 BC3 3.4982 FSP   -411   SG1 5429.9 SG2  418.3 THA 178.25   EL1 2281.0 EL2  223.6 ALF   5.97
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LAUNCH DATE OCT 7 1970 FLIGHT TIME 190.00 ARRIVAL DATE APR 15 1971

HELIOCENTRIC CONIC DISTANCE 558.277

RL	149.52	LAL	.00	LOL	13.32	VL	25.672	GAL	5.97	AZL	87.88	HCA	284.43	SMA	118.90	ECC	.27643	INC	2.3166
RP	108.92	LAP	-2.24	LOP	297.75	VP	36.341	GAP	15.33	AZP	89.42	TAL	163.88	TAP	88.30	RCA	86.03	APO	151.76
RC	190.549	GL	10.96	GP	11.31	ZAL	54.31	ZAP	168.62	ETS	81.22	ZAE	129.02	ETE	170.93	ZAC	112.71	ETC	273.77

V1	29.801	V2	34.791	CLP	-178.77														

PLANETOCENTRIC CONIC

C3	29.455	VHL	5.427	DLA	-4.46	RAL	318.75	RAD	6568.2	VEL	12.281	PTH	2.21	VHP	9.742	DPA	-11.45	RAP	299.73
ECC	1.4848																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 8 14	2170.63	-18.48	38.72	185.40	111.85	8 44 24	1570.6	-15.35	31.44
90.00	18 59 51	5091.85	24.46	225.77	188.02	75.27	20 24 43	4491.8	22.20	217.83
100.00	9 27 28	1914.99	-19.63	19.42	184.90	113.01	9 59 23	1315.0	-16.35	12.16
100.00	20 23 18	4822.73	25.66	205.61	187.65	74.12	21 43 40	4222.7	23.24	197.66
110.00	10 30 55	1716.37	-22.71	2.83	183.30	116.26	10 59 31	1116.4	-19.00	355.66
110.00	21 36 20	4594.11	28.89	187.11	186.51	70.89	22 52 34	3994.1	26.01	179.12

DIFFERENTIAL CORRECTIONS

TDE	1.9829	TRA	3.4794	TC3	-3.1327	BAU	1.2344												
RDE	.2990	RRA	-.2718	RC3	.1101	FAU	.01225												
FDE	.5600	FRA	1.1050	FC3	-.3599	BSP	17715												
BDE	2.0047	BRA	3.4900	BC3	3.1346	FSP	-403												

MID-COURSE EXECUTION ACCURACY

SGT	5433.1	SGR	440.6	SG3	118.5						
RRT	-.3403	RRF	-.3248	RTF	.9252						
SGB	5451.0	RZS	.0086	R13	-.9252						
SG1	5435.2	SG2	414.1	THA	178.41						

ORBIT DETERMINATION ACCURACY

ST	2369.4	SR	323.2	SS	585.6
CRT	.7263	CRS	-.6969	CST	-.9987
LSA	2451.9	MSA	223.0	SSA	16.2
EL1	2381.1	EL2	221.1	ALF	5.71

LAUNCH DATE OCT 7 1970 FLIGHT TIME 192.00 ARRIVAL DATE APR 17 1971

HELIOCENTRIC CONIC DISTANCE 563.357

RL	149.52	LAL	.00	LOL	13.32	VL	25.625	GAL	6.80	AZL	87.50	HCA	287.58	SMA	118.64	ECC	.28424	INC	2.4974
RP	108.93	LAP	-2.38	LOP	300.91	VP	36.306	GAP	15.05	AZP	89.25	TAL	162.18	TAP	89.76	RCA	84.92	APO	152.37
RC	192.414	GL	11.15	GP	11.09	ZAL	51.96	ZAP	168.90	ETS	85.06	ZAE	129.04	ETE	171.12	ZAC	112.21	ETC	274.37

V1	29.801	V2	34.789	CLP	-179.52														

PLANETOCENTRIC CONIC

C3	32.862	VHL	5.733	DLA	-3.53	RAL	320.99	RAD	6568.3	VEL	12.419	PTH	2.24	VHP	10.061	DPA	-11.28	RAP	302.15
ECC	1.5408																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 10 12	2227.05	-19.87	42.27	189.69	110.60	8 47 19	1627.1	-16.89	34.87
90.00	19 15 43	5080.43	24.44	225.67	191.09	75.23	20 40 33	4490.4	22.17	217.74
100.00	9 29 53	1969.98	-21.06	22.88	189.20	111.72	10 2 43	1370.0	-17.92	15.49
100.00	20 38 43	4822.74	25.66	205.02	191.52	74.12	21 59 5	4222.7	23.24	197.66
110.00	10 34 20	1768.21	-24.23	6.08	187.71	114.88	11 3 48	1168.2	-20.68	358.74
110.00	21 50 46	4597.28	28.96	187.33	190.35	71.00	23 7 22	3997.3	26.10	179.32

DIFFERENTIAL CORRECTIONS

TDE	2.1722	TRA	3.8145	TC3	-2.7984	BAU	1.2301												
RDE	.3102	RRA	-.2792	RC3	.0921	FAU	.01111												
FDE	.5962	FRA	1.1502	FC3	-.2926	BSP	17795												
BDE	2.1942	BRA	3.8247	BC3	2.7999	FSP	-396												

MID-COURSE EXECUTION ACCURACY

SGT	5440.4	SGR	430.6	SG3	115.7						
RRT	-.3130	RRF	-.2992	RTF	.9290						
SGB	5457.4	RZS	.0072	R13	-.9290						
SG1	5442.1	SG2	408.9	THA	178.57						

ORBIT DETERMINATION ACCURACY

ST	2456.8	SR	321.2	SS	598.9
CRT	.7308	CRS	-.7039	CST	-.9989
LSA	2539.5	MSA	220.0	SSA	15.5
EL1	2468.1	EL2	218.3	ALF	5.50

LAUNCH DATE OCT 7 1970 FLIGHT TIME 194.00 ARRIVAL DATE APR 19 1971

HELIOCENTRIC CONIC DISTANCE 568.338

RL	149.52	LAL	.00	LOL	13.32	VL	25.580	GAL	7.69	AZL	87.32	HCA	290.74	SMA	118.40	ECC	.29284	INC	2.6846
RP	108.94	LAP	-2.51	LOP	304.08	VP	36.272	GAP	16.42	AZP	89.05	TAL	160.50	TAP	91.24	RCA	83.73	APO	153.07
RC	194.261	GL	11.29	GP	10.88	ZAL	49.75	ZAP	169.12	ETS	89.14	ZAE	129.05	ETE	171.29	ZAC	111.72	ETC	274.95

V1	29.801	V2	34.787	CLP	179.72														

PLANETOCENTRIC CONIC

C3	36.807	VHL	6.067	DLA	-2.68	RAL	323.09	RAD	6568.4	VEL	12.577	PTH	2.28	VHP	10.410	DPA	-11.06	RAP	304.55
ECC	1.6057																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 12 14	2282.15	-21.15	45.81	193.97	109.28	8 50 16	1682.1	-18.33	38.27
90.00	19 30 28	5092.57	24.47	225.82	195.74	75.29	20 55 20	4492.6	22.21	217.88
100.00	9 32 20	2023.79	-22.37	26.33	193.49	110.36	10 6 4	1423.8	-19.40	18.80
100.00	20 53 3	4826.17	25.73	205.85	195.36	74.23	22 13 29	4226.2	23.31	197.88
110.00	10 37 42	1819.14	-25.65	9.36	192.05	113.41	11 8 1	1219.1	-22.26	1.84
110.00	22 4 10	4603.58	29.10	187.77	194.18	71.22	23 20 54	4003.6	26.26	179.74

DIFFERENTIAL CORRECTIONS

TDE	2.3683	TRA	4.1679	TC3	-2.4679	BAU	1.2150												
RDE	.3268	RRA	-.2848	RC3	.0760	FAU	.00999												
FDE	.6238	FRA	1.1971	FC3	-.2351	BSP	17943												
BDE	2.3907	BRA	4.1776	BC3	2.4691	FSP	-389												

MID-COURSE EXECUTION ACCURACY

SGT	5431.1	SGR	419.8	SG3	113.0						
RRT	-.2837	RRF	-.2718	RTF	.9339						
SGB	5447.3	RZS	.0057	R13	-.9339						
SG1	5432.4	SG2	402.5	THA	178.74						

ORBIT DETERMINATION ACCURACY

ST	2531.4	SR	319.1	SS	611.6
CRT	.7362	CRS	-.7116	CST	-.9991
LSA	2614.7	MSA	216.5	SSA	14.6
EL1	2542.4	EL2	215.0	ALF	5.34

LAUNCH DATE OCT 7 1970 FLIGHT TIME 196.00 ARRIVAL DATE APR 21 1971

HELIOCENTRIC CONIC DISTANCE 573.201

RL	149.52	LAL	.00	LOL	13.32	VL	25.535	GAL	8.63	AZL	87.12	HCA	293.90	SMA	118.16	ECC	.30233	INC	2.8797
RP	108.94	LAP	-2.63	LOP	307.24	VP	36.239	GAP	17.04	AZP	88.83	TAL	158.86	TAP	92.76	RCA	82.43	APO	153.88
RC	196.080	GL	11.37	GP	10.69	ZAL	47.67	ZAP	169.26	ETS	93.44	ZAE	129.04	ETE	171.46	ZAC	111.22	ETC	275.51

V1	29.801	V2	34.786	CLP	178.95														

PLANETOCENTRIC CONIC

C3	41.381	VHL	6.433	DLA	-1.91	RAL	325.07	RAD	6568.6	VEL	12.757	PTH	2.32	VHP	10.791	DPA	-10.79	RAP	306.93
ECC	1.6810																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 14 21	2335.89	-22.32	49.32	198.23	107.90	8 53 17	1735.9	-19.66	41.65
90.00	19 44 8	5090.01	24.57	226.19	199.56	75.46	21 9 6	4498.0	22.33	218.23
100.00	9 34 48	2076.36	-23.58	29.78	197.77	108.93	10 9 24	1476.4	-20.77	22.10
100.00	21 6 22	4832.78	25.85	206.30	199.18	74.44	22 26 55	4232.6	23.46	198.32
110.00	10 41 1	1869.10	-26.96	12.65	196.38	111.86	11 12 10	1269.1	-23.75	4.96
110.00	22 16 30	4612.81	29.30	188.41	197.99	71.56	23 33 31	4012.8	26.50	180.35

DIFFERENTIAL CORRECTIONS

TDE	2.5721	TRA	4.5405	TC3	-2.1684	BAU	1.2001												
RDE	.3449	RRA	-.2984	RC3	.0616	FAU	.00892												
FDE	.6518	FRA	1.2463	FC3	-.1866	BSP	18081												
BDE	2.5951	BRA	4.5496	BC3	2.1692	FSP	-384												

MID-COURSE EXECUTION ACCURACY

SGT	5422.5	SGR	408.3	SG3	110.2						
RRT	-.2918	RRF	-.2422	RTF	.9385						
SGB	5437.9	RZS	.0047	R13	-.9385						
SG1	5423.5	SG2	395.1	THA	178.91						

ORBIT DETERMINATION ACCURACY

ST	2594.0	SR	316.7	SS	624.1
CRT	.7424	CRS	-.7199	CST	-.9992
LSA	2678.3	MSA	212.7	SSA	13.9
EL1	2604.7	EL2	211.3	ALF	5.21

LAUNCH DATE OCT 7 1970 FLIGHT TIME 198.00 ARRIVAL DATE APR 23 1971

HELIOCENTRIC CONIC DISTANCE 577.925

RL 149.52 LAL .00 LOL 13.32 VL 25.491 GAL 9.65 AZL 86.92 HCA 297.05 SMA 117.92 ECC .31283 INC 3.0846 V1 29.801
RP 108.94 LAP -2.75 LOP 310.40 VP 36.208 GAP 17.72 AZP 88.60 TAL 157.25 TAP 94.31 RCA 81.03 APO 154.81 V2 34.785
RC 197.000 GL 11.41 GP 10.51 ZAL 45.73 ZAP 169.33 ETS 97.91 ZAE 129.00 ETE 171.63 ZAC 110.73 ETC 276.06 CLP 178.15

PLANETOCENTRIC CONIC

C3 46.699 VHL 6.834 DLA -1.20 RAL 326.92 RAD 6568.7 VEL 12.964 PTH 2.36 VHP 11.209 DPA -10.46 RAP 309.28 ECC 1.7685

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 16 30	2388.25	-23.37	52.79	202.46	106.46	8 56 18	1788.2	-20.89	45.00
90.00	19 56 47	5106.50	24.71	226.77	203.35	75.71	21 21 53	4506.5	22.50	218.79
100.00	9 37 17	2127.65	-24.67	33.20	202.03	107.44	10 12 45	1527.7	-22.05	25.38
100.00	21 18 41	4842.33	26.02	206.96	202.96	74.74	22 39 23	4242.3	23.67	198.95
110.00	10 44 15	1918.03	-28.16	15.95	200.70	110.23	11 16 13	1318.0	-25.14	8.08
110.00	22 28 12	4624.72	29.56	189.25	201.77	71.99	23 45 17	4024.7	26.81	181.14

DIFFERENTIAL CORRECTIONS

TDE 2.7859 TRA 4.9368 TC3-1.8893 BAU 1.1799
RDE .3644 RRA -.2897 RC3 .0490 FAU .00786
FDE .6810 FRA 1.2905 FC3 -.1456 BSP 18208
BDE 2.8096 BRA 4.9453 BC3 1.8900 FSP -378

MID-COURSE EXECUTION ACCURACY

SGT 5409.6 SGR 396.0 SG3 107.6
RRT -.2170 RRF -.2096 RTF .9433
SGB 5424.1 R23 .0040 R13 -.9433
SG1 5410.3 SG2 386.5 THA 179.09

ORBIT DETERMINATION ACCURACY

ST 2646.6 SR 314.1 SS 637.1
CRT .7494 CRS -.7290 CST -.9993
LSA 2732.3 MSA 208.4 SSA 13.2
EL1 2657.1 EL2 207.1 ALF 5.11

LAUNCH DATE OCT 7 1970 FLIGHT TIME 200.00 ARRIVAL DATE APR 25 1971

HELIOCENTRIC CONIC DISTANCE 582.483

RL 149.52 LAL .00 LOL 13.32 VL 25.448 GAL 10.74 AZL 86.70 HCA 300.21 SMA 117.69 ECC .32446 INC 3.3014 V1 29.801
RP 108.94 LAP -2.85 LOP 313.56 VP 36.178 GAP 18.46 AZP 88.34 TAL 155.70 TAP 95.91 RCA 79.51 APO 155.88 V2 34.785
RC 199.690 GL 11.42 GP 10.35 ZAL 43.92 ZAP 169.31 ETS 102.53 ZAE 128.95 ETE 171.79 ZAC 110.23 ETC 276.60 CLP 177.34

PLANETOCENTRIC CONIC

C3 52.899 VHL 7.273 DLA -.56 RAL 328.66 RAD 6568.9 VEL 13.201 PTH 2.41 VHP 11.670 DPA -10.10 RAP 311.60 ECC 1.8706

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 18 41	2439.12	-24.31	56.22	206.65	104.99	8 59 20	1839.1	-22.01	48.30
90.00	20 8 26	5117.79	24.90	227.54	207.09	76.06	21 33 43	4517.8	22.74	219.54
100.00	9 39 46	2177.58	-25.64	36.58	206.25	105.92	10 16 3	1577.6	-23.21	28.63
100.00	21 30 2	4854.58	26.24	207.81	206.71	75.14	22 50 56	4254.6	23.94	199.76
110.00	10 47 24	1965.82	-29.24	19.25	204.99	108.55	11 20 10	1365.8	-26.43	11.20
110.00	22 36 58	4639.09	29.86	190.26	205.52	72.52	23 56 11	4039.1	27.18	182.10

DIFFERENTIAL CORRECTIONS

TDE 3.0111 TRA 5.3596 TC3-1.6310 BAU 1.1537
RDE .3855 RRA -.2882 RC3 .0380 FAU .00678
FDE .7118 FRA 1.3547 FC3 -.1110 BSP 18317
BDE 3.0357 BRA 5.3674 BC3 1.6314 FSP -371

MID-COURSE EXECUTION ACCURACY

SGT 5392.9 SGR 383.2 SG3 105.1
RRT -.1788 RRF -.1737 RTF .9481
SGB 5406.5 R23 .0034 R13 -.9481
SG1 5393.4 SG2 377.0 THA 179.27

ORBIT DETERMINATION ACCURACY

ST 2690.1 SR 311.2 SS 651.1
CRT .7572 CRS -.7388 CST -.9994
LSA 2777.7 MSA 203.7 SSA 12.6
EL1 2700.4 EL2 202.5 ALF 5.03

LAUNCH DATE OCT 7 1970 FLIGHT TIME 202.00 ARRIVAL DATE APR 27 1971

HELIOCENTRIC CONIC DISTANCE 586.842

RL 149.52 LAL .00 LOL 13.32 VL 25.407 GAL 11.91 AZL 86.47 HCA 303.36 SMA 117.47 ECC .33739 INC 3.5326 V1 29.801
RP 108.94 LAP -2.95 LOP 316.73 VP 36.150 GAP 19.29 AZP 88.06 TAL 154.20 TAP 97.56 RCA 77.84 APO 157.11 V2 34.786
RC 201.461 GL 11.39 GP 10.20 ZAL 42.25 ZAP 169.21 ETS 107.24 ZAE 128.86 ETE 171.95 ZAC 109.74 ETC 277.11 CLP 176.49

PLANETOCENTRIC CONIC

C3 60.156 VHL 7.756 DLA .01 RAL 330.27 RAD 6569.1 VEL 13.473 PTH 2.46 VHP 12.180 DPA -9.70 RAP 313.88 ECC 1.9900

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 20 53	2488.42	-25.13	59.60	210.79	103.49	9 2 21	1888.4	-23.03	51.56
90.00	20 19 6	5131.66	25.12	228.50	210.78	76.48	21 44 38	4531.7	23.01	220.46
100.00	9 42 14	2226.02	-26.50	39.93	210.41	104.36	10 19 20	1626.0	-24.27	31.84
100.00	21 40 26	4869.35	26.49	208.85	210.40	75.62	23 1 35	4269.3	24.25	200.74
110.00	10 50 29	2012.36	-30.20	22.53	209.24	106.83	11 24 1	1412.4	-27.60	14.31
110.00	22 48 40	4655.72	30.19	191.44	209.22	73.15	24 6 16	4055.7	27.59	183.22

DIFFERENTIAL CORRECTIONS

TDE 3.2514 TRA 5.8129 TC3-1.3918 BAU 1.1196
RDE .4083 RRA -.2836 RC3 .0286 FAU .00568
FDE .7449 FRA 1.4156 FC3 -.0817 BSP 18379
BDE 3.2769 BRA 5.8198 BC3 1.3921 FSP -364

MID-COURSE EXECUTION ACCURACY

SGT 5373.1 SGR 369.9 SG3 102.7
RRT -.1363 RRF -.1336 RTF .9531
SGB 5385.8 R23 .0031 R13 -.9531
SG1 5373.3 SG2 366.4 THA 179.46

ORBIT DETERMINATION ACCURACY

ST 2726.3 SR 308.1 SS 666.6
CRT .7660 CRS -.7494 CST -.9995
LSA 2816.5 MSA 198.4 SSA 12.0
EL1 2736.6 EL2 197.3 ALF 4.97

LAUNCH DATE OCT 7 1970 FLIGHT TIME 204.00 ARRIVAL DATE APR 29 1971

HELIOCENTRIC CONIC DISTANCE 590.959

RL 149.52 LAL .00 LOL 13.32 VL 25.366 GAL 13.18 AZL 86.22 HCA 306.52 SMA 117.26 ECC .35179 INC 3.7812 V1 29.801
RP 108.93 LAP -3.04 LOP 319.89 VP 36.123 GAP 20.21 AZP 87.75 TAL 152.77 TAP 99.29 RCA 76.01 APO 158.51 V2 34.788
RC 203.212 GL 11.33 GP 10.07 ZAL 40.70 ZAP 169.03 ETS 111.98 ZAE 128.73 ETE 172.11 ZAC 109.24 ETC 277.60 CLP 175.61

PLANETOCENTRIC CONIC

C3 68.689 VHL 8.288 DLA .52 RAL 331.76 RAD 6569.3 VEL 13.786 PTH 2.52 VHP 12.747 DPA -9.27 RAP 316.12 ECC 2.1304

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 23 5	2536.00	-25.85	62.90	214.84	101.98	9 5 21	1936.0	-23.94	54.75
90.00	20 28 48	5147.89	25.37	229.62	214.40	76.99	21 54 36	4547.9	23.33	221.55
100.00	9 44 40	2272.84	-27.25	43.20	214.50	102.79	10 22 33	1672.8	-25.22	34.99
100.00	21 49 54	4886.28	26.77	210.01	214.03	76.18	23 11 21	4286.3	24.61	201.88
110.00	10 53 28	2057.50	-31.05	25.78	213.42	105.08	11 27 46	1457.5	-28.67	17.39
110.00	22 57 36	4674.39	30.55	192.78	212.88	73.86	24 15 30	4074.4	28.04	184.48

DIFFERENTIAL CORRECTIONS

TDE 3.5090 TRA 6.3014 TC3-1.1707 BAU 1.0752
RDE .4330 RRA -.2753 RC3 .0207 FAU .00450
FDE .7810 FRA 1.4823 FC3 -.0567 BSP 18360
BDE 3.5356 BRA 6.3074 BC3 1.1709 FSP -355

MID-COURSE EXECUTION ACCURACY

SGT 5350.6 SGR 356.3 SG3 100.4
RRT -.0889 RRF -.0885 RTF .9580
SGB 5362.5 R23 .0029 R13 -.9580
SG1 5350.7 SG2 354.9 THA 179.66

ORBIT DETERMINATION ACCURACY

ST 2756.1 SR 304.7 SS 684.3
CRT .7757 CRS -.7609 CST -.9996
LSA 2849.6 MSA 192.6 SSA 11.4
EL1 2766.3 EL2 191.6 ALF 4.93

LAUNCH DATE OCT 7 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAY 1 1971

HELIOCENTRIC CONIC DISTANCE 594.781

RL	149.52	LAL	.00	LOL	13.32	VL	25.327	GAL	14.57	AZL	85.95	HCA	309.67	SMA	117.05	ECC	.36789	INC	4.0510
RP	108.92	LAP	-3.12	LOP	323.06	VP	36.098	GAP	21.23	AZP	87.41	TAL	151.42	TAP	101.10	RCA	73.99	APO	160.12
RC	204.943	GL	11.25	GP	9.94	ZAL	39.28	ZAP	168.74	ETS	116.72	ZAE	128.56	ETE	172.27	ZAC	108.75	ETC	278.07

V1	29.801	V2	34.790	CLP	174.68

PLANETOCENTRIC CONIC

C3	78.777	VHL	8.876	DLA	.96	RAL	333.14	RAD	6569.5	VEL	14.147	PTH	2.58	VHP	13.379	DPA	-8.81	RAP	318.30
ECC	2.2965																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 25 18	2581.68	-26.45	66.11	218.79	100.49	9 8 20	1981.7	-24.74	57.86
90.00	20 37 33	5166.27	25.65	230.90	217.94	77.57	22 3 39	4566.3	23.68	222.78
100.00	9 47 5	2317.86	-27.89	46.40	218.48	101.22	10 25 43	1717.9	-26.06	38.08
100.00	21 58 27	4905.32	27.07	211.35	217.58	76.82	23 20 12	4305.3	24.99	203.16
110.00	10 56 22	2101.05	-31.77	28.97	217.51	103.32	11 31 23	1501.0	-29.62	20.42
110.00	23 5 40	4694.89	30.93	194.25	216.46	74.66	24 23 55	4094.9	28.52	185.88

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	3.7870	TRA	6.8299	TC3	-.9673	BAU	1.0188	SGT	5326.3	SGR	342.8	SG3	98.3	ST	2780.1	SR	301.1	SS	704.5
RDE	.4598	RRA	-.2626	RC3	.0143	FAU	.00324	RRT	-.0359	RRF	-.0376	RTF	.9628	CRT	.7863	CRS	-.7732	CST	-.9997
FDE	.8206	FRA	1.5558	FC3	-.0356	BSP	18248	SGB	5337.3	R23	.0029	R13	-.9628	LSA	2877.7	MSA	186.3	SSA	10.9
BDE	3.8148	BRA	6.8349	BC3	.9674	FSP	-345	SG1	5326.3	SG2	342.6	THA	179.87	EL1	2790.2	EL2	185.4	ALF	4.89

LAUNCH DATE OCT 7 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAY 3 1971

HELIOCENTRIC CONIC DISTANCE 598.238

RL	149.52	LAL	.00	LOL	13.32	VL	25.289	GAL	16.09	AZL	85.65	HCA	312.83	SMA	116.86	ECC	.38594	INC	4.3466
RP	108.91	LAP	-3.19	LOP	326.23	VP	36.074	GAP	22.38	AZP	87.04	TAL	150.18	TAP	103.01	RCA	71.76	APO	161.96
RC	206.655	GL	11.14	GP	9.82	ZAL	38.00	ZAP	168.35	ETS	121.40	ZAE	128.33	ETE	172.44	ZAC	108.27	ETC	278.51

V1	29.801	V2	34.793	CLP	173.70

PLANETOCENTRIC CONIC

C3	90.776	VHL	9.528	DLA	1.33	RAL	334.39	RAD	6569.8	VEL	14.564	PTH	2.64	VHP	14.089	DPA	-8.32	RAP	320.42
ECC	2.4939																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 27 31	2625.22	-26.96	69.20	222.62	99.02	9 11 16	2025.2	-25.43	60.86
90.00	20 45 18	5186.62	25.94	232.32	221.39	78.23	22 11 45	4586.6	24.06	224.15
100.00	9 49 29	2360.85	-28.42	49.48	222.35	99.68	10 28 49	1760.8	-26.79	41.06
100.00	22 6 2	4926.23	27.39	212.82	221.04	77.53	23 28 8	4326.2	25.40	204.59
110.00	10 59 9	2142.78	-32.39	32.07	221.48	101.58	11 34 51	1542.8	-30.45	23.38
110.00	23 12 51	4717.06	31.32	195.86	219.96	75.54	24 31 28	4117.1	29.01	187.42

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	4.0892	TRA	7.4045	TC3	-.7807	BAU	.9475	SGT	5300.8	SGR	329.4	SG3	98.3	ST	2799.0	SR	297.5	SS	728.0
RDE	.4892	RRA	-.2448	RC3	.0093	FAU	.00184	RRT	.0236	RRF	.0200	RTF	.9676	CRT	.7979	CRS	-.7864	CST	-.9997
FDE	.8646	FRA	1.6373	FC3	-.0175	BSP	18021	SGB	5311.0	R23	-.0030	R13	.9676	LSA	2901.8	MSA	179.5	SSA	10.3
BDE	4.1183	BRA	7.4085	BC3	.7807	FSP	-333	SG1	5300.8	SG2	329.4	THA	.08	EL1	2809.1	EL2	178.7	ALF	4.87

LAUNCH DATE OCT 7 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAY 5 1971

HELIOCENTRIC CONIC DISTANCE 601.241

RL	149.52	LAL	.00	LOL	13.32	VL	25.253	GAL	17.77	AZL	85.33	HCA	315.98	SMA	116.67	ECC	.40624	INC	4.6742
RP	108.90	LAP	-3.25	LOP	329.39	VP	36.053	GAP	23.68	AZP	86.63	TAL	149.07	TAP	105.05	RCA	69.27	APO	164.07
RC	208.346	GL	11.02	GP	9.70	ZAL	36.85	ZAP	167.85	ETS	125.99	ZAE	128.05	ETE	172.62	ZAC	107.78	ETC	278.93

V1	29.801	V2	34.797	CLP	172.66

PLANETOCENTRIC CONIC

C3	105.149	VHL	10.254	DLA	1.64	RAL	335.51	RAD	6570.0	VEL	15.050	PTH	2.71	VHP	14.888	DPA	-7.83	RAP	322.48
ECC	2.7305																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 29 43	2666.36	-27.36	72.14	226.29	97.59	9 14 9	2066.4	-26.03	63.73
90.00	20 52 3	5208.80	26.24	233.87	224.73	78.95	22 18 51	4608.8	24.45	225.66
100.00	9 51 49	2401.52	-28.85	52.43	226.05	98.19	10 31 51	1801.5	-27.42	43.92
100.00	22 12 37	4948.87	27.71	214.42	224.40	78.32	23 35 6	4348.9	25.82	206.13
110.00	11 1 49	2182.44	-32.89	35.05	225.30	99.88	11 38 11	1582.4	-31.18	26.25
110.00	23 19 7	4740.72	31.71	197.60	223.37	76.50	24 38 8	4140.7	29.53	189.07

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	4.4184	TRA	8.0312	TC3	-.6104	BAU	.8581	SGT	5274.1	SGR	316.7	SG3	94.4	ST	2812.5	SR	293.8	SS	755.1
RDE	.5216	RRA	-.2209	RC3	.0056	FAU	.00026	RRT	.0903	RRF	.0850	RTF	.9722	CRT	.8104	CRS	-.8004	CST	-.9998
FDE	.9136	FRA	1.7283	FC3	-.0022	BSP	17665	SGB	5283.6	R23	-.0031	R13	.9722	LSA	2921.8	MSA	172.2	SSA	9.8
BDE	4.4491	BRA	8.0342	BC3	.6104	FSP	-320	SG1	5274.2	SG2	315.4	THA	.31	EL1	2822.6	EL2	171.5	ALF	4.86

LAUNCH DATE OCT 7 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAY 7 1971

HELIOCENTRIC CONIC DISTANCE 603.673

RL	149.52	LAL	.00	LOL	13.32	VL	25.219	GAL	19.63	AZL	84.96	HCA	319.14	SMA	116.50	ECC	.42916	INC	5.0415
RP	108.89	LAP	-3.30	LOP	332.56	VP	36.033	GAP	25.16	AZP	86.18	TAL	148.10	TAP	107.24	RCA	66.50	APO	166.49
RC	210.017	GL	10.87	GP	9.60	ZAL	35.84	ZAP	167.23	ETS	130.46	ZAE	127.68	ETE	172.80	ZAC	107.31	ETC	279.32

V1	29.801	V2	34.802	CLP	171.54

PLANETOCENTRIC CONIC

C3	122.498	VHL	11.068	DLA	1.87	RAL	336.49	RAD	6570.3	VEL	15.615	PTH	2.78	VHP	15.794	DPA	-7.33	RAP	324.45
ECC	3.0160																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 31 54	2704.74	-27.68	74.90	229.76	96.24	9 16 59	2104.7	-26.52	66.43
90.00	20 57 42	5232.70	26.54	235.56	227.93	79.75	22 24 55	4632.7	24.85	227.29
100.00	9 54 7	2439.56	-29.19	55.21	229.56	96.76	10 34 47	1839.6	-27.94	46.62
100.00	22 18 10	4973.11	28.03	216.15	227.62	79.18	23 41 4	4373.1	26.26	207.80
110.00	11 4 22	2219.69	-33.29	37.88	228.93	98.25	11 41 22	1619.7	-31.79	28.98
110.00	23 24 25	4765.74	32.09	199.45	226.65	77.53	24 43 51	4165.7	30.04	190.84

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	4.7792	TRA	8.7168	TC3	-.4558	BAU	.7465	SGT	5246.3	SGR	305.0	SG3	92.7	ST	2820.8	SR	290.2	SS	786.5
RDE	.5576	RRA	-.1896	RC3	.0031	FAU	-.00155	RRT	.1649	RRF	.1582	RTF	.9766	CRT	.8238	CRS	-.8152	CST	-.9998
FDE	.9683	FRA	1.8301	FC3	.0109	BSP	17175	SGB	5255.1	R23	-.0033	R13	.9766	LSA	2938.1	MSA	164.6	SSA	9.2
BDE	4.8117	BRA	8.7188	BC3	.4558	FSP	-304	SG1	5246.5	SG2	300.8	THA	.55	EL1	2830.9	EL2	163.9	ALF	4.86

LAUNCH DATE OCT 7 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAY 9 1971

HELIOCENTRIC CONIC DISTANCE 605.378

```
RL  149.52 LAL    .00 LOL  13.32 VL  25.187 GAL  21.71 AZL  84.54 HCA 322.29 SMA 116.33 ECC .45512 INC 5.4589 V1  29.801
RP  108.87 LAP  -3.34 LOP 335.73 VP  36.016 GAP  26.84 AZP  85.68 TAL 147.33 TAP 109.62 RCA  63.39 APO 169.27 V2  34.807
RC 211.667 GL   10.71 GP    9.49 ZAL  35.00 ZAP 166.47 ETS 134.78 ZAE 127.22 ETE 173.00 ZAC 106.85 ETC 279.68 CLP 170.32
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PLANETOCENTRIC CONIC

```
C3 143.617 VHL 11.984 DLA   2.03 RAL 337.32 RAD 6570.6 VEL 16.277 PTH   2.85 VHP 16.827 DPA  -6.83 RAP 326.32 ECC 3.3636
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 34 4	2739.96	-27.91	77.45	233.00	94.98	9 19 44	2140.0	-26.93	68.93
90.00	21 2 11	5258.24	26.84	237.37	230.97	80.61	22 29 49	4658.2	25.26	229.05
100.00	9 56 22	2474.54	-29.44	57.78	232.84	95.43	10 37 36	1874.5	-28.38	49.13
100.00	22 22 35	4998.89	28.35	218.01	230.68	80.10	23 45 54	4398.9	26.69	209.60
110.00	11 6 46	2254.15	-33.60	40.53	232.32	96.72	11 44 20	1654.2	-32.30	31.53
110.00	23 28 40	4792.04	32.46	201.41	229.79	78.64	24 48 32	4192.0	30.55	192.71

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 5.1335 TRA 9.4268 TC3 -.3281 BAU  .6300   SGT 5194.3 SGR  294.7 SG3   90.5     ST  2802.6 SR   286.7 SS   816.3
 RDE  .5979 RRA -.1499 RC3  .0017 FAU-.00325   RRT  .2449 RRF  .2373 RTF  .9806     CRT  .8370 CRS -.8295 CST -.9998
 FDE 1.0206 FRA 1.9353 FC3  .0196 BSP  17531   SGB 5202.6 R23 -.0037 R13  .9806     LSA 2928.9 MSA  156.9 SSA    8.7
 BDE 5.1682 BRA 9.4280 BC3  .3281 FSP   -306   SG1 5194.8 SG2  285.7 THA    .80     EL1 2812.9 EL2  156.3 ALF   4.91
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LAUNCH DATE OCT 7 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAY 11 1971

HELIOCENTRIC CONIC DISTANCE 606.158

```
RL  149.52 LAL    .00 LOL  13.32 VL  25.158 GAL  24.06 AZL  84.06 HCA 325.44 SMA 116.18 ECC .48460 INC 5.9405 V1  29.801
RP  108.86 LAP  -3.37 LOP 338.90 VP  36.001 GAP  28.78 AZP  85.10 TAL 146.79 TAP 112.23 RCA  59.88 APO 172.48 V2  34.813
RC 213.296 GL   10.52 GP    9.39 ZAL  34.33 ZAP 165.36 ETS 138.95 ZAE 126.65 ETE 173.23 ZAC 106.41 ETC 280.01 CLP 168.98
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PLANETOCENTRIC CONIC

```
C3 169.570 VHL 13.022 DLA   2.10 RAL 337.99 RAD 6570.8 VEL 17.056 PTH   2.93 VHP 18.011 DPA  -6.36 RAP 328.08 ECC 3.7907
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 36 13	2771.52	-28.08	79.75	235.96	93.85	9 22 25	2171.5	-27.25	71.18
90.00	21 5 23	5285.42	27.12	239.30	233.82	81.54	22 33 28	4685.4	25.67	230.94
100.00	9 58 32	2506.00	-29.62	60.10	235.84	94.22	10 40 18	1906.0	-28.72	51.41
100.00	22 25 44	5026.18	28.65	219.98	233.56	81.10	23 49 31	4426.2	27.13	211.51
110.00	11 9 2	2285.37	-33.82	42.94	235.43	95.30	11 47 7	1685.4	-32.71	33.88
110.00	23 31 45	4819.57	32.81	203.48	232.75	79.82	24 52 4	4219.6	31.06	194.70

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 5.5396 TRA10.2234 TC3 -.2087 BAU  .4732   SGT 5147.6 SGR  286.5 SG3   88.7     ST  2786.5 SR   283.4 SS   854.2
 RDE  .6434 RRA -.0999 RC3  .0013 FAU-.00552   RRT  .3324 RRF  .3243 RTF  .9842     CRT  .8512 CRS -.8447 CST -.9999
 FDE 1.0838 FRA 2.0584 FC3  .0282 BSP  17446   SGB 5155.6 R23 -.0040 R13  .9842     LSA 2924.5 MSA  148.8 SSA    8.1
 BDE 5.5768 BRA10.2239 BC3  .2087 FSP   -300   SG1 5148.5 SG2  270.2 THA   1.06     EL1 2797.0 EL2  148.2 ALF   4.96
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LAUNCH DATE OCT 7 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAY 13 1971

HELIOCENTRIC CONIC DISTANCE 605.745

```
RL  149.52 LAL    .00 LOL  13.32 VL  25.132 GAL  26.72 AZL  83.49 HCA 328.59 SMA 116.05 ECC .51816 INC 6.5060 V1  29.801
RP  108.83 LAP  -3.38 LOP 342.07 VP  35.989 GAP  31.03 AZP  84.44 TAL 146.53 TAP 115.12 RCA  55.92 APO 176.18 V2  34.819
RC 214.903 GL   10.32 GP    9.28 ZAL  33.85 ZAP 164.48 ETS 142.96 ZAE 125.93 ETE 173.47 ZAC 105.98 ETC 280.30 CLP 167.51
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PLANETOCENTRIC CONIC

```
C3 201.780 VHL 14.205 DLA   2.07 RAL 338.48 RAD 6571.1 VEL 17.975 PTH   3.00 VHP 19.378 DPA  -5.92 RAP 329.70 ECC 4.3208
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 38 20	2798.84	-28.18	81.74	238.60	92.85	9 24 59	2198.8	-27.49	73.14
90.00	21 7 6	5314.34	27.40	241.38	236.45	82.54	22 35 41	4714.3	26.08	232.96
100.00	10 0 38	2533.35	-29.74	62.12	238.51	93.16	10 42 52	1933.4	-28.98	53.40
100.00	22 27 29	5055.06	28.94	222.08	236.22	82.17	23 51 44	4455.1	27.55	213.55
110.00	11 11 6	2312.82	-33.97	45.07	238.19	94.05	11 49 39	1712.8	-33.04	35.95
110.00	23 33 31	4848.36	33.13	205.67	235.50	81.07	24 54 19	4248.4	31.55	196.80

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 5.9834 TRA11.0962 TC3 -.1027 BAU  .2772   SGT 5095.8 SGR  281.0 SG3   87.0     ST  2762.2 SR   280.5 SS   898.3
 RDE  .6954 RRA -.0374 RC3  .0018 FAU-.00831   RRT  .4245 RRF  .4164 RTF  .9875     CRT  .8658 CRS -.8602 CST -.9999
 FDE 1.1551 FRA 2.1977 FC3  .0356 BSP  17339   SGB 5103.6 R23 -.0043 R13  .9875     LSA 2914.8 MSA  140.5 SSA    7.6
 BDE 6.0237 BRA11.0962 BC3  .1027 FSP   -294   SG1 5097.2 SG2  254.3 THA   1.34     EL1 2772.9 EL2  139.9 ALF   5.04
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LAUNCH DATE OCT 7 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAY 15 1971

HELIOCENTRIC CONIC DISTANCE 603.782

```
RL  149.52 LAL    .00 LOL  13.32 VL  25.110 GAL  29.76 AZL  82.82 HCA 331.75 SMA 115.94 ECC .55641 INC 7.1838 V1  29.801
RP  108.81 LAP  -3.39 LOP 345.25 VP  35.981 GAP  33.65 AZP  83.66 TAL 146.63 TAP 118.37 RCA  51.43 APO 180.44 V2  34.826
RC 216.489 GL   10.09 GP    9.17 ZAL  33.60 ZAP 163.19 ETS 146.80 ZAE 125.04 ETE 173.74 ZAC 105.58 ETC 280.55 CLP 165.85
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PLANETOCENTRIC CONIC

```
C3 242.169 VHL 15.562 DLA   1.94 RAL 338.74 RAD 6571.4 VEL 19.065 PTH   3.08 VHP 20.964 DPA  -5.52 RAP 331.15 ECC 4.9855
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 40 25	2821.20	-28.25	83.37	240.85	92.04	9 27 26	2221.2	-27.67	74.75
90.00	21 7 9	5345.18	27.65	243.60	238.81	83.63	22 36 14	4745.2	26.48	235.13
100.00	10 2 39	2555.92	-29.81	63.80	240.78	92.29	10 45 15	1955.9	-29.18	55.05
100.00	22 27 36	5085.69	29.20	224.31	238.61	83.32	23 52 21	4485.7	27.97	215.73
110.00	11 12 58	2335.84	-34.07	46.86	240.55	93.00	11 51 54	1735.8	-33.28	37.71
110.00	23 33 46	4878.53	33.43	207.97	237.99	82.41	24 55 5	4278.5	32.02	199.03

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 6.4681 TRA12.0513 TC3 -.0095 BAU  .0325   SGT 5038.1 SGR  278.7 SG3   85.4     ST  2728.6 SR   278.2 SS   949.6
 RDE  .7555 RRA  .0399 RC3  .0032 FAU-.01181   RRT  .5181 RRF  .5103 RTF  .9903     CRT  .8804 CRS -.8757 CST -.9999
 FDE 1.2358 FRA 2.3559 FC3  .0422 BSP  17206   SGB 5045.8 R23 -.0045 R13  .9903     LSA 2899.5 MSA  132.0 SSA    7.0
 BDE 6.5121 BRA12.0514 BC3  .0100 FSP   -289   SG1 5040.2 SG2  238.3 THA   1.65     EL1 2739.6 EL2  131.4 ALF   5.14
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LAUNCH DATE OCT 8 1970 FLIGHT TIME 70.00 ARRIVAL DATE DEC 17 1970

HELIOCENTRIC CONIC DISTANCE 202.637

RL	149.47	LAL	.00	LOL	14.30	VL	28.769	GAL	-13.85	AZL	88.29	HCA	92.30	SMA	139.98	ECC	.24831	INC	1.7099	V1	29.810
RP	107.54	LAP	1.71	LOP	106.61	VP	38.988	GAP	-5.26	AZP	90.07	TAL	240.77	TAP	333.07	RCA	105.22	APO	174.74	V2	35.238
RC	62.346	GL	7.13	GP	-22.31	ZAL	162.12	ZAP	49.55	ETS	16.96	ZAE	151.33	ETE	303.77	ZAC	78.87	ETC	259.79	CLP	-45.47

PLANETOCENTRIC CONIC

C3	45.085	VHL	6.715	DLA	-5.04	RAL	211.11	RAD	6568.7	VEL	12.902	PTH	2.35	VHP	5.357	DPA	-40.91	RAP	231.79	ECC	1.7420		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 59 19	2259.66	-20.64	44.36	84.88	109.83	1 36 59	1659.7	-17.75	36.87
90.00	11 42 9	5217.42	26.35	234.48	88.51	79.24	13 9 6	4617.4	24.60	226.25
100.00	2 18 17	2004.93	-21.92	25.12	84.37	110.85	2 51 42	1404.9	-18.89	17.63
100.00	13 5 52	4947.39	27.69	214.32	88.21	78.27	14 28 19	4347.4	25.79	206.03
110.00	3 21 5	1808.31	-25.36	8.66	82.83	113.73	3 51 13	1208.3	-21.93	1.18
110.00	14 19 33	4716.77	31.31	195.84	87.24	75.53	15 38 10	4116.8	29.01	187.40

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1431	TRA	-.4542	TC3	.1342	BAU	.1908	SGT	445.9	SGR	519.3	SG3	192.5	ST	169.0	SR	244.5
RDE	-.2712	RRA	-.3042	RC3	-.2867	FAU	.07465	RRT	.0163	RRF	.6233	RTF	.0328	CRT	-.4645	CRS	.8408
FDE	1.0259	FRA	-.8175	FC3	-1.4334	BSP	1078	SGB	684.4	RZS	.0057	R13	.6237	LSA	488.8	MSA	152.5
BDE	.3066	BRA	.5467	BC3	.3165	FSP	-528	SG1	519.5	SG2	445.7	THA	86.97	EL1	262.5	EL2	139.4

SS	417.6	SS	417.6
CST	-.8600	CST	-.8600
SSA	22.5	SSA	22.5
ALF	115.45	ALF	115.45

LAUNCH DATE OCT 8 1970 FLIGHT TIME 72.00 ARRIVAL DATE DEC 19 1970

HELIOCENTRIC CONIC DISTANCE 209.333

RL	149.47	LAL	.00	LOL	14.30	VL	28.800	GAL	-13.72	AZL	88.12	HCA	95.54	SMA	140.24	ECC	.24557	INC	1.8806	V1	29.810
RP	107.53	LAP	1.87	LOP	109.85	VP	39.015	GAP	-4.53	AZP	90.18	TAL	241.19	TAP	336.73	RCA	105.80	APO	174.68	V2	35.243
RC	64.375	GL	7.93	GP	-23.61	ZAL	161.99	ZAP	54.12	ETS	14.91	ZAE	151.42	ETE	297.47	ZAC	77.41	ETC	259.45	CLP	-50.24

PLANETOCENTRIC CONIC

C3	44.311	VHL	6.657	DLA	-4.22	RAL	211.19	RAD	6568.7	VEL	12.872	PTH	2.34	VHP	5.107	DPA	-41.67	RAP	229.46	ECC	1.7292		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 55 25	2281.05	-21.12	45.74	84.87	109.31	1 31 26	1681.1	-18.30	38.20
90.00	11 48 38	5187.33	25.95	232.36	87.90	78.25	13 15 6	4587.3	24.07	224.20
100.00	2 12 47	2025.04	-22.40	26.42	84.38	110.33	2 46 32	1425.0	-19.43	18.88
100.00	13 11 58	4918.58	27.28	212.28	87.57	77.27	14 33 56	4318.6	25.25	204.06
110.00	3 16 29	1825.60	-25.03	9.78	82.88	113.21	3 46 55	1225.6	-22.46	2.24
110.00	14 24 48	4690.78	30.85	193.96	86.55	74.50	15 42 56	4090.8	28.42	185.60

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1818	TRA	-.4829	TC3	.0996	BAU	.1978	SGT	459.0	SGR	545.7	SG3	211.4	ST	187.2	SR	224.8
RDE	-.2429	RRA	-.3153	RC3	-.3187	FAU	.08075	RRT	.1119	RRF	.6671	RTF	.1587	CRT	-.4505	CRS	.8199
FDE	1.1570	FRA	-.8846	FC3	-1.5777	BSP	1179	SGB	713.1	RZS	.0729	R13	.6685	LSA	514.9	MSA	154.9
BDE	.2919	BRA	.5767	BC3	.3539	FSP	-590	SG1	553.2	SG2	449.9	THA	73.62	EL1	251.5	EL2	149.4

SS	451.7	SS	451.7
CST	-.8717	CST	-.8717
SSA	22.4	SSA	22.4
ALF	123.88	ALF	123.88

LAUNCH DATE OCT 8 1970 FLIGHT TIME 74.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 215.989

RL	149.47	LAL	.00	LOL	14.30	VL	28.819	GAL	-13.58	AZL	87.95	HCA	98.78	SMA	140.41	ECC	.24309	INC	2.0531	V1	29.810
RP	107.51	LAP	2.03	LOP	113.09	VP	39.033	GAP	-3.83	AZP	90.31	TAL	241.45	TAP	340.23	RCA	106.27	APO	174.54	V2	35.247
RC	66.441	GL	8.74	GP	-24.93	ZAL	161.73	ZAP	59.84	ETS	12.80	ZAE	151.29	ETE	290.62	ZAC	75.91	ETC	259.08	CLP	-55.21

PLANETOCENTRIC CONIC

C3	43.602	VHL	6.603	DLA	-3.42	RAL	211.36	RAD	6568.7	VEL	12.844	PTH	2.34	VHP	4.894	DPA	-42.36	RAP	226.86	ECC	1.7176		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 48 4	2302.11	-21.59	47.10	84.98	108.78	1 26 26	1702.1	-18.83	39.52
90.00	11 55 21	5158.15	25.53	230.33	87.42	77.32	13 21 19	4558.2	23.53	222.23
100.00	2 7 49	2044.86	-22.86	27.71	84.50	109.80	2 41 54	1444.9	-19.96	20.12
100.00	13 18 17	4890.63	26.84	210.32	87.08	76.33	14 39 48	4290.6	24.69	202.17
110.00	3 12 24	1842.69	-26.28	10.90	83.04	112.69	3 43 6	1242.7	-22.97	3.30
110.00	14 30 12	4665.57	30.38	192.14	85.99	73.52	15 47 57	4065.6	27.83	183.88

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1869	TRA	-.5171	TC3	.0568	BAU	.2076	SGT	483.7	SGR	574.0	SG3	229.9	ST	210.9	SR	203.5
RDE	-.2126	RRA	-.3251	RC3	-.3516	FAU	.08659	RRT	.2242	RRF	.7069	RTF	.2952	CRT	-.4314	CRS	.7904
FDE	1.2893	FRA	-.9441	FC3	-1.7193	BSP	1318	SGB	750.6	RZS	.1140	R13	.7116	LSA	544.4	MSA	156.4
BDE	.2831	BRA	.6108	BC3	.3561	FSP	-652	SG1	600.1	SG2	450.8	THA	63.75	EL1	248.0	EL2	156.1

SS	485.2	SS	485.2
CST	-.8861	CST	-.8861
SSA	22.3	SSA	22.3
ALF	137.36	ALF	137.36

LAUNCH DATE OCT 8 1970 FLIGHT TIME 76.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 222.603

RL	149.47	LAL	.00	LOL	14.30	VL	28.828	GAL	-13.45	AZL	87.77	HCA	102.02	SMA	140.48	ECC	.24083	INC	2.2288	V1	29.810
RP	107.50	LAP	2.18	LOP	116.34	VP	39.044	GAP	-3.16	AZP	90.46	TAL	241.57	TAP	343.60	RCA	106.65	APO	174.32	V2	35.251
RC	68.539	GL	9.58	GP	-26.25	ZAL	161.35	ZAP	63.66	ETS	10.62	ZAE	150.87	ETE	283.41	ZAC	74.37	ETC	258.67	CLP	-60.35

PLANETOCENTRIC CONIC

C3	42.944	VHL	6.553	DLA	-2.62	RAL	211.62	RAD	6568.6	VEL	12.818	PTH	2.33	VHP	4.718	DPA	-42.97	RAP	224.04	ECC	1.7068		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 43 11	2323.00	-22.04	48.47	85.21	108.24	1 21 54	1723.0	-19.35	40.83
90.00	12 2 19	5129.61	25.09	228.36	87.08	76.42	13 27 49	4529.6	22.97	220.33
100.00	2 3 18	2064.55	-23.31	29.00	84.75	109.26	2 37 43	1464.5	-20.47	21.35
100.00	13 24 53	4863.29	26.39	208.41	86.71	75.42	14 45 56	4263.3	24.13	200.34
110.00	3 8 45	1859.60	-26.72	12.03	83.32	112.16	3 39 44	1259.7	-23.48	4.36
110.00	14 35 56	4640.91	29.89	190.39	85.58	72.59	15 53 17	4040.9	27.22	182.22

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2188	TRA	-.5568	TC3	.0056	BAU	.2209	SGT	523.6	SGR	603.3	SG3	247.3	ST	240.8	SR	181.2
RDE	-.1808	RRA	-.3327	RC3	-.3847	FAU	.09192	RRT	.3419	RRF	.7421	RTF	.4288	CRT	-.4004	CRS	.7485
FDE	1.4183	FRA	-.9917	FC3	-1.8531	BSP	1503	SGB	798.8	RZS	.1373	R13	.7527	LSA	577.3	MSA	157.0
BDE	.2838	BRA	.6486	BC3	.3847	FSP	-712	SG1	660.3	SG2	449.6	THA	56.28	EL1	258.7	EL2	154.6

SS	517.3	SS	517.3
CST	-.9008	CST	-.9008
SSA	22.1	SSA	22.1
ALF	152.87	ALF	152.87

LAUNCH DATE OCT 8 1970 FLIGHT TIME 78.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 229.177

RL	149.47	LAL	.00	LOL	14.30	VL	28.828	GAL	-13.32	AZL	87.59	HCA	105.27	SMA	140.48	ECC	.23873	INC	2.4088	V1	29.810
RP	107.49	LAP	2.32	LOP	119.58	VP	39.046	GAP	-2.53	AZP	90.63	TAL	241.56	TAP	346.82	RCA	106.95	APO	174.02	V2	35.254
RC	70.666	GL	10.44	GP	-27.54	ZAL	160.86	ZAP	68.54	ETS	8.33	ZAE	150.12	ETE	276.06	ZAC	72.84	ETC	258.24	CLP	-65.63

PLANETOCENTRIC CONIC

C3	42.328	VHL	6.506	DLA	-1.83	RAL	211.97	RAD	6568.6	VEL	12.794	PTH	2.33	VHP	4.577	DPA	-43.47	RAP	221.07	ECC	1.6966

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 38 42	2343.91	-22.48	49.84	85.55	107.68	1 17 46	1743.9	-19.85	42.16
90.00	12 9 36	5101.41	24.62	226.42	86.85	75.56	13 34 37	4501.4	22.40	218.46
100.00	1 59 12	2084.26	-23.75	30.30	85.10	108.71	2 33 56	1484.3	-20.97	22.60
100.00	13 31 47	4836.28	25.91	206.55	86.47	74.55	14 52 24	4236.3	23.54	198.55
110.00	3 5 29	1876.75	-27.16	13.16	83.71	111.61	3 36 46	1276.8	-23.98	5.44
110.00	14 41 59	4616.56	29.38	188.68	85.28	71.69	15 58 56	4016.6	26.60	180.60

DIFFERENTIAL CORRECTIONS

TDE	.2581	TRA	-.6016	TC3	-.0539	BAU	.2379
RDE	-.1479	RRA	-.3375	RC3	-.4169	FAU	.09646
FDE	1.5397	FRA	-1.0246	FC3	-1.9729	BSP	1729
BDE	.2974	BRA	.6898	BC3	.4204	FSP	-765

MID-COURSE EXECUTION ACCURACY

SGT	581.0	SGR	632.2	SG3	262.7		
RRT	.4520	RRF	.7724	RTF	.5472		
SGB	858.6	R23	.1506	R13	.7894		
SG1	733.2	SG2	446.9	THA	50.30		

ORBIT DETERMINATION ACCURACY

ST	277.4	SR	158.7	SS	547.7
CRT	-.3493	CRS	.6878	CST	-.9147
LSA	614.0	MSA	156.7	SSA	21.9
EL1	284.9	EL2	144.8	ALF	164.65

LAUNCH DATE OCT 8 1970 FLIGHT TIME 80.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 235.711

RL	149.47	LAL	.00	LOL	14.30	VL	28.820	GAL	-13.20	AZL	87.41	HCA	108.51	SMA	140.41	ECC	.23677	INC	2.5945	V1	29.810
RP	107.48	LAP	2.46	LOP	122.83	VP	39.042	GAP	-1.92	AZP	90.82	TAL	241.42	TAP	349.93	RCA	107.17	APO	173.66	V2	35.256
RC	72.818	GL	11.34	GP	-28.80	ZAL	160.25	ZAP	73.41	ETS	5.95	ZAE	149.02	ETE	268.82	ZAC	71.32	ETC	257.80	CLP	-70.99

PLANETOCENTRIC CONIC

C3	41.746	VHL	6.461	DLA	-1.04	RAL	212.41	RAD	6568.6	VEL	12.772	PTH	2.32	VHP	4.471	DPA	-43.88	RAP	218.01	ECC	1.6870

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 34 33	2365.06	-22.91	51.25	86.00	107.11	1 13 58	1765.1	-20.35	43.51
90.00	12 17 14	5073.27	24.13	224.51	86.73	74.72	13 41 47	4473.3	21.80	216.61
100.00	1 55 24	2104.23	-24.18	31.63	85.56	108.13	2 30 29	1504.2	-21.47	23.87
100.00	13 39 3	4809.34	25.41	204.70	86.33	73.70	14 59 13	4209.3	22.93	196.78
110.00	3 2 33	1894.06	-27.58	14.33	84.22	111.04	3 34 7	1294.1	-24.47	6.54
110.00	14 48 34	4592.27	28.85	186.99	85.09	70.82	16 4 57	3992.3	25.96	179.00

DIFFERENTIAL CORRECTIONS

TDE	.3049	TRA	-.6505	TC3	-.1208	BAU	.2588
RDE	-.1147	RRA	-.3390	RC3	-.4477	FAU	.10004
FDE	1.6480	FRA	-1.0414	FC3	-2.0746	BSP	1999
BDE	.3257	BRA	.7336	BC3	.4637	FSP	-813

MID-COURSE EXECUTION ACCURACY

SGT	656.0	SGR	659.9	SG3	275.6		
RRT	.5458	RRF	.7981	RTF	.6434		
SGB	930.5	R23	.1587	R13	.8205		
SG1	818.0	SG2	443.4	THA	45.31		

ORBIT DETERMINATION ACCURACY

ST	321.1	SR	137.0	SS	575.5
CRT	-.2681	CRS	.5987	CST	-.9272
LSA	654.5	MSA	155.5	SSA	21.7
EL1	323.6	EL2	131.0	ALF	172.18

LAUNCH DATE OCT 8 1970 FLIGHT TIME 82.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 242.205

RL	149.47	LAL	.00	LOL	14.30	VL	28.804	GAL	-13.06	AZL	87.21	HCA	111.75	SMA	140.27	ECC	.23490	INC	2.7874	V1	29.810
RP	107.48	LAP	2.59	LOP	126.08	VP	39.032	GAP	-1.35	AZP	91.03	TAL	241.16	TAP	352.91	RCA	107.32	APO	173.23	V2	35.258
RC	74.992	GL	12.27	GP	-30.01	ZAL	159.54	ZAP	78.23	ETS	3.46	ZAE	147.58	ETE	261.94	ZAC	69.84	ETC	257.36	CLP	-76.38

PLANETOCENTRIC CONIC

C3	41.193	VHL	6.418	DLA	-.23	RAL	212.93	RAD	6568.6	VEL	12.750	PTH	2.32	VHP	4.398	DPA	-44.20	RAP	214.95	ECC	1.6779

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 30 39	2386.70	-23.34	52.69	86.56	106.51	1 10 26	1786.7	-20.86	44.90
90.00	12 25 18	5044.90	23.61	222.59	86.72	73.90	13 49 23	4444.9	21.18	214.77
100.00	1 51 53	2124.66	-24.60	33.00	86.13	107.53	2 27 18	1524.7	-21.97	25.19
100.00	13 46 45	4782.17	24.88	202.86	86.30	72.87	15 6 27	4182.2	22.30	195.01
110.00	2 59 53	1911.81	-28.01	15.53	84.83	110.44	3 31 45	1311.8	-24.97	7.68
110.00	14 55 14	4567.79	28.29	185.30	85.02	69.96	16 11 22	3967.8	25.30	177.40

DIFFERENTIAL CORRECTIONS

TDE	.3579	TRA	-.7043	TC3	-.1959	BAU	.2815
RDE	-.0779	RRA	-.3328	RC3	-.4721	FAU	.10155
FDE	1.7596	FRA	-1.0200	FC3	-2.1342	BSP	2256
BDE	.3663	BRA	.7790	BC3	.5111	FSP	-811

MID-COURSE EXECUTION ACCURACY

SGT	748.8	SGR	678.5	SG3	284.0		
RRT	.6239	RRF	.8168	RTF	.7165		
SGB	1010.5	R23	.1675	R13	.8422		
SG1	911.8	SG2	435.4	THA	40.51		

ORBIT DETERMINATION ACCURACY

ST	371.1	SR	114.5	SS	606.6
CRT	-.1240	CRS	.4562	CST	-.9351
LSA	703.3	MSA	154.0	SSA	21.1
EL1	371.4	EL2	113.5	ALF	177.58

LAUNCH DATE OCT 8 1970 FLIGHT TIME 84.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 248.659

RL	149.47	LAL	.00	LOL	14.30	VL	28.781	GAL	-12.93	AZL	87.01	HCA	114.99	SMA	140.08	ECC	.23313	INC	2.9892	V1	29.810
RP	107.48	LAP	2.71	LOP	129.33	VP	39.016	GAP	-.80	AZP	91.26	TAL	240.79	TAP	355.78	RCA	107.42	APO	172.74	V2	35.259
RC	77.186	GL	13.26	GP	-31.16	ZAL	158.73	ZAP	82.94	ETS	.88	ZAE	145.86	ETE	255.55	ZAC	68.40	ETC	256.93	CLP	-81.74

PLANETOCENTRIC CONIC

C3	40.673	VHL	6.378	DLA	.60	RAL	213.53	RAD	6568.6	VEL	12.729	PTH	2.31	VHP	4.355	DPA	-44.44	RAP	211.96	ECC	1.6694

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 26 55	2409.18	-23.77	54.20	87.22	105.87	1 7 4	1809.2	-21.36	46.35
90.00	12 33 51	5016.02	23.05	220.66	86.81	73.08	13 57 27	4416.0	20.52	212.90
100.00	1 48 32	2145.90	-25.03	34.43	86.82	106.90	2 24 18	1545.9	-22.48	26.56
100.00	13 54 54	4754.53	24.31	201.00	86.37	72.05	15 14 9	4154.5	21.63	193.23
110.00	2 57 25	1930.28	-28.44	16.79	85.55	109.81	3 29 36	1330.3	-25.48	8.87
110.00	15 2 31	4542.91	27.70	183.61	85.05	69.12	16 18 14	3942.9	24.61	175.80

DIFFERENTIAL CORRECTIONS

TDE	.4207	TRA	-.7574	TC3	-.2734	BAU	.3093
RDE	-.0477	RRA	-.3283	RC3	-.4988	FAU	.10316
FDE	1.8227	FRA	-1.0097	FC3	-2.1957	BSP	2615
BDE	.4234	BRA	.8255	BC3	.5688	FSP	-858

MID-COURSE EXECUTION ACCURACY

SGT	853.0	SGR	702.5	SG3	291.1		
RRT	.6781	RRF	.8362	RTF	.7702		
SGB	1105.1	R23	.1715	R13	.8638		
SG1	1016.6	SG2	433.2	THA	36.97		

ORBIT DETERMINATION ACCURACY

ST	429.7	SR	100.2	SS	625.4
CRT	.0477	CRS	.2676	CST	-.9456
LSA	749.9	MSA	151.3	SSA	21.0
EL1	429.7	EL2	100.0	ALF	.67

LAUNCH DATE OCT 8 1970 FLIGHT TIME 86.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 255.076

RL	149.47	LAL	.00	LOL	14.30	VL	28.752	GAL	-12.79	AZL	86.80	HCA	118.24	SMA	139.83	ECC	.23143	INC	3.2019
RP	107.48	LAP	2.82	LOP	132.58	VP	38.994	GAP	-.27	AZP	91.52	TAL	240.32	TAP	358.56	RCA	107.47	APO	172.20
RC	79.396	GL	14.30	GP	-32.26	ZAL	157.81	ZAP	87.48	ETS	358.21	ZAE	143.91	ETE	249.77	ZAC	67.03	ETC	256.51

V1 29.810 V2 35.259 CLP -87.02

PLANETOCENTRIC CONIC

C3	40.185	VHL	6.339	DLA	1.46	RAL	214.22	RAD	6568.5	VEL	12.710	PTH	2.31	VHP	4.341	DPA	-44.65	RAP	209.10

ECC 1.6613

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 23 17	2432.80	-24.20	55.79	88.01	105.18	1 3 50	1832.8	-21.88	47.89
90.00	12 42 58	4986.30	22.45	218.69	87.00	72.27	14 6 4	4386.3	19.81	211.01
100.00	1 45 18	2168.23	-25.47	35.95	87.62	106.21	2 21 26	1568.2	-23.00	28.02
100.00	14 3 38	4726.10	23.70	199.11	86.55	71.23	15 22 24	4126.1	20.92	191.41
110.00	2 55 6	1949.74	-28.89	18.14	86.39	109.13	3 27 36	1349.7	-26.00	10.14
110.00	15 10 19	4517.35	27.07	181.09	85.17	68.28	16 25 36	3917.3	23.88	174.18

DIFFERENTIAL CORRECTIONS

TDE	.4899	TRA	-.8122	TC3	-.3557	BAU	.3389
RDE	-.0180	RRA	-.3188	RC3	-.5209	FAU	.10332
FDE	1.8698	FRA	-.9787	FC3	-2.2259	BSP	2994
BDE	.4902	BRA	.8725	BC3	.6308	FSP	-888

MID-COURSE EXECUTION ACCURACY

SGT	968.8	SGR	720.8	SG3	294.3		
RRT	.7193	RRF	.8518	RTF	.8092		
SGB	1207.5	RZ3	.1772	R13	.8799		
SG1	1128.4	SG2	429.9	THA	33.68		

ORBIT DETERMINATION ACCURACY

ST	494.7	SR	90.2	SS	642.4
CRT	.2717	CRS	.0183	CST	-.9534
LSA	802.0	MSA	148.1	SSA	20.7
EL1	495.3	EL2	86.7	ALF	2.93

LAUNCH DATE OCT 8 1970 FLIGHT TIME 88.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 261.455

RL	149.47	LAL	.00	LOL	14.30	VL	28.717	GAL	-12.65	AZL	86.57	HCA	121.48	SMA	139.54	ECC	.22979	INC	3.4281
RP	107.48	LAP	2.92	LOP	135.83	VP	38.968	GAP	.23	AZP	91.79	TAL	239.76	TAP	1.23	RCA	107.48	APO	171.61
RC	81.621	GL	15.41	GP	-33.32	ZAL	156.78	ZAP	91.81	ETS	355.46	ZAE	141.78	ETE	244.63	ZAC	65.70	ETC	256.13

V1 29.810 V2 35.258 CLP -92.16

PLANETOCENTRIC CONIC

C3	39.733	VHL	6.303	DLA	2.36	RAL	214.99	RAD	6568.5	VEL	12.693	PTH	2.31	VHP	4.355	DPA	-44.85	RAP	206.42

ECC 1.6539

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 19 30	2457.98	-24.63	57.51	88.92	104.42	1 0 37	1858.0	-22.41	49.54
90.00	12 52 45	4955.40	21.79	216.66	87.30	71.46	14 15 21	4355.4	19.06	209.05
100.00	1 42 6	2192.05	-25.91	37.58	88.54	105.46	2 18 38	1592.1	-23.53	29.58
100.00	14 13 0	4696.56	23.04	197.16	86.83	70.41	15 31 16	4096.6	20.16	189.55
110.00	2 52 52	1970.54	-29.34	19.58	87.36	108.38	3 25 43	1370.5	-26.55	11.51
110.00	15 18 43	4490.84	26.39	180.13	85.41	67.44	16 33 34	3890.8	23.10	172.51

DIFFERENTIAL CORRECTIONS

TDE	.5656	TRA	-.8669	TC3	-.4406	BAU	.3695
RDE	.0110	RRA	-.3046	RC3	-.5384	FAU	.10213
FDE	1.8997	FRA	-.9290	FC3	-2.2253	BSP	3386
BDE	.5657	BRA	.9188	BC3	.6957	FSP	-900

MID-COURSE EXECUTION ACCURACY

SGT	1093.0	SGR	753.2	SG3	293.8		
RRT	.7494	RRF	.8645	RTF	.8373		
SGB	1316.2	RZ3	.1843	R13	.8917		
SG1	1245.3	SG2	426.1	THA	30.66		

ORBIT DETERMINATION ACCURACY

ST	566.2	SR	86.2	SS	657.4
CRT	.5151	CRS	-.2656	CST	-.9594
LSA	859.6	MSA	144.5	SSA	20.3
EL1	568.0	EL2	73.6	ALF	4.56

LAUNCH DATE OCT 8 1970 FLIGHT TIME 90.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 267.799

RL	149.47	LAL	.00	LOL	14.30	VL	28.678	GAL	-12.51	AZL	86.33	HCA	124.72	SMA	139.21	ECC	.22821	INC	3.6704
RP	107.48	LAP	3.02	LOP	139.08	VP	38.937	GAP	.71	AZP	92.09	TAL	239.10	TAP	3.83	RCA	107.44	APO	170.98
RC	83.861	GL	16.61	GP	-34.36	ZAL	155.63	ZAP	95.88	ETS	352.65	ZAE	139.55	ETE	240.13	ZAC	64.41	ETC	255.76

V1 29.810 V2 35.256 CLP -97.13

PLANETOCENTRIC CONIC

C3	39.326	VHL	6.271	DLA	3.32	RAL	215.85	RAD	6568.5	VEL	12.676	PTH	2.30	VHP	4.394	DPA	-45.09	RAP	203.95

ECC 1.6472

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 15 56	2485.21	-25.08	59.38	89.97	103.59	0 57 21	1885.2	-22.97	51.35
90.00	13 3 20	4922.97	21.08	214.55	87.70	70.64	14 25 23	4323.0	18.24	207.02
100.00	1 38 49	2217.83	-26.36	39.36	89.61	104.63	2 15 47	1617.8	-24.10	31.29
100.00	14 23 7	4685.58	22.32	195.14	87.22	69.58	15 40 53	4065.6	19.34	187.62
110.00	2 50 38	1993.09	-29.81	21.17	88.48	107.55	3 23 51	1393.1	-27.13	13.01
110.00	15 27 48	4463.09	25.65	178.31	85.75	66.59	16 42 11	3863.1	22.26	170.79

DIFFERENTIAL CORRECTIONS

TDE	.6483	TRA	-.9202	TC3	-.5262	BAU	.4006
RDE	.0391	RRA	-.2860	RC3	-.5512	FAU	.09975
FDE	1.9137	FRA	-.8647	FC3	-2.1959	BSP	3783
BDE	.6495	BRA	.9636	BC3	.7620	FSP	-897

MID-COURSE EXECUTION ACCURACY

SGT	1223.0	SGR	740.1	SG3	290.0		
RRT	.7710	RRF	.8749	RTF	.8574		
SGB	1429.5	RZ3	.1930	R13	.9003		
SG1	1365.8	SG2	422.0	THA	27.91		

ORBIT DETERMINATION ACCURACY

ST	644.3	SR	88.7	SS	670.5
CRT	.7245	CRS	-.5286	CST	-.9642
LSA	923.2	MSA	140.8	SSA	19.8
EL1	647.5	EL2	60.9	ALF	5.75

LAUNCH DATE OCT 8 1970 FLIGHT TIME 92.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 274.109

RL	149.47	LAL	.00	LOL	14.30	VL	28.634	GAL	-12.35	AZL	86.07	HCA	127.96	SMA	138.84	ECC	.22666	INC	3.9325
RP	107.49	LAP	3.10	LOP	142.33	VP	38.903	GAP	1.17	AZP	92.42	TAL	238.37	TAP	6.33	RCA	107.37	APO	170.31
RC	86.111	GL	17.89	GP	-35.41	ZAL	154.37	ZAP	99.66	ETS	349.76	ZAE	137.24	ETE	236.22	ZAC	63.14	ETC	255.42

V1 29.810 V2 35.254 CLP-101.88

PLANETOCENTRIC CONIC

C3	38.975	VHL	6.243	DLA	4.35	RAL	216.80	RAD	6568.5	VEL	12.663	PTH	2.30	VHP	4.457	DPA	-45.40	RAP	201.69

ECC 1.6414

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 12 0	2515.07	-25.54	61.44	91.17	102.65	0 53 55	1915.1	-23.55	53.34
90.00	13 14 50	4988.58	20.28	212.34	88.23	69.81	14 36 19	4288.6	17.35	204.89
100.00	1 35 23	2246.11	-26.83	41.33	90.84	103.69	2 12 49	1646.1	-24.68	33.19
100.00	14 34 8	4632.77	21.52	193.03	87.73	68.74	15 51 21	4032.8	18.44	185.59
110.00	2 48 19	2017.86	-30.31	22.93	89.77	106.62	3 21 57	1417.9	-27.74	14.68
110.00	15 37 42	4433.79	24.84	176.41	86.21	65.73	16 51 35	3833.8	21.36	169.00

DIFFERENTIAL CORRECTIONS

TDE	.7381	TRA	-.9710	TC3	-.6110	BAU	.4317
RDE	.0664	RRA	-.2635	RC3	-.5596	FAU	.09637
FDE	1.9125	FRA	-.7897	FC3	-2.1405	BSP	4187
BDE	.7411	BRA	1.0061	BC3	.8286	FSP	-883

MID-COURSE EXECUTION ACCURACY

SGT	1356.3	SGR	742.2	SG3	283.3		
RRT	.7860	RRF	.8838	RTF	.8719		
SGB	1546.1	RZ3	.2030	R13	.9067		
SG1	1488.5	SG2	418.1	THA	25.42		

ORBIT DETERMINATION ACCURACY

ST	728.9	SR	97.2	SS	681.8
CRT	.8650	CRS	-.7237	CST	-.9680
LSA	993.2	MSA	137.0	SSA	19.2
EL1	733.7	EL2	48.5	ALF	6.61

LAUNCH DATE OCT 8 1970 FLIGHT TIME 94.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 280.385

RL	149.47	LAL	.00	LOL	14.30	VL	28.586	GAL	-12.20	AZL	85.78	HCA	131.20	SMA	138.44	ECC	.22516	INC	4.2188	V1	29.810
RP	107.50	LAP	3.17	LOP	145.58	VP	38.865	GAP	1.61	AZP	92.78	TAL	237.57	TAP	8.77	RCA	107.27	APO	169.61	V2	35.251
RC	88.372	GL	19.29	GP	-36.50	ZAL	152.97	ZAP	103.12	ETS	346.80	ZAE	134.89	ETE	232.87	ZAC	61.87	ETC	255.10	CLP	-106.40

PLANETOCENTRIC CONIC

C3	38.698	VHL	6.221	DLA	5.47	RAL	217.85	RAD	6568.5	VEL	12.652	PTH	2.30	VHP	4.544	DPA	-45.83	RAP	199.64	ECC	1.6369		
LNCH AZMTH		LNCH TIME		L-I TIME		INJ LAT		INJ LONG		INJ RT ASC		INJ AZMTH		INJ TIME		PO CST TIM		INJ 2 LAT		INJ 2 LONG			
90.00		0 7 45		2548.27		-26.02		63.76		92.56		101.59		0 50 13		1948.3		-24.16		55.58			
90.00		13 27 26		4851.78		19.40		210.00		88.90		68.96		14 48 18		4251.8		16.37		202.64			
100.00		1 31 40		2277.57		-27.32		43.54		92.25		102.62		2 9 38		1677.6		-25.31		35.32			
100.00		14 46 12		4597.70		20.64		190.80		88.38		67.89		16 2 49		3997.7		17.46		183.45			
110.00		2 45 50		2045.47		-30.83		24.91		91.24		105.55		3 19 55		1445.5		-28.39		16.56			
110.00		15 48 31		4402.57		23.96		174.42		86.81		64.85		17 1 54		3802.6		20.37		167.12			

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.8356	TRA	-1.0185	TC3	-.6936	BAU	.4625	SGT	1491.7	SGR	740.3	SG3	274.2	ST	820.3	SR	110.2	SS	691.4
RDE	.0931	RRA	-.2377	RC3	-.5640	FAU	.09220	RRT	.7958	RRF	.8916	RTF	.8824	CRT	.9422	CRS	-.8475	CST	-.9713
FDE	1.8982	FRA	-.7079	FC3	-2.0627	BSP	4602	SGB	1665.3	R23	.2143	R13	.9113	LSA	1070.0	MSA	133.4	SSA	18.5
BDE	.8407	BRA	1.0459	BC3	.8940	FSP	-862	SG1	1612.8	SG2	414.7	THA	23.17	EL1	826.8	EL2	36.6	ALF	7.23

LAUNCH DATE OCT 8 1970 FLIGHT TIME 96.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 286.629

RL	149.47	LAL	.00	LOL	14.30	VL	28.534	GAL	-12.03	AZL	85.47	HCA	134.44	SMA	138.02	ECC	.22370	INC	4.5349	V1	29.810		
RP	107.51	LAP	3.24	LOP	148.83	VP	38.823	GAP	2.03	AZP	93.18	TAL	236.69	TAP	11.13	RCA	107.14	APO	168.89	V2	35.247		
RC	90.641	GL	20.83	GP	-37.67	ZAL	151.42	ZAP	106.23	ETS	343.74	ZAE	132.52	ETE	230.00	ZAC	60.56	ETC	254.79	CLP	-110.68		

PLANETOCENTRIC CONIC

C3	38.515	VHL	6.206	DLA	6.69	RAL	219.00	RAD	6568.5	VEL	12.645	PTH	2.30	VHP	4.655	DPA	-46.42	RAP	197.75	ECC	1.6339		
LNCH AZMTH		LNCH TIME		L-I TIME		INJ LAT		INJ LONG		INJ RT ASC		INJ AZMTH		INJ TIME		PO CST TIM		INJ 2 LAT		INJ 2 LONG			
90.00		0 3 0		2585.69		-26.50		66.39		94.16		100.35		0 46 5		1985.7		-24.80		58.13			
90.00		13 41 21		4811.97		18.41		207.50		89.72		68.10		15 1 33		4212.0		15.28		200.23			
100.00		1 27 32		2313.04		-27.82		46.05		93.87		101.39		2 6 5		1713.0		-25.97		37.74			
100.00		14 59 31		4559.85		19.65		188.42		89.18		67.01		16 15 30		3959.8		16.37		181.17			
110.00		2 43 4		2076.63		-31.38		27.17		92.94		104.31		3 17 41		1476.6		-29.09		18.71			
110.00		16 0 28		4369.02		22.97		172.32		87.56		63.96		17 13 17		3769.0		19.28		165.12			

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.9455	TRA	-1.0586	TC3	-.7691	BAU	.4896	SGT	1625.3	SGR	728.5	SG3	261.9	ST	921.9	SR	129.6	SS	706.3
RDE	.1242	RRA	-.2035	RC3	-.5592	FAU	.08651	RRT	.8013	RRF	.8972	RTF	.8889	CRT	.9827	CRS	-.9282	CST	-.9736
FDE	1.8918	FRA	-.6022	FC3	-1.9445	BSP	4897	SGB	1781.1	R23	.2279	R13	.9131	LSA	1161.0	MSA	131.6	SSA	17.2
BDE	.9536	BRA	1.0780	BC3	.9509	FSP	-796	SG1	1733.6	SG2	408.6	THA	20.98	EL1	930.7	EL2	23.8	ALF	7.87

LAUNCH DATE OCT 8 1970 FLIGHT TIME 98.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 292.842

RL	149.47	LAL	.00	LOL	14.30	VL	28.479	GAL	-11.86	AZL	85.11	HCA	137.67	SMA	137.57	ECC	.22228	INC	4.8880	V1	29.810		
RP	107.53	LAP	3.29	LOP	152.08	VP	38.779	GAP	2.43	AZP	93.62	TAL	235.75	TAP	13.42	RCA	106.99	APO	168.15	V2	35.243		
RC	92.917	GL	22.51	GP	-38.95	ZAL	149.71	ZAP	108.99	ETS	340.56	ZAE	130.12	ETE	227.57	ZAC	59.17	ETC	254.48	CLP	-114.73		

PLANETOCENTRIC CONIC

C3	38.466	VHL	6.202	DLA	8.04	RAL	220.26	RAD	6568.5	VEL	12.643	PTH	2.29	VHP	4.791	DPA	-47.18	RAP	195.98	ECC	1.6330		
LNCH AZMTH		LNCH TIME		L-I TIME		INJ LAT		INJ LONG		INJ RT ASC		INJ AZMTH		INJ TIME		PO CST TIM		INJ 2 LAT		INJ 2 LONG			
90.00		23 53 37		2628.46		-26.99		69.43		96.01		98.91		24 37 26		2028.5		-25.48		61.08			
90.00		13 56 52		4768.55		17.29		204.81		90.74		67.22		15 16 21		4168.5		14.05		197.63			
100.00		1 22 47		2353.58		-28.34		48.96		95.76		99.94		2 2 0		1753.6		-26.67		40.55			
100.00		15 14 20		4518.66		18.54		185.87		90.17		66.12		16 29 38		3918.7		15.15		178.71			
110.00		2 39 53		2112.28		-31.95		29.80		94.91		102.86		3 15 5		1512.3		-29.85		21.21			
110.00		16 13 43		4332.72		21.87		170.08		88.49		63.05		17 25 55		3732.7		18.08		163.00			

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.0598	TRA	-1.0996	TC3	-.8447	BAU	.5211	SGT	1763.2	SGR	725.9	SG3	250.1	ST	1026.7	SR	145.6	SS	708.2
RDE	.1466	RRA	-.1751	RC3	-.5596	FAU	.08195	RRT	.8029	RRF	.9041	RTF	.8957	CRT	.9927	CRS	-.9613	CST	-.9764
FDE	1.8434	FRA	-.5300	FC3	-1.8444	BSP	5418	SGB	1906.7	R23	.2406	R13	.9169	LSA	1249.2	MSA	127.5	SSA	16.4
BDE	1.0699	BRA	1.1134	BC3	1.0133	FSP	-796	SG1	1862.2	SG2	409.7	THA	19.26	EL1	1036.9	EL2	17.4	ALF	8.01

AUNCH DATE OCT 8 1970 FLIGHT TIME 100.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 299.026

RL	149.47	LAL	.00	LOL	14.30	VL	28.422	GAL	-11.68	AZL	84.71	HCA	140.91	SMA	137.11	ECC	.22091	INC	5.2877	V1	29.810		
RP	107.54	LAP	3.33	LOP	155.33	VP	38.732	GAP	2.81	AZP	94.11	TAL	234.75	TAP	15.66	RCA	106.82	APO	167.40	V2	35.238		
RC	95.197	GL	24.39	GP	-40.40	ZAL	147.81	ZAP	111.36	ETS	337.24	ZAE	127.70	ETE	225.51	ZAC	57.66	ETC	254.15	CLP	-118.57		

PLANETOCENTRIC CONIC

C3	38.589	VHL	6.212	DLA	9.55	RAL	221.65	RAD	6568.5	VEL	12.647	PTH	2.30	VHP	4.955	DPA	-48.16	RAP	194.27	ECC	1.6351		
LNCH AZMTH		LNCH TIME		L-I TIME		INJ LAT		INJ LONG		INJ RT ASC		INJ AZMTH		INJ TIME		PO CST TIM		INJ 2 LAT		INJ 2 LONG			
90.00		23 47 14		2677.99		-27.46		72.98		98.16		97.19		24 31 52		2078.0		-26.18		64.54			
90.00		14 14 20		4720.63		16.00		201.88		91.99		66.32		15 33 1		4120.6		12.66		194.80			
100.00		1 17 12		2400.51		-28.84		52.36		97.95		98.22		1 57 13		1800.5		-27.40		43.85			
100.00		15 30 59		4475.34		17.27		183.11		91.39		65.21		16 45 33		3873.3		13.78		176.05			
110.00		2 36 7		2153.56		-32.53		32.87		97.22		101.13		3 12 1		1553.6		-30.66		24.16			
110.00		16 28 34		4293.06		20.62		167.67		89.64		62.11		17 40 7		3693.1		16.73		160.71			

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.1908	TRA	-1.1320	TC3	-.9095	BAU	.5486	SGT	1898.4	SGR	714.8	SG3	235.9	ST	1143.8	SR	166.1	SS	715.5
RDE	.1736	RRA	-.1389	RC3	-.5509	FAU	.07618	RRT	.8008	RRF	.9089	RTF	.9001	CRT	.9946	CRS	-.9829	CST	-.9785
FDE	1.8056	FRA	-.4405	FC3	-1.7091	BSP	5834	SGB	2028.5	R23	.2548	R13	.9186	LSA	1353.4	MSA	125.5	SSA	15.2
BDE	1.2033	BRA	1.1405	BC3	1.0633	FSP	-757	SG1	1986.9	SG2	409.0	THA	17.55	EL1	1155.7	EL2	17.0	ALF	8.22

LAUNCH DATE OCT 8 1970 FLIGHT TIME 102.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 305.182

RL	149.47	LAL	.00	LOL	14.30	VL	28.362	GAL	-11.50	AZL	84.25	HCA	144.14	SMA	136.63	ECC	.21957	INC	5.7471	V1	29.810
RP	107.56	LAP	3.36	LOP	158.58	VP	38.683	GAP	3.18	AZP	94.66	TAL	233.69	TAP	17.83	RCA	106.63	APO	166.63	V2	35.232
RC	97.481	GL	26.48	GP	-42.05	ZAL	145.69	ZAP	113.31	ETS	333.74	ZAE	125.22	ETE	223.77	ZAC	55.98	ETC	253.79	CLP	-122.20

PLANETOCENTRIC CONIC

C3	38.952	VHL	6.241	DLA	11.24	RAL	223.18	RAD	6568.5	VEL	12.662	PTH	2.30	VHP	5.152	DPA	-49.39	RAP	192.51	ECC	1.6410

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 39 34	2736.21	-27.89	77.18	100.69	95.12	24 25 10	2136.2	-26.89	68.66
90.00	14 34 16	4667.14	14.51	198.66	93.54	65.41	15 52 3	4067.1	11.07	191.67
100.00	1 10 30	2455.62	-29.31	56.38	100.53	96.15	1 51 25	1855.6	-28.15	47.77
100.00	15 49 57	4422.96	15.80	180.08	92.91	64.29	17 3 40	3823.0	12.22	173.13
110.00	2 31 33	2201.97	-33.11	36.53	99.94	99.03	3 8 15	1602.0	-31.51	27.67
110.00	16 45 23	4249.37	19.21	165.07	91.07	61.17	17 56 13	3649.4	15.22	158.23

DIFFERENTIAL CORRECTIONS

TDE	1.3416	TRA	-1.1555	TC3	-.9618	BAU	.5730
RDE	.2030	RRA	-.0981	RC3	-.5345	FAU	.06973
FDE	1.7704	FRA	-.3446	FC3	-1.5499	BSP	6179
BDE	1.3569	BRA	1.1595	BC3	1.1003	FSP	-699

MID-COURSE EXECUTION ACCURACY

SGT	2031.7	SGR	698.6	SG3	220.1		
RRT	.7947	RRF	.9120	RTF	.9030		
SGB	2148.5	RZS	.2700	R13	.9192		
SG1	2109.3	SG2	408.5	THA	15.89		

ORBIT DETERMINATION ACCURACY

ST	1274.2	SR	189.4	SS	725.3
CRT	.9906	CRS	-.9940	CST	-.9804
LSA	1473.0	MSA	125.2	SSA	13.7
EL1	1287.9	EL2	25.7	ALF	8.38

LAUNCH DATE OCT 8 1970 FLIGHT TIME 104.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 311.309

RL	149.47	LAL	.00	LOL	14.30	VL	28.300	GAL	-11.30	AZL	83.72	HCA	147.37	SMA	136.14	ECC	.21828	INC	6.2840	V1	29.810
RP	107.58	LAP	3.38	LOP	161.83	VP	38.632	GAP	3.54	AZP	95.30	TAL	232.59	TAP	19.96	RCA	106.42	APO	165.85	V2	35.226
RC	99.767	GL	28.84	GP	-43.97	ZAL	143.30	ZAP	114.82	ETS	330.03	ZAE	122.65	ETE	222.28	ZAC	54.07	ETC	253.35	CLP	-125.68

PLANETOCENTRIC CONIC

C3	39.655	VHL	6.297	DLA	13.17	RAL	224.89	RAD	6568.5	VEL	12.689	PTH	2.31	VHP	5.390	DPA	-50.88	RAP	190.60	ECC	1.6526

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 30 6	2805.72	-28.21	82.24	103.67	92.60	24 16 52	2205.7	-27.55	73.64
90.00	14 57 21	4606.67	12.77	195.08	95.49	64.51	16 14 7	4006.7	9.23	188.18
100.00	1 2 14	2521.28	-29.69	61.23	103.58	93.63	1 44 15	1921.3	-28.87	52.52
100.00	16 11 50	4366.34	14.10	176.74	94.82	63.37	17 24 36	3766.3	10.41	169.89
110.00	2 25 54	2259.49	-33.64	40.94	103.17	96.47	3 3 33	1659.5	-32.38	31.93
110.00	17 4 40	4200.89	17.59	162.24	92.87	60.21	18 14 41	3600.9	13.50	155.52

DIFFERENTIAL CORRECTIONS

TDE	1.5112	TRA	-1.1754	TC3	-1.0044	BAU	.5987
RDE	.2284	RRA	-.0526	RC3	-.5161	FAU	.06365
FDE	1.7187	FRA	-.2651	FC3	-1.3896	BSP	6661
BDE	1.5283	BRA	1.1766	BC3	1.1293	FSP	-666

MID-COURSE EXECUTION ACCURACY

SGT	2167.3	SGR	684.2	SG3	203.9		
RRT	.7836	RRF	.9133	RTF	.9064		
SGB	2272.7	RZS	.2836	R13	.9208		
SG1	2235.0	SG2	412.1	THA	14.40		

ORBIT DETERMINATION ACCURACY

ST	1414.4	SR	209.2	SS	729.6
CRT	.9844	CRS	-.9979	CST	-.9824
LSA	1600.3	MSA	124.2	SSA	12.3
EL1	1429.3	EL2	36.4	ALF	8.29

LAUNCH DATE OCT 8 1970 FLIGHT TIME 106.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 317.409

RL	149.47	LAL	.00	LOL	14.30	VL	28.237	GAL	-11.10	AZL	83.08	HCA	150.59	SMA	135.64	ECC	.21703	INC	6.9243	V1	29.810
RP	107.60	LAP	3.39	LOP	165.07	VP	38.579	GAP	3.88	AZP	96.04	TAL	231.43	TAP	22.03	RCA	106.20	APO	165.08	V2	35.218
RC	102.053	GL	31.51	GP	-46.23	ZAL	140.61	ZAP	115.83	ETS	326.06	ZAE	119.94	ETE	220.97	ZAC	51.85	ETC	252.82	CLP	-129.03

PLANETOCENTRIC CONIC

C3	40.847	VHL	6.391	DLA	15.36	RAL	226.80	RAD	6568.6	VEL	12.736	PTH	2.32	VHP	5.682	DPA	-52.66	RAP	188.36	ECC	1.6722

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 18 7	2890.25	-28.31	88.42	107.20	89.51	24 6 17	2290.3	-28.08	79.76
90.00	15 24 36	4537.10	10.69	191.02	97.97	63.62	16 40 13	3937.1	7.07	184.22
100.00	0 51 47	2600.85	-29.89	67.13	107.20	90.53	1 35 8	2000.8	-29.49	58.35
100.00	16 37 32	4301.74	12.10	172.99	97.24	62.46	17 49 14	3701.7	8.32	166.24
110.00	2 18 44	2328.81	-34.04	46.31	107.03	93.32	2 57 33	1728.8	-33.21	37.17
110.00	17 27 5	4146.54	15.73	159.13	95.16	59.25	18 36 12	3546.5	11.53	152.54

DIFFERENTIAL CORRECTIONS

TDE	1.7153	TRA	-1.1831	TC3	-1.0259	BAU	.6202
RDE	.2544	RRA	-.0001	RC3	-.4870	FAU	.05696
FDE	1.6712	FRA	-.1817	FC3	-1.2072	BSP	7064
BDE	1.7340	BRA	1.1831	BC3	1.1356	FSP	-613

MID-COURSE EXECUTION ACCURACY

SGT	2300.9	SGR	662.9	SG3	186.4		
RRT	.7651	RRF	.9105	RTF	.9092		
SGB	2394.5	RZS	.2969	R13	.9219		
SG1	2358.0	SG2	416.5	THA	12.84		

ORBIT DETERMINATION ACCURACY

ST	1573.2	SR	228.8	SS	736.3
CRT	.9762	CRS	-.9981	CST	-.9843
LSA	1747.5	MSA	125.0	SSA	10.7
EL1	1589.0	EL2	49.1	ALF	8.09

LAUNCH DATE OCT 8 1970 FLIGHT TIME 108.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 323.483

RL	149.47	LAL	.00	LOL	14.30	VL	28.172	GAL	-10.89	AZL	82.29	HCA	153.81	SMA	135.13	ECC	.21582	INC	7.7064	V1	29.810
RP	107.63	LAP	3.39	LOP	168.32	VP	38.524	GAP	4.20	AZP	96.92	TAL	230.23	TAP	24.04	RCA	105.97	APO	164.30	V2	35.211
RC	104.339	GL	34.56	GP	-48.89	ZAL	137.56	ZAP	116.29	ETS	321.77	ZAE	117.02	ETE	219.75	ZAC	49.26	ETC	252.11	CLP	-132.34

PLANETOCENTRIC CONIC

C3	42.775	VHL	6.540	DLA	17.87	RAL	228.97	RAD	6568.6	VEL	12.812	PTH	2.33	VHP	6.048	DPA	-54.73	RAP	185.54	ECC	1.7040

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 2 23	2995.49	-28.01	96.10	111.37	85.67	23 52 19	2395.5	-28.32	87.45
90.00	15 57 37	4455.13	8.18	186.31	101.20	62.80	17 11 52	3855.1	4.47	179.60
100.00	0 38 11	2699.25	-29.73	74.44	111.50	86.69	1 23 10	2099.2	-29.87	65.64
100.00	17 8 27	4226.60	9.70	168.70	100.39	61.59	18 18 53	3626.6	5.83	162.05
110.00	2 9 28	2413.64	-34.18	52.93	111.68	89.41	2 49 42	1813.6	-33.88	43.70
110.00	17 53 39	4084.97	13.56	155.68	98.11	58.32	19 1 44	3485.0	9.27	149.21

DIFFERENTIAL CORRECTIONS

TDE	1.9651	TRA	-1.1771	TC3	-1.0219	BAU	.6377
RDE	.2764	RRA	.0627	RC3	-.4464	FAU	.04994
FDE	1.6225	FRA	-.1009	FC3	-1.0107	BSP	7443
BDE	1.9845	BRA	1.1788	BC3	1.1152	FSP	-554

MID-COURSE EXECUTION ACCURACY

SGT	2434.1	SGR	634.8	SG3	167.9		
RRT	.7345	RRF	.9004	RTF	.9122		
SGB	2515.5	RZS	.3087	R13	.9231		
SG1	2479.7	SG2	422.8	THA	11.17		

ORBIT DETERMINATION ACCURACY

ST	1752.4	SR	243.4	SS	743.2
CRT	.9658	CRS	-.9949	CST	-.9861
LSA	1914.8	MSA	127.0	SSA	9.0
EL1	1768.2	EL2	62.6	ALF	7.65

LAUNCH DATE OCT 8 1970 FLIGHT TIME 110.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 329.530

```
RL  149.47 LAL    .00 LOL  14.30 VL  28.106 GAL -10.68 AZL  81.31 HCA 157.02 SMA 134.62 ECC .21465 INC 8.6898 V1  29.810
RP  107.65 LAP   3.38 LOP 171.56 VP  38.468 GAP   4.51 AZP  98.01 TAL 228.99 TAP  26.01 RCA 105.72 APO 163.52 V2  35.202
RC 106.624 GL   38.04 GP  -52.04 ZAL 134.06 ZAP 116.13 ETS 317.05 ZAE 113.80 ETE 218.46 ZAC  46.19 ETC 251.13 CLP-135.72
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PLANETOCENTRIC CONIC

```
C3  45.856 VHL  6.772 DLA  20.76 RAL 231.47 RAD 6568.7 VEL 12.931 PTH   2.36 VHP  6.522 DPA -57.07 RAP 181.77 ECC 1.7547
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 40 37	3131.08	-26.93	105.87	116.25	80.89	23 32 48	2531.1	-27.91	97.34
90.00	16 39 18	4354.52	5.01	180.62	105.54	62.09	17 51 53	3754.5	1.23	173.97
100.00	0 19 40	2824.37	-28.88	83.64	116.59	81.92	1 6 45	2224.4	-29.69	74.93
100.00	17 46 52	4136.47	6.74	163.65	104.59	60.81	18 55 49	3536.5	2.80	157.08
110.00	1 57 9	2519.39	-33.80	61.16	117.27	84.55	2 39 9	1919.4	-34.18	51.94
110.00	18 25 53	4014.21	10.99	151.80	102.02	57.43	19 32 47	3414.2	6.62	145.44

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE 2.2900 TRA-1.1441 TC3 -.9772 BAU  .6442    SGT 2564.7 SGR  593.6 SG3  148.4    ST  1962.7 SR   250.3 SS   755.1
RDE  .2916 RRA  .1452 RC3 -.3867 FAU .04206    RRT  .6799 RRF  .8749 RTF  .9149   CRT  .9493 CRS -.9863 CST -.9878
FDE 1.5832 FRA -.0128 FC3 -.7942 BSP   7546    SGB 2632.5 R23  .3202 R13  .9238   LSA 2113.7 MSA  132.0 SSA    7.3
BDE 2.3085 BRA 1.1533 BC3 1.0509 FSP   -463    SG1 2597.1 SG2  429.9 THA   9.20   EL1 1977.1 EL2   78.2 ALF   6.91
```

LAUNCH DATE OCT 8 1970 FLIGHT TIME 112.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 335.546

```
RL  149.47 LAL    .00 LOL  14.30 VL  28.038 GAL -10.45 AZL  80.03 HCA 160.23 SMA 134.11 ECC .21353 INC 9.9721 V1  29.810
RP  107.68 LAP   3.36 LOP 174.81 VP  38.411 GAP   4.81 AZP  99.40 TAL 227.70 TAP  27.93 RCA 105.47 APO 162.74 V2  35.193
RC 108.906 GL   42.03 GP  -55.78 ZAL 130.04 ZAP 115.26 ETS 311.75 ZAE 110.17 ETE 216.84 ZAC  42.51 ETC 249.70 CLP-139.38
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PLANETOCENTRIC CONIC

```
C3  50.866 VHL  7.132 DLA  24.07 RAL 234.39 RAD 6568.9 VEL 13.124 PTH   2.40 VHP  7.162 DPA -59.59 RAP 176.47 ECC 1.8371
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 7 18	3317.60	-24.25	118.86	121.67	74.92	23 2 36	2717.6	-26.09	110.68
90.00	17 35 58	4219.86	.68	173.09	111.64	61.69	18 46 17	3619.9	-3.11	166.46
100.00	23 48 36	2990.98	-26.70	95.54	122.37	76.03	24 38 27	2391.0	-28.36	87.13
100.00	18 37 21	4021.71	2.89	157.30	110.42	60.23	19 44 22	3421.7	-1.09	150.78
110.00	1 40 8	2654.36	-32.45	71.46	123.86	78.61	2 24 22	2054.4	-33.68	62.44
110.00	19 6 14	3931.10	7.91	147.34	107.32	56.64	20 11 45	3331.1	3.47	141.07

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE 2.6879 TRA-1.1082 TC3 -.9110 BAU  .6574    SGT 2702.2 SGR  547.1 SG3  128.6    ST  2179.4 SR   219.8 SS   750.9
RDE  .2621 RRA  .2322 RC3 -.3237 FAU .03553    RRT  .5787 RRF  .8103 RTF  .9223   CRT  .9131 CRS -.9614 CST -.9899
FDE 1.5101 FRA  .0347 FC3 -.6048 BSP   8268    SGB 2757.0 R23  .3210 R13  .9288   LSA 2311.8 MSA  132.5 SSA    6.0
BDE 2.7006 BRA 1.1322 BC3  .9668 FSP   -437    SG1 2721.2 SG2  443.1 THA   6.87   EL1 2188.6 EL2   89.2 ALF   5.27
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LAUNCH DATE OCT 8 1970 FLIGHT TIME 114.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 341.530

```
RL  149.47 LAL    .00 LOL  14.30 VL  27.971 GAL -10.21 AZL  78.27 HCA 163.42 SMA 133.59 ECC .21244 INC11.7250 V1  29.810
RP  107.71 LAP   3.32 LOP 178.05 VP  38.353 GAP   5.09 AZP 101.25 TAL 226.37 TAP  29.79 RCA 105.21 APO 161.97 V2  35.184
RC 111.186 GL   46.57 GP  -60.23 ZAL 125.40 ZAP 113.60 ETS 305.47 ZAE 105.96 ETE 214.41 ZAC  38.08 ETC 247.47 CLP-143.74
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PLANETOCENTRIC CONIC

```
C3  59.343 VHL  7.703 DLA  27.81 RAL 237.92 RAD 6569.1 VEL 13.442 PTH   2.46 VHP  8.071 DPA -62.06 RAP 168.78 ECC 1.9766
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	20 52 47	3653.58	-16.63	140.52	126.05	66.75	21 53 40	3053.6	-19.64	133.13
90.00	19 18 36	3959.87	-7.64	158.51	121.71	62.65	20 24 36	3359.9	-11.24	151.68
100.00	23 0 31	3241.80	-21.48	112.32	128.15	68.70	23 54 33	2641.8	-24.18	104.57
100.00	19 53 33	3846.89	-3.03	147.70	119.19	60.25	20 57 40	3246.9	-6.97	141.13
110.00	1 14 59	2833.26	-29.29	84.43	131.27	71.54	2 2 12	2233.3	-31.53	75.93
110.00	19 59 30	3828.19	4.02	141.91	114.81	56.03	21 3 18	3228.2	-.46	135.70

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE 3.2485 TRA-1.0166 TC3 -.7842 BAU  .6496    SGT 2833.4 SGR  486.4 SG3  108.3    ST  2429.9 SR   151.0 SS   754.1
RDE  .1620 RRA  .3583 RC3 -.2351 FAU .02807    RRT  .3420 RRF  .6262 RTF  .9312   CRT  .7312 CRS -.8116 CST -.9919
FDE 1.4535 FRA  .0913 FC3 -.4094 BSP   8652    SGB 2874.9 R23  .3185 R13  .9343   LSA 2545.1 MSA  136.6 SSA    4.7
BDE 3.2525 BRA 1.0779 BC3  .8187 FSP   -372    SG1 2838.4 SG2  456.2 THA   3.45   EL1 2432.5 EL2  102.9 ALF   2.61
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LAUNCH DATE OCT 8 1970 FLIGHT TIME 116.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 347.475

```
RL  149.47 LAL    .00 LOL  14.30 VL  27.902 GAL  -9.97 AZL  75.72 HCA 166.58 SMA 133.08 ECC .21136 INC14.2794 V1  29.810
RP  107.74 LAP   3.28 LOP 181.28 VP  38.294 GAP   5.36 AZP 103.91 TAL 225.00 TAP  31.59 RCA 104.95 APO 161.21 V2  35.174
RC 113.462 GL   51.61 GP  -65.47 ZAL 120.06 ZAP 111.04 ETS 297.26 ZAE 100.94 ETE 210.04 ZAC  32.71 ETC 243.64 CLP-149.86
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PLANETOCENTRIC CONIC

```
C3  74.777 VHL  8.647 DLA  31.90 RAL 242.30 RAD 6569.5 VEL 14.005 PTH   2.55 VHP  9.453 DPA -63.93 RAP 157.61 ECC 2.2306
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
74.66	18 23 26	4245.70	-11.89	181.98	132.54	60.18	19 34 12	3645.7	-15.77	175.19
105.34	22 22 54	3478.13	-11.87	125.14	132.53	60.17	23 20 52	2878.1	-15.75	118.36
74.66	18 23 26	4245.70	-11.89	181.98	132.54	60.18	19 34 12	3645.7	-15.77	175.19
105.34	22 22 54	3478.13	-11.87	125.14	132.53	60.17	23 20 52	2878.1	-15.75	118.36
110.00	0 30 47	3094.18	-22.44	101.58	138.44	63.51	1 22 21	2494.2	-25.81	94.05
110.00	21 18 39	3677.65	-1.73	134.05	126.17	55.86	22 19 57	3077.6	-6.20	127.81

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

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TDE 4.0480 TRA -.8370 TC3 -.6003 BAU  .6144    SGT 2949.3 SGR  483.1 SG3   88.5    ST  2689.5 SR   159.8 SS   761.7
RDE -.1513 RRA  .5307 RC3 -.1316 FAU .02058    RRT -.2127 RRF  .0922 RTF  .9449   CRT -.6818 CRS  .5990 CST -.9942
FDE 1.4065 FRA  .1401 FC3 -.2382 BSP   8981    SGB 2988.6 R23 -.3054 R13 -.9432   LSA 2796.2 MSA  141.8 SSA    3.5
BDE 4.0508 BRA  .9911 BC3  .6146 FSP   -305    SG1 2951.2 SG2  471.8 THA 177.95   EL1 2691.7 EL2  116.8 ALF 177.68
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LAUNCH DATE OCT 8 1970 FLIGHT TIME 118.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 353.359

```
RL  149.47 LAL    .00 LOL  14.30 VL  27.833 GAL  -9.70 AZL  71.64 HCA 169.71 SMA 132.57 ECC .21024 INC18.3586 V1  29.810
RP  107.77 LAP   3.23 LOP 184.52 VP  38.234 GAP   5.60 AZP 108.08 TAL 223.58 TAP  33.29 RCA 104.70 APO 160.44 V2  35.164
RC 115.736 GL   56.88 GP  -71.41 ZAL 113.98 ZAP 107.54 ETS 284.35 ZAE  94.71 ETE 200.77 ZAC  26.11 ETC 236.25 CLP-161.00
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PLANETOCENTRIC CONIC

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C3 106.438 VHL 10.317 DLA  35.99 RAL 247.96 RAD 6570.0 VEL 15.092 PTH   2.71 VHP 11.757 DPA -64.10 RAP 142.50 ECC 2.7517
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
66.79	17 57 49	4471.44	-10.25	198.48	143.56	55.31	19 12 21	3871.4	-14.72	192.10
113.21	23 33 41	3408.83	-10.23	118.71	143.55	55.30	24 30 30	2808.8	-14.71	112.33
66.79	17 57 49	4471.44	-10.25	198.48	143.56	55.31	19 12 21	3871.4	-14.72	192.10
113.21	23 33 41	3408.83	-10.23	118.71	143.55	55.30	24 30 30	2808.8	-14.71	112.33
66.79	17 57 49	4471.44	-10.25	198.48	143.56	55.31	19 12 21	3871.4	-14.72	192.10
113.21	23 33 41	3408.83	-10.23	118.71	143.55	55.30	24 30 30	2808.8	-14.71	112.33

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 5.1708 TRA -.4535 TC3 -.3648 BAU  .5210   SGT 2984.9 SGR  809.8 SG3   70.5     ST  2873.3 SR   640.1 SS   788.6
 RDE-1.1184 RRA  .7513 RC3 -.0311 FAU .01312   RRT -.7843 RRF -.6079 RTF  .9659     CRT -.9776 CRS  .9572 CST -.9967
 FDE 1.3962 FRA  .1856 FC3 -.1067 BSP   9356   SGB 3092.9 R23 -.2749 R13 -.9568     LSA 3043.9 MSA  148.8 SSA    2.4
 BDE 5.2904 BRA  .8775 BC3  .3661 FSP   -246   SG1 3053.6 SG2  491.2 THA 167.66     EL1 2940.8 EL2  131.5 ALF 167.69
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LAUNCH DATE OCT 8 1970 FLIGHT TIME 120.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 359.132

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RL  149.47 LAL    .00 LOL  14.30 VL  27.764 GAL  -9.41 AZL  64.15 HCA 172.73 SMA 132.06 ECC .20894 INC25.8509 V1  29.810
RP  107.80 LAP   3.16 LOP 187.75 VP  38.174 GAP   5.81 AZP 115.67 TAL 222.09 TAP  34.82 RCA 104.47 APO 159.65 V2  35.153
RC 118.005 GL   61.25 GP  -76.70 ZAL 107.26 ZAP 103.14 ETS 258.29 ZAE  86.38 ETE 177.97 ZAC  17.90 ETC 221.07 CLP 171.07
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PLANETOCENTRIC CONIC

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C3 185.560 VHL 13.622 DLA  39.00 RAL 255.55 RAD 6571.0 VEL 17.518 PTH   2.97 VHP 16.143 DPA -60.67 RAP 125.67 ECC 4.0538
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.99	18 3 29	4646.57	-6.64	210.05	157.29	51.49	19 20 56	4046.6	-11.58	204.09
118.01	0 32 28	3440.19	-6.63	118.55	157.28	51.48	1 29 48	2840.2	-11.56	112.59
61.99	18 3 29	4646.57	-6.64	210.05	157.29	51.49	19 20 56	4046.6	-11.58	204.09
118.01	0 32 28	3440.19	-6.63	118.55	157.28	51.48	1 29 48	2840.2	-11.56	112.59
61.99	18 3 29	4646.57	-6.64	210.05	157.29	51.49	19 20 56	4046.6	-11.58	204.09
118.01	0 32 28	3440.19	-6.63	118.55	157.28	51.48	1 29 48	2840.2	-11.56	112.59

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 6.0926 TRA  .4874 TC3 -.1083 BAU  .2688   SGT 2593.0 SGR 1830.4 SG3   56.3     ST  2563.9 SR  1788.0 SS   884.9
 RDE-4.2409 RRA  .7584 RC3  .0009 FAU .00467   RRT -.9404 RRF -.8988 RTF  .9930     CRT -.9950 CRS  .9908 CST -.9994
 FDE 1.5050 FRA  .2606 FC3 -.0218 BSP   9532   SGB 3174.0 R23 -.2146 R13 -.9750     LSA 3244.8 MSA  157.5 SSA    1.5
 BDE 7.4233 BRA  .9015 BC3  .1084 FSP   -192   SG1 3131.9 SG2  515.2 THA 145.35     EL1 3122.3 EL2  146.4 ALF 145.15
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LAUNCH DATE OCT 8 1970 FLIGHT TIME 122.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 364.596

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RL  149.47 LAL    .00 LOL  14.30 VL  27.694 GAL  -9.05 AZL  47.00 HCA 175.47 SMA 131.56 ECC .20698 INC42.9997 V1  29.810
RP  107.84 LAP   3.09 LOP 190.99 VP  38.113 GAP   5.93 AZP 132.91 TAL 220.42 TAP  35.89 RCA 104.33 APO 158.79 V2  35.141
RC 120.271 GL   60.54 GP  -72.93 ZAL 100.38 ZAP  98.17 ETS 213.82 ZAE  73.15 ETE 136.50 ZAC  10.41 ETC 226.69 CLP 118.95
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PLANETOCENTRIC CONIC

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C3 458.904 VHL 21.422 DLA  37.21 RAL 265.57 RAD 6572.3 VEL 24.087 PTH   3.31 VHP 26.276 DPA -50.16 RAP 112.28 ECC 8.5524
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.79	18 57 24	4717.34	-1.83	212.12	173.17	52.83	20 16 2	4117.3	-6.64	206.13
115.21	0 58 31	3591.70	-1.81	127.27	173.16	52.83	1 58 23	2991.7	-6.63	121.28
64.79	18 57 24	4717.34	-1.83	212.12	173.17	52.83	20 16 2	4117.3	-6.64	206.13
115.21	0 58 31	3591.70	-1.81	127.27	173.16	52.83	1 58 23	2991.7	-6.63	121.28
64.79	18 57 24	4717.34	-1.83	212.12	173.17	52.83	20 16 2	4117.3	-6.64	206.13
115.21	0 58 31	3591.70	-1.81	127.27	173.16	52.83	1 58 23	2991.7	-6.63	121.28

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 2.7447 TRA 1.7948 TC3 -.0064 BAU  .7815   SGT  950.2 SGR 3007.9 SG3   47.8     ST   756.0 SR  2936.3 SS  1184.9
 RD-10.9701 RRA-1.1208 RC3 -.1272 FAU-.01112   RRT -.8277 RRF -.9837 RTF  .9122     CRT -.9794 CRS  .9984 CST -.9894
 FDE 1.9424 FRA  .4957 FC3  .0210 BSP   9645   SGB 3154.4 R23 -.1305 R13 -.9905     LSA 3251.6 MSA  156.0 SSA    1.6
 BDE11.3082 BRA 2.1160 BC3  .1274 FSP   -160   SG1 3112.1 SG2  515.3 THA 105.08     EL1 3028.5 EL2  147.9 ALF 104.19
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LAUNCH DATE OCT 8 1970 FLIGHT TIME 124.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 368.813

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RL  149.47 LAL    .00 LOL  14.30 VL  27.625 GAL  -8.43 AZL   1.67 HCA 177.00 SMA 131.06 ECC .20204 INC88.3298 V1  29.810
RP  107.87 LAP   3.00 LOP 194.21 VP  38.051 GAP   5.69 AZP 178.33 TAL 218.10 TAP  35.09 RCA 104.58 APO 157.54 V2  35.130
RC 122.531 GL   43.06 GP  -48.73 ZAL  95.10 ZAP  94.06 ETS 188.75 ZAE  47.32 ETE 117.22 ZAC  29.27 ETC 265.88 CLP  96.16
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PLANETOCENTRIC CONIC

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C31600.244 VHL 40.003 DLA  19.76 RAL 275.68 RAD 6573.2 VEL 41.491 PTH   3.57 VHP 50.293 DPA -24.73 RAP 107.42 ECC27.3560
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 52 25	3568.27	-18.85	135.24	194.54	68.47	2 51 53	2968.3	-21.61	127.65
90.00	19 24 9	4876.45	20.00	211.57	179.99	69.52	20 45 25	4276.5	17.03	204.15
100.00	3 26 17	3265.60	-20.88	113.84	195.40	68.11	4 20 42	2665.6	-23.67	106.15
100.00	20 32 58	4654.35	22.05	194.42	179.16	69.29	21 50 33	4054.3	19.03	186.92
110.00	5 1 26	2967.91	-26.04	93.55	197.72	67.03	5 50 54	2367.9	-28.92	85.55
110.00	21 14 18	4524.81	27.26	182.39	176.95	68.52	22 29 43	3924.8	24.09	174.65

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-4.1267 TRA 1.6219 TC3 -.0734 BAU 4.0762   SGT  868.9 SGR 2489.7 SG3   45.6     ST   595.9 SR  1878.9 SS  1684.0
 RD-12.9872 RRA-5.7263 RC3 -.1758 FAU-.06793   RRT  .7906 RRF -.9980 RTF -.7526     CRT  .9653 CRS  .9996 CST  .9576
 FDE 2.6672 FRA 1.4150 FC3  .0388 BSP   7724   SGB 2637.0 R23 -.1162 R13 -.9930     LSA 2587.5 MSA  162.5 SSA    1.4
 BDE13.6271 BRA 5.9516 BC3  .1905 FSP   -143   SG1 2586.8 SG2  512.1 THA  73.93     EL1 1965.5 EL2  148.8 ALF  72.88
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LAUNCH DATE  OCT  8 1970                          FLIGHT TIME 126.00                          ARRIVAL DATE  FEB 11 1971

 HELIOCENTRIC CONIC                                DISTANCE 378.859
  RL  149.47 LAL     .00 LOL  14.30 VL  27.555 GAL  -9.01 AZL 132.88 HCA 184.28 SMA 130.56 ECC .21212 INC42.8753 V1  29.810
  RP  107.91 LAP    2.91 LOP 197.44 VP  37.990 GAP   7.12 AZP  47.20 TAL 218.59 TAP  42.86 RCA 102.87 APO 158.26 V2  35.118
  RC 124.786 GL   -60.27 GP   70.44 ZAL 100.31 ZAP  99.21 ETS 158.84 ZAE  78.74 ETE 234.94 ZAC 149.87 ETC 258.05 CLP 118.56
 PLANETOCENTRIC CONIC
  C3 454.718 VHL 21.324 DLA -83.01 RAL 240.85 RAD 6572.3 VEL 24.000 PTH   3.31 VHP 28.061 DPA  75.02 RAP 224.03 ECC 8.4835
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      7.94    2 35 24   2412.38       3.05      85.22      150.47      173.00   3 15 36     1812.4       10.99      84.65
    172.06   14  3 18    607.01       3.05     280.33      190.49      173.00  14 13 25        7.0       10.99     279.76
      7.94    2 35 24   2412.38       3.05      85.22      150.47      173.00   3 15 36     1812.4       10.99      84.65
    172.06   14  3 18    607.01       3.05     280.33      150.49      173.00  14 13 25        7.0       10.99     279.76
      7.94    2 35 24   2412.38       3.05      85.22      150.47      173.00   3 15 36     1812.4       10.99      84.65
    172.06   14  3 18    607.01       3.05     280.33      150.49      173.00  14 13 25        7.0       10.99     279.76
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
  TDE -.2276 TRA  .2011 TC3 -.0247 BAU  .8467      SGT  460.5 SGR 3280.8 SG3   52.7       ST   146.6 SR  3065.5 SS  1437.6
  RD-11.3473 RRA -.4805 RC3  .1371 FAU-.00908      RRT -.2293 RRF  .9915 RTF -.1049       CRT  .3204 CRS -.9993 CST -.3562
  FDE-2.2020 FRA -.0590 FC3  .0173 BSP  10423      SGB 3313.0 RZS -.1302 RIS  .9909       LSA 3385.9 MSA  147.2 SSA    1.5
  BDE11.3496 BRA  .5209 BC3  .1393 FSP   -170      SGI 3282.6 SGZ  448.0 THA  91.88       ELI 3065.9 ELZ  138.9 ALF  89.12

LAUNCH DATE  OCT  8 1970                          FLIGHT TIME 128.00                          ARRIVAL DATE  FEB 13 1971

 HELIOCENTRIC CONIC                                DISTANCE 384.222
  RL  149.47 LAL     .00 LOL  14.30 VL  27.486 GAL  -8.62 AZL 113.87 HCA 186.95 SMA 130.08 ECC .21021 INC23.8697 V1  29.810
  RP  107.95 LAP    2.81 LOP 200.66 VP  37.928 GAP   7.29 AZP  66.29 TAL 216.84 TAP  43.79 RCA 102.73 APO 157.42 V2  35.105
  RC 127.036 GL   -60.84 GP   73.95 ZAL 106.71 ZAP 105.52 ETS 100.00 ZAE  92.96 ETE 177.75 ZAC 160.25 ETC 223.73 CLP 165.45
 PLANETOCENTRIC CONIC
  C3 158.585 VHL 12.593 DLA -78.84 RAL 200.41 RAD 6570.7 VEL 16.731 PTH   2.90 VHP 16.932 DPA  61.32 RAP 242.83 ECC 3.6099
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     12.70    0  3 20   2270.23      12.14      81.44      107.97      168.58   0 41 10     1670.2       19.98      80.17
    167.30   11 12 46   5763.62      12.15     259.04      107.99      168.58  12 48 49     5163.6       19.98     257.78
     12.70    0  3 20   2270.23      12.14      81.44      107.97      168.58   0 41 10     1670.2       19.98      80.17
    167.30   11 12 46   5763.62      12.15     259.04      107.99      168.58  12 48 49     5163.6       19.98     257.78
     12.70    0  3 20   2270.23      12.14      81.44      107.97      168.58   0 41 10     1670.2       19.98      80.17
    167.30   11 12 46   5763.62      12.15     259.04      107.99      168.58  12 48 49     5163.6       19.98     257.78
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
  TDE-3.4979 TRA-1.1205 TC3 -.1472 BAU  .3171      SGT 3099.7 SGR 1755.8 SG3   63.5       ST  1776.9 SR   638.1 SS   679.0
  RDE -.8310 RRA -.7288 RC3 -.0267 FAU .01019      RRT  .9443 RRF  .9023 RTF  .9930       CRT  .8890 CRS -.8511 CST -.9970
  FDE -.9458 FRA -.2464 FC3 -.0556 BSP  11062      SGB 3562.4 RZS -.1855 RIS  .9814       LSA 1985.4 MSA  289.3 SSA    1.5
  BDE 3.5853 BRA 1.3366 BC3  .1496 FSP   -208      SGI 3526.0 SGZ  507.8 THA  28.80       ELI 1867.4 ELZ  278.1 ALF  18.12

LAUNCH DATE  OCT  8 1970                          FLIGHT TIME 130.00                          ARRIVAL DATE  FEB 15 1971

 HELIOCENTRIC CONIC                                DISTANCE 389.902
  RL  149.47 LAL     .00 LOL  14.30 VL  27.417 GAL  -8.28 AZL 105.79 HCA 189.95 SMA 129.60 ECC .20928 INC15.7921 V1  29.810
  RP  107.99 LAP    2.70 LOP 203.88 VP  37.867 GAP   7.37 AZP  74.43 TAL 215.22 TAP  45.17 RCA 102.47 APO 156.72 V2  35.093
  RC 129.278 GL   -55.58 GP   67.62 ZAL 112.69 ZAP 112.12 ETS  73.64 ZAE 101.64 ETE 153.59 ZAC 160.79 ETC 227.13 CLP-171.43
 PLANETOCENTRIC CONIC
  C3  80.119 VHL  8.951 DLA -72.56 RAL 204.99 RAD 6569.6 VEL 14.194 PTH   2.59 VHP 12.300 DPA  50.80 RAP 244.94 ECC 2.3186
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     19.91    0 36  6   2117.94      20.79      74.01      108.12      161.30   1 11 24     1517.9       28.35      71.52
    160.09   11 16 29   5637.76      20.80     258.79      108.15      161.30  12 50 27     5037.8       28.35     256.30
     19.91    0 36  6   2117.94      20.79      74.01      108.12      161.30   1 11 24     1517.9       28.35      71.52
    160.09   11 16 29   5637.76      20.80     258.79      108.15      161.30  12 50 27     5037.8       28.35     256.30
     19.91    0 36  6   2117.94      20.79      74.01      108.12      161.30   1 11 24     1517.9       28.35      71.52
    160.09   11 16 29   5637.76      20.80     258.79      108.15      161.30  12 50 27     5037.8       28.35     256.30
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
  TDE-2.5340 TRA-1.4471 TC3 -.5901 BAU  .6332      SGT 3646.7 SGR  525.0 SG3   79.8       ST  1868.6 SR   351.5 SS   627.2
  RDE  .5155 RRA -.1888 RC3  .0361 FAU .01975      RRT  .3356 RRF  .0908 RTF  .9654       CRT -.6443 CRS  .7798 CST -.9812
  FDE -.8738 FRA -.2941 FC3 -.2134 BSP  11425      SGB 3684.3 RZS -.2540 RIS  .9637       LSA 1981.5 MSA  286.6 SSA    2.3
  BDE 2.5859 BRA 1.4594 BC3  .5912 FSP   -263      SGI 3651.0 SGZ  494.0 THA   2.82       ELI 1882.5 ELZ  266.8 ALF 172.95

LAUNCH DATE  OCT  8 1970                          FLIGHT TIME 132.00                          ARRIVAL DATE  FEB 17 1971

 HELIOCENTRIC CONIC                                DISTANCE 395.674
  RL  149.47 LAL     .00 LOL  14.30 VL  27.349 GAL  -7.97 AZL 101.48 HCA 193.05 SMA 129.12 ECC .20873 INC11.4767 V1  29.810
  RP  108.03 LAP    2.58 LOP 207.10 VP  37.805 GAP   7.57 AZP  78.81 TAL 213.63 TAP  46.68 RCA 102.17 APO 156.07 V2  35.080
  RC 131.513 GL   -49.30 GP   60.35 ZAL 117.59 ZAP 118.37 ETS  65.48 ZAE 107.87 ETE 148.30 ZAC 156.90 ETC 238.61 CLP-163.83
 PLANETOCENTRIC CONIC
  C3  50.523 VHL  7.108 DLA -66.64 RAL 212.23 RAD 6568.9 VEL 13.110 PTH   2.39 VHP  9.993 DPA  42.15 RAP 245.28 ECC 1.8315
  LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     26.76    1 19 47   1988.12      26.78      65.11      109.63      153.64   1 52 55     1388.1       33.88      61.26
    153.24   11 30 34   5545.96      26.79     257.15      109.65      153.63  13  3  0     4946.0       33.89     253.30
     26.76    1 19 47   1988.12      26.78      65.11      109.63      153.64   1 52 55     1388.1       33.88      61.26
    153.24   11 30 34   5545.96      26.79     257.15      109.65      153.63  13  3  0     4946.0       33.89     253.30
     26.76    1 19 47   1988.12      26.78      65.11      109.63      153.64   1 52 55     1388.1       33.88      61.26
    153.24   11 30 34   5545.96      26.79     257.15      109.65      153.63  13  3  0     4946.0       33.89     253.30
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
  TDE-2.0969 TRA-1.4440 TC3-1.1239 BAU  .7665      SGT 3745.7 SGR  531.1 SG3   97.8       ST  1906.6 SR   476.8 SS   624.4
  RDE  .5908 RRA -.0364 RC3  .1568 FAU .02685      RRT -.4744 RRF -.7227 RTF  .9431       CRT -.8643 CRS  .9554 CST -.9743
  FDE -.8682 FRA -.2966 FC3 -.4601 BSP  11733      SGB 3783.2 RZS  .3047 RIS -.9457       LSA 2045.3 MSA  262.7 SSA    3.2
  BDE 2.1785 BRA 1.4445 BC3 1.1347 FSP   -322      SGI 3754.3 SGZ  466.4 THA 176.09       ELI 1951.3 ELZ  234.3 ALF 167.62
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LAUNCH DATE OCT 8 1970 FLIGHT TIME 134.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 401.478

RL	149.47	LAL	.00	LOL	14.30	VL	27.280	GAL	-7.65	AZL	98.81	HCA	196.19	SMA	128.66	ECC	.20839	INC	8.8067	V1	29.810
RP	108.07	LAP	2.45	LOP	210.32	VP	37.744	GAP	7.77	AZP	81.54	TAL	212.04	TAP	48.23	RCA	101.84	APO	155.47	V2	35.067
RC	133.740	GL	-43.27	GP	53.73	ZAL	121.24	ZAP	124.03	ETS	61.72	ZAE	112.57	ETE	147.86	ZAC	151.96	ETC	245.89	CLP	-161.11

PLANETOCENTRIC CONIC

C3	36.475	VHL	6.039	DLA	-61.26	RAL	218.49	RAD	6568.4	VEL	12.564	PTH	2.28	VHP	8.703	DPA	34.79	RAP	245.54	ECC	1.6003

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.10	1 59 40	1882.08	30.17	55.82	109.90	146.21	2 31 2	1282.1	36.70	50.70
146.90	11 40 41	5488.07	30.18	255.12	109.91	146.21	13 12 9	4888.1	36.71	250.00
33.10	1 59 40	1882.08	30.17	55.82	109.90	146.21	2 31 2	1282.1	36.70	50.70
146.90	11 40 41	5488.07	30.18	255.12	109.91	146.21	13 12 9	4888.1	36.71	250.00
33.10	1 59 40	1882.08	30.17	55.82	109.90	146.21	2 31 2	1282.1	36.70	50.70
146.90	11 40 41	5488.07	30.18	255.12	109.91	146.21	13 12 9	4888.1	36.71	250.00

DIFFERENTIAL CORRECTIONS					MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-1.7841	TRA	-1.3819	TC3	-1.6853	BAU	.0313	SGT 3800.5	SGR 579.8	SG3 113.2	ST 1880.8	SR 490.0	SS 597.3
RDE	.5164	RRA	-.0045	RC3	.2567	FAU	.03200	RRT -.6517	RRF -.8703	RTF .9237	CRT -.8980	CRS .9794	CST -.9682
FDE	-.8205	FRA	-.2629	FC3	-.7595	BSP	11732	SGB 3844.5	RZS .3431	R13 -.9277	LSA 2018.4	NSA 246.1	SSA 4.4
BDE	1.8573	BRA	1.3819	BC3	1.7047	FSP	-360	SG1 3819.5	SG2 437.6	THA 174.25	EL1 1932.3	EL2 209.9	ALF 166.67

LAUNCH DATE OCT 8 1970 FLIGHT TIME 136.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 407.290

RL	149.47	LAL	.00	LOL	14.30	VL	27.213	GAL	-7.33	AZL	96.99	HCA	199.36	SMA	128.20	ECC	.20822	INC	6.9893	V1	29.810
RP	108.11	LAP	2.31	LOP	213.53	VP	37.683	GAP	7.98	AZP	83.40	TAL	210.44	TAP	49.79	RCA	101.50	APO	154.89	V2	35.054
RC	135.957	GL	-37.80	GP	47.98	ZAL	123.69	ZAP	129.05	ETS	59.39	ZAE	116.15	ETE	149.04	ZAC	147.20	ETC	250.29	CLP	-160.22

PLANETOCENTRIC CONIC

C3	28.716	VHL	5.359	DLA	-56.49	RAL	223.81	RAD	6568.2	VEL	12.251	PTH	2.20	VHP	7.931	DPA	28.50	RAP	246.01	ECC	1.4726

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.84	2 35 42	1793.66	31.70	46.92	109.66	139.54	3 5 35	1193.7	37.62	40.79
141.16	11 47 4	5456.11	31.71	253.42	109.68	139.53	13 18 1	4856.1	37.63	247.28
38.84	2 35 42	1793.66	31.70	46.92	109.66	139.54	3 5 35	1193.7	37.62	40.79
141.16	11 47 4	5456.11	31.71	253.42	109.68	139.53	13 18 1	4856.1	37.63	247.28
38.84	2 35 42	1793.66	31.70	46.92	109.66	139.54	3 5 35	1193.7	37.62	40.79
141.16	11 47 4	5456.11	31.71	253.42	109.68	139.53	13 18 1	4856.1	37.63	247.28

DIFFERENTIAL CORRECTIONS					MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-1.5544	TRA	-1.3259	TC3	-2.2744	BAU	.8828	SGT 3911.2	SGR 595.4	SG3 128.9	ST 1833.3	SR 472.4	SS 563.2
RDE	.4417	RRA	.0032	RC3	.3382	FAU	.03635	RRT -.7233	RRF -.9136	RTF .9126	CRT -.9089	CRS .9878	CST -.9625
FDE	-.7584	FRA	-.2240	FC3	-1.0958	BSP	12234	SGB 3956.2	RZS .3565	R13 -.9168	LSA 1961.2	NSA 233.9	SSA 5.8
BDE	1.6159	BRA	1.3259	BC3	2.2994	FSP	-418	SG1 3935.1	SG2 408.6	THA 173.65	EL1 1883.4	EL2 191.8	ALF 166.68

LAUNCH DATE OCT 8 1970 FLIGHT TIME 138.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 413.103

RL	149.47	LAL	.00	LOL	14.30	VL	27.145	GAL	-7.00	AZL	95.67	HCA	202.53	SMA	127.75	ECC	.20820	INC	5.6677	V1	29.810
RP	108.15	LAP	2.17	LOP	216.74	VP	37.622	GAP	8.19	AZP	84.76	TAL	208.82	TAP	51.36	RCA	101.15	APO	154.34	V2	35.041
RC	138.166	GL	-32.94	GP	43.04	ZAL	125.05	ZAP	133.43	ETS	57.67	ZAE	118.88	ETE	150.82	ZAC	142.94	ETC	253.15	CLP	-160.14

PLANETOCENTRIC CONIC

C3	23.943	VHL	4.893	DLA	-52.30	RAL	228.48	RAD	6568.0	VEL	12.055	PTH	2.15	VHP	7.451	DPA	23.09	RAP	246.74	ECC	1.3940

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.99	3 9 7	1716.94	32.06	38.73	109.53	133.82	3 37 44	1116.9	37.39	31.89
136.01	11 50 56	5442.81	32.07	252.37	109.54	133.82	13 21 39	4842.8	37.40	245.52
43.99	3 9 7	1716.94	32.06	38.73	109.53	133.82	3 37 44	1116.9	37.39	31.89
136.01	11 50 56	5442.81	32.07	252.37	109.54	133.82	13 21 39	4842.8	37.40	245.52
43.99	3 9 7	1716.94	32.06	38.73	109.53	133.82	3 37 44	1116.9	37.39	31.89
136.01	11 50 56	5442.81	32.07	252.37	109.54	133.82	13 21 39	4842.8	37.40	245.52

DIFFERENTIAL CORRECTIONS					MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-1.3615	TRA	-1.2558	TC3	-2.8446	BAU	.9191	SGT 4009.2	SGR 585.9	SG3 141.0	ST 1751.8	SR 443.3	SS 515.4
RDE	.3785	RRA	-.0015	RC3	.3916	FAU	.03924	RRT -.7520	RRF -.9233	RTF .9036	CRT -.9101	CRS .9920	CST -.9546
FDE	-.6777	FRA	-.1698	FC3	-1.4187	BSP	12587	SGB 4051.8	RZS .3604	R13 -.9074	LSA 1865.6	NSA 225.2	SSA 7.5
BDE	1.4131	BRA	1.2558	BC3	2.8714	FSP	-459	SG1 4033.6	SG2 383.9	THA 173.67	EL1 1798.2	EL2 178.9	ALF 166.90

LAUNCH DATE OCT 8 1970 FLIGHT TIME 140.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 418.912

RL	149.47	LAL	.00	LOL	14.30	VL	27.079	GAL	-6.67	AZL	94.66	HCA	205.71	SMA	127.30	ECC	.20831	INC	4.6587	V1	29.810
RP	108.19	LAP	2.02	LOP	219.94	VP	37.562	GAP	8.40	AZP	85.80	TAL	207.20	TAP	52.91	RCA	100.79	APO	153.82	V2	35.028
RC	140.364	GL	-28.65	GP	38.83	ZAL	125.49	ZAP	137.24	ETS	56.29	ZAE	120.96	ETE	152.76	ZAC	139.25	ETC	255.17	CLP	-160.48

PLANETOCENTRIC CONIC

C3	20.764	VHL	4.557	DLA	-48.64	RAL	232.75	RAD	6567.8	VEL	11.922	PTH	2.12	VHP	7.148	DPA	18.44	RAP	247.71	ECC	1.3417

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.64	3 40 55	1647.73	31.73	31.28	109.76	129.03	4 8 23	1047.7	36.54	23.97
131.36	11 53 8	5442.97	31.74	252.04	109.77	129.02	13 23 51	4843.0	36.54	244.72
48.64	3 40 55	1647.73	31.73	31.28	109.76	129.03	4 8 23	1047.7	36.54	23.97
131.36	11 53 8	5442.97	31.74	252.04	109.77	129.02	13 23 51	4843.0	36.54	244.72
48.64	3 40 55	1647.73	31.73	31.28	109.76	129.03	4 8 23	1047.7	36.54	23.97
131.36	11 53 8	5442.97	31.74	252.04	109.77	129.02	13 23 51	4843.0	36.54	244.72

DIFFERENTIAL CORRECTIONS					MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-1.1997	TRA	-1.1782	TC3	-3.3920	BAU	.9489	SGT 4105.9	SGR 568.6	SG3 150.3	ST 1654.3	SR 416.1	SS 462.2
RDE	.3308	RRA	-.0090	RC3	.4251	FAU	.04102	RRT -.7651	RRF -.9197	RTF .8969	CRT -.9080	CRS .9948	CST -.9443
FDE	-.5919	FRA	-.1091	FC3	-1.7105	BSP	12922	SGB 4145.1	RZS .3541	R13 -.9002	LSA 1753.7	NSA 218.3	SSA 9.6
BDE	1.2445	BRA	1.1783	BC3	3.4185	FSP	-491	SG1 4129.1	SG2 364.1	THA 173.90	EL1 1697.3	EL2 169.9	ALF 167.00

LAUNCH DATE OCT 8 1970 FLIGHT TIME 142.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 424.714

RL	149.47	LAL	.00	LOL	14.30	VL	27.013	GAL	-6.32	AZL	93.86	HCA	208.90	SMA	126.87	ECC	.20855	INC	3.8593
RP	108.23	LAP	1.86	LOP	223.14	VP	37.502	GAP	8.61	AZP	86.62	TAL	205.56	TAP	54.46	RCA	100.41	APO	153.33
RC	142.552	GL	-24.83	GP	35.24	ZAL	125.16	ZAP	140.56	ETS	55.14	ZAE	122.55	ETE	154.67	ZAC	136.08	ETC	256.70

PLANETOCENTRIC CONIC

C3	18.516	VHL	4.303	DLA	-45.42	RAL	236.76	RAD	6567.7	VEL	11.828	PTH	2.09	VHP	6.959	DPA	14.43	RAP	248.88

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.87	4 11 53	1582.98	31.01	24.45	110.42	125.02	4 38 16	983.0	35.35	16.84
127.13	11 54 11	5453.37	31.02	252.40	110.43	125.01	13 25 4	4853.4	35.36	244.78
52.87	4 11 53	1582.98	31.01	24.45	110.42	125.02	4 38 16	983.0	35.35	16.84
127.13	11 54 11	5453.37	31.02	252.40	110.43	125.01	13 25 4	4853.4	35.36	244.78
52.87	4 11 53	1582.98	31.01	24.45	110.42	125.02	4 38 16	983.0	35.35	16.84
127.13	11 54 11	5453.37	31.02	252.40	110.43	125.01	13 25 4	4853.4	35.36	244.78

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-1.0599	TRA	-1.0928	TC3	-3.9112	BAU	.9744	SGT	4197.5	SGR	548.9	SG3	156.9	ST	1545.6	SR	393.4	SS	406.1
RDE	.2952	RRA	-.0174	RC3	.4435	FAU	.04186	RRT	-.7686	RRF	-.9076	RTF	.8913	CRT	-.9042	CRS	.9970	CST	-.9298
FDE	-.5055	FRA	-.0443	FC3	-1.9574	BSP	13213	SGB	4233.3	R23	.3405	R13	-.8942	LSA	1631.9	MSA	212.8	SSA	12.1
BDE	1.1002	BRA	1.0929	BC3	3.9362	FSP	-511	SG1	4218.8	SG2	349.4	THA	174.22	EL1	1586.4	EL2	163.7	ALF	166.90

LAUNCH DATE OCT 8 1970 FLIGHT TIME 144.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 430.506

RL	149.47	LAL	.00	LOL	14.30	VL	26.948	GAL	-5.98	AZL	93.21	HCA	212.08	SMA	126.44	ECC	.20893	INC	3.2067
RP	108.27	LAP	1.70	LOP	226.34	VP	37.443	GAP	8.81	AZP	87.28	TAL	203.91	TAP	55.99	RCA	100.02	APO	152.86
RC	144.730	GL	-21.42	GP	32.18	ZAL	124.20	ZAP	143.47	ETS	54.20	ZAE	123.76	ETE	156.47	ZAC	133.36	ETC	257.93

PLANETOCENTRIC CONIC

C3	16.855	VHL	4.105	DLA	-42.56	RAL	240.62	RAD	6567.7	VEL	11.757	PTH	2.08	VHP	6.846	DPA	10.95	RAP	250.23

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.79	4 42 42	1520.34	30.08	18.08	111.51	121.66	5 8 3	920.3	34.02	10.28
123.21	11 54 12	5472.35	30.09	253.40	111.52	121.65	13 25 24	4872.4	34.03	245.60
56.79	4 42 42	1520.34	30.08	18.08	111.51	121.66	5 8 3	920.3	34.02	10.28
123.21	11 54 12	5472.35	30.09	253.40	111.52	121.65	13 25 24	4872.4	34.03	245.60
56.79	4 42 42	1520.34	30.08	18.08	111.51	121.66	5 8 3	920.3	34.02	10.28
123.21	11 54 12	5472.35	30.09	253.40	111.52	121.65	13 25 24	4872.4	34.03	245.60

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.9517	TRA	-1.0154	TC3	-4.4385	BAU	1.0055	SGT	4329.8	SGR	539.6	SG3	164.0	ST	1452.3	SR	381.8	SS	361.0
RDE	.2733	RRA	-.0217	RC3	.4622	FAU	.04263	RRT	-.7749	RRF	-.8932	RTF	.8920	CRT	-.9031	CRS	.9980	CST	-.9146
FDE	-.4356	FRA	.0080	FC3	-2.1896	BSP	13865	SGB	4363.3	R23	.3128	R13	-.8944	LSA	1530.3	MSA	207.9	SSA	15.0
BDE	.9902	BRA	1.0156	BC3	4.4625	FSP	-551	SG1	4350.0	SG2	339.5	THA	174.45	EL1	1493.1	EL2	159.5	ALF	166.49

LAUNCH DATE OCT 8 1970 FLIGHT TIME 146.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 436.291

RL	149.47	LAL	.00	LOL	14.30	VL	26.883	GAL	-5.62	AZL	92.66	HCA	215.27	SMA	126.03	ECC	.20944	INC	2.6609
RP	108.31	LAP	1.54	LOP	229.54	VP	37.384	GAP	9.02	AZP	87.83	TAL	202.24	TAP	57.51	RCA	99.63	APO	152.42
RC	146.899	GL	-18.34	GP	29.55	ZAL	122.71	ZAP	146.03	ETS	53.43	ZAE	124.70	ETE	158.11	ZAC	131.04	ETC	258.96

PLANETOCENTRIC CONIC

C3	15.586	VHL	3.948	DLA	-39.99	RAL	244.42	RAD	6567.6	VEL	11.703	PTH	2.06	VHP	6.786	DPA	7.92	RAP	251.74

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.50	5 13 57	1457.88	29.02	11.97	112.98	118.81	5 38 15	857.9	32.62	4.07
119.50	11 53 12	5499.15	29.04	255.01	112.99	118.80	13 24 52	4899.2	32.63	247.10
60.50	5 13 57	1457.88	29.02	11.97	112.98	118.81	5 38 15	857.9	32.62	4.07
119.50	11 53 12	5499.15	29.04	255.01	112.99	118.80	13 24 52	4899.2	32.63	247.10
60.50	5 13 57	1457.88	29.02	11.97	112.98	118.81	5 38 15	857.9	32.62	4.07
119.50	11 53 12	5499.15	29.04	255.01	112.99	118.80	13 24 52	4899.2	32.63	247.10

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.8271	TRA	-.9021	TC3	-4.8701	BAU	1.0193	SGT	4375.8	SGR	516.6	SG3	164.5	ST	1310.3	SR	365.0	SS	297.7
RDE	.2510	RRA	-.0331	RC3	.4571	FAU	.04171	RRT	-.7598	RRF	-.8675	RTF	.8842	CRT	-.8969	CRS	.9960	CST	-.8794
FDE	-.3463	FRA	.0840	FC3	-2.3168	BSP	13796	SGB	4406.2	R23	.2949	R13	-.8862	LSA	1377.3	MSA	203.6	SSA	18.8
BDE	.8643	BRA	.9027	BC3	4.8915	FSP	-534	SG1	4393.5	SG2	334.5	THA	174.84	EL1	1351.1	EL2	156.5	ALF	165.78

LAUNCH DATE OCT 8 1970 FLIGHT TIME 148.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 442.063

RL	149.47	LAL	.00	LOL	14.30	VL	26.819	GAL	-5.25	AZL	92.20	HCA	218.45	SMA	125.62	ECC	.21010	INC	2.1951
RP	108.35	LAP	1.36	LOP	232.73	VP	37.326	GAP	9.23	AZP	88.28	TAL	200.57	TAP	59.02	RCA	99.22	APO	152.01
RC	149.057	GL	-15.53	GP	27.28	ZAL	120.79	ZAP	148.31	ETS	52.83	ZAE	125.43	ETE	159.60	ZAC	129.04	ETC	259.88

PLANETOCENTRIC CONIC

C3	14.601	VHL	3.821	DLA	-37.63	RAL	248.18	RAD	6567.6	VEL	11.661	PTH	2.05	VHP	6.765	DPA	5.27	RAP	253.38

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.10	5 46 21	1393.32	27.90	5.94	114.80	116.35	6 9 34	793.3	31.19	357.97
115.90	11 50 49	5534.44	27.91	257.28	114.80	116.34	13 23 3	4934.4	31.20	249.31
64.10	5 46 21	1393.32	27.90	5.94	114.80	116.35	6 9 34	793.3	31.19	357.97
115.90	11 50 49	5534.44	27.91	257.28	114.80	116.34	13 23 3	4934.4	31.20	249.31
64.10	5 46 21	1393.32	27.90	5.94	114.80	116.35	6 9 34	793.3	31.19	357.97
115.90	11 50 49	5534.44	27.91	257.28	114.80	116.34	13 23 3	4934.4	31.20	249.31

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.7255	TRA	-.7989	TC3	-5.3084	BAU	1.0400	SGT	4462.9	SGR	505.5	SG3	166.2	ST	1184.6	SR	357.4	SS	248.0
RDE	.2377	RRA	-.0406	RC3	.4580	FAU	.04103	RRT	-.7499	RRF	-.8420	RTF	.8823	CRT	-.8944	CRS	.9861	CST	-.8321
FDE	-.2752	FRA	.1451	FC3	-2.4328	BSP	14089	SGB	4491.4	R23	.2670	R13	-.8840	LSA	1245.9	MSA	199.5	SSA	23.3
BDE	.7635	BRA	.7979	BC3	5.3281	FSP	-539	SG1	4479.1	SG2	333.2	THA	175.12	EL1	1227.7	EL2	154.2	ALF	164.65

LAUNCH DATE OCT 8 1970 FLIGHT TIME 150.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 447.824

RL	149.47	LAL	.00	LOL	14.30	VL	26.756	GAL	-4.87	AZL	91.79	HCA	221.63	SMA	125.21	ECC	.21091	INC	1.7906
RP	108.39	LAP	1.19	LOP	235.92	VP	37.268	GAP	9.44	AZP	88.66	TAL	198.88	TAP	60.51	RCA	98.81	APO	151.62
RC	151.205	GL	-12.94	GP	25.31	ZAL	118.51	ZAP	150.34	ETS	52.40	ZAE	126.01	ETE	160.92	ZAC	127.30	ETC	260.71

V1 29.810 V2 34.962 CLP-164.00

PLANETOCENTRIC CONIC

C3	13.829	VHL	3.719	DLA	-35.45	RAL	251.94	RAD	6567.5	VEL	11.628	PTH	2.04	VHP	6.772	DPA	2.94	RAP	255.13

ECC 1.2276

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.72	6 20 41	1324.13	26.72	359.74	116.92	114.21	6 42 45	724.1	29.75	351.75
112.28	11 46 29	5579.66	26.74	260.30	116.93	114.20	13 19 29	4979.7	29.77	252.30
67.72	6 20 41	1324.13	26.72	359.74	116.92	114.21	6 42 45	724.1	29.75	351.75
112.28	11 46 29	5579.66	26.74	260.30	116.93	114.20	13 19 29	4979.7	29.77	252.30
67.72	6 20 41	1324.13	26.72	359.74	116.92	114.21	6 42 45	724.1	29.75	351.75
112.28	11 46 29	5579.66	26.74	260.30	116.93	114.20	13 19 29	4979.7	29.77	252.30

DIFFERENTIAL CORRECTIONS

TDE	-.6296	TRA	-.6846	TC3	-5.7141	BAU	1.0598
RDE	.2283	RRA	-.0482	RC3	.4568	FAU	.04008
FDE	-.2096	FRA	.2037	FC3	-2.5090	BSP	14382
BDE	.6697	BRA	.6863	BC3	5.7323	FSP	-543

MID-COURSE EXECUTION ACCURACY

SGT	4547.3	SGR	497.4	SG3	167.0		
RRT	-.7371	RRF	-.8142	RTF	.8813		
SGB	4574.4	R23	.2384	R13	-.8827		
SG1	4562.1	SG2	335.1	THA	175.37		

ORBIT DETERMINATION ACCURACY

ST	1052.6	SR	352.9	SS	203.3
CRT	-.8933	CRS	.9564	CST	-.7530
LSA	1111.3	MSA	195.3	SSA	29.0
EL1	1099.8	EL2	151.8	ALF	162.99

LAUNCH DATE OCT 8 1970 FLIGHT TIME 152.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 453.573

RL	149.47	LAL	.00	LOL	14.30	VL	26.693	GAL	-4.49	AZL	91.43	HCA	224.82	SMA	124.82	ECC	.21186	INC	1.4341
RP	108.43	LAP	1.01	LOP	239.11	VP	37.211	GAP	9.66	AZP	88.98	TAL	197.18	TAP	61.99	RCA	98.38	APO	151.27
RC	153.343	GL	-10.55	GP	23.60	ZAL	115.92	ZAP	152.16	ETS	52.14	ZAE	126.47	ETE	162.10	ZAC	125.80	ETC	261.49

V1 29.810 V2 34.949 CLP-164.80

PLANETOCENTRIC CONIC

C3	13.228	VHL	3.637	DLA	-33.40	RAL	255.72	RAD	6567.5	VEL	11.602	PTH	2.03	VHP	6.802	DPA	.88	RAP	256.99

ECC 1.2177

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
71.51	6 58 12	1246.22	25.51	353.06	119.32	112.32	7 18 59	646.2	28.31	345.07
108.49	11 39 6	5638.22	25.53	264.30	119.33	112.30	13 13 4	5038.2	28.32	256.31
71.51	6 58 12	1246.22	25.51	353.06	119.32	112.32	7 18 59	646.2	28.31	345.07
108.49	11 39 6	5638.22	25.53	264.30	119.33	112.30	13 13 4	5038.2	28.32	256.31
110.00	10 52 48	5780.15	21.14	273.10	117.11	117.51	12 29 8	5180.2	24.65	265.71
110.00	12 43 41	5440.32	30.06	250.78	121.16	107.10	14 14 21	4840.3	32.10	242.16

DIFFERENTIAL CORRECTIONS

TDE	-.5360	TRA	-.5646	TC3	-6.0830	BAU	1.0788
RDE	.2214	RRA	-.0560	RC3	.4543	FAU	.03894
FDE	-.1486	FRA	.2600	FC3	-2.5482	BSP	14669
BDE	.5799	BRA	.5673	BC3	6.1000	FSP	-543

MID-COURSE EXECUTION ACCURACY

SGT	4628.9	SGR	492.0	SG3	166.9		
RRT	-.7220	RRF	-.7851	RTF	.8809		
SGB	4655.0	R23	.2104	R13	-.8822		
SG1	4642.6	SG2	339.4	THA	175.59		

ORBIT DETERMINATION ACCURACY

ST	912.5	SR	350.4	SS	165.8
CRT	-.8935	CRS	.8791	CST	-.6140
LSA	972.2	MSA	190.5	SSA	36.6
EL1	966.1	EL2	148.6	ALF	160.58

LAUNCH DATE OCT 8 1970 FLIGHT TIME 154.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 459.308

RL	149.47	LAL	.00	LOL	14.30	VL	26.631	GAL	-4.09	AZL	91.12	HCA	228.00	SMA	124.44	ECC	.21298	INC	1.1155
RP	108.47	LAP	.83	LOP	242.30	VP	37.155	GAP	9.87	AZP	89.25	TAL	195.46	TAP	63.46	RCA	97.93	APO	150.94
RC	153.470	GL	-8.32	GP	22.10	ZAL	113.07	ZAP	153.82	ETS	52.03	ZAE	126.84	ETE	163.15	ZAC	124.47	ETC	262.23

V1 29.810 V2 34.937 CLP-165.60

PLANETOCENTRIC CONIC

C3	12.772	VHL	3.574	DLA	-31.44	RAL	259.52	RAD	6567.5	VEL	11.583	PTH	2.03	VHP	6.850	DPA	-.94	RAP	258.93

ECC 1.2102

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
75.74	7 41 22	1151.60	24.27	345.29	121.97	110.62	8 0 34	551.6	26.85	337.31
104.26	11 26 16	5717.72	24.28	269.84	121.98	110.61	13 1 34	5117.7	26.86	261.86
75.74	7 41 22	1151.60	24.27	345.29	121.97	110.62	8 0 34	551.6	26.85	337.31
104.26	11 26 16	5717.72	24.28	269.84	121.98	110.61	13 1 34	5117.7	26.86	261.86
110.00	10 20 19	635.37	16.41	303.61	117.98	120.42	10 30 54	35.4	20.32	296.67
110.00	13 46 30	5281.96	32.66	239.18	124.65	100.69	15 14 32	4682.0	33.79	230.12

DIFFERENTIAL CORRECTIONS

TDE	-.4422	TRA	-.4362	TC3	-6.4055	BAU	1.0965
RDE	.2164	RRA	-.0644	RC3	.4500	FAU	.03762
FDE	-.0913	FRA	.3144	FC3	-2.5502	BSP	14925
BDE	.4924	BRA	.4409	BC3	6.4213	FSP	-541

MID-COURSE EXECUTION ACCURACY

SGT	4705.0	SGR	488.4	SG3	166.0		
RRT	-.7047	RRF	-.7550	RTF	.8810		
SGB	4730.2	R23	.1844	R13	-.8820		
SG1	4717.6	SG2	345.6	THA	175.79		

ORBIT DETERMINATION ACCURACY

ST	762.9	SR	349.0	SS	139.9
CRT	-.8954	CRS	.7005	CST	-.3759
LSA	828.9	MSA	184.7	SSA	47.3
EL1	826.6	EL2	143.4	ALF	156.99

LAUNCH DATE OCT 8 1970 FLIGHT TIME 156.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 465.030

RL	149.47	LAL	.00	LOL	14.30	VL	26.570	GAL	-3.68	AZL	90.83	HCA	231.18	SMA	124.06	ECC	.21427	INC	.8274
RP	108.51	LAP	.64	LOP	245.48	VP	37.100	GAP	10.09	AZP	89.48	TAL	193.74	TAP	64.92	RCA	97.48	APO	150.64
RC	157.587	GL	-6.23	GP	20.79	ZAL	110.00	ZAP	155.32	ETS	52.09	ZAE	127.15	ETE	164.08	ZAC	123.30	ETC	262.94

V1 29.810 V2 34.925 CLP-166.40

PLANETOCENTRIC CONIC

C3	12.445	VHL	3.528	DLA	-29.54	RAL	263.34	RAD	6567.5	VEL	11.569	PTH	2.02	VHP	6.913	DPA	-2.55	RAP	260.95

ECC 1.2048

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.21	8 37 1	1017.83	22.99	334.78	124.86	109.08	8 53 59	417.8	25.38	326.83
98.79	11 1 9	5840.41	23.00	278.51	124.86	109.07	12 38 30	5240.4	25.39	270.55
100.00	10 31 55	645.97	20.26	306.42	123.74	112.46	10 42 41	46.0	23.13	298.80
100.00	11 48 57	5687.51	25.79	268.12	125.82	105.67	13 23 44	5087.5	27.69	259.84
110.00	10 5 15	729.98	13.08	308.91	119.90	121.87	10 17 25	130.0	17.19	302.22
110.00	14 32 5	5176.26	33.71	231.11	127.57	96.03	15 58 22	4576.3	34.18	221.90

DIFFERENTIAL CORRECTIONS

TDE	-.3477	TRA	-.3007	TC3	-6.6791	BAU	1.1138
RDE	.2130	RRA	-.0733	RC3	.4444	FAU	.03623
FDE	-.0381	FRA	.3661	FC3	-2.5203	BSP	15187
BDE	.4077	BRA	.3095	BC3	6.6939	FSP	-537

MID-COURSE EXECUTION ACCURACY

SGT	4779.3	SGR	486.5	SG3	164.7		
RRT	-.6865	RRF	-.7252	RTF	.8816		
SGB	4804.0	R23	.1604	R13	-.8824		
SG1	4791.0	SG2	352.9	THA	175.98		

ORBIT DETERMINATION ACCURACY

ST	606.0	SR	348.5	SS	131.8
CRT	-.8986	CRS	.3940	CST	-.0592
LSA	686.1	MSA	176.9	SSA	63.1
EL1	685.9	EL2	135.1	ALF	151.46

LAUNCH DATE OCT 8 1970 FLIGHT TIME 158.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 470.738

RL	149.47	LAL	.00	LOL	14.30	VL	26.510	GAL	-3.26	AZL	90.56	HCA	234.36	SMA	123.69	ECC	.21574	INC	.5642	V1	29.810
RP	108.54	LAP	.46	LOP	248.66	VP	37.046	GAP	10.31	AZP	89.67	TAL	192.01	TAP	66.37	RCA	97.00	APO	150.37	V2	34.913
RC	159.692	GL	-4.27	GP	19.62	ZAL	106.75	ZAP	156.71	ETS	52.31	ZAE	127.40	ETE	164.91	ZAC	122.26	ETC	263.64	CLP	-167.19

PLANETOCENTRIC CONIC

C3	12.238	VHL	3.498	DLA	-27.69	RAL	267.19	RAD	6567.5	VEL	11.560	PTH	2.02	VHP	6.989	DPA	-3.98	RAP	263.05	ECC	1.2014		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	9 12 15	951.35	18.16	327.98	126.60	112.10	9 28 6	351.3	21.00	320.46
90.00	10 56 37	611.70	25.28	305.67	129.04	103.20	11 6 48	11.7	26.85	297.35
100.00	9 49 44	830.17	15.08	317.65	125.16	116.12	10 3 34	230.2	18.47	310.49
100.00	13 1 49	5496.15	28.60	254.61	129.77	99.10	14 33 25	4896.1	29.56	245.94
110.00	9 56 52	807.78	10.24	313.15	122.37	122.79	10 10 19	207.8	14.49	306.63
110.00	15 11 10	5091.30	34.12	224.51	130.41	92.15	16 36 2	4491.3	34.04	215.27

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.2500	TRA	-.1571	TC3	-6.8940	BAU	1.1302	SGT	4849.4	SGR	485.8	SG3	162.9	ST	443.0	SR	348.2	SS	143.3
RDE	.2106	RRA	-.0827	RC3	.4373	FAU	.03477	RRT	-.6674	RRF	-.6957	RTF	.8827	CRT	-.8987	CRS	.0494	CST	.1991
FDE	.0124	FRA	.4157	FC3	-2.4600	BSP	15441	SGB	4873.7	R23	.1387	R13	-.8834	LSA	550.1	MSA	166.3	SSA	87.9
BDE	.3269	BRA	.1775	BC3	6.9079	FSP	-533	SG1	4860.3	SG2	361.0	THA	176.15	EL1	549.8	EL2	123.0	ALF	142.57

LAUNCH DATE OCT 8 1970 FLIGHT TIME 160.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 476.428

RL	149.47	LAL	.00	LOL	14.30	VL	26.451	GAL	-2.82	AZL	90.32	HCA	237.53	SMA	123.33	ECC	.21741	INC	.3210	V1	29.810
RP	108.58	LAP	.27	LOP	251.84	VP	36.993	GAP	10.54	AZP	89.83	TAL	190.27	TAP	67.80	RCA	96.51	APO	150.14	V2	34.901
RC	161.784	GL	-2.44	GP	18.59	ZAL	103.35	ZAP	157.98	ETS	52.70	ZAE	127.62	ETE	165.65	ZAC	121.32	ETC	264.33	CLP	-167.97

PLANETOCENTRIC CONIC

C3	12.145	VHL	3.485	DLA	-25.88	RAL	271.04	RAD	6567.5	VEL	11.556	PTH	2.02	VHP	7.077	DPA	-5.24	RAP	265.20	ECC	1.1999		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 36 51	1118.63	13.59	338.13	128.58	115.08	8 55 30	518.6	16.86	330.98
90.00	12 2 45	5729.24	27.38	271.54	132.87	97.52	13 38 14	5129.2	28.14	262.96
100.00	9 31 42	941.55	11.64	324.13	127.59	117.73	9 47 23	341.5	15.26	317.21
100.00	13 50 35	5381.55	29.54	246.23	133.14	94.79	15 20 17	4781.5	29.89	237.44
110.00	9 52 12	877.22	7.86	316.87	125.20	123.42	10 6 49	277.2	12.00	310.47
110.00	15 46 38	5018.64	34.16	218.84	133.31	88.79	17 10 13	4418.6	33.62	209.64

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.1569	TRA	-.0136	TC3	-7.0733	BAU	1.1506	SGT	4936.8	SGR	488.2	SG3	161.4	ST	297.5	SR	349.6	SS	165.6
RDE	.2103	RRA	-.0916	RC3	.4322	FAU	.03357	RRT	-.6515	RRF	-.6707	RTF	.8870	CRT	-.8673	CRS	-.1876	CST	.2166
FDE	.0542	FRA	.4576	FC3	-2.3930	BSP	15889	SGB	4960.9	R23	.1181	R13	-.8875	LSA	445.5	MSA	161.9	SSA	116.1
BDE	.2624	BRA	.0926	BC3	7.0864	FSP	-540	SG1	4947.1	SG2	369.6	THA	176.29	EL1	443.9	EL2	116.6	ALF	129.71

LAUNCH DATE OCT 8 1970 FLIGHT TIME 162.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 482.105

RL	149.47	LAL	.00	LOL	14.30	VL	26.392	GAL	-2.37	AZL	90.10	HCA	240.71	SMA	122.97	ECC	.21927	INC	.0941	V1	29.810
RP	108.61	LAP	.08	LOP	255.01	VP	36.940	GAP	10.77	AZP	89.95	TAL	188.52	TAP	69.23	RCA	96.01	APO	149.94	V2	34.890
RC	163.865	GL	-.72	GP	17.67	ZAL	99.83	ZAP	159.15	ETS	53.25	ZAE	127.80	ETE	166.31	ZAC	120.48	ETC	265.01	CLP	-168.75

PLANETOCENTRIC CONIC

C3	12.165	VHL	3.488	DLA	-24.09	RAL	274.89	RAD	6567.5	VEL	11.556	PTH	2.02	VHP	7.176	DPA	-6.36	RAP	267.41	ECC	1.2002		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 19 48	1230.28	10.28	344.65	131.30	116.53	8 40 19	630.3	13.76	337.71
90.00	12 50 31	5618.29	28.11	263.51	136.35	93.56	14 24 9	5018.3	28.31	254.85
100.00	9 21 8	1032.31	8.72	329.28	130.47	118.71	9 38 20	432.3	12.48	322.52
100.00	14 31 52	5291.50	29.87	239.55	136.44	91.29	16 0 4	4691.5	29.73	230.75
110.00	9 49 57	941.94	5.22	320.29	128.33	123.83	10 5 39	341.9	9.63	313.98
110.00	16 19 33	4954.63	33.96	213.85	136.32	85.85	17 42 7	4354.6	33.01	204.74

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0371	TRA	.1611	TC3	-7.1068	BAU	1.1578	SGT	4966.3	SGR	485.1	SG3	158.0	ST	182.7	SR	346.3	SS	206.3
RDE	.2080	RRA	-.1041	RC3	.4144	FAU	.03158	RRT	-.6260	RRF	-.6373	RTF	.8842	CRT	-.4266	CRS	-.3898	CST	-.3324
FDE	.1085	FRA	.5133	FC3	-2.2473	BSP	15778	SGB	4990.0	R23	.1034	R13	-.8847	LSA	365.9	MSA	225.6	SSA	105.5
BDE	.2112	BRA	.1918	BC3	7.1189	FSP	-514	SG1	4975.7	SG2	377.6	THA	176.48	EL1	357.3	EL2	160.2	ALF	105.98

LAUNCH DATE OCT 8 1970 FLIGHT TIME 164.00 ARRIVAL DATE MAR 21 1971

HELIOCENTRIC CONIC DISTANCE 487.763

RL	149.47	LAL	.00	LOL	14.30	VL	26.334	GAL	-1.91	AZL	89.88	HCA	243.88	SMA	122.63	ECC	.22135	INC	.1172	V1	29.810
RP	108.65	LAP	-.11	LOP	258.19	VP	36.889	GAP	11.01	AZP	90.05	TAL	186.76	TAP	70.64	RCA	95.48	APO	149.77	V2	34.880
RC	165.932	GL	.88	GP	16.84	ZAL	96.24	ZAP	160.24	ETS	53.97	ZAE	127.97	ETE	166.90	ZAC	119.70	ETC	265.69	CLP	-169.51

PLANETOCENTRIC CONIC

C3	12.302	VHL	3.507	DLA	-22.32	RAL	278.72	RAD	6567.5	VEL	11.562	PTH	2.02	VHP	7.284	DPA	-7.35	RAP	269.67	ECC	1.2025		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 9 24	1323.28	7.40	349.98	134.40	117.41	8 31 28	723.3	11.02	343.16
90.00	13 31 26	5530.03	28.32	257.06	139.80	90.34	15 3 36	4930.0	28.06	248.41
100.00	9 14 34	1112.99	6.05	333.79	133.67	119.35	9 33 7	513.0	9.92	327.13
100.00	15 8 58	5215.55	29.85	233.91	139.78	88.32	16 35 54	4615.5	29.30	225.15
110.00	9 49 21	1003.91	2.86	323.54	131.69	124.08	10 6 5	403.9	7.31	317.29
110.00	16 50 40	4897.40	33.59	209.42	139.45	83.25	18 12 17	4297.4	32.29	200.43

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0746	TRA	.3310	TC3	-7.1136	BAU	1.1718	SGT	5025.7	SGR	485.8	SG3	155.3	ST	260.8	SR	345.5	SS	244.4
RDE	.2081	RRA	-.1154	RC3	.4004	FAU	.03003	RRT	-.6059	RRF	-.6107	RTF	.8860	CRT	.3266	CRS	-.4895	CST	-.8759
FDE	.1515	FRA	.5584	FC3	-2.1136	BSP	15983	SGB	5049.1	R23	.0888	R13	-.8864	LSA	411.8	MSA	266.0	SSA	82.0
BDE	.2210	BRA	.3505	BC3	7.1249	FSP	-506	SG1	5034.3	SG2	385.8	THA	176.63	EL1	364.3	EL2	233.7	ALF	65.56

LAUNCH DATE OCT 8 1970 FLIGHT TIME 166.00 ARRIVAL DATE MAR 23 1971

HELIOCENTRIC CONIC DISTANCE 493.400

RL 149.47 LAL .00 LOL 14.30 VL 26.277 GAL -1.44 AZL 89.68 HCA 247.06 SMA 122.29 ECC .22366 INC .3180 V1 29.810
RP 108.68 LAP -.29 LOP 261.36 VP 36.838 GAP 11.26 AZP 90.12 TAL 185.00 TAP 72.05 RCA 94.94 APO 149.64 V2 34.869
RC 167.985 GL 2.36 GP 16.10 ZAL 92.60 ZAP 161.25 ETS 54.87 ZAE 128.12 ETE 167.42 ZAC 118.98 ETC 266.36 CLP-170.27

PLANETOCENTRIC CONIC

C3 12.559 VHL 3.544 DLA -20.58 RAL 282.50 RAD 6567.5 VEL 11.573 PTH 2.02 VHP 7.403 DPA -8.21 RAP 271.97 ECC 1.2067

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 2 41	1406.68	4.76	354.68	137.78	117.95	8 26 8	806.7	8.47	347.96
90.00	14 8 20	5455.43	28.22	251.61	143.28	87.61	15 39 16	4855.4	27.59	243.00
100.00	9 10 30	1187.84	3.54	337.92	137.10	119.70	9 30 18	587.8	7.47	331.34
100.00	15 43 13	5149.50	29.62	229.01	143.19	85.76	17 9 2	4549.5	28.71	220.32
110.00	9 49 57	1064.20	.56	326.69	135.24	124.18	10 7 41	464.2	5.04	320.47
110.00	17 20 15	4845.91	33.11	205.48	142.71	80.96	18 41 1	4245.9	31.51	196.62

DIFFERENTIAL CORRECTIONS

TDE .1859 TRA .5034 TC3-7.0662 BAU 1.1882
RDE .2097 RRA -.1285 RC3 .3863 FAU .02869
FDE .1887 FRA .5980 FC3-1.9776 BSP 16344
BDE .2802 BRA .5190 BC3 7.0768 FSP -508

MID-COURSE EXECUTION ACCURACY

SGT 5092.1 SGR 487.5 SG3 152.7
RRT -.5880 RRF -.5873 RTF .8899
SGB 5115.4 RZS .0754 R13 -.8902
SG1 5100.2 SG2 393.7 THA 176.76

ORBIT DETERMINATION ACCURACY

ST 425.4 SR 345.3 SS 279.4
CRT .5689 CRS -.5486 CST -.9623
LSA 554.1 MSA 259.2 SSA 63.9
EL1 489.1 EL2 247.0 ALF 34.87

LAUNCH DATE OCT 8 1970 FLIGHT TIME 168.00 ARRIVAL DATE MAR 25 1971

HELIOCENTRIC CONIC DISTANCE 499.018

RL 149.47 LAL .00 LOL 14.30 VL 26.221 GAL -.94 AZL 89.49 HCA 250.23 SMA 121.95 ECC .22621 INC .5096 V1 29.810
RP 108.71 LAP -.40 LOP 264.53 VP 36.789 GAP 11.51 AZP 90.17 TAL 183.23 TAP 75.45 RCA 94.37 APO 149.54 V2 34.859
RC 170.025 GL 3.72 GP 15.44 ZAL 88.94 ZAP 162.19 ETS 55.95 ZAE 128.25 ETE 167.90 ZAC 118.31 ETC 267.03 CLP-171.02

PLANETOCENTRIC CONIC

C3 12.943 VHL 3.598 DLA -18.86 RAL 286.23 RAD 6567.5 VEL 11.590 PTH 2.03 VHP 7.532 DPA -8.96 RAP 274.30 ECC 1.2130

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 58 21	1484.31	2.27	359.03	141.36	118.23	8 23 5	884.3	6.03	352.36
90.00	14 42 24	5390.71	27.95	246.90	146.84	85.26	16 12 15	4790.7	27.00	238.36
100.00	9 8 11	1258.97	1.13	341.83	140.72	119.87	9 29 9	659.0	5.10	335.29
100.00	16 15 16	5091.28	29.25	224.72	146.69	83.53	17 40 7	4491.3	28.04	216.13
110.00	9 51 28	1123.43	-1.71	329.78	138.95	124.15	10 10 9	523.4	2.78	323.58
110.00	17 48 30	4799.58	32.56	201.98	146.10	78.96	19 8 29	4199.6	30.69	193.25

DIFFERENTIAL CORRECTIONS

TDE .3146 TRA .6963 TC3-6.9099 BAU 1.1973
RDE .2107 RRA -.1303 RC3 .3654 FAU .02699
FDE .2311 FRA .6434 FC3-1.8056 BSP 16388
BDE .3786 BRA .7101 BC3 6.9196 FSP -492

MID-COURSE EXECUTION ACCURACY

SGT 5132.6 SGR 486.5 SG3 149.6
RRT -.5861 RRF -.5804 RTF .8907
SGB 5155.6 RZS .0644 R13 -.8910
SG1 5140.0 SG2 400.5 THA 176.91

ORBIT DETERMINATION ACCURACY

ST 629.9 SR 343.0 SS 320.4
CRT .6583 CRS -.5941 CST -.9813
LSA 743.4 MSA 248.8 SSA 50.7
EL1 675.7 EL2 240.7 ALF 22.77

LAUNCH DATE OCT 8 1970 FLIGHT TIME 170.00 ARRIVAL DATE MAR 27 1971

HELIOCENTRIC CONIC DISTANCE 504.613

RL 149.47 LAL .00 LOL 14.30 VL 26.165 GAL -.43 AZL 89.31 HCA 253.40 SMA 121.63 ECC .22904 INC .6937 V1 29.810
RP 108.74 LAP -.66 LOP 267.70 VP 36.740 GAP 11.78 AZP 90.20 TAL 181.45 TAP 74.85 RCA 93.77 APO 149.49 V2 34.850
RC 172.049 GL 4.95 GP 14.84 ZAL 85.29 ZAP 163.07 ETS 57.22 ZAE 128.37 ETE 168.33 ZAC 117.69 ETC 267.70 CLP-171.76

PLANETOCENTRIC CONIC

C3 13.462 VHL 3.669 DLA -17.19 RAL 289.88 RAD 6567.5 VEL 11.612 PTH 2.03 VHP 7.671 DPA -9.61 RAP 276.67 ECC 1.2216

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 55 36	1558.08	-.11	3.14	145.10	118.32	8 21 36	958.1	3.68	356.51
90.00	15 14 13	5333.97	27.56	242.79	150.47	83.23	16 43 7	4734.0	26.34	234.34
100.00	9 7 5	1327.53	-1.19	345.59	144.50	119.87	9 29 13	727.5	2.79	339.07
100.00	16 45 27	5030.76	28.79	220.96	150.28	81.60	18 9 27	4439.8	27.33	212.46
110.00	9 53 33	1181.96	-3.94	332.84	142.79	123.98	10 13 15	582.0	.55	326.63
110.00	18 15 28	4758.10	31.98	198.88	149.59	77.21	19 34 46	4158.1	29.89	190.29

DIFFERENTIAL CORRECTIONS

TDE .4428 TRA .8838 TC3-6.7030 BAU 1.2080
RDE .2134 RRA -.1519 RC3 .3440 FAU .02547
FDE .2675 FRA .6845 FC3-1.6378 BSP 16549
BDE .4915 BRA .9086 BC3 6.7118 FSP -484

MID-COURSE EXECUTION ACCURACY

SGT 5177.6 SGR 486.2 SG3 146.4
RRT -.5458 RRF -.5365 RTF .8931
SGB 5200.3 RZS .0548 R13 -.8934
SG1 5184.4 SG2 406.8 THA 177.05

ORBIT DETERMINATION ACCURACY

ST 831.8 SR 341.5 SS 356.0
CRT .6922 CRS -.6211 CST -.9877
LSA 935.2 MSA 243.0 SSA 41.8
EL1 867.6 EL2 236.3 ALF 17.18

LAUNCH DATE OCT 8 1970 FLIGHT TIME 172.00 ARRIVAL DATE MAR 29 1971

HELIOCENTRIC CONIC DISTANCE 510.182

RL 149.47 LAL .00 LOL 14.30 VL 26.111 GAL .10 AZL 89.13 HCA 256.56 SMA 121.31 ECC .23215 INC .8718 V1 29.810
RP 108.77 LAP -.85 LOP 270.86 VP 36.693 GAP 12.06 AZP 90.20 TAL 179.67 TAP 76.23 RCA 93.15 APO 149.47 V2 34.841
RC 174.080 GL 6.07 GP 14.29 ZAL 81.69 ZAP 163.09 ETS 58.68 ZAE 128.49 ETE 168.71 ZAC 117.09 ETC 268.36 CLP-172.49

PLANETOCENTRIC CONIC

C3 14.129 VHL 3.759 DLA -15.95 RAL 293.43 RAD 6567.6 VEL 11.641 PTH 2.04 VHP 7.821 DPA -10.15 RAP 279.06 ECC 1.2325

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 54 8	1629.06	-2.40	7.10	148.98	118.22	8 21 17	1029.1	1.40	.48
90.00	15 44 4	5284.15	27.11	239.21	154.17	81.50	17 12 9	4684.2	25.66	230.85
100.00	9 6 56	1394.17	-3.45	349.25	148.40	119.71	9 30 10	794.2	.53	342.73
100.00	17 13 58	4984.28	29.30	217.67	153.95	79.94	18 37 12	4394.3	26.62	209.27
110.00	9 56 10	1239.94	-6.14	335.88	148.73	123.69	10 16 50	639.9	-1.67	329.65
110.00	18 41 13	4721.28	31.39	196.17	153.18	75.71	19 59 54	4121.3	29.11	187.71

DIFFERENTIAL CORRECTIONS

TDE .5847 TRA 1.1099 TC3-6.4430 BAU 1.2185
RDE .2153 RRA -.1659 RC3 .3216 FAU .02404
FDE .3121 FRA .7319 FC3-1.4731 BSP 16674
BDE .6231 BRA 1.1183 BC3 6.4510 FSP -471

MID-COURSE EXECUTION ACCURACY

SGT 5226.5 SGR 484.8 SG3 144.4
RRT -.5280 RRF -.5128 RTF .8945
SGB 5249.0 RZS .0442 R13 -.8947
SG1 5232.8 SG2 411.2 THA 177.18

ORBIT DETERMINATION ACCURACY

ST 1044.5 SR 337.6 SS 398.7
CRT .7093 CRS -.6454 CST -.9918
LSA 1143.0 MSA 237.1 SSA 35.9
EL1 1073.0 EL2 231.6 ALF 13.56

LAUNCH DATE OCT 8 1970 FLIGHT TIME 174.00 ARRIVAL DATE MAR 31 1971

HELIOCENTRIC CONIC DISTANCE 515.724

```
RL  149.47 LAL    .00 LOL  14.30 VL  26.057 GAL    .65 AZL  88.95 HCA 259.73 SMA 121.00 ECC .23557 INC 1.0451 V1  29.810
RP  108.79 LAP  -1.03 LOP 274.03 VP  36.647 GAP  12.35 AZP  90.19 TAL 177.89 TAP  77.62 RCA  92.50 APO 149.50 V2  34.833
RC 176.056 GL    7.06 GP   13.80 ZAL  78.16 ZAP 164.65 ETS  60.35 ZAE 128.59 ETE 169.07 ZAC 116.52 ETC 269.02 CLP-173.22
```

PLANETOCENTRIC CONIC

```
C3  14.955 VHL  3.867 DLA -13.97 RAL 296.88 RAD 6567.6 VEL 11.676 PTH   2.05 VHP  7.982 DPA -10.61 RAP 281.48 ECC 1.2461
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 53 30	1697.86	-4.60	10.96	152.96	117.97	8 21 48	1097.9	-.83	4.31
90.00	16 12 11	5240.59	26.63	236.11	157.93	80.01	17 39 32	4640.6	24.98	227.83
100.00	9 7 27	1459.26	-5.63	352.85	152.40	119.41	9 31 47	859.3	-1.67	346.30
100.00	17 40 55	4954.42	27.79	214.82	157.69	78.52	19 3 30	4354.4	25.92	206.51
110.00	9 59 7	1297.43	-8.30	338.94	150.76	123.28	10 20 45	697.4	-3.86	332.66
110.00	19 5 44	4689.01	30.82	193.83	156.85	74.43	20 23 53	4089.0	28.38	185.48

DIFFERENTIAL CORRECTIONS

```
TDE  .7200 TRA 1.3207 TC3-6.1246 BAU 1.2260
RDE  .2209 RRA -.1781 RC3  .2957 FAU .02243
FDE  .3390 FRA  .7677 FC3-1.2984 BSP  16840
BDE  .7531 BRA 1.3327 BC3 6.1318 FSP   -466
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5257.7 SGR  483.1 SG3  140.2
RRT -.5050 RRF -.4898 RTF  .8972
SGB 5279.8 RZS  .0393 RZ3 -.8973
SG1 5263.3 SG2  416.6 THA 177.33
```

ORBIT DETERMINATION ACCURACY

```
ST  1234.5 SR   337.4 SS   423.3
CRT  .7174 CRS -.6542 CST -.9933
LSA 1326.9 MSA  235.6 SSA   31.1
EL1 1258.9 EL2  230.5 ALF   11.48
```

LAUNCH DATE OCT 8 1970 FLIGHT TIME 176.00 ARRIVAL DATE APR 2 1971

HELIOCENTRIC CONIC DISTANCE 521.235

```
RL  149.47 LAL    .00 LOL  14.30 VL  26.004 GAL   1.22 AZL  88.79 HCA 262.89 SMA 120.70 ECC .23932 INC 1.2149 V1  29.810
RP  108.82 LAP  -1.21 LOP 277.20 VP  36.602 GAP  12.66 AZP  90.15 TAL 176.11 TAP  79.00 RCA  91.81 APO 149.58 V2  34.825
RC 178.036 GL    7.93 GP   13.35 ZAL  74.72 ZAP 165.36 ETS  62.25 ZAE 128.69 ETE 169.39 ZAC 115.97 ETC 269.68 CLP-173.95
```

PLANETOCENTRIC CONIC

```
C3  15.957 VHL  3.995 DLA -12.45 RAL 300.20 RAD 6567.6 VEL 11.719 PTH   2.06 VHP  8.156 DPA -10.97 RAP 283.91 ECC 1.2626
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 53 34	1764.83	-6.73	14.73	157.03	117.57	8 22 59	1164.8	-2.98	8.05
90.00	16 38 40	5202.86	26.16	233.45	161.75	78.76	18 5 22	4602.9	24.35	225.25
100.00	9 8 31	1523.02	-7.75	356.40	156.48	118.96	9 33 54	923.0	-3.83	349.81
100.00	18 6 24	4919.90	27.30	212.37	161.48	77.32	19 28 24	4319.9	25.28	204.15
110.00	10 2 21	1354.45	-10.41	342.00	154.87	122.74	10 24 55	754.4	-6.02	335.66
110.00	19 29 4	4681.24	30.30	191.83	160.59	73.36	20 46 45	4061.2	27.72	183.59

DIFFERENTIAL CORRECTIONS

```
TDE  .8652 TRA 1.5493 TC3-5.7772 BAU 1.2338
RDE  .2265 RRA -.1912 RC3  .2706 FAU .02102
FDE  .3711 FRA  .8079 FC3-1.1402 BSP  16977
BDE  .8944 BRA 1.5610 BC3 5.7836 FSP   -456
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5293.6 SGR  480.8 SG3  137.2
RRT -.4849 RRF -.4682 RTF  .9001
SGB 5315.4 RZS  .0332 RZ3 -.9002
SG1 5298.8 SG2  420.1 THA 177.46
```

ORBIT DETERMINATION ACCURACY

```
ST  1423.1 SR   335.6 SS   451.6
CRT  .7216 CRS -.6634 CST -.9948
LSA 1512.2 MSA  233.6 SSA   27.6
EL1 1444.1 EL2  229.0 ALF   9.91
```

LAUNCH DATE OCT 8 1970 FLIGHT TIME 178.00 ARRIVAL DATE APR 4 1971

HELIOCENTRIC CONIC DISTANCE 526.711

```
RL  149.47 LAL    .00 LOL  14.30 VL  25.951 GAL   1.82 AZL  88.62 HCA 266.06 SMA 120.40 ECC .24344 INC 1.3823 V1  29.810
RP  108.84 LAP  -1.38 LOP 280.36 VP  36.558 GAP  12.99 AZP  90.09 TAL 174.33 TAP  80.38 RCA  91.09 APO 149.71 V2  34.818
RC 180.002 GL    8.69 GP   12.95 ZAL  71.39 ZAP 166.02 ETS  64.37 ZAE 128.78 ETE 169.68 ZAC 115.44 ETC 270.33 CLP-174.67
```

PLANETOCENTRIC CONIC

```
C3  17.155 VHL  4.142 DLA -10.99 RAL 303.40 RAD 6567.7 VEL 11.770 PTH   2.08 VHP  8.342 DPA -11.25 RAP 286.36 ECC 1.2823
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 54 9	1830.19	-8.77	18.45	161.17	117.03	8 24 39	1230.2	-5.08	11.72
90.00	17 3 35	5170.63	25.71	231.20	165.61	77.71	18 29 46	4570.6	23.76	223.07
100.00	9 9 59	1585.54	-9.79	359.92	160.63	118.38	9 36 25	985.5	-5.93	353.26
100.00	18 30 26	4890.51	26.84	210.31	165.32	76.32	19 51 57	4290.5	24.69	202.17
110.00	10 5 44	1410.94	-12.48	345.07	159.03	122.09	10 29 15	810.9	-8.15	338.65
110.00	19 51 10	4637.88	29.83	190.18	164.37	72.48	21 8 28	4037.9	27.14	182.02

DIFFERENTIAL CORRECTIONS

```
TDE 1.0084 TRA 1.7812 TC3-5.4188 BAU 1.2440
RDE  .2336 RRA -.2036 RC3  .2462 FAU .01978
FDE  .3985 FRA  .8444 FC3 -.9981 BSP  17279
BDE 1.0351 BRA 1.7928 BC3 5.4244 FSP   -455
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5328.7 SGR  477.9 SG3  133.9
RRT -.4653 RRF -.4480 RTF  .9039
SGB 5350.1 RZS  .0280 RZ3 -.9040
SG1 5333.4 SG2  422.7 THA 177.60
```

ORBIT DETERMINATION ACCURACY

```
ST  1591.0 SR   334.5 SS   473.7
CRT  .7238 CRS -.6699 CST -.9957
LSA 1677.2 MSA  232.3 SSA   24.8
EL1 1609.7 EL2  228.2 ALF   8.83
```

LAUNCH DATE OCT 8 1970 FLIGHT TIME 180.00 ARRIVAL DATE APR 6 1971

HELIOCENTRIC CONIC DISTANCE 532.150

```
RL  149.47 LAL    .00 LOL  14.30 VL  25.900 GAL   2.44 AZL  88.45 HCA 269.22 SMA 120.11 ECC .24796 INC 1.5484 V1  29.810
RP  108.86 LAP  -1.55 LOP 283.52 VP  36.515 GAP  13.33 AZP  90.02 TAL 172.55 TAP  81.77 RCA  90.33 APO 149.89 V2  34.812
RC 181.954 GL    9.34 GP   12.58 ZAL  68.18 ZAP 166.62 ETS  66.73 ZAE 128.87 ETE 169.95 ZAC 114.91 ETC 270.98 CLP-175.39
```

PLANETOCENTRIC CONIC

```
C3  18.569 VHL  4.309 DLA  -9.61 RAL 306.46 RAD 6567.8 VEL 11.830 PTH   2.10 VHP  8.543 DPA -11.45 RAP 288.82 ECC 1.3056
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 55 9	1894.08	-10.72	22.12	165.36	116.36	8 26 43	1294.1	-7.10	15.32
90.00	17 27 2	5143.63	25.31	229.33	169.50	76.86	18 52 45	4543.6	23.25	221.26
100.00	9 11 46	1646.91	-11.76	3.41	164.83	117.68	9 39 13	1046.9	-7.96	356.68
100.00	18 53 6	4866.04	26.43	208.60	169.20	75.51	20 14 12	4266.0	24.18	200.52
110.00	10 9 16	1466.87	-14.48	348.17	163.25	121.31	10 33 43	866.9	-10.23	341.65
110.00	20 12 6	4618.84	29.43	188.84	168.20	71.78	21 29 4	4018.8	26.66	180.75

DIFFERENTIAL CORRECTIONS

```
TDE 1.1704 TRA 2.0302 TC3-5.0115 BAU 1.2453
RDE  .2409 RRA -.2168 RC3  .2195 FAU .01827
FDE  .4315 FRA  .8871 FC3 -.8517 BSP  17258
BDE 1.1949 BRA 2.0496 BC3 5.0163 FSP   -440
```

MID-COURSE EXECUTION ACCURACY

```
SGT 5350.8 SGR  473.1 SG3  131.0
RRT -.4432 RRF -.4249 RTF  .9061
SGB 5371.7 RZS  .0232 RZ3 -.9062
SG1 5355.0 SG2  423.8 THA 177.74
```

ORBIT DETERMINATION ACCURACY

```
ST  1765.9 SR   332.2 SS   499.7
CRT  .7253 CRS -.6766 CST -.9966
LSA 1850.7 MSA  230.2 SSA   22.7
EL1 1782.5 EL2  226.5 ALF   7.90
```

LAUNCH DATE OCT 8 1970 FLIGHT TIME 182.00 ARRIVAL DATE APR 8 1971

HELIOCENTRIC CONIC DISTANCE 537.545

RL 149.47 LAL .00 LOL 14.30 VL 25.849 GAL 3.09 AZL 88.29 HCA 272.38 SMA 119.82 ECC .25292 INC 1.7141 V1 29.810
RP 108.87 LAP -1.71 LOP 286.69 VP 36.474 GAP 13.70 AZP 89.93 TAL 170.77 TAP 83.15 RCA 89.52 APO 150.13 V2 34.806
RC 183.891 GL 9.89 GP 12.24 ZAL 65.11 ZAP 167.17 ETS 69.34 ZAE 128.94 ETE 170.20 ZAC 114.40 ETC 271.62 CLP-176.11

PLANETOCENTRIC CONIC

C3 20.228 VHL 4.498 DLA -8.31 RAL 309.39 RAD 6567.8 VEL 11.900 PTH 2.11 VHP 8.759 DPA -11.58 RAP 291.28 ECC 1.3329

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 56 28	1956.57	-12.59	25.77	169.60	115.57	8 29 5	1356.6	-9.04	18.88
90.00	17 49 3	5121.62	24.96	227.81	173.41	76.17	19 14 25	4521.6	22.81	219.80
100.00	9 13 48	1707.13	-13.64	6.90	169.07	116.86	9 42 15	1107.1	-9.93	.07
100.00	19 14 25	4846.30	26.09	207.23	173.09	74.87	20 35 11	4246.3	23.76	199.21
110.00	10 12 52	1522.17	-16.41	351.29	167.50	120.42	10 38 14	922.2	-12.25	344.66
110.00	20 31 50	4604.02	29.11	187.80	172.05	71.24	21 48 34	4004.0	26.28	179.77

DIFFERENTIAL CORRECTIONS

TDE 1.3330 TRA 2.3032 TC3-4.6092 BAU 1.2476
RDE .2498 RRA -.2291 RC3 .1943 FAU .01691
FDE .4610 FRA .9279 FC3 -.7238 BSP 17327
BDE 1.3562 BRA 2.3145 BC3 4.6133 FSP -430

MID-COURSE EXECUTION ACCURACY

SGT 5372.7 SGR 467.8 SG3 128.0
RRT -.4213 RRF -.4029 RTF .9092
SGB 5393.0 RZ3 .0192 RI3 -.9093
SG1 5376.3 SG2 424.0 THA 177.89

ORBIT DETERMINATION ACCURACY

ST 1921.1 SR 330.4 SS 520.9
CRT .7265 CRS -.6821 CST -.9972
LSA 2004.6 MSA 228.5 SSA 20.9
EL1 1936.2 EL2 225.2 ALF 7.22

LAUNCH DATE OCT 8 1970 FLIGHT TIME 184.00 ARRIVAL DATE APR 10 1971

HELIOCENTRIC CONIC DISTANCE 542.890

RL 149.47 LAL .00 LOL 14.30 VL 25.799 GAL 3.78 AZL 88.12 HCA 275.54 SMA 119.54 ECC .25836 INC 1.8806 V1 29.810
RP 108.89 LAP -1.87 LOP 289.85 VP 36.434 GAP 14.09 AZP 89.82 TAL 169.00 TAP 84.55 RCA 88.66 APO 150.43 V2 34.801
RC 185.813 GL 10.34 GP 11.93 ZAL 62.17 ZAP 167.66 ETS 72.21 ZAE 129.01 ETE 170.43 ZAC 113.89 ETC 272.26 CLP-176.82

PLANETOCENTRIC CONIC

C3 22.161 VHL 4.708 DLA -7.08 RAL 312.17 RAD 6567.9 VEL 11.981 PTH 2.14 VHP 8.992 DPA -11.63 RAP 293.74 ECC 1.3647

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 58 3	2017.71	-14.36	29.39	173.87	114.67	8 31 40	1417.7	-10.91	22.40
90.00	18 9 42	5104.38	24.67	226.63	177.34	75.65	19 34 47	4504.4	22.46	218.65
100.00	9 16 0	1766.23	-15.43	10.37	173.34	115.93	9 45 26	1166.2	-11.81	3.44
100.00	19 34 26	4831.09	25.82	206.19	177.00	74.38	20 54 57	4231.1	23.42	198.21
110.00	10 16 30	1576.81	-18.26	354.44	171.79	119.41	10 42 47	976.8	-14.21	347.68
110.00	20 50 86	4593.28	28.88	187.06	175.92	70.86	22 6 59	3993.3	25.99	179.06

DIFFERENTIAL CORRECTIONS

TDE 1.4991 TRA 2.5793 TC3-4.2115 BAU 1.2488
RDE .2601 RRA -.2407 RC3 .1704 FAU .01562
FDE .4891 FRA .9687 FC3 -.6103 BSP 17435
BDE 1.5215 BRA 2.5905 BC3 4.2150 FSP -422

MID-COURSE EXECUTION ACCURACY

SGT 5390.7 SGR 461.6 SG3 125.1
RRT -.3989 RRF -.3808 RTF .9127
SGB 5410.4 RZ3 .0159 RI3 -.9127
SG1 5393.8 SG2 423.1 THA 178.03

ORBIT DETERMINATION ACCURACY

ST 2060.1 SR 328.7 SS 539.2
CRT .7279 CRS -.6871 CST -.9977
LSA 2142.6 MSA 226.8 SSA 19.4
EL1 2074.1 EL2 223.9 ALF 6.70

LAUNCH DATE OCT 8 1970 FLIGHT TIME 186.00 ARRIVAL DATE APR 12 1971

HELIOCENTRIC CONIC DISTANCE 548.179

RL 149.47 LAL .00 LOL 14.30 VL 25.750 GAL 4.50 AZL 87.95 HCA 278.70 SMA 119.27 ECC .26432 INC 2.0488 V1 29.810
RP 108.90 LAP -2.03 LOP 293.01 VP 36.395 GAP 14.51 AZP 89.69 TAL 167.25 TAP 85.95 RCA 87.75 APO 150.80 V2 34.797
RC 187.719 GL 10.71 GP 11.64 ZAL 59.38 ZAP 168.10 ETS 75.35 ZAE 129.08 ETE 170.65 ZAC 113.39 ETC 272.88 CLP-177.55

PLANETOCENTRIC CONIC

C3 24.408 VHL 4.940 DLA -5.94 RAL 314.82 RAD 6568.0 VEL 12.074 PTH 2.16 VHP 9.244 DPA -11.62 RAP 296.19 ECC 1.4017

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 59 49	2077.55	-16.02	32.99	178.16	113.66	8 34 26	1477.5	-12.69	25.90
90.00	18 29 3	5091.65	24.46	225.76	181.26	75.26	19 53 55	4491.6	22.19	217.82
100.00	9 18 20	1824.22	-17.12	13.84	177.65	114.88	9 48 44	1224.2	-13.62	6.80
100.00	19 53 12	4820.21	25.62	205.44	180.91	74.04	21 13 32	4220.2	23.18	197.49
110.00	10 20 8	1630.73	-20.04	357.62	176.11	118.29	10 47 19	1030.7	-16.10	350.71
110.00	21 7 54	4586.46	28.72	186.58	179.80	70.61	22 24 20	3986.5	25.81	178.62

DIFFERENTIAL CORRECTIONS

TDE 1.6722 TRA 2.8708 TC3-3.8194 BAU 1.2472
RDE .2715 RRA -.2516 RC3 .1476 FAU .01435
FDE .5173 FRA 1.0107 FC3 -.5090 BSP 17508
BDE 1.6941 BRA 2.8818 BC3 3.8222 FSP -413

MID-COURSE EXECUTION ACCURACY

SGT 5404.4 SGR 454.4 SG3 122.2
RRT -.3753 RRF -.3580 RTF .9163
SGB 5423.5 RZ3 .0129 RI3 -.9163
SG1 5407.1 SG2 420.9 THA 178.18

ORBIT DETERMINATION ACCURACY

ST 2186.8 SR 327.0 SS 556.3
CRT .7297 CRS -.6926 CST -.9981
LSA 2268.8 MSA 224.9 SSA 18.2
EL1 2199.9 EL2 222.2 ALF 6.29

LAUNCH DATE OCT 8 1970 FLIGHT TIME 188.00 ARRIVAL DATE APR 14 1971

HELIOCENTRIC CONIC DISTANCE 553.403

RL 149.47 LAL .00 LOL 14.30 VL 25.702 GAL 5.25 AZL 87.78 HCA 281.86 SMA 119.01 ECC .27087 INC 2.2198 V1 29.810
RP 108.92 LAP -2.17 LOP 296.17 VP 36.357 GAP 14.96 AZP 89.54 TAL 165.50 TAP 87.36 RCA 86.77 APO 151.24 V2 34.793
RC 189.610 GL 11.00 GP 11.38 ZAL 56.74 ZAP 168.49 ETS 78.75 ZAE 129.13 ETE 170.85 ZAC 112.89 ETC 273.50 CLP-178.27

PLANETOCENTRIC CONIC

C3 27.011 VHL 5.197 DLA -4.87 RAL 317.33 RAD 6568.1 VEL 12.181 PTH 2.19 VHP 9.517 DPA -11.54 RAP 298.64 ECC 1.4445

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 1 44	2136.09	-17.59	36.57	182.47	112.55	8 37 20	1536.1	-14.38	29.37
90.00	18 47 8	5083.18	24.31	225.18	185.19	75.01	20 11 51	4483.2	22.01	217.26
100.00	9 20 47	1881.09	-18.71	17.32	181.97	113.74	9 52 8	1281.1	-15.35	10.14
100.00	20 10 46	4813.42	25.49	204.98	184.82	73.83	21 30 59	4213.4	23.03	197.05
110.00	10 23 46	1683.89	-21.72	.83	180.45	117.07	10 51 50	1083.9	-17.91	353.76
110.00	21 24 16	4583.38	28.65	186.37	183.68	70.51	22 40 39	3983.4	25.73	178.42

DIFFERENTIAL CORRECTIONS

TDE 1.8505 TRA 3.1784 TC3-3.4414 BAU 1.2436
RDE .2843 RRA -.2614 RC3 .1263 FAU .01312
FDE .5450 FRA 1.0535 FC3 -.4206 BSP 17590
BDE 1.8722 BRA 3.1871 BC3 3.4437 FSP -405

MID-COURSE EXECUTION ACCURACY

SGT 5413.8 SGR 446.2 SG3 119.4
RRT -.3506 RRF -.3344 RTF .9202
SGB 5432.2 RZ3 .0105 RI3 -.9202
SG1 5416.1 SG2 417.7 THA 178.34

ORBIT DETERMINATION ACCURACY

ST 2298.9 SR 325.2 SS 571.7
CRT .7323 CRS -.6983 CST -.9984
LSA 2380.7 MSA 222.6 SSA 17.1
EL1 2311.3 EL2 220.3 ALF 5.97

LAUNCH DATE OCT 8 1970 FLIGHT TIME 190.00 ARRIVAL DATE APR 16 1971

HELIOCENTRIC CONIC DISTANCE 558.551
RL 149.47 LAL .00 LOL 14.30 VL 25.654 GAL 6.05 AZL 87.61 HCA 285.02 SMA 118.75 ECC .27808 INC 2.3948 V1 29.810
RP 108.93 LAP -2.31 LOP 299.33 VP 36.320 GAP 15.45 AZP 89.38 TAL 163.77 TAP 88.79 RCA 85.73 APO 151.77 V2 34.790
RC 191.483 GL 11.22 GP 11.15 ZAL 54.24 ZAP 168.81 ETS 82.42 ZAE 129.17 ETE 171.04 ZAC 112.39 ETC 274.10 CLP-179.01
PLANETOCENTRIC CONIC
C3 30.026 VHL 5.480 DLA -3.89 RAL 319.70 RAD 6568.2 VEL 12.304 PTH 2.22 VHP 9.814 DPA -11.40 RAP 301.08 ECC 1.4941

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 3 46	2193.36	-19.05	40.14	186.79	111.36	8 40 19	1593.4	-15.98	32.81
90.00	19 4 1	5078.74	24.23	224.88	189.10	74.88	20 28 39	4478.7	21.92	216.97
100.00	9 23 17	1936.83	-20.21	20.78	186.30	112.51	9 55 34	1336.8	-16.98	13.48
100.00	20 27 10	4810.50	25.43	204.78	188.72	73.74	21 47 21	4210.5	22.96	196.85
110.00	10 27 22	1736.25	-23.30	4.07	184.80	115.75	10 56 18	1136.3	-19.65	356.84
110.00	21 39 35	4583.84	28.66	186.40	187.55	70.52	22 55 59	3983.8	25.74	178.45

DIFFERENTIAL CORRECTIONS
TDE 2.0346 TRA 3.4976 TC3-3.0806 BAU 1.2374
RDE .2984 RRA -.2699 RC3 .1069 FAU .01195
FDE .5723 FRA 1.0974 FC3 -.3446 BSP 17675
BDE 2.0563 BRA 3.5080 BC3 3.0825 FSP -397

MID-COURSE EXECUTION ACCURACY
SGT 5418.5 SGR 437.1 SG3 116.7
RRT -.3244 RRF -.3097 RTF .9244
SGB 5436.1 RZ3 .0085 RI3 -.9244
SG1 5420.4 SG2 413.3 THA 178.49

ORBIT DETERMINATION ACCURACY
ST 2397.0 SR 323.4 SS 585.8
CRT .7356 CRS -.7046 CST -.9986
LSA 2478.8 MSA 220.1 SSA 16.1
EL1 2408.8 EL2 218.0 ALF 5.71

LAUNCH DATE OCT 8 1970 FLIGHT TIME 192.00 ARRIVAL DATE APR 18 1971

HELIOCENTRIC CONIC DISTANCE 563.613
RL 149.47 LAL .00 LOL 14.30 VL 25.608 GAL 6.90 AZL 87.42 HCA 288.18 SMA 118.49 ECC .28600 INC 2.5751 V1 29.810
RP 108.93 LAP -2.45 LOP 302.50 VP 36.285 GAP 15.98 AZP 89.20 TAL 162.07 TAP 90.24 RCA 84.60 APO 152.38 V2 34.788
RC 193.340 GL 11.38 GP 10.93 ZAL 51.88 ZAP 169.07 ETS 86.34 ZAE 129.19 ETE 171.22 ZAC 111.90 ETC 274.69 CLP-179.75
PLANETOCENTRIC CONIC
C3 33.515 VHL 5.789 DLA -2.98 RAL 321.94 RAD 6568.3 VEL 12.445 PTH 2.25 VHP 10.137 DPA -11.20 RAP 303.50 ECC 1.5516

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 5 54	2249.35	-20.40	43.70	191.11	110.08	8 43 23	1649.4	-17.48	36.24
90.00	19 19 44	5078.06	24.22	224.83	192.99	74.86	20 44 22	4478.1	21.90	216.92
100.00	9 25 51	1991.44	-21.59	24.25	190.63	111.19	9 59 2	1391.4	-18.52	16.80
100.00	20 42 28	4811.20	25.45	204.83	192.61	73.76	22 2 39	4211.2	22.97	196.90
110.00	10 30 54	1787.78	-24.79	7.33	189.17	114.33	11 0 42	1187.8	-21.29	359.93
110.00	21 53 54	4587.63	28.75	186.66	191.42	70.66	23 10 22	3987.6	25.84	178.69

DIFFERENTIAL CORRECTIONS
TDE 2.2288 TRA 3.8365 TC3-2.7409 BAU 1.2287
RDE .3140 RRA -.2768 RC3 .0892 FAU .01082
FDE .5996 FRA 1.1428 FC3 -.2796 BSP 17770
BDE 2.2485 BRA 3.8464 BC3 2.7423 FSP -390

MID-COURSE EXECUTION ACCURACY
SGT 5420.6 SGR 427.2 SG3 114.0
RRT -.2962 RRF -.2834 RTF .9289
SGB 5437.4 RZ3 .0071 RI3 -.9289
SG1 5422.0 SG2 407.9 THA 178.66

ORBIT DETERMINATION ACCURACY
ST 2483.1 SR 321.5 SS 599.0
CRT .7399 CRS -.7114 CST -.9988
LSA 2565.2 MSA 217.2 SSA 15.3
EL1 2494.5 EL2 215.3 ALF 5.51

LAUNCH DATE OCT 8 1970 FLIGHT TIME 194.00 ARRIVAL DATE APR 20 1971

HELIOCENTRIC CONIC DISTANCE 568.571
RL 149.47 LAL .00 LOL 14.30 VL 25.562 GAL 7.80 AZL 87.24 HCA 291.33 SMA 118.25 ECC .29474 INC 2.7619 V1 29.810
RP 108.94 LAP -2.57 LOP 305.66 VP 36.251 GAP 16.55 AZP 88.99 TAL 160.39 TAP 91.72 RCA 85.39 APO 153.10 V2 34.786
RC 195.178 GL 11.49 GP 10.73 ZAL 49.67 ZAP 169.26 ETS 90.48 ZAE 129.20 ETE 171.39 ZAC 111.40 ETC 275.27 CLP 179.49
PLANETOCENTRIC CONIC
C3 37.558 VHL 6.128 DLA -2.14 RAL 324.04 RAD 6568.5 VEL 12.607 PTH 2.29 VHP 10.490 DPA -10.95 RAP 305.90 ECC 1.6181

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 8 5	2304.05	-21.63	47.23	195.42	108.73	8 46 29	1704.0	-18.88	39.64
90.00	19 34 21	5080.89	24.27	225.02	196.86	74.94	20 59 2	4480.9	21.97	217.11
100.00	9 28 26	2044.87	-22.86	27.71	194.96	109.80	10 2 31	1444.9	-19.96	20.12
100.00	20 56 42	4815.29	25.52	205.11	196.47	73.89	22 16 57	4215.3	23.07	197.17
110.00	10 34 23	1838.40	-26.17	10.62	193.54	112.82	11 5 2	1238.4	-22.85	3.04
110.00	22 7 14	4594.53	28.90	187.14	195.27	70.90	23 23 48	3994.5	26.02	179.14

DIFFERENTIAL CORRECTIONS
TDE 2.4212 TRA 4.1913 TC3-2.4231 BAU 1.2172
RDE .3310 RRA -.2819 RC3 .0733 FAU .00974
FDE .6269 FRA 1.1899 FC3 -.2246 BSP 17906
BDE 2.4437 BRA 4.2008 BC3 2.4242 FSP -384

MID-COURSE EXECUTION ACCURACY
SGT 5414.9 SGR 416.4 SG3 111.3
RRT -.2664 RRF -.2554 RTF .9334
SGB 5430.9 RZ3 .0056 RI3 -.9335
SG1 5416.0 SG2 401.3 THA 178.82

ORBIT DETERMINATION ACCURACY
ST 2552.6 SR 319.4 SS 611.4
CRT .7447 CRS -.7189 CST -.9990
LSA 2635.4 MSA 214.0 SSA 14.5
EL1 2563.7 EL2 212.3 ALF 5.36

LAUNCH DATE OCT 8 1970 FLIGHT TIME 196.00 ARRIVAL DATE APR 22 1971

HELIOCENTRIC CONIC DISTANCE 573.410
RL 149.47 LAL .00 LOL 14.30 VL 25.517 GAL 8.76 AZL 87.04 HCA 294.49 SMA 118.01 ECC .30438 INC 2.9570 V1 29.810
RP 108.94 LAP -2.69 LOP 308.82 VP 36.219 GAP 17.18 AZP 88.77 TAL 158.74 TAP 93.23 RCA 82.09 APO 153.92 V2 34.785
RC 196.997 GL 11.55 GP 10.54 ZAL 47.60 ZAP 169.38 ETS 94.84 ZAE 129.19 ETE 171.56 ZAC 110.90 ETC 275.83 CLP 178.71
PLANETOCENTRIC CONIC
C3 42.250 VHL 6.500 DLA -1.38 RAL 326.02 RAD 6568.6 VEL 12.791 PTH 2.33 VHP 10.876 DPA -10.65 RAP 308.28 ECC 1.6953

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 10 20	2357.41	-22.76	50.74	199.72	107.32	8 49 37	1757.4	-20.17	43.02
90.00	19 47 55	5086.97	24.38	225.44	200.70	75.12	21 12 42	4487.0	22.10	217.51
100.00	9 31 2	2097.09	-24.03	31.15	199.27	108.34	10 5 59	1497.1	-21.30	23.42
100.00	21 9 54	4822.53	25.66	205.60	200.31	74.11	22 30 16	4222.5	23.23	197.64
110.00	10 37 48	1888.07	-27.44	13.92	197.91	111.24	11 9 16	1288.1	-24.30	6.16
110.00	22 19 37	4604.31	29.12	187.82	199.09	71.25	23 36 21	4004.3	26.28	179.79

DIFFERENTIAL CORRECTIONS
TDE 2.6261 TRA 4.5878 TC3-2.1261 BAU 1.2014
RDE .3494 RRA -.2850 RC3 .0592 FAU .00868
FDE .6551 FRA 1.2305 FC3 -.1779 BSP 18050
BDE 2.6493 BRA 4.5767 BC3 2.1270 FSP -378

MID-COURSE EXECUTION ACCURACY
SGT 5405.5 SGR 404.9 SG3 108.7
RRT -.2338 RRF -.2249 RTF .9382
SGB 5420.7 RZ3 .0046 RI3 -.9382
SG1 5406.3 SG2 393.6 THA 178.99

ORBIT DETERMINATION ACCURACY
ST 2612.6 SR 317.1 SS 624.0
CRT .7505 CRS -.7272 CST -.9991
LSA 2696.5 MSA 210.2 SSA 13.8
EL1 2623.5 EL2 208.7 ALF 5.24

LAUNCH DATE OCT 8 1970 FLIGHT TIME 198.00 ARRIVAL DATE APR 24 1971

HELIOCENTRIC CONIC DISTANCE 578.104

RL	149.47	LAL	.00	LOL	14.30	VL	25.473	GAL	9.79	AZL	86.84	HCA	297.64	SMA	117.77	ECC	.31506	INC	3.1622	V1	29.810
RP	108.94	LAP	-2.80	LOP	311.98	VP	36.188	GAP	17.87	AZP	88.53	TAL	157.14	TAP	94.78	RCA	80.67	APO	154.88	V2	34.785
RC	198.798	GL	11.56	GP	10.38	ZAL	45.66	ZAP	169.42	ETS	99.36	ZAE	129.15	ETE	171.72	ZAC	110.40	ETC	276.37	CLP	177.92

PLANETOCENTRIC CONIC

C3	47.707	VHL	6.907	DLA	-.69	RAL	327.88	RAD	6568.8	VEL	13.003	PTH	2.37	VHP	11.301	DPA	-10.31	RAP	310.63	ECC	1.7851

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 12 37	2409.38	-23.77	54.21	203.98	105.86	8 52 46	1809.4	-21.37	46.36
90.00	20 0 27	5096.07	24.53	226.06	204.49	75.40	21 25 23	4496.1	22.29	218.11
100.00	9 33 38	2148.03	-25.07	34.57	203.56	106.83	10 9 26	1548.0	-22.53	26.70
100.00	21 22 6	4832.66	25.85	206.30	204.10	74.43	22 42 39	4232.7	23.46	198.31
110.00	10 41 9	1936.70	-28.59	17.23	202.26	109.59	11 13 25	1336.7	-25.65	9.29
110.00	22 31 5	4616.75	29.39	188.69	202.89	71.70	23 48 2	4016.7	26.61	180.61

DIFFERENTIAL CORRECTIONS

TDE	2.8414	TRA	4.9677	TC3	-1.8504	BAU	1.1806
RDE	.3694	RRA	-.2856	RC3	.0468	FAU	.00763
FDE	.6844	FRA	1.2923	FC3	-.1385	BSP	18181
BDE	2.8653	BRA	4.9759	BC3	1.8510	FSP	-373

MID-COURSE EXECUTION ACCURACY

SGT	5391.9	SGR	392.7	SG3	106.1		
RRT	-.1980	RRF	-.1915	RTF	.9431		
SGB	5406.2	R23	.0039	R13	-.9431		
SG1	5392.5	SG2	384.9	THA	179.17		

ORBIT DETERMINATION ACCURACY

ST	2662.7	SR	314.6	SS	637.1
CRT	.7572	CRS	-.7361	CST	-.9993
LSA	2748.1	MSA	206.0	SSA	13.2
EL1	2673.4	EL2	204.7	ALF	5.14

LAUNCH DATE OCT 8 1970 FLIGHT TIME 200.00 ARRIVAL DATE APR 26 1971

HELIOCENTRIC CONIC DISTANCE 582.628

RL	149.47	LAL	.00	LOL	14.30	VL	25.430	GAL	10.89	AZL	86.62	HCA	300.80	SMA	117.54	ECC	.32690	INC	3.3795	V1	29.810
RP	108.94	LAP	-2.90	LOP	315.15	VP	36.158	GAP	18.63	AZP	88.27	TAL	155.58	TAP	96.38	RCA	79.12	APO	155.97	V2	34.786
RC	200.578	GL	11.55	GP	10.22	ZAL	43.85	ZAP	169.38	ETS	104.00	ZAE	129.09	ETE	171.88	ZAC	109.90	ETC	276.89	CLP	177.10

PLANETOCENTRIC CONIC

C3	54.077	VHL	7.354	DLA	-.07	RAL	329.62	RAD	6569.0	VEL	13.245	PTH	2.42	VHP	11.769	DPA	-9.92	RAP	312.94	ECC	1.8900

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 14 55	2459.88	-24.67	57.64	208.20	104.37	8 55 55	1859.9	-22.45	49.67
90.00	20 11 59	5107.94	24.73	226.87	208.25	75.76	21 37 7	4507.9	22.53	218.89
100.00	9 36 13	2197.59	-26.01	37.96	207.80	105.28	10 12 51	1597.6	-23.66	29.95
100.00	21 33 21	4845.46	26.08	207.18	207.86	74.84	22 54 7	4245.5	23.74	199.16
110.00	10 44 24	1984.19	-29.63	20.54	206.58	107.88	11 17 28	1384.2	-26.90	12.42
110.00	22 41 40	4631.63	29.70	189.73	206.65	72.24	23 58 52	4031.6	26.99	181.60

DIFFERENTIAL CORRECTIONS

TDE	3.0687	TRA	5.3947	TC3	-1.5947	BAU	1.1532
RDE	.3910	RRA	-.2834	RC3	.0361	FAU	.00657
FDE	.7155	FRA	1.3492	FC3	-.1053	BSP	18281
BDE	3.0935	BRA	5.4021	BC3	1.5951	FSP	-366

MID-COURSE EXECUTION ACCURACY

SGT	5374.5	SGR	380.0	SG3	103.7		
RRT	-.1586	RRF	-.1545	RTF	.9481		
SGB	5387.9	R23	.0034	R13	-.9481		
SG1	5374.8	SG2	375.1	THA	179.35		

ORBIT DETERMINATION ACCURACY

ST	2704.0	SR	311.8	SS	651.3
CRT	.7648	CRS	-.7459	CST	-.9994
LSA	2791.5	MSA	201.3	SSA	12.5
EL1	2714.6	EL2	200.1	ALF	5.07

LAUNCH DATE OCT 8 1970 FLIGHT TIME 202.00 ARRIVAL DATE APR 28 1971

HELIOCENTRIC CONIC DISTANCE 586.946

RL	149.47	LAL	.00	LOL	14.30	VL	25.389	GAL	12.09	AZL	86.39	HCA	303.96	SMA	117.32	ECC	.34006	INC	3.6116	V1	29.810
RP	108.93	LAP	-3.00	LOP	318.31	VP	36.130	GAP	19.47	AZP	87.98	TAL	154.08	TAP	98.04	RCA	77.43	APO	157.22	V2	34.787
RC	202.339	GL	11.50	GP	10.08	ZAL	42.17	ZAP	169.26	ETS	108.72	ZAE	129.00	ETE	172.03	ZAC	109.40	ETC	277.40	CLP	176.25

PLANETOCENTRIC CONIC

C3	61.540	VHL	7.845	DLA	.49	RAL	331.23	RAD	6569.1	VEL	13.524	PTH	2.47	VHP	12.288	DPA	-9.49	RAP	315.22	ECC	2.0128

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 17 13	2508.78	-25.45	61.01	212.35	102.85	8 59 2	1908.8	-23.43	52.92
90.00	20 22 32	5122.36	24.97	227.86	211.94	76.20	21 47 55	4522.4	22.83	219.84
100.00	9 38 48	2245.66	-26.83	41.30	211.99	103.71	10 16 13	1645.7	-24.68	33.16
100.00	21 43 39	4860.71	26.34	208.23	211.56	75.34	23 4 40	4260.7	24.07	200.17
110.00	10 47 34	2030.41	-30.55	23.83	210.86	106.14	11 21 24	1430.4	-28.04	15.53
110.00	22 51 22	4648.73	30.05	190.94	210.36	72.88	24 8 51	4048.7	27.41	182.74

DIFFERENTIAL CORRECTIONS

TDE	3.3113	TRA	5.8533	TC3	-1.3578	BAU	1.1174
RDE	.4144	RRA	-.2779	RC3	.0269	FAU	.00547
FDE	.7491	FRA	1.4111	FC3	-.0770	BSP	18326
BDE	3.3372	BRA	5.8599	BC3	1.3581	FSP	-359

MID-COURSE EXECUTION ACCURACY

SGT	5354.0	SGR	366.9	SG3	101.4		
RRT	-.1150	RRF	-.1132	RTF	.9532		
SGB	5366.5	R23	.0031	R13	-.9532		
SG1	5354.1	SG2	364.4	THA	179.55		

ORBIT DETERMINATION ACCURACY

ST	2738.3	SR	308.7	SS	667.2
CRT	.7734	CRS	-.7564	CST	-.9995
LSA	2828.4	MSA	196.1	SSA	11.9
EL1	2748.7	EL2	195.0	ALF	5.01

LAUNCH DATE OCT 8 1970 FLIGHT TIME 204.00 ARRIVAL DATE APR 30 1971

HELIOCENTRIC CONIC DISTANCE 591.013

RL	149.47	LAL	.00	LOL	14.30	VL	25.348	GAL	13.38	AZL	86.14	HCA	307.11	SMA	117.11	ECC	.35475	INC	3.8616	V1	29.810
RP	108.93	LAP	-3.08	LOP	321.48	VP	36.104	GAP	20.40	AZP	87.67	TAL	152.66	TAP	99.77	RCA	75.57	APO	158.65	V2	34.789
RC	204.080	GL	11.42	GP	9.94	ZAL	40.63	ZAP	169.04	ETS	113.46	ZAE	128.87	ETE	172.19	ZAC	108.90	ETC	277.88	CLP	175.37

PLANETOCENTRIC CONIC

C3	70.326	VHL	8.386	DLA	.98	RAL	332.72	RAD	6569.4	VEL	13.845	PTH	2.53	VHP	12.865	DPA	-9.04	RAP	317.44	ECC	2.1574

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 19 33	2555.94	-26.12	64.30	216.42	101.34	9 2 9	1955.9	-24.30	56.10
90.00	20 32 8	5139.10	25.24	229.01	215.57	76.72	21 57 47	4539.1	23.16	220.96
100.00	9 41 21	2292.09	-27.53	44.57	216.09	102.12	10 19 33	1692.1	-25.59	36.31
100.00	21 53 1	4878.19	26.64	209.45	215.19	75.91	23 14 19	4278.2	24.44	201.34
110.00	10 50 38	2075.20	-31.35	27.07	215.06	104.37	11 25 13	1475.2	-29.06	18.61
110.00	23 0 13	4667.84	30.43	192.31	214.02	73.61	24 18 1	4067.8	27.88	184.04

DIFFERENTIAL CORRECTIONS

TDE	3.5716	TRA	6.3474	TC3	-1.1393	BAU	1.0713
RDE	.4397	RRA	-.2686	RC3	.0193	FAU	.00430
FDE	.7857	FRA	1.4788	FC3	-.0530	BSP	18299
BDE	3.5986	BRA	6.3531	BC3	1.1395	FSP	-351

MID-COURSE EXECUTION ACCURACY

SGT	5330.9	SGR	353.5	SG3	99.2		
RRT	-.0664	RRF	-.0668	RTF	.9582		
SGB	5342.6	R23	.0029	R13	-.9582		
SG1	5331.0	SG2	352.7	THA	179.75		

ORBIT DETERMINATION ACCURACY

ST	2766.1	SR	305.4	SS	685.3
CRT	.7828	CRS	-.7678	CST	-.9996
LSA	2859.7	MSA	190.3	SSA	11.3
EL1	2776.4	EL2	189.3	ALF	4.96

LAUNCH DATE OCT 8 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAY 2 1971

HELIOCENTRIC CONIC DISTANCE 594.774

RL	149.47	LAL	.00	LOL	14.30	VL	25.309	GAL	14.80	AZL	85.87	HCA	310.27	SMA	116.91	ECC	.37117	INC	4.1334	V1	29.810
RP	108.92	LAP	-3.15	LOP	324.64	VP	36.079	GAP	21.45	AZP	87.33	TAL	151.32	TAP	101.59	RCA	73.51	APO	160.30	V2	34.792
RC	205.802	GL	11.32	GP	9.82	ZAL	39.22	ZAP	168.73	ETS	118.17	ZAE	128.69	ETE	172.35	ZAC	108.41	ETC	278.34	CLP	174.44

PLANETOCENTRIC CONIC

C3	80.725	VHL	8.985	DLA	1.41	RAL	334.09	RAD	6569.6	VEL	14.215	PTH	2.59	VHP	13.509	DPA	-8.56	RAP	319.62	ECC	2.3285

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 21 52	2601.16	-26.69	67.49	220.38	99.83	9 5 13	2001.2	-25.06	59.20
90.00	20 40 45	5157.98	25.53	230.32	219.12	77.31	22 6 43	4558.0	23.53	222.22
100.00	9 43 51	2336.67	-28.13	47.74	220.08	100.55	10 22 48	1736.7	-26.39	39.38
100.00	22 1 26	4897.70	26.96	210.81	218.75	76.56	23 23 4	4297.7	24.84	202.65
110.00	10 53 36	2118.37	-32.04	30.25	219.16	102.61	11 28 55	1518.4	-29.97	21.64
110.00	23 8 11	4688.77	30.82	193.81	217.61	74.42	24 26 19	4088.8	28.37	185.46

DIFFERENTIAL CORRECTIONS

TDE	3.8532	TRA	6.8830	TC3	-.9382	BAU	1.0126
RDE	.4672	RRA	-.2549	RC3	.0132	FAU	.00303
FDE	.8261	FRA	1.5538	FC3	-.0325	BSP	18166
BDE	3.8814	BRA	6.8878	BC3	.9382	FSP	-340

MID-COURSE EXECUTION ACCURACY

SGT	5306.4	SGR	340.2	SG3	97.1		
RRT	-.0120	RRF	-.0146	RTF	.9632		
SGB	5317.3	R23	.0029	R13	-.9632		
SG1	5306.4	SG2	340.2	THA	179.96		

ORBIT DETERMINATION ACCURACY

ST	2788.4	SR	301.9	SS	706.1
CRT	.7933	CRS	-.7800	CST	-.9996
LSA	2886.4	MSA	184.1	SSA	10.8
EL1	2798.8	EL2	183.1	ALF	4.93

LAUNCH DATE OCT 8 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAY 4 1971

HELIOCENTRIC CONIC DISTANCE 598.156

RL	149.47	LAL	.00	LOL	14.30	VL	25.271	GAL	16.35	AZL	85.57	HCA	313.42	SMA	116.71	ECC	.38959	INC	4.4320	V1	29.810
RP	108.91	LAP	-3.22	LOP	327.81	VP	36.056	GAP	22.62	AZP	86.95	TAL	150.09	TAP	103.51	RCA	71.24	APO	162.18	V2	34.795
RC	207.503	GL	11.20	GP	9.70	ZAL	37.94	ZAP	168.31	ETS	122.81	ZAE	128.46	ETE	172.52	ZAC	107.92	ETC	278.77	CLP	173.45

PLANETOCENTRIC CONIC

C3	93.113	VHL	9.650	DLA	1.77	RAL	335.34	RAD	6569.8	VEL	14.644	PTH	2.65	VHP	14.233	DPA	-8.06	RAP	321.73	ECC	2.5324

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 24 10	2644.20	-27.15	70.55	224.20	98.36	9 8 14	2044.2	-25.72	62.18
90.00	20 48 22	5178.81	25.83	231.77	222.57	77.98	22 14 41	4578.8	23.92	223.62
100.00	9 46 20	2379.18	-28.62	50.81	223.95	99.01	10 25 59	1779.2	-27.08	42.34
100.00	22 8 54	4919.07	27.28	212.31	222.21	77.29	23 30 53	4319.1	25.26	204.10
110.00	10 56 28	2159.68	-32.61	33.33	223.13	100.86	11 32 27	1559.7	-30.77	24.60
110.00	23 15 15	4711.34	31.22	195.45	221.11	75.31	24 33 46	4111.3	28.89	187.02

DIFFERENTIAL CORRECTIONS

TDE	4.1593	TRA	7.4652	TC3	-.7539	BAU	.9386
RDE	.4973	RRA	-.2358	RC3	.0084	FAU	.00162
FDE	.8710	FRA	1.6369	FC3	-.0151	BSP	17924
BDE	4.1889	BRA	7.4689	BC3	.7540	FSP	-329

MID-COURSE EXECUTION ACCURACY

SGT	5280.4	SGR	327.2	SG3	95.2		
RRT	.0488	RRF	.0445	RTF	.9680		
SGB	5290.5	R23	-.0030	R13	.9680		
SG1	5280.4	SG2	326.8	THA	.17		

ORBIT DETERMINATION ACCURACY

ST	2805.6	SR	298.3	SS	730.2
CRT	.8047	CRS	-.7931	CST	-.9997
LSA	2908.9	MSA	177.3	SSA	10.2
EL1	2815.8	EL2	176.4	ALF	4.91

LAUNCH DATE OCT 8 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAY 6 1971

HELIOCENTRIC CONIC DISTANCE 601.065

RL	149.47	LAL	.00	LOL	14.30	VL	25.235	GAL	18.06	AZL	85.24	HCA	316.58	SMA	116.52	ECC	.41033	INC	4.7634	V1	29.810
RP	108.90	LAP	-3.27	LOP	330.98	VP	36.035	GAP	23.95	AZP	86.54	TAL	148.99	TAP	105.57	RCA	68.71	APO	164.34	V2	34.799
RC	209.184	GL	11.05	GP	9.59	ZAL	36.80	ZAP	167.78	ETS	127.35	ZAE	128.17	ETE	172.70	ZAC	107.44	ETC	279.18	CLP	172.40

PLANETOCENTRIC CONIC

C3	107.973	VHL	10.391	DLA	2.05	RAL	336.45	RAD	6570.1	VEL	15.143	PTH	2.72	VHP	15.050	DPA	-7.55	RAP	323.77	ECC	2.7770

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 26 28	2684.78	-27.52	73.46	227.86	96.95	9 11 13	2084.8	-26.27	65.02
90.00	20 54 58	5201.46	26.14	233.35	225.90	78.71	22 21 39	4601.5	24.32	225.16
100.00	9 48 46	2419.32	-29.02	53.73	227.64	97.52	10 29 5	1819.3	-27.67	45.18
100.00	22 15 21	4942.15	27.62	213.95	225.56	78.09	23 37 43	4342.1	25.70	205.67
110.00	10 59 12	2198.85	-33.08	36.29	226.95	99.17	11 35 51	1598.8	-31.46	27.44
110.00	23 21 24	4735.39	31.62	197.21	224.51	76.28	24 40 19	4135.4	29.41	188.69

DIFFERENTIAL CORRECTIONS

TDE	4.4933	TRA	8.1003	TC3	-.5859	BAU	.8458
RDE	.5306	RRA	-.2104	RC3	.0050	FAU	.00002
FDE	.9209	FRA	1.7296	FC3	-.0002	BSP	17556
BDE	4.5245	BRA	8.1030	BC3	.5859	FSP	-315

MID-COURSE EXECUTION ACCURACY

SGT	5253.2	SGR	314.9	SG3	93.4		
RRT	.1169	RRF	.1109	RTF	.9727		
SGB	5262.7	R23	-.0032	R13	.9727		
SG1	5253.4	SG2	312.8	THA	.40		

ORBIT DETERMINATION ACCURACY

ST	2817.4	SR	294.6	SS	758.0
CRT	.8170	CRS	-.8069	CST	-.9998
LSA	2927.4	MSA	170.1	SSA	9.7
EL1	2827.7	EL2	169.3	ALF	4.90

LAUNCH DATE OCT 8 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAY 8 1971

HELIOCENTRIC CONIC DISTANCE 603.380

RL	149.47	LAL	.00	LOL	14.30	VL	25.201	GAL	19.96	AZL	84.86	HCA	319.73	SMA	116.35	ECC	.43377	INC	5.1359	V1	29.810
RP	108.88	LAP	-3.32	LOP	334.15	VP	36.016	GAP	25.46	AZP	86.08	TAL	148.05	TAP	107.78	RCA	65.88	APO	166.82	V2	34.804
RC	210.844	GL	10.89	GP	9.49	ZAL	35.81	ZAP	167.13	ETS	131.76	ZAE	127.79	ETE	172.88	ZAC	106.96	ETC	279.56	CLP	171.27

PLANETOCENTRIC CONIC

C3	125.941	VHL	11.222	DLA	2.27	RAL	337.43	RAD	6570.3	VEL	15.725	PTH	2.79	VHP	15.976	DPA	-7.03	RAP	325.72	ECC	3.0727

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 28 45	2722.53	-27.80	76.19	231.31	95.61	9 14 8	2122.5	-26.73	67.69
90.00	21 0 27	5225.81	26.46	235.07	229.09	79.52	22 27 33	4625.8	24.74	226.82
100.00	9 51 9	2456.75	-29.32	56.47	231.14	96.11	10 32 6	1856.7	-28.16	47.85
100.00	22 20 44	4966.82	27.95	215.70	228.77	78.95	23 43 31	4366.8	26.14	207.37
110.00	11 1 49	2235.55	-33.44	39.10	230.56	97.55	11 39 5	1635.5	-32.03	30.15
110.00	23 26 33	4760.78	32.02	199.08	227.79	77.33	24 45 54	4160.8	29.94	190.48

DIFFERENTIAL CORRECTIONS

TDE	4.8592	TRA	8.7957	TC3	-.4336	BAU	.7301
RDE	.5677	RRA	-.1775	RC3	.0028	FAU	-.00182
FDE	.9769	FRA	1.8337	FC3	.0125	BSP	17044
BDE	4.8922	BRA	8.7975	BC3	.4336	FSP	-300

MID-COURSE EXECUTION ACCURACY

SGT	5224.9	SGR	303.7	SG3	91.7		
RRT	.1924	RRF	.1853	RTF	.9771		
SGB	5233.7	R23	-.0034	R13	.9771		
SG1	5225.3	SG2	298.0	THA	.64		

ORBIT DETERMINATION ACCURACY

ST	2823.7	SR	291.1	SS	790.3
CRT	.8301	CRS	-.8215	CST	-.9998
LSA	2942.1	MSA	162.4	SSA	9.1
EL1	2834.1	EL2	161.7	ALF	4.91

LAUNCH DATE OCT 8 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAY 10 1971

HELIOCENTRIC CONIC DISTANCE 604.932

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RL  149.47 LAL    .00 LOL  14.30 VL  25.170 GAL  22.09 AZL  84.44 HCA 322.88 SMA 116.19 ECC .46033 INC 5.5604 V1  29.810
RP  108.86 LAP  -3.35 LOP 337.32 VP  35.999 GAP  27.19 AZP  85.56 TAL 147.31 TAP 110.19 RCA  62.70 APO 169.67 V2  34.810
RC 212.484 GL   10.71 GP    9.38 ZAL  34.97 ZAP 166.34 ETS 136.02 ZAE 127.32 ETE 173.09 ZAC 106.50 ETC 279.91 CLP 170.03
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PLANETOCENTRIC CONIC

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C3 147.853 VHL 12.159 DLA   2.41 RAL 338.25 RAD 6570.6 VEL 16.407 PTH   2.87 VHP 17.034 DPA  -6.53 RAP 327.58 ECC 3.4333
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 31 1	2757.02	-28.01	78.69	234.53	94.37	9 16 58	2157.0	-27.10	70.14
90.00	21 4 44	5251.81	26.76	236.91	232.12	80.39	22 32 16	4651.8	25.16	228.61
100.00	9 53 28	2491.03	-29.54	58.99	234.39	94.80	10 34 59	1891.0	-28.56	50.32
100.00	22 24 58	4993.04	28.28	217.58	231.82	79.89	23 48 11	4393.0	26.59	209.19
110.00	11 4 17	2269.37	-33.71	41.70	233.92	96.03	11 42 7	1669.4	-32.51	32.67
110.00	23 30 38	4787.45	32.40	201.07	230.91	78.44	24 50 25	4187.5	30.47	192.38

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 5.2162 TRA 9.5136 TC3 -.3087 BAU  .6103   SGT 5170.7 SGR  294.1 SG3   89.6     ST  2802.4 SR   287.6 SS   820.6
 RDE  .6090 RRA -.1359 RC3  .0016 FAU-.00354   RRT  .2729 RRF  .2649 RTF  .9811    CRT  .8430 CRS -.8355 CST -.9998
 FDE 1.0299 FRA 1.9406 FC3  .0207 BSP  17461   SGB 5179.1 R23 -.0037 R13  .9811    LSA 2930.1 MSA  154.8 SSA    8.6
 BDE 5.2517 BRA 9.5146 BC3  .3087 FSP   -303   SG1 5171.3 SG2  282.9 THA   .89     EL1 2812.9 EL2  154.1 ALF   4.96
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LAUNCH DATE OCT 8 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAY 12 1971

HELIOCENTRIC CONIC DISTANCE 605.518

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RL  149.47 LAL    .00 LOL  14.30 VL  25.141 GAL  24.49 AZL  83.95 HCA 326.04 SMA 116.04 ECC .49052 INC 6.0518 V1  29.810
RP  108.85 LAP  -3.38 LOP 340.49 VP  35.985 GAP  29.18 AZP  84.97 TAL 146.80 TAP 112.84 RCA  59.12 APO 172.96 V2  34.816
RC 214.102 GL   10.51 GP    9.28 ZAL  34.32 ZAP 165.40 ETS 140.13 ZAE 126.72 ETE 173.31 ZAC 106.06 ETC 280.23 CLP 168.68
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PLANETOCENTRIC CONIC

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C3 174.834 VHL 13.222 DLA   2.46 RAL 338.90 RAD 6570.9 VEL 17.209 PTH   2.94 VHP 18.249 DPA  -6.05 RAP 329.32 ECC 3.8773
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 33 15	2787.74	-28.14	80.93	237.45	93.26	9 19 42	2187.7	-27.40	72.34
90.00	21 7 42	5279.48	27.06	238.88	234.94	81.33	22 35 42	4679.5	25.59	230.52
100.00	9 55 44	2521.68	-29.69	61.26	237.35	93.62	10 37 45	1921.7	-28.88	52.55
100.00	22 27 54	5020.78	28.60	219.59	234.67	80.90	23 51 35	4420.8	27.04	211.13
110.00	11 6 36	2299.86	-33.90	44.06	236.99	94.65	11 44 56	1699.9	-32.89	34.97
110.00	23 33 31	4815.36	32.76	203.16	233.84	79.64	24 53 47	4215.4	30.98	194.39

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 5.6286 TRA10.3218 TC3 -.1914 BAU  .4474   SGT 5123.1 SGR  286.5 SG3   87.9     ST  2784.4 SR   284.4 SS   859.7
 RDE  .6559 RRA -.0836 RC3  .0014 FAU-.00588   RRT  .3604 RRF  .3520 RTF  .9847    CRT  .8569 CRS -.8504 CST -.9999
 FDE 1.0946 FRA 2.0665 FC3  .0291 BSP  17372   SGB 5131.1 R23 -.0040 R13  .9847    LSA 2924.2 MSA  146.7 SSA    8.0
 BDE 5.6667 BRA10.3222 BC3  .1914 FSP   -297   SG1 5124.2 SG2  267.2 THA   1.16    EL1 2795.0 EL2  146.1 ALF   5.02
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LAUNCH DATE OCT 8 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAY 14 1971

HELIOCENTRIC CONIC DISTANCE 604.852

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RL  149.47 LAL    .00 LOL  14.30 VL  25.115 GAL  27.22 AZL  83.37 HCA 329.19 SMA 115.91 ECC .52490 INC 6.6308 V1  29.810
RP  108.82 LAP  -3.39 LOP 343.66 VP  35.974 GAP  31.49 AZP  84.30 TAL 146.60 TAP 115.79 RCA  55.07 APO 176.75 V2  34.823
RC 215.699 GL   10.29 GP    9.18 ZAL  33.87 ZAP 164.27 ETS 144.06 ZAE 125.98 ETE 173.56 ZAC 105.63 ETC 280.51 CLP 167.18
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PLANETOCENTRIC CONIC

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C3 208.388 VHL 14.436 DLA   2.41 RAL 339.36 RAD 6571.2 VEL 18.158 PTH   3.02 VHP 19.653 DPA  -5.60 RAP 330.91 ECC 4.4295
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 35 27	2814.08	-28.23	82.85	240.04	92.30	9 22 21	2214.1	-27.61	74.24
90.00	21 9 10	5308.92	27.35	240.99	237.54	82.35	22 37 39	4708.9	26.01	232.58
100.00	9 57 54	2548.10	-29.79	63.22	239.96	92.59	10 40 23	1948.1	-29.11	54.48
100.00	22 29 23	5050.14	28.89	221.72	237.30	81.98	23 53 33	4450.1	27.48	213.20
110.00	11 8 43	2326.44	-34.03	46.13	239.70	93.43	11 47 30	1726.4	-33.18	36.99
110.00	23 35 4	4844.56	33.09	205.38	236.56	80.91	24 55 48	4244.6	31.48	196.52

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 6.0797 TRA11.2075 TC3 -.0874 BAU  .2436   SGT 5070.4 SGR  281.7 SG3   86.2     ST  2758.1 SR   281.6 SS   905.1
 RDE  .7095 RRA -.0186 RC3  .0021 FAU-.00876   RRT  .4516 RRF  .4433 RTF  .9879    CRT  .8711 CRS -.8656 CST -.9999
 FDE 1.1678 FRA 2.2091 FC3  .0364 BSP  17259   SGB 5078.2 R23 -.0043 R13  .9879    LSA 2913.1 MSA  138.4 SSA    7.5
 BDE 6.1209 BRA11.2075 BC3  .0874 FSP   -291   SG1 5072.0 SG2  251.3 THA   1.44    EL1 2769.0 EL2  137.8 ALF   5.09
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LAUNCH DATE OCT 8 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAY 16 1971

HELIOCENTRIC CONIC DISTANCE 602.559

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RL  149.47 LAL    .00 LOL  14.30 VL  25.094 GAL  30.34 AZL  82.67 HCA 332.34 SMA 115.80 ECC .56409 INC 7.3280 V1  29.810
RP  108.80 LAP  -3.39 LOP 346.84 VP  35.966 GAP  34.19 AZP  83.50 TAL 146.76 TAP 119.10 RCA  50.48 APO 181.12 V2  34.830
RC 217.273 GL   10.05 GP    9.07 ZAL  33.66 ZAP 162.94 ETS 147.84 ZAE 125.06 ETE 173.84 ZAC 105.23 ETC 280.75 CLP 165.49
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PLANETOCENTRIC CONIC

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C3 230.552 VHL 15.829 DLA   2.24 RAL 339.59 RAD 6571.5 VEL 19.284 PTH   3.10 VHP 21.284 DPA  -5.21 RAP 332.32 ECC 5.1235
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 37 36	2835.31	-28.28	84.40	242.22	91.52	9 24 52	2235.3	-27.77	75.77
90.00	21 8 53	5340.34	27.61	243.25	239.86	83.46	22 37 54	4740.3	26.42	234.79
100.00	10 0 0	2569.57	-29.85	64.81	242.17	91.75	10 42 49	1969.6	-29.28	56.05
100.00	22 29 11	5081.32	29.17	223.99	239.66	83.15	23 53 53	4481.3	27.91	215.42
110.00	11 10 38	2348.47	-34.11	47.84	241.98	92.42	11 49 47	1748.5	-33.40	38.67
110.00	23 35 2	4875.18	33.40	207.71	239.02	82.26	24 56 17	4275.2	31.97	198.78

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 6.5718 TRA12.1762 TC3  .0038 BAU  .0175   SGT 5011.4 SGR  280.3 SG3   84.7     ST  2722.1 SR   279.3 SS   957.9
 RDE  .7714 RRA  .0618 RC3  .0036 FAU-.01240   RRT  .5431 RRF  .5354 RTF  .9907    CRT  .8853 CRS -.8807 CST -.9999
 FDE 1.2506 FRA 2.3710 FC3  .0428 BSP  17130   SGB 5019.2 R23 -.0046 R13  .9907    LSA 2896.2 MSA  130.0 SSA    6.9
 BDE 6.6169 BRA12.1763 BC3  .0052 FSP   -286   SG1 5013.7 SG2  235.3 THA   1.74    EL1 2733.3 EL2  129.3 ALF   5.20
```

LAUNCH DATE OCT 9 1970 FLIGHT TIME 70.00 ARRIVAL DATE DEC 18 1970

HELIOCENTRIC CONIC DISTANCE 203.785

RL	149.43	LAL	.00	LOL	15.29	VL	28.894	GAL	-14.14	AZL	88.21	HCA	92.94	SMA	140.97	ECC	.25110	INC	1.7932
RP	107.53	LAP	1.79	LOP	108.23	VP	39.076	GAP	-4.86	AZP	90.09	TAL	242.47	TAP	335.40	RCA	105.58	APO	176.37
RC	63.355	GL	7.34	GP	-22.58	ZAL	162.96	ZAP	52.30	ETS	15.25	ZAE	152.07	ETE	299.86	ZAC	78.45	ETC	259.52

V1	29.819	V2	35.240	CLP	-48.52														

PLANETOCENTRIC CONIC

C3	47.085	VHL	6.862	DLA	-4.83	RAL	211.15	RAD	6568.8	VEL	12.979	PTH	2.37	VHP	5.266	DPA	-40.73	RAP	230.03
ECC	1.7749																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 53 58	2277.13	-21.04	45.48	85.72	109.40	1 31 55	1677.1	-18.20	37.96
90.00	11 39 58	5221.75	26.41	234.78	89.27	79.38	13 6 59	4621.7	24.67	226.54
100.00	2 13 2	2022.06	-22.33	26.22	85.22	110.41	2 46 44	1422.1	-19.35	18.69
100.00	13 3 35	4952.05	27.76	214.65	88.97	78.43	14 26 7	4352.0	25.88	206.35
110.00	3 16 4	1824.73	-25.80	9.72	83.69	113.24	3 46 28	1224.7	-22.43	2.19
110.00	14 17 2	4722.15	31.40	196.24	88.01	75.75	15 35 44	4122.1	29.13	187.77

DIFFERENTIAL CORRECTIONS

TDE	.1600	TRA	-.4832	TC3	.1042	BAU	.1896
RDE	-.2722	RRA	-.3117	RC3	-.2826	FAU	.07737
FDE	1.0799	FRA	-.8538	FC3	-1.4225	BSP	1065
BDE	.3157	BRA	.5751	BC3	.3012	FSP	-540

MID-COURSE EXECUTION ACCURACY

SGT	449.7	SGR	519.9	SG3	195.8		
RRT	.0853	RRF	.6273	RTF	.1287		
SGB	687.5	R23	.0668	R13	.6283		
SG1	525.1	SG2	443.7	THA	74.81		

ORBIT DETERMINATION ACCURACY

ST	180.6	SR	240.7	SS	422.6
CRT	-.4807	CRS	.8385	CST	-.8721
LSA	495.0	MSA	153.7	SSA	22.0
EL1	264.0	EL2	144.4	ALF	119.41

LAUNCH DATE OCT 9 1970 FLIGHT TIME 72.00 ARRIVAL DATE DEC 20 1970

HELIOCENTRIC CONIC DISTANCE 210.463

RL	149.43	LAL	.00	LOL	15.29	VL	28.916	GAL	-14.00	AZL	88.04	HCA	96.18	SMA	141.16	ECC	.24845	INC	1.9626
RP	107.52	LAP	1.95	LOP	111.47	VP	39.097	GAP	-4.14	AZP	90.21	TAL	242.78	TAP	338.96	RCA	106.09	APO	176.24
RC	65.403	GL	8.12	GP	-23.84	ZAL	162.75	ZAP	56.96	ETS	13.20	ZAE	152.06	ETE	293.12	ZAC	77.01	ETC	259.17

V1	29.819	V2	35.245	CLP	-53.42														

PLANETOCENTRIC CONIC

C3	46.270	VHL	6.802	DLA	-4.05	RAL	211.28	RAD	6568.7	VEL	12.947	PTH	2.36	VHP	5.033	DPA	-41.40	RAP	227.57
ECC	1.7615																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 48 35	2297.26	-21.49	46.79	85.76	108.90	1 26 52	1697.3	-18.71	39.21
90.00	11 46 22	5192.86	26.03	232.75	88.72	78.43	13 12 55	4592.9	24.17	224.58
100.00	2 8 2	2040.98	-22.77	27.45	85.27	109.90	2 42 3	1441.0	-19.86	19.87
100.00	13 9 37	4924.37	27.36	212.69	88.40	77.47	14 31 41	4324.4	25.36	204.46
110.00	3 11 55	1840.96	-26.24	10.79	83.79	112.74	3 42 36	1241.0	-22.92	3.19
110.00	14 22 12	4697.16	30.97	194.42	87.38	74.75	15 40 30	4097.2	28.57	186.04

DIFFERENTIAL CORRECTIONS

TDE	.1823	TRA	-.5156	TC3	.0669	BAU	.1979
RDE	-.2441	RRA	-.3217	RC3	-.3128	FAU	.08333
FDE	1.2091	FRA	-.9169	FC3	-1.5592	BSP	1185
BDE	.3047	BRA	.6077	BC3	.3199	FSP	-600

MID-COURSE EXECUTION ACCURACY

SGT	470.6	SGR	545.1	SG3	214.0		
RRT	.1870	RRF	.6691	RTF	.2577		
SGB	720.1	R23	.1123	R13	.6733		
SG1	566.0	SG2	445.2	THA	64.14		

ORBIT DETERMINATION ACCURACY

ST	201.6	SR	221.5	SS	455.1
CRT	-.4693	CRS	.8181	CST	-.8841
LSA	521.5	MSA	155.9	SSA	22.0
EL1	257.4	EL2	153.2	ALF	129.31

LAUNCH DATE OCT 9 1970 FLIGHT TIME 74.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 217.099

RL	149.43	LAL	.00	LOL	15.29	VL	28.928	GAL	-13.86	AZL	87.87	HCA	99.42	SMA	141.26	ECC	.24602	INC	2.1341
RP	107.51	LAP	2.11	LOP	114.71	VP	39.109	GAP	-3.45	AZP	90.35	TAL	242.95	TAP	342.37	RCA	106.51	APO	176.02
RC	67.486	GL	8.92	GP	-25.10	ZAL	162.42	ZAP	61.75	ETS	11.09	ZAE	151.80	ETE	285.93	ZAC	75.54	ETC	258.78

V1	29.819	V2	35.249	CLP	-58.49														

PLANETOCENTRIC CONIC

C3	45.515	VHL	6.746	DLA	-3.28	RAL	211.50	RAD	6568.7	VEL	12.918	PTH	2.35	VHP	4.837	DPA	-41.98	RAP	224.88
ECC	1.7491																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 43 43	2317.09	-21.92	48.08	85.92	108.39	1 22 20	1717.1	-19.20	40.46
90.00	11 53 0	5164.77	25.63	230.79	88.31	77.53	13 19 5	4564.8	23.65	222.68
100.00	2 3 31	2059.64	-23.20	28.67	85.44	109.40	2 37 51	1459.6	-20.34	21.04
100.00	13 15 53	4897.45	26.95	210.79	87.97	76.55	14 37 30	4297.5	24.83	202.63
110.00	3 8 15	1857.01	-26.65	11.85	84.00	112.24	3 39 12	1257.0	-23.40	4.20
110.00	14 27 38	4672.85	30.52	192.67	86.89	73.80	15 45 31	4072.9	28.00	184.38

DIFFERENTIAL CORRECTIONS

TDE	.2111	TRA	-.5537	TC3	.0218	BAU	.2094
RDE	-.2145	RRA	-.3298	RC3	-.3434	FAU	.08892
FDE	1.3366	FRA	-.9705	FC3	-1.6912	BSP	1349
BDE	.3009	BRA	.6445	BC3	.3441	FSP	-659

MID-COURSE EXECUTION ACCURACY

SGT	504.8	SGR	571.5	SG3	231.5		
RRT	.2977	RRF	.7069	RTF	.3884		
SGB	762.5	R23	.1366	R13	.7181		
SG1	619.5	SG2	444.6	THA	56.34		

ORBIT DETERMINATION ACCURACY

ST	228.2	SR	201.1	SS	486.4
CRT	-.4524	CRS	.7901	CST	-.8975
LSA	551.3	MSA	157.2	SSA	21.8
EL1	260.5	EL2	157.2	ALF	142.83

LAUNCH DATE OCT 9 1970 FLIGHT TIME 76.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 223.694

RL	149.43	LAL	.00	LOL	15.29	VL	28.929	GAL	-13.72	AZL	87.69	HCA	102.66	SMA	141.28	ECC	.24377	INC	2.3089
RP	107.50	LAP	2.25	LOP	117.96	VP	39.113	GAP	-2.80	AZP	90.51	TAL	242.98	TAP	345.64	RCA	106.84	APO	175.72
RC	69.600	GL	9.74	GP	-26.35	ZAL	161.98	ZAP	66.62	ETS	8.90	ZAE	151.21	ETE	278.50	ZAC	74.06	ETC	258.37

V1	29.819	V2	35.253	CLP	-63.71														

PLANETOCENTRIC CONIC

C3	44.808	VHL	6.694	DLA	-2.52	RAL	211.81	RAD	6568.7	VEL	12.891	PTH	2.35	VHP	4.678	DPA	-42.48	RAP	222.03
ECC	1.7374																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 39 16	2336.80	-22.33	49.38	86.18	107.87	1 18 13	1736.8	-19.68	41.71
90.00	11 59 54	5137.19	25.21	228.88	88.01	76.66	13 25 31	4537.2	23.12	220.83
100.00	1 59 26	2078.20	-23.62	29.90	85.72	108.88	2 34 5	1478.2	-20.82	22.22
100.00	13 22 25	4871.03	26.52	208.95	87.65	75.67	14 43 36	4271.0	24.29	200.86
110.00	3 4 59	1873.00	-27.06	12.91	84.31	111.73	3 36 12	1273.0	-23.87	5.20
110.00	14 33 21	4648.99	30.06	190.96	86.52	72.89	15 50 50	4049.0	27.42	182.76

DIFFERENTIAL CORRECTIONS

TDE	.2467	TRA	-.5970	TC3	-.0312	BAU	.2246
RDE	-.1835	RRA	-.3354	RC3	-.3736	FAU	.09384
FDE	1.4591	FRA	-1.0107	FC3	-1.8130	BSP	1553
BDE	.3075	BRA	.6847	BC3	.3749	FSP	-714

MID-COURSE EXECUTION ACCURACY

SGT	554.9	SGR	597.9	SG3	247.4		
RRT	.4061	RRF	.7399	RTF	.5085		
SGB	815.7	R23	.1498	R13	.7595		
SG1	685.3	SG2	442.4	THA	50.21		

ORBIT DETERMINATION ACCURACY

ST	261.0	SR	179.8	SS	516.4
CRT	-.4244	CRS	.7517	CST	-.9105
LSA	584.7	MSA	157.6	SSA	21.7
EL1	277.5	EL2	153.1	ALF	155.97

LAUNCH DATE OCT 9 1970 FLIGHT TIME 78.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 230.247

```
RL  149.43 LAL    .00 LOL  15.29 VL  28.922 GAL -13.59 AZL  87.51 HCA 105.90 SMA 141.21 ECC .24166 INC 2.4882 V1  29.819
RP  107.49 LAP   2.39 LOP 121.21 VP  39.110 GAP  -2.18 AZP  90.68 TAL 242.88 TAP 348.78 RCA 107.09 APO 175.34 V2  35.255
RC  71.740 GL   10.59 GP  -27.57 ZAL 161.43 ZAP  71.50 ETS   6.61 ZAE 150.28 ETE 271.09 ZAC  72.58 ETC 257.95 CLP -69.03
```

PLANETOCENTRIC CONIC

```
C3  44.141 VHL  6.644 DLA  -1.76 RAL 212.20 RAD 6568.7 VEL 12.865 PTH   2.34 VHP  4.554 DPA -42.87 RAP 219.06 ECC 1.7264
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 35 12	2356.59	-22.74	50.68	86.55	107.34	1 14 28	1756.6	-20.16	42.97
90.00	12 7 6	5109.85	24.77	227.00	87.82	75.81	13 32 16	4509.9	22.57	219.02
100.00	1 55 43	2096.84	-24.02	31.13	86.10	108.35	2 30 40	1496.8	-21.29	23.40
100.00	13 29 16	4844.83	26.07	207.13	87.45	74.82	14 50 1	4244.8	23.73	199.11
110.00	3 2 5	1889.10	-27.46	13.99	84.73	111.20	3 33 34	1289.1	-24.33	6.22
110.00	14 39 24	4625.34	29.57	189.29	86.27	72.01	15 56 29	4025.3	26.83	181.18

DIFFERENTIAL CORRECTIONS

```
TDE  .2895 TRA -.6448 TC3 -.0916 BAU  .2438
RDE -.1522 RRA -.3381 RC3 -.4028 FAU .09792
FDE 1.5703 FRA-1.0359 FC3-1.9206 BSP   1802
BDE  .3271 BRA  .7281 BC3  .4131 FSP   -764
```

MID-COURSE EXECUTION ACCURACY

```
SGT  621.8 SGR  623.5 SG3  261.3
RRT  .5020 RRF  .7684 RTF  .6093
SGB  880.6 RZ3  .1575 RI3  .7953
SG1  763.1 SG2  439.4 THA  45.16
```

ORBIT DETERMINATION ACCURACY

```
ST   300.3 SR   158.6 SS   544.0
CRT -.3801 CRS  .6981 CST -.9226
LSA  621.4 MSA  157.1 SSA   21.5
EL1  308.0 EL2  143.0 ALF 165.45
```

LAUNCH DATE OCT 9 1970 FLIGHT TIME 80.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 236.759

```
RL  149.43 LAL    .00 LOL  15.29 VL  28.907 GAL -13.45 AZL  87.33 HCA 109.14 SMA 141.08 ECC .23967 INC 2.6734 V1  29.819
RP  107.48 LAP   2.53 LOP 124.45 VP  39.100 GAP  -1.58 AZP  90.88 TAL 242.66 TAP 351.80 RCA 107.27 APO 174.90 V2  35.257
RC  73.903 GL   11.47 GP  -28.73 ZAL 160.77 ZAP  76.36 ETS   4.22 ZAE 148.99 ETE 263.95 ZAC  71.14 ETC 257.52 CLP -74.40
```

PLANETOCENTRIC CONIC

```
C3  43.506 VHL  6.596 DLA  -1.00 RAL 212.68 RAD 6568.7 VEL 12.840 PTH   2.34 VHP  4.463 DPA -43.17 RAP 216.08 ECC 1.7160
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 31 25	2376.67	-23.14	52.02	87.02	106.79	1 11 2	1776.7	-20.62	44.25
90.00	12 14 41	5082.48	24.30	225.13	87.74	74.99	13 39 23	4482.5	22.00	217.21
100.00	1 52 18	2115.78	-24.42	32.40	86.59	107.80	2 27 34	1515.8	-21.76	24.61
100.00	13 36 29	4818.60	25.59	205.33	87.34	73.99	14 56 48	4218.6	23.14	197.39
110.00	2 59 29	1905.49	-27.86	15.10	85.25	110.66	3 31 14	1305.5	-24.79	7.27
110.00	14 45 48	4601.66	29.06	187.64	86.12	71.15	16 2 29	4001.7	26.21	179.61

DIFFERENTIAL CORRECTIONS

```
TDE  .3395 TRA -.6963 TC3 -.1586 BAU  .2666
RDE -.1209 RRA -.3573 RC3 -.4300 FAU .10095
FDE 1.6670 FRA-1.0440 FC3-2.0068 BSP   2090
BDE  .3604 BRA  .7737 BC3  .4584 FSP   -807
```

MID-COURSE EXECUTION ACCURACY

```
SGT  704.8 SGR  647.1 SG3  272.4
RRT  .5810 RRF  .7925 RTF  .6886
SGB  956.8 RZ3  .1628 RI3  .8247
SG1  851.8 SG2  435.7 THA  40.81
```

ORBIT DETERMINATION ACCURACY

```
ST   346.3 SR   130.0 SS   569.0
CRT -.3121 CRS  .6228 CST -.9333
LSA  661.8 MSA  155.8 SSA   21.3
EL1  349.4 EL2  130.0 ALF 171.76
```

LAUNCH DATE OCT 9 1970 FLIGHT TIME 82.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 243.231

```
RL  149.43 LAL    .00 LOL  15.29 VL  28.884 GAL -13.32 AZL  87.13 HCA 112.39 SMA 140.89 ECC .23776 INC 2.8661 V1  29.819
RP  107.48 LAP   2.65 LOP 127.70 VP  39.085 GAP  -1.02 AZP  91.09 TAL 242.32 TAP 354.71 RCA 107.39 APO 174.39 V2  35.258
RC  76.087 GL   12.39 GP  -29.85 ZAL 160.02 ZAP  81.13 ETS   1.75 ZAE 147.40 ETE 257.29 ZAC  69.75 ETC 257.11 CLP -79.76
```

PLANETOCENTRIC CONIC

```
C3  42.899 VHL  6.550 DLA   -.22 RAL 213.24 RAD 6568.6 VEL 12.817 PTH   2.33 VHP  4.404 DPA -43.40 RAP 213.14 ECC 1.7060
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 27 52	2397.31	-23.54	53.40	87.60	106.21	1 7 49	1797.3	-21.10	45.58
90.00	12 22 41	5054.76	23.79	223.26	87.75	74.18	13 46 56	4454.8	21.40	215.41
100.00	1 49 6	2135.25	-24.82	33.71	87.18	107.22	2 24 42	1535.2	-22.23	25.87
100.00	13 44 8	4792.06	25.07	203.53	87.34	73.17	15 4 0	4192.1	22.53	195.65
110.00	2 57 7	1922.35	-28.26	16.25	85.88	110.08	3 29 9	1322.4	-25.26	8.36
110.00	14 52 36	4577.72	28.52	185.98	86.07	70.31	16 8 54	3977.7	25.57	178.05

DIFFERENTIAL CORRECTIONS

```
TDE  .3955 TRA -.7519 TC3 -.2327 BAU  .2907
RDE -.0856 RRA -.3279 RC3 -.4503 FAU .10168
FDE 1.7699 FRA-1.0103 FC3-2.0521 BSP   2352
BDE  .4046 BRA  .8203 BC3  .5069 FSP   -790
```

MID-COURSE EXECUTION ACCURACY

```
SGT  803.3 SGR  660.2 SG3  278.7
RRT  .6460 RRF  .8092 RTF  .7473
SGB 1039.7 RZ3  .1694 RI3  .8442
SG1  948.0 SG2  427.0 THA  36.50
```

ORBIT DETERMINATION ACCURACY

```
ST   398.4 SR   115.5 SS   598.5
CRT -.1906 CRS  .5051 CST -.9395
LSA  711.3 MSA  154.2 SSA   20.7
EL1  399.0 EL2  113.1 ALF 176.56
```

LAUNCH DATE OCT 9 1970 FLIGHT TIME 84.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 249.663

```
RL  149.43 LAL    .00 LOL  15.29 VL  28.856 GAL -13.18 AZL  86.93 HCA 115.63 SMA 140.64 ECC .23594 INC 3.0680 V1  29.819
RP  107.48 LAP   2.77 LOP 130.95 VP  39.084 GAP   -.48 AZP  91.33 TAL 241.88 TAP 357.51 RCA 107.46 APO 173.82 V2  35.259
RC  78.289 GL   13.36 GP  -30.91 ZAL 159.16 ZAP  85.76 ETS 359.20 ZAE 145.55 ETE 251.21 ZAC  68.40 ETC 256.70 CLP -85.05
```

PLANETOCENTRIC CONIC

```
C3  42.326 VHL  6.506 DLA    .59 RAL 213.87 RAD 6568.6 VEL 12.794 PTH   2.33 VHP  4.374 DPA -43.58 RAP 210.31 ECC 1.6966
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 24 27	2418.83	-23.94	54.85	88.28	105.59	1 4 46	1818.8	-21.57	46.98
90.00	12 31 11	5026.46	23.26	221.36	87.86	73.37	13 54 57	4426.5	20.76	213.58
100.00	1 46 4	2155.57	-25.22	35.08	87.88	106.60	2 21 59	1555.6	-22.71	27.19
100.00	13 52 15	4764.96	24.53	201.70	87.44	72.36	15 11 40	4165.0	21.88	193.90
110.00	2 54 56	1940.00	-28.67	17.46	86.62	109.47	3 27 16	1340.0	-25.74	9.50
110.00	14 59 52	4553.29	27.95	184.31	86.12	69.47	16 15 45	3953.3	24.90	176.47

DIFFERENTIAL CORRECTIONS

```
TDE  .4605 TRA -.8083 TC3 -.3085 BAU  .3198
RDE -.0581 RRA -.3213 RC3 -.4735 FAU .10280
FDE 1.8187 FRA -.9944 FC3-2.1026 BSP   2720
BDE  .4641 BRA  .8679 BC3  .5651 FSP   -836
```

MID-COURSE EXECUTION ACCURACY

```
SGT  910.9 SGR  679.9 SG3  284.2
RRT  .6902 RRF  .8279 RTF  .7909
SGB 1136.7 RZ3  .1737 RI3  .8644
SG1 1054.2 SG2  425.1 THA  33.37
```

ORBIT DETERMINATION ACCURACY

```
ST   458.3 SR   100.8 SS   614.2
CRT -.0527 CRS  .3546 CST -.9487
LSA  757.7 MSA  151.4 SSA   20.6
EL1  458.3 EL2  100.7 ALF 179.30
```

LAUNCH DATE OCT 9 1970 FLIGHT TIME 86.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 256.057

```
RL  149.43 LAL    .00 LOL  15.29 VL  28.821 GAL -13.03 AZL  86.72 HCA 118.87 SMA 140.34 ECC .23417 INC 3.2812 V1  29.819
RP  107.48 LAP   2.87 LOP 134.20 VP  39.038 GAP    .04 AZP  91.59 TAL 241.34 TAP    .21 RCA 107.48 APO 173.21 V2  35.258
RC  80.507 GL   14.40 GP  -31.92 ZAL 158.21 ZAP  90.19 ETS 356.57 ZAE 143.50 ETE 245.79 ZAC  67.12 ETC 256.33 CLP -90.23
```

PLANETOCENTRIC CONIC

```
C3  41.785 VHL  6.464 DLA   1.43 RAL 214.59 RAD 6568.6 VEL 12.773 PTH   2.32 VHP  4.372 DPA -43.74 RAP 207.65 ECC 1.6877
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 21 6	2441.57	-24.35	56.39	89.08	104.92	1 1 47	1841.6	-22.07	48.46
90.00	12 40 15	4997.24	22.67	219.41	88.07	72.57	14 3 32	4397.2	20.08	211.70
100.00	1 43 6	2177.05	-25.63	36.55	88.69	105.93	2 19 23	1577.1	-23.20	28.59
100.00	14 0 56	4736.98	23.94	199.83	87.63	71.54	15 19 53	4137.0	21.19	192.11
110.00	2 52 52	1958.68	-29.08	18.76	87.47	108.81	3 25 30	1358.7	-26.24	10.73
110.00	15 7 39	4528.12	27.34	182.61	86.26	68.63	16 23 7	3928.1	24.19	174.86

DIFFERENTIAL CORRECTIONS

```
TDE  .5313 TRA -.8618 TC3 -.3880 BAU  .3502
RDE -.0309 RRA -.3125 RC3 -.4924 FAU .10248
FDE 1.8527 FRA -.9706 FC3-2.1233 BSP  3103
BDE  .5322 BRA  .9167 BC3  .6269 FSP  -862
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1028.2 SGR  694.8 SG3  286.2
RRT  .7252 RRF  .8433 RTF  .8244
SGB 1240.9 R23  .1772 R13  .8805
SG1 1167.2 SG2  421.4 THA  30.50
```

ORBIT DETERMINATION ACCURACY

```
ST   524.0 SR    89.6 SS   628.8
CRT  .1372 CRS  .1472 CST -.9561
LSA  809.8 MSA  147.7 SSA   20.4
EL1  524.1 EL2   88.7 ALF   1.38
```

LAUNCH DATE OCT 9 1970 FLIGHT TIME 88.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 262.414

```
RL  149.43 LAL    .00 LOL  15.29 VL  28.781 GAL -12.89 AZL  86.49 HCA 122.11 SMA 140.00 ECC .23246 INC 3.5081 V1  29.819
RP  107.48 LAP   2.97 LOP 137.45 VP  39.008 GAP    .53 AZP  91.87 TAL 240.71 TAP   2.83 RCA 107.46 APO 172.55 V2  35.257
RC  82.739 GL   15.50 GP  -32.91 ZAL 157.15 ZAP  94.39 ETS 353.87 ZAE 141.32 ETE 241.03 ZAC  65.88 ETC 255.98 CLP -95.24
```

PLANETOCENTRIC CONIC

```
C3  41.282 VHL  6.425 DLA   2.31 RAL 215.39 RAD 6568.6 VEL 12.753 PTH   2.32 VHP  4.396 DPA -43.92 RAP 205.19 ECC 1.6794
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 17 43	2465.94	-24.77	58.06	90.00	104.18	0 58 49	1865.9	-22.58	50.07
90.00	12 50 0	4966.76	22.04	217.40	88.38	71.76	14 12 47	4366.8	19.34	209.77
100.00	1 40 8	2200.09	-26.05	38.13	89.62	105.20	2 16 48	1600.1	-23.71	30.11
100.00	14 10 16	4707.83	23.30	197.90	87.92	70.72	15 28 44	4107.8	20.45	190.26
110.00	2 50 51	1978.76	-29.52	20.16	88.45	108.08	3 23 50	1378.8	-26.76	12.06
110.00	15 16 3	4501.93	26.68	180.86	86.51	67.79	16 31 5	3901.9	23.43	173.21

DIFFERENTIAL CORRECTIONS

```
TDE  .6082 TRA -.9168 TC3 -.4695 BAU  .3813
RDE -.0043 RRA -.2938 RC3 -.5069 FAU .10088
FDE 1.8717 FRA -.9041 FC3-2.1156 BSP  3497
BDE  .6082 BRA  .9627 BC3  .6909 FSP  -871
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1152.2 SGR  702.2 SG3  284.3
RRT  .7484 RRF  .8552 RTF  .8455
SGB 1349.3 R23  .1879 R13  .8900
SG1 1282.8 SG2  418.3 THA  27.71
```

ORBIT DETERMINATION ACCURACY

```
ST   595.6 SR    81.1 SS   641.4
CRT  .3640 CRS -.1041 CST -.9607
LSA  866.8 MSA  144.3 SSA   20.1
EL1  596.3 EL2   75.5 ALF   2.89
```

LAUNCH DATE OCT 9 1970 FLIGHT TIME 90.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 268.736

```
RL  149.43 LAL    .00 LOL  15.29 VL  28.736 GAL -12.73 AZL  86.25 HCA 125.36 SMA 139.62 ECC .23080 INC 3.7517 V1  29.819
RP  107.49 LAP   3.06 LOP 140.70 VP  38.973 GAP   1.00 AZP  92.17 TAL 240.00 TAP   5.36 RCA 107.40 APO 171.85 V2  35.255
RC  84.985 GL   16.68 GP  -33.89 ZAL 155.97 ZAP  98.32 ETS 351.12 ZAE 139.06 ETE 236.90 ZAC  64.67 ETC 255.65 CLP-100.04
```

PLANETOCENTRIC CONIC

```
C3  40.825 VHL  6.389 DLA   3.25 RAL 216.27 RAD 6568.6 VEL 12.735 PTH   2.32 VHP  4.444 DPA -44.16 RAP 202.95 ECC 1.6719
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 14 13	2492.42	-25.20	59.88	91.05	103.37	0 55 46	1892.4	-23.11	51.83
90.00	13 0 33	4934.66	21.34	215.31	88.80	70.93	14 22 48	4334.7	18.54	207.75
100.00	1 37 5	2225.15	-26.49	39.87	90.70	104.39	2 14 10	1625.2	-24.25	31.78
100.00	14 20 23	4677.16	22.59	195.89	88.32	69.89	15 38 20	4077.2	19.65	188.34
110.00	2 48 49	2000.65	-29.97	21.70	89.58	107.27	3 22 10	1400.7	-27.31	13.52
110.00	15 25 8	4474.43	25.96	179.05	86.86	66.93	16 39 43	3874.4	22.61	171.49

DIFFERENTIAL CORRECTIONS

```
TDE  .6915 TRA -.9699 TC3 -.5511 BAU  .4125
RDE  .0218 RRA -.2738 RC3 -.5173 FAU .09818
FDE 1.8787 FRA -.8373 FC3-2.0820 BSP  3892
BDE  .6919 BRA 1.0078 BC3  .7558 FSP  -866
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1280.4 SGR  705.6 SG3  279.6
RRT  .7658 RRF  .8655 RTF  .8620
SGB 1461.9 R23  .1973 R13  .8978
SG1 1402.0 SG2  414.3 THA  25.24
```

ORBIT DETERMINATION ACCURACY

```
ST   673.3 SR    78.8 SS   652.7
CRT  .5990 CRS -.3810 CST -.9649
LSA  930.3 MSA  140.4 SSA   19.6
EL1  674.9 EL2   63.0 ALF   4.05
```

LAUNCH DATE OCT 9 1970 FLIGHT TIME 92.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 275.023

```
RL  149.43 LAL    .00 LOL  15.29 VL  28.688 GAL -12.57 AZL  85.98 HCA 128.60 SMA 139.21 ECC .22917 INC 4.0157 V1  29.819
RP  107.50 LAP   3.14 LOP 143.95 VP  38.935 GAP   1.45 AZP  92.51 TAL 239.22 TAP   7.81 RCA 107.31 APO 171.12 V2  35.253
RC  87.241 GL   17.96 GP  -34.89 ZAL 154.68 ZAP 101.95 ETS 348.29 ZAE 136.75 ETE 233.34 ZAC  63.47 ETC 255.35 CLP-104.63
```

PLANETOCENTRIC CONIC

```
C3  40.428 VHL  6.358 DLA   4.27 RAL 217.25 RAD 6568.6 VEL 12.720 PTH   2.31 VHP  4.515 DPA -44.50 RAP 200.92 ECC 1.6653
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 10 30	2521.62	-25.64	61.90	92.27	102.45	0 52 32	1921.6	-23.67	53.78
90.00	13 12 2	4900.52	20.56	213.11	89.33	70.09	14 33 43	4300.5	17.67	205.63
100.00	1 33 51	2252.80	-26.94	41.80	91.93	103.47	2 11 23	1652.8	-24.82	33.64
100.00	14 31 23	4644.58	21.81	193.79	88.83	69.04	15 48 47	4044.6	18.77	186.32
110.00	2 46 41	2024.84	-30.44	23.43	90.87	106.35	3 20 26	1424.8	-27.90	15.15
110.00	15 35 2	4445.30	25.16	177.15	87.32	66.06	16 49 7	3845.3	21.71	169.70

DIFFERENTIAL CORRECTIONS

```
TDE  .7816 TRA-1.0203 TC3 -.6315 BAU  .4435
RDE  .0473 RRA -.2501 RC3 -.5238 FAU .09457
FDE 1.8688 FRA -.7610 FC3-2.0252 BSP  4295
BDE  .7831 BRA 1.0505 BC3  .8205 FSP  -851
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1411.1 SGR  704.7 SG3  272.4
RRT  .7777 RRF  .8743 RTF  .8740
SGB 1577.3 R23  .2083 R13  .9035
SG1 1522.9 SG2  410.5 THA  22.99
```

ORBIT DETERMINATION ACCURACY

```
ST   757.1 SR    82.5 SS   662.5
CRT  .7881 CRS -.6227 CST -.9683
LSA 1000.0 MSA  136.5 SSA   19.0
EL1  759.9 EL2   50.6 ALF   4.93
```

LAUNCH DATE OCT 9 1970 FLIGHT TIME 94.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 281.277

```
RL  149.43 LAL    .00 LOL  15.29 VL  28.635 GAL -12.41 AZL  85.70 HCA 131.84 SMA 138.78 ECC .22759 INC 4.3047 V1  29.819
RP  107.51 LAP   3.21 LOP 147.21 VP  38.893 GAP   1.88 AZP  92.87 TAL 238.36 TAP  10.19 RCA 107.19 APO 170.36 V2  35.249
RC  89.506 GL   19.36 GP  -35.95 ZAL 153.26 ZAP 105.26 ETS 345.38 ZAE 134.42 ETE 230.31 ZAC  62.25 ETC 255.06 CLP-108.97
```

PLANETOCENTRIC CONIC

```
C3  40.109 VHL  6.333 DLA   5.37 RAL 218.31 RAD 6568.5 VEL 12.707 PTH   2.31 VHP  4.609 DPA -44.97 RAP 199.08 ECC 1.6601
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 6 25	2554.25	-26.10	64.18	93.66	101.39	0 48 59	1954.3	-24.27	55.99
90.00	13 24 38	4863.88	19.70	210.77	90.00	69.24	14 45 42	4263.9	16.70	203.38
100.00	1 30 18	2283.71	-27.41	43.97	93.35	102.41	2 8 21	1683.7	-25.43	35.73
100.00	14 43 26	4609.66	20.95	191.56	89.48	68.17	16 0 16	4009.7	17.80	184.18
110.00	2 44 21	2051.95	-30.95	25.38	92.35	105.30	3 18 33	1451.9	-28.54	17.01
110.00	15 45 52	4414.19	24.29	175.16	87.92	65.17	16 59 27	3814.2	20.74	167.82

DIFFERENTIAL CORRECTIONS

```
TDE  .8793 TRA-1.0672 TC3 -.7095 BAU  .4739
RDE  .0725 RRA -.2234 RC3 -.5269 FAU .09028
FDE 1.8501 FRA -.6793 FC3-1.9486 BSP   4703
BDE  .8823 BRA 1.0904 BC3  .8838 FSP   -829
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1543.1 SGR  700.6 SG3  263.1
RRT  .7851 RRF  .8821 RTF  .8828
SGB 1694.7 R23  .2206 R13  .9076
SG1 1645.1 SG2  407.0 THA  20.96
```

ORBIT DETERMINATION ACCURACY

```
ST   847.5 SR    91.7 SS   671.2
CRT  .9062 CRS -.7926 CST -.9712
LSA 1076.6 MSA  132.9 SSA   18.2
EL1  851.5 EL2   38.6 ALF   5.61
```

LAUNCH DATE OCT 9 1970 FLIGHT TIME 96.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 287.501

```
RL  149.43 LAL    .00 LOL  15.29 VL  28.579 GAL -12.24 AZL  85.38 HCA 135.07 SMA 138.31 ECC .22604 INC 4.6244 V1  29.819
RP  107.52 LAP   3.26 LOP 150.46 VP  38.848 GAP   2.30 AZP  93.28 TAL 237.43 TAP  12.50 RCA 107.05 APO 169.58 V2  35.245
RC  91.778 GL   20.89 GP  -37.10 ZAL 151.69 ZAP 108.22 ETS 342.37 ZAE 132.08 ETE 227.74 ZAC  60.98 ETC 254.78 CLP-113.08
```

PLANETOCENTRIC CONIC

```
C3  39.889 VHL  6.316 DLA   6.59 RAL 219.48 RAD 6568.5 VEL 12.699 PTH   2.31 VHP  4.725 DPA -45.62 RAP 197.40 ECC 1.6565
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 1 49	2591.21	-26.57	66.78	95.26	100.17	0 45 0	1991.2	-24.90	58.51
90.00	13 38 34	4824.14	18.72	208.26	90.82	68.36	14 58 58	4224.1	15.61	200.96
100.00	1 26 18	2318.73	-27.90	46.46	94.98	101.19	2 4 56	1718.7	-26.07	38.14
100.00	14 56 46	4571.86	19.97	189.17	90.28	67.28	16 12 58	3971.9	16.72	181.89
110.00	2 41 43	2082.70	-31.48	27.62	94.06	104.07	3 16 26	1482.7	-29.23	19.14
110.00	15 57 50	4380.65	23.32	173.04	88.66	64.26	17 10 51	3780.7	19.66	165.81

DIFFERENTIAL CORRECTIONS

```
TDE  .9911 TRA-1.1051 TC3 -.7790 BAU  .4996
RDE  .1035 RRA -.1873 RC3 -.5203 FAU .08429
FDE 1.8464 FRA -.5603 FC3-1.8294 BSP   4948
BDE  .9964 BRA 1.1209 BC3  .9368 FSP   -750
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1671.9 SGR  685.6 SG3  250.6
RRT  .7885 RRF  .8874 RTF  .8875
SGB 1807.0 R23  .2352 R13  .9085
SG1 1762.1 SG2  400.0 THA  18.93
```

ORBIT DETERMINATION ACCURACY

```
ST   949.1 SR   108.8 SS   687.4
CRT  .9736 CRS -.9098 CST -.9732
LSA 1169.5 MSA  131.5 SSA   16.9
EL1  955.0 EL2   24.7 ALF   6.37
```

LAUNCH DATE OCT 9 1970 FLIGHT TIME 98.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 293.693

```
RL  149.43 LAL    .00 LOL  15.29 VL  28.521 GAL -12.06 AZL  85.02 HCA 138.31 SMA 137.83 ECC .22455 INC 4.9824 V1  29.819
RP  107.53 LAP   3.31 LOP 153.71 VP  38.801 GAP   2.69 AZP  93.72 TAL 236.45 TAP  14.75 RCA 106.88 APO 168.78 V2  35.240
RC  94.056 GL   22.58 GP  -38.39 ZAL 149.95 ZAP 110.82 ETS 339.23 ZAE 129.73 ETE 225.56 ZAC  59.61 ETC 254.50 CLP-116.97
```

PLANETOCENTRIC CONIC

```
C3  39.810 VHL  6.310 DLA   7.93 RAL 220.76 RAD 6568.5 VEL 12.696 PTH   2.31 VHP  4.866 DPA -46.45 RAP 195.82 ECC 1.6552
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 52 34	2633.66	-27.05	69.80	97.12	98.73	24 36 27	2033.7	-25.56	61.45
90.00	13 54 7	4780.70	17.61	205.56	91.83	67.46	15 13 47	4180.7	14.40	198.35
100.00	1 21 40	2358.96	-28.40	49.35	96.87	99.75	2 0 59	1759.0	-26.76	40.93
100.00	15 11 38	4530.63	18.87	186.61	91.27	66.37	16 27 8	3930.6	15.51	179.42
110.00	2 38 38	2118.07	-32.03	30.22	96.04	102.62	3 13 56	1518.1	-29.97	21.62
110.00	16 11 8	4344.29	22.22	170.79	89.59	63.33	17 23 33	3744.3	18.46	163.67

DIFFERENTIAL CORRECTIONS

```
TDE 1.1041 TRA-1.1468 TC3 -.8513 BAU  .5314
RDE  .1237 RRA -.1599 RC3 -.5216 FAU .07999
FDE 1.7919 FRA -.5048 FC3-1.7595 BSP   5505
BDE 1.1110 BRA 1.1579 BC3  .9984 FSP   -763
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1806.9 SGR  683.7 SG3  239.4
RRT  .7884 RRF  .8949 RTF  .8939
SGB 1931.9 R23  .2489 R13  .9125
SG1 1889.5 SG2  402.2 THA  17.42
```

ORBIT DETERMINATION ACCURACY

```
ST  1051.6 SR   122.3 SS   687.2
CRT  .9891 CRS -.9520 CST -.9760
LSA 1255.6 MSA  127.0 SSA   16.2
EL1 1058.5 EL2   17.9 ALF   6.56
```

LAUNCH DATE OCT 9 1970 FLIGHT TIME 100.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 299.856

```
RL  149.43 LAL    .00 LOL  15.29 VL  28.460 GAL -11.87 AZL  84.61 HCA 141.54 SMA 137.34 ECC .22309 INC 5.3868 V1  29.819
RP  107.55 LAP   3.35 LOP 156.96 VP  38.751 GAP   3.07 AZP  94.22 TAL 235.40 TAP  16.95 RCA 106.70 APO 167.97 V2  35.235
RC  98.339 GL   24.46 GP  -39.85 ZAL 148.02 ZAP 113.03 ETS 335.93 ZAE 127.34 ETE 223.74 ZAC  58.11 ETC 254.19 CLP-120.64
```

PLANETOCENTRIC CONIC

```
C3  39.914 VHL  6.318 DLA   9.44 RAL 222.17 RAD 6568.5 VEL 12.700 PTH   2.31 VHP  5.035 DPA -47.52 RAP 194.27 ECC 1.6569
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 46 15	2683.05	-27.51	73.34	99.29	97.01	24 30 58	2083.0	-26.25	64.90
90.00	14 11 39	4732.63	16.33	202.61	93.08	66.54	15 30 32	4132.6	13.01	195.50
100.00	1 16 10	2405.76	-28.89	52.74	99.08	98.03	1 56 16	1805.8	-27.48	44.22
100.00	15 28 22	4485.15	17.60	183.82	92.49	65.44	16 43 7	3885.2	14.14	176.74
110.00	2 34 57	2159.21	-32.61	33.30	98.36	100.88	3 10 56	1559.2	-30.76	24.56
110.00	16 26 4	4304.46	20.98	168.36	90.73	62.38	17 37 49	3704.5	17.12	161.36

DIFFERENTIAL CORRECTIONS

```
TDE 1.2356 TRA-1.1788 TC3 -.9121 BAU  .5585
RDE  .1496 RRA -.1235 RC3 -.5135 FAU .07434
FDE 1.7540 FRA -.4187 FC3-1.6124 BSP   5919
BDE 1.2446 BRA 1.1852 BC3 1.0467 FSP   -726
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1938.6 SGR  672.6 SG3  225.8
RRT  .7845 RRF  .8998 RTF  .8976
SGB 2051.9 R23  .2641 R13  .9141
SG1 2012.2 SG2  401.8 THA  15.87
```

ORBIT DETERMINATION ACCURACY

```
ST  1167.3 SR   141.2 SS   694.3
CRT  .9934 CRS -.9802 CST -.9780
LSA 1359.7 MSA  124.9 SSA   15.0
EL1 1175.7 EL2   16.0 ALF   6.86
```

LAUNCH DATE OCT 9 1970 FLIGHT TIME 102.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 305.991

RL 149.43 LAL .00 LOL 15.29 VL 28.396 GAL -11.68 AZL 84.14 HCA 144.77 SMA 136.83 ECC .22167 INC 5.8572 V1 29.819
RP 107.57 LAP 3.37 LOP 160.20 VP 38.699 GAP 3.43 AZP 94.79 TAL 234.31 TAP 19.08 RCA 106.50 APO 167.16 V2 35.229
RC 98.624 GL 26.56 GP -41.54 ZAL 145.86 ZAP 114.83 ETS 332.45 ZAE 124.89 ETE 222.22 ZAC 56.42 ETC 253.85 CLP-124.13

PLANETOCENTRIC CONIC

C3 40.272 VHL 6.346 DLA 11.15 RAL 223.73 RAD 6568.5 VEL 12.714 PTH 2.31 VHP 5.237 DPA -48.84 RAP 192.66 ECC 1.6628

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 38 37	2741.36	-27.92	77.56	101.83	94.93	24 24 18	2141.4	-26.94	69.03
90.00	14 31 42	4678.83	14.84	199.36	94.63	65.60	15 49 41	4078.8	11.42	192.35
100.00	1 9 30	2460.95	-29.35	56.78	101.68	95.95	1 50 31	1861.0	-28.21	48.16
100.00	15 47 27	4434.47	16.14	180.77	94.00	64.49	17 1 21	3834.5	12.58	173.79
110.00	2 30 25	2207.70	-33.17	36.97	101.10	98.78	3 7 13	1607.7	-31.60	28.09
110.00	16 43 0	4260.49	19.57	165.73	92.16	61.40	17 54 1	3660.5	15.60	158.86

DIFFERENTIAL CORRECTIONS
TDE 1.3868 TRA-1.2023 TC3 -.9609 BAU .5829
RDE .1773 RRA -.0813 RC3 -.4988 FAU .06812
FDE 1.7177 FRA -.3286 FC3-1.4644 BSP 6284
BDE 1.3981 BRA 1.2050 BC3 1.0826 FSP -675

MID-COURSE EXECUTION ACCURACY
SGT 2068.6 SGR 657.3 SG3 210.8
RRT .7761 RRF .9028 RTF .9003
SGB 2170.5 R23 .2798 R13 .9148
SG1 2133.0 SG2 402.0 THA 14.38

ORBIT DETERMINATION ACCURACY
ST 1295.9 SR 162.8 SS 703.3
CRT .9889 CRS -.9935 CST -.9799
LSA 1478.1 MSA 124.3 SSA 13.5
EL1 1305.8 EL2 24.0 ALF 7.08

LAUNCH DATE OCT 9 1970 FLIGHT TIME 104.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 312.099

RL 149.43 LAL .00 LOL 15.29 VL 28.331 GAL -11.48 AZL 83.59 HCA 148.00 SMA 136.31 ECC .22030 INC 6.4068 V1 29.819
RP 107.59 LAP 3.39 LOP 163.45 VP 38.645 GAP 3.78 AZP 95.44 TAL 233.16 TAP 21.16 RCA 106.28 APO 166.34 V2 35.222
RC 100.910 GL 28.94 GP -43.52 ZAL 143.44 ZAP 116.18 ETS 328.74 ZAE 122.35 ETE 220.92 ZAC 54.48 ETC 253.43 CLP-127.47

PLANETOCENTRIC CONIC

C3 40.992 VHL 6.403 DLA 13.08 RAL 225.46 RAD 6568.6 VEL 12.742 PTH 2.32 VHP 5.480 DPA -50.43 RAP 190.85 ECC 1.6746

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 29 8	2811.29	-28.22	82.65	104.84	92.40	24 16 0	2211.3	-27.59	74.04
90.00	14 54 58	4617.85	13.09	195.74	96.58	64.67	16 11 56	4017.8	9.57	188.82
100.00	1 1 13	2527.03	-29.72	61.65	104.76	93.41	1 43 20	1927.0	-28.93	52.94
100.00	16 9 31	4377.34	14.44	177.38	95.91	63.54	17 22 28	3777.3	10.77	170.51
110.00	2 24 46	2265.60	-33.68	41.41	104.36	96.20	3 2 31	1665.6	-32.46	32.39
110.00	17 2 27	4211.54	17.95	162.86	93.96	60.41	18 12 39	3611.5	13.88	156.11

DIFFERENTIAL CORRECTIONS
TDE 1.3000 TRA-1.2202 TC3 -.9982 BAU .6071
RDE .2026 RRA -.0364 RC3 -.4805 FAU .06202
FDE 1.6715 FRA -.2490 FC3-1.3097 BSP 6724
BDE 1.5731 BRA 1.2207 BC3 1.1078 FSP -638

MID-COURSE EXECUTION ACCURACY
SGT 2199.9 SGR 642.3 SG3 195.2
RRT .7622 RRF .9034 RTF .9032
SGB 2291.7 R23 .2944 R13 .9162
SG1 2255.6 SG2 405.6 THA 12.97

ORBIT DETERMINATION ACCURACY
ST 1436.5 SR 182.5 SS 709.4
CRT .9809 CRS -.9977 CST -.9819
LSA 1607.7 MSA 123.7 SSA 12.0
EL1 1447.6 EL2 35.2 ALF 7.11

LAUNCH DATE OCT 9 1970 FLIGHT TIME 106.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 318.180

RL 149.43 LAL .00 LOL 15.29 VL 28.265 GAL -11.28 AZL 82.93 HCA 151.22 SMA 135.78 ECC .21897 INC 7.0652 V1 29.819
RP 107.61 LAP 3.39 LOP 166.70 VP 38.589 GAP 4.11 AZP 96.20 TAL 231.97 TAP 23.20 RCA 106.05 APO 165.52 V2 35.215
RC 103.196 GL 31.64 GP -45.84 ZAL 140.70 ZAP 117.02 ETS 324.75 ZAE 119.65 ETE 219.78 ZAC 52.22 ETC 252.90 CLP-130.71

PLANETOCENTRIC CONIC

C3 42.236 VHL 6.499 DLA 15.30 RAL 227.40 RAD 6568.6 VEL 12.791 PTH 2.33 VHP 5.779 DPA -52.33 RAP 188.69 ECC 1.6951

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 17 3	2896.74	-28.31	88.90	108.42	89.27	24 5 20	2296.7	-28.11	80.24
90.00	15 22 32	4547.48	11.01	191.62	99.08	63.75	16 38 19	3947.5	7.39	184.81
100.00	0 50 41	2607.47	-29.89	67.63	108.42	90.27	1 34 9	2007.5	-29.53	58.84
100.00	16 35 31	4311.99	12.42	173.58	98.35	62.59	17 47 23	3712.0	8.65	166.82
110.00	2 17 33	2335.70	-34.07	46.85	108.28	93.00	2 56 28	1735.7	-33.28	37.70
110.00	17 25 9	4156.52	16.07	159.70	96.26	59.42	18 34 25	3556.5	11.90	153.08

DIFFERENTIAL CORRECTIONS
TDE 1.7674 TRA-1.2272 TC3-1.0159 BAU .6281
RDE .2271 RRA .0169 RC3 -.4530 FAU .05547
FDE 1.6265 FRA -.1691 FC3-1.1370 BSP 7131
BDE 1.7820 BRA 1.2273 BC3 1.1123 FSP -588

MID-COURSE EXECUTION ACCURACY
SGT 2330.2 SGR 622.1 SG3 178.4
RRT .7396 RRF .8990 RTF .9059
SGB 2411.8 R23 .3081 R13 .9173
SG1 2376.6 SG2 410.5 THA 11.52

ORBIT DETERMINATION ACCURACY
ST 1594.6 SR 201.0 SS 716.7
CRT .9705 CRS -.9968 CST -.9838
LSA 1755.4 MSA 124.6 SSA 10.4
EL1 1606.5 EL2 48.1 ALF 6.98

LAUNCH DATE OCT 9 1970 FLIGHT TIME 108.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 324.234

RL 149.43 LAL .00 LOL 15.29 VL 28.197 GAL -11.06 AZL 82.13 HCA 154.44 SMA 135.25 ECC .21769 INC 7.8734 V1 29.819
RP 107.64 LAP 3.39 LOP 169.94 VP 38.532 GAP 4.42 AZP 97.11 TAL 230.74 TAP 25.18 RCA 105.81 APO 164.70 V2 35.207
RC 105.482 GL 34.73 GP -48.60 ZAL 137.58 ZAP 117.30 ETS 320.42 ZAE 116.72 ETE 218.70 ZAC 49.55 ETC 252.20 CLP-133.92

PLANETOCENTRIC CONIC

C3 44.271 VHL 6.654 DLA 17.86 RAL 229.60 RAD 6568.7 VEL 12.870 PTH 2.34 VHP 6.156 DPA -54.52 RAP 185.89 ECC 1.7286

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 1 5	3003.64	-27.97	96.70	112.66	85.37	23 51 9	2403.6	-28.32	88.05
90.00	15 56 3	4464.29	8.46	186.83	102.35	62.88	17 10 28	3864.3	4.76	180.11
100.00	0 36 52	2707.44	-29.69	75.05	112.80	86.37	1 22 0	2107.4	-29.88	66.25
100.00	17 6 53	4235.72	9.99	169.22	101.54	61.68	18 17 29	3635.7	6.13	162.56
110.00	2 8 8	2421.91	-34.17	53.58	113.01	89.02	2 48 30	1821.9	-33.93	44.34
110.00	17 52 7	4094.02	13.88	156.19	99.25	58.44	19 0 21	3494.0	9.60	149.69

DIFFERENTIAL CORRECTIONS
TDE 2.0239 TRA-1.2197 TC3-1.0071 BAU .6444
RDE .2469 RRA .0809 RC3 -.4140 FAU .04854
FDE 1.5815 FRA -.0913 FC3 -.9493 BSP 7489
BDE 2.0389 BRA 1.2224 BC3 1.0888 FSP -530

MID-COURSE EXECUTION ACCURACY
SGT 2459.9 SGR 595.0 SG3 160.6
RRT .7024 RRF .8852 RTF .9090
SGB 2530.8 R23 .3200 R13 .9187
SG1 2496.2 SG2 417.4 THA 9.92

ORBIT DETERMINATION ACCURACY
ST 1774.4 SR 214.4 SS 724.7
CRT .9567 CRS -.9915 CST -.9857
LSA 1924.5 MSA 126.7 SSA 8.8
EL1 1786.3 EL2 62.0 ALF 6.60

LAUNCH DATE OCT 9 1970 FLIGHT TIME 110.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 330.263

RL 149.43 LAL .00 LOL 15.29 VL 28.128 GAL -10.84 AZL 81.10 HCA 157.65 SMA 134.72 ECC .21645 INC 8.8963 V1 29.819
RP 107.66 LAP 3.37 LOP 173.19 VP 38.474 GAP 4.73 AZP 98.24 TAL 229.46 TAP 27.11 RCA 105.56 APO 163.88 V2 35.198
RC 107.765 GL 38.28 GP -51.87 ZAL 134.00 ZAP 116.95 ETS 315.64 ZAE 113.47 ETE 217.51 ZAC 46.36 ETC 251.20 CLP-137.23

PLANETOCENTRIC CONIC

C3 47.560 VHL 6.896 DLA 20.81 RAL 232.14 RAD 6568.8 VEL 12.997 PTH 2.37 VHP 6.647 DPA -56.99 RAP 182.07 ECC 1.7827

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 38 50	3142.19	-26.81	106.66	117.63	80.51	23 31 12	2542.2	-27.84	98.15
90.00	16 38 35	4361.71	5.24	181.02	106.78	62.13	17 51 17	3761.7	1.47	174.37
100.00	0 17 57	2835.28	-28.77	84.44	117.98	81.52	1 5 12	2235.3	-29.64	75.74
100.00	17 46 5	4143.86	6.98	184.06	105.82	60.86	18 55 9	3543.9	3.05	157.48
110.00	1 55 32	2529.95	-33.73	61.90	118.71	84.07	2 37 42	1930.0	-34.18	52.76
110.00	18 24 59	4021.95	11.28	152.22	103.23	57.51	19 32 1	3421.9	6.91	145.85

DIFFERENTIAL CORRECTIONS
TDE 2.3571 TRA-1.1864 TC3 -.9591 BAU .6508
RDE .2568 RRA .1644 RC3 -.3572 FAU .04089
FDE 1.5434 FRA -.0089 FC3 -.7443 BSP 7631
BDE 2.3710 BRA 1.1977 BC3 1.0235 FSP -446

MID-COURSE EXECUTION ACCURACY
SGT 2587.8 SGR 556.5 SG3 141.9
RRT .6358 RRF .8514 RTF .9122
SGB 2647.0 R23 .3307 R13 .9200
SG1 2612.5 SG2 425.5 THA 8.00

ORBIT DETERMINATION ACCURACY
ST 1984.1 SR 218.3 SS 736.7
CRT .9339 CRS -.9783 CST -.9875
LSA 2123.6 MSA 131.5 SSA 7.1
EL1 1994.6 EL2 77.6 ALF 5.88

LAUNCH DATE OCT 9 1970 FLIGHT TIME 112.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 336.260

RL 149.43 LAL .00 LOL 15.29 VL 28.058 GAL -10.60 AZL 79.76 HCA 160.85 SMA 134.19 ECC .21526 INC10.2410 V1 29.819
RP 107.69 LAP 3.34 LOP 176.43 VP 38.414 GAP 5.02 AZP 99.69 TAL 228.15 TAP 29.00 RCA 105.30 APO 163.07 V2 35.189
RC 110.046 GL 42.35 GP -55.77 ZAL 129.88 ZAP 115.87 ETS 310.23 ZAE 109.76 ETE 215.94 ZAC 42.54 ETC 249.73 CLP-140.86

PLANETOCENTRIC CONIC

C3 52.971 VHL 7.278 DLA 24.19 RAL 235.13 RAD 6568.9 VEL 13.203 PTH 2.41 VHP 7.317 DPA -59.64 RAP 176.58 ECC 1.8718

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 4 21	3334.50	-23.95	120.01	123.13	74.42	22 59 56	2734.5	-25.86	111.86
90.00	17 36 56	4223.10	.78	173.27	113.07	61.69	18 47 19	3623.1	-3.01	166.64
100.00	23 45 59	3006.81	-26.43	96.64	123.87	75.51	24 36 6	2406.8	-28.17	88.26
100.00	18 37 59	4026.02	3.04	157.54	111.82	60.25	19 45 5	3426.0	-.95	151.01
110.00	1 38 0	2668.69	-32.25	72.53	125.44	78.00	2 22 29	2068.7	-33.57	63.54
110.00	19 8 24	3936.91	8.13	147.65	108.68	56.68	20 12 1	3336.9	3.69	141.37

DIFFERENTIAL CORRECTIONS
TDE 2.7731 TRA-1.1457 TC3 -.8858 BAU .6612
RDE .2193 RRA .2563 RC3 -.2951 FAU .03433
FDE 1.4765 FRA .0379 FC3 -.5611 BSP 8302
BDE 2.7817 BRA 1.1740 BC3 .9336 FSP -417

MID-COURSE EXECUTION ACCURACY
SGT 2721.3 SGR 513.1 SG3 122.8
RRT .5099 RRF .7663 RTF .9202
SGB 2769.3 R23 .3308 R13 .9255
SG1 2734.2 SG2 439.3 THA 5.64

ORBIT DETERMINATION ACCURACY
ST 2203.4 SR 185.4 SS 735.0
CRT .8756 CRS -.9354 CST -.9897
LSA 2326.4 MSA 132.3 SSA 5.8
EL1 2209.4 EL2 89.3 ALF 4.22

LAUNCH DATE OCT 9 1970 FLIGHT TIME 114.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 342.226

RL 149.43 LAL .00 LOL 15.29 VL 27.988 GAL -10.36 AZL 77.90 HCA 164.04 SMA 133.65 ECC .21410 INC12.0997 V1 29.819
RP 107.72 LAP 3.30 LOP 179.67 VP 38.354 GAP 5.30 AZP 101.65 TAL 228.79 TAP 30.83 RCA 105.04 APO 162.27 V2 35.179
RC 112.324 GL 47.00 GP -60.42 ZAL 125.09 ZAP 113.95 ETS 303.75 ZAE 105.44 ETE 213.44 ZAC 37.91 ETC 247.38 CLP-145.31

PLANETOCENTRIC CONIC

C3 62.265 VHL 7.891 DLA 28.03 RAL 238.76 RAD 6569.2 VEL 13.551 PTH 2.48 VHP 8.281 DPA -62.19 RAP 168.49 ECC 2.0247

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	20 40 47	3702.60	-15.29	143.49	127.20	65.87	21 42 29	3102.6	-18.42	136.22
90.00	19 29 27	3934.22	-8.43	157.05	123.85	62.87	20 35 2	3334.2	-12.01	150.19
100.00	22 54 58	3269.98	-20.77	114.11	129.66	68.01	23 49 28	2670.0	-23.57	106.44
100.00	19 57 57	3842.06	-3.20	147.44	121.00	60.26	21 1 59	3242.1	-7.13	140.86
110.00	1 11 48	2854.01	-28.84	85.87	132.99	70.80	1 59 22	2254.0	-31.18	77.45
110.00	20 1 32	3830.80	4.12	142.04	116.45	56.04	21 5 23	3230.8	-.36	135.83

DIFFERENTIAL CORRECTIONS
TDE 3.3634 TRA-1.0454 TC3 -.7515 BAU .6493
RDE .0979 RRA .3897 RC3 -.2085 FAU .02689
FDE 1.4257 FRA .0925 FC3 -.3739 BSP 8645
BDE 3.3648 BRA 1.1157 BC3 .7799 FSP -352

MID-COURSE EXECUTION ACCURACY
SGT 2847.9 SGR 464.9 SG3 103.2
RRT .2177 RRF .5263 RTF .9301
SGB 2885.6 R23 .3264 R13 .9320
SG1 2849.7 SG2 453.5 THA 2.09

ORBIT DETERMINATION ACCURACY
ST 2456.0 SR 120.0 SS 741.0
CRT .5060 CRS -.6112 CST -.9919
LSA 2564.5 MSA 136.7 SSA 4.5
EL1 2456.8 EL2 103.5 ALF 1.42

LAUNCH DATE OCT 9 1970 FLIGHT TIME 116.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 348.149

RL 149.43 LAL .00 LOL 15.29 VL 27.917 GAL -10.11 AZL 75.15 HCA 167.20 SMA 133.12 ECC .21294 INC14.8501 V1 29.819
RP 107.75 LAP 3.26 LOP 182.90 VP 38.293 GAP 5.55 AZP 104.50 TAL 225.39 TAP 32.59 RCA 104.77 APO 161.47 V2 35.169
RC 114.599 GL 52.16 GP -65.88 ZAL 119.57 ZAP 111.11 ETS 295.10 ZAE 100.22 ETE 208.72 ZAC 32.27 ETC 243.26 CLP-151.81

PLANETOCENTRIC CONIC

C3 79.545 VHL 8.919 DLA 32.21 RAL 243.31 RAD 6569.6 VEL 14.174 PTH 2.58 VHP 9.773 DPA -64.02 RAP 156.64 ECC 2.3091

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.97	18 18 54	4274.52	-11.51	183.94	134.48	59.71	19 30 8	3674.5	-15.45	177.20
106.03	22 27 41	3477.88	-11.49	124.90	134.47	59.70	23 25 38	2877.9	-15.43	118.16
73.97	18 18 54	4274.52	-11.51	183.94	134.48	59.71	19 30 8	3674.5	-15.45	177.20
106.03	22 27 41	3477.88	-11.49	124.90	134.47	59.70	23 25 38	2877.9	-15.43	118.16
110.00	0 24 21	3129.39	-21.35	103.74	140.12	62.65	1 16 31	2529.4	-24.84	96.33
110.00	21 25 19	3671.00	-1.98	133.70	128.45	55.87	22 26 30	3071.0	-6.45	127.46

DIFFERENTIAL CORRECTIONS
TDE 4.2062 TRA -.8513 TC3 -.5624 BAU .6091
RDE -.2765 RRA .5732 RC3 -.1089 FAU .01952
FDE 1.3848 FRA .1368 FC3 -.2124 BSP 9053
BDE 4.2152 BRA 1.0263 BC3 .5728 FSP -292

MID-COURSE EXECUTION ACCURACY
SGT 2953.9 SGR 508.6 SG3 84.0
RRT -.3770 RRF -.0793 RTF .9457
SGB 2997.3 R23 -.3094 R13 -.9425
SG1 2960.3 SG2 470.1 THA 176.19

ORBIT DETERMINATION ACCURACY
ST 2709.2 SR 220.5 SS 751.7
CRT -.8454 CRS .7838 CST -.9943
LSA 2816.6 MSA 141.7 SSA 3.3
EL1 2715.6 EL2 117.5 ALF 176.06

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LAUNCH DATE  OCT  9 1970                          FLIGHT TIME 118.00                          ARRIVAL DATE  FEB  4 1971

 HELIOCENTRIC CONIC                                DISTANCE 354.008
  RL  149.43 LAL     .00 LOL  15.29 VL  27.846 GAL  -9.83 AZL  70.66 HCA 170.31 SMA 132.59 ECC .21173 INC19.3442 V1  29.819
  RP  107.79 LAP    3.20 LOP 186.14 VP  38.231 GAP   5.79 AZP 109.09 TAL 223.94 TAP  34.25 RCA 104.52 APO 160.67 V2  35.158
  RC 116.871 GL    57.49 GP  -72.01 ZAL 113.28 ZAP 107.30 ETS 280.92 ZAE  93.66 ETE 198.23 ZAC  25.32 ETC 235.10 CLP-164.32
 PLANETOCENTRIC CONIC
  C3 116.153 VHL 10.777 DLA  36.32 RAL 249.28 RAD 6570.2 VEL 15.411 PTH   2.75 VHP 12.321 DPA -63.87 RAP 140.75 ECC 2.9116
  LNCH AZMTH   LNCH TIME  L-I TIME    INJ LAT    INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     66.23     17 56  7   4498.36      -9.63     200.19     145.95      54.80   19 11  6    3898.4     -14.17     193.88
    113.77     23 38  1   3417.82      -9.61     118.99     145.94      54.80   24 34 59    2817.8     -14.15     112.67
     66.23     17 56  7   4498.36      -9.63     200.19     145.95      54.80   19 11  6    3898.4     -14.17     193.88
    113.77     23 38  1   3417.82      -9.61     118.99     145.94      54.80   24 34 59    2817.8     -14.15     112.67
     66.23     17 56  7   4498.36      -9.63     200.19     145.95      54.80   19 11  6    3898.4     -14.17     193.88
    113.77     23 38  1   3417.82      -9.61     118.99     145.94      54.80   24 34 59    2817.8     -14.15     112.67
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY            ORBIT DETERMINATION ACCURACY
  TDE 5.3810 TRA -.4091 TC3 -.3193 BAU  .4965      SGT 2954.7 SGR  934.8 SG3   66.9        ST  2861.9 SR   784.8 SS   788.9
  RDE-1.4455 RRA  .8050 RC3 -.0186 FAU .01194      RRT -.8389 RRF -.6874 RTF  .9690        CRT -.9845 CRS  .9680 CST -.9970
  FDE 1.3923 FRA  .1839 FC3 -.0890 BSP   9334      SGB 3099.1 R23 -.2728 R13 -.9580        LSA 3067.0 MSA  149.4 SSA    2.2
  BDE 5.5718 BRA  .9030 BC3  .3198 FSP   -232      SG1 3059.9 SG2  491.4 THA 164.73        EL1 2964.6 EL2  132.9 ALF 164.86

LAUNCH DATE  OCT  9 1970                          FLIGHT TIME 120.00                          ARRIVAL DATE  FEB  6 1971

 HELIOCENTRIC CONIC                                DISTANCE 359.738
  RL  149.43 LAL     .00 LOL  15.29 VL  27.774 GAL  -9.53 AZL  62.09 HCA 173.31 SMA 132.07 ECC .21030 INC27.9073 V1  29.819
  RP  107.82 LAP    3.13 LOP 189.37 VP  38.169 GAP   5.99 AZP 117.75 TAL 222.41 TAP  35.72 RCA 104.30 APO 159.84 V2  35.147
  RC 119.138 GL    61.54 GP  -76.84 ZAL 106.34 ZAP 102.58 ETS 251.39 ZAE  84.67 ETE 171.96 ZAC  16.72 ETC 218.95 CLP 163.06
 PLANETOCENTRIC CONIC
  C3 212.640 VHL 14.582 DLA  39.01 RAL 257.37 RAD 6571.2 VEL 18.275 PTH   3.03 VHP 17.348 DPA -59.56 RAP 123.74 ECC 4.4995
  LNCH AZMTH   LNCH TIME  L-I TIME    INJ LAT    INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     61.96     18  6 44   4668.03      -5.75     211.12     160.25      51.35   19 24 32    4068.0     -10.70     205.19
    118.04      0 35 55   3461.03      -5.73     119.57     160.24      51.35    1 33 36    2861.0     -10.68     113.64
     61.96     18  6 44   4668.03      -5.75     211.12     160.25      51.35   19 24 32    4068.0     -10.70     205.19
    118.04      0 35 55   3461.03      -5.73     119.57     160.24      51.35    1 33 36    2861.0     -10.68     113.64
     61.96     18  6 44   4668.03      -5.75     211.12     160.25      51.35   19 24 32    4068.0     -10.70     205.19
    118.04      0 35 55   3461.03      -5.73     119.57     160.24      51.35    1 33 36    2861.0     -10.68     113.64
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY            ORBIT DETERMINATION ACCURACY
  TDE 6.0171 TRA  .6766 TC3 -.0718 BAU  .2064      SGT 2398.0 SGR 2075.1 SG3   53.8        ST  2366.4 SR  2047.4 SS   910.7
  RDE-5.2038 RRA  .6971 RC3 -.0111 FAU .00296      RRT -.9459 RRF -.9218 RTF  .9966        CRT -.9955 CRS  .9929 CST -.9997
  FDE 1.5429 FRA  .2694 FC3 -.0121 BSP   9503      SGB 3171.2 R23 -.2033 R13 -.9777        LSA 3255.2 MSA  157.7 SSA    1.4
  BDE 7.9552 BRA  .9715 BC3  .0726 FSP   -182      SG1 3128.9 SG2  516.2 THA 139.36        EL1 3125.7 EL2  147.2 ALF 139.15

LAUNCH DATE  OCT  9 1970                          FLIGHT TIME 122.00                          ARRIVAL DATE  FEB  8 1971

 HELIOCENTRIC CONIC                                DISTANCE 365.078
  RL  149.43 LAL     .00 LOL  15.29 VL  27.703 GAL  -9.14 AZL  41.39 HCA 175.94 SMA 131.55 ECC .20799 INC48.6065 V1  29.819
  RP  107.86 LAP    3.05 LOP 192.60 VP  38.107 GAP   6.07 AZP 138.53 TAL 220.68 TAP  36.62 RCA 104.19 APO 158.91 V2  35.136
  RC 121.402 GL    58.93 GP  -70.05 ZAL  99.38 ZAP  97.44 ETS 206.96 ZAE  69.69 ETE 130.68 ZAC  11.40 ETC 238.18 CLP 112.31
 PLANETOCENTRIC CONIC
  C3 573.826 VHL 23.955 DLA  35.51 RAL 268.02 RAD 6572.5 VEL 26.365 PTH   3.38 VHP 29.500 DPA -46.93 RAP 111.36 ECC10.4437
  LNCH AZMTH   LNCH TIME  L-I TIME    INJ LAT    INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     67.62     19 18 31   4689.97      -1.05     209.35     176.56      54.50   20 36 41    4090.0      -5.68     203.23
    112.38      0 49  6   3654.92      -1.03     131.78     176.55      54.50    1 50  1    3054.9      -5.66     125.66
     67.62     19 18 31   4689.97      -1.05     209.35     176.56      54.50   20 36 41    4090.0      -5.68     203.23
    112.38      0 49  6   3654.92      -1.03     131.78     176.55      54.50    1 50  1    3054.9      -5.66     125.66
     67.62     19 18 31   4689.97      -1.05     209.35     176.56      54.50   20 36 41    4090.0      -5.68     203.23
    112.38      0 49  6   3654.92      -1.03     131.78     176.55      54.50    1 50  1    3054.9      -5.66     125.66
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY            ORBIT DETERMINATION ACCURACY
  TDE 1.4763 TRA 1.8978 TC3 -.0157 BAU 1.1651      SGT  664.3 SGR 3038.3 SG3   46.7        ST   390.7 SR  2910.8 SS  1277.9
  RD-12.1526 RRA-1.7310 RC3 -.1511 FAU-.01671      RRT -.6222 RRF -.9888 RTF  .7279        CRT -.9248 CRS  .9988 CST -.9423
  FDE 2.0854 FRA  .5747 FC3  .0252 BSP   9324      SGB 3110.1 R23 -.1206 R13 -.9919        LSA 3199.1 MSA  155.7 SSA    1.6
  BDE12.2420 BRA 2.5687 BC3  .1519 FSP   -152      SG1 3067.2 SG2  515.2 THA  97.97        EL1 2933.2 EL2  147.5 ALF  97.10

LAUNCH DATE  OCT  9 1970                          FLIGHT TIME 124.00                          ARRIVAL DATE  FEB 10 1971

 HELIOCENTRIC CONIC                                DISTANCE 374.887
  RL  149.43 LAL     .00 LOL  15.29 VL  27.632 GAL  -9.68 AZL 169.69 HCA 183.01 SMA 131.04 ECC .21775 INC79.6946 V1  29.819
  RP  107.89 LAP    2.96 LOP 195.83 VP  38.044 GAP   7.43 AZP  10.32 TAL 220.88 TAP  43.88 RCA 102.51 APO 159.57 V2  35.124
  RC 123.660 GL   -46.67 GP   51.35 ZAL  96.47 ZAP  95.66 ETS 177.34 ZAE  57.65 ETE 250.36 ZAC 129.28 ETC 268.04 CLP  99.08
 PLANETOCENTRIC CONIC
  C31357.475 VHL 36.844 DLA -69.87 RAL 281.72 RAD 6573.1 VEL 38.455 PTH   3.55 VHP 47.751 DPA  73.22 RAP 138.73 ECC23.3406
  LNCH AZMTH   LNCH TIME  L-I TIME    INJ LAT    INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
     23.01      5 44 49   2449.39      -1.17      78.26     192.14     159.87    6 25 39    1849.4       6.34      75.92
    156.99     16 12  4    696.74      -1.16     288.36     192.15     159.87   16 23 41      96.7       6.34     286.02
     23.01      5 44 49   2449.39      -1.17      78.26     192.14     159.87    6 25 39    1849.4       6.34      75.92
    156.99     16 12  4    696.74      -1.16     288.36     192.15     159.87   16 23 41      96.7       6.34     286.02
     23.01      5 44 49   2449.39      -1.17      78.26     192.14     159.87    6 25 39    1849.4       6.34      75.92
    156.99     16 12  4    696.74      -1.16     288.36     192.15     159.87   16 23 41      96.7       6.34     286.02
 DIFFERENTIAL CORRECTIONS                          MID-COURSE EXECUTION ACCURACY            ORBIT DETERMINATION ACCURACY
  TDE 5.7455 TRA  .1830 TC3 -.0855 BAU 3.5292      SGT 1096.4 SGR 2498.6 SG3   46.8        ST   894.0 SR  1850.6 SS  1678.0
  RD-11.6962 RRA 2.5022 RC3  .1747 FAU-.05514      RRT -.8551 RRF  .9990 RTF -.8402        CRT -.9776 CRS-1.0000 CST  .9761
  FDE-2.5672 FRA  .5707 FC3  .0352 BSP   8678      SGB 2728.6 R23 -.1047 R13  .9939        LSA 2647.2 MSA  180.4 SSA    2.1
  BDE13.0312 BRA 2.5089 BC3  .1945 FSP   -155      SG1 2676.5 SG2  530.7 THA 111.45        EL1 2048.2 EL2  170.0 ALF 115.47
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LAUNCH DATE OCT 9 1970 FLIGHT TIME 126.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 379.292

RL	149.43	LAL	.00	LOL	15.29	VL	27.561	GAL	-9.09	AZL	127.27	HCA	184.72	SMA	130.53	ECC	.21303	INC	37.2747	V1	29.819
RP	107.93	LAP	2.86	LOP	199.05	VP	37.981	GAP	7.24	AZP	52.82	TAL	218.77	TAP	43.49	RCA	102.73	APO	158.34	V2	35.112
RC	125.912	GL	-61.30	GP	72.66	ZAL	101.84	ZAP	100.59	ETS	147.83	ZAE	82.54	ETE	223.97	ZAC	153.18	ETC	250.72	CLP	128.05

PLANETOCENTRIC CONIC

C3	353.095	VHL	18.791	DLA	-83.16	RAL	225.51	RAD	6571.9	VEL	21.781	PTH	3.23	VHP	24.847	DPA	71.56	RAP	231.99	ECC	6.8110

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
7.77	1 29 57	2387.94	4.71	85.21	134.93	173.14	2 9 45	1787.9	12.65	84.65
172.23	12 58 30	5870.34	4.71	258.07	134.95	173.14	14 36 20	5270.3	12.65	257.51
7.77	1 29 57	2387.94	4.71	85.21	134.93	173.14	2 9 45	1787.9	12.65	84.65
172.23	12 58 30	5870.34	4.71	258.07	134.95	173.14	14 36 20	5270.3	12.65	257.51
7.77	1 29 57	2387.94	4.71	85.21	134.93	173.14	2 9 45	1787.9	12.65	84.65
172.23	12 58 30	5870.34	4.71	258.07	134.95	173.14	14 36 20	5270.3	12.65	257.51

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-2.4395	TRA	-.0146	TC3	-.0113	BAU	.4723	SGT	746.0	SGR	3292.2	SG3	53.9	ST	743.9	SR	2661.1	SS	1188.3
RDE	-8.5041	RRA	-.7786	RC3	.0994	FAU	-.00306	RRT	.8093	RRF	.9858	RTF	.8952	CRT	.9777	CRS	-.9980	CST	-.9891
FDE	-1.7913	FRA	-.1168	FC3	.0075	BSP	10527	SGB	3375.6	R23	-.1421	R13	.9895	LSA	3003.6	MSA	159.9	SSA	1.0
BDE	8.8471	BRA	.7787	BC3	.1001	FSP	-174	SG1	3348.0	SG2	430.9	THA	79.43	EL1	2759.0	EL2	150.7	ALF	74.67

LAUNCH DATE OCT 9 1970 FLIGHT TIME 128.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 384.751

RL	149.43	LAL	.00	LOL	15.29	VL	27.490	GAL	-8.71	AZL	111.57	HCA	187.50	SMA	130.04	ECC	.21136	INC	21.5699	V1	29.819
RP	107.97	LAP	2.75	LOP	202.27	VP	37.918	GAP	7.35	AZP	68.60	TAL	217.06	TAP	44.57	RCA	102.55	APO	157.52	V2	35.099
RC	128.158	GL	-59.69	GP	72.67	ZAL	108.47	ZAP	107.19	ETS	90.97	ZAE	95.23	ETE	168.88	ZAC	161.00	ETC	221.62	CLP	172.83

PLANETOCENTRIC CONIC

C3	133.889	VHL	11.571	DLA	-77.43	RAL	201.79	RAD	6570.4	VEL	15.976	PTH	2.82	VHP	15.639	DPA	58.47	RAP	243.63	ECC	3.2035

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
14.31	0 8 6	2236.87	14.13	79.99	108.57	167.03	0 45 22	1636.9	21.92	78.48
165.69	11 11 10	5735.07	14.14	259.18	108.59	167.03	12 46 45	5135.1	21.92	257.66
14.31	0 8 6	2236.87	14.13	79.99	108.57	167.03	0 45 22	1636.9	21.92	78.48
165.69	11 11 10	5735.07	14.14	259.18	108.59	167.03	12 46 45	5135.1	21.92	257.66
14.31	0 8 6	2236.87	14.13	79.99	108.57	167.03	0 45 22	1636.9	21.92	78.48
165.69	11 11 10	5735.07	14.14	259.18	108.59	167.03	12 46 45	5135.1	21.92	257.66

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-3.2405	TRA	-1.2655	TC3	-.2335	BAU	.4211	SGT	3340.7	SGR	1288.5	SG3	66.0	ST	1822.5	SR	401.4	SS	651.0
RDE	-.2323	RRA	-.5632	RC3	-.0283	FAU	.01273	RRT	.9086	RRF	.8317	RTF	.9864	CRT	.7066	CRS	-.6181	CST	-.9930
FDE	-.9051	FRA	-.2589	FC3	-.0823	BSP	11142	SGB	3580.6	R23	-.2049	R13	.9772	LSA	1954.5	MSA	293.8	SSA	1.7
BDE	3.2488	BRA	1.3852	BC3	.2353	FSP	-218	SG1	3544.4	SG2	507.2	THA	19.73	EL1	1844.9	EL2	280.6	ALF	9.06

LAUNCH DATE OCT 9 1970 FLIGHT TIME 130.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 390.451

RL	149.43	LAL	.00	LOL	15.29	VL	27.419	GAL	-8.38	AZL	104.57	HCA	190.54	SMA	129.54	ECC	.21047	INC	14.5704	V1	29.819
RP	108.01	LAP	2.84	LOP	205.49	VP	37.856	GAP	7.52	AZP	75.66	TAL	215.44	TAP	45.98	RCA	102.28	APO	156.81	V2	35.086
RC	130.397	GL	-53.82	GP	65.67	ZAL	114.44	ZAP	113.87	ETS	71.30	ZAE	103.33	ETE	151.65	ZAC	160.04	ETC	230.47	CLP	-169.18

PLANETOCENTRIC CONIC

C3	71.486	VHL	8.455	DLA	-71.00	RAL	207.77	RAD	6569.4	VEL	13.887	PTH	2.54	VHP	11.680	DPA	48.32	RAP	245.16	ECC	2.1765

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.70	0 47 2	2087.12	22.29	71.93	109.64	159.40	1 21 49	1487.1	29.74	69.12
158.30	11 19 52	5615.63	22.30	258.57	109.66	159.40	12 53 27	5015.6	29.75	255.75
21.70	0 47 2	2087.12	22.29	71.93	109.64	159.40	1 21 49	1487.1	29.74	69.12
158.30	11 19 52	5615.63	22.30	258.57	109.66	159.40	12 53 27	5015.6	29.75	255.75
21.70	0 47 2	2087.12	22.29	71.93	109.64	159.40	1 21 49	1487.1	29.74	69.12
158.30	11 19 52	5615.63	22.30	258.57	109.66	159.40	12 53 27	5015.6	29.75	255.75

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-2.4122	TRA	-1.4647	TC3	-.7069	BAU	.6781	SGT	3660.0	SGR	488.8	SG3	82.7	ST	1873.5	SR	382.1	SS	621.0
RDE	.5479	RRA	-.1445	RC3	.0609	FAU	.02154	RRT	.1044	RRF	-.1689	RTF	.9586	CRT	-.7327	CRS	.8566	CST	-.9788
FDE	-.8663	FRA	-.2947	FC3	-.2609	BSP	11459	SGB	3692.5	R23	-.2722	R13	.9581	LSA	1990.9	MSA	279.3	SSA	2.5
BDE	2.4737	BRA	1.4718	BC3	.7095	FSP	-273	SG1	3660.4	SG2	486.1	THA	.81	EL1	1894.7	EL2	257.1	ALF	171.34

LAUNCH DATE OCT 9 1970 FLIGHT TIME 132.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 396.224

RL	149.43	LAL	.00	LOL	15.29	VL	27.349	GAL	-8.06	AZL	100.71	HCA	193.65	SMA	129.06	ECC	.20992	INC	10.7057	V1	29.819
RP	108.05	LAP	2.51	LOP	208.71	VP	37.793	GAP	7.72	AZP	79.59	TAL	213.84	TAP	47.49	RCA	101.97	APO	156.15	V2	35.074
RC	132.627	GL	-47.39	GP	58.42	ZAL	119.22	ZAP	120.09	ETS	64.64	ZAE	109.21	ETE	148.08	ZAC	155.60	ETC	241.09	CLP	-163.20

PLANETOCENTRIC CONIC

C3	46.717	VHL	6.835	DLA	-65.02	RAL	214.71	RAD	6568.7	VEL	12.965	PTH	2.36	VHP	9.660	DPA	39.91	RAP	245.52	ECC	1.7688

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.66	1 30 5	1962.05	27.59	62.63	110.61	151.55	2 2 47	1362.1	34.54	58.44
151.34	11 32 14	5532.89	27.59	256.79	110.63	151.54	13 4 27	4932.9	34.55	252.58
28.66	1 30 5	1962.05	27.59	62.63	110.61	151.55	2 2 47	1362.1	34.54	58.44
151.34	11 32 14	5532.89	27.59	256.79	110.63	151.54	13 4 27	4932.9	34.55	252.58
28.66	1 30 5	1962.05	27.59	62.63	110.61	151.55	2 2 47	1362.1	34.54	58.44
151.34	11 32 14	5532.89	27.59	256.79	110.63	151.54	13 4 27	4932.9	34.55	252.58

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-2.0031	TRA	-1.4530	TC3	-1.2556	BAU	.7921	SGT	3752.9	SGR	534.3	SG3	100.3	ST	1889.6	SR	471.7	SS	610.1
RDE	.5623	RRA	-.0309	RC3	.1786	FAU	.02823	RRT	-.5154	RRF	-.7642	RTF	.9368	CRT	-.8704	CRS	.9616	CST	-.9720
FDE	-.8470	FRA	-.2900	FC3	-.5231	BSP	11779	SGB	3790.8	R23	.3199	R13	-.9397	LSA	2024.6	MSA	257.7	SSA	3.5
BDE	2.0805	BRA	1.4533	BC3	1.2682	FSP	-330	SG1	3763.2	SG2	456.7	THA	175.74	EL1	1934.4	EL2	226.9	ALF	167.57

LAUNCH DATE OCT 9 1970 FLIGHT TIME 134.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 402.024

RL	149.43	LAL	.00	LOL	15.29	VL	27.280	GAL	-7.74	AZL	98.26	HCA	196.80	SMA	128.59	ECC	.20956	INC	8.2633
RP	108.09	LAP	2.38	LOP	211.92	VP	37.731	GAP	7.92	AZP	82.08	TAL	212.23	TAP	49.03	RCA	101.64	APO	155.53
RC	134.850	GL	-41.37	GP	51.94	ZAL	122.69	ZAP	125.66	ETS	61.31	ZAE	113.65	ETE	148.21	ZAC	150.57	ETC	247.48

V1	29.819	V2	35.061	CLP	-161.05														

PLANETOCENTRIC CONIC

C3	34.558	VHL	5.879	DLA	-59.65	RAL	220.62	RAD	6568.4	VEL	12.487	PTH	2.26	VHP	8.515	DPA	32.76	RAP	245.88
ECC	1.5687																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.02	2 9 0	1859.75	30.40	53.21	110.52	144.14	2 40 0	1259.8	36.75	47.79
144.98	11 40 28	5483.11	30.41	254.84	110.54	144.14	13 11 51	4883.1	36.76	249.42
35.02	2 9 0	1859.75	30.40	53.21	110.52	144.14	2 40 0	1259.8	36.75	47.79
144.98	11 40 28	5483.11	30.41	254.84	110.54	144.14	13 11 51	4883.1	36.76	249.42
35.02	2 9 0	1859.75	30.40	53.21	110.52	144.14	2 40 0	1259.8	36.75	47.79
144.98	11 40 28	5483.11	30.41	254.84	110.54	144.14	13 11 51	4883.1	36.76	249.42

DIFFERENTIAL CORRECTIONS

TDE	-1.6966	TRA	-1.3902	TC3	-1.8167	BAU	.8486
RDE	.4828	RRA	-.0080	RC3	.2701	FAU	.03298
FDE	-.7865	FRA	-.2511	FC3	-.8261	BSP	11744
BDE	1.7639	BRA	1.3902	BC3	1.8367	FSP	-365

MID-COURSE EXECUTION ACCURACY

SGT	3806.4	SGR	567.9	SG3	114.8		
RRT	-.6546	RRF	-.8769	RTF	.9176		
SGB	3848.5	R23	.3552	R13	-.9216		
SG1	3824.7	SG2	427.2	THA	174.35		

ORBIT DETERMINATION ACCURACY

ST	1840.0	SR	470.7	SS	574.4
CRT	-.8948	CRS	.9805	CST	-.9650
LSA	1969.3	MSA	243.0	SSA	4.7
EL1	1888.2	EL2	204.7	ALF	166.95

LAUNCH DATE OCT 9 1970 FLIGHT TIME 136.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 407.828

RL	149.43	LAL	.00	LOL	15.29	VL	27.211	GAL	-7.41	AZL	96.58	HCA	199.96	SMA	128.12	ECC	.20937	INC	6.5769
RP	108.13	LAP	2.24	LOP	215.13	VP	37.669	GAP	8.12	AZP	83.82	TAL	210.62	TAP	50.58	RCA	101.30	APO	154.95
RC	137.063	GL	-35.98	GP	46.36	ZAL	124.93	ZAP	130.55	ETS	59.13	ZAE	117.02	ETE	149.63	ZAC	145.87	ETC	251.38

V1	29.819	V2	35.047	CLP	-160.40		

PLANETOCENTRIC CONIC

C3	27.676	VHL	5.261	DLA	-54.94	RAL	225.66	RAD	6568.1	VEL	12.209	PTH	2.19	VHP	7.825	DPA	26.65	RAP	246.46
ECC	1.4555																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
40.74	2 44 25	1773.56	31.52	44.34	110.16	137.63	3 13 58	1173.6	37.25	37.99
139.26	11 45 17	5457.81	31.53	253.37	110.18	137.63	13 16 15	4857.8	37.26	247.02
40.74	2 44 25	1773.56	31.52	44.34	110.16	137.63	3 13 58	1173.6	37.25	37.99
139.26	11 45 17	5457.81	31.53	253.37	110.18	137.63	13 16 15	4857.8	37.26	247.02
40.74	2 44 25	1773.56	31.52	44.34	110.16	137.63	3 13 58	1173.6	37.25	37.99
139.26	11 45 17	5457.81	31.53	253.37	110.18	137.63	13 16 15	4857.8	37.26	247.02

DIFFERENTIAL CORRECTIONS

TDE	-1.4732	TRA	-1.3362	TC3	-2.3991	BAU	.8967
RDE	.4126	RRA	-.0021	RC3	.3430	FAU	.03696
FDE	-.7172	FRA	-.2095	FC3	-1.1562	BSP	12263
BDE	1.5299	BRA	1.3362	BC3	2.4235	FSP	-420

MID-COURSE EXECUTION ACCURACY

SGT	3919.6	SGR	576.3	SG3	129.5		
RRT	-.7180	RRF	-.9125	RTF	.9070		
SGB	3961.8	R23	.3655	R13	-.9110		
SG1	3941.6	SG2	398.9	THA	173.91		

ORBIT DETERMINATION ACCURACY

ST	1777.0	SR	449.5	SS	534.8
CRT	-.9026	CRS	.9879	CST	-.9580
LSA	1895.2	MSA	232.2	SSA	6.2
EL1	1823.2	EL2	188.6	ALF	167.00

LAUNCH DATE OCT 9 1970 FLIGHT TIME 138.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 413.633

RL	149.43	LAL	.00	LOL	15.29	VL	27.143	GAL	-7.08	AZL	95.34	HCA	203.14	SMA	127.66	ECC	.20933	INC	5.3377
RP	108.17	LAP	2.09	LOP	218.34	VP	37.607	GAP	8.33	AZP	85.09	TAL	208.99	TAP	52.13	RCA	100.94	APO	154.39
RC	139.266	GL	-31.23	GP	41.60	ZAL	126.10	ZAP	134.80	ETS	57.47	ZAE	119.57	ETE	151.48	ZAC	141.73	ETC	253.96

V1	29.819	V2	35.034	CLP	-160.44		

PLANETOCENTRIC CONIC

C3	23.362	VHL	4.833	DLA	-50.83	RAL	230.14	RAD	6567.9	VEL	12.031	PTH	2.15	VHP	7.395	DPA	21.43	RAP	247.29
ECC	1.3845																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.85	3 17 28	1697.90	31.61	36.23	110.03	132.13	3 45 46	1097.9	36.76	29.25
134.15	11 47 54	5449.84	31.62	252.62	110.04	132.12	13 18 43	4849.8	36.78	245.63
45.85	3 17 28	1697.90	31.61	36.23	110.03	132.13	3 45 46	1097.9	36.76	29.25
134.15	11 47 54	5449.84	31.62	252.62	110.04	132.12	13 18 43	4849.8	36.78	245.63
45.85	3 17 28	1697.90	31.61	36.23	110.03	132.13	3 45 46	1097.9	36.76	29.25
134.15	11 47 54	5449.84	31.62	252.62	110.04	132.12	13 18 43	4849.8	36.78	245.63

DIFFERENTIAL CORRECTIONS

TDE	-1.2867	TRA	-1.2682	TC3	-2.9574	BAU	.9317
RDE	.3556	RRA	-.0060	RC3	.3898	FAU	.03955
FDE	-.6342	FRA	-.1549	FC3	-1.4657	BSP	12642
BDE	1.3349	BRA	1.2683	BC3	2.9830	FSP	-460

MID-COURSE EXECUTION ACCURACY

SGT	4020.6	SGR	565.5	SG3	140.8		
RRT	-.7448	RRF	-.9194	RTF	.8986		
SGB	4060.2	R23	.3659	R13	-.9022		
SG1	4042.8	SG2	375.3	THA	173.97		

ORBIT DETERMINATION ACCURACY

ST	1686.3	SR	421.7	SS	484.3
CRT	-.9021	CRS	.9920	CST	-.9486
LSA	1790.4	MSA	224.4	SSA	8.1
EL1	1729.2	EL2	177.4	ALF	167.15

LAUNCH DATE OCT 9 1970 FLIGHT TIME 140.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 419.433

RL	149.43	LAL	.00	LOL	15.29	VL	27.075	GAL	-6.74	AZL	94.38	HCA	206.32	SMA	127.21	ECC	.20941	INC	4.3843
RP	108.21	LAP	1.94	LOP	221.54	VP	37.546	GAP	8.54	AZP	86.07	TAL	207.35	TAP	53.67	RCA	100.57	APO	153.85
RC	141.459	GL	-27.04	GP	37.55	ZAL	126.36	ZAP	138.49	ETS	56.12	ZAE	121.52	ETE	153.44	ZAC	138.16	ETC	255.81

V1	29.819	V2	35.021	CLP	-160.83		

PLANETOCENTRIC CONIC

C3	20.443	VHL	4.521	DLA	-47.25	RAL	234.25	RAD	6567.8	VEL	11.909	PTH	2.12	VHP	7.124	DPA	16.95	RAP	248.35
ECC	1.3364																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.44	3 49 11	1628.72	31.12	28.87	110.32	127.55	4 16 19	1028.7	35.76	21.47
129.56	11 49 1	5454.52	31.13	252.60	110.33	127.54	13 19 55	4854.5	35.77	245.20
50.44	3 49 11	1628.72	31.12	28.87	110.32	127.55	4 16 19	1028.7	35.76	21.47
129.56	11 49 1	5454.52	31.13	252.60	110.33	127.54	13 19 55	4854.5	35.77	245.20
50.44	3 49 11	1628.72	31.12	28.87	110.32	127.55	4 16 19	1028.7	35.76	21.47
129.56	11 49 1	5454.52	31.13	252.60	110.33	127.54	13 19 55	4854.5	35.77	245.20

DIFFERENTIAL CORRECTIONS

TDE	-1.1289	TRA	-1.1905	TC3	-3.4872	BAU	.9599
RDE	.3127	RRA	-.0129	RC3	.4173	FAU	.04102
FDE	-.5472	FRA	-.0933	FC3	-1.7370	BSP	12947
BDE	1.1714	BRA	1.1906	BC3	3.5121	FSP	-486

MID-COURSE EXECUTION ACCURACY

SGT	4114.7	SGR	547.7	SG3	149.1		
RRT	-.7559	RRF	-.9133	RTF	.8917		
SGB	4151.0	R23	.3577	R13	-.8949		
SG1	4135.6	SG2	356.8	THA	174.21		

ORBIT DETERMINATION ACCURACY

ST	1581.2	SR	396.5	SS	429.0
CRT	-.8983	CRS	.9949	CST	-.9358
LSA	1671.4	MSA	218.2	SSA	10.3
EL1	1621.2	EL2	169.9	ALF	167.16

LAUNCH DATE OCT 9 1970 FLIGHT TIME 142.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 425.226

RL	149.43	LAL	.00	LOL	15.29	VL	27.008	GAL	-6.39	AZL	93.62	HCA	209.50	SMA	126.77	ECC	.20964	INC	3.6240	V1	29.819
RP	108.25	LAP	1.78	LOP	224.74	VP	37.485	GAP	8.74	AZP	86.84	TAL	205.70	TAP	55.20	RCA	100.20	APO	153.35	V2	35.008
RC	143.643	GL	-23.33	GP	34.10	ZAL	125.88	ZAP	141.70	ETS	55.00	ZAE	122.99	ETE	155.33	ZAC	135.11	ETC	257.24	CLP	-161.40

PLANETOCENTRIC CONIC

C3	18.352	VHL	4.284	DLA	-44.11	RAL	238.15	RAD	6567.7	VEL	11.821	PTH	2.09	VHP	6.956	DPA	13.08	RAP	249.60	ECC	1.3020

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.64	4 20 15	1563.28	30.31	22.09	111.06	123.74	4 46 18	963.3	34.50	14.43
125.36	11 49 4	5468.91	30.32	253.27	111.07	123.72	13 20 12	4868.9	34.52	245.61
54.64	4 20 15	1563.28	30.31	22.09	111.06	123.74	4 46 18	963.3	34.50	14.43
125.36	11 49 4	5468.91	30.32	253.27	111.07	123.72	13 20 12	4868.9	34.52	245.61
54.64	4 20 15	1563.28	30.31	22.09	111.06	123.74	4 46 18	963.3	34.50	14.43
125.36	11 49 4	5468.91	30.32	253.27	111.07	123.72	13 20 12	4868.9	34.52	245.61

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.9934	TRA	-1.1054	TC3	-3.9902	BAU	.9847	SGT	4206.4	SGR	529.9	SG3	155.1	ST	1468.8	SR	376.9	SS	373.3
RDE	.2816	RRA	-.0201	RC3	.4329	FAU	.04166	RRT	-.7588	RRF	-.8995	RTF	.8865	CRT	-.8933	CRS	.9971	CST	-.9182
FDE	-.4627	FRA	-.0298	FC3	-1.9654	BSP	13247	SGB	4239.6	R23	.3413	R13	-.8892	LSA	1547.0	MSA	213.2	SSA	13.0
BDE	1.0325	BRA	1.1056	BC3	4.0136	FSP	-505	SG1	4225.7	SG2	343.6	THA	174.50	EL1	1507.4	EL2	165.1	ALF	166.93

LAUNCH DATE OCT 9 1970 FLIGHT TIME 144.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 431.008

RL	149.43	LAL	.00	LOL	15.29	VL	26.942	GAL	-6.04	AZL	93.00	HCA	212.69	SMA	126.34	ECC	.21000	INC	3.0004	V1	29.819
RP	108.29	LAP	1.62	LOP	227.94	VP	37.425	GAP	8.95	AZP	87.47	TAL	204.03	TAP	56.72	RCA	99.81	APO	152.87	V2	34.995
RC	145.816	GL	-20.01	GP	31.17	ZAL	124.78	ZAP	144.51	ETS	54.08	ZAE	124.13	ETE	157.09	ZAC	132.50	ETC	258.40	CLP	-162.08

PLANETOCENTRIC CONIC

C3	16.791	VHL	4.098	DLA	-41.33	RAL	241.93	RAD	6567.7	VEL	11.755	PTH	2.07	VHP	6.858	DPA	9.73	RAP	251.02	ECC	1.2763

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.54	4 51 23	1499.18	29.32	15.71	112.21	120.54	5 16 22	899.2	33.13	7.89
121.46	11 48 4	5491.76	29.34	254.58	112.22	120.52	13 19 35	4891.8	33.15	246.76
58.54	4 51 23	1499.18	29.32	15.71	112.21	120.54	5 16 22	899.2	33.13	7.89
121.46	11 48 4	5491.76	29.34	254.58	112.22	120.52	13 19 35	4891.8	33.15	246.76
58.54	4 51 23	1499.18	29.32	15.71	112.21	120.54	5 16 22	899.2	33.13	7.89
121.46	11 48 4	5491.76	29.34	254.58	112.22	120.52	13 19 35	4891.8	33.15	246.76

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.8900	TRA	-1.0295	TC3	-4.5041	BAU	1.0161	SGT	4341.4	SGR	523.0	SG3	161.8	ST	1375.3	SR	368.4	SS	330.2
RDE	.2632	RRA	-.0232	RC3	.4505	FAU	.04232	RRT	-.7653	RRF	-.8840	RTF	.8881	CRT	-.8915	CRS	.9977	CST	-.8999
FDE	-.3966	FRA	.0199	FC3	-2.1822	BSP	13931	SGB	4372.8	R23	.3111	R13	-.8903	LSA	1446.5	MSA	209.0	SSA	16.1
BDE	.9281	BRA	1.0297	BC3	4.5266	FSP	-545	SG1	4359.9	SG2	335.3	THA	174.70	EL1	1414.5	EL2	162.2	ALF	166.39

LAUNCH DATE OCT 9 1970 FLIGHT TIME 146.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 436.784

RL	149.43	LAL	.00	LOL	15.29	VL	26.876	GAL	-5.68	AZL	92.48	HCA	215.87	SMA	125.92	ECC	.21049	INC	2.4768	V1	29.819
RP	108.33	LAP	1.45	LOP	231.14	VP	37.366	GAP	9.15	AZP	87.99	TAL	202.35	TAP	58.22	RCA	99.41	APO	152.42	V2	34.982
RC	147.979	GL	-17.02	GP	28.65	ZAL	123.19	ZAP	146.98	ETS	53.34	ZAE	125.00	ETE	158.69	ZAC	130.27	ETC	259.39	CLP	-162.82

PLANETOCENTRIC CONIC

C3	15.587	VHL	3.948	DLA	-38.82	RAL	245.65	RAD	6567.6	VEL	11.703	PTH	2.06	VHP	6.809	DPA	6.82	RAP	252.59	ECC	1.2565

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.26	5 23 12	1434.38	28.25	9.53	113.74	117.82	5 47 7	834.4	31.73	1.62
117.74	11 45 56	5522.67	28.26	256.51	113.75	117.80	13 17 59	4922.7	31.74	248.60
62.26	5 23 12	1434.38	28.25	9.53	113.74	117.82	5 47 7	834.4	31.73	1.62
117.74	11 45 56	5522.67	28.26	256.51	113.75	117.80	13 17 59	4922.7	31.74	248.60
62.26	5 23 12	1434.38	28.25	9.53	113.74	117.82	5 47 7	834.4	31.73	1.62
117.74	11 45 56	5522.67	28.26	256.51	113.75	117.80	13 17 59	4922.7	31.74	248.60

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.7671	TRA	-.9147	TC3	-4.9169	BAU	1.0288	SGT	4383.5	SGR	501.7	SG3	161.8	ST	1230.5	SR	353.8	SS	267.8
RDE	.2433	RRA	-.0342	RC3	.4441	FAU	.04124	RRT	-.7485	RRF	-.8561	RTF	.8799	CRT	-.8834	CRS	.9940	CST	-.8548
FDE	-.3093	FRA	.0951	FC3	-2.2908	BSP	13833	SGB	4412.1	R23	.2922	R13	-.8818	LSA	1291.7	MSA	205.2	SSA	20.2
BDE	.8048	BRA	.9153	BC3	4.9369	FSP	-525	SG1	4399.7	SG2	331.5	THA	175.08	EL1	1270.3	EL2	160.6	ALF	165.51

LAUNCH DATE OCT 9 1970 FLIGHT TIME 148.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 442.547

RL	149.43	LAL	.00	LOL	15.29	VL	26.811	GAL	-5.30	AZL	92.03	HCA	219.06	SMA	125.50	ECC	.21113	INC	2.0279	V1	29.819
RP	108.37	LAP	1.28	LOP	234.33	VP	37.307	GAP	9.36	AZP	88.42	TAL	200.66	TAP	59.72	RCA	99.01	APO	152.00	V2	34.969
RC	150.132	GL	-14.29	GP	26.47	ZAL	121.18	ZAP	149.17	ETS	52.77	ZAE	125.69	ETE	160.12	ZAC	128.35	ETC	260.28	CLP	-163.59

PLANETOCENTRIC CONIC

C3	14.645	VHL	3.827	DLA	-36.52	RAL	249.35	RAD	6567.6	VEL	11.663	PTH	2.05	VHP	6.795	DPA	4.27	RAP	254.29	ECC	1.2410

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.90	5 56 29	1366.49	27.11	3.33	115.60	115.47	6 19 15	766.5	30.30	355.38
114.10	11 42 13	5562.63	27.12	259.14	115.61	115.46	13 14 56	4962.6	30.31	251.18
65.90	5 56 29	1366.49	27.11	3.33	115.60	115.47	6 19 15	766.5	30.30	355.38
114.10	11 42 13	5562.63	27.12	259.14	115.61	115.46	13 14 56	4962.6	30.31	251.18
65.90	5 56 29	1366.49	27.11	3.33	115.60	115.47	6 19 15	766.5	30.30	355.38
114.10	11 42 13	5562.63	27.12	259.14	115.61	115.46	13 14 56	4962.6	30.31	251.18

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-.6670	TRA	-.8080	TC3	-5.3373	BAU	1.0486	SGT	4466.6	SGR	492.1	SG3	163.1	ST	1102.7	SR	348.0	SS	219.9
RDE	.2318	RRA	-.0413	RC3	.4446	FAU	.04046	RRT	-.7374	RRF	-.8290	RTF	.8779	CRT	-.8792	CRS	.9789	CST	-.7924
FDE	-.2407	FRA	.1551	FC3	-2.3915	BSP	14099	SGB	4493.7	R23	.2637	R13	-.8795	LSA	1159.4	MSA	201.7	SSA	25.1
BDE	.7061	BRA	.8090	BC3	5.3558	FSP	-528	SG1	4481.4	SG2	331.3	THA	175.33	EL1	1145.3	EL2	159.6	ALF	164.18

LAUNCH DATE OCT 9 1970 FLIGHT TIME 150.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 448.299

RL	149.43	LAL	.00	LOL	15.29	VL	26.747	GAL	-4.92	AZL	91.64	HCA	222.24	SMA	125.10	ECC	.21193	INC	1.6372
RP	108.41	LAP	1.10	LOP	237.52	VP	37.249	GAP	9.56	AZP	88.79	TAL	198.96	TAP	61.20	RCA	98.59	APO	151.61
RC	152.275	GL	-11.78	GP	24.59	ZAL	118.82	ZAP	151.13	ETS	52.38	ZAE	126.23	ETE	161.40	ZAC	126.69	ETC	261.09

PLANETOCENTRIC CONIC

C3	13.904	VHL	3.729	DLA	-34.39	RAL	253.07	RAD	6567.5	VEL	11.631	PTH	2.04	VHP	6.808	DPA	2.04	RAP	256.09

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.61	6 32 10	1292.37	25.94	356.85	117.76	113.42	6 53 43	692.4	28.88	348.89
110.39	11 36 9	5613.79	25.95	262.60	117.77	113.40	13 9 43	5013.8	28.89	254.63
69.61	6 32 10	1292.37	25.94	356.85	117.76	113.42	6 53 43	692.4	28.88	348.89
110.39	11 36 9	5613.79	25.95	262.60	117.77	113.40	13 9 43	5013.8	28.89	254.63
69.61	6 32 10	1292.37	25.94	356.85	117.76	113.42	6 53 43	692.4	28.88	348.89
110.39	11 36 9	5613.79	25.95	262.60	117.77	113.40	13 9 43	5013.8	28.89	254.63

DIFFERENTIAL CORRECTIONS

TDE	-.5727	TRA	-.6949	TC3	-5.7286	BAU	1.0680
RDE	.2237	RRA	-.0485	RC3	.4438	FAU	.03945
FDE	-.1779	FRA	.2121	FC3	-2.4561	BSP	14384
BDE	.6148	BRA	.6966	BC3	5.7457	FSP	-530

MID-COURSE EXECUTION ACCURACY

SGT	4549.7	SGR	485.7	SG3	163.6		
RRT	-.7238	RRF	-.8001	RTF	.8769		
SGB	4575.6	R23	.2347	R13	-.8782		
SG1	4563.3	SG2	334.1	THA	175.56		

ORBIT DETERMINATION ACCURACY

ST	970.3	SR	345.0	SS	178.2
CRT	-.8761	CRS	.9351	CST	-.6858
LSA	1025.6	MSA	198.1	SSA	31.3
EL1	1017.5	EL2	158.6	ALF	162.25

LAUNCH DATE OCT 9 1970 FLIGHT TIME 152.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 454.039

RL	149.43	LAL	.00	LOL	15.29	VL	26.684	GAL	-4.53	AZL	91.29	HCA	225.42	SMA	124.70	ECC	.21287	INC	1.2919
RP	108.45	LAP	.92	LOP	240.70	VP	37.192	GAP	9.77	AZP	89.09	TAL	197.25	TAP	62.67	RCA	98.16	APO	151.25
RC	154.408	GL	-9.46	GP	22.95	ZAL	116.17	ZAP	152.90	ETS	52.14	ZAE	126.66	ETE	162.54	ZAC	125.24	ETC	261.86

PLANETOCENTRIC CONIC

C3	13.325	VHL	3.650	DLA	-32.38	RAL	256.81	RAD	6567.5	VEL	11.607	PTH	2.03	VHP	6.842	DPA	.06	RAP	257.99

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.59	7 12 1	1206.42	24.74	349.66	120.20	111.59	7 32 7	606.4	27.45	341.69
106.41	11 26 8	5681.19	24.75	267.26	120.20	111.58	13 0 49	5081.2	27.46	259.29
73.59	7 12 1	1206.42	24.74	349.66	120.20	111.59	7 32 7	606.4	27.45	341.69
106.41	11 26 8	5681.19	24.75	267.26	120.20	111.58	13 0 49	5081.2	27.46	259.29
110.00	10 25 4	5870.04	18.22	278.44	116.86	119.43	12 2 54	5270.0	22.00	271.34
110.00	13 12 15	5353.60	31.63	244.51	122.68	103.69	14 41 29	4753.6	33.19	235.63

DIFFERENTIAL CORRECTIONS

TDE	-.4810	TRA	-.5743	TC3	-6.0847	BAU	1.0868
RDE	.2181	RRA	-.0562	RC3	.4419	FAU	.03828
FDE	-.1199	FRA	.2667	FC3	-2.4869	BSP	14668
BDE	.5282	BRA	.5771	BC3	6.1007	FSP	-531

MID-COURSE EXECUTION ACCURACY

SGT	4630.7	SGR	481.8	SG3	163.4		
RRT	-.7082	RRF	-.7702	RTF	.8767		
SGB	4655.7	R23	.2067	R13	-.8778		
SG1	4643.3	SG2	339.2	THA	175.76		

ORBIT DETERMINATION ACCURACY

ST	830.9	SR	343.9	SS	145.4
CRT	-.8740	CRS	.8230	CST	-.4979
LSA	889.1	MSA	194.0	SSA	39.7
EL1	885.4	EL2	156.8	ALF	159.44

LAUNCH DATE OCT 9 1970 FLIGHT TIME 154.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 459.766

RL	149.43	LAL	.00	LOL	15.29	VL	26.621	GAL	-4.13	AZL	90.98	HCA	228.60	SMA	124.31	ECC	.21399	INC	.9826
RP	108.49	LAP	.74	LOP	243.89	VP	37.135	GAP	9.99	AZP	89.35	TAL	195.52	TAP	64.12	RCA	97.71	APO	150.91
RC	156.530	GL	-7.29	GP	21.51	ZAL	113.27	ZAP	154.50	ETS	52.08	ZAE	127.01	ETE	163.55	ZAC	123.96	ETC	262.59

PLANETOCENTRIC CONIC

C3	12.886	VHL	3.590	DLA	-30.46	RAL	260.58	RAD	6567.5	VEL	11.588	PTH	2.03	VHP	6.893	DPA	-1.68	RAP	259.98

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
78.27	7 59 43	1096.47	23.50	340.84	122.87	109.96	8 18 0	496.5	26.01	332.88
101.73	11 8 30	5776.65	23.52	273.96	122.88	109.94	12 44 47	5176.7	26.02	266.01
78.27	7 59 43	1096.47	23.50	340.84	122.87	109.96	8 18 0	496.5	26.01	332.88
101.73	11 8 30	5776.65	23.52	273.96	122.88	109.94	12 44 47	5176.7	26.02	266.01
110.00	10 4 2	691.53	14.45	306.78	118.28	121.32	10 15 33	91.5	18.49	299.99
110.00	14 3 22	5229.59	33.25	235.20	125.67	98.41	15 30 31	4629.6	34.06	226.06

DIFFERENTIAL CORRECTIONS

TDE	-.3890	TRA	-.4458	TC3	-6.3966	BAU	1.1045
RDE	.2141	RRA	-.0643	RC3	.4386	FAU	.03697
FDE	-.0657	FRA	.3189	FC3	-2.4837	BSP	14933
BDE	.4440	BRA	.4504	BC3	6.4116	FSP	-529

MID-COURSE EXECUTION ACCURACY

SGT	4707.1	SGR	479.7	SG3	162.5		
RRT	-.6909	RRF	-.7398	RTF	.8770		
SGB	4731.5	R23	.1807	R13	-.8780		
SG1	4718.8	SG2	345.9	THA	175.95		

ORBIT DETERMINATION ACCURACY

ST	682.6	SR	343.7	SS	126.7
CRT	-.8723	CRS	.5835	CST	-.1969
LSA	749.5	MSA	188.7	SSA	51.6
EL1	748.7	EL2	153.2	ALF	155.18

LAUNCH DATE OCT 9 1970 FLIGHT TIME 156.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 465.479

RL	149.43	LAL	.00	LOL	15.29	VL	26.560	GAL	-3.71	AZL	90.70	HCA	231.78	SMA	123.93	ECC	.21528	INC	.7024
RP	108.53	LAP	.55	LOP	247.07	VP	37.080	GAP	10.20	AZP	89.57	TAL	193.79	TAP	65.57	RCA	97.25	APO	150.61
RC	158.641	GL	-5.26	GP	20.25	ZAL	110.16	ZAP	155.96	ETS	52.18	ZAE	127.30	ETE	164.44	ZAC	122.83	ETC	263.30

PLANETOCENTRIC CONIC

C3	12.572	VHL	3.546	DLA	-28.60	RAL	264.38	RAD	6567.5	VEL	11.574	PTH	2.02	VHP	6.958	DPA	-3.23	RAP	262.04

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
85.78	9 13 55	901.75	22.24	325.96	125.78	108.47	9 28 57	301.7	24.56	318.03
94.22	10 24 37	672.76	22.25	309.19	125.78	108.46	10 35 50	72.8	24.57	301.26
100.00	9 57 1	761.79	17.09	313.56	123.61	114.91	10 9 43	161.8	20.30	306.24
100.00	12 24 12	5575.98	27.60	260.33	127.39	101.96	13 57 8	4976.0	28.97	251.80
110.00	9 52 53	774.79	11.45	311.37	120.43	122.43	10 5 48	174.8	15.65	304.78
110.00	14 44 49	5135.75	33.96	227.97	128.44	94.19	16 10 25	4535.8	34.16	218.73

DIFFERENTIAL CORRECTIONS

TDE	-.2958	TRA	-.3096	TC3	-6.6590	BAU	1.1216
RDE	.2114	RRA	-.0730	RC3	.4339	FAU	.03557
FDE	-.0150	FRA	.3690	FC3	-2.4496	BSP	15194
BDE	.3635	BRA	.3181	BC3	6.6732	FSP	-525

MID-COURSE EXECUTION ACCURACY

SGT	4780.3	SGR	479.0	SG3	161.2		
RRT	-.6724	RRF	-.7097	RTF	.8778		
SGB	4804.3	R23	.1570	R13	-.8786		
SG1	4791.2	SG2	353.7	THA	176.12		

ORBIT DETERMINATION ACCURACY

ST	527.0	SR	344.1	SS	127.3
CRT	-.8695	CRS	.2334	CST	.1419
LSA	612.1	MSA	180.9	SSA	69.6
EL1	612.1	EL2	146.3	ALF	148.40

LAUNCH DATE OCT 9 1970 FLIGHT TIME 158.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 471.178

RL 149.43 LAL .00 LOL 15.29 VL 26.499 GAL -3.28 AZL 90.45 HCA 234.96 SMA 123.56 ECC .21674 INC .4457 V1 29.819
RP 108.56 LAP .37 LOP 250.25 VP 37.025 GAP 10.42 AZP 89.74 TAL 192.04 TAP 67.00 RCA 96.78 APO 150.34 V2 34.907
RC 160.740 GL -3.35 GP 19.13 ZAL 106.87 ZAP 157.29 ETS 52.44 ZAE 127.55 ETE 165.24 ZAC 121.83 ETC 264.00 CLP-167.54

PLANETOCENTRIC CONIC

C3 12.374 VHL 3.518 DLA -26.79 RAL 268.20 RAD 6567.5 VEL 11.566 PTH 2.02 VHP 7.036 DPA -4.59 RAP 264.17 ECC 1.2037

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 42 57	1050.82	15.51	334.07	126.75	113.99	9 0 27	450.8	18.62	326.78
90.00	11 26 5	5804.99	26.59	276.95	130.39	100.12	13 2 50	5205.0	27.72	268.46
100.00	9 31 54	892.66	13.17	321.31	125.60	117.08	9 46 47	292.7	16.70	314.29
100.00	13 19 49	5438.38	29.15	250.40	130.82	96.95	14 50 27	4838.4	29.80	241.66
110.00	9 46 38	846.42	8.81	315.23	123.03	123.16	10 0 45	246.4	13.11	308.78
110.00	15 21 34	5057.39	34.18	221.86	131.21	90.58	16 45 51	4457.4	33.88	212.63

DIFFERENTIAL CORRECTIONS
TDE -.1900 TRA -.1847 TC3-6.8643 BAU 1.1378
RDE .2096 RRA -.0825 RC3 .4276 FAU .03412
FDE .0330 FRA .4173 FC3-2.3873 BSP 15445
BDE .2890 BRA .1842 BC3 6.8776 FSP -521

MID-COURSE EXECUTION ACCURACY
SGT 4849.5 SGR 479.2 SG3 159.4
RRT -.6534 RRF -.6803 RTF .8791
SGB 4873.2 R23 .1357 R13 -.8798
SG1 4859.7 SG2 362.1 THA 176.29

ORBIT DETERMINATION ACCURACY
ST 366.4 SR 344.4 SS 145.9
CRT -.8551 CRS -.0920 CST .3496
LSA 485.7 MSA 168.7 SSA 98.7
EL1 484.4 EL2 135.1 ALF 137.07

LAUNCH DATE OCT 9 1970 FLIGHT TIME 160.00 ARRIVAL DATE MAR 18 1971

HELIOCENTRIC CONIC DISTANCE 476.861

RL 149.43 LAL .00 LOL 15.29 VL 26.439 GAL -2.85 AZL 90.21 HCA 238.14 SMA 123.19 ECC .21841 INC .2081 V1 29.819
RP 108.60 LAP .18 LOP 253.43 VP 36.972 GAP 10.65 AZP 89.89 TAL 190.29 TAP 68.43 RCA 96.29 APO 150.10 V2 34.896
RC 162.826 GL -1.57 GP 18.14 ZAL 103.44 ZAP 158.53 ETS 52.87 ZAE 127.76 ETE 165.94 ZAC 120.92 ETC 264.68 CLP-168.31

PLANETOCENTRIC CONIC

C3 12.291 VHL 3.506 DLA -25.00 RAL 272.03 RAD 6567.5 VEL 11.562 PTH 2.02 VHP 7.125 DPA -5.80 RAP 266.35 ECC 1.2023

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 19 54	1179.04	11.82	341.68	129.12	115.92	8 39 33	579.0	15.21	334.64
90.00	12 19 44	5673.90	27.81	267.55	133.89	95.57	13 54 17	5073.9	28.29	258.92
100.00	9 18 25	990.09	10.09	326.90	128.22	118.29	9 34 55	390.1	13.79	320.07
100.00	14 3 53	5338.08	29.75	243.01	134.06	93.11	15 32 51	4738.1	29.86	234.21
110.00	9 43 22	911.83	6.36	318.71	125.96	123.66	9 58 34	311.8	10.74	312.35
110.00	15 55 26	4989.11	34.10	216.53	134.09	87.43	17 18 35	4389.1	33.37	207.37

DIFFERENTIAL CORRECTIONS
TDE -.1009 TRA -.0141 TC3-7.0139 BAU 1.1546
RDE .2090 RRA -.0922 RC3 .4204 FAU .03272
FDE .0766 FRA .4621 FC3-2.3048 BSP 15735
BDE .2320 BRA .0932 BC3 7.0265 FSP -519

MID-COURSE EXECUTION ACCURACY
SGT 4920.8 SGR 480.8 SG3 157.5
RRT -.6348 RRF -.6530 RTF .8815
SGB 4944.2 R23 .1167 R13 -.8821
SG1 4930.3 SG2 370.8 THA 176.43

ORBIT DETERMINATION ACCURACY
ST 221.4 SR 345.2 SS 174.7
CRT -.7487 CRS -.3046 CST .2448
LSA 393.3 MSA 164.7 SSA 130.1
EL1 388.9 EL2 130.3 ALF 119.24

LAUNCH DATE OCT 9 1970 FLIGHT TIME 162.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 482.528

RL 149.43 LAL .00 LOL 15.29 VL 26.380 GAL -2.39 AZL 89.99 HCA 241.31 SMA 122.84 ECC .22028 INC .0000 V1 29.819
RP 108.63 LAP -.01 LOP 256.60 VP 36.919 GAP 10.88 AZP 90.01 TAL 188.53 TAP 69.84 RCA 95.78 APO 149.90 V2 34.885
RC 164.900 GL .09 GP 17.25 ZAL 99.90 ZAP 159.67 ETS 53.47 ZAE 127.94 ETE 166.58 ZAC 120.09 ETC 265.36 CLP-169.07

PLANETOCENTRIC CONIC

C3 12.321 VHL 3.510 DLA -23.24 RAL 275.87 RAD 6567.5 VEL 11.563 PTH 2.02 VHP 7.225 DPA -6.87 RAP 268.59 ECC 1.2028

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 6 52	1278.20	8.81	347.41	132.00	117.02	8 28 10	678.2	12.36	340.53
90.00	13 3 21	5575.78	28.25	260.41	137.28	92.01	14 36 16	4975.8	28.23	251.74
100.00	9 10 14	1073.68	7.36	331.60	131.22	119.05	9 28 7	473.7	11.18	324.89
100.00	14 42 40	5255.53	29.89	236.88	137.31	89.89	16 10 16	4655.5	29.56	228.09
110.00	9 42 7	973.69	4.01	321.96	129.16	123.98	9 58 21	373.7	8.45	315.68
110.00	16 27 16	4928.28	33.81	211.81	137.09	84.64	17 49 24	4328.3	32.70	202.75

DIFFERENTIAL CORRECTIONS
TDE .0124 TRA .1554 TC3-7.0622 BAU 1.1652
RDE .2077 RRA -.1038 RC3 .4065 FAU .03097
FDE .1250 FRA .5122 FC3-2.1761 BSP 15780
BDE .2081 BRA .1869 BC3 7.0739 FSP -503

MID-COURSE EXECUTION ACCURACY
SGT 4965.6 SGR 480.0 SG3 154.6
RRT -.6121 RRF -.6223 RTF .8810
SGB 4988.8 R23 .1011 R13 -.8814
SG1 4974.4 SG2 378.9 THA 176.59

ORBIT DETERMINATION ACCURACY
ST 171.4 SR 343.6 SS 214.6
CRT .0167 CRS -.4543 CST -.5689
LSA 363.3 MSA 223.5 SSA 107.7
EL1 343.7 EL2 171.4 ALF 89.36

LAUNCH DATE OCT 9 1970 FLIGHT TIME 164.00 ARRIVAL DATE MAR 22 1971

HELIOCENTRIC CONIC DISTANCE 488.178

RL 149.43 LAL .00 LOL 15.29 VL 26.321 GAL -1.92 AZL 89.78 HCA 244.48 SMA 122.49 ECC .22237 INC .2203 V1 29.819
RP 108.66 LAP -.20 LOP 259.77 VP 36.867 GAP 11.12 AZP 90.09 TAL 186.76 TAP 71.24 RCA 95.25 APO 149.73 V2 34.874
RC 166.961 GL 1.64 GP 16.46 ZAL 96.28 ZAP 160.72 ETS 54.24 ZAE 128.10 ETE 167.14 ZAC 119.33 ETC 266.04 CLP-169.83

PLANETOCENTRIC CONIC

C3 12.468 VHL 3.531 DLA -21.50 RAL 279.68 RAD 6567.5 VEL 11.570 PTH 2.02 VHP 7.334 DPA -7.80 RAP 270.87 ECC 1.2052

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 58 39	1364.48	6.10	352.31	135.20	117.70	8 21 23	764.5	9.77	345.54
90.00	13 41 59	5494.53	28.30	254.47	140.68	89.04	15 13 33	4894.5	27.87	245.83
100.00	9 5 9	1149.84	4.82	335.85	134.49	119.54	9 24 19	549.8	8.72	329.21
100.00	15 18 9	5184.41	29.77	231.60	140.62	87.11	16 44 34	4584.4	29.05	222.87
110.00	9 42 16	1033.49	1.73	325.09	132.57	124.14	9 59 30	433.5	6.20	318.85
110.00	16 57 32	4873.52	33.38	207.59	140.23	82.18	18 18 45	4273.5	31.94	198.65

DIFFERENTIAL CORRECTIONS
TDE .1241 TRA .3289 TC3-7.0598 BAU 1.1786
RDE .2081 RRA -.1152 RC3 .3929 FAU .02943
FDE .1664 FRA .5565 FC3-2.0434 BSP 15975
BDE .2423 BRA .3466 BC3 7.0707 FSP -495

MID-COURSE EXECUTION ACCURACY
SGT 5022.1 SGR 481.1 SG3 152.1
RRT -.5919 RRF -.5956 RTF .8827
SGB 5045.1 R23 .0869 R13 -.8831
SG1 5030.2 SG2 387.1 THA 176.74

ORBIT DETERMINATION ACCURACY
ST 303.5 SR 343.1 SS 253.1
CRT .5417 CRS -.5346 CST -.9124
LSA 456.6 MSA 242.7 SSA 81.3
EL1 403.5 EL2 217.0 ALF 51.39

LAUNCH DATE OCT 9 1970 FLIGHT TIME 166.00 ARRIVAL DATE MAR 24 1971

HELIOCENTRIC CONIC DISTANCE 493.807

RL	149.43	LAL	.00	LOL	15.29	VL	26.264	GAL	-1.44	AZL	89.58	HCA	247.65	SMA	122.15	ECC	.22469	INC	.4175
RP	108.69	LAP	-.39	LOP	262.94	VP	36.817	GAP	11.36	AZP	90.16	TAL	184.99	TAP	72.64	RCA	94.70	APO	149.59
RC	169.007	GL	3.08	GP	15.75	ZAL	92.62	ZAP	161.71	ETS	55.19	ZAE	128.25	ETE	167.65	ZAC	118.63	ETC	266.71

PLANETOCENTRIC CONIC

C3	12.736	VHL	3.569	DLA	-19.78	RAL	283.45	RAD	6567.5	VEL	11.581	PTH	2.03	VHP	7.454	DPA	-8.61	RAP	273.19

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 53 21	1443.56	3.58	356.75	138.64	118.11	8 17 24	843.6	7.32	350.06
90.00	14 17 23	5424.53	28.12	249.36	144.15	86.48	15 47 48	4824.5	27.33	240.78
100.00	9 2 9	1221.51	2.40	339.78	137.99	119.80	9 22 31	621.5	6.35	333.21
100.00	15 51 16	5121.82	29.46	226.97	144.03	84.69	17 16 38	4521.8	28.41	218.32
110.00	9 43 28	1092.07	-.51	328.14	136.17	124.18	10 1 40	492.1	3.98	321.93
110.00	17 26 27	4824.03	32.86	203.82	143.50	80.01	18 46 51	4224.0	31.14	195.02

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.2358	TRA	.5011	TC3	-7.0038	BAU	1.1943	SGT	5085.6	SGR	482.8	SG3	149.5	ST	481.2	SR	343.1	SS	288.3
RDE	.2098	RRA	-.1264	RC3	.3789	FAU	.02807	RRT	-.5737	RRF	-.5721	RTF	.8865	CRT	.6645	CRS	-.5830	CST	-.9630
FDE	.2026	FRA	.5954	FC3	-1.9080	BSP	16301	SGB	5108.5	R23	.0737	R13	-.8869	LSA	608.9	MSA	240.2	SSA	62.9
BDE	.3156	BRA	.5168	BC3	7.0141	FSP	-495	SG1	5093.2	SG2	394.9	THA	176.86	EL1	546.1	EL2	225.9	ALF	31.29

LAUNCH DATE OCT 9 1970 FLIGHT TIME 168.00 ARRIVAL DATE MAR 26 1971

HELIOCENTRIC CONIC DISTANCE 499.416

RL	149.43	LAL	.00	LOL	15.29	VL	26.207	GAL	-.94	AZL	89.39	HCA	250.82	SMA	121.81	ECC	.22726	INC	.6060
RP	108.72	LAP	-.57	LOP	266.11	VP	36.767	GAP	11.62	AZP	90.20	TAL	183.21	TAP	74.03	RCA	94.13	APO	149.50
RC	171.039	GL	4.39	GP	15.11	ZAL	88.95	ZAP	162.62	ETS	56.33	ZAE	128.38	ETE	168.11	ZAC	117.98	ETC	267.38

PLANETOCENTRIC CONIC

C3	13.132	VHL	3.624	DLA	-18.09	RAL	287.17	RAD	6567.5	VEL	11.598	PTH	2.03	VHP	7.584	DPA	-9.32	RAP	275.55

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 50 1	1518.14	1.18	.92	142.28	118.29	8 15 19	918.1	4.96	354.27
90.00	14 50 23	5363.15	27.78	244.90	147.71	84.27	16 19 46	4763.1	26.69	236.40
100.00	9 0 38	1290.27	.07	343.55	141.66	119.89	9 22 8	690.3	4.05	337.02
100.00	16 22 27	5066.25	29.04	222.89	147.54	82.59	17 46 53	4466.2	27.71	214.34
110.00	9 45 25	1149.91	-2.72	331.16	139.92	124.09	10 4 35	549.9	1.77	324.96
110.00	17 54 9	4779.37	32.28	200.46	146.90	78.10	19 13 48	4179.4	30.31	191.81

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.3626	TRA	.6950	TC3	-6.8477	BAU	1.2039	SGT	5128.0	SGR	482.7	SG3	146.6	ST	686.4	SR	341.4	SS	327.6
RDE	.2114	RRA	-.1392	RC3	.3591	FAU	.02645	RRT	-.5525	RRF	-.5465	RTF	.8878	CRT	.7098	CRS	-.6177	CST	-.9787
FDE	.2421	FRA	.6401	FC3	-1.7437	BSP	16374	SGB	5150.7	R23	.0636	R13	-.8881	LSA	798.1	MSA	235.7	SSA	49.9
BDE	.4197	BRA	.7088	BC3	6.8571	FSP	-482	SG1	5135.0	SG2	401.8	THA	177.00	EL1	732.8	EL2	225.3	ALF	21.59

LAUNCH DATE OCT 9 1970 FLIGHT TIME 170.00 ARRIVAL DATE MAR 28 1971

HELIOCENTRIC CONIC DISTANCE 505.002

RL	149.43	LAL	.00	LOL	15.29	VL	26.151	GAL	-.42	AZL	89.21	HCA	253.99	SMA	121.49	ECC	.23011	INC	.7872
RP	108.75	LAP	-.76	LOP	269.28	VP	36.719	GAP	11.89	AZP	90.22	TAL	181.42	TAP	75.41	RCA	93.53	APO	149.44
RC	173.056	GL	5.58	GP	14.53	ZAL	85.29	ZAP	163.48	ETS	57.65	ZAE	128.50	ETE	168.52	ZAC	117.36	ETC	268.05

PLANETOCENTRIC CONIC

C3	13.666	VHL	3.697	DLA	-16.43	RAL	290.81	RAD	6567.5	VEL	11.621	PTH	2.04	VHP	7.724	DPA	-9.92	RAP	277.94

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 48 4	1589.62	-1.12	4.90	146.08	118.30	8 14 34	989.6	2.67	358.27
90.00	15 21 23	5308.98	27.35	240.99	151.35	82.36	16 49 52	4709.0	26.01	232.58
100.00	9 0 10	1356.98	-2.19	347.21	145.49	119.82	9 22 47	757.0	1.79	340.69
100.00	16 51 58	5016.85	28.55	219.30	151.15	80.76	18 15 35	4416.9	26.98	210.85
110.00	9 47 57	1207.29	-4.90	334.17	143.80	123.87	10 8 4	607.3	-.42	327.95
110.00	18 20 41	4739.31	31.68	197.49	150.42	76.44	19 39 40	4139.3	29.50	188.97

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.4921	TRA	.8942	TC3	-6.6376	BAU	1.2143	SGT	5172.4	SGR	482.2	SG3	143.5	ST	889.5	SR	339.8	SS	363.6
RDE	.2140	RRA	-.1518	RC3	.3378	FAU	.02491	RRT	-.5321	RRF	-.5217	RTF	.8901	CRT	.7277	CRS	-.6419	CST	-.9859
FDE	.2789	FRA	.6804	FC3	-1.5782	BSP	16534	SGB	5194.8	R23	.0533	R13	-.8903	LSA	991.6	MSA	232.4	SSA	41.3
BDE	.5366	BRA	.9070	BC3	6.6462	FSP	-474	SG1	5178.8	SG2	407.7	THA	177.14	EL1	925.5	EL2	224.0	ALF	16.53

LAUNCH DATE OCT 9 1970 FLIGHT TIME 172.00 ARRIVAL DATE MAR 30 1971

HELIOCENTRIC CONIC DISTANCE 510.562

RL	149.43	LAL	.00	LOL	15.29	VL	26.096	GAL	.11	AZL	89.04	HCA	257.16	SMA	121.17	ECC	.23325	INC	.9626
RP	108.78	LAP	-.94	LOP	272.45	VP	36.671	GAP	12.17	AZP	90.21	TAL	179.63	TAP	76.79	RCA	92.91	APO	149.43
RC	175.059	GL	6.65	GP	14.01	ZAL	81.68	ZAP	164.27	ETS	59.18	ZAE	128.62	ETE	168.89	ZAC	116.77	ETC	268.71

PLANETOCENTRIC CONIC

C3	14.349	VHL	3.788	DLA	-14.82	RAL	294.36	RAD	6567.6	VEL	11.651	PTH	2.05	VHP	7.875	DPA	-10.42	RAP	280.35

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 47 9	1658.81	-3.35	8.77	150.01	118.13	8 14 48	1058.8	.44	2.14
90.00	15 50 37	5261.24	26.87	237.58	155.07	80.71	17 18 18	4661.2	25.31	229.26
100.00	9 0 30	1422.14	-4.39	350.80	149.43	119.60	9 24 12	822.1	-.41	344.26
100.00	17 19 57	4973.13	28.04	216.16	154.83	79.18	18 42 50	4373.1	26.26	207.81
110.00	9 50 54	1264.30	-7.06	337.18	147.79	123.53	10 11 58	664.3	-2.60	330.93
110.00	18 46 3	4703.74	31.09	194.89	154.03	75.01	20 4 27	4103.7	28.72	186.49

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.6294	TRA	1.1083	TC3	-6.3611	BAU	1.2217	SGT	5209.4	SGR	480.6	SG3	140.6	ST	1094.4	SR	337.3	SS	401.4
RDE	.2169	RRA	-.1658	RC3	.3124	FAU	.02318	RRT	-.5105	RRF	-.4966	RTF	.8891	CRT	.7337	CRS	-.6571	CST	-.9900
FDE	.3174	FRA	.7272	FC3	-1.3985	BSP	16624	SGB	5231.5	R23	.0464	R13	-.8892	LSA	1190.9	MSA	230.4	SSA	35.6
BDE	.6657	BRA	1.1207	BC3	6.3688	FSP	-456	SG1	5215.2	SG2	412.8	THA	177.29	EL1	1123.2	EL2	223.3	ALF	13.28

LAUNCH DATE OCT 9 1970 FLIGHT TIME 174.00 ARRIVAL DATE APR 1 1971

HELIOCENTRIC CONIC DISTANCE 516.095

RL 149.43 LAL .00 LOL 15.29 VL 26.042 GAL .67 AZL 88.87 HCA 260.33 SMA 120.86 ECC .23670 INC 1.1335 V1 29.819
RP 108.80 LAP -1.12 LOP 275.61 VP 36.625 GAP 12.46 AZP 90.19 TAL 177.84 TAP 78.17 RCA 92.25 APO 149.46 V2 34.829
RC 177.047 GL 7.59 GP 13.54 ZAL 78.13 ZAP 165.01 ETS 60.92 ZAE 128.73 ETE 169.23 ZAC 116.20 ETC 269.37 CLP-173.50

PLANETOCENTRIC CONIC

C3 15.195 VHL 3.898 DLA -13.26 RAL 297.81 RAD 6567.6 VEL 11.687 PTH 2.06 VHP 8.037 DPA -10.83 RAP 282.78 ECC 1.2501

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 47 1	1726.17	-5.50	12.55	154.03	117.82	8 15 48	1126.2	-1.74	5.89
90.00	16 18 14	5219.40	26.38	234.62	158.85	79.30	17 45 13	4619.4	24.63	226.38
100.00	9 1 27	1486.03	-6.53	354.33	153.48	119.24	9 26 13	886.0	-2.58	347.77
100.00	17 46 29	4934.78	27.51	213.42	158.59	77.83	19 8 44	4334.8	25.56	205.17
110.00	9 54 9	1320.97	-9.18	340.20	151.86	123.07	10 16 10	721.0	-4.76	333.89
110.00	19 10 16	4672.60	30.52	192.65	157.72	73.79	20 28 9	4072.6	27.99	184.36

DIFFERENTIAL CORRECTIONS
TDE .7680 TRA 1.3235 TC3-6.0565 BAU 1.2317
RDE .2221 RRA -.1780 RC3 .2902 FAU .02193
FDE .3469 FRA .7621 FC3-1.2494 BSP 16816
BDE .7995 BRA 1.3354 BC3 6.0635 FSP -456

MID-COURSE EXECUTION ACCURACY
SGT 5250.1 SGR 479.6 SG3 137.5
RRT -.4912 RRF -.4758 RTF .8945
SGB 5271.9 R23 .0386 R13 -.8947
SG1 5255.4 SG2 417.3 THA 177.41

ORBIT DETERMINATION ACCURACY
ST 1286.0 SR 336.4 SS 428.0
CRT .7380 CRS -.6676 CST -.9923
LSA 1377.3 MSA 229.0 SSA 30.8
EL1 1310.5 EL2 222.7 ALF 11.26

LAUNCH DATE OCT 9 1970 FLIGHT TIME 176.00 ARRIVAL DATE APR 3 1971

HELIOCENTRIC CONIC DISTANCE 521.593

RL 149.43 LAL .00 LOL 15.29 VL 25.988 GAL 1.25 AZL 88.70 HCA 263.49 SMA 120.55 ECC .24049 INC 1.3012 V1 29.819
RP 108.83 LAP -1.29 LOP 278.78 VP 36.580 GAP 12.77 AZP 90.15 TAL 176.05 TAP 79.54 RCA 91.56 APO 149.54 V2 34.822
RC 179.021 GL 8.42 GP 13.10 ZAL 74.69 ZAP 165.70 ETS 62.89 ZAE 128.83 ETE 169.54 ZAC 115.66 ETC 270.03 CLP-174.22

PLANETOCENTRIC CONIC

C3 16.220 VHL 4.027 DLA -11.75 RAL 301.13 RAD 6567.7 VEL 11.730 PTH 2.07 VHP 8.212 DPA -11.16 RAP 285.23 ECC 1.2669

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 47 29	1791.94	-7.58	16.27	158.14	117.36	8 17 21	1191.9	-3.85	9.57
90.00	16 44 17	5183.17	25.89	232.07	162.69	78.12	18 10 40	4583.2	23.99	223.92
100.00	9 2 52	1548.75	-8.60	357.84	157.60	118.74	9 28 41	948.8	-4.69	351.23
100.00	18 11 35	4901.59	27.02	211.08	162.41	76.69	19 33 17	4301.6	24.92	202.91
110.00	9 57 37	1377.26	-11.25	343.24	156.00	122.49	10 20 35	777.3	-6.89	336.86
110.00	19 33 19	4645.85	29.99	190.74	161.48	72.77	20 50 45	4045.8	27.34	182.55

DIFFERENTIAL CORRECTIONS
TDE .8867 TRA 1.5266 TC3-5.7743 BAU 1.2535
RDE .2300 RRA -.1889 RC3 .2707 FAU .02116
FDE .3650 FRA .7891 FC3-1.1292 BSP 17580
BDE .9161 BRA 1.5383 BC3 5.7807 FSP -473

MID-COURSE EXECUTION ACCURACY
SGT 5305.2 SGR 479.6 SG3 134.2
RRT -.4757 RRF -.4609 RTF .9017
SGB 5326.8 R23 .0332 R13 -.9018
SG1 5310.1 SG2 421.4 THA 177.52

ORBIT DETERMINATION ACCURACY
ST 1433.1 SR 357.5 SS 442.3
CRT .7382 CRS -.6720 CST -.9936
LSA 1519.8 MSA 229.8 SSA 27.4
EL1 1455.1 EL2 224.2 ALF 10.10

LAUNCH DATE OCT 9 1970 FLIGHT TIME 178.00 ARRIVAL DATE APR 5 1971

HELIOCENTRIC CONIC DISTANCE 527.062

RL 149.43 LAL .00 LOL 15.29 VL 25.935 GAL 1.85 AZL 88.53 HCA 266.65 SMA 120.25 ECC .24466 INC 1.4667 V1 29.819
RP 108.85 LAP -1.46 LOP 281.94 VP 36.536 GAP 13.09 AZP 90.09 TAL 174.26 TAP 80.91 RCA 90.83 APO 149.67 V2 34.815
RC 180.980 GL 9.14 GP 12.71 ZAL 71.35 ZAP 166.33 ETS 65.09 ZAE 128.92 ETE 169.83 ZAC 115.12 ETC 270.68 CLP-174.93

PLANETOCENTRIC CONIC

C3 17.444 VHL 4.177 DLA -10.32 RAL 304.33 RAD 6567.7 VEL 11.782 PTH 2.08 VHP 8.400 DPA -11.40 RAP 287.68 ECC 1.2871

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 48 25	1856.34	-9.58	19.95	162.33	116.78	8 19 22	1256.3	-5.91	13.19
90.00	17 8 53	5152.21	25.44	229.92	166.57	77.13	18 34 45	4552.2	23.42	221.83
100.00	9 4 39	1610.47	-10.60	1.33	161.79	118.12	9 31 29	1010.5	-6.75	354.65
100.00	18 35 21	4873.34	26.56	209.11	166.27	75.75	19 56 34	4273.3	24.34	201.01
110.00	10 1 16	1433.15	-13.28	346.30	160.21	121.79	10 25 9	833.2	-8.98	339.84
110.00	19 55 13	4623.40	29.53	189.16	165.29	71.94	21 12 17	4023.4	26.78	181.05

DIFFERENTIAL CORRECTIONS
TDE 1.0577 TRA 1.7878 TC3-5.3492 BAU 1.2487
RDE .2352 RRA -.2033 RC3 .2411 FAU .01931
FDE .4052 FRA .6380 FC3 -.9584 BSP 17234
BDE 1.0836 BRA 1.7993 BC3 5.3546 FSP -445

MID-COURSE EXECUTION ACCURACY
SGT 5318.4 SGR 474.4 SG3 131.5
RRT -.4512 RRF -.4338 RTF .9016
SGB 5339.5 R23 .0274 R13 -.9017
SG1 5322.7 SG2 423.0 THA 177.68

ORBIT DETERMINATION ACCURACY
ST 1637.9 SR 333.8 SS 477.2
CRT .7386 CRS -.6807 CST -.9952
LSA 1723.3 MSA 227.3 SSA 24.7
EL1 1656.7 EL2 222.4 ALF 8.72

LAUNCH DATE OCT 9 1970 FLIGHT TIME 180.00 ARRIVAL DATE APR 7 1971

HELIOCENTRIC CONIC DISTANCE 532.490

RL 149.43 LAL .00 LOL 15.29 VL 25.884 GAL 2.48 AZL 88.37 HCA 269.81 SMA 119.96 ECC .24923 INC 1.6310 V1 29.819
RP 108.87 LAP -1.63 LOP 285.10 VP 36.494 GAP 13.44 AZP 90.01 TAL 172.47 TAP 82.29 RCA 90.06 APO 149.86 V2 34.809
RC 182.925 GL 9.75 GP 12.36 ZAL 68.13 ZAP 166.91 ETS 67.53 ZAE 129.01 ETE 170.09 ZAC 114.60 ETC 271.33 CLP-175.65

PLANETOCENTRIC CONIC

C3 18.890 VHL 4.346 DLA -8.96 RAL 307.40 RAD 6567.8 VEL 11.844 PTH 2.10 VHP 8.602 DPA -11.56 RAP 290.15 ECC 1.3109

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 49 43	1919.40	-11.49	23.59	166.56	116.06	8 21 43	1319.4	-7.69	16.76
90.00	17 32 3	5126.36	25.04	228.13	170.48	76.32	18 57 29	4526.4	22.91	220.11
100.00	9 6 42	1671.07	-12.52	4.80	166.03	117.37	9 34 33	1071.1	-8.75	358.04
100.00	18 57 46	4849.92	26.16	207.48	170.17	74.99	20 18 36	4249.9	23.84	199.45
110.00	10 4 59	1488.54	-15.24	349.39	164.47	120.97	10 29 48	888.5	-11.02	342.82
110.00	20 15 57	4605.22	29.14	187.88	169.15	71.28	21 32 43	4005.2	26.31	179.85

DIFFERENTIAL CORRECTIONS
TDE 1.2191 TRA 2.0482 TC3-4.9462 BAU 1.2503
RDE .2429 RRA -.2163 RC3 .2149 FAU .01786
FDE .4368 FRA .8803 FC3 -.8185 BSP 17221
BDE 1.2431 BRA 2.0576 BC3 4.9509 FSP -432

MID-COURSE EXECUTION ACCURACY
SGT 5340.9 SGR 469.8 SG3 128.7
RRT -.4292 RRF -.4112 RTF .9043
SGB 5361.6 R23 .0228 R13 -.9043
SG1 5344.8 SG2 424.0 THA 177.82

ORBIT DETERMINATION ACCURACY
ST 1808.5 SR 331.7 SS 502.0
CRT .7383 CRS -.6860 CST -.9962
LSA 1892.4 MSA 226.0 SSA 22.5
EL1 1825.3 EL2 221.7 ALF 7.83

LAUNCH DATE OCT 9 1970 FLIGHT TIME 182.00 ARRIVAL DATE APR 9 1971

HELIOCENTRIC CONIC DISTANCE 537.873

RL	149.43	LAL	.00	LOL	15.29	VL	25.833	GAL	3.14	AZL	88.20	HCA	272.98	SMA	119.67	ECC	.25425	INC	1.7953
RP	108.88	LAP	-1.79	LOP	288.27	VP	36.453	GAP	13.81	AZP	89.91	TAL	170.69	TAP	83.66	RCA	89.25	APO	150.10
RC	184.854	GL	10.26	GP	12.03	ZAL	65.05	ZAP	167.44	ETS	70.22	ZAE	129.09	ETE	170.33	ZAC	114.09	ETC	271.97

V1	29.819	V2	34.804	CLP	-176.36														

PLANETOCENTRIC CONIC

C3	20.585	VHL	4.537	DLA	-7.67	RAL	310.33	RAD	6567.8	VEL	11.915	PTH	2.12	VHP	8.820	DPA	-11.65	RAP	292.62
ECC	1.3388																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 51 18	1981.17	-13.31	27.22	170.84	115.23	8 24 19	1381.2	-9.80	20.29
90.00	17 53 50	5105.39	24.69	226.70	174.42	75.68	19 18 55	4505.4	22.48	218.72
100.00	9 8 57	1730.66	-14.36	8.27	170.32	116.50	9 37 48	1130.7	-10.68	1.41
100.00	19 18 52	4831.14	25.82	206.19	174.08	74.39	20 39 23	4231.1	23.43	198.21
110.00	10 8 46	1543.37	-17.14	352.51	168.76	120.04	10 34 30	943.4	-13.01	345.82
110.00	20 35 32	4591.20	28.83	186.91	173.02	70.78	21 52 3	3991.2	25.94	178.93

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.3818	TRA	2.3125	TC3	-4.5465	BAU	1.2523	SGT	5361.7	SGR	464.5	SG3	125.8	ST	1960.0	SR	330.1
RDE	.2520	RRA	-.2284	RC3	.1900	FAU	.01652	RRT	-.4070	RRF	-.3890	RTF	.9075	CRT	.7381	CRS	-.6908
FDE	.4657	FRA	.9208	FC3	-.6949	BSP	17300	SGB	5381.8	R23	.0189	R13	-.9076	LSA	2042.7	MSA	224.7
BDE	1.4046	BRA	2.3238	BC3	4.5505	FSP	-422	SG1	5365.1	SG2	424.0	THA	177.97	EL1	1975.3	EL2	221.0

SS	522.5																
CST	-.9969																
SSA	20.8																
ALF	7.18																

LAUNCH DATE OCT 9 1970 FLIGHT TIME 184.00 ARRIVAL DATE APR 11 1971

HELIOCENTRIC CONIC DISTANCE 543.204

RL	149.43	LAL	.00	LOL	15.29	VL	25.782	GAL	3.83	AZL	88.04	HCA	276.14	SMA	119.39	ECC	.25975	INC	1.9605
RP	108.90	LAP	-1.95	LOP	291.43	VP	36.412	GAP	14.20	AZP	89.79	TAL	168.91	TAP	85.05	RCA	88.38	APO	150.41
RC	186.768	GL	10.68	GP	11.73	ZAL	62.11	ZAP	167.91	ETS	73.18	ZAE	129.16	ETE	170.55	ZAC	113.58	ETC	272.60

V1	29.819	V2	34.799	CLP	-177.08														

PLANETOCENTRIC CONIC

C3	22.562	VHL	4.750	DLA	-6.46	RAL	313.11	RAD	6567.9	VEL	11.998	PTH	2.14	VHP	9.055	DPA	-11.67	RAP	295.08
ECC	1.3713																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 53 6	2041.69	-15.03	30.82	175.15	114.28	8 27 8	1441.7	-11.63	23.80
90.00	18 14 17	5089.10	24.41	225.58	178.36	75.19	19 39 6	4489.1	22.14	217.65
100.00	9 11 22	1789.20	-16.10	11.74	174.63	115.53	9 41 11	1189.2	-12.54	4.77
100.00	19 38 42	4816.82	25.55	205.21	178.02	73.93	20 58 59	4216.8	23.10	197.27
110.00	10 12 34	1597.57	-18.95	355.66	173.09	118.99	10 39 12	997.6	-14.94	348.84
110.00	20 53 59	4581.22	28.60	186.22	176.91	70.43	22 10 20	3981.2	25.67	178.27

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.5359	TRA	2.5783	TC3	-4.1734	BAU	1.2599	SGT	5380.3	SGR	458.7	SG3	122.6	ST	2080.4	SR	329.3
RDE	.2832	RRA	-.2391	RC3	.1876	FAU	.01549	RRT	-.3855	RRF	-.3683	RTF	.9121	CRT	.7386	CRS	-.6950
FDE	.4886	FRA	.9564	FC3	-.5944	BSP	17705	SGB	5399.8	R23	.0157	R13	-.9121	LSA	2161.8	MSA	223.8
BDE	1.5583	BRA	2.5894	BC3	4.1767	FSP	-425	SG1	5383.2	SG2	423.0	THA	178.11	EL1	2094.8	EL2	220.5

SS	535.7																
CST	-.9974																
SSA	19.3																
ALF	6.74																

LAUNCH DATE OCT 9 1970 FLIGHT TIME 186.00 ARRIVAL DATE APR 13 1971

HELIOCENTRIC CONIC DISTANCE 548.481

RL	149.43	LAL	.00	LOL	15.29	VL	25.733	GAL	4.56	AZL	87.87	HCA	279.29	SMA	119.12	ECC	.26580	INC	2.1275
RP	108.91	LAP	-2.10	LOP	294.59	VP	36.374	GAP	14.63	AZP	89.66	TAL	167.15	TAP	86.44	RCA	87.46	APO	150.78
RC	188.667	GL	11.01	GP	11.46	ZAL	59.32	ZAP	168.33	ETS	76.40	ZAE	129.22	ETE	170.76	ZAC	113.08	ETC	273.22

V1	29.819	V2	34.795	CLP	-177.79														

PLANETOCENTRIC CONIC

C3	24.860	VHL	4.986	DLA	-5.34	RAL	315.76	RAD	6568.0	VEL	12.093	PTH	2.16	VHP	9.310	DPA	-11.62	RAP	297.54
ECC	1.4091																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 55 4	2100.98	-16.66	34.42	179.48	113.23	8 30 5	1501.0	-13.37	27.28
90.00	18 33 27	5077.24	24.20	224.78	182.31	74.84	19 58 4	4477.2	21.89	216.87
100.00	9 13 54	1846.71	-17.76	15.21	178.98	114.45	9 44 40	1246.7	-14.31	8.11
100.00	19 57 19	4806.75	25.36	204.52	181.95	73.62	21 17 25	4206.7	22.87	196.61
110.00	10 16 22	1651.12	-20.69	358.84	177.45	117.84	10 43 53	1051.1	-16.80	351.87
110.00	21 11 19	4575.10	28.46	185.80	180.82	70.22	22 27 35	3975.1	25.50	177.88

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.7218	TRA	2.8843	TC3	-3.7617	BAU	1.2511	SGT	5391.4	SGR	451.0	SG3	120.2	ST	2219.2	SR	326.9
RDE	.2743	RRA	-.2504	RC3	.1438	FAU	.01401	RRT	-.3603	RRF	-.3435	RTF	.9151	CRT	.7396	CRS	-.7005
FDE	.5211	FRA	1.0032	FC3	-.4879	BSP	17472	SGB	5410.2	R23	.0127	R13	-.9151	LSA	2300.5	MSA	221.7
BDE	1.7435	BRA	2.8952	BC3	3.7644	FSP	-406	SG1	5393.9	SG2	420.5	THA	178.26	EL1	2232.4	EL2	218.7

SS	557.0																
CST	-.9979																
SSA	18.1																
ALF	6.28																

LAUNCH DATE OCT 9 1970 FLIGHT TIME 188.00 ARRIVAL DATE APR 15 1971

HELIOCENTRIC CONIC DISTANCE 553.689

RL	149.43	LAL	.00	LOL	15.29	VL	25.684	GAL	5.33	AZL	87.70	HCA	282.45	SMA	118.86	ECC	.27244	INC	2.2976
RP	108.92	LAP	-2.24	LOP	297.75	VP	36.336	GAP	15.08	AZP	89.50	TAL	165.40	TAP	87.85	RCA	86.48	APO	151.24
RC	190.549	GL	11.27	GP	11.21	ZAL	56.67	ZAP	168.70	ETS	79.90	ZAE	129.27	ETE	170.96	ZAC	112.57	ETC	273.83

V1	29.819	V2	34.791	CLP	-178.52												

PLANETOCENTRIC CONIC

C3	27.524	VHL	5.246	DLA	-4.29	RAL	318.27	RAD	6568.1	VEL	12.202	PTH	2.19	VHP	9.586	DPA	-11.51	RAP	300.00
ECC	1.4530																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 57 11	2159.04	-18.18	38.00	183.84	112.09	8 33 10	1559.0	-15.03	30.74
90.00	18 51 22	5069.58	24.07	224.26	186.25	74.61	20 15 52	4469.6	21.72	216.37
100.00	9 16 30	1903.13	-19.31	18.68	183.34	113.27	9 48 14	1303.1	-16.00	11.45
100.00	20 14 44	4800.72	25.24	204.11	185.88	73.44	21 34 44	4200.7	22.73	196.22
110.00	10 20 8	1703.93	-22.33	2.06	181.84	116.58	10 48 32	1103.9	-18.58	354.93
110.00	21 27 35	4572.69	28.41	185.64	184.72	70.13	22 43 48	3972.7	25.44	177.72

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.9005	TRA	3.1921	TC3	-3.3879	BAU	1.2475	SGT	5400.6	SGR	442.8	SG3	117.5	ST	2327.9	SR	325.3
RDE	.2874	RRA	-.2598	RC3	.1229	FAU	.01282	RRT	-.3351	RRF	-.3195	RTF	.9192	CRT	.7415	CRS	-.7060
FDE	.5484	FRA	1.0458	FC3	-.4032	BSP	17559	SGB	5418.7	R23	.0102	R13	-.9192	LSA	2409.1	MSA	219.7
BDE	1.9221	BRA	3.2027	BC3	3.3901	FSP	-398	SG1	5402.6	SG2	417.1	THA	178.42	EL1	2340.5	EL2	217.1

SS	572.0																
CST	-.9982																
SSA	17.0																
ALF	5.97																

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LAUNCH DATE  OCT  9 1970                          FLIGHT TIME 190.00                          ARRIVAL DATE  APR 17 1971

  HELIOCENTRIC CONIC                                  DISTANCE 558.821
   RL  149.43 LAL     .00 LOL  15.29 VL  25.637 GAL   6.14 AZL  87.53 HCA 285.61 SMA 118.60 ECC .27974 INC 2.4719 V1  29.819
   RP  108.93 LAP   -2.38 LOP 300.91 VP  36.300 GAP  15.57 AZP  89.33 TAL 163.66 TAP  89.28 RCA  85.42 APO 151.77 V2  34.789
   RC 192.414 GL    11.46 GP   10.98 ZAL  54.17 ZAP 169.00 ETS  83.65 ZAE 129.31 ETE 171.14 ZAC 112.07 ETC 274.43 CLP-179.25
  PLANETOCENTRIC CONIC
   C3  30.810 VHL   5.533 DLA  -3.32 RAL 320.65 RAD 6568.2 VEL 12.328 PTH   2.22 VHP  9.886 DPA -11.34 RAP 302.43 ECC 1.5038
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG   INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      90.00      7 59 23   2215.87     -19.60      41.56      188.19      110.86    8 36 19     1615.9     -16.59      34.18
      90.00     19  8  7   5065.89      24.00     224.01      190.19       74.50   20 32 33     4465.9      21.64     216.13
     100.00      9 19 10   1958.48     -20.76      22.15      187.71      112.00    9 51 49     1358.5     -17.60      14.79
     100.00     20 31  0   4798.52      25.20     203.96      189.80       73.37   21 50 59     4198.5      22.68     196.07
     110.00     10 23 52   1755.97     -23.88       5.31      186.23      115.22   10 53  8     1156.0     -20.28     358.01
     110.00     21 42 48   4573.79      28.43     185.71      188.61       70.17   22 59  2     3973.8      25.47     177.79
  DIFFERENTIAL CORRECTIONS                        MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
   TDE 2.0849 TRA 3.5161 TC3-3.0305 BAU 1.2409     SGT 5404.6 SGR  433.8 SG3  114.8          ST  2422.7 SR   323.6 SS   585.8
   RDE  .3019 RRA -.2679 RC3  .1037 FAU .01167     RRT -.3084 RRF -.2944 RTF  .9236          CRT  .7443 CRS -.7120 CST -.9985
   FDE  .5754 FRA 1.0899 FC3 -.3299 BSP  17635     SGB 5422.0 R23  .0083 R13 -.9236          LSA 2503.9 MSA  217.4 SSA   16.0
   BDE 2.1067 BRA 3.5262 BC3 3.0323 FSP   -391     SG1 5406.3 SG2  412.5 THA 178.57          EL1 2434.7 EL2  215.1 ALF   5.72

LAUNCH DATE  OCT  9 1970                          FLIGHT TIME 192.00                          ARRIVAL DATE  APR 19 1971

  HELIOCENTRIC CONIC                                  DISTANCE 563.863
   RL  149.43 LAL     .00 LOL  15.29 VL  25.590 GAL   7.00 AZL  87.35 HCA 288.77 SMA 118.34 ECC .28779 INC 2.6516 V1  29.819
   RP  108.94 LAP   -2.51 LOP 304.08 VP  36.265 GAP  16.11 AZP  89.15 TAL 161.95 TAP  90.72 RCA  84.28 APO 152.40 V2  34.787
   RC 194.261 GL    11.59 GP   10.77 ZAL  51.81 ZAP 169.23 ETS  87.64 ZAE 129.34 ETE 171.32 ZAC 111.57 ETC 275.01 CLP-179.99
  PLANETOCENTRIC CONIC
   C3  34.184 VHL   5.847 DLA  -2.43 RAL 322.89 RAD 6568.3 VEL 12.472 PTH   2.26 VHP 10.213 DPA -11.11 RAP 304.86 ECC 1.5626
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG   INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      90.00      8  1 40   2271.45     -20.91      45.12      192.55      109.54    8 39 31     1671.5     -18.05      37.60
      90.00     19 23 43   5065.92      24.00     224.01      194.10       74.50   20 48  8     4465.9      21.64     216.13
     100.00      9 21 53   2012.71     -22.11      25.62      192.08      110.65    9 55 25     1412.7     -19.10      18.11
     100.00     20 46 11   4799.90      25.23     204.06      193.71       73.41   22  6 11     4199.9      22.71     196.16
     110.00     10 27 32   1807.19     -25.33       8.58      190.64      113.76   10 57 39     1207.2     -21.90       1.11
     110.00     21 57  1   4578.18      28.53     186.01      192.50       70.32   23 13 19     3978.2      25.59     178.08
  DIFFERENTIAL CORRECTIONS                        MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
   TDE 2.2770 TRA 3.8565 TC3-2.6935 BAU 1.2316     SGT 5404.4 SGR  423.8 SG3  112.2          ST  2505.2 SR   321.8 SS   598.8
   RDE  .3179 RRA -.2744 RC3  .0862 FAU .01056     RRT -.2796 RRF -.2675 RTF  .9282          CRT  .7482 CRS -.7188 CST -.9987
   FDE  .6026 FRA 1.1353 FC3 -.2674 BSP  17759     SGB 5421.0 R23  .0068 R13 -.9282          LSA 2586.8 MSA  214.6 SSA   15.2
   BDE 2.2991 BRA 3.8662 BC3 2.6949 FSP   -384     SG1 5405.7 SG2  406.8 THA 178.74          EL1 2516.8 EL2  212.5 ALF   5.53

LAUNCH DATE  OCT  9 1970                          FLIGHT TIME 194.00                          ARRIVAL DATE  APR 21 1971

  HELIOCENTRIC CONIC                                  DISTANCE 568.800
   RL  149.43 LAL     .00 LOL  15.29 VL  25.544 GAL   7.91 AZL  87.16 HCA 291.92 SMA 118.09 ECC .29666 INC 2.8381 V1  29.819
   RP  108.94 LAP   -2.63 LOP 307.24 VP  36.231 GAP  16.69 AZP  88.94 TAL 160.27 TAP  92.20 RCA  83.06 APO 153.13 V2  34.786
   RC 196.090 GL    11.67 GP   10.58 ZAL  49.59 ZAP 169.40 ETS  91.86 ZAE 129.35 ETE 171.49 ZAC 111.07 ETC 275.58 CLP 179.25
  PLANETOCENTRIC CONIC
   C3  38.327 VHL   6.191 DLA  -1.61 RAL 325.00 RAD 6568.5 VEL 12.637 PTH   2.29 VHP 10.571 DPA -10.84 RAP 307.26 ECC 1.6308
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG   INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      90.00      8  4  0   2325.76     -22.10      48.65      196.90      108.17    8 42 46     1725.8     -19.41      41.01
      90.00     19 38 13   5069.42      24.06     224.25      197.98       74.61   21  2 42     4469.4      21.72     216.36
     100.00      9 24 36   2065.79     -23.34      29.08      196.44      109.23    9 59  2     1465.8     -20.50      21.43
     100.00     21  0 18   4804.63      25.32     204.38      197.59       73.56   22 20 23     4204.6      22.82     196.47
     110.00     10 31  7   1857.53     -26.67      11.88      195.05      112.22   11  2  5     1257.5     -23.41       4.23
     110.00     22 10 16   4585.65      28.70     186.53      196.36       70.59   23 26 41     3985.7      25.79     178.56
  DIFFERENTIAL CORRECTIONS                        MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
   TDE 2.4736 TRA 4.2156 TC3-2.3785 BAU 1.2193     SGT 5398.8 SGR  413.1 SG3  109.6          ST  2572.8 SR   319.8 SS   611.2
   RDE  .3353 RRA -.2790 RC3  .0706 FAU .00949     RRT -.2490 RRF -.2389 RTF  .9330          CRT  .7527 CRS -.7261 CST -.9989
   FDE  .6299 FRA 1.1829 FC3 -.2144 BSP  17885     SGB 5414.6 R23  .0055 R13 -.9330          LSA 2655.3 MSA  211.5 SSA   14.4
   BDE 2.4962 BRA 4.2248 BC3 2.3795 FSP   -379     SG1 5399.8 SG2  400.0 THA 178.90          EL1 2584.2 EL2  209.6 ALF   5.38

LAUNCH DATE  OCT  9 1970                          FLIGHT TIME 196.00                          ARRIVAL DATE  APR 23 1971

  HELIOCENTRIC CONIC                                  DISTANCE 573.612
   RL  149.43 LAL     .00 LOL  15.29 VL  25.499 GAL   8.88 AZL  86.97 HCA 295.08 SMA 117.85 ECC .30647 INC 3.0331 V1  29.819
   RP  108.94 LAP   -2.75 LOP 310.40 VP  36.199 GAP  17.33 AZP  88.71 TAL 158.62 TAP  93.70 RCA  81.74 APO 153.97 V2  34.785
   RC 197.900 GL    11.71 GP   10.40 ZAL  47.52 ZAP 169.49 ETS  96.27 ZAE 129.34 ETE 171.65 ZAC 110.57 ETC 276.14 CLP 178.48
  PLANETOCENTRIC CONIC
   C3  43.139 VHL   6.568 DLA   -.86 RAL 326.98 RAD 6568.6 VEL 12.826 PTH   2.33 VHP 10.963 DPA -10.51 RAP 309.63 ECC 1.7100
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT    INJ LONG   INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      90.00      8  6 23   2378.76     -23.18      52.16      201.22      106.73    8 46  1     1778.8     -20.67      44.39
      90.00     19 51 39   5076.13      24.18     224.70      201.84       74.80   21 16 15     4476.1      21.86     216.80
     100.00      9 27 19   2117.66     -24.46      32.52      200.79      107.74   10  2 37     1517.7     -21.80      24.73
     100.00     21 13 24   4812.46      25.47     204.91      201.44       73.80   22 33 36     4212.5      23.00     196.98
     110.00     10 34 39   1906.91     -27.89      15.20      199.46      110.61   11  6 26     1306.9     -24.83       7.36
     110.00     22 22 34   4595.98      28.94     187.24      200.20       70.95   23 39 10     3996.0      26.06     179.24
  DIFFERENTIAL CORRECTIONS                        MID-COURSE EXECUTION ACCURACY              ORBIT DETERMINATION ACCURACY
   TDE 2.6800 TRA 4.5952 TC3-2.0845 BAU 1.2026     SGT 5388.5 SGR  401.6 SG3  107.1          ST  2630.4 SR   317.6 SS   623.9
   RDE  .3542 RRA -.2814 RC3  .0568 FAU .00845     RRT -.2154 RRF -.2076 RTF  .9380          CRT  .7583 CRS -.7342 CST -.9991
   FDE  .6582 FRA 1.2330 FC3 -.1696 BSP  18016     SGB 5403.4 R23  .0045 R13 -.9380          LSA 2713.9 MSA  207.9 SSA   13.7
   BDE 2.7033 BRA 4.6038 BC3 2.0852 FSP   -373     SG1 5389.2 SG2  392.1 THA 179.08          EL1 2641.4 EL2  206.2 ALF   5.26
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LAUNCH DATE OCT 9 1970 FLIGHT TIME 198.00 ARRIVAL DATE APR 25 1971

HELIOCENTRIC CONIC DISTANCE 578.277

RL	149.43	LAL	.00	LOL	15.29	VL	25.455	GAL	9.93	AZL	86.76	HCA	298.24	SMA	117.62	ECC	.31733	INC	3.2384	V1	29.819
RP	108.94	LAP	-2.85	LOP	313.56	VP	36.168	GAP	18.03	AZP	88.47	TAL	157.02	TAP	95.25	RCA	80.30	APO	154.94	V2	34.785
RC	199.690	GL	11.71	GP	10.24	ZAL	45.58	ZAP	169.51	ETS	100.83	ZAE	129.30	ETE	171.81	ZAC	110.06	ETC	276.67	CLP	177.69

PLANETOCENTRIC CONIC

C3	48.742	VHL	6.982	DLA	-.18	RAL	328.84	RAD	6568.8	VEL	13.042	PTH	2.38	VHP	11.394	DPA	-10.14	RAP	311.97	ECC	1.8022

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 8 47	2430.36	-24.15	55.63	205.51	105.25	8 49 17	1830.4	-21.83	47.73
90.00	20 4 5	5085.83	24.36	225.36	205.65	75.09	21 28 50	4485.8	22.07	217.43
100.00	9 30 2	2168.25	-25.47	35.95	205.10	106.21	10 6 10	1568.3	-23.00	28.02
100.00	21 25 30	4823.17	25.67	205.65	205.25	74.13	22 45 53	4223.2	23.25	197.69
110.00	10 38 5	1955.25	-29.01	18.52	203.84	108.93	11 10 40	1355.2	-26.15	10.50
110.00	22 33 57	4608.94	29.22	188.14	204.01	71.42	23 50 46	4008.9	26.40	180.09

DIFFERENTIAL CORRECTIONS

TDE	2.8965	TRA	4.9991	TC3	-1.8116	BAU	1.1809
RDE	.3746	RRA	-.2813	RC3	.0447	FAU	.00741
FDE	.6877	FRA	1.2865	FC3	-.1317	BSP	18143
BDE	2.9207	BRA	5.0070	BC3	1.8122	FSP	-368

MID-COURSE EXECUTION ACCURACY

SGT	5374.1	SGR	389.5	SG3	104.6		
RRT	-.1787	RRF	-.1732	RTF	.9430		
SGB	5388.2	R23	.0038	R13	-.9430		
SG1	5374.5	SG2	383.2	THA	179.25		

ORBIT DETERMINATION ACCURACY

ST	2677.9	SR	315.2	SS	637.1
CRT	.7648	CRS	-.7431	CST	-.9992
LSA	2763.1	MSA	203.7	SSA	13.1
EL1	2688.8	EL2	202.2	ALF	5.17

LAUNCH DATE OCT 9 1970 FLIGHT TIME 200.00 ARRIVAL DATE APR 27 1971

HELIOCENTRIC CONIC DISTANCE 582.765

RL	149.43	LAL	.00	LOL	15.29	VL	25.412	GAL	11.05	AZL	86.54	HCA	301.39	SMA	117.39	ECC	.32938	INC	3.4563	V1	29.819
RP	108.94	LAP	-2.95	LOP	316.73	VP	36.139	GAP	18.80	AZP	88.20	TAL	155.46	TAP	96.85	RCA	78.73	APO	156.06	V2	34.786
RC	201.461	GL	11.67	GP	10.08	ZAL	43.77	ZAP	169.44	ETS	105.49	ZAE	129.24	ETE	171.97	ZAC	109.56	ETC	277.19	CLP	176.87

PLANETOCENTRIC CONIC

C3	55.287	VHL	7.436	DLA	.42	RAL	330.58	RAD	6569.0	VEL	13.291	PTH	2.43	VHP	11.870	DPA	-9.72	RAP	314.28	ECC	1.9099

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 11 12	2480.48	-25.01	59.05	209.75	103.74	8 52 32	1880.5	-22.87	51.03
90.00	20 15 30	5098.26	24.57	226.21	209.41	75.46	21 40 28	4498.3	22.33	218.25
100.00	9 32 44	2217.46	-26.36	39.33	209.37	104.64	10 9 42	1617.5	-24.09	31.27
100.00	21 36 39	4836.51	25.92	206.56	209.02	74.56	22 57 15	4236.5	23.54	198.56
110.00	10 41 26	2002.43	-30.00	21.83	208.19	107.20	11 14 48	1402.4	-27.36	13.64
110.00	22 44 26	4624.31	29.55	189.22	207.78	71.98	24 1 31	4024.3	26.80	181.11

DIFFERENTIAL CORRECTIONS

TDE	3.1259	TRA	5.4308	TC3	-1.5584	BAU	1.1521
RDE	.3967	RRA	-.2784	RC3	.0342	FAU	.00636
FDE	.7192	FRA	1.3441	FC3	-.0996	BSP	18231
BDE	3.1510	BRA	5.4379	BC3	1.5587	FSP	-361

MID-COURSE EXECUTION ACCURACY

SGT	5355.9	SGR	376.9	SG3	102.3		
RRT	-.1383	RRF	-.1351	RTF	.9482		
SGB	5369.2	R23	.0034	R13	-.9482		
SG1	5356.2	SG2	373.3	THA	179.44		

ORBIT DETERMINATION ACCURACY

ST	2717.2	SR	312.4	SS	651.6
CRT	.7722	CRS	-.7527	CST	-.9994
LSA	2804.6	MSA	199.1	SSA	12.4
EL1	2727.9	EL2	197.7	ALF	5.10

LAUNCH DATE OCT 9 1970 FLIGHT TIME 202.00 ARRIVAL DATE APR 29 1971

HELIOCENTRIC CONIC DISTANCE 587.040

RL	149.43	LAL	.00	LOL	15.29	VL	25.370	GAL	12.27	AZL	86.31	HCA	304.55	SMA	117.17	ECC	.34279	INC	3.6893	V1	29.819
RP	108.93	LAP	-3.04	LOP	319.89	VP	36.111	GAP	19.65	AZP	87.91	TAL	153.97	TAP	98.51	RCA	77.01	APO	157.34	V2	34.788
RC	203.212	GL	11.60	GP	9.95	ZAL	42.10	ZAP	169.29	ETS	110.21	ZAE	129.15	ETE	172.12	ZAC	109.06	ETC	277.68	CLP	176.02

PLANETOCENTRIC CONIC

C3	62.964	VHL	7.935	DLA	.97	RAL	332.19	RAD	6569.2	VEL	13.576	PTH	2.48	VHP	12.397	DPA	-9.28	RAP	316.55	ECC	2.0362

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 13 37	2528.99	-25.75	62.41	213.92	102.21	8 55 46	1929.0	-23.81	54.28
90.00	20 25 57	5113.22	24.82	227.23	213.12	75.92	21 51 10	4513.2	22.64	219.24
100.00	9 35 25	2265.16	-27.13	42.66	213.57	103.05	10 13 10	1665.2	-25.07	34.47
100.00	21 46 51	4852.27	26.20	207.65	212.73	75.06	23 7 43	4252.3	23.89	199.61
110.00	10 44 41	2048.33	-30.88	25.12	212.48	105.44	11 18 49	1448.3	-28.46	16.76
110.00	22 54 4	4641.87	29.91	190.46	211.51	72.63	24 11 25	4041.9	27.24	182.28

DIFFERENTIAL CORRECTIONS

TDE	3.3707	TRA	5.8942	TC3	-1.3242	BAU	1.1149
RDE	.4206	RRA	-.2720	RC3	.0254	FAU	.00527
FDE	.7532	FRA	1.4068	FC3	-.0724	BSP	18275
BDE	3.3969	BRA	5.9004	BC3	1.3244	FSP	-354

MID-COURSE EXECUTION ACCURACY

SGT	5334.7	SGR	364.0	SG3	100.1		
RRT	-.0935	RRF	-.0926	RTF	.9533		
SGB	5347.1	R23	.0031	R13	-.9533		
SG1	5334.8	SG2	362.4	THA	179.63		

ORBIT DETERMINATION ACCURACY

ST	2749.3	SR	309.4	SS	667.8
CRT	.7805	CRS	-.7632	CST	-.9995
LSA	2839.4	MSA	193.9	SSA	11.8
EL1	2759.9	EL2	192.7	ALF	5.04

LAUNCH DATE OCT 9 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAY 1 1971

HELIOCENTRIC CONIC DISTANCE 591.056

RL	149.43	LAL	.00	LOL	15.29	VL	25.330	GAL	13.59	AZL	86.06	HCA	307.70	SMA	116.96	ECC	.35775	INC	3.9408	V1	29.819
RP	108.92	LAP	-3.12	LOP	323.06	VP	36.085	GAP	20.61	AZP	87.59	TAL	152.55	TAP	100.25	RCA	75.12	APO	158.80	V2	34.790
RC	204.943	GL	11.50	GP	9.82	ZAL	40.56	ZAP	169.05	ETS	114.94	ZAE	129.01	ETE	172.28	ZAC	108.56	ETC	278.16	CLP	175.13

PLANETOCENTRIC CONIC

C3	72.011	VHL	8.486	DLA	1.44	RAL	333.68	RAD	6569.4	VEL	13.905	PTH	2.54	VHP	12.985	DPA	-8.80	RAP	318.77	ECC	2.1851

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 16 3	2575.73	-26.38	65.69	218.00	100.68	8 58 58	1975.7	-24.64	57.45
90.00	20 35 26	5130.47	25.10	228.42	216.75	76.45	22 0 56	4530.5	22.99	220.38
100.00	9 38 3	2311.19	-27.80	45.92	217.69	101.46	10 16 35	1711.2	-25.94	37.62
100.00	21 56 6	4870.24	26.51	208.89	216.37	75.65	23 17 16	4270.2	24.27	200.81
110.00	10 47 50	2092.77	-31.64	28.36	216.70	103.66	11 22 43	1492.8	-29.44	19.84
110.00	23 2 48	4661.43	30.30	191.83	215.17	73.36	24 20 30	4061.4	27.73	183.60

DIFFERENTIAL CORRECTIONS

TDE	3.6339	TRA	6.3943	TC3	-1.1083	BAU	1.0671
RDE	.4465	RRA	-.2618	RC3	.0180	FAU	.00410
FDE	.7904	FRA	1.4758	FC3	-.0493	BSP	18237
BDE	3.6612	BRA	6.3996	BC3	1.1084	FSP	-346

MID-COURSE EXECUTION ACCURACY

SGT	5311.2	SGR	350.8	SG3	98.0		
RRT	-.0437	RRF	-.0450	RTF	.9585		
SGB	5322.8	R23	.0029	R13	-.9585		
SG1	5311.2	SG2	350.5	THA	179.83		

ORBIT DETERMINATION ACCURACY

ST	2775.2	SR	306.1	SS	686.3
CRT	.7898	CRS	-.7745	CST	-.9996
LSA	2868.9	MSA	188.1	SSA	11.3
EL1	2785.7	EL2	187.1	ALF	5.00

LAUNCH DATE OCT 9 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAY 3 1971

HELIOCENTRIC CONIC DISTANCE 594.754

RL 149.43 LAL .00 LOL 15.29 VL 25.291 GAL 15.03 AZL 85.79 HCA 310.86 SMA 116.76 ECC .37451 INC 4.2146 V1 29.819
RP 108.91 LAP -3.19 LOP 326.23 VP 36.061 GAP 21.67 AZP 87.24 TAL 151.22 TAP 102.08 RCA 73.03 APO 160.48 V2 34.793
RC 206.655 GL 11.38 GP 9.70 ZAL 39.15 ZAP 168.71 ETS 119.62 ZAE 128.83 ETE 172.44 ZAC 108.06 ETC 278.61 CLP 174.19

PLANETOCENTRIC CONIC

C3 82.734 VHL 9.096 DLA 1.85 RAL 335.05 RAD 6569.6 VEL 14.286 PTH 2.60 VHP 13.642 DPA -8.30 RAP 320.93 ECC 2.3616

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 18 28	2620.49	-26.91	68.86	221.96	99.18	9 2 8	2020.5	-25.36	60.53
90.00	20 43 55	5149.84	25.40	229.75	220.30	77.05	22 9 45	4549.8	23.37	221.68
100.00	9 40 40	2355.34	-28.36	49.09	221.69	99.88	10 19 55	1755.3	-26.70	40.68
100.00	22 4 24	4890.22	28.84	210.29	219.92	76.31	23 25 54	4290.2	24.69	202.15
110.00	10 50 53	2135.55	-32.29	31.53	220.81	101.89	11 26 29	1535.5	-30.31	22.87
110.00	23 10 40	4682.78	30.71	193.38	218.76	74.19	24 28 43	4082.8	28.23	185.05

DIFFERENTIAL CORRECTIONS
TDE 3.9187 TRA 6.9364 TC3 -.9096 BAU 1.0062
RDE .4747 RRA -.2469 RC3 .0122 FAU .00282
FDE .8315 FRA 1.5520 FC3 -.0296 BSP 18095
BDE 3.9473 BRA 6.9408 BC3 .9097 FSP -336

MID-COURSE EXECUTION ACCURACY
SGT 5286.1 SGR 337.8 SG3 96.0
RRT .0119 RRF .0086 RTF .9635
SGB 5296.8 R23 -.0029 R13 .9635
SG1 5286.1 SG2 337.8 THA .04

ORBIT DETERMINATION ACCURACY
ST 2795.6 SR 302.7 SS 707.6
CRT .8000 CRS -.7866 CST -.9996
LSA 2893.9 MSA 181.9 SSA 10.7
EL1 2806.1 EL2 180.9 ALF 4.97

LAUNCH DATE OCT 9 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAY 5 1971

HELIOCENTRIC CONIC DISTANCE 598.058

RL 149.43 LAL .00 LOL 15.29 VL 25.253 GAL 16.61 AZL 85.48 HCA 314.01 SMA 116.56 ECC .39332 INC 4.5160 V1 29.819
RP 108.90 LAP -3.25 LOP 329.39 VP 36.038 GAP 22.87 AZP 86.86 TAL 150.00 TAP 104.02 RCA 70.72 APO 162.41 V2 34.797
RC 208.346 GL 11.24 GP 9.58 ZAL 37.88 ZAP 168.27 ETS 124.22 ZAE 128.59 ETE 172.60 ZAC 107.57 ETC 279.03 CLP 173.20

PLANETOCENTRIC CONIC

C3 95.525 VHL 9.774 DLA 2.19 RAL 336.29 RAD 6569.9 VEL 14.726 PTH 2.66 VHP 14.380 DPA -7.78 RAP 323.03 ECC 2.5721

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 20 52	2663.03	-27.33	71.90	225.79	97.71	9 5 15	2063.0	-25.98	63.49
90.00	20 51 25	5171.14	25.72	231.23	223.75	77.73	22 17 36	4571.1	23.77	223.11
100.00	9 43 14	2397.36	-28.81	52.13	225.55	98.34	10 23 11	1797.4	-27.36	43.63
100.00	22 11 44	4912.04	27.18	211.82	223.38	77.05	23 33 36	4312.0	25.12	203.62
110.00	10 53 49	2176.43	-32.82	34.60	224.79	100.14	11 30 6	1576.4	-31.07	25.81
110.00	23 17 38	4705.74	31.12	195.04	222.26	75.09	24 36 4	4105.7	28.76	186.63

DIFFERENTIAL CORRECTIONS
TDE 4.2288 TRA 7.5267 TC3 -.7275 BAU .9292
RDE .5056 RRA -.2265 RC3 .0077 FAU .00140
FDE .8772 FRA 1.6368 FC3 -.0127 BSP 17831
BDE 4.2589 BRA 7.5301 BC3 .7276 FSP -324

MID-COURSE EXECUTION ACCURACY
SGT 5259.8 SGR 325.2 SG3 94.1
RRT .0741 RRF .0690 RTF .9685
SGB 5269.8 R23 -.0030 R13 .9685
SG1 5259.8 SG2 324.3 THA .26

ORBIT DETERMINATION ACCURACY
ST 2811.1 SR 299.1 SS 732.3
CRT .8112 CRS -.7995 CST -.9997
LSA 2915.0 MSA 175.2 SSA 10.1
EL1 2821.6 EL2 174.3 ALF 4.95

LAUNCH DATE OCT 9 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAY 7 1971

HELIOCENTRIC CONIC DISTANCE 600.870

RL 149.43 LAL .00 LOL 15.29 VL 25.217 GAL 18.35 AZL 85.15 HCA 317.17 SMA 116.38 ECC .41451 INC 4.8514 V1 29.819
RP 108.89 LAP -3.30 LOP 332.56 VP 36.017 GAP 24.23 AZP 86.44 TAL 148.92 TAP 106.09 RCA 68.14 APO 164.62 V2 34.802
RC 210.017 GL 11.08 GP 9.48 ZAL 36.75 ZAP 167.71 ETS 128.71 ZAE 128.29 ETE 172.78 ZAC 107.09 ETC 279.43 CLP 172.14

PLANETOCENTRIC CONIC

C3 110.894 VHL 10.531 DLA 2.46 RAL 337.40 RAD 6570.1 VEL 15.239 PTH 2.73 VHP 15.215 DPA -7.26 RAP 325.06 ECC 2.8250

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 23 16	2703.03	-27.66	74.78	229.43	96.30	9 8 19	2103.0	-26.50	66.31
90.00	20 57 51	5194.25	26.05	232.85	227.07	78.48	22 24 25	4594.2	24.19	224.67
100.00	9 45 45	2436.95	-29.17	55.02	229.24	96.86	10 26 22	1837.0	-27.91	46.44
100.00	22 18 3	4935.56	27.53	213.48	226.73	77.86	23 40 18	4335.6	25.57	205.22
110.00	10 56 38	2215.11	-33.25	37.53	228.59	98.45	11 33 33	1615.1	-31.72	28.64
110.00	23 23 39	4730.17	31.54	196.82	225.66	76.07	24 42 29	4130.2	29.30	188.33

DIFFERENTIAL CORRECTIONS
TDE 4.5674 TRA 8.1710 TC3 -.5618 BAU .8330
RDE .5398 RRA -.1996 RC3 .0045 FAU-.00022
FDE .9282 FRA 1.7315 FC3 .0017 BSP 17441
BDE 4.5992 BRA 8.1734 BC3 .5619 FSP -310

MID-COURSE EXECUTION ACCURACY
SGT 5232.3 SGR 313.3 SG3 92.4
RRT .1433 RRF .1368 RTF .9732
SGB 5241.7 R23 -.0032 R13 .9732
SG1 5232.5 SG2 310.1 THA .49

ORBIT DETERMINATION ACCURACY
ST 2821.2 SR 295.5 SS 761.0
CRT .8232 CRS -.8132 CST -.9998
LSA 2932.1 MSA 168.0 SSA 9.6
EL1 2831.7 EL2 167.1 ALF 4.95

LAUNCH DATE OCT 9 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAY 9 1971

HELIOCENTRIC CONIC DISTANCE 603.060

RL 149.43 LAL .00 LOL 15.29 VL 25.183 GAL 20.30 AZL 84.77 HCA 320.32 SMA 116.20 ECC .43848 INC 5.2292 V1 29.819
RP 108.87 LAP -3.34 LOP 335.73 VP 35.998 GAP 25.77 AZP 85.97 TAL 148.00 TAP 108.33 RCA 65.25 APO 167.16 V2 34.807
RC 211.667 GL 10.90 GP 9.38 ZAL 35.77 ZAP 167.03 ETS 133.06 ZAE 127.90 ETE 172.97 ZAC 106.61 ETC 279.80 CLP 171.00

PLANETOCENTRIC CONIC

C3 129.508 VHL 11.380 DLA 2.66 RAL 338.36 RAD 6570.4 VEL 15.838 PTH 2.80 VHP 16.163 DPA -6.73 RAP 327.00 ECC 3.1314

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 25 38	2740.13	-27.91	77.47	232.87	94.98	9 11 18	2140.1	-26.93	68.94
90.00	21 3 10	5219.05	26.37	234.59	230.25	79.29	22 30 9	4619.1	24.63	226.36
100.00	9 48 13	2473.76	-29.43	57.72	232.71	95.46	10 29 27	1873.8	-28.37	49.08
100.00	22 23 16	4960.66	27.87	215.26	229.93	78.74	23 45 57	4360.7	26.04	206.94
110.00	10 59 19	2251.24	-33.57	40.30	232.19	96.85	11 36 50	1651.2	-32.26	31.32
110.00	23 28 40	4755.94	31.94	198.72	228.92	77.13	24 47 56	4155.9	29.84	190.14

DIFFERENTIAL CORRECTIONS
TDE 4.9390 TRA 8.8765 TC3 -.4117 BAU .7129
RDE .5779 RRA -.1650 RC3 .0025 FAU-.00210
FDE .9854 FRA 1.8577 FC3 .0140 BSP 16905
BDE 4.9727 BRA 8.8781 BC3 .4117 FSP -295

MID-COURSE EXECUTION ACCURACY
SGT 5203.6 SGR 302.7 SG3 90.8
RRT .2198 RRF .2122 RTF .9776
SGB 5212.4 R23 -.0034 R13 .9776
SG1 5204.0 SG2 295.2 THA .73

ORBIT DETERMINATION ACCURACY
ST 2825.9 SR 292.0 SS 794.1
CRT .8362 CRS -.8276 CST -.9998
LSA 2945.5 MSA 160.3 SSA 9.0
EL1 2836.5 EL2 159.6 ALF 4.95

LAUNCH DATE OCT 9 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAY 11 1971

HELIOCENTRIC CONIC DISTANCE 604.455

RL	149.43	LAL	.00	LOL	15.29	VL	25.152	GAL	22.48	AZL	84.34	HCA	323.48	SMA	116.04	ECC	.46566	INC	5.6611	V1	29.819
RP	108.86	LAP	-3.37	LOP	338.90	VP	35.982	GAP	27.54	AZP	85.45	TAL	147.29	TAP	110.77	RCA	62.01	APO	170.08	V2	34.813
RC	213.296	GL	10.71	GP	9.28	ZAL	34.95	ZAP	166.21	ETS	137.25	ZAE	127.41	ETE	173.17	ZAC	106.15	ETC	280.14	CLP	169.75

PLANETOCENTRIC CONIC

C3	152.251	VHL	12.339	DLA	2.78	RAL	339.17	RAD	6570.7	VEL	16.540	PTH	2.88	VHP	17.247	DPA	-6.22	RAP	328.83	ECC	3.5057

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 27 59	2773.87	-28.09	79.92	236.05	93.76	9 14 13	2173.9	-27.27	71.35
90.00	21 7 16	5245.53	26.69	236.46	233.26	80.18	22 34 41	4645.5	25.06	228.17
100.00	9 50 37	2507.32	-29.63	60.20	235.93	94.17	10 32 25	1907.3	-28.73	51.51
100.00	22 27 18	4987.31	28.21	217.17	232.96	79.69	23 50 26	4387.3	26.50	208.79
110.00	11 1 50	2284.41	-33.81	42.86	235.52	95.35	11 39 55	1684.4	-32.70	33.80
110.00	23 32 35	4782.98	32.34	200.73	232.03	78.26	24 52 18	4183.0	30.38	192.06

DIFFERENTIAL CORRECTIONS

TDE	5.2983	TRA	9.6016	TC3	-.2898	BAU	.5899
RDE	.6204	RRA	-.1215	RC3	.0015	FAU	-.00384
FDE	1.0391	FRA	1.9464	FC3	.0218	BSP	17404
BDE	5.3344	BRA	9.6023	BC3	.2898	FSP	-300

MID-COURSE EXECUTION ACCURACY

SGT	5146.7	SGR	293.6	SG3	88.7		
RRT	.3004	RRF	.2921	RTF	.9816		
SGB	5155.1	R23	-.0038	R13	.9816		
SG1	5147.5	SG2	280.0	THA	.98		

ORBIT DETERMINATION ACCURACY

ST	2801.1	SR	288.6	SS	824.9
CRT	.8487	CRS	-.8412	CST	-.9998
LSA	2930.3	MSA	152.7	SSA	8.5
EL1	2811.9	EL2	152.0	ALF	5.01

LAUNCH DATE OCT 9 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAY 13 1971

HELIOCENTRIC CONIC DISTANCE 604.836

RL	149.43	LAL	.00	LOL	15.29	VL	25.124	GAL	24.94	AZL	83.84	HCA	326.63	SMA	115.90	ECC	.49658	INC	6.1625	V1	29.819
RP	108.83	LAP	-3.38	LOP	342.07	VP	35.969	GAP	29.59	AZP	84.85	TAL	146.83	TAP	113.46	RCA	58.35	APO	173.45	V2	34.819
RC	214.903	GL	10.49	GP	9.18	ZAL	34.32	ZAP	165.23	ETS	141.29	ZAE	126.79	ETE	173.40	ZAC	105.71	ETC	280.44	CLP	168.37

PLANETOCENTRIC CONIC

C3	180.309	VHL	13.428	DLA	2.81	RAL	339.80	RAD	6570.9	VEL	17.368	PTH	2.96	VHP	18.493	DPA	-5.73	RAP	330.54	ECC	3.9674

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 30 18	2803.74	-28.20	82.10	238.94	92.67	9 17 2	2203.7	-27.53	73.50
90.00	21 9 59	5273.68	27.00	238.47	236.07	81.14	22 37 53	4673.7	25.50	230.12
100.00	9 52 57	2537.15	-29.75	62.40	238.85	93.02	10 35 15	1937.1	-29.02	53.68
100.00	22 30 2	5015.51	28.54	219.20	235.79	80.71	23 53 37	4415.5	26.96	210.76
110.00	11 4 12	2314.15	-33.98	45.17	238.54	93.99	11 42 46	1714.1	-33.05	36.05
110.00	23 35 16	4811.27	32.71	202.86	234.94	79.46	24 55 27	4211.3	30.91	194.10

DIFFERENTIAL CORRECTIONS

TDE	5.7170	TRA	10.4219	TC3	-.1745	BAU	.4207
RDE	.6686	RRA	-.0670	RC3	.0015	FAU	-.00624
FDE	1.1054	FRA	2.0752	FC3	.0300	BSP	17303
BDE	5.7559	BRA	10.4221	BC3	.1745	FSP	-294

MID-COURSE EXECUTION ACCURACY

SGT	5098.3	SGR	286.7	SG3	87.0		
RRT	.3876	RRF	.3791	RTF	.9852		
SGB	5106.4	R23	-.0041	R13	.9852		
SG1	5099.5	SG2	264.3	THA	1.25		

ORBIT DETERMINATION ACCURACY

ST	2781.2	SR	285.4	SS	865.2
CRT	.8623	CRS	-.8559	CST	-.9999
LSA	2923.0	MSA	144.7	SSA	7.9
EL1	2792.1	EL2	144.0	ALF	5.07

LAUNCH DATE OCT 9 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAY 15 1971

HELIOCENTRIC CONIC DISTANCE 603.905

RL	149.43	LAL	.00	LOL	15.29	VL	25.099	GAL	27.74	AZL	83.24	HCA	329.79	SMA	115.77	ECC	.53181	INC	6.7556	V1	29.819
RP	108.81	LAP	-3.39	LOP	345.25	VP	35.958	GAP	31.96	AZP	84.16	TAL	146.67	TAP	116.46	RCA	54.20	APO	177.34	V2	34.826
RC	216.489	GL	10.26	GP	9.07	ZAL	33.90	ZAP	164.06	ETS	145.16	ZAE	126.03	ETE	173.65	ZAC	105.28	ETC	280.71	CLP	166.84

PLANETOCENTRIC CONIC

C3	215.277	VHL	14.672	DLA	2.73	RAL	340.24	RAD	6571.2	VEL	18.347	PTH	3.03	VHP	19.934	DPA	-5.29	RAP	332.11	ECC	4.5429

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 32 36	2829.08	-28.27	83.95	241.47	91.75	9 19 45	2229.1	-27.73	75.32
90.00	21 11 10	5303.65	27.30	240.61	238.63	82.17	22 39 34	4703.6	25.93	232.21
100.00	9 55 13	2562.60	-29.83	64.29	241.41	92.03	10 37 55	1962.6	-29.23	55.54
100.00	22 31 15	5045.36	28.85	221.37	238.38	81.81	23 55 20	4445.4	27.41	212.86
110.00	11 6 23	2339.85	-34.08	47.17	241.20	92.81	11 45 23	1739.9	-33.32	38.01
110.00	23 36 34	4840.88	33.05	205.10	237.63	80.74	24 57 15	4240.9	31.42	196.25

DIFFERENTIAL CORRECTIONS

TDE	6.1750	TRA	11.3206	TC3	-.0725	BAU	.2088
RDE	.7237	RRA	.0006	RC3	.0023	FAU	-.00923
FDE	1.1805	FRA	2.2212	FC3	.0371	BSP	17193
BDE	6.2173	BRA	11.3206	BC3	.0726	FSP	-289

MID-COURSE EXECUTION ACCURACY

SGT	5044.5	SGR	282.7	SG3	85.5		
RRT	.4776	RRF	.4693	RTF	.9883		
SGB	5052.4	R23	-.0044	R13	.9883		
SG1	5046.3	SG2	248.3	THA	1.54		

ORBIT DETERMINATION ACCURACY

ST	2752.7	SR	282.6	SS	912.0
CRT	.8761	CRS	-.8707	CST	-.9999
LSA	2910.4	MSA	136.4	SSA	7.4
EL1	2763.9	EL2	135.7	ALF	5.15

LAUNCH DATE OCT 9 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAY 17 1971

HELIOCENTRIC CONIC DISTANCE 601.266

RL	149.43	LAL	.00	LOL	15.29	VL	25.078	GAL	30.95	AZL	82.53	HCA	332.94	SMA	115.67	ECC	.57197	INC	7.4730	V1	29.819
RP	108.79	LAP	-3.39	LOP	348.42	VP	35.951	GAP	34.74	AZP	83.34	TAL	146.90	TAP	119.84	RCA	49.51	APO	181.83	V2	34.834
RC	218.051	GL	10.00	GP	8.96	ZAL	33.72	ZAP	162.68	ETS	148.86	ZAE	125.07	ETE	173.93	ZAC	104.89	ETC	280.94	CLP	165.11

PLANETOCENTRIC CONIC

C3	259.311	VHL	16.103	DLA	2.54	RAL	340.44	RAD	6571.5	VEL	19.510	PTH	3.11	VHP	21.612	DPA	-4.90	RAP	333.49	ECC	5.2676

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 34 51	2849.14	-28.30	85.41	243.58	91.01	9 22 20	2249.1	-27.86	76.78
90.00	21 10 33	5335.67	27.58	242.91	240.91	83.29	22 39 29	4735.7	26.36	234.46
100.00	9 57 22	2582.95	-29.87	65.80	243.55	91.23	10 40 25	1983.0	-29.38	57.03
100.00	22 30 43	5077.09	29.13	223.69	240.70	82.99	23 55 20	4477.1	27.86	215.11
110.00	11 8 20	2360.85	-34.14	48.81	243.41	91.85	11 47 41	1760.8	-33.51	39.62
110.00	23 36 15	4871.96	33.37	207.47	240.05	82.11	24 57 27	4272.0	31.92	198.54

DIFFERENTIAL CORRECTIONS

TDE	6.6752	TRA	12.3032	TC3	.0168	BAU	.0599
RDE	.7876	RRA	.0840	RC3	.0040	FAU	-.01302
FDE	1.2656	FRA	2.3870	FC3	.0435	BSP	17050
BDE	6.7215	BRA	12.3034	BC3	.0173	FSP	-284

MID-COURSE EXECUTION ACCURACY

SGT	4984.4	SGR	282.1	SG3	84.0		
RRT	.5670	RRF	.5594	RTF	.9910		
SGB	4992.4	R23	-.0046	R13	.9910		
SG1	4987.0	SG2	232.2	THA	1.84		

ORBIT DETERMINATION ACCURACY

ST	2714.6	SR	280.4	SS	966.3
CRT	.8900	CRS	-.8854	CST	-.9999
LSA	2892.2	MSA	128.0	SSA	6.8
EL1	2726.1	EL2	127.3	ALF	5.26

LAUNCH DATE OCT 10 1970 FLIGHT TIME 70.00 ARRIVAL DATE DEC 19 1970

HELIOCENTRIC CONIC DISTANCE 204.941

RL	149.39	LAL	.00	LOL	16.28	VL	29.018	GAL	-14.42	AZL	88.12	HCA	93.57	SMA	141.98	ECC	.25416	INC	1.8753	V1	29.827
RP	107.53	LAP	1.87	LOP	109.85	VP	39.163	GAP	-4.47	AZP	90.12	TAL	244.11	TAP	337.68	RCA	105.89	APO	178.07	V2	35.243
RC	64.375	GL	7.54	GP	-22.79	ZAL	163.74	ZAP	55.12	ETS	13.56	ZAE	152.78	ETE	295.59	ZAC	78.06	ETC	259.25	CLP	-51.67

PLANETOCENTRIC CONIC

C3	49.166	VHL	7.012	DLA	-4.66	RAL	211.24	RAD	6568.8	VEL	13.059	PTH	2.38	VHP	5.186	DPA	-40.46	RAP	228.19	ECC	1.8091

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 49 2	2293.49	-21.40	46.54	86.60	109.00	1 27 16	1693.5	-18.61	38.98
90.00	11 37 43	5227.02	26.47	235.15	90.08	79.56	13 4 50	4627.0	24.76	226.90
100.00	2 8 12	2038.15	-22.71	27.27	86.10	109.98	2 42 10	1438.2	-19.78	19.70
100.00	13 1 14	4957.59	27.83	215.05	89.79	78.63	14 23 52	4357.6	25.98	206.73
110.00	3 11 25	1840.21	-26.22	10.74	84.60	112.77	3 42 6	1840.2	-22.90	3.15
110.00	14 14 30	4728.30	31.51	196.69	88.84	75.99	15 33 18	4128.3	29.26	188.20

DIFFERENTIAL CORRECTIONS

TDE	.1790	TRA	-.5151	TC3	.0743	BAU	.1889
RDE	-.2741	RRA	-.3180	RC3	-.2776	FAU	.07994
FDE	1.1303	FRA	-.8854	FC3	-1.4076	BSP	1065
BDE	.3274	BRA	.6053	BC3	.2874	FSP	-550

MID-COURSE EXECUTION ACCURACY

SGT	458.9	SGR	519.3	SG3	198.5		
RRT	.1543	RRF	.6294	RTF	.2239		
SGB	693.0	RZ3	.1104	R13	.6328		
SG1	536.0	SG2	439.3	THA	64.41		

ORBIT DETERMINATION ACCURACY

ST	193.5	SR	237.6	SS	426.0
CRT	-.4980	CRS	.8376	CST	-.8831
LSA	500.9	MSA	154.8	SSA	21.6
EL1	267.8	EL2	148.9	ALF	123.74

LAUNCH DATE OCT 10 1970 FLIGHT TIME 72.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 211.600

RL	149.39	LAL	.00	LOL	16.28	VL	29.032	GAL	-14.28	AZL	87.96	HCA	96.81	SMA	142.10	ECC	.25156	INC	2.0434	V1	29.827
RP	107.51	LAP	2.03	LOP	113.09	VP	39.177	GAP	-3.76	AZP	90.24	TAL	244.33	TAP	341.14	RCA	106.35	APO	177.84	V2	35.247
RC	66.441	GL	8.30	GP	-24.01	ZAL	163.46	ZAP	59.87	ETS	11.52	ZAE	152.66	ETE	288.45	ZAC	76.65	ETC	258.88	CLP	-56.67

PLANETOCENTRIC CONIC

C3	48.302	VHL	6.950	DLA	-3.91	RAL	211.42	RAD	6568.8	VEL	13.026	PTH	2.38	VHP	4.970	DPA	-41.03	RAP	225.64	ECC	1.7949

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 44 9	2312.39	-21.82	47.77	86.69	108.51	1 22 42	1712.4	-19.09	40.16
90.00	11 44 2	5199.26	26.11	233.20	89.60	78.64	13 10 42	4599.3	24.28	225.01
100.00	2 3 40	2055.90	-23.12	28.43	86.20	109.50	2 37 56	1455.9	-20.25	20.81
100.00	13 7 13	4930.98	27.46	213.16	89.28	77.70	14 29 24	4331.0	25.49	204.91
110.00	3 7 43	1855.40	-26.61	11.74	84.73	112.29	3 38 38	1255.4	-23.35	4.10
110.00	14 19 40	4704.25	31.10	194.93	88.27	75.03	15 38 4	4104.2	28.73	186.53

DIFFERENTIAL CORRECTIONS

TDE	.2048	TRA	-.5514	TC3	.0347	BAU	.1987
RDE	-.2466	RRA	-.3284	RC3	-.3058	FAU	.08570
FDE	1.2558	FRA	-.9431	FC3	-1.5360	BSP	1207
BDE	.3205	BRA	.6407	BC3	.3078	FSP	-608

MID-COURSE EXECUTION ACCURACY

SGT	488.3	SGR	542.9	SG3	215.8		
RRT	.2567	RRF	.6891	RTF	.3499		
SGB	730.2	RZ3	.1361	R13	.6806		
SG1	583.3	SG2	439.2	THA	56.24		

ORBIT DETERMINATION ACCURACY

ST	217.2	SR	219.2	SS	456.6
CRT	-.4889	CRS	.8184	CST	-.8947
LSA	527.9	MSA	156.8	SSA	21.5
EL1	266.2	EL2	156.0	ALF	134.48

LAUNCH DATE OCT 10 1970 FLIGHT TIME 74.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 218.216

RL	149.39	LAL	.00	LOL	16.28	VL	29.035	GAL	-14.13	AZL	87.79	HCA	100.05	SMA	142.13	ECC	.24914	INC	2.2138	V1	29.827
RP	107.50	LAP	2.18	LOP	116.34	VP	39.183	GAP	-3.08	AZP	90.39	TAL	244.40	TAP	344.45	RCA	106.72	APO	177.54	V2	35.251
RC	68.539	GL	9.08	GP	-25.21	ZAL	163.06	ZAP	64.72	ETS	9.40	ZAE	152.23	ETE	280.98	ZAC	75.22	ETC	258.49	CLP	-61.83

PLANETOCENTRIC CONIC

C3	47.495	VHL	6.892	DLA	-3.18	RAL	211.69	RAD	6568.8	VEL	12.995	PTH	2.37	VHP	4.792	DPA	-41.50	RAP	222.89	ECC	1.7816

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 39 44	2331.04	-22.21	49.00	86.88	108.03	1 18 35	1731.0	-19.54	41.34
90.00	11 50 36	5172.17	25.74	231.31	89.24	77.76	13 16 48	4572.2	23.79	223.18
100.00	1 59 36	2073.43	-23.51	29.58	86.41	109.01	2 34 9	1473.4	-20.70	21.91
100.00	13 13 25	4905.02	27.07	211.32	88.90	76.81	14 35 10	4305.0	24.98	203.14
110.00	3 4 26	1870.45	-27.00	12.74	84.98	111.81	3 35 37	1270.4	-23.79	5.04
110.00	14 25 4	4680.77	30.67	193.23	87.83	74.11	15 43 5	4080.8	28.19	184.92

DIFFERENTIAL CORRECTIONS

TDE	.2371	TRA	-.5930	TC3	-.0123	BAU	.2122
RDE	-.2177	RRA	-.3327	RC3	-.3340	FAU	.09095
FDE	1.3775	FRA	-.9897	FC3	-1.6578	BSP	1593
BDE	.3219	BRA	.6800	BC3	.3342	FSP	-663

MID-COURSE EXECUTION ACCURACY

SGT	531.9	SGR	566.9	SG3	232.0		
RRT	.3612	RRF	.7046	RTF	.4700		
SGB	777.4	RZ3	.1490	R13	.7264		
SG1	642.5	SG2	437.7	THA	50.01		

ORBIT DETERMINATION ACCURACY

ST	246.6	SR	199.7	SS	485.9
CRT	-.4746	CRS	.7930	CST	-.9068
LSA	558.0	MSA	158.0	SSA	21.4
EL1	275.6	EL2	157.3	ALF	147.06

LAUNCH DATE OCT 10 1970 FLIGHT TIME 76.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 224.789

RL	149.39	LAL	.00	LOL	16.28	VL	29.029	GAL	-13.99	AZL	87.61	HCA	103.29	SMA	142.07	ECC	.24689	INC	2.3877	V1	29.827
RP	107.49	LAP	2.32	LOP	119.58	VP	39.181	GAP	-2.44	AZP	90.55	TAL	244.34	TAP	347.63	RCA	107.00	APO	177.15	V2	35.254
RC	70.666	GL	9.88	GP	-26.38	ZAL	162.56	ZAP	69.60	ETS	7.20	ZAE	151.46	ETE	273.42	ZAC	73.80	ETC	258.08	CLP	-67.11

PLANETOCENTRIC CONIC

C3	46.733	VHL	6.836	DLA	-2.45	RAL	212.04	RAD	6568.7	VEL	12.965	PTH	2.36	VHP	4.650	DPA	-41.89	RAP	220.03	ECC	1.7691

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 35 43	2349.62	-22.60	50.22	87.18	107.53	1 14 53	1749.6	-19.99	42.52
90.00	11 57 25	5145.49	25.34	229.45	88.98	76.92	13 23 11	4545.5	23.29	221.39
100.00	1 55 55	2090.91	-23.89	30.74	86.72	108.52	2 30 46	1490.9	-21.14	23.02
100.00	13 19 54	4879.44	26.66	209.53	88.63	75.95	14 41 14	4279.4	24.46	201.42
110.00	3 1 33	1885.47	-27.37	13.75	85.32	111.32	3 32 58	1285.5	-24.23	5.99
110.00	14 30 46	4657.64	30.23	191.58	87.51	73.22	15 48 24	4057.6	27.63	183.35

DIFFERENTIAL CORRECTIONS

TDE	.2763	TRA	-.6394	TC3	-.0664	BAU	.2296
RDE	-.1882	RRA	-.3363	RC3	-.3614	FAU	.09545
FDE	1.4906	FRA	-1.0226	FC3	-1.7682	BSP	1621
BDE	.3343	BRA	.7224	BC3	.3675	FSP	-715

MID-COURSE EXECUTION ACCURACY

SGT	591.2	SGR	590.5	SG3	246.5		
RRT	.4575	RRF	.7357	RTF	.5744		
SGB	835.6	RZ3	.1558	R13	.7672		
SG1	713.3	SG2	435.2	THA	44.92		

ORBIT DETERMINATION ACCURACY

ST	282.0	SR	179.6	SS	513.3
CRT	-.4514	CRS	.7591	CST	-.9184
LSA	591.4	MSA	158.2	SSA	21.3
EL1	297.9	EL2	151.7	ALF	157.97

LAUNCH DATE OCT 10 1970 FLIGHT TIME 78.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 231.320

RL	149.39	LAL	.00	LOL	16.28	VL	29.015	GAL	-13.85	AZL	87.43	HCA	106.54	SMA	141.95	ECC	.24475	INC	2.5664	V1	29.827
RP	107.48	LAP	2.46	LOP	122.83	VP	39.173	GAP	-1.83	AZP	90.73	TAL	244.15	TAP	350.69	RCA	107.21	APO	176.69	V2	35.256
RC	72.818	GL	10.72	GP	-27.51	ZAL	161.95	ZAP	74.49	ETS	4.92	ZAE	150.33	ETE	266.05	ZAC	72.40	ETC	257.67	CLP	-72.45

PLANETOCENTRIC CONIC

C3	46.009	VHL	6.783	DLA	-1.72	RAL	212.47	RAD	6568.7	VEL	12.937	PTH	2.36	VHP	4.541	DPA	-42.18	RAP	217.12	ECC	1.7572

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 32 2	2368.33	-22.98	51.46	87.57	107.02	1 11 30	1768.3	-20.43	43.72
90.00	12 4 34	5118.95	24.92	227.62	88.83	76.09	13 29 53	4519.0	22.76	219.62
100.00	1 52 34	2108.52	-24.27	31.91	87.13	108.01	2 27 43	1508.5	-21.58	24.15
100.00	13 26 43	4854.00	26.23	207.77	88.46	75.12	14 47 37	4254.0	23.93	199.72
110.00	2 58 59	1900.64	-27.74	14.77	85.76	110.82	3 30 39	1300.6	-24.66	6.96
110.00	14 36 47	4634.64	29.76	189.95	87.29	72.36	15 54 2	4034.6	27.06	181.80

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.3223	TRA	-.6899	TC3	-.1272	BAU	.2508	SGT	666.2	SGR	612.5	SG3	258.7	ST	323.6	SR	159.6
RDE	-.1585	RRA	-.3367	RC3	-.3874	FAU	.09902	RRT	.5396	RRF	.7624	RTF	.6588	CRT	-.4152	CRS	.7140
FDE	1.5914	FRA	-1.0392	FC3	-1.8631	BSP	1887	SGB	905.0	R23	.1604	R13	.8012	LSA	628.3	MSA	157.5
BDE	.3592	BRA	.7676	BC3	.4078	FSP	-760	SG1	795.2	SG2	432.0	THA	40.57	EL1	331.9	EL2	141.5

SS	538.3	CST	-.9289
SSA	21.2	ALF	165.79

LAUNCH DATE OCT 10 1970 FLIGHT TIME 80.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 237.809

RL	149.39	LAL	.00	LOL	16.28	VL	28.993	GAL	-13.71	AZL	87.25	HCA	109.78	SMA	141.76	ECC	.24271	INC	2.7511	V1	29.827
RP	107.48	LAP	2.59	LOP	126.08	VP	39.158	GAP	-1.24	AZP	90.93	TAL	243.85	TAP	353.63	RCA	107.35	APO	176.16	V2	35.258
RC	74.992	GL	11.59	GP	-28.59	ZAL	161.25	ZAP	79.30	ETS	2.55	ZAE	148.87	ETE	259.10	ZAC	71.04	ETC	257.27	CLP	-77.80

PLANETOCENTRIC CONIC

C3	45.317	VHL	6.732	DLA	-.98	RAL	212.99	RAD	6568.7	VEL	12.910	PTH	2.35	VHP	4.466	DPA	-42.39	RAP	214.24	ECC	1.7458

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 28 36	2387.39	-23.35	52.73	88.06	106.49	1 8 23	1787.4	-20.87	44.94
90.00	12 12 5	5092.28	24.47	225.80	88.78	75.28	13 36 57	4492.3	22.21	217.86
100.00	1 49 29	2126.47	-24.64	33.12	87.63	107.48	2 24 56	1526.5	-22.02	25.30
100.00	13 33 53	4828.42	25.77	206.01	88.39	74.30	14 54 21	4228.4	23.36	198.03
110.00	2 56 41	1916.13	-28.11	15.82	86.31	110.30	3 28 37	1316.1	-25.09	7.96
110.00	14 43 10	4611.53	29.28	188.32	87.17	71.51	16 0 2	4011.5	26.47	180.26

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.3752	TRA	-.7435	TC3	-.1938	BAU	.2754	SGT	755.4	SGR	631.7	SG3	268.0	ST	371.6	SR	140.0
RDE	-.1291	RRA	-.3334	RC3	-.4112	FAU	.10144	RRT	.6055	RRF	.7849	RTF	.7236	CRT	-.3614	CRS	.6534
FDE	1.6765	FRA	-1.0381	FC3	-1.9379	BSP	2186	SGB	984.7	R23	.1646	R13	.8285	LSA	668.9	MSA	156.1
BDE	.3968	BRA	.8148	BC3	.4546	FSP	-795	SG1	886.7	SG2	428.3	THA	36.73	EL1	375.5	EL2	129.2

SS	560.8	CST	-.9380
SSA	21.0	ALF	171.19

LAUNCH DATE OCT 10 1970 FLIGHT TIME 82.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 244.258

RL	149.39	LAL	.00	LOL	16.28	VL	28.964	GAL	-13.57	AZL	87.06	HCA	113.02	SMA	141.50	ECC	.24074	INC	2.9436	V1	29.827
RP	107.48	LAP	2.71	LOP	129.33	VP	39.137	GAP	-.69	AZP	91.15	TAL	243.44	TAP	356.46	RCA	107.44	APO	175.57	V2	35.259
RC	77.186	GL	12.50	GP	-29.61	ZAL	160.46	ZAP	84.00	ETS	.10	ZAE	147.12	ETE	252.73	ZAC	69.73	ETC	256.88	CLP	-83.10

PLANETOCENTRIC CONIC

C3	44.651	VHL	6.682	DLA	-.23	RAL	213.58	RAD	6568.7	VEL	12.885	PTH	2.35	VHP	4.420	DPA	-42.54	RAP	211.45	ECC	1.7348

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 25 22	2407.05	-23.73	54.05	88.65	105.93	1 5 29	1807.1	-21.31	46.21
90.00	12 20 2	5065.17	23.99	223.96	88.82	74.48	13 44 27	4465.2	21.63	216.08
100.00	1 46 36	2145.01	-25.01	34.37	88.24	106.92	2 22 21	1545.0	-22.46	26.50
100.00	13 41 29	4802.45	25.28	204.23	88.41	73.49	15 1 31	4202.4	22.77	196.33
110.00	2 54 36	1932.15	-28.49	16.92	86.95	109.75	3 26 49	1332.1	-25.53	8.99
110.00	14 49 58	4588.07	28.76	186.69	87.15	70.67	16 6 26	3988.1	25.85	178.72

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.4337	TRA	-.8003	TC3	-.2662	BAU	.3006	SGT	857.8	SGR	639.2	SG3	272.3	ST	425.2	SR	117.3
RDE	-.0952	RRA	-.3208	RC3	-.4274	FAU	.10138	RRT	.6595	RRF	.7995	RTF	.7706	CRT	-.2643	CRS	.5614
FDE	1.7714	FRA	-.9918	FC3	-1.9657	BSP	2447	SGB	1069.8	R23	.1697	R13	.8457	LSA	719.2	MSA	154.4
BDE	.4441	BRA	.8622	BC3	.5036	FSP	-763	SG1	984.5	SG2	418.7	THA	32.83	EL1	426.4	EL2	112.8

SS	589.0	CST	-.9428
SSA	20.3	ALF	175.51

LAUNCH DATE OCT 10 1970 FLIGHT TIME 84.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 250.668

RL	149.39	LAL	.00	LOL	16.28	VL	28.929	GAL	-13.42	AZL	86.85	HCA	116.26	SMA	141.20	ECC	.23885	INC	3.1456	V1	29.827
RP	107.48	LAP	2.82	LOP	132.58	VP	39.112	GAP	-.16	AZP	91.39	TAL	242.93	TAP	359.19	RCA	107.48	APO	174.93	V2	35.259
RC	79.396	GL	13.46	GP	-30.58	ZAL	159.57	ZAP	88.53	ETS	357.59	ZAE	145.16	ETE	247.02	ZAC	68.48	ETC	256.51	CLP	-88.30

PLANETOCENTRIC CONIC

C3	44.021	VHL	6.635	DLA	.55	RAL	214.24	RAD	6568.7	VEL	12.860	PTH	2.34	VHP	4.403	DPA	-42.66	RAP	208.80	ECC	1.7245

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 22 15	2427.67	-24.10	55.45	89.35	105.33	1 2 42	1827.7	-21.77	47.56
90.00	12 28 29	5037.40	23.47	222.09	88.95	73.68	13 52 26	4437.4	21.01	214.28
100.00	1 43 51	2164.46	-25.39	35.69	88.95	106.33	2 19 55	1564.5	-22.91	27.77
100.00	13 49 34	4775.84	24.75	202.43	88.53	72.68	15 9 10	4175.8	22.15	194.60
110.00	2 52 41	1949.00	-28.87	18.08	87.70	109.15	3 25 10	1349.0	-25.98	10.09
110.00	14 57 13	4564.07	28.21	185.05	87.22	69.84	16 13 17	3964.1	25.20	177.16

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.5004	TRA	-.8558	TC3	-.3399	BAU	.3308	SGT	967.7	SGR	655.2	SG3	276.3	ST	485.9	SR	102.7
RDE	-.0703	RRA	-.3124	RC3	-.4476	FAU	.10205	RRT	.6957	RRF	.8177	RTF	.8062	CRT	-.1614	CRS	.4487
FDE	1.8057	FRA	-.9713	FC3	-2.0070	BSP	2824	SGB	1168.6	R23	.1751	R13	.8644	LSA	765.0	MSA	151.4
BDE	.5053	BRA	.9110	BC3	.5621	FSP	-809	SG1	1091.6	SG2	417.2	THA	30.05	EL1	486.2	EL2	101.3

SS	601.6	CST	-.9509
SSA	20.3	ALF	177.96

LAUNCH DATE OCT 10 1970 FLIGHT TIME 86.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 257.038

RL	149.39	LAL	.00	LOL	16.28	VL	28.889	GAL	-13.27	AZL	86.64	HCA	119.51	SMA	140.85	ECC	.23700	INC	3.3591
RP	107.48	LAP	2.92	LOP	135.83	VP	39.081	GAP	.35	AZP	91.66	TAL	242.32	TAP	1.83	RCA	107.47	APO	174.23
RC	81.621	GL	14.48	GP	-31.52	ZAL	158.58	ZAP	92.85	ETS	355.01	ZAE	143.04	ETE	241.99	ZAC	67.28	ETC	256.17

V1	29.827	V2	35.258	CLP	-93.35														

PLANETOCENTRIC CONIC

C3	43.423	VHL	6.590	DLA	1.37	RAL	214.99	RAD	6568.6	VEL	12.837	PTH	2.34	VHP	4.412	DPA	-42.79	RAP	206.35
ECC	1.7146																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 19 9	2449.57	-24.49	56.94	90.16	104.68	0 59 59	1849.6	-22.24	48.99
90.00	12 37 30	5008.63	22.90	220.17	89.17	72.88	14 0 59	4408.6	20.34	212.43
100.00	1 41 8	2185.13	-25.78	37.10	89.77	105.68	2 17 33	1585.1	-23.38	29.13
100.00	13 58 13	4748.29	24.18	200.58	88.73	71.87	15 17 21	4148.3	21.47	192.83
110.00	2 50 51	1966.95	-29.26	19.33	88.56	108.51	3 23 38	1366.9	-26.46	11.27
110.00	15 5 0	4539.24	27.61	183.36	87.38	69.00	16 20 39	3939.2	24.51	175.57

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.5723	TRA	-.9117	TC3	-.4166	BAU	.3619	SGT	1085.3	SGR	665.5	SG3	276.9	ST	551.8	SR	89.5
RDE	-.0456	RRA	-.2992	RC3	-.4637	FAU	.10134	RRT	.7230	RRF	.8324	RTF	.8323	CRT	-.0176	CRS	.2959
FDE	1.8270	FRA	-.9311	FC3	-2.0204	BSP	3213	SGB	1273.1	R23	.1822	R13	.8780	LSA	816.3	MSA	147.8
BDE	.5741	BRA	.9596	BC3	.6234	FSP	-834	SG1	1203.7	SG2	414.5	THA	27.43	EL1	551.8	EL2	89.5

SS	613.3	V1	29.827	CST	-.9569	ALF	179.83												

LAUNCH DATE OCT 10 1970 FLIGHT TIME 88.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 263.373

RL	149.39	LAL	.00	LOL	16.28	VL	28.844	GAL	-13.12	AZL	86.41	HCA	122.75	SMA	140.46	ECC	.23521	INC	3.5869
RP	107.48	LAP	3.02	LOP	139.08	VP	39.047	GAP	.83	AZP	91.94	TAL	241.63	TAP	4.38	RCA	107.42	APO	173.50
RC	83.861	GL	15.57	GP	-32.44	ZAL	157.49	ZAP	96.92	ETS	352.37	ZAE	140.82	ETE	237.61	ZAC	66.12	ETC	255.86

V1	29.827	V2	35.256	CLP	-98.21														

PLANETOCENTRIC CONIC

C3	42.865	VHL	6.547	DLA	2.24	RAL	215.81	RAD	6568.6	VEL	12.815	PTH	2.33	VHP	4.445	DPA	-42.97	RAP	204.12
ECC	1.7055																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 16 1	2473.16	-24.89	58.55	91.08	103.96	0 57 14	1873.2	-22.72	50.55
90.00	12 47 13	4978.52	22.29	218.18	89.49	72.07	14 10 12	4378.5	19.63	210.51
100.00	1 38 24	2207.42	-26.18	38.64	90.71	104.96	2 15 12	1607.4	-23.87	30.60
100.00	14 7 31	4719.49	23.56	198.67	89.03	71.04	15 26 11	4119.5	20.75	191.00
110.00	2 49 2	1986.34	-29.68	20.69	89.55	107.80	3 22 9	1386.3	-26.96	12.56
110.00	15 13 23	4513.33	26.97	181.62	87.63	68.15	16 28 36	3913.3	23.76	173.92

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.6499	TRA	-.9668	TC3	-.4945	BAU	.3933	SGT	1208.1	SGR	670.4	SG3	274.3	ST	623.2	SR	78.5
RDE	-.0210	RRA	-.2818	RC3	-.4759	FAU	.09939	RRT	.7431	RRF	.8444	RTF	.8511	CRT	.1776	CRS	.0871
FDE	1.8364	FRA	-.8745	FC3	-2.0074	BSP	3607	SGB	1381.7	R23	.1911	R13	.8878	LSA	873.5	MSA	144.0
BDE	.6502	BRA	1.0070	BC3	.6862	FSP	-841	SG1	1319.2	SG2	410.9	THA	25.00	EL1	623.3	EL2	77.3

SS	624.2	V1	29.827	CST	-.9615	ALF	1.30												

LAUNCH DATE OCT 10 1970 FLIGHT TIME 90.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 269.671

RL	149.39	LAL	.00	LOL	16.28	VL	28.794	GAL	-12.96	AZL	86.17	HCA	125.99	SMA	140.04	ECC	.23345	INC	3.8318
RP	107.49	LAP	3.10	LOP	142.33	VP	39.008	GAP	1.30	AZP	92.25	TAL	240.87	TAP	6.86	RCA	107.35	APO	172.73
RC	86.111	GL	16.75	GP	-33.36	ZAL	156.29	ZAP	100.71	ETS	349.67	ZAE	138.55	ETE	233.84	ZAC	64.99	ETC	255.57

V1	29.827	V2	35.254	CLP	-102.85														

PLANETOCENTRIC CONIC

C3	42.356	VHL	6.508	DLA	3.16	RAL	216.72	RAD	6568.6	VEL	12.795	PTH	2.33	VHP	4.501	DPA	-43.23	RAP	202.10
ECC	1.6971																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 12 45	2498.94	-25.30	60.33	92.14	103.16	0 54 23	1898.9	-23.24	52.26
90.00	12 57 44	4946.72	21.60	216.09	89.91	71.24	14 20 11	4346.7	18.84	208.51
100.00	1 35 34	2231.80	-26.60	40.33	91.79	104.17	2 12 45	1631.8	-24.39	32.23
100.00	14 17 36	4689.08	22.87	196.67	89.44	70.21	15 35 45	4089.1	19.96	189.08
110.00	2 47 12	2007.60	-30.11	22.20	90.68	107.01	3 20 39	1407.6	-27.49	13.99
110.00	15 22 28	4486.05	26.26	179.81	87.98	67.29	16 37 14	3886.0	22.95	172.21

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.7334	TRA	-1.0197	TC3	-.5722	BAU	.4245	SGT	1334.2	SGR	671.0	SG3	269.0	ST	700.1	SR	71.5
RDE	.0032	RRA	-.2605	RC3	-.4844	FAU	.09645	RRT	.7572	RRF	.8546	RTF	.8648	CRT	.4156	CRS	-.1772
FDE	1.8336	FRA	-.8083	FC3	-1.9713	BSP	4004	SGB	1493.4	R23	.2015	R13	.8949	LSA	936.6	MSA	140.0
BDE	.7334	BRA	1.0525	BC3	.7497	FSP	-834	SG1	1436.9	SG2	406.9	THA	22.78	EL1	700.8	EL2	65.0

SS	633.9	V1	29.827	CST	-.9652	ALF	2.45												

LAUNCH DATE OCT 10 1970 FLIGHT TIME 92.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 275.936

RL	149.39	LAL	.00	LOL	16.28	VL	28.741	GAL	-12.79	AZL	85.90	HCA	129.23	SMA	139.59	ECC	.23174	INC	4.0976
RP	107.50	LAP	3.17	LOP	145.58	VP	38.966	GAP	1.74	AZP	92.59	TAL	240.02	TAP	9.25	RCA	107.24	APO	171.93
RC	88.372	GL	18.02	GP	-34.33	ZAL	154.98	ZAP	104.18	ETS	346.90	ZAE	136.26	ETE	230.63	ZAC	63.85	ETC	255.30

V1	29.827	V2	35.251	CLP	-107.26														

PLANETOCENTRIC CONIC

C3	41.910	VHL	6.474	DLA	4.16	RAL	217.72	RAD	6568.6	VEL	12.778	PTH	2.32	VHP	4.579	DPA	-43.60	RAP	200.29
ECC	1.6897																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 9 12	2527.51	-25.73	62.31	93.36	102.26	0 51 20	1927.5	-23.78	54.18
90.00	13 9 12	4912.80	20.85	213.90	90.45	70.39	14 31 5	4312.8	17.98	206.39
100.00	1 32 30	2258.85	-27.04	42.22	93.03	103.26	2 10 9	1658.8	-24.94	34.05
100.00	14 28 36	4656.70	22.11	194.57	89.95	69.35	15 46 12	4056.7	19.10	187.06
110.00	2 45 13	2031.24	-30.57	23.88	91.97	106.11	3 19 5	1431.2	-28.06	15.59
110.00	15 32 22	4457.07	25.49	177.92	88.45	66.41	16 46 39	3857.1	22.08	170.42

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.8237	TRA	-1.0006	TC3	-.6484	BAU	.4552	SGT	1461.9	SGR	667.8	SG3	261.5	ST	783.1	SR	69.9
RDE	.0273	RRA	-.2360	RC3	-.4894	FAU	.09266	RRT	.7665	RRF	.8634	RTF	.8748	CRT	.6567	CRS	-.4621
FDE	1.8207	FRA	-.7298	FC3	-1.9141	BSP	4399	SGB	1607.2	R23	.2135	R13	.8999	LSA	1006.2	MSA	136.1
BDE	.8242	BRA	1.0953	BC3	.8124	FSP	-817	SG1	1555.8	SG2	403.0	THA	20.75	EL1	784.4	EL2	52.6

SS	642.8	V1	29.827	CST	-.9683	ALF	3.37												

LAUNCH DATE OCT 10 1970 FLIGHT TIME 94.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 282.168

RL	149.39	LAL	.00	LOL	16.28	VL	28.684	GAL	-12.62	AZL	85.61	HCA	132.47	SMA	139.11	ECC	.23007	INC	4.3892	V1	29.827
RP	107.51	LAP	3.24	LOP	148.83	VP	38.920	GAP	2.16	AZP	92.97	TAL	239.12	TAP	11.58	RCA	107.10	APO	171.11	V2	35.247
RC	90.641	GL	19.41	GP	-35.37	ZAL	153.53	ZAP	107.34	ETS	344.04	ZAE	133.96	ETE	227.90	ZAC	62.68	ETC	255.04	CLP	-111.44

PLANETOCENTRIC CONIC

C3	41.546	VHL	6.446	DLA	5.26	RAL	218.80	RAD	6568.6	VEL	12.764	PTH	2.32	VHP	4.678	DPA	-44.13	RAP	198.66	ECC	1.6837

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 5 17	2559.61	-26.17	64.55	94.76	101.22	0 47 57	1959.6	-24.36	56.35
90.00	13 21 48	4876.30	19.99	211.56	91.11	69.52	14 43 4	4276.3	17.03	204.14
100.00	1 29 7	2289.24	-27.49	44.36	94.45	102.22	2 7 16	1689.2	-25.53	36.11
100.00	14 40 40	4621.90	21.25	192.34	90.60	68.47	15 57 41	4021.9	18.14	184.92
110.00	2 43 2	2057.87	-31.05	25.81	93.46	105.06	3 17 20	1457.9	-28.67	17.41
110.00	15 43 13	4426.04	24.63	175.92	89.04	65.51	16 56 59	3826.0	21.11	168.53

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.9215	TRA	-1.1158	TC3	-.7221	BAU	.4852	SGT	1590.4	SGR	662.0	SG3	252.1	ST	872.4	SR	74.5	SS	650.7
RDE	.0512	RRA	-.2085	RC3	-.4916	FAU	.08829	RRT	.7717	RRF	.8714	RTF	.8821	CRT	.8387	CRS	-.6992	CST	-.9709
FDE	1.7987	FRA	-.6488	FC3	-1.8398	BSP	4798	SGB	1722.7	R23	.2269	R13	.9036	LSA	1082.7	MSA	132.3	SSA	18.0
BDE	.9229	BRA	1.1351	BC3	.8735	FSP	-795	SG1	1675.7	SG2	399.6	THA	18.93	EL1	874.6	EL2	40.5	ALF	4.11

LAUNCH DATE OCT 10 1970 FLIGHT TIME 96.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 288.370

RL	149.39	LAL	.00	LOL	16.28	VL	28.624	GAL	-12.44	AZL	85.29	HCA	135.71	SMA	138.61	ECC	.22843	INC	4.7126	V1	29.827
RP	107.53	LAP	3.29	LOP	152.08	VP	38.872	GAP	2.56	AZP	93.38	TAL	238.14	TAP	13.85	RCA	106.94	APO	170.27	V2	35.243
RC	92.917	GL	20.94	GP	-36.52	ZAL	151.93	ZAP	110.14	ETS	341.08	ZAE	131.66	ETE	225.61	ZAC	61.44	ETC	254.79	CLP	-115.37

PLANETOCENTRIC CONIC

C3	41.286	VHL	6.425	DLA	6.47	RAL	219.99	RAD	6568.6	VEL	12.754	PTH	2.32	VHP	4.799	DPA	-44.84	RAP	197.17	ECC	1.6795

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 0 49	2596.14	-26.63	67.13	96.37	100.00	0 44 5	1996.1	-24.98	58.85
90.00	13 35 45	4836.60	19.03	209.05	91.93	68.63	14 56 22	4236.6	15.96	201.72
100.00	1 25 14	2323.86	-27.97	46.83	96.09	101.01	2 3 58	1723.9	-26.16	38.49
100.00	14 54 1	4584.12	20.29	189.94	91.39	67.57	16 10 25	3984.1	17.07	182.63
110.00	2 40 32	2088.24	-31.57	28.02	95.17	103.85	3 15 20	1488.2	-29.35	19.52
110.00	15 55 13	4392.49	23.66	173.79	89.78	64.58	17 8 26	3792.5	20.04	166.52

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.0351	TRA	-1.1515	TC3	-.7859	BAU	.5093	SGT	1714.6	SGR	644.1	SG3	239.6	ST	974.2	SR	88.8	SS	668.5
RDE	.0827	RRA	-.1706	RC3	-.4835	FAU	.08203	RRT	.7730	RRF	.8762	RTF	.8853	CRT	.9573	CRS	-.8806	CST	-.9726
FDE	1.7992	FRA	-.5352	FC3	-1.7201	BSP	4994	SGB	1831.6	R23	.2425	R13	.9036	LSA	1177.4	MSA	131.4	SSA	16.6
BDE	1.0384	BRA	1.1641	BC3	.9227	FSP	-705	SG1	1789.2	SG2	391.6	THA	17.03	EL1	977.9	EL2	25.6	ALF	4.99

LAUNCH DATE OCT 10 1970 FLIGHT TIME 98.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 294.540

RL	149.39	LAL	.00	LOL	16.28	VL	28.561	GAL	-12.26	AZL	84.92	HCA	138.94	SMA	138.09	ECC	.22685	INC	5.0756	V1	29.827
RP	107.54	LAP	3.33	LOP	155.33	VP	38.821	GAP	2.95	AZP	93.83	TAL	237.11	TAP	16.06	RCA	106.77	APO	169.42	V2	35.238
RC	95.197	GL	22.63	GP	-37.81	ZAL	150.17	ZAP	112.59	ETS	337.97	ZAE	129.34	ETE	223.69	ZAC	60.10	ETC	254.53	CLP	-119.10

PLANETOCENTRIC CONIC

C3	41.177	VHL	6.417	DLA	7.81	RAL	221.29	RAD	6568.6	VEL	12.749	PTH	2.32	VHP	4.945	DPA	-45.75	RAP	195.76	ECC	1.6777

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 51 40	2838.31	-27.09	70.13	98.23	98.57	24 35 38	2038.3	-25.63	61.77
90.00	13 51 20	4793.10	17.93	206.33	92.94	67.71	15 11 13	4193.1	14.75	199.10
100.00	1 20 42	2363.81	-28.45	49.70	97.99	99.57	2 0 6	1763.8	-26.84	41.27
100.00	15 8 55	4542.83	19.20	187.36	92.38	66.64	16 24 37	3942.8	15.87	180.15
110.00	2 37 32	2123.36	-32.11	30.62	97.17	102.40	3 12 56	1523.4	-30.07	22.00
110.00	16 8 34	4356.04	22.58	171.51	90.70	63.63	17 21 10	3756.0	18.85	164.36

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.1470	TRA	-1.1939	TC3	-.8553	BAU	.5415	SGT	1847.0	SGR	643.3	SG3	229.1	ST	1074.3	SR	99.9	SS	666.5
RDE	.1009	RRA	-.1440	RC3	-.4859	FAU	.07803	RRT	.7713	RRF	.8845	RTF	.8914	CRT	.9824	CRS	-.9377	CST	-.9754
FDE	1.7398	FRA	-.4783	FC3	-1.6405	BSP	5582	SGB	1955.8	R23	.2574	R13	.9078	LSA	1261.8	MSA	126.5	SSA	16.0
BDE	1.1515	BRA	1.2025	BC3	.9836	FSP	-729	SG1	1915.6	SG2	394.8	THA	15.72	EL1	1078.8	EL2	18.6	ALF	5.22

LAUNCH DATE OCT 10 1970 FLIGHT TIME 100.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 300.682

RL	149.39	LAL	.00	LOL	16.28	VL	28.497	GAL	-12.07	AZL	84.51	HCA	142.17	SMA	137.56	ECC	.22530	INC	5.4889	V1	29.827
RP	107.56	LAP	3.36	LOP	158.58	VP	38.769	GAP	3.32	AZP	94.34	TAL	236.03	TAP	18.21	RCA	106.57	APO	168.56	V2	35.232
RC	97.481	GL	24.52	GP	-39.30	ZAL	148.21	ZAP	114.65	ETS	334.70	ZAE	126.99	ETE	222.09	ZAC	58.60	ETC	254.25	CLP	-122.62

PLANETOCENTRIC CONIC

C3	41.260	VHL	6.423	DLA	9.32	RAL	222.72	RAD	6568.6	VEL	12.753	PTH	2.32	VHP	5.118	DPA	-46.90	RAP	194.36	ECC	1.6790

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 45 26	2687.59	-27.54	73.67	100.41	96.85	24 30 14	2087.6	-26.31	65.22
90.00	14 8 57	4744.84	16.66	203.36	94.18	66.76	15 28 2	4144.8	13.37	196.22
100.00	1 15 17	2410.51	-28.94	53.08	100.21	97.85	1 55 27	1810.5	-27.55	44.56
100.00	15 25 43	4497.15	17.94	184.55	93.59	65.68	16 40 41	3897.2	14.51	177.44
110.00	2 33 55	2164.41	-32.67	33.69	99.50	100.66	3 9 59	1564.4	-30.86	24.94
110.00	16 23 34	4316.01	21.35	169.06	91.84	62.65	17 35 30	3716.0	17.51	162.03

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.2793	TRA	-1.2250	TC3	-.9118	BAU	.5679	SGT	1974.9	SGR	631.7	SG3	216.0	ST	1189.0	SR	117.8	SS	674.1
RDE	.1263	RRA	-.1071	RC3	-.4779	FAU	.07242	RRT	.7654	RRF	.8894	RTF	.8945	CRT	.9914	CRS	-.9766	CST	-.9774
FDE	1.7036	FRA	-.3943	FC3	-1.5196	BSP	5984	SGB	2073.5	R23	.2736	R13	.9091	LSA	1366.1	MSA	124.5	SSA	14.7
BDE	1.2855	BRA	1.2296	BC3	1.0295	FSP	-692	SG1	2035.7	SG2	394.4	THA	14.31	EL1	1194.7	EL2	15.3	ALF	5.61

LAUNCH DATE OCT 10 1970 FLIGHT TIME 102.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 306.797

RL	149.39	LAL	.00	LOL	16.28	VL	28.430	GAL	-11.87	AZL	84.03	HCA	145.40	SMA	137.02	ECC	.22380	INC	5.9668
RP	107.58	LAP	3.38	LOP	161.83	VP	38.714	GAP	3.67	AZP	94.92	TAL	234.90	TAP	20.30	RCA	106.36	APO	167.69
RC	99.767	GL	26.64	GP	-41.03	ZAL	146.03	ZAP	116.30	ETS	331.22	ZAE	124.58	ETE	220.76	ZAC	56.89	ETC	253.92

V1	29.827	V2	35.226	CLP	-125.96														

PLANETOCENTRIC CONIC

C3	41.614	VHL	6.451	DLA	11.04	RAL	224.29	RAD	6568.6	VEL	12.766	PTH	2.32	VHP	5.323	DPA	-48.32	RAP	192.88

ECC	1.6849	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG			
		90.00	23 37 49	2746.04	-27.95	77.90	102.98	94.77	24 23 35	2146.0	-26.99	69.36			
		90.00	14 29 7	4690.70	15.17	200.08	95.73	65.80	15 47 18	4090.7	11.78	193.04			
		100.00	1 8 38	2465.84	-29.38	57.14	102.83	95.76	1 49 44	1865.8	-28.27	48.51			
		100.00	15 44 56	4446.13	16.48	181.47	95.11	64.70	16 59 2	3846.1	12.94	174.47			
		110.00	2 29 25	2213.03	-33.22	37.37	102.26	98.55	3 6 18	1613.0	-31.69	28.48			
		110.00	16 40 38	4271.71	19.94	166.39	93.27	61.64	17 51 49	3671.7	15.99	159.49			

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.4316	TRA	-1.2482	TC3	-.9571	BAU	.5920	SGT	2101.8	SGR	617.7	SG3	201.7	ST	1316.4	SR	137.8	SS	682.6
RDE	.1525	RRA	-.0654	RC3	-.4649	FAU	.06644	RRT	.7546	RRF	.8922	RTF	.8970	CRT	.9863	CRS	-.9928	CST	-.9793
FDE	1.6672	FRA	-.3098	FC3	-1.3823	BSP	6355	SGB	2190.7	R23	.2901	R13	.9100	LSA	1484.1	MSA	123.7	SSA	13.3
BDE	1.4397	BRA	1.2499	BC3	1.0640	FSP	-648	SG1	2154.7	SG2	395.4	THA	12.95	EL1	1323.4	EL2	22.6	ALF	5.90

LAUNCH DATE OCT 10 1970 FLIGHT TIME 104.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 312.885

RL	149.39	LAL	.00	LOL	16.28	VL	28.362	GAL	-11.66	AZL	83.47	HCA	148.63	SMA	136.48	ECC	.22235	INC	6.5296
RP	107.60	LAP	3.39	LOP	165.07	VP	38.657	GAP	4.01	AZP	95.58	TAL	233.72	TAP	22.35	RCA	106.13	APO	166.82
RC	102.053	GL	29.04	GP	-43.06	ZAL	143.57	ZAP	117.49	ETS	327.50	ZAE	122.06	ETE	219.64	ZAC	54.91	ETC	253.52

V1	29.827	V2	35.218	CLP	-129.17														

PLANETOCENTRIC CONIC

C3	42.352	VHL	6.508	DLA	13.00	RAL	226.04	RAD	6568.6	VEL	12.795	PTH	2.33	VHP	5.572	DPA	-50.02	RAP	191.18

ECC	1.6970	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG			
		90.00	23 28 19	2816.46	-28.24	83.03	106.02	92.21	24 15 15	2216.5	-27.63	74.41			
		90.00	14 52 36	4629.15	13.42	196.40	97.69	64.83	16 9 45	4029.1	9.92	189.47			
		100.00	1 0 20	2532.38	-29.74	62.05	105.94	93.20	1 42 32	1932.4	-28.98	53.33			
		100.00	16 7 12	4388.46	14.77	178.04	97.02	63.71	17 20 20	3788.5	11.12	171.15			
		110.00	2 23 45	2271.35	-33.73	41.85	105.56	95.94	3 1 36	1671.3	-32.54	32.82			
		110.00	17 0 16	4222.28	18.31	163.48	95.07	60.62	18 10 38	3622.3	14.26	156.71			

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.6068	TRA	-1.2656	TC3	-.9908	BAU	.6156	SGT	2229.8	SGR	603.2	SG3	186.8	ST	1456.2	SR	156.8	SS	689.4
RDE	.1769	RRA	-.0198	RC3	-.4475	FAU	.06045	RRT	.7376	RRF	.8919	RTF	.8997	CRT	.9759	CRS	-.9969	CST	-.9813
FDE	1.6240	FRA	-.2332	FC3	-1.2356	BSP	6792	SGB	2309.9	R23	.3053	R13	.9113	LSA	1614.0	MSA	123.2	SSA	11.8
BDE	1.6185	BRA	1.2657	BC3	1.0872	FSP	-611	SG1	2275.2	SG2	399.2	THA	11.65	EL1	1464.2	EL2	34.0	ALF	6.00

LAUNCH DATE OCT 10 1970 FLIGHT TIME 106.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 318.946

RL	149.39	LAL	.00	LOL	16.28	VL	28.292	GAL	-11.45	AZL	82.79	HCA	151.85	SMA	135.92	ECC	.22094	INC	7.2068
RP	107.63	LAP	3.39	LOP	168.32	VP	38.599	GAP	4.34	AZP	96.36	TAL	232.49	TAP	24.35	RCA	105.89	APO	165.96
RC	104.339	GL	31.77	GP	-45.46	ZAL	140.78	ZAP	118.17	ETS	323.48	ZAE	119.37	ETE	218.66	ZAC	52.59	ETC	253.00

V1	29.827	V2	35.211	CLP	-132.30														

PLANETOCENTRIC CONIC

C3	43.651	VHL	6.607	DLA	15.24	RAL	228.01	RAD	6568.7	VEL	12.846	PTH	2.34	VHP	5.878	DPA	-52.03	RAP	189.08

ECC	1.7184	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG			
		90.00	23 16 6	2902.90	-28.30	89.35	109.64	89.04	24 4 29	2302.9	-28.14	80.69			
		90.00	15 20 28	4557.93	11.32	192.23	100.20	63.87	16 36 26	3957.9	7.72	185.40			
		100.00	0 49 41	2613.77	-29.89	68.09	109.66	90.03	1 33 15	2013.8	-29.57	59.31			
		100.00	16 33 30	4322.29	12.74	174.17	99.47	62.73	17 45 33	3722.3	8.99	167.40			
		110.00	2 16 27	2342.30	-34.09	47.36	109.54	92.70	2 55 29	1742.3	-33.34	38.20			
		110.00	17 23 14	4166.53	16.42	160.27	97.38	59.59	18 32 40	3566.5	12.26	153.63			

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.8186	TRA	-1.2715	TC3	-1.0044	BAU	.6356	SGT	2356.9	SGR	583.8	SG3	170.8	ST	1614.5	SR	174.6	SS	697.7
RDE	.2001	RRA	.0342	RC3	-.4212	FAU	.05401	RRT	.7102	RRF	.8854	RTF	.9024	CRT	.9622	CRS	-.9944	CST	-.9832
FDE	1.5826	FRA	-.1563	FC3	-1.0712	BSP	7186	SGB	2428.2	R23	.3195	R13	.9126	LSA	1763.0	MSA	124.2	SSA	10.2
BDE	1.8296	BRA	1.2720	BC3	1.0892	FSP	-563	SG1	2394.2	SG2	404.6	THA	10.27	EL1	1623.2	EL2	47.3	ALF	5.95

LAUNCH DATE OCT 10 1970 FLIGHT TIME 108.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 324.982

RL	149.39	LAL	.00	LOL	16.28	VL	28.221	GAL	-11.23	AZL	81.96	HCA	155.07	SMA	135.37	ECC	.21958	INC	8.0426
RP	107.65	LAP	3.38	LOP	171.56	VP	38.539	GAP	4.65	AZP	97.30	TAL	231.23	TAP	26.30	RCA	105.64	APO	165.10
RC	106.624	GL	34.91	GP	-48.32	ZAL	137.60	ZAP	118.27	ETS	319.11	ZAE	116.43	ETE	217.71	ZAC	49.84	ETC	252.29

V1	29.827	V2	35.202	CLP	-135.42														

PLANETOCENTRIC CONIC

C3	45.803	VHL	6.768	DLA	17.84	RAL	230.24	RAD	6568.7	VEL	12.929	PTH	2.36	VHP	6.266	DPA	-54.35	RAP	186.29

ECC	1.7538	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG			
		90.00	22 59 52	3011.59	-27.92	97.27	113.95	85.09	23 50 4	2411.6	-28.31	88.63			
		90.00	15 54 32	4473.44	8.75	187.36	103.52	62.96	17 9 5	3873.4	5.05	180.63			
		100.00	0 35 39	2715.43	-29.66	75.64	114.11	86.06	1 20 54	2115.4	-29.89	66.84			
		100.00	17 5 22	4244.82	10.29	169.73	102.70	61.78	18 16 7	3644.8	6.43	163.06			
		110.00	2 6 52	2430.00	-34.16	54.21	114.35	88.65	2 47 22	1830.0	-33.97	44.97			
		110.00	17 50 38	4103.03	14.20	156.69	100.40	58.57	18 59 1	3503.0	9.94	150.18			

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.0805	TRA	-1.2838	TC3	-.9925	BAU	.6517	SGT	2484.0	SGR	558.7	SG3	153.8	ST	1793.8	SR	186.3	SS	706.1
RDE	.2170	RRA	.0990	RC3	-.3843	FAU	.04727	RRT	.6654	RRF	.8670	RTF	.9057	CRT	.9437	CRS	-.9857	CST	-.9852
FDE	1.5398	FRA	-.0835	FC3	-.8935	BSP	7563	SGB	2546.1	R23	.3312	R13	.9143	LSA	1932.6	MSA	126.2	SSA	8.6
BDE	2.0918	BRA	1.2677	BC3	1.0643	FSP	-510	SG1	2512.5	SG2	412.3	THA	8.75	EL1	1802.4	EL2	61.3	ALF	5.60

LAUNCH DATE OCT 10 1970 FLIGHT TIME 110.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 330.991

RL 149.39 LAL .00 LOL 16.28 VL 28.149 GAL -11.00 AZL 80.89 HCA 158.28 SMA 134.81 ECC .21827 INC 9.1076 V1 29.827
RP 107.68 LAP 3.36 LOP 174.81 VP 38.479 GAP 4.94 AZP 98.47 TAL 229.92 TAP 28.20 RCA 105.39 APO 164.24 V2 35.193
RC 108.906 GL 38.52 GP -51.73 ZAL 133.93 ZAP 117.72 ETS 314.26 ZAE 113.14 ETE 216.62 ZAC 46.54 ETC 251.28 CLP-138.67

PLANETOCENTRIC CONIC

C3 49.319 VHL 7.023 DLA 20.85 RAL 232.83 RAD 6568.8 VEL 13.064 PTH 2.38 VHP 6.776 DPA -56.95 RAP 182.39 ECC 1.8117

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 37 5	3153.32	-26.68	107.45	119.01	80.14	23 29 38	2553.3	-27.77	98.95
90.00	16 37 58	4368.74	5.46	181.42	108.03	62.17	17 50 46	3768.7	1.69	174.76
100.00	0 16 15	2846.20	-28.66	85.23	119.38	81.12	1 3 42	2246.2	-29.59	76.55
100.00	17 45 24	4151.09	7.22	164.46	107.07	60.91	18 54 35	3551.1	3.29	157.88
110.00	1 53 58	2540.51	-33.65	62.79	120.16	83.60	2 36 19	1940.5	-34.17	53.59
110.00	18 24 11	4029.55	11.55	152.64	104.46	57.60	19 31 20	3429.5	7.20	146.25

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 2.4244 TRA-1.2286 TC3 -.9402 BAU .6569 SGT 2609.0 SGR 522.9 SG3 135.7 ST 2004.4 SR 188.0 SS 719.1
RDE .2220 RRA .1846 RC3 -.3298 FAU .03975 RRT .5844 RRF .8226 RTF .9093 CRT .9110 CRS -.9648 CST -.9872
FDE 1.5051 FRA -.0046 FC3 -.6978 BSP 7706 SGB 2660.9 R23 .3413 R13 .9161 LSA 2133.7 MSA 131.0 SSA 6.9
BDE 2.4346 BRA 1.2424 BC3 .9964 FSP -430 SG1 2627.3 SG2 421.3 THA 6.86 EL1 2011.7 EL2 77.2 ALF 4.89

LAUNCH DATE OCT 10 1970 FLIGHT TIME 112.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 336.970

RL 149.39 LAL .00 LOL 16.28 VL 28.077 GAL -10.76 AZL 79.48 HCA 161.48 SMA 134.26 ECC .21700 INC10.5200 V1 29.827
RP 107.71 LAP 3.32 LOP 178.05 VP 38.417 GAP 5.23 AZP 99.99 TAL 228.58 TAP 30.05 RCA 105.12 APO 163.39 V2 35.184
RC 111.186 GL 42.69 GP -55.79 ZAL 129.69 ZAP 116.42 ETS 308.73 ZAE 109.36 ETE 215.09 ZAC 42.55 ETC 249.75 CLP-142.31

PLANETOCENTRIC CONIC

C3 55.175 VHL 7.428 DLA 24.32 RAL 235.89 RAD 6569.0 VEL 13.287 PTH 2.43 VHP 7.478 DPA -59.72 RAP 176.70 ECC 1.9080

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 1 20	3351.90	-23.63	121.18	124.61	73.92	22 57 12	2751.9	-25.61	113.07
90.00	17 38 8	4225.84	.87	173.42	114.52	61.70	18 48 34	3625.8	-2.92	166.79
100.00	23 43 20	3023.05	-26.15	97.76	125.38	74.98	24 33 43	2423.1	-27.96	89.43
100.00	18 38 49	4029.92	3.17	157.75	113.24	60.26	19 45 59	3429.9	-.81	151.23
110.00	1 35 52	2683.30	-32.04	73.61	127.04	77.39	2 20 35	2083.3	-33.44	64.66
110.00	19 6 43	3942.44	8.34	147.94	110.06	56.73	20 12 25	3342.4	3.90	141.66

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 2.8597 TRA-1.1830 TC3 -.8599 BAU .6644 SGT 2738.6 SGR 483.9 SG3 117.2 ST 2226.5 SR 153.7 SS 720.2
RDE .1756 RRA .2819 RC3 -.2683 FAU .03315 RRT .4293 RRF .7119 RTF .9179 CRT .8117 CRS -.8872 CST -.9895
FDE 1.4446 FRA .0413 FC3 -.5202 BSP 8330 SGB 2781.0 R23 .3405 R13 .9222 LSA 2341.4 MSA 132.3 SSA 5.6
BDE 2.8650 BRA 1.2161 BC3 .9007 FSP -398 SG1 2746.7 SG2 435.8 THA 4.45 EL1 2230.0 EL2 89.6 ALF 3.21

LAUNCH DATE OCT 10 1970 FLIGHT TIME 114.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 342.917

RL 149.39 LAL .00 LOL 16.28 VL 28.004 GAL -10.51 AZL 77.50 HCA 164.66 SMA 133.71 ECC .21576 INC12.4950 V1 29.827
RP 107.74 LAP 3.28 LOP 181.29 VP 38.355 GAP 5.50 AZP 102.06 TAL 227.19 TAP 31.85 RCA 104.86 APO 162.56 V2 35.174
RC 113.462 GL 47.45 GP -60.64 ZAL 124.76 ZAP 114.24 ETS 302.03 ZAE 104.89 ETE 212.49 ZAC 37.71 ETC 247.27 CLP-146.87

PLANETOCENTRIC CONIC

C3 65.394 VHL 8.087 DLA 28.26 RAL 239.63 RAD 6569.2 VEL 13.666 PTH 2.50 VHP 8.504 DPA -62.35 RAP 168.15 ECC 2.0762

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	20 21 0	3777.21	-13.17	147.94	127.99	64.70	21 23 57	3177.2	-16.47	140.82
90.00	19 48 19	3883.22	-10.00	154.12	126.42	63.37	20 53 2	3283.2	-13.50	147.19
100.00	22 48 54	3300.32	-19.99	116.02	131.16	67.30	23 43 54	2700.3	-22.89	108.43
100.00	20 3 6	3835.34	-3.42	147.07	122.88	60.29	21 7 1	3235.3	-7.35	140.49
110.00	1 8 31	2875.59	-28.35	87.35	134.73	70.04	1 56 27	2275.6	-30.80	79.01
110.00	20 3 54	3832.84	4.20	142.15	118.15	56.04	21 7 47	3232.8	-.29	135.94

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 3.4792 TRA-1.0762 TC3 -.7199 BAU .6497 SGT 2860.4 SGR 452.5 SG3 98.2 ST 2479.0 SR 104.4 SS 728.0
RDE .0290 RRA .4225 RC3 -.1842 FAU .02582 RRT .0799 RRF .4086 RTF .9293 CRT .0946 CRS -.2200 CST -.9919
FDE 1.3979 FRA .0917 FC3 -.3418 BSP 8699 SGB 2898.0 R23 .3335 R13 .9300 LSA 2582.2 MSA 136.5 SSA 4.2
BDE 3.4794 BRA 1.1561 BC3 .7431 FSP -337 SG1 2860.6 SG2 451.0 THA .74 EL1 2479.0 EL2 103.9 ALF .23

LAUNCH DATE OCT 10 1970 FLIGHT TIME 116.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 348.819

RL 149.39 LAL .00 LOL 16.28 VL 27.931 GAL -10.25 AZL 74.53 HCA 167.81 SMA 133.16 ECC .21453 INC15.4663 V1 29.827
RP 107.77 LAP 3.23 LOP 184.52 VP 38.292 GAP 5.75 AZP 105.13 TAL 225.77 TAP 33.58 RCA 104.59 APO 161.72 V2 35.164
RC 115.736 GL 52.73 GP -66.34 ZAL 119.04 ZAP 111.11 ETS 292.85 ZAE 99.46 ETE 207.33 ZAC 31.79 ETC 242.83 CLP-153.82

PLANETOCENTRIC CONIC

C3 84.826 VHL 9.210 DLA 32.53 RAL 244.38 RAD 6569.7 VEL 14.359 PTH 2.61 VHP 10.120 DPA -64.11 RAP 155.55 ECC 2.3960

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.27	18 14 34	4303.53	-11.10	185.92	136.48	59.22	19 26 18	3703.5	-15.11	179.22
106.73	22 32 37	3478.09	-11.09	124.67	136.47	59.22	23 30 35	2878.1	-15.09	117.98
73.27	18 14 34	4303.53	-11.10	185.92	136.48	59.22	19 26 18	3703.5	-15.11	179.22
106.73	22 32 37	3478.09	-11.09	124.67	136.47	59.22	23 30 35	2878.1	-15.09	117.98
110.00	0 17 11	3167.72	-20.14	106.05	141.77	61.78	1 9 59	2567.7	-23.75	98.76
110.00	21 33 6	3661.89	-2.33	133.23	130.87	55.89	22 34 8	3061.9	-6.79	126.98

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 4.3748 TRA -.8584 TC3 -.5221 BAU .6004 SGT 2955.1 SGR 550.3 SG3 79.8 ST 2728.3 SR 293.6 SS 744.0
RDE -.4172 RRA .6200 RC3 -.0877 FAU .01840 RRT -.5170 RRF -.2346 RTF .9469 CRT -.9140 CRS .8666 CST -.9945
FDE 1.3669 FRA .1350 FC3 -.1878 BSP 9044 SGB 3005.9 R23 -.3125 R13 -.9421 LSA 2839.6 MSA 142.0 SSA 3.1
BDE 4.3946 BRA 1.0589 BC3 .5294 FSP -277 SG1 2969.2 SG2 468.8 THA 174.36 EL1 2741.5 EL2 118.5 ALF 174.37

LAUNCH DATE OCT 10 1970 FLIGHT TIME 118.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 354.651

```
RL  149.39 LAL     .00 LOL  16.28 VL  27.858 GAL  -9.97 AZL  69.56 HCA 170.91 SMA 132.61 ECC .21322 INC20.4444 V1  29.827
RP  107.80 LAP    3.16 LOP 187.75 VP  38.228 GAP   5.98 AZP 110.21 TAL 224.29 TAP  35.20 RCA 104.34 APO 160.89 V2  35.153
RC 118.005 GL    58.09 GP  -72.63 ZAL 112.52 ZAP 106.98 ETS 277.16 ZAE  92.53 ETE 195.36 ZAC  24.47 ETC 233.77 CLP-168.02
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PLANETOCENTRIC CONIC

```
C3 127.475 VHL 11.290 DLA  36.65 RAL 250.68 RAD 6570.4 VEL 15.774 PTH   2.80 VHP 12.953 DPA -63.55 RAP 138.88 ECC 3.0979
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.69	17 54 54	4525.31	-8.97	201.89	148.44	54.32	19 10 19	3925.3	-13.57	195.63
114.31	23 42 33	3427.75	-8.95	119.31	148.43	54.31	24 39 40	2827.7	-13.55	113.05
65.69	17 54 54	4525.31	-8.97	201.89	148.44	54.32	19 10 19	3925.3	-13.57	195.63
114.31	23 42 33	3427.75	-8.95	119.31	148.43	54.31	24 39 40	2827.7	-13.55	113.05
65.69	17 54 54	4525.31	-8.97	201.89	148.44	54.32	19 10 19	3925.3	-13.57	195.63
114.31	23 42 33	3427.75	-8.95	119.31	148.43	54.31	24 39 40	2827.7	-13.55	113.05

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 5.5888 TRA -.3480 TC3 -.2738 BAU  .4666   SGT 2911.0 SGR 1078.6 SG3   63.5     ST  2837.0 SR   945.6 SS   792.3
 RDE-1.8354 RRA  .8597 RC3 -.0054 FAU .01073   RRT -.8770 RRF -.7488 RTF  .9728     CRT -.9887 CRS  .9753 CST -.9974
 FDE 1.3933 FRA  .1827 FC3 -.0729 BSP   9298   SGB 3104.4 R23 -.2690 R13 -.9597     LSA 3089.9 MSA  150.0 SSA    2.0
 BDE 5.8824 BRA  .9275 BC3  .2738 FSP   -219   SG1 3065.2 SG2  492.2 THA 161.50     EL1 2987.4 EL2  134.4 ALF 161.72
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LAUNCH DATE OCT 10 1970 FLIGHT TIME 120.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 360.330

```
RL  149.39 LAL     .00 LOL  16.28 VL  27.784 GAL  -9.65 AZL  59.68 HCA 173.88 SMA 132.08 ECC .21164 INC30.3239 V1  29.827
RP  107.84 LAP    3.09 LOP 190.99 VP  38.165 GAP   6.16 AZP 120.18 TAL 222.73 TAP  36.60 RCA 104.12 APO 160.03 V2  35.141
RC 120.271 GL    61.69 GP  -76.70 ZAL 105.36 ZAP 101.96 ETS 243.84 ZAE  82.77 ETE 165.30 ZAC  15.51 ETC 217.35 CLP 154.19
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PLANETOCENTRIC CONIC

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C3 246.753 VHL 15.708 DLA  38.90 RAL 259.34 RAD 6571.4 VEL 19.185 PTH   3.09 VHP 18.767 DPA -58.21 RAP 121.85 ECC 5.0609
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.13	18 11 27	4686.98	-4.83	211.97	163.34	51.35	19 29 34	4087.0	-9.79	206.05
117.87	0 39 3	3484.53	-4.82	120.80	163.33	51.35	1 37 7	2884.5	-9.77	114.88
62.13	18 11 27	4686.98	-4.83	211.97	163.34	51.35	19 29 34	4087.0	-9.79	206.05
117.87	0 39 3	3484.53	-4.82	120.80	163.33	51.35	1 37 7	2884.5	-9.77	114.88
62.13	18 11 27	4686.98	-4.83	211.97	163.34	51.35	19 29 34	4087.0	-9.79	206.05
117.87	0 39 3	3484.53	-4.82	120.80	163.33	51.35	1 37 7	2884.5	-9.77	114.88

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 5.7742 TRA  .8886 TC3 -.0422 BAU  .1692   SGT 2151.0 SGR 2319.6 SG3   51.5     ST  2109.8 SR  2303.1 SS   944.5
 RDE-8.3103 RRA  .5817 RC3 -.0292 FAU .00104   RRT -.9464 RRF -.9406 RTF  .9987     CRT -.9955 CRS  .9946 CST-1.0000
 FDE 1.5933 FRA  .2818 FC3 -.0037 BSP   9564   SGB 3163.4 R23 -.1900 R13 -.9806     LSA 3259.3 MSA  157.2 SSA    1.4
 BDE 8.5535 BRA 1.0620 BC3  .0513 FSP   -176   SG1 3121.0 SG2  516.4 THA 132.72     EL1 3119.9 EL2  147.5 ALF 132.48
```

LAUNCH DATE OCT 10 1970 FLIGHT TIME 122.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 365.510

```
RL  149.39 LAL     .00 LOL  16.28 VL  27.711 GAL  -9.23 AZL  34.45 HCA 176.36 SMA 131.54 ECC .20887 INC55.5475 V1  29.827
RP  107.87 LAP    3.00 LOP 194.21 VP  38.101 GAP   6.19 AZP 145.49 TAL 220.91 TAP  37.27 RCA 104.07 APO 159.02 V2  35.130
RC 122.531 GL    56.58 GP  -66.36 ZAL  98.40 ZAP  96.70 ETS 201.05 ZAE  65.60 ETE 125.94 ZAC  13.79 ETC 248.47 CLP 106.91
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PLANETOCENTRIC CONIC

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C3 730.200 VHL 27.022 DLA  33.14 RAL 270.59 RAD 6572.7 VEL 29.180 PTH   3.44 VHP 33.413 DPA -43.01 RAP 110.76 ECC13.0172
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
72.01	19 51 5	4626.16	-.39	203.91	180.01	56.86	21 8 11	4026.2	-4.76	197.61
107.99	0 29 12	3750.71	-.38	138.82	180.00	56.86	1 31 43	3150.7	-4.74	132.52
72.01	19 51 5	4626.16	-.39	203.91	180.01	56.86	21 8 11	4026.2	-4.76	197.61
107.99	0 29 12	3750.71	-.38	138.82	180.00	56.86	1 31 43	3150.7	-4.74	132.52
110.00	1 45 26	3516.70	-7.83	125.58	184.89	56.62	2 44 2	2916.7	-12.17	119.17
110.00	23 34 2	3908.16	7.05	146.12	175.11	56.47	24 39 10	3308.2	2.59	139.87

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .0813 TRA 1.9596 TC3 -.0289 BAU 1.6722   SGT  520.6 SGR 2999.6 SG3   45.9     ST   149.9 SR  2794.7 SS  1385.5
 RD-13.1504 RRA-2.4670 RC3 -.1688 FAU-.02423   RRT -.1379 RRF -.9924 RTF  .2533     CRT -.1809 CRS  .9991 CST -.2215
 FDE 2.2500 FRA  .6847 FC3  .0287 BSP   8887   SGB 3044.4 R23 -.1133 R13 -.9929     LSA 3119.0 MSA  156.0 SSA    1.5
 BDE13.1507 BRA 3.1505 BC3  .1713 FSP   -145   SG1 3000.5 SG2  515.4 THA  91.41     EL1 2794.9 EL2  147.5 ALF  90.56
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LAUNCH DATE OCT 10 1970 FLIGHT TIME 124.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 375.007

```
RL  149.39 LAL     .00 LOL  16.28 VL  27.638 GAL  -9.70 AZL 158.23 HCA 183.13 SMA 131.02 ECC .21785 INC68.2305 V1  29.827
RP  107.91 LAP    2.91 LOP 197.44 VP  38.036 GAP   7.46 AZP  21.80 TAL 220.94 TAP  44.07 RCA 102.48 APO 159.56 V2  35.118
RC 124.786 GL   -51.46 GP   57.37 ZAL  97.39 ZAP  96.45 ETS 174.74 ZAE  63.94 ETE 248.44 ZAC 135.58 ETC 266.48 CLP 102.02
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PLANETOCENTRIC CONIC

```
C31046.268 VHL 32.346 DLA -74.75 RAL 280.40 RAD 6573.0 VEL 34.169 PTH   3.51 VHP 42.068 DPA  76.76 RAP 160.37 ECC18.2189
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.39	5 23 53	2452.38	-.54	80.91	190.53	164.75	6 4 46	1852.4	7.18	79.21
162.61	16 14 37	673.45	-.53	285.24	190.56	164.75	16 25 51	73.5	7.19	283.54
17.39	5 23 53	2452.38	-.54	80.91	190.53	164.75	6 4 46	1852.4	7.18	79.21
162.61	16 14 37	673.45	-.53	285.24	190.56	164.75	16 25 51	73.5	7.19	283.54
17.39	5 23 53	2452.38	-.54	80.91	190.53	164.75	6 4 46	1852.4	7.18	79.21
162.61	16 14 37	673.45	-.53	285.24	190.56	164.75	16 25 51	73.5	7.19	283.54

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 4.9668 TRA  .2561 TC3 -.0744 BAU 2.7204   SGT 1017.5 SGR 2730.8 SG3   47.6     ST   881.4 SR  2228.0 SS  1644.7
 RD-12.4323 RRA 1.6649 RC3  .1797 FAU-.03945   RRT -.8290 RRF  .9985 RTF -.8060     CRT -.9780 CRS -.9999 CST  .9755
 FDE-2.5204 FRA  .3639 FC3  .0326 BSP   8534   SGB 2914.2 R23 -.0996 R13  .9943     LSA 2900.6 MSA  179.7 SSA    2.1
 BDE13.3877 BRA 1.6845 BC3  .1945 FSP   -145   SG1 2863.3 SG2  542.7 THA 107.83     EL1 2389.8 EL2  171.5 ALF 111.27
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LAUNCH DATE OCT 10 1970 FLIGHT TIME 126.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 379.757

```
RL  149.39 LAL    .00 LOL  16.28 VL  27.565 GAL  -9.17 AZL 122.66 HCA 185.21 SMA 130.50 ECC .21404 INC32.6624 V1  29.827
RP  107.95 LAP   2.81 LOP 200.66 VP  37.972 GAP   7.37 AZP  57.44 TAL 218.96 TAP  44.17 RCA 102.57 APO 158.43 V2  35.105
RC 127.036 GL  -61.61 GP   73.86 ZAL 103.50 ZAP 102.09 ETS 134.11 ZAE  85.90 ETE 210.29 ZAC 155.88 ETC 241.60 CLP 138.89
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PLANETOCENTRIC CONIC

```
C3 278.684 VHL 16.694 DLA -82.45 RAL 214.69 RAD 6571.6 VEL 20.000 PTH   3.14 VHP 22.185 DPA  68.14 RAP 236.66 ECC 5.5864
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
8.58	0 44 24	2359.78	6.55	84.63	123.81	172.40	1 23 44	1759.8	14.48	83.96
171.42	12 9 52	5843.59	6.56	258.26	123.83	172.40	13 47 15	5243.6	14.48	257.59
8.58	0 44 24	2359.78	6.55	84.63	123.81	172.40	1 23 44	1759.8	14.48	83.96
171.42	12 9 52	5843.59	6.56	258.26	123.83	172.40	13 47 15	5243.6	14.48	257.59
8.58	0 44 24	2359.78	6.55	84.63	123.81	172.40	1 23 44	1759.8	14.48	83.96
171.42	12 9 52	5843.59	6.56	258.26	123.83	172.40	13 47 15	5243.6	14.48	257.59

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-3.6979 TRA -.3157 TC3 -.0147 BAU  .2147   SGT 1514.5 SGR 3036.3 SG3   54.9     ST  1293.1 SR  2002.1 SS   958.5
 RDE-5.4481 RRA -.9128 RC3  .0557 FAU .00161   RRT  .9420 RRF  .9755 RTF  .9921    CRT  .9851 CRS -.9931 CST -.9984
 FDE-1.4122 FRA -.1568 FC3 -.0050 BSP  10332   SGB 3393.1 R23 -.1539 R13  .9877    LSA 2561.4 MSA  196.6 SSA    1.0
 BDE 6.5846 BRA  .9658 BC3  .0576 FSP   -175   SG1 3361.9 SG2  459.2 THA  64.32    EL1 2376.0 EL2  187.5 ALF   57.31
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LAUNCH DATE OCT 10 1970 FLIGHT TIME 128.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 385.266

```
RL  149.39 LAL    .00 LOL  16.28 VL  27.493 GAL  -8.81 AZL 109.58 HCA 188.07 SMA 129.99 ECC .21255 INC19.5773 V1  29.827
RP  107.99 LAP   2.70 LOP 203.88 VP  37.908 GAP   7.49 AZP  70.60 TAL 217.28 TAP  45.34 RCA 102.36 APO 157.62 V2  35.093
RC 129.278 GL  -58.29 GP   71.06 ZAL 110.30 ZAP 108.93 ETS  84.34 ZAE  97.37 ETE 162.48 ZAC 161.32 ETC 222.17 CLP 178.62
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PLANETOCENTRIC CONIC

```
C3 114.512 VHL 10.701 DLA -75.93 RAL 203.89 RAD 6570.2 VEL 15.357 PTH   2.75 VHP 14.538 DPA  55.68 RAP 244.23 ECC 2.8846
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.04	0 15 57	2203.18	16.07	78.35	109.74	165.34	0 52 40	1603.2	23.80	76.56
163.96	11 12 7	5707.23	16.07	259.23	109.75	165.34	12 47 15	5107.2	23.80	257.44
16.04	0 15 57	2203.18	16.07	78.35	109.74	165.34	0 52 40	1603.2	23.80	76.56
163.96	11 12 7	5707.23	16.07	259.23	109.75	165.34	12 47 15	5107.2	23.80	257.44
16.04	0 15 57	2203.18	16.07	78.35	109.74	165.34	0 52 40	1603.2	23.80	76.56
163.96	11 12 7	5707.23	16.07	259.23	109.75	165.34	12 47 15	5107.2	23.80	257.44

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-2.9906 TRA-1.3503 TC3 -.3280 BAU  .5028   SGT 3451.0 SGR  944.5 SG3   68.4     ST  1836.7 SR   288.9 SS   632.6
 RDE  .1129 RRA -.4277 RC3 -.0176 FAU .01497   RRT  .8374 RRF  .7141 RTF  .9790    CRT  .2921 CRS -.1462 CST -.9888
 FDE -.8811 FRA -.2667 FC3 -.1132 BSP  11021   SGB 3577.9 R23 -.2259 R13  .9721    LSA 1942.3 MSA  291.4 SSA    1.8
 BDE 3.0007 BRA 1.4164 BC3  .3284 FSP   -224   SG1 3542.4 SG2  502.9 THA  13.18    EL1 1838.7 EL2  276.0 ALF   2.69
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LAUNCH DATE OCT 10 1970 FLIGHT TIME 130.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 391.000

```
RL  149.39 LAL    .00 LOL  16.28 VL  27.421 GAL  -8.48 AZL 103.47 HCA 191.12 SMA 129.49 ECC .21168 INC13.4688 V1  29.827
RP  108.03 LAP   2.58 LOP 207.10 VP  37.844 GAP   7.67 AZP  76.78 TAL 215.65 TAP  46.77 RCA 102.08 APO 156.90 V2  35.080
RC 131.513 GL  -51.95 GP   63.67 ZAL 116.22 ZAP 115.65 ETS  69.48 ZAE 104.95 ETE 150.31 ZAC 159.07 ETC 233.78 CLP-167.45
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PLANETOCENTRIC CONIC

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C3  64.354 VHL  8.022 DLA -69.37 RAL 210.49 RAD 6569.2 VEL 13.627 PTH   2.49 VHP 11.138 DPA  45.87 RAP 245.41 ECC 2.0591
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
23.60	0 58 1	2057.06	23.62	69.68	111.00	157.38	1 32 18	1457.1	30.96	66.52
156.40	11 22 45	5595.68	23.63	258.30	111.02	157.38	12 56 1	4995.7	30.97	255.14
23.60	0 58 1	2057.06	23.62	69.68	111.00	157.38	1 32 18	1457.1	30.96	66.52
156.40	11 22 45	5595.68	23.63	258.30	111.02	157.38	12 56 1	4995.7	30.97	255.14
23.60	0 58 1	2057.06	23.62	69.68	111.00	157.38	1 32 18	1457.1	30.96	66.52
156.40	11 22 45	5595.68	23.63	258.30	111.02	157.38	12 56 1	4995.7	30.97	255.14

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-2.2940 TRA-1.4778 TC3 -.8272 BAU  .7155   SGT 3663.0 SGR  478.9 SG3   85.3     ST  1869.1 SR   402.4 SS   611.6
 RDE  .5549 RRA -.1140 RC3  .0856 FAU .02319   RRT -.0794 RRF -.3669 RTF  .9514    CRT -.7808 CRS  .8973 CST -.9764
 FDE -.8540 FRA -.2926 FC3 -.3120 BSP  11429   SGB 3694.1 R23  .2910 R13 -.9518    LSA 1988.8 MSA  272.4 SSA    2.7
 BDE 2.3602 BRA 1.4822 BC3  .8316 FSP   -280   SG1 3663.2 SG2  477.4 THA 179.40    EL1 1895.8 EL2  247.9 ALF 170.29
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LAUNCH DATE OCT 10 1970 FLIGHT TIME 132.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 396.772

```
RL  149.39 LAL    .00 LOL  16.28 VL  27.350 GAL  -8.15 AZL  99.99 HCA 194.25 SMA 129.00 ECC .21112 INC 9.9922 V1  29.827
RP  108.07 LAP   2.45 LOP 210.32 VP  37.780 GAP   7.87 AZP  80.31 TAL 214.03 TAP  48.28 RCA 101.77 APO 156.23 V2  35.067
RC 133.740 GL  -45.43 GP   56.49 ZAL 120.84 ZAP 121.82 ETS  63.94 ZAE 110.50 ETE 148.05 ZAC 154.23 ETC 243.32 CLP-162.73
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PLANETOCENTRIC CONIC

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C3  43.484 VHL  6.594 DLA -63.35 RAL 217.09 RAD 6568.6 VEL 12.839 PTH   2.34 VHP  9.366 DPA  37.69 RAP 245.80 ECC 1.7156
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.63	1 40 14	1936.66	28.23	60.05	111.46	149.40	2 12 31	1336.7	35.02	55.51
149.37	11 33 12	5522.23	28.23	256.44	111.47	149.40	13 5 14	4922.2	35.03	251.89
30.63	1 40 14	1936.66	28.23	60.05	111.46	149.40	2 12 31	1336.7	35.02	55.51
149.37	11 33 12	5522.23	28.23	256.44	111.47	149.40	13 5 14	4922.2	35.03	251.89
30.63	1 40 14	1936.66	28.23	60.05	111.46	149.40	2 12 31	1336.7	35.02	55.51
149.37	11 33 12	5522.23	28.23	256.44	111.47	149.40	13 5 14	4922.2	35.03	251.89

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-1.9077 TRA-1.4626 TC3-1.3876 BAU  .8149   SGT 3758.3 SGR  533.6 SG3  102.5     ST  1863.6 SR   462.2 SS   592.9
 RDE  .5315 RRA -.0281 RC3  .1985 FAU .02952   RRT -.5437 RRF -.7939 RTF  .9303    CRT -.8731 CRS  .9660 CST -.9694
 FDE -.8215 FRA -.2820 FC3 -.5877 BSP  11796   SGB 3796.0 R23  .3346 R13 -.9334    LSA 1993.5 MSA  253.2 SSA    3.7
 BDE 1.9803 BRA 1.4629 BC3 1.4017 FSP   -338   SG1 3769.7 SG2  446.5 THA 175.52    EL1 1907.4 EL2  220.1 ALF 167.61
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LAUNCH DATE OCT 10 1970 FLIGHT TIME 134.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 402.566

RL	149.39	LAL	.00	LOL	16.28	VL	27.279	GAL	-7.82	AZL	97.75	HCA	197.40	SMA	128.52	ECC	.21074	INC	7.7519
RP	108.11	LAP	2.31	LOP	213.53	VP	37.717	GAP	8.07	AZP	82.60	TAL	212.41	TAP	49.81	RCA	101.43	APO	155.60
RC	135.957	GL	-39.45	GP	50.18	ZAL	124.11	ZAP	127.28	ETS	60.94	ZAE	114.69	ETE	148.65	ZAC	149.17	ETC	248.92

V1	29.827	V2	35.054	CLP	-161.05														

PLANETOCENTRIC CONIC

C3	32.907	VHL	5.737	DLA	-58.02	RAL	222.66	RAD	6568.3	VEL	12.421	PTH	2.24	VHP	8.349	DPA	30.75	RAP	246.27
ECC	1.5416																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.98	2 18 17	1837.76	30.49	50.55	111.08	142.08	2 48 54	1237.8	36.66	44.85
143.02	11 39 36	5480.42	30.50	254.64	111.10	142.07	13 10 56	4880.4	36.67	248.94
36.98	2 18 17	1837.76	30.49	50.55	111.08	142.08	2 48 54	1237.8	36.66	44.85
143.02	11 39 36	5480.42	30.50	254.64	111.10	142.07	13 10 56	4880.4	36.67	248.94
36.98	2 18 17	1837.76	30.49	50.55	111.08	142.08	2 48 54	1237.8	36.66	44.85
143.02	11 39 36	5480.42	30.50	254.64	111.10	142.07	13 10 56	4880.4	36.67	248.94

DIFFERENTIAL CORRECTIONS

TDE	-1.6103	TRA	-1.4017	TC3	-1.9473	BAU	.0656												
RDE	.4508	RRA	-.0118	RC3	.2810	FAU	.03387												
FDE	-.7502	FRA	-.2306	FC3	-.8911	BSP	11797												
BDE	1.6722	BRA	1.4018	BC3	1.9874	FSP	-370												

MID-COURSE EXECUTION ACCURACY

SGT	3816.6	SGR	554.2	SG3	116.2						
RRT	-.6550	RRF	-.8813	RTF	.9114						
SGB	3856.6	R23	.3667	R13	-.9153						
SG1	3834.0	SG2	416.9	THA	174.50						

ORBIT DETERMINATION ACCURACY

ST	1794.5	SR	450.4	SS	549.6						
CRT	-.8902	CRS	.9813	CST	-.9611						
LSA	1915.1	MSA	240.4	SSA	5.1						
EL1	1839.3	EL2	200.2	ALF	167.25						

LAUNCH DATE OCT 10 1970 FLIGHT TIME 136.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 408.363

RL	149.39	LAL	.00	LOL	16.28	VL	27.209	GAL	-7.49	AZL	96.18	HCA	200.57	SMA	128.04	ECC	.21053	INC	6.1840
RP	108.15	LAP	2.17	LOP	216.74	VP	37.654	GAP	8.27	AZP	84.21	TAL	210.79	TAP	51.35	RCA	101.09	APO	155.00
RC	138.166	GL	-34.16	GP	44.77	ZAL	126.14	ZAP	132.04	ETS	58.87	ZAE	117.85	ETE	150.24	ZAC	144.55	ETC	252.38

V1	29.827	V2	35.041	CLP	-160.61														

PLANETOCENTRIC CONIC

C3	26.780	VHL	5.175	DLA	-53.38	RAL	227.45	RAD	6568.1	VEL	12.172	PTH	2.18	VHP	7.733	DPA	24.84	RAP	246.95
ECC	1.4407																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
42.65	2 53 8	1753.46	31.23	41.74	110.65	135.76	3 22 21	1153.5	36.78	35.19
137.35	11 42 57	5461.54	31.25	253.44	110.66	135.76	13 13 58	4861.5	36.79	246.89
42.65	2 53 8	1753.46	31.23	41.74	110.65	135.76	3 22 21	1153.5	36.78	35.19
137.35	11 42 57	5461.54	31.25	253.44	110.66	135.76	13 13 58	4861.5	36.79	246.89
42.65	2 53 8	1753.46	31.23	41.74	110.65	135.76	3 22 21	1153.5	36.78	35.19
137.35	11 42 57	5461.54	31.25	253.44	110.66	135.76	13 13 58	4861.5	36.79	246.89

DIFFERENTIAL CORRECTIONS

TDE	-1.3917	TRA	-1.3471	TC3	-2.5167	BAU	.9095												
RDE	.3854	RRA	-.0073	RC3	.3449	FAU	.03744												
FDE	-.6742	FRA	-.1937	FC3	-1.2104	BSP	12267												
BDE	1.4441	BRA	1.3471	BC3	2.5403	FSP	-420												

MID-COURSE EXECUTION ACCURACY

SGT	3925.7	SGR	556.5	SG3	129.8						
RRT	-.7110	RRF	-.9102	RTF	.9010						
SGB	3965.0	R23	.3744	R13	-.9048						
SG1	3945.8	SG2	389.4	THA	174.19						

ORBIT DETERMINATION ACCURACY

ST	1715.5	SR	426.9	SS	504.5						
CRT	-.8948	CRS	.9880	CST	-.9526						
LSA	1823.9	MSA	230.8	SSA	6.7						
EL1	1758.0	EL2	186.0	ALF	167.30						

LAUNCH DATE OCT 10 1970 FLIGHT TIME 138.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 414.159

RL	149.39	LAL	.00	LOL	16.28	VL	27.139	GAL	-7.16	AZL	95.02	HCA	203.74	SMA	127.58	ECC	.21046	INC	5.0206
RP	108.19	LAP	2.02	LOP	219.94	VP	37.592	GAP	8.47	AZP	85.40	TAL	209.15	TAP	52.89	RCA	100.73	APO	154.43
RC	140.364	GL	-29.52	GP	40.18	ZAL	127.10	ZAP	136.16	ETS	57.27	ZAE	120.24	ETE	152.16	ZAC	140.54	ETC	254.72

V1	29.827	V2	35.028	CLP	-160.75														

PLANETOCENTRIC CONIC

C3	22.867	VHL	4.782	DLA	-49.36	RAL	231.74	RAD	6567.9	VEL	12.010	PTH	2.14	VHP	7.348	DPA	19.80	RAP	247.88
ECC	1.3763																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.71	3 25 56	1678.50	31.10	33.73	110.55	130.49	3 53 55	1078.5	36.07	26.62
132.29	11 44 21	5458.81	31.11	253.00	110.56	130.48	13 15 20	4858.8	36.09	245.89
47.71	3 25 56	1678.50	31.10	33.73	110.55	130.49	3 53 55	1078.5	36.07	26.62
132.29	11 44 21	5458.81	31.11	253.00	110.56	130.48	13 15 20	4858.8	36.09	245.89
47.71	3 25 56	1678.50	31.10	33.73	110.55	130.49	3 53 55	1078.5	36.07	26.62
132.29	11 44 21	5458.81	31.11	253.00	110.56	130.48	13 15 20	4858.8	36.09	245.89

DIFFERENTIAL CORRECTIONS

TDE	-1.2121	TRA	-1.2807	TC3	-3.0617	BAU	.9434												
RDE	.3346	RRA	-.0103	RC3	.3857	FAU	.03975												
FDE	-.5902	FRA	-.1390	FC3	-1.5049	BSP	12672												
BDE	1.2574	BRA	1.2808	BC3	3.0859	FSP	-458												

MID-COURSE EXECUTION ACCURACY

SGT	4029.3	SGR	545.2	SG3	140.3						
RRT	-.7365	RRF	-.9146	RTF	.8931						
SGB	4066.1	R23	.3714	R13	-.8966						
SG1	4049.5	SG2	366.9	THA	174.26						

ORBIT DETERMINATION ACCURACY

ST	1617.6	SR	401.1	SS	452.4						
CRT	-.8927	CRS	.9920	CST	-.9413						
LSA	1712.3	MSA	223.8	SSA	8.7						
EL1	1657.2	EL2	176.5	ALF	167.37						

LAUNCH DATE OCT 10 1970 FLIGHT TIME 140.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 419.949

RL	149.39	LAL	.00	LOL	16.28	VL	27.071	GAL	-6.81	AZL	94.12	HCA	206.93	SMA	127.12	ECC	.21052	INC	4.1185
RP	108.23	LAP	1.86	LOP	223.14	VP	37.530	GAP	8.67	AZP	86.33	TAL	207.49	TAP	54.42	RCA	100.36	APO	153.88
RC	142.552	GL	-25.45	GP	36.30	ZAL	127.19	ZAP	139.72	ETS	55.95	ZAE	122.04	ETE	154.12	ZAC	137.09	ETC	256.42

V1	29.827	V2	35.014	CLP	-161.18														

PLANETOCENTRIC CONIC

C3	20.179	VHL	4.492	DLA	-45.88	RAL	235.72	RAD	6567.8	VEL	11.898	PTH	2.11	VHP	7.107	DPA	15.48	RAP	249.02
ECC	1.3321																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.26	3 57 37	1608.96	30.47	26.44	110.91	126.12	4 24 26	1009.0	34.95	18.97
127.74	11 44 24	5467.93	30.48	253.31	110.92	126.12	13 15 32	4867.9	34.96	245.84
52.26	3 57 37	1608.96	30.47	26.44	110.91	126.12	4 24 26	1009.0	34.95	18.97
127.74	11 44 24	5467.93	30.48	253.31	110.92	126.12	13 15 32	4867.9	34.96	245.84
52.26	3 57 37	1608.96	30.47	26.44	110.91	126.12	4 24 26	1009.0	34.95	18.97
127.74	11 44 24	5467.93	30.48	253.31	110.92	126.12	13 15 32	4867.9	34.96	245.84

DIFFERENTIAL CORRECTIONS

TDE	-1.0579	TRA	-1.2024	TC3	-3.5723	BAU	.9700												
RDE	.2965	RRA	-.0163	RC3	.4086	FAU	.04093												
FDE	-.5033	FRA	-.0773	FC3	-1.7561	BSP	12953												
BDE	1.0987	BRA	1.2026	BC3	3.5955	FSP	-480												

MID-COURSE EXECUTION ACCURACY

SGT	4120.0	SGR	527.9	SG3	147.7						
RRT	-.7460	RRF	-.9063	RTF	.8864						
SGB	4153.6	R23	.3607	R13	-.8893						
SG1	4138.9	SG2	349.9	THA	174.50						

ORBIT DETERMINATION ACCURACY

ST	1505.6	SR	378.4	SS	396.1						
CRT	-.8870	CRS	.9950	CST	-.9255						
LSA	1587.2	MSA	218.4	SSA	11.1						
EL1	1543.0	EL2	170.5	ALF	167.27						

LAUNCH DATE OCT 10 1970 FLIGHT TIME 142.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 425.734

RL	149.39	LAL	.00	LOL	16.28	VL	27.003	GAL	-6.46	AZL	93.40	HCA	210.11	SMA	126.68	ECC	.21072	INC	3.3951	V1	29.827
RP	108.27	LAP	1.70	LOP	226.34	VP	37.468	GAP	8.87	AZP	87.06	TAL	205.82	TAP	55.93	RCA	99.98	APO	153.37	V2	35.001
RC	144.730	GL	-21.85	GP	32.99	ZAL	126.55	ZAP	142.81	ETS	54.85	ZAE	123.42	ETE	155.98	ZAC	134.16	ETC	257.76	CLP	-161.78

PLANETOCENTRIC CONIC

C3	18.227	VHL	4.269	DLA	-42.82	RAL	239.51	RAD	6567.7	VEL	11.816	PTH	2.09	VHP	6.958	DPA	11.76	RAP	250.35	ECC	1.3000		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.42	4 28 54	1542.61	29.58	19.69	111.73	122.50	4 54 36	942.6	33.64	12.00
123.58	11 43 26	5486.39	29.59	254.29	111.74	122.49	13 14 52	4886.4	33.65	246.60
56.42	4 28 54	1542.61	29.58	19.69	111.73	122.50	4 54 36	942.6	33.64	12.00
123.58	11 43 26	5486.39	29.59	254.29	111.74	122.49	13 14 52	4886.4	33.65	246.60
56.42	4 28 54	1542.61	29.58	19.69	111.73	122.50	4 54 36	942.6	33.64	12.00
123.58	11 43 26	5486.39	29.59	254.29	111.74	122.49	13 14 52	4886.4	33.65	246.60

DIFFERENTIAL CORRECTIONS

TDE	-.9169	TRA	-1.1079	TC3	-4.0368	BAU	.9889
RDE	.2667	RRA	-.0251	RC3	.4157	FAU	.04099
FDE	-.4125	FRA	-.0066	FC3	-1.9471	BSP	13011
BDE	.9549	BRA	1.1082	BC3	4.0582	FSP	-480

MID-COURSE EXECUTION ACCURACY

SGT	4183.9	SGR	506.2	SG3	151.4		
RRT	-.7416	RRF	-.8881	RTF	.8779		
SGB	4214.4	R23	.3469	R13	-.8805		
SG1	4200.8	SG2	338.2	THA	174.84		

ORBIT DETERMINATION ACCURACY

ST	1376.5	SR	358.4	SS	334.2		
CRT	-.8781	CRS	.9972	CST	-.9000		
LSA	1445.3	MSA	213.9	SSA	14.1		
EL1	1412.5	EL2	167.1	ALF	166.94		

LAUNCH DATE OCT 10 1970 FLIGHT TIME 144.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 431.506

RL	149.39	LAL	.00	LOL	16.28	VL	26.935	GAL	-6.10	AZL	92.80	HCA	213.29	SMA	126.24	ECC	.21107	INC	2.7988	V1	29.827		
RP	108.31	LAP	1.54	LOP	229.54	VP	37.407	GAP	9.08	AZP	87.66	TAL	204.15	TAP	57.44	RCA	99.59	APO	152.88	V2	34.988		
RC	146.899	GL	-18.63	GP	30.18	ZAL	125.33	ZAP	145.52	ETS	53.96	ZAE	124.48	ETE	157.70	ZAC	131.66	ETC	258.86	CLP	-162.47		

PLANETOCENTRIC CONIC

C3	16.756	VHL	4.093	DLA	-40.11	RAL	243.21	RAD	6567.7	VEL	11.753	PTH	2.07	VHP	6.874	DPA	8.55	RAP	251.84	ECC	1.2758		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.31	5 0 26	1476.73	28.56	13.28	112.95	119.46	5 25 3	876.7	32.24	5.46
119.69	11 41 22	5513.26	28.57	255.91	112.95	119.44	13 13 15	4913.3	32.25	248.09
60.31	5 0 26	1476.73	28.56	13.28	112.95	119.46	5 25 3	876.7	32.24	5.46
119.69	11 41 22	5513.26	28.57	255.91	112.95	119.44	13 13 15	4913.3	32.25	248.09
60.31	5 0 26	1476.73	28.56	13.28	112.95	119.46	5 25 3	876.7	32.24	5.46
119.69	11 41 22	5513.26	28.57	255.91	112.95	119.44	13 13 15	4913.3	32.25	248.09

DIFFERENTIAL CORRECTIONS

TDE	-.8305	TRA	-1.0455	TC3	-4.5647	BAU	1.0273
RDE	.2547	RRA	-.0241	RC3	.4397	FAU	.04205
FDE	-.3606	FRA	.0300	FC3	-2.1728	BSP	14027
BDE	.8687	BRA	1.0458	BC3	4.5858	FSP	-542

MID-COURSE EXECUTION ACCURACY

SGT	4356.4	SGR	508.5	SG3	159.8		
RRT	-.7562	RRF	-.8745	RTF	.8846		
SGB	4386.0	R23	.3082	R13	-.8867		
SG1	4373.4	SG2	331.5	THA	174.93		

ORBIT DETERMINATION ACCURACY

ST	1301.3	SR	356.9	SS	301.5		
CRT	-.8785	CRS	.9972	CST	-.8826		
LSA	1366.4	MSA	210.5	SSA	17.2		
EL1	1339.2	EL2	165.7	ALF	166.24		

LAUNCH DATE OCT 10 1970 FLIGHT TIME 146.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 437.273

RL	149.39	LAL	.00	LOL	16.28	VL	26.869	GAL	-5.74	AZL	92.30	HCA	216.48	SMA	125.81	ECC	.21154	INC	2.2960	V1	29.827		
RP	108.35	LAP	1.36	LOP	232.73	VP	37.347	GAP	9.28	AZP	88.15	TAL	202.46	TAP	58.93	RCA	99.20	APO	152.42	V2	34.975		
RC	149.057	GL	-15.73	GP	27.77	ZAL	123.63	ZAP	147.90	ETS	53.24	ZAE	125.29	ETE	159.25	ZAC	129.52	ETC	259.82	CLP	-163.21		

PLANETOCENTRIC CONIC

C3	15.610	VHL	3.951	DLA	-37.67	RAL	246.87	RAD	6567.6	VEL	11.704	PTH	2.06	VHP	6.833	DPA	5.75	RAP	253.47	ECC	1.2569		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.04	5 32 58	1409.19	27.46	6.99	114.53	116.86	5 56 27	809.2	30.83	359.10
115.96	11 38 2	5548.54	27.48	258.19	114.54	116.85	13 10 30	4948.5	30.84	250.29
64.04	5 32 58	1409.19	27.46	6.99	114.53	116.86	5 56 27	809.2	30.83	359.10
115.96	11 38 2	5548.54	27.48	258.19	114.54	116.85	13 10 30	4948.5	30.84	250.29
64.04	5 32 58	1409.19	27.46	6.99	114.53	116.86	5 56 27	809.2	30.83	359.10
115.96	11 38 2	5548.54	27.48	258.19	114.54	116.85	13 10 30	4948.5	30.84	250.29

DIFFERENTIAL CORRECTIONS

TDE	-.7064	TRA	-.9261	TC3	-4.9517	BAU	1.0373
RDE	.2363	RRA	-.0353	RC3	.4308	FAU	.04072
FDE	-.2730	FRA	.1071	FC3	-2.2580	BSP	13825
BDE	.7449	BRA	.9268	BC3	4.9704	FSP	-514

MID-COURSE EXECUTION ACCURACY

SGT	4386.1	SGR	487.3	SG3	158.8		
RRT	-.7361	RRF	-.8437	RTF	.8749		
SGB	4413.1	R23	.2896	R13	-.8767		
SG1	4400.9	SG2	328.8	THA	175.30		

ORBIT DETERMINATION ACCURACY

ST	1149.9	SR	343.4	SS	238.4		
CRT	-.8671	CRS	.9906	CST	-.8224		
LSA	1205.7	MSA	207.3	SSA	21.7		
EL1	1188.6	EL2	165.5	ALF	165.19		

LAUNCH DATE OCT 10 1970 FLIGHT TIME 148.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 443.027

RL	149.39	LAL	.00	LOL	16.28	VL	26.803	GAL	-5.36	AZL	91.86	HCA	219.66	SMA	125.39	ECC	.21217	INC	1.8639	V1	29.827		
RP	108.39	LAP	1.19	LOP	235.92	VP	37.288	GAP	9.48	AZP	88.56	TAL	200.75	TAP	60.41	RCA	98.79	APO	152.00	V2	34.962		
RC	151.205	GL	-13.08	GP	25.69	ZAL	121.53	ZAP	150.02	ETS	52.71	ZAE	125.93	ETE	160.64	ZAC	127.68	ETC	260.68	CLP	-163.98		

PLANETOCENTRIC CONIC

C3	14.708	VHL	3.835	DLA	-35.44	RAL	250.52	RAD	6567.6	VEL	11.666	PTH	2.05	VHP	6.826	DPA	3.30	RAP	255.22	ECC	1.2421		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.75	6 7 18	1337.32	26.33	.59	116.44	114.62	6 29 35	737.3	29.42	352.66
112.25	11 32 49	5593.70	26.34	261.21	116.45	114.61	13 6 3	4993.7	29.43	253.28
67.75	6 7 18	1337.32	26.33	.59	116.44	114.62	6 29 35	737.3	29.42	352.66
112.25	11 32 49	5593.70	26.34	261.21	116.45	114.61	13 6 3	4993.7	29.43	253.28
67.75	6 7 18	1337.32	26.33	.59	116.44	114.62	6 29 35	737.3	29.42	352.66
112.25	11 32 49	5593.70	26.34	261.21	116.45	114.61	13 6 3	4993.7	29.43	253.28

DIFFERENTIAL CORRECTIONS

TDE	-.6096	TRA	-.8200	TC3	-5.3595	BAU	1.0573
RDE	.2267	RRA	-.0418	RC3	.4318	FAU	.03988
FDE	-.2082	FRA	.1645	FC3	-2.3476	BSP	14110
BDE	.6504	BRA	.8210	BC3	5.3769	FSP	-518

MID-COURSE EXECUTION ACCURACY

SGT	4470.9	SGR	479.9	SG3	160.0		
RRT	-.7247	RRF	-.8155	RTF	.8734		
SGB	4496.6	R23	.2599	R13	-.8749		
SG1	4484.5	SG2	329.7	THA	175.53		

ORBIT DETERMINATION ACCURACY

ST	1023.7	SR	339.7	SS	193.7		
CRT	-.8609	CRS	.9680	CST	-.7410		
LSA	1076.3	MSA	204.5	SSA	27.0		
EL1	1065.7	EL2	166.0	ALF	163.65		

LAUNCH DATE OCT 10 1970 FLIGHT TIME 150.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 448.770

RL 149.39 LAL .00 LOL 16.28 VL 26.738 GAL -4.97 AZL 91.49 HCA 222.84 SMA 124.98 ECC .21295 INC 1.4865 V1 29.827
RP 108.43 LAP 1.01 LOP 239.11 VP 37.230 GAP 9.69 AZP 88.91 TAL 199.04 TAP 61.88 RCA 98.37 APO 151.60 V2 34.949
RC 155.343 GL -10.64 GP 23.88 ZAL 119.11 ZAP 151.91 ETS 52.34 ZAE 126.44 ETE 161.87 ZAC 126.08 ETC 261.48 CLP-164.76

PLANETOCENTRIC CONIC

C3 13.994 VHL 3.741 DLA -33.36 RAL 254.19 RAD 6567.6 VEL 11.635 PTH 2.04 VHP 6.844 DPA 1.15 RAP 257.07 ECC 1.2303

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
71.59	6 44 46	1256.92	25.16	353.73	118.63	112.65	7 5 43	656.9	28.01	345.78
108.41	11 24 38	5652.07	25.18	265.21	118.64	112.64	12 58 50	5052.1	28.02	257.27
71.59	6 44 46	1256.92	25.16	353.73	118.63	112.65	7 5 43	656.9	28.01	345.78
108.41	11 24 38	5652.07	25.18	265.21	118.64	112.64	12 58 50	5052.1	28.02	257.27
110.00	10 37 26	5796.81	20.62	274.10	116.30	117.89	12 14 3	5196.8	24.18	266.77
110.00	12 31 8	5448.22	29.90	251.34	120.58	107.39	14 1 56	4848.2	31.99	242.74

DIFFERENTIAL CORRECTIONS
TDE -.5175 TRA -.7064 TC3-5.7380 BAU 1.0765
RDE .2200 RRA -.0487 RC3 .4315 FAU .03883
FDE -.1484 FRA .2196 FC3-2.4025 BSP 14397
BDE .5623 BRA .7081 BC3 5.7542 FSP -519

MID-COURSE EXECUTION ACCURACY
SGT 4553.7 SGR 475.1 SG3 160.4
RRT -.7106 RRF -.7856 RTF .8726
SGB 4578.4 R23 .2306 R13 -.8739
SG1 4566.2 SG2 333.4 THA 175.74

ORBIT DETERMINATION ACCURACY
ST 892.1 SR 338.2 SS 155.5
CRT -.8550 CRS .9034 CST -.5974
LSA 944.7 MSA 201.7 SSA 33.8
EL1 939.4 EL2 166.6 ALF 161.44

LAUNCH DATE OCT 10 1970 FLIGHT TIME 152.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 454.501

RL 149.39 LAL .00 LOL 16.28 VL 26.674 GAL -4.57 AZL 91.15 HCA 226.02 SMA 124.58 ECC .21389 INC 1.1518 V1 29.827
RP 108.47 LAP .83 LOP 242.30 VP 37.172 GAP 9.89 AZP 89.20 TAL 197.31 TAP 63.34 RCA 97.93 APO 151.23 V2 34.937
RC 155.470 GL -8.39 GP 22.31 ZAL 116.40 ZAP 153.61 ETS 52.15 ZAE 126.85 ETE 162.96 ZAC 124.68 ETC 262.23 CLP-165.54

PLANETOCENTRIC CONIC

C3 13.435 VHL 3.665 DLA -31.39 RAL 257.89 RAD 6567.5 VEL 11.611 PTH 2.03 VHP 6.882 DPA -.74 RAP 259.02 ECC 1.2211

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
75.85	7 27 45	1160.24	23.97	345.82	121.09	110.90	7 47 5	560.2	26.60	337.88
104.15	11 11 11	5730.93	23.98	270.71	121.10	110.88	12 46 42	5130.9	26.61	262.77
75.85	7 27 45	1160.24	23.97	345.82	121.09	110.90	7 47 5	560.2	26.60	337.88
104.15	11 11 11	5730.93	23.98	270.71	121.10	110.88	12 46 42	5130.9	26.61	262.77
110.00	10 5 9	648.92	15.94	304.38	116.97	120.65	10 15 58	48.9	19.89	297.48
110.00	13 32 57	5290.24	32.56	239.80	123.88	101.05	15 1 8	4690.2	33.74	230.76

DIFFERENTIAL CORRECTIONS
TDE -.4268 TRA -.5846 TC3-6.0797 BAU 1.0947
RDE .2154 RRA -.0561 RC3 .4301 FAU .03763
FDE -.0930 FRA .2727 FC3-2.4247 BSP 14666
BDE .4701 BRA .5873 BC3 6.0949 FSP -519

MID-COURSE EXECUTION ACCURACY
SGT 4631.9 SGR 472.6 SG3 160.0
RRT -.6944 RRF -.7550 RTF .8725
SGB 4655.9 R23 .2027 R13 -.8735
SG1 4643.5 SG2 339.2 THA 175.93

ORBIT DETERMINATION ACCURACY
ST 752.4 SR 338.2 SS 128.1
CRT -.8487 CRS .7419 CST -.3453
LSA 809.7 MSA 198.6 SSA 43.0
EL1 807.9 EL2 166.6 ALF 158.14

LAUNCH DATE OCT 10 1970 FLIGHT TIME 154.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 460.219

RL 149.39 LAL .00 LOL 16.28 VL 26.611 GAL -4.16 AZL 90.85 HCA 229.20 SMA 124.19 ECC .21500 INC .8514 V1 29.827
RP 108.51 LAP .64 LOP 245.48 VP 37.115 GAP 10.10 AZP 89.44 TAL 195.58 TAP 64.78 RCA 97.49 APO 150.89 V2 34.925
RC 157.587 GL -6.28 GP 20.94 ZAL 113.45 ZAP 155.16 ETS 52.12 ZAE 127.18 ETE 163.93 ZAC 123.46 ETC 262.95 CLP-166.33

PLANETOCENTRIC CONIC

C3 13.010 VHL 3.607 DLA -29.51 RAL 261.63 RAD 6567.5 VEL 11.593 PTH 2.03 VHP 6.936 DPA -2.41 RAP 261.04 ECC 1.2141

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.33	8 23 13	1024.43	22.75	335.18	123.80	109.32	8 40 17	424.4	25.18	327.26
98.67	10 45 33	5852.81	22.76	279.34	123.80	109.30	12 23 5	5252.8	25.19	271.41
100.00	10 15 31	660.88	19.87	307.36	122.60	112.81	10 26 32	60.9	22.78	299.78
100.00	11 35 55	5691.60	25.71	268.40	124.82	105.80	13 10 47	5091.6	27.63	260.13
110.00	9 50 6	740.97	12.68	309.52	118.73	122.01	10 2 27	141.0	16.82	302.85
110.00	14 17 49	5184.27	33.65	231.73	126.61	96.39	15 44 14	4584.3	34.17	222.52

DIFFERENTIAL CORRECTIONS
TDE -.3364 TRA -.4556 TC3-6.3816 BAU 1.1124
RDE .2122 RRA -.0641 RC3 .4280 FAU .03633
FDE -.0415 FRA .3230 FC3-2.4176 BSP 14938
BDE .3977 BRA .4601 BC3 6.3959 FSP -517

MID-COURSE EXECUTION ACCURACY
SGT 4708.5 SGR 471.8 SG3 159.2
RRT -.6770 RRF -.7244 RTF .8731
SGB 4732.1 R23 .1767 R13 -.8740
SG1 4719.4 SG2 346.4 THA 176.10

ORBIT DETERMINATION ACCURACY
ST 605.6 SR 339.0 SS 117.4
CRT -.8407 CRS .4353 CST .0142
LSA 674.3 MSA 194.2 SSA 56.1
EL1 674.2 EL2 164.9 ALF 153.06

LAUNCH DATE OCT 10 1970 FLIGHT TIME 156.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 465.924

RL 149.39 LAL .00 LOL 16.28 VL 26.549 GAL -3.74 AZL 90.58 HCA 232.38 SMA 123.80 ECC .21628 INC .5787 V1 29.827
RP 108.54 LAP .46 LOP 248.86 VP 37.059 GAP 10.32 AZP 89.65 TAL 193.83 TAP 66.21 RCA 97.03 APO 150.58 V2 34.913
RC 159.692 GL -4.31 GP 19.72 ZAL 110.30 ZAP 156.58 ETS 52.26 ZAE 127.46 ETE 164.79 ZAC 122.37 ETC 263.66 CLP-167.10

PLANETOCENTRIC CONIC

C3 12.707 VHL 3.565 DLA -27.68 RAL 265.40 RAD 6567.5 VEL 11.580 PTH 2.03 VHP 7.003 DPA -3.89 RAP 263.14 ECC 1.2091

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 56 55	960.45	17.93	328.54	125.34	112.29	9 12 55	360.4	20.80	321.04
90.00	10 41 56	618.64	25.17	306.15	127.84	103.41	10 52 15	18.6	26.77	297.85
100.00	9 34 34	838.77	14.82	318.15	123.88	116.26	9 48 32	238.8	18.23	311.02
100.00	12 46 59	5503.60	28.51	255.15	128.60	99.37	14 18 42	4903.6	29.52	246.49
110.00	9 41 46	816.13	9.93	313.60	121.04	122.88	9 55 22	216.1	14.20	307.10
110.00	14 56 16	5099.00	34.10	225.11	129.28	92.50	16 21 15	4499.0	34.07	215.86

DIFFERENTIAL CORRECTIONS
TDE -.2442 TRA -.3183 TC3-6.6335 BAU 1.1292
RDE .2101 RRA -.0728 RC3 .4240 FAU .03493
FDE .0068 FRA .3718 FC3-2.3795 BSP 15197
BDE .3221 BRA .3285 BC3 6.6470 FSP -514

MID-COURSE EXECUTION ACCURACY
SGT 4780.6 SGR 472.1 SG3 157.7
RRT -.6583 RRF -.6941 RTF .8740
SGB 4803.8 R23 .1535 R13 -.8748
SG1 4790.7 SG2 354.6 THA 176.26

ORBIT DETERMINATION ACCURACY
ST 451.9 SR 340.1 SS 126.5
CRT -.8259 CRS .0674 CST .3405
LSA 543.2 MSA 186.9 SSA 76.4
EL1 542.5 EL2 159.7 ALF 144.61

LAUNCH DATE OCT 10 1970 FLIGHT TIME 158.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 471.614

RL	149.39	LAL	.00	LOL	16.28	VL	26.487	GAL	-3.31	AZL	90.33	HCA	235.56	SMA	123.43	ECC	.21775	INC	.3282	V1	29.827
RP	108.58	LAP	.27	LOP	251.84	VP	37.005	GAP	10.53	AZP	89.81	TAL	192.07	TAP	67.63	RCA	96.55	APO	150.31	V2	34.901
RC	161.784	GL	-2.46	GP	18.65	ZAL	106.98	ZAP	157.87	ETS	52.57	ZAE	127.69	ETE	165.56	ZAC	121.39	ETC	264.35	CLP	-167.88

PLANETOCENTRIC CONIC

C3	12.520	VHL	3.538	DLA	-25.90	RAL	269.20	RAD	6567.5	VEL	11.572	PTH	2.02	VHP	7.083	DPA	-5.19	RAP	265.30	ECC	1.2060		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 22 6	1123.53	13.45	338.42	127.16	115.16	8 40 50	523.5	16.73	331.28
90.00	11 47 4	5737.25	27.31	272.12	131.53	97.80	13 22 41	5137.3	28.10	263.54
100.00	9 16 50	946.80	11.48	324.43	126.16	117.79	9 32 37	346.8	15.11	317.52
100.00	13 35 2	5389.21	29.50	246.79	131.81	95.08	15 4 51	4789.2	29.89	238.01
110.00	9 37 13	882.86	7.45	317.17	123.74	123.46	9 51 55	282.9	11.80	310.78
110.00	15 31 8	5025.92	34.17	219.40	132.01	89.13	16 54 54	4425.9	33.67	210.20

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.1483	TRA	-.1723	TC3	-6.8288	BAU	1.1451	SGT	4848.4	SGR	473.1	SG3	156.0	ST	295.5	SR	341.0	SS	151.0
RDE	.2087	RRA	-.0822	RC3	.4184	FAU	.03348	RRT	-.6391	RRF	-.6647	RTF	.8754	CRT	-.7771	CRS	-.2188	CST	.4724
FDE	.0528	FRA	.4188	FC3	-2.3150	BSP	15434	SGB	4871.4	R23	.1327	R13	-.8760	LSA	429.5	MSA	173.1	SSA	109.4
BDE	.2561	BRA	.1909	BC3	6.8416	FSP	-509	SG1	4857.9	SG2	363.2	THA	176.41	EL1	426.0	EL2	148.9	ALF	129.76

LAUNCH DATE OCT 10 1970 FLIGHT TIME 160.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 477.289

RL	149.39	LAL	.00	LOL	16.28	VL	26.427	GAL	-2.87	AZL	90.10	HCA	238.74	SMA	123.06	ECC	.21942	INC	.0962	V1	29.827
RP	108.61	LAP	.08	LOP	255.01	VP	36.951	GAP	10.76	AZP	89.95	TAL	190.31	TAP	69.05	RCA	96.06	APO	150.06	V2	34.890
RC	163.865	GL	-.73	GP	17.70	ZAL	103.52	ZAP	159.07	ETS	53.04	ZAE	127.90	ETE	166.24	ZAC	120.51	ETC	265.04	CLP	-168.64

PLANETOCENTRIC CONIC

C3	12.445	VHL	3.528	DLA	-24.14	RAL	273.02	RAD	6567.5	VEL	11.569	PTH	2.02	VHP	7.173	DPA	-6.34	RAP	267.51	ECC	1.2048		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 5 19	1232.13	10.22	344.76	129.75	116.55	8 25 51	632.1	13.71	337.82
90.00	12 34 18	5626.11	28.08	264.08	134.86	93.85	14 8 4	5026.1	28.31	255.42
100.00	9 6 30	1034.61	8.64	329.41	128.92	118.73	9 23 45	434.6	12.41	322.65
100.00	14 15 48	5298.86	29.85	240.10	134.96	91.58	15 44 7	4698.9	29.75	231.30
110.00	9 35 6	944.91	5.11	320.45	126.75	123.85	9 50 51	344.9	9.52	314.14
110.00	16 3 41	4961.33	33.99	214.37	134.86	86.15	17 26 23	4361.3	33.09	205.25

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.0479	TRA	-.0174	TC3	-6.9599	BAU	1.1600	SGT	4911.3	SGR	474.5	SG3	153.9	ST	166.8	SR	341.7	SS	184.2
RDE	.2081	RRA	-.0924	RC3	.4104	FAU	.03198	RRT	-.6192	RRF	-.6361	RTF	.8768	CRT	-.4755	CRS	-.3969	CST	.1524
FDE	.0965	FRA	.4647	FC3	-2.2244	BSP	15656	SGB	4934.2	R23	.1146	R13	-.8773	LSA	361.9	MSA	167.1	SSA	140.0
BDE	.2136	BRA	.0940	BC3	6.9720	FSP	-503	SG1	4920.2	SG2	371.9	THA	176.56	EL1	352.7	EL2	142.2	ALF	105.68

LAUNCH DATE OCT 10 1970 FLIGHT TIME 162.00 ARRIVAL DATE MAR 21 1971

HELIOCENTRIC CONIC DISTANCE 482.948

RL	149.39	LAL	.00	LOL	16.28	VL	26.367	GAL	-2.41	AZL	89.88	HCA	241.91	SMA	122.70	ECC	.22129	INC	.1187	V1	29.827
RP	108.65	LAP	-.11	LOP	258.19	VP	36.898	GAP	10.99	AZP	90.06	TAL	188.54	TAP	70.45	RCA	95.55	APO	149.86	V2	34.880
RC	165.932	GL	.89	GP	16.85	ZAL	99.96	ZAP	160.17	ETS	53.69	ZAE	128.08	ETE	166.84	ZAC	119.71	ETC	265.72	CLP	-169.40

PLANETOCENTRIC CONIC

C3	12.485	VHL	3.533	DLA	-22.40	RAL	276.84	RAD	6567.5	VEL	11.570	PTH	2.02	VHP	7.274	DPA	-7.35	RAP	269.78	ECC	1.2055		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 55 9	1322.39	7.43	349.93	132.75	117.40	8 17 11	722.4	11.04	343.11
90.00	13 14 56	5537.19	28.31	257.59	138.18	90.60	14 47 13	4937.2	28.09	248.93
100.00	9 0 9	1112.59	6.07	333.76	132.01	119.33	9 18 42	512.6	9.93	327.11
100.00	14 52 37	5222.22	29.86	234.40	138.17	88.58	16 19 39	4622.2	29.35	225.64
110.00	9 34 42	1004.29	2.85	323.56	130.01	124.08	9 51 26	404.3	7.30	317.31
110.00	16 34 33	4903.29	33.64	209.87	137.86	83.51	17 56 17	4303.3	32.37	200.87

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.0615	TRA	.1497	TC3	-7.0124	BAU	1.1723	SGT	4963.4	SGR	475.2	SG3	151.4	ST	195.6	SR	341.2	SS	223.4
RDE	.2077	RRA	-.1036	RC3	.3988	FAU	.03036	RRT	-.5980	RRF	-.6071	RTF	.8775	CRT	.4200	CRS	-.5088	CST	-.7273
FDE	.1406	FRA	.5113	FC3	-2.1056	BSP	15774	SGB	4986.1	R23	.0989	R13	-.8779	LSA	385.0	MSA	211.5	SSA	107.8
BDE	.2166	BRA	.1821	BC3	7.0237	FSP	-491	SG1	4971.6	SG2	380.3	THA	176.70	EL1	354.2	EL2	171.0	ALF	72.18

LAUNCH DATE OCT 10 1970 FLIGHT TIME 164.00 ARRIVAL DATE MAR 23 1971

HELIOCENTRIC CONIC DISTANCE 488.589

RL	149.39	LAL	.00	LOL	16.28	VL	26.308	GAL	-1.94	AZL	89.68	HCA	245.08	SMA	122.35	ECC	.22339	INC	.3228	V1	29.827
RP	108.68	LAP	-.29	LOP	261.36	VP	36.846	GAP	11.22	AZP	90.14	TAL	186.76	TAP	71.84	RCA	95.02	APO	149.68	V2	34.869
RC	167.985	GL	2.39	GP	16.09	ZAL	96.32	ZAP	161.20	ETS	54.52	ZAE	128.24	ETE	167.39	ZAC	118.97	ETC	266.39	CLP	-170.14

PLANETOCENTRIC CONIC

C3	12.641	VHL	3.555	DLA	-20.69	RAL	280.64	RAD	6567.5	VEL	11.577	PTH	2.02	VHP	7.385	DPA	-8.23	RAP	272.09	ECC	1.2080		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 48 40	1403.36	4.87	354.50	136.03	117.93	8 12 3	803.4	8.57	347.77
90.00	13 51 44	5461.53	28.24	252.06	141.56	87.83	15 22 46	4861.5	27.64	243.44
100.00	8 56 20	1184.98	3.64	337.77	135.35	119.69	9 16 5	585.0	7.56	331.18
100.00	15 26 45	5155.14	29.65	229.43	141.48	85.97	16 52 40	4555.1	28.77	220.73
110.00	9 35 31	1062.16	.64	326.58	133.48	124.18	9 53 13	462.2	5.12	320.36
110.00	17 4 3	4850.72	33.16	205.85	141.01	81.18	18 24 54	4250.7	31.59	196.97

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.1725	TRA	.3223	TC3	-7.0037	BAU	1.1854	SGT	5018.7	SGR	476.7	SG3	148.9	ST	356.8	SR	341.1	SS	261.6
RDE	.2084	RRA	-.1150	RC3	.3857	FAU	.02884	RRT	-.5779	RRF	-.5807	RTF	.8795	CRT	.6754	CRS	-.5726	CST	-.9207
FDE	.1801	FRA	.5543	FC3	-1.9752	BSP	15967	SGB	5041.3	R23	.0850	R13	-.8799	LSA	505.7	MSA	223.6	SSA	79.9
BDE	.2705	BRA	.3422	BC3	7.0143	FSP	-485	SG1	5026.3	SG2	388.5	THA	176.84	EL1	451.9	EL2	198.6	ALF	43.09

LAUNCH DATE OCT 10 1970 FLIGHT TIME 166.00 ARRIVAL DATE MAR 25 1971

HELIOCENTRIC CONIC DISTANCE 494.209

RL	149.39	LAL	.00	LOL	16.28	VL	26.250	GAL	-1.45	AZL	89.48	HCA	248.25	SMA	122.01	ECC	.22573	INC	.5163	V1	29.827
RP	108.71	LAP	-.48	LOP	264.53	VP	36.795	GAP	11.47	AZP	90.19	TAL	184.97	TAP	73.23	RCA	94.47	APO	149.55	V2	34.859
RC	170.025	GL	3.77	GP	15.40	ZAL	92.64	ZAP	162.16	ETS	55.52	ZAE	128.38	ETE	167.88	ZAC	118.28	ETC	267.06	CLP	-170.88

PLANETOCENTRIC CONIC

C3	12.919	VHL	3.594	DLA	-18.99	RAL	284.40	RAD	6567.5	VEL	11.589	PTH	2.03	VHP	7.505	DPA	-9.00	RAP	274.43	ECC	1.2126

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 44 33	1478.83	2.45	358.72	139.54	118.22	8 9 12	878.8	6.20	352.06
90.00	14 25 53	5395.41	27.98	247.24	145.03	85.43	15 55 49	4795.4	27.05	238.69
100.00	8 54 14	1253.92	1.31	341.56	138.90	119.87	9 15 8	653.9	5.27	335.01
100.00	15 58 53	5095.55	29.28	225.04	144.89	83.69	17 23 48	4495.5	28.10	216.43
110.00	9 37 14	1119.20	-1.55	329.56	137.12	124.15	9 55 53	519.2	2.95	323.35
110.00	17 32 22	4803.04	32.60	202.24	144.30	79.11	18 52 25	4203.0	30.76	193.50

DIFFERENTIAL CORRECTIONS

TDE	.2842	TRA	.4906	TC3	-6.9416	BAU	1.2007
RDE	.2103	RRA	-.1264	RC3	.3720	FAU	.02748
FDE	.2148	FRA	.5932	FC3	-1.8416	BSP	16267
BDE	.3536	BRA	.5144	BC3	6.9516	FSP	-483

MID-COURSE EXECUTION ACCURACY

SGT	5080.7	SGR	478.8	SG3	146.4		
RRT	-.5597	RRF	-.5575	RTF	.8832		
SGB	5103.2	R23	.0726	R13	-.8836		
SG1	5087.8	SG2	396.3	THA	176.96		

ORBIT DETERMINATION ACCURACY

ST	539.7	SR	341.4	SS	296.3
CRT	.7304	CRS	-.6109	CST	-.9599
LSA	664.1	MSA	225.3	SSA	61.6
EL1	603.6	EL2	208.5	ALF	28.50

LAUNCH DATE OCT 10 1970 FLIGHT TIME 168.00 ARRIVAL DATE MAR 27 1971

HELIOCENTRIC CONIC DISTANCE 499.810

RL	149.39	LAL	.00	LOL	16.28	VL	26.193	GAL	-.94	AZL	89.30	HCA	251.42	SMA	121.67	ECC	.22832	INC	.7014	V1	29.827
RP	108.74	LAP	-.66	LOP	267.70	VP	36.746	GAP	11.73	AZP	90.22	TAL	183.18	TAP	74.60	RCA	93.89	APO	149.45	V2	34.850
RC	172.049	GL	5.04	GP	14.79	ZAL	88.95	ZAP	163.05	ETS	56.71	ZAE	128.51	ETE	168.32	ZAC	117.64	ETC	267.73	CLP	-171.62

PLANETOCENTRIC CONIC

C3	13.328	VHL	3.651	DLA	-17.32	RAL	288.11	RAD	6567.5	VEL	11.607	PTH	2.03	VHP	7.636	DPA	-9.66	RAP	276.81	ECC	1.2193

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 42 5	1550.76	.13	2.74	143.24	118.32	8 7 55	950.8	3.91	356.10
90.00	14 57 57	5336.93	27.59	243.00	148.59	83.34	16 26 54	4736.9	26.38	234.54
100.00	8 53 24	1320.60	-.96	345.21	142.63	119.88	9 15 25	720.6	3.03	338.69
100.00	16 29 19	5042.32	28.82	221.15	148.41	81.69	17 53 21	4442.3	27.37	212.65
110.00	9 39 38	1175.78	-3.70	332.52	140.92	124.01	9 59 14	575.8	.78	326.31
110.00	17 59 35	4759.90	32.00	199.02	147.72	77.29	19 18 55	4159.9	29.92	190.42

DIFFERENTIAL CORRECTIONS

TDE	.4108	TRA	.6927	TC3	-6.7839	BAU	1.2104
RDE	.2120	RRA	-.1390	RC3	.3529	FAU	.02591
FDE	.2532	FRA	.6358	FC3	-1.6832	BSP	16367
BDE	.4623	BRA	.7066	BC3	6.7931	FSP	-473

MID-COURSE EXECUTION ACCURACY

SGT	5123.2	SGR	478.9	SG3	143.6		
RRT	-.5388	RRF	-.5319	RTF	.8850		
SGB	5145.5	R23	.0619	R13	-.8853		
SG1	5129.7	SG2	402.9	THA	177.10		

ORBIT DETERMINATION ACCURACY

ST	744.6	SR	339.8	SS	334.9
CRT	.7507	CRS	-.6404	CST	-.9759
LSA	854.0	MSA	224.2	SSA	49.1
EL1	790.7	EL2	211.4	ALF	20.44

LAUNCH DATE OCT 10 1970 FLIGHT TIME 170.00 ARRIVAL DATE MAR 29 1971

HELIOCENTRIC CONIC DISTANCE 505.387

RL	149.39	LAL	.00	LOL	16.28	VL	26.136	GAL	-.42	AZL	89.12	HCA	254.59	SMA	121.34	ECC	.23119	INC	.8795	V1	29.827
RP	108.77	LAP	-.85	LOP	270.86	VP	36.697	GAP	11.99	AZP	90.23	TAL	181.39	TAP	75.98	RCA	93.29	APO	149.40	V2	34.841
RC	174.060	GL	6.18	GP	14.23	ZAL	85.28	ZAP	163.87	ETS	58.10	ZAE	128.64	ETE	168.71	ZAC	117.02	ETC	268.40	CLP	-172.34

PLANETOCENTRIC CONIC

C3	13.876	VHL	3.725	DLA	-15.69	RAL	291.75	RAD	6567.5	VEL	11.630	PTH	2.04	VHP	7.777	DPA	-10.21	RAP	279.21	ECC	1.2284

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 40 49	1620.22	-2.11	6.61	147.08	118.24	8 7 49	1020.2	1.68	359.98
90.00	15 28 15	5285.05	27.12	239.28	152.24	81.53	16 56 20	4685.1	25.67	230.91
100.00	8 53 30	1385.66	-3.16	348.79	146.50	119.74	9 16 36	785.7	.82	342.26
100.00	16 58 14	4994.84	28.30	217.71	152.02	79.96	18 21 29	4394.8	26.62	209.31
110.00	9 42 31	1232.10	-5.84	335.47	144.84	123.74	10 3 4	632.1	-1.37	329.24
110.00	18 25 42	4721.16	31.39	196.16	151.26	75.71	19 44 23	4121.2	29.10	187.70

DIFFERENTIAL CORRECTIONS

TDE	.5399	TRA	.8937	TC3	-6.5699	BAU	1.2203
RDE	.2150	RRA	-.1516	RC3	.3320	FAU	.02441
FDE	.2876	FRA	.6755	FC3	-1.5228	BSP	16512
BDE	.5812	BRA	.9065	BC3	6.5783	FSP	-464

MID-COURSE EXECUTION ACCURACY

SGT	5165.8	SGR	478.8	SG3	140.6		
RRT	-.5183	RRF	-.5080	RTF	.8877		
SGB	5187.9	R23	.0526	R13	-.8879		
SG1	5171.8	SG2	409.0	THA	177.23		

ORBIT DETERMINATION ACCURACY

ST	945.9	SR	338.7	SS	369.1
CRT	.7568	CRS	-.6587	CST	-.9837
LSA	1045.9	MSA	223.7	SSA	40.7
EL1	981.8	EL2	213.3	ALF	15.93

LAUNCH DATE OCT 10 1970 FLIGHT TIME 172.00 ARRIVAL DATE MAR 31 1971

HELIOCENTRIC CONIC DISTANCE 510.938

RL	149.39	LAL	.00	LOL	16.28	VL	26.081	GAL	.13	AZL	88.95	HCA	257.75	SMA	121.02	ECC	.23435	INC	1.0523	V1	29.827
RP	108.79	LAP	-1.03	LOP	274.03	VP	36.650	GAP	12.27	AZP	90.22	TAL	179.59	TAP	77.34	RCA	92.66	APO	149.39	V2	34.833
RC	176.055	GL	7.21	GP	13.73	ZAL	81.65	ZAP	164.65	ETS	59.70	ZAE	128.75	ETE	169.07	ZAC	116.44	ETC	269.06	CLP	-173.06

PLANETOCENTRIC CONIC

C3	14.575	VHL	3.818	DLA	-14.09	RAL	295.30	RAD	6567.6	VEL	11.660	PTH	2.05	VHP	7.929	DPA	-10.67	RAP	281.64	ECC	1.2399

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 40 26	1687.80	-4.28	10.39	151.05	118.02	8 8 34	1087.8	-.50	3.75
90.00	15 56 55	5239.18	26.62	236.01	155.97	79.96	17 24 14	4639.2	24.96	227.74
100.00	8 54 18	1449.48	-5.31	352.31	150.49	119.46	9 18 28	849.5	-1.34	345.76
100.00	17 25 44	4952.73	27.77	214.70	155.73	78.46	18 48 17	4352.7	25.89	206.40
110.00	9 45 47	1288.22	-7.95	338.45	148.86	123.35	10 7 15	688.2	-3.51	332.18
110.00	18 50 45	4686.76	30.78	193.67	154.89	74.34	20 8 51	4086.8	28.33	185.33

DIFFERENTIAL CORRECTIONS

TDE	.6768	TRA	1.1070	TC3	-6.2962	BAU	1.2283
RDE	.2185	RRA	-.1652	RC3	.3084	FAU	.02284
FDE	.3230	FRA	.7195	FC3	-1.3565	BSP	16560
BDE	.7112	BRA	1.1192	BC3	6.3038	FSP	-443

MID-COURSE EXECUTION ACCURACY

SGT	5203.6	SGR	477.8	SG3	137.9		
RRT	-.4974	RRF	-.4846	RTF	.8885		
SGB	5225.5	R23	.0459	R13	-.8886		
SG1	5209.0	SG2	414.1	THA	177.37		

ORBIT DETERMINATION ACCURACY

ST	1147.4	SR	336.9	SS	403.8
CRT	.7572	CRS	-.6704	CST	-.9883
LSA	1241.7	MSA	223.4	SSA	34.9
EL1	1176.4	EL2	214.6	ALF	12.97

LAUNCH DATE OCT 10 1970 FLIGHT TIME 174.00 ARRIVAL DATE APR 2 1971

HELIOCENTRIC CONIC DISTANCE 516.462

RL 149.39 LAL .00 LOL 16.28 VL 26.026 GAL .69 AZL 88.78 HCA 260.92 SMA 120.71 ECC .23784 INC 1.2208 V1 29.827
RP 108.82 LAP -1.21 LOP 277.20 VP 36.604 GAP 12.56 AZP 90.19 TAL 177.79 TAP 78.71 RCA 92.00 APO 149.42 V2 34.825
RC 178.036 GL 8.11 GP 13.27 ZAL 78.10 ZAP 165.36 ETS 61.51 ZAE 128.86 ETE 169.40 ZAC 115.88 ETC 269.72 CLP-173.78

PLANETOCENTRIC CONIC

C3 15.441 VHL 3.929 DLA -12.55 RAL 298.74 RAD 6567.6 VEL 11.697 PTH 2.06 VHP 8.092 DPA -11.04 RAP 284.09 ECC 1.2541

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 40 45	1753.86	-6.38	14.11	155.12	117.65	8 9 59	1153.9	-2.63	7.44
90.00	16 24 4	5198.93	26.11	233.18	159.78	78.63	17 50 43	4598.9	24.28	224.99
100.00	8 55 38	1512.26	-7.40	355.80	154.57	119.05	9 20 50	912.3	-3.47	349.21
100.00	17 51 52	4915.77	27.23	212.08	159.51	77.18	19 13 48	4315.8	25.20	203.87
110.00	9 49 19	1344.13	-10.03	341.44	152.97	122.85	10 11 43	744.1	-5.63	335.11
110.00	19 14 41	4656.66	30.21	191.51	158.61	73.18	20 32 17	4056.7	27.61	183.28

DIFFERENTIAL CORRECTIONS
TDE .8153 TRA 1.3258 TC3-5.9898 BAU 1.2379
RDE .2235 RRA -.1778 RC3 .2851 FAU .02147
FDE .3537 FRA .7567 FC3-1.2040 BSP 16799
BDE .8454 BRA 1.3376 BC3 5.9966 FSP -447

MID-COURSE EXECUTION ACCURACY
SGT 5243.5 SGR 476.5 SG3 134.9
RRT -.4776 RRF -.4625 RTF .8922
SGB 5265.1 R23 .0383 R13 -.8923
SG1 5248.5 SG2 418.2 THA 177.50

ORBIT DETERMINATION ACCURACY
ST 1336.5 SR 335.6 SS 432.0
CRT .7562 CRS -.6794 CST -.9913
LSA 1426.4 MSA 223.1 SSA 30.5
EL1 1361.0 EL2 215.7 ALF 11.03

LAUNCH DATE OCT 10 1970 FLIGHT TIME 176.00 ARRIVAL DATE APR 4 1971

HELIOCENTRIC CONIC DISTANCE 521.951

RL 149.39 LAL .00 LOL 16.28 VL 25.972 GAL 1.28 AZL 88.61 HCA 264.08 SMA 120.40 ECC .24167 INC 1.3864 V1 29.827
RP 108.84 LAP -1.38 LOP 280.36 VP 36.559 GAP 12.87 AZP 90.14 TAL 175.99 TAP 80.07 RCA 91.31 APO 149.50 V2 34.818
RC 180.002 GL 8.90 GP 12.86 ZAL 74.65 ZAP 166.03 ETS 63.55 ZAE 128.96 ETE 169.70 ZAC 115.34 ETC 270.38 CLP-174.49

PLANETOCENTRIC CONIC

C3 16.489 VHL 4.061 DLA -11.07 RAL 302.06 RAD 6567.7 VEL 11.742 PTH 2.07 VHP 8.268 DPA -11.33 RAP 286.54 ECC 1.2714

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 41 35	1818.56	-8.41	17.78	159.28	117.14	8 11 54	1218.6	-4.70	11.06
90.00	16 49 45	5164.06	25.62	230.74	163.63	77.50	18 15 49	4564.1	23.64	222.63
100.00	8 57 22	1574.05	-9.42	359.27	158.74	118.50	9 23 36	974.1	-5.54	352.63
100.00	18 16 39	4883.80	26.73	209.84	163.34	76.10	19 38 3	4283.8	24.56	201.71
110.00	9 53 2	1399.76	-12.07	344.46	157.16	122.23	10 16 22	799.8	-7.73	338.06
110.00	19 37 29	4630.86	29.69	189.68	162.39	72.22	20 54 40	4030.9	26.97	181.55

DIFFERENTIAL CORRECTIONS
TDE .9379 TRA 1.5341 TC3-5.6966 BAU 1.2571
RDE .2312 RRA -.1090 RC3 .2647 FAU .02061
FDE .3734 FRA .7846 FC3-1.0821 BSP 17476
BDE .9660 BRA 1.5457 BC3 5.7027 FSP -462

MID-COURSE EXECUTION ACCURACY
SGT 5293.4 SGR 475.9 SG3 131.7
RRT -.4613 RRF -.4461 RTF .8989
SGB 5314.7 R23 .0325 R13 -.8990
SG1 5298.0 SG2 421.9 THA 177.61

ORBIT DETERMINATION ACCURACY
ST 1486.1 SR 336.3 SS 447.7
CRT .7541 CRS -.6837 CST -.9930
LSA 1572.0 MSA 224.2 SSA 27.1
EL1 1508.1 EL2 217.7 ALF 9.89

LAUNCH DATE OCT 10 1970 FLIGHT TIME 178.00 ARRIVAL DATE APR 6 1971

HELIOCENTRIC CONIC DISTANCE 527.409

RL 149.39 LAL .00 LOL 16.28 VL 25.919 GAL 1.89 AZL 88.45 HCA 267.25 SMA 120.10 ECC .24588 INC 1.5500 V1 29.827
RP 108.86 LAP -1.55 LOP 283.52 VP 36.515 GAP 13.20 AZP 90.07 TAL 174.19 TAP 81.44 RCA 90.57 APO 149.64 V2 34.812
RC 181.954 GL 9.58 GP 12.48 ZAL 71.30 ZAP 166.64 ETS 65.83 ZAE 129.06 ETE 169.97 ZAC 114.81 ETC 271.03 CLP-175.20

PLANETOCENTRIC CONIC

C3 17.740 VHL 4.212 DLA -9.65 RAL 305.26 RAD 6567.7 VEL 11.795 PTH 2.09 VHP 8.457 DPA -11.53 RAP 289.01 ECC 1.2920

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 42 51	1882.05	-10.36	21.43	163.50	116.50	8 14 13	1282.1	-6.72	14.64
90.00	17 14 3	5134.31	25.16	228.68	167.54	76.57	18 39 37	4534.3	23.07	220.64
100.00	8 59 26	1634.95	-11.38	2.73	162.97	117.83	9 26 41	1035.0	-7.57	356.01
100.00	18 40 9	4856.65	26.27	207.95	167.23	75.20	20 1 5	4256.6	23.98	199.90
110.00	9 56 53	1455.07	-14.06	347.51	161.41	121.48	10 21 8	855.1	-9.79	341.01
110.00	19 59 11	4609.29	29.23	188.17	166.23	71.43	21 16 1	4009.3	26.41	180.12

DIFFERENTIAL CORRECTIONS
TDE 1.1068 TRA 1.7946 TC3-5.2794 BAU 1.2533
RDE .2369 RRA -.2031 RC3 .2361 FAU .01886
FDE .4115 FRA .8321 FC3 -.9202 BSP 17176
BDE 1.1319 BRA 1.8061 BC3 5.2846 FSP -436

MID-COURSE EXECUTION ACCURACY
SGT 5308.2 SGR 471.1 SG3 129.1
RRT -.4371 RRF -.4198 RTF .8994
SGB 5329.1 R23 .0268 R13 -.8995
SG1 5312.2 SG2 423.4 THA 177.76

ORBIT DETERMINATION ACCURACY
ST 1684.2 SR 333.1 SS 480.6
CRT .7521 CRS -.6906 CST -.9947
LSA 1768.7 MSA 222.7 SSA 24.5
EL1 1703.1 EL2 217.1 ALF 8.60

LAUNCH DATE OCT 10 1970 FLIGHT TIME 180.00 ARRIVAL DATE APR 8 1971

HELIOCENTRIC CONIC DISTANCE 532.826

RL 149.39 LAL .00 LOL 16.28 VL 25.867 GAL 2.53 AZL 88.29 HCA 270.41 SMA 119.81 ECC .25051 INC 1.7126 V1 29.827
RP 108.87 LAP -1.71 LOP 286.69 VP 36.472 GAP 13.55 AZP 89.99 TAL 172.39 TAP 82.80 RCA 89.80 APO 149.82 V2 34.806
RC 183.891 GL 10.15 GP 12.14 ZAL 68.07 ZAP 167.20 ETS 68.35 ZAE 129.15 ETE 170.23 ZAC 114.29 ETC 271.67 CLP-175.91

PLANETOCENTRIC CONIC

C3 19.218 VHL 4.384 DLA -8.31 RAL 308.33 RAD 6567.8 VEL 11.857 PTH 2.10 VHP 8.661 DPA -11.66 RAP 291.49 ECC 1.3163

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 44 25	1944.34	-12.23	25.05	167.78	115.74	8 16 49	1344.3	-8.67	18.18
90.00	17 36 57	5109.55	24.76	226.98	171.47	75.80	19 2 7	4509.5	22.57	219.00
100.00	9 1 44	1694.90	-13.26	6.18	167.25	117.04	9 29 59	1094.9	-9.53	359.38
100.00	19 2 19	4834.21	25.87	206.40	171.15	74.48	20 22 54	4234.2	23.49	198.41
110.00	10 0 48	1509.95	-15.99	350.60	165.70	120.62	10 25 58	910.0	-11.80	343.99
110.00	20 19 45	4591.93	28.84	186.96	170.10	70.81	21 36 17	3991.9	25.96	178.97

DIFFERENTIAL CORRECTIONS
TDE 1.2675 TRA 2.0539 TC3-4.8799 BAU 1.2550
RDE .2449 RRA -.2157 RC3 .2103 FAU .01745
FDE .4417 FRA .8733 FC3 -.7861 BSP 17176
BDE 1.2910 BRA 2.0652 BC3 4.8845 FSP -423

MID-COURSE EXECUTION ACCURACY
SGT 5330.1 SGR 466.5 SG3 126.4
RRT -.4150 RRF -.3972 RTF .9024
SGB 5350.5 R23 .0224 R13 -.9025
SG1 5333.7 SG2 424.2 THA 177.91

ORBIT DETERMINATION ACCURACY
ST 1850.2 SR 331.3 SS 503.9
CRT .7503 CRS -.6951 CST -.9958
LSA 1933.2 MSA 221.9 SSA 22.3
EL1 1867.1 EL2 217.1 ALF 7.76

LAUNCH DATE OCT 10 1970 FLIGHT TIME 182.00 ARRIVAL DATE APR 10 1971

HELIOCENTRIC CONIC DISTANCE 538.197

RL 149.39 LAL .00 LOL 16.28 VL 25.816 GAL 3.19 AZL 88.12 HCA 273.57 SMA 119.53 ECC .25558 INC 1.8754 V1 29.827
RP 108.89 LAP -1.87 LOP 289.85 VP 36.431 GAP 13.92 AZP 89.88 TAL 170.60 TAP 84.17 RCA 88.98 APO 150.07 V2 34.801
RC 185.813 GL 10.62 GP 11.82 ZAL 64.99 ZAP 167.71 ETS 71.13 ZAE 129.23 ETE 170.46 ZAC 113.77 ETC 272.31 CLP-176.61

PLANETOCENTRIC CONIC

C3 20.951 VHL 4.577 DLA -7.04 RAL 311.26 RAD 6567.9 VEL 11.930 PTH 2.12 VHP 8.881 DPA -11.71 RAP 293.96 ECC 1.3448

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 46 14	2005.45	-14.01	28.66	172.10	114.86	8 19 40	1405.4	-10.54	21.69
90.00	17 58 31	5089.56	24.42	225.61	175.43	75.20	19 23 21	4489.6	22.15	217.68
100.00	9 4 13	1753.90	-15.06	9.64	171.58	116.13	9 33 27	1153.9	-11.42	2.74
100.00	19 23 14	4816.34	25.54	205.18	175.09	73.92	20 43 30	4216.3	23.09	197.24
110.00	10 4 46	1564.33	-17.85	353.72	170.04	119.65	10 30 50	964.3	-13.76	346.98
110.00	20 39 10	4578.68	28.54	186.05	174.00	70.34	21 55 29	3978.7	25.60	178.11

DIFFERENTIAL CORRECTIONS

TDE 1.4301 TRA 2.3219 TC3-4.4838 BAU 1.2570
RDE .2543 RRA -.2277 RC3 .1858 FAU .01615
FDE .4701 FRA .9135 FC3 -.6674 BSP 17265
BDE 1.4526 BRA 2.3330 BC3 4.4876 FSP -415

MID-COURSE EXECUTION ACCURACY

SGT 5350.7 SGR 461.2 SG3 123.6
RRT -.3927 RRF -.3749 RTF .9059
SGB 5370.5 RZS .0184 R13 -.9060
SG1 5353.7 SG2 423.9 THA 178.05

ORBIT DETERMINATION ACCURACY

ST 1998.0 SR 329.8 SS 523.9
CRT .7490 CRS -.6993 CST -.9966
LSA 2079.8 MSA 221.1 SSA 20.6
EL1 2013.4 EL2 216.9 ALF 7.13

LAUNCH DATE OCT 10 1970 FLIGHT TIME 184.00 ARRIVAL DATE APR 12 1971

HELIOCENTRIC CONIC DISTANCE 543.517

RL 149.39 LAL .00 LOL 16.28 VL 25.765 GAL 3.89 AZL 87.96 HCA 276.73 SMA 119.25 ECC .26116 INC 2.0392 V1 29.827
RP 108.90 LAP -2.03 LOP 293.01 VP 36.391 GAP 14.32 AZP 89.76 TAL 168.82 TAP 85.55 RCA 88.10 APO 150.39 V2 34.797
RC 187.719 GL 11.00 GP 11.53 ZAL 62.04 ZAP 168.16 ETS 74.18 ZAE 129.31 ETE 170.68 ZAC 113.26 ETC 272.94 CLP-177.32

PLANETOCENTRIC CONIC

C3 22.973 VHL 4.793 DLA -5.85 RAL 314.06 RAD 6567.9 VEL 12.015 PTH 2.14 VHP 9.119 DPA -11.70 RAP 296.43 ECC 1.3781

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 48 15	2085.39	-15.69	32.25	176.45	113.88	8 22 41	1465.4	-12.33	25.18
90.00	18 18 47	5074.16	24.15	224.57	179.40	74.75	19 43 21	4474.2	21.82	216.67
100.00	9 6 49	1811.93	-16.77	13.10	175.94	115.12	9 37 1	1211.9	-13.24	6.08
100.00	19 42 54	4802.86	25.29	204.26	179.04	73.50	21 2 57	4202.9	22.78	196.36
110.00	10 8 43	1618.14	-19.63	356.87	174.41	118.56	10 35 41	1018.1	-15.66	350.00
110.00	20 57 29	4569.41	28.33	185.41	177.92	70.02	22 13 39	3969.4	25.35	177.51

DIFFERENTIAL CORRECTIONS

TDE 1.5978 TRA 2.6029 TC3-4.0900 BAU 1.2571
RDE .2651 RRA -.2388 RC3 .1622 FAU .01490
FDE .4975 FRA .9542 FC3 -.5614 BSP 17354
BDE 1.6196 BRA 2.6139 BC3 4.0932 FSP -407

MID-COURSE EXECUTION ACCURACY

SGT 5366.9 SGR 455.0 SG3 120.9
RRT -.3695 RRF -.3523 RTF .9098
SGB 5386.1 RZS .0152 R13 -.9098
SG1 5369.5 SG2 422.6 THA 178.19

ORBIT DETERMINATION ACCURACY

ST 2131.3 SR 328.4 SS 541.5
CRT .7485 CRS -.7035 CST -.9972
LSA 2212.4 MSA 220.1 SSA 19.2
EL1 2145.6 EL2 216.3 ALF 6.65

LAUNCH DATE OCT 10 1970 FLIGHT TIME 186.00 ARRIVAL DATE APR 14 1971

HELIOCENTRIC CONIC DISTANCE 548.779

RL 149.39 LAL .00 LOL 16.28 VL 25.716 GAL 4.63 AZL 87.79 HCA 279.89 SMA 118.97 ECC .26729 INC 2.2051 V1 29.827
RP 108.92 LAP -2.17 LOP 296.17 VP 36.353 GAP 14.74 AZP 89.62 TAL 167.05 TAP 86.94 RCA 87.17 APO 150.77 V2 34.793
RC 189.610 GL 11.36 GP 11.27 ZAL 59.24 ZAP 168.56 ETS 77.49 ZAE 129.37 ETE 170.88 ZAC 112.76 ETC 273.55 CLP-178.04

PLANETOCENTRIC CONIC

C3 25.323 VHL 5.032 DLA -4.74 RAL 316.71 RAD 6568.0 VEL 12.112 PTH 2.17 VHP 9.376 DPA -11.62 RAP 298.90 ECC 1.4167

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 50 25	2124.17	-17.28	35.84	180.82	112.79	8 25 49	1524.2	-14.04	28.65
90.00	18 37 47	5063.14	23.95	223.82	183.37	74.42	20 2 10	4463.1	21.58	215.95
100.00	9 9 32	1868.96	-18.38	16.57	180.32	114.00	9 40 41	1269.0	-14.98	9.42
100.00	20 1 21	4793.58	25.10	203.63	183.00	73.22	21 21 15	4193.6	22.57	195.75
110.00	10 12 40	1671.32	-21.33	.06	178.82	117.37	10 40 31	1071.3	-17.49	353.04
110.00	21 14 43	4563.99	28.20	185.04	181.84	69.83	22 30 47	3964.0	25.20	177.16

DIFFERENTIAL CORRECTIONS

TDE 1.7712 TRA 2.8982 TC3-3.7047 BAU 1.2551
RDE .2772 RRA -.2491 RC3 .1400 FAU .01368
FDE .5247 FRA .9958 FC3 -.4677 BSP 17434
BDE 1.7928 BRA 2.9089 BC3 3.7073 FSP -399

MID-COURSE EXECUTION ACCURACY

SGT 5379.0 SGR 447.7 SG3 118.2
RRT -.3451 RRF -.3289 RTF .9139
SGB 5397.6 RZS .0124 R13 -.9139
SG1 5381.2 SG2 420.0 THA 178.34

ORBIT DETERMINATION ACCURACY

ST 2250.9 SR 327.0 SS 557.5
CRT .7489 CRS -.7082 CST -.9977
LSA 2331.5 MSA 218.7 SSA 18.0
EL1 2264.3 EL2 215.4 ALF 6.27

LAUNCH DATE OCT 10 1970 FLIGHT TIME 188.00 ARRIVAL DATE APR 16 1971

HELIOCENTRIC CONIC DISTANCE 553.972

RL 149.39 LAL .00 LOL 16.28 VL 25.667 GAL 5.41 AZL 87.63 HCA 283.04 SMA 118.71 ECC .27402 INC 2.3743 V1 29.827
RP 108.93 LAP -2.31 LOP 299.33 VP 36.315 GAP 15.20 AZP 89.46 TAL 165.29 TAP 88.34 RCA 86.18 APO 151.23 V2 34.790
RC 191.483 GL 11.53 GP 11.03 ZAL 56.59 ZAP 168.90 ETS 81.07 ZAE 129.42 ETE 171.07 ZAC 112.25 ETC 274.16 CLP-178.76

PLANETOCENTRIC CONIC

C3 28.048 VHL 5.296 DLA -3.71 RAL 319.22 RAD 6568.1 VEL 12.224 PTH 2.20 VHP 9.655 DPA -11.47 RAP 301.35 ECC 1.4616

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 52 42	2181.77	-18.76	39.41	185.21	111.61	8 29 4	1581.8	-15.66	32.11
90.00	18 55 34	5056.26	23.82	223.36	187.33	74.22	20 19 50	4456.3	21.43	215.50
100.00	9 12 19	1924.97	-19.90	20.04	184.72	112.78	9 44 23	1325.0	-16.64	12.76
100.00	20 18 38	4788.29	25.00	203.27	186.95	73.06	21 38 27	4188.3	22.44	195.41
110.00	10 16 34	1723.80	-22.93	3.29	183.24	116.07	10 45 18	1123.8	-19.24	356.10
110.00	21 30 52	4562.23	28.16	184.92	185.77	69.77	22 46 54	3962.2	25.15	177.04

DIFFERENTIAL CORRECTIONS

TDE 1.9505 TRA 3.2083 TC3-3.3335 BAU 1.2508
RDE .2907 RRA -.2582 RC3 .1194 FAU .01251
FDE .5516 FRA 1.0305 FC3 -.3860 BSP 17519
BDE 1.9721 BRA 3.2186 BC3 3.3356 FSP -391

MID-COURSE EXECUTION ACCURACY

SGT 5386.8 SGR 439.6 SG3 115.6
RRT -.3194 RRF -.3045 RTF .9182
SGB 5404.7 RZS .0100 R13 -.9182
SG1 5388.6 SG2 416.4 THA 178.50

ORBIT DETERMINATION ACCURACY

ST 2356.5 SR 325.5 SS 572.1
CRT .7504 CRS -.7134 CST -.9981
LSA 2437.0 MSA 216.9 SSA 16.9
EL1 2369.2 EL2 214.0 ALF 5.97

LAUNCH DATE OCT 10 1970 FLIGHT TIME 190.00 ARRIVAL DATE APR 18 1971

HELIOCENTRIC CONIC DISTANCE 559.086

RL	149.39	LAL	.00	LOL	16.28	VL	25.619	GAL	6.23	AZL	87.45	HCA	286.20	SMA	118.45	ECC	.28143	INC	2.5477
RP	108.93	LAP	-2.45	LOP	302.50	VP	36.279	GAP	15.70	AZP	89.29	TAL	163.55	TAP	89.76	RCA	85.11	APO	151.78
RC	193.340	GL	11.69	GP	10.81	ZAL	54.09	ZAP	169.18	ETS	84.90	ZAE	129.47	ETE	171.25	ZAC	111.75	ETC	274.75

V1	29.827	V2	34.788	CLP	-179.49														

PLANETOCENTRIC CONIC

C3	31.207	VHL	5.586	DLA	-2.76	RAL	321.60	RAD	6568.2	VEL	12.552	PTH	2.23	VHP	9.959	DPA	-11.27	RAP	303.79
ECC	1.5136																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 55 4	2238.18	-20.13	42.98	189.61	110.34	8 32 22	1638.2	-17.18	35.55
90.00	19 12 10	5053.30	23.77	223.16	191.28	74.14	20 36 23	4453.3	21.36	215.31
100.00	9 15 8	1979.93	-21.30	23.51	189.13	111.48	9 48 7	1379.9	-18.20	16.10
100.00	20 34 48	4786.78	24.97	203.17	190.90	73.01	21 54 34	4186.8	22.41	195.31
110.00	10 20 25	1775.53	-24.44	6.55	187.68	114.68	10 50 1	1175.5	-20.91	359.19
110.00	21 45 59	4563.94	28.20	185.04	189.68	69.83	23 2 3	3963.9	25.20	177.15

DIFFERENTIAL CORRECTIONS

TDE	2.1359	TRA	3.5347	TC3	-2.9347	BAU	1.2251
RDE	.3056	RRA	-.2658	RC3	.1009	FAU	.01134
FDE	.5784	FRA	1.0826	FC3	-.3147	BSP	17664
BDE	2.1576	BRA	3.5447	BC3	2.9365	FSP	-385

MID-COURSE EXECUTION ACCURACY

SGT	5359.5	SGR	430.6	SG3	113.0		
RRT	-.2919	RRF	-.2789	RTF	.9253		
SGB	5376.7	R23	.0076	R13	-.9253		
SG1	5360.9	SG2	411.8	THA	178.65		

ORBIT DETERMINATION ACCURACY

ST	2448.3	SR	323.9	SS	585.7
CRT	.7528	CRS	-.7192	CST	-.9984
LSA	2529.0	MSA	214.7	SSA	15.6
EL1	2460.5	EL2	212.2	ALF	5.73

LAUNCH DATE OCT 10 1970 FLIGHT TIME 192.00 ARRIVAL DATE APR 20 1971

HELIOCENTRIC CONIC DISTANCE 564.108

RL	149.39	LAL	.00	LOL	16.28	VL	25.572	GAL	7.10	AZL	87.27	HCA	289.36	SMA	118.19	ECC	.28960	INC	2.7268
RP	108.94	LAP	-2.57	LOP	305.66	VP	36.244	GAP	16.24	AZP	89.10	TAL	161.84	TAP	91.20	RCA	83.96	APO	152.42
RC	195.178	GL	11.80	GP	10.61	ZAL	51.73	ZAP	169.39	ETS	88.98	ZAE	129.49	ETE	171.42	ZAC	111.24	ETC	275.33

V1	29.827	V2	34.786	CLP	179.77														

PLANETOCENTRIC CONIC

C3	34.868	VHL	5.905	DLA	-1.88	RAL	323.85	RAD	6568.4	VEL	12.500	PTH	2.26	VHP	10.290	DPA	-11.01	RAP	306.21
ECC	1.5738																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 57 30	2293.37	-21.40	46.53	194.00	109.00	8 35 43	1693.4	-18.61	38.97
90.00	19 27 38	5054.02	23.78	223.21	195.22	74.16	20 51 52	4454.0	21.38	215.36
100.00	9 17 58	2033.80	-22.61	26.98	193.54	110.10	9 51 52	1433.8	-19.67	19.42
100.00	20 49 51	4788.82	25.01	203.31	194.82	73.07	22 9 40	4188.8	22.45	195.44
110.00	10 24 12	1826.46	-25.85	9.84	192.13	113.19	10 54 39	1226.5	-22.49	2.30
110.00	22 0 7	4568.92	28.32	185.38	193.58	70.00	23 16 16	3968.9	25.33	177.48

DIFFERENTIAL CORRECTIONS

TDE	2.3268	TRA	3.8771	TC3	-2.6461	BAU	1.2341
RDE	.3219	RRA	-.2718	RC3	.0833	FAU	.01029
FDE	.6054	FRA	1.1282	FC3	-.2556	BSP	17726
BDE	2.3489	BRA	3.8866	BC3	2.6474	FSP	-379

MID-COURSE EXECUTION ACCURACY

SGT	5388.0	SGR	420.6	SG3	110.5		
RRT	-.2628	RRF	-.2515	RTF	.9276		
SGB	5404.4	R23	.0065	R13	-.9276		
SG1	5389.1	SG2	405.7	THA	178.82		

ORBIT DETERMINATION ACCURACY

ST	2526.1	SR	322.2	SS	598.5
CRT	.7561	CRS	-.7258	CST	-.9987
LSA	2607.2	MSA	212.1	SSA	15.1
EL1	2537.9	EL2	209.9	ALF	5.55

LAUNCH DATE OCT 10 1970 FLIGHT TIME 194.00 ARRIVAL DATE APR 22 1971

HELIOCENTRIC CONIC DISTANCE 569.022

RL	149.39	LAL	.00	LOL	16.28	VL	25.526	GAL	8.03	AZL	87.09	HCA	292.52	SMA	117.94	ECC	.29862	INC	2.9130
RP	108.94	LAP	-2.69	LOP	308.82	VP	36.211	GAP	16.83	AZP	88.88	TAL	160.15	TAP	92.67	RCA	82.72	APO	153.16
RC	196.997	GL	11.85	GP	10.42	ZAL	49.51	ZAP	169.53	ETS	93.26	ZAE	129.50	ETE	171.59	ZAC	110.74	ETC	275.89

V1	29.827	V2	34.785	CLP	179.02														

PLANETOCENTRIC CONIC

C3	39.115	VHL	6.254	DLA	-1.08	RAL	325.96	RAD	6568.5	VEL	12.668	PTH	2.30	VHP	10.652	DPA	-10.71	RAP	308.61
ECC	1.6437																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 59 58	2347.31	-22.55	50.07	198.38	107.59	8 39 6	1747.3	-19.93	42.37
90.00	19 42 2	5058.16	23.86	223.49	199.12	74.28	21 6 20	4458.2	21.47	215.63
100.00	9 20 49	2086.54	-23.80	30.45	197.94	108.64	9 55 35	1486.5	-21.03	22.75
100.00	21 3 52	4794.16	25.12	203.67	198.72	73.23	22 23 46	4194.2	22.58	195.79
110.00	10 27 55	1876.51	-27.15	13.15	196.58	111.62	10 59 11	1276.5	-23.97	5.42
110.00	22 13 16	4576.95	28.51	185.93	197.46	70.28	23 29 33	3977.0	25.55	178.00

DIFFERENTIAL CORRECTIONS

TDE	2.5257	TRA	4.2393	TC3	-2.3341	BAU	1.2211
RDE	.3397	RRA	-.2759	RC3	.0680	FAU	.00925
FDE	.6328	FRA	1.1761	FC3	-.2047	BSP	17849
BDE	2.5484	BRA	4.2482	BC3	2.3351	FSP	-373

MID-COURSE EXECUTION ACCURACY

SGT	5382.0	SGR	409.9	SG3	108.0		
RRT	-.2312	RRF	-.2220	RTF	.9326		
SGB	5397.6	R23	.0053	R13	-.9326		
SG1	5382.8	SG2	398.7	THA	178.99		

ORBIT DETERMINATION ACCURACY

ST	2592.1	SR	320.3	SS	610.9
CRT	.7605	CRS	-.7331	CST	-.9989
LSA	2674.2	MSA	209.1	SSA	14.3
EL1	2603.6	EL2	207.1	ALF	5.40

LAUNCH DATE OCT 10 1970 FLIGHT TIME 196.00 ARRIVAL DATE APR 24 1971

HELIOCENTRIC CONIC DISTANCE 573.808

RL	149.39	LAL	.00	LOL	16.28	VL	25.481	GAL	9.01	AZL	86.89	HCA	295.67	SMA	117.70	ECC	.30859	INC	3.1079
RP	108.94	LAP	-2.80	LOP	311.98	VP	36.179	GAP	17.48	AZP	88.65	TAL	158.50	TAP	94.17	RCA	81.38	APO	154.02
RC	198.798	GL	11.86	GP	10.25	ZAL	47.44	ZAP	169.60	ETS	97.72	ZAE	129.49	ETE	171.75	ZAC	110.23	ETC	276.44

V1	29.827	V2	34.785	CLP	178.25														

PLANETOCENTRIC CONIC

C3	44.052	VHL	6.637	DLA	-.35	RAL	327.95	RAD	6568.7	VEL	12.861	PTH	2.34	VHP	11.050	DPA	-10.35	RAP	310.98
ECC	1.7250																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 2 29	2399.94	-23.59	53.58	202.74	106.13	8 42 29	1799.9	-21.16	45.75
90.00	19 55 22	5065.49	23.99	223.98	202.99	74.49	21 19 47	4465.5	21.63	216.10
100.00	9 23 40	2138.07	-24.88	33.90	202.32	107.13	9 59 18	1538.1	-22.29	26.05
100.00	21 16 52	4802.59	25.28	204.24	202.58	73.49	22 36 55	4202.6	22.78	196.34
110.00	10 31 32	1925.61	-28.34	16.47	201.02	109.97	11 3 38	1325.6	-25.35	8.57
110.00	22 25 29	4587.81	28.75	186.68	201.32	70.66	23 41 57	3987.8	25.85	178.70

DIFFERENTIAL CORRECTIONS

TDE	2.7332	TRA	4.6231	TC3	-2.0432	BAU	1.2037
RDE	.3591	RRA	-.2777	RC3	.0544	FAU	.00822
FDE	.6611	FRA	1.2267	FC3	-.1615	BSP	17978
BDE	2.7567	BRA	4.6314	BC3	2.0439	FSP	-368

MID-COURSE EXECUTION ACCURACY

SGT	5371.3	SGR	398.5	SG3	105.6		
RRT	-.1969	RRF	-.1900	RTF	.9377		
SGB	5386.1	R23	.0044	R13	-.9377		
SG1	5371.9	SG2	390.6	THA	179.16		

ORBIT DETERMINATION ACCURACY

ST	2647.1	SR	318.2	SS	623.6
CRT	.7658	CRS	-.7411	CST	-.9990
LSA	2730.4	MSA	205.6	SSA	13.6
EL1	2658.4	EL2	203.8	ALF	5.29

LAUNCH DATE OCT 10 1970 FLIGHT TIME 198.00 ARRIVAL DATE APR 26 1971

HELIOCENTRIC CONIC DISTANCE 578.442

RL	149.39	LAL	.00	LOL	16.28	VL	25.437	GAL	10.07	AZL	86.69	HCA	298.83	SMA	117.47	ECC	.31963	INC	3.3133	V1	29.827
RP	108.94	LAP	-2.90	LOP	315.15	VP	36.149	GAP	18.19	AZP	88.40	TAL	156.89	TAP	95.72	RCA	79.92	APO	155.02	V2	34.786
RC	200.578	GL	11.84	GP	10.09	ZAL	45.50	ZAP	169.59	ETS	102.32	ZAE	129.45	ETE	171.90	ZAC	109.72	ETC	276.97	CLP	177.46

PLANETOCENTRIC CONIC

C3	49.804	VHL	7.057	DLA	.31	RAL	329.81	RAD	6568.8	VEL	13.083	PTH	2.39	VHP	11.488	DPA	-9.95	RAP	313.32	ECC	1.8196

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 5 0	2451.18	-24.52	57.05	207.05	104.63	8 45 51	1851.2	-22.27	49.10
90.00	20 7 41	5075.77	24.18	224.68	206.81	74.79	21 32 17	4475.8	21.86	216.77
100.00	9 26 29	2188.33	-25.84	37.32	206.66	105.58	10 2 58	1588.3	-23.45	29.34
100.00	21 28 53	4813.85	25.50	205.01	206.41	73.84	22 49 6	4213.9	23.04	197.07
110.00	10 35 4	1973.66	-29.41	19.80	205.43	108.27	11 7 58	1373.7	-26.63	11.72
110.00	22 36 47	4601.28	29.05	187.61	205.14	71.14	23 53 28	4001.3	26.20	179.59

DIFFERENTIAL CORRECTIONS

TDE	2.9513	TRA	5.0308	TC3	-1.7730	BAU	1.1809	SGT	5356.0	SGR	386.5	SG3	103.2	ST	2692.3	SR	315.8	SS	637.0
RDE	.3800	RRA	-.2770	RC3	.0426	FAU	.00720	RRT	-.1593	RRF	-.1547	RTF	.9430	CRT	.7721	CRS	-.7498	CST	-.9992
FDE	.6908	FRA	1.2807	FC3	-.1252	BSP	18105	SGB	5369.9	R23	.0038	R13	-.9430	LSA	2777.3	MSA	201.5	SSA	13.0
BDE	2.9757	BRA	5.0384	BC3	1.7735	FSP	-363	SG1	5356.3	SG2	381.5	THA	179.34	EL1	2703.4	EL2	199.9	ALF	5.20

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE OCT 10 1970 FLIGHT TIME 200.00 ARRIVAL DATE APR 28 1971

HELIOCENTRIC CONIC DISTANCE 582.894

RL	149.39	LAL	.00	LOL	16.28	VL	25.394	GAL	11.22	AZL	86.47	HCA	301.98	SMA	117.24	ECC	.33190	INC	3.5317	V1	29.827
RP	108.93	LAP	-3.00	LOP	318.31	VP	36.120	GAP	18.97	AZP	88.13	TAL	155.34	TAP	97.32	RCA	78.33	APO	156.15	V2	34.787
RC	202.339	GL	11.78	GP	9.95	ZAL	43.69	ZAP	169.50	ETS	107.00	ZAE	129.39	ETE	172.06	ZAC	109.22	ETC	277.48	CLP	176.64

PLANETOCENTRIC CONIC

C3	56.530	VHL	7.519	DLA	.91	RAL	331.54	RAD	6569.0	VEL	13.337	PTH	2.44	VHP	11.971	DPA	-9.52	RAP	315.62	ECC	1.9303

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 7 32	2500.93	-25.33	60.46	211.31	103.10	8 49 13	1900.9	-23.28	52.40
90.00	20 19 0	5088.75	24.41	225.56	210.59	75.18	21 43 49	4488.8	22.13	217.63
100.00	9 29 18	2237.19	-26.69	40.70	210.95	103.99	10 6 35	1637.2	-24.50	32.59
100.00	21 39 55	4827.73	25.76	205.96	210.18	74.28	23 0 23	4227.7	23.35	197.99
110.00	10 38 30	2020.55	-30.36	23.12	209.81	106.52	11 12 11	1420.5	-27.80	14.86
110.00	22 47 12	4617.13	29.40	188.72	208.93	71.71	24 4 9	4017.1	26.62	180.63

DIFFERENTIAL CORRECTIONS

TDE	3.1825	TRA	5.4671	TC3	-1.5227	BAU	1.1510	SGT	5337.2	SGR	374.0	SG3	100.9	ST	2729.3	SR	313.1	SS	651.7
RDE	.4026	RRA	-.2732	RC3	.0324	FAU	.00616	RRT	-.1178	RRF	-.1156	RTF	.9482	CRT	.7792	CRS	-.7594	CST	-.9993
FDE	.7226	FRA	1.3391	FC3	-.0943	BSP	18193	SGB	5350.3	R23	.0033	R13	-.9482	LSA	2816.5	MSA	196.9	SSA	12.3
BDE	3.2079	BRA	5.4739	BC3	1.5230	FSP	-357	SG1	5337.4	SG2	371.4	THA	179.52	EL1	2740.2	EL2	195.5	ALF	5.13

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE OCT 10 1970 FLIGHT TIME 202.00 ARRIVAL DATE APR 30 1971

HELIOCENTRIC CONIC DISTANCE 587.125

RL	149.39	LAL	.00	LOL	16.28	VL	25.352	GAL	12.45	AZL	86.23	HCA	305.14	SMA	117.02	ECC	.34556	INC	3.7656	V1	29.827
RP	108.93	LAP	-3.08	LOP	321.48	VP	36.092	GAP	19.84	AZP	87.83	TAL	153.85	TAP	98.99	RCA	76.58	APO	157.46	V2	34.789
RC	204.080	GL	11.69	GP	9.81	ZAL	42.02	ZAP	169.33	ETS	111.72	ZAE	129.29	ETE	172.21	ZAC	108.71	ETC	277.96	CLP	175.78

PLANETOCENTRIC CONIC

C3	64.427	VHL	8.027	DLA	1.43	RAL	333.15	RAD	6569.2	VEL	13.630	PTH	2.49	VHP	12.508	DPA	-9.05	RAP	317.88	ECC	2.0603

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 10 4	2549.05	-26.03	63.81	215.50	101.56	8 52 33	1949.0	-24.17	55.64
90.00	20 29 20	5104.23	24.67	226.62	214.30	75.64	21 54 25	4504.2	22.46	218.64
100.00	9 32 4	2284.52	-27.42	44.03	215.17	102.39	10 10 9	1684.5	-25.44	35.79
100.00	21 50 1	4843.99	26.05	207.08	213.90	74.80	23 10 45	4244.0	23.71	199.06
110.00	10 41 51	2066.12	-31.20	26.41	214.12	104.74	11 16 17	1466.1	-28.86	17.98
110.00	22 56 44	4635.15	29.77	189.98	212.66	72.38	24 13 59	4035.2	27.08	181.83

DIFFERENTIAL CORRECTIONS

TDE	3.4298	TRA	5.9361	TC3	-1.2909	BAU	1.1121	SGT	5315.5	SGR	361.2	SG3	98.8	ST	2759.5	SR	310.1	SS	668.3
RDE	.4270	RRA	-.2660	RC3	.0238	FAU	.00507	RRT	-.0719	RRF	-.0719	RTF	.9535	CRT	.7873	CRS	-.7698	CST	-.9994
FDE	.7572	FRA	1.4030	FC3	-.0681	BSP	18217	SGB	5327.7	R23	.0030	R13	-.9535	LSA	2849.7	MSA	191.7	SSA	11.7
BDE	3.4563	BRA	5.9420	BC3	1.2911	FSP	-350	SG1	5315.5	SG2	360.3	THA	179.72	EL1	2770.3	EL2	190.4	ALF	5.08

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE OCT 10 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAY 2 1971

HELIOCENTRIC CONIC DISTANCE 591.088

RL	149.39	LAL	.00	LOL	16.28	VL	25.311	GAL	13.79	AZL	85.98	HCA	308.30	SMA	116.81	ECC	.36082	INC	4.0185	V1	29.827
RP	108.92	LAP	-3.15	LOP	324.64	VP	36.066	GAP	20.81	AZP	87.51	TAL	152.43	TAP	100.73	RCA	74.66	APO	158.96	V2	34.792
RC	205.802	GL	11.57	GP	9.69	ZAL	40.48	ZAP	169.06	ETS	116.43	ZAE	129.15	ETE	172.37	ZAC	108.21	ETC	278.43	CLP	174.89

PLANETOCENTRIC CONIC

C3	73.746	VHL	8.588	DLA	1.89	RAL	334.64	RAD	6569.4	VEL	13.968	PTH	2.55	VHP	13.106	DPA	-8.55	RAP	320.09	ECC	2.2137

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 12 35	2595.36	-26.62	67.08	219.59	100.03	8 55 51	1995.4	-24.96	58.80
90.00	20 38 42	5121.99	24.97	227.83	217.94	76.19	22 4 4	4522.0	22.82	219.82
100.00	9 34 49	2330.15	-28.05	47.28	219.29	100.79	10 13 39	1730.1	-26.27	38.92
100.00	21 59 10	4862.44	26.37	208.35	217.54	75.39	23 20 12	4262.4	24.11	200.28
110.00	10 45 5	2110.21	-31.92	29.64	218.35	102.95	11 20 15	1510.2	-29.81	21.07
110.00	23 5 23	4655.14	30.18	191.40	216.33	73.13	24 22 58	4055.1	27.57	183.18

DIFFERENTIAL CORRECTIONS

TDE	3.6959	TRA	6.4427	TC3	-1.0773	BAU	1.0623	SGT	5291.7	SGR	348.3	SG3	96.8	ST	2783.6	SR	306.9	SS	687.3
RDE	.4536	RRA	-.2547	RC3	.0168	FAU	.00390	RRT	-.0209	RRF	-.0230	RTF	.9588	CRT	.7964	CRS	-.7809	CST	-.9995
FDE	.7950	FRA	1.4731	FC3	-.0457	BSP	18163	SGB	5303.1	R23	.0029	R13	-.9588	LSA	2877.6	MSA	186.0	SSA	11.2
BDE	3.7236	BRA	6.4477	BC3	1.0774	FSP	-341	SG1	5291.7	SG2	348.2	THA	179.92	EL1	2794.4	EL2	184.9	ALF	5.04

MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

LAUNCH DATE OCT 10 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAY 4 1971

HELIOCENTRIC CONIC DISTANCE 594.720

RL	149.39	LAL	.00	LOL	16.28	VL	25.272	GAL	15.26	AZL	85.71	HCA	311.45	SMA	116.61	ECC	.37791	INC	4.2945	V1	29.827
RP	108.91	LAP	-3.22	LOP	327.81	VP	36.042	GAP	21.90	AZP	87.15	TAL	151.12	TAP	102.57	RCA	72.54	APO	160.67	V2	34.795
RC	207.503	GL	11.43	GP	9.57	ZAL	39.08	ZAP	168.69	ETS	121.08	ZAE	128.97	ETE	172.52	ZAC	107.71	ETC	278.87	CLP	173.95

PLANETOCENTRIC CONIC

C3	84.805	VHL	9.209	DLA	2.29	RAL	336.01	RAD	6569.7	VEL	14.358	PTH	2.61	VHP	13.776	DPA	-8.03	RAP	322.24	ECC	2.3957

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 15 6	2639.67	-27.11	70.23	223.56	98.52	8 59 6	2039.7	-25.65	61.86
90.00	20 47 4	5141.84	25.28	229.20	221.49	76.80	22 12 46	4541.8	23.21	221.14
100.00	9 37 31	2373.86	-28.56	50.42	223.30	99.21	10 17 5	1773.9	-27.00	41.97
100.00	22 7 21	4882.88	26.72	209.77	221.10	76.07	23 28 44	4282.9	24.54	201.65
110.00	10 48 12	2152.60	-32.52	32.80	222.47	101.17	11 24 5	1552.6	-30.64	24.09
110.00	23 13 9	4676.90	30.60	192.96	219.92	73.96	24 31 6	4076.9	28.10	184.65

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY					ORBIT DETERMINATION ACCURACY				
TDE	3.9841	TRA	6.9917	TC3	-.8811	BAU	.9990	SGT	5266.0	SGR	335.6	SG3	94.9	ST	2802.3
RDE	.4825	RRA	-.2387	RC3	.0112	FAU	.00262	RRT	.0360	RRF	.0319	RTF	.9639	CRT	.8065
FDE	.8369	FRA	1.5507	FC3	-.0267	BSP	18008	SGB	5276.7	R23	-.0029	R13	.9639	LSA	2900.9
BDE	4.0132	BRA	6.9957	BC3	.8811	FSP	-331	SG1	5286.0	SG2	335.4	THA	.13	EL1	2813.0

SR	303.5	SS	709.2	CRS	-.7929	CST	-.9996	MSA	179.8	SSA	10.6	EL2	178.8	ALF	5.01

LAUNCH DATE OCT 10 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAY 6 1971

HELIOCENTRIC CONIC DISTANCE 597.943

RL	149.39	LAL	.00	LOL	16.28	VL	25.235	GAL	16.87	AZL	85.40	HCA	314.61	SMA	116.41	ECC	.39712	INC	4.5987	V1	29.827
RP	108.90	LAP	-3.27	LOP	330.98	VP	36.020	GAP	23.12	AZP	86.77	TAL	149.91	TAP	104.52	RCA	70.18	APO	162.64	V2	34.799
RC	209.184	GL	11.28	GP	9.47	ZAL	37.81	ZAP	168.22	ETS	125.63	ZAE	128.72	ETE	172.69	ZAC	107.21	ETC	279.28	CLP	172.95

PLANETOCENTRIC CONIC

C3	98.016	VHL	9.900	DLA	2.61	RAL	337.25	RAD	6569.9	VEL	14.811	PTH	2.68	VHP	14.530	DPA	-7.50	RAP	324.33	ECC	2.6131

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 17 37	2681.69	-27.49	73.24	227.37	97.06	9 2 18	2081.7	-26.23	64.80
90.00	20 54 26	5163.61	25.61	230.71	224.93	77.49	22 20 29	4563.6	23.63	222.60
100.00	9 40 10	2415.39	-28.98	53.44	227.16	97.67	10 20 26	1815.4	-27.62	44.90
100.00	22 14 33	4905.14	27.07	211.33	224.56	76.81	23 36 18	4305.1	24.99	203.15
110.00	10 51 13	2193.04	-33.01	35.85	226.45	99.42	11 27 46	1593.0	-31.36	27.02
110.00	23 20 0	4700.26	31.02	194.64	223.42	74.87	24 38 20	4100.3	28.64	186.25

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY					ORBIT DETERMINATION ACCURACY				
TDE	4.2981	TRA	7.5898	TC3	-.7014	BAU	.9191	SGT	5239.2	SGR	323.3	SG3	93.1	ST	2815.9
RDE	.5142	RRA	-.2170	RC3	.0069	FAU	.00118	RRT	.0993	RRF	.0936	RTF	.9689	CRT	.8174
FDE	.8035	FRA	1.6372	FC3	-.0104	BSP	17728	SGB	5249.2	R23	-.0030	R13	.9689	LSA	2920.4
BDE	4.3288	BRA	7.5929	BC3	.7014	FSP	-319	SG1	5239.3	SG2	-321.7	THA	.35	EL1	2826.6

SR	299.9	SS	734.6	CRS	-.8057	CST	-.9997	MSA	173.1	SSA	10.1	EL2	172.1	ALF	4.99

LAUNCH DATE OCT 10 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAY 8 1971

HELIOCENTRIC CONIC DISTANCE 600.653

RL	149.39	LAL	.00	LOL	16.28	VL	25.199	GAL	18.66	AZL	85.06	HCA	317.76	SMA	116.23	ECC	.41879	INC	4.9381	V1	29.827
RP	108.88	LAP	-3.32	LOP	334.15	VP	35.999	GAP	24.51	AZP	86.34	TAL	148.85	TAP	106.61	RCA	67.55	APO	164.91	V2	34.804
RC	210.844	GL	11.10	GP	9.36	ZAL	36.69	ZAP	167.63	ETS	130.06	ZAE	128.41	ETE	172.87	ZAC	106.73	ETC	279.67	CLP	171.88

PLANETOCENTRIC CONIC

C3	113.915	VHL	10.673	DLA	2.87	RAL	338.34	RAD	6570.2	VEL	15.338	PTH	2.75	VHP	15.383	DPA	-6.96	RAP	326.34	ECC	2.8747

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 20 6	2721.11	-27.79	76.09	231.01	95.66	9 5 27	2121.1	-26.72	67.59
90.00	21 0 43	5187.17	25.95	232.35	228.25	78.25	22 27 10	4587.2	24.07	224.19
100.00	9 42 47	2454.42	-29.30	56.30	230.83	96.20	10 23 41	1854.4	-28.13	47.69
100.00	22 20 43	4929.09	27.43	213.02	227.90	77.63	23 42 52	4329.1	25.45	204.78
110.00	10 54 6	2231.21	-33.40	38.77	230.24	97.74	11 31 17	1631.2	-31.97	29.83
110.00	23 25 53	4725.06	31.45	196.45	226.81	75.86	24 44 38	4125.1	29.19	187.97

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY					ORBIT DETERMINATION ACCURACY				
TDE	4.6418	TRA	8.2433	TC3	-.5380	BAU	.8193	SGT	5211.5	SGR	311.9	SG3	91.5	ST	2824.4
RDE	.5492	RRA	-.1886	RC3	.0040	FAU	-.00047	RRT	.1696	RRF	.1625	RTF	.9737	CRT	.8293
FDE	.9356	FRA	1.7338	FC3	.0035	BSP	17316	SGB	5220.8	R23	-.0032	R13	.9737	LSA	2936.2
BDE	4.6742	BRA	8.2454	BC3	.5380	FSP	-306	SG1	5211.7	SG2	307.4	THA	.58	EL1	2835.1

SR	296.4	SS	764.0	CRS	-.8192	CST	-.9998	MSA	165.9	SSA	9.5	EL2	165.0	ALF	4.99

LAUNCH DATE OCT 10 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAY 10 1971

HELIOCENTRIC CONIC DISTANCE 602.714

RL	149.39	LAL	.00	LOL	16.28	VL	25.165	GAL	20.64	AZL	84.68	HCA	320.92	SMA	116.06	ECC	.44330	INC	5.3214	V1	29.827
RP	108.86	LAP	-3.35	LOP	337.32	VP	35.981	GAP	26.09	AZP	85.86	TAL	147.96	TAP	108.88	RCA	64.61	APO	167.51	V2	34.810
RC	212.484	GL	10.91	GP	9.26	ZAL	35.73	ZAP	166.92	ETS	134.34	ZAE	128.01	ETE	173.05	ZAC	106.25	ETC	280.03	CLP	170.72

PLANETOCENTRIC CONIC

C3	133.204	VHL	11.541	DLA	3.05	RAL	339.30	RAD	6570.4	VEL	15.954	PTH	2.82	VHP	16.353	DPA	-6.43	RAP	328.27	ECC	3.1922

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 22 34	2757.55	-28.01	78.73	234.42	94.35	9 8 31	2157.6	-27.11	70.18
90.00	21 5 51	5212.43	26.29	234.13	231.42	79.07	22 32 44	4612.4	24.51	225.91
100.00	9 45 20	2490.59	-29.54	58.96	234.28	94.82	10 26 50	1890.6	-28.56	50.29
100.00	22 25 47	4954.63	27.79	214.83	231.08	78.52	23 48 21	4354.6	25.93	206.53
110.00	10 56 50	2266.78	-33.69	41.50	233.81	96.15	11 34 37	1666.8	-32.48	32.48
110.00	23 30 45	4751.21	31.87	198.37	230.06	76.93	24 49 57	4151.2	29.74	189.81

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY					ORBIT DETERMINATION ACCURACY				
TDE	5.0186	TRA	8.9593	TC3	-.3902	BAU	.6949	SGT	5182.3	SGR	301.8	SG3	89.9	ST	2827.2
RDE	.5884	RRA	-.1522	RC3	.0023	FAU	-.00238	RRT	.2468	RRF	.2388	RTF	.9781	CRT	.8419
FDE	.9940	FRA	1.8423	FC3	.0155	BSP	16765	SGB	5191.1	R23	-.0035	R13	.9781	LSA	2948.0
BDE	5.0529	BRA	8.9605	BC3	.3902	FSP	-290	SG1	5182.9	SG2	292.4	THA	.83	EL1	2838.0

SR	293.0	SS	798.1	CRS	-.8334	CST	-.9998	MSA	158.3	SSA	9.0	EL2	157.5	ALF	5.00

LAUNCH DATE OCT 10 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAY 12 1971

HELIOCENTRIC CONIC DISTANCE 603.943

RL 149.39 LAL .00 LOL 16.28 VL 25.134 GAL 22.87 AZL 84.24 HCA 324.07 SMA 115.90 ECC .47113 INC 5.7607 V1 29.827
RP 108.85 LAP -3.38 LOP 340.49 VP 35.966 GAP 27.91 AZP 85.33 TAL 147.28 TAP 111.35 RCA 61.30 APO 170.50 V2 34.816
RC 214.102 GL 10.70 GP 9.17 ZAL 34.93 ZAP 166.06 ETS 138.47 ZAE 127.50 ETE 173.26 ZAC 105.79 ETC 280.35 CLP 169.46

PLANETOCENTRIC CONIC

C3 156.817 VHL 12.523 DLA 3.15 RAL 340.09 RAD 6570.7 VEL 16.678 PTH 2.89 VHP 17.464 DPA -5.91 RAP 330.08 ECC 3.5808

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 25 0	2790.53	-28.16	81.13	237.57	93.16	9 11 30	2190.5	-27.42	72.54
90.00	21 9 45	5239.37	26.62	236.03	234.41	79.97	22 37 4	4639.4	24.96	227.75
100.00	9 47 49	2523.42	-29.70	61.39	237.47	93.55	10 29 52	1923.4	-28.89	52.68
100.00	22 29 37	4981.71	28.14	216.77	234.10	79.48	23 52 39	4381.7	26.40	208.40
110.00	10 59 25	2299.28	-33.90	44.02	237.11	94.67	11 37 45	1699.3	-32.88	34.93
110.00	23 34 29	4778.62	32.27	200.41	233.15	78.07	24 54 8	4178.6	30.30	191.75

DIFFERENTIAL CORRECTIONS
TDE 5.3805 TRA 9.6921 TC3 -.2711 BAU .5683
RDE .6319 RRA -.1068 RC3 .0014 FAU-.00414
FDE 1.0484 FRA 1.9529 FC3 .0229 BSP 17325
BDE 5.4175 BRA 9.6927 BC3 .2711 FSP -297

MID-COURSE EXECUTION ACCURACY
SGT 5123.0 SGR 293.3 SG3 87.9
RRT .5274 RRF .3188 RTF .9820
SGB 5131.4 R23 -.0039 R13 .9820
SG1 5123.9 SG2 277.1 THA 1.08

ORBIT DETERMINATION ACCURACY
ST 2799.3 SR 289.5 SS 829.4
CRT .8542 CRS -.8467 CST -.9998
LSA 2930.0 MSA 150.7 SSA 8.4
EL1 2810.2 EL2 150.0 ALF 5.06

LAUNCH DATE OCT 10 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAY 14 1971

HELIOCENTRIC CONIC DISTANCE 604.111

RL 149.39 LAL .00 LOL 16.28 VL 25.106 GAL 25.40 AZL 83.73 HCA 327.23 SMA 115.76 ECC .50279 INC 6.2725 V1 29.827
RP 108.82 LAP -3.39 LOP 343.66 VP 35.952 GAP 30.01 AZP 84.72 TAL 146.86 TAP 114.09 RCA 57.56 APO 173.96 V2 34.823
RC 215.699 GL 10.47 GP 9.07 ZAL 34.32 ZAP 165.05 ETS 142.44 ZAE 126.86 ETE 173.49 ZAC 105.35 ETC 280.65 CLP 168.06

PLANETOCENTRIC CONIC

C3 186.008 VHL 13.638 DLA 3.15 RAL 340.71 RAD 6571.0 VEL 17.531 PTH 2.97 VHP 18.743 DPA -5.41 RAP 331.77 ECC 4.0612

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 27 25	2819.51	-28.25	83.25	240.41	92.10	9 14 24	2219.5	-27.66	74.63
90.00	21 12 14	5268.02	26.94	238.06	237.19	80.94	22 40 2	4668.0	25.41	229.73
100.00	9 50 13	2552.40	-29.80	63.53	240.34	92.42	10 32 46	1952.4	-29.15	54.79
100.00	22 32 6	5010.37	28.48	218.83	236.90	80.52	23 55 37	4410.4	26.88	210.40
110.00	11 1 51	2328.24	-34.04	46.27	240.09	93.35	11 40 39	1728.2	-33.20	37.13
110.00	23 36 50	4807.30	32.66	202.56	236.04	79.29	24 57 6	4207.3	30.84	193.81

DIFFERENTIAL CORRECTIONS
TDE 5.8059 TRA10.5251 TC3 -.1577 BAU .3923
RDE .6815 RRA -.0500 RC3 .0016 FAU-.00663
FDE 1.1165 FRA 2.0847 FC3 .0309 BSP 17220
BDE 5.8458 BRA10.5252 BC3 .1577 FSP -291

MID-COURSE EXECUTION ACCURACY
SGT 5073.9 SGR 287.1 SG3 86.2
RRT .4141 RRF .4054 RTF .9856
SGB 5082.0 R23 -.0042 R13 .9856
SG1 5075.3 SG2 261.3 THA 1.35

ORBIT DETERMINATION ACCURACY
ST 2777.4 SR 286.4 SS 870.9
CRT .8674 CRS -.8611 CST -.9999
LSA 2921.3 MSA 142.6 SSA 7.8
EL1 2788.6 EL2 141.9 ALF 5.12

LAUNCH DATE OCT 10 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAY 16 1971

HELIOCENTRIC CONIC DISTANCE 602.900

RL 149.39 LAL .00 LOL 16.28 VL 25.082 GAL 28.27 AZL 83.12 HCA 330.38 SMA 115.63 ECC .53889 INC 6.8805 V1 29.827
RP 108.80 LAP -3.39 LOP 346.84 VP 35.943 GAP 32.45 AZP 84.01 TAL 146.76 TAP 117.14 RCA 53.32 APO 177.95 V2 34.830
RC 217.273 GL 10.22 GP 8.97 ZAL 33.92 ZAP 163.84 ETS 146.24 ZAE 126.06 ETE 173.74 ZAC 104.93 ETC 280.90 CLP 166.50

PLANETOCENTRIC CONIC

C3 222.464 VHL 14.915 DLA 3.05 RAL 341.12 RAD 6571.3 VEL 18.541 PTH 3.05 VHP 20.224 DPA -4.97 RAP 333.30 ECC 4.6612

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 29 47	2843.83	-28.29	85.03	242.89	91.21	9 17 11	2243.8	-27.83	76.39
90.00	21 13 8	5298.53	27.25	240.24	239.72	81.99	22 41 26	4698.5	25.86	231.85
100.00	9 52 33	2576.87	-29.86	65.35	242.85	91.47	10 35 30	1976.9	-29.34	56.59
100.00	22 33 3	5040.73	28.80	221.03	239.46	81.63	23 57 3	4440.7	27.35	212.53
110.00	11 4 4	2353.04	-34.12	48.20	242.69	92.21	11 43 17	1753.0	-33.44	39.02
110.00	23 38 1	4837.32	33.01	204.83	238.70	80.59	24 58 39	4237.3	31.36	195.99

DIFFERENTIAL CORRECTIONS
TDE 6.2707 TRA11.4367 TC3 -.0578 BAU .1721
RDE .7383 RRA .0202 RC3 .0026 FAU-.00972
FDE 1.1934 FRA 2.2341 FC3 .0378 BSP 17110
BDE 6.3140 BRA11.4367 BC3 .0579 FSP -286

MID-COURSE EXECUTION ACCURACY
SGT 5018.8 SGR 283.8 SG3 84.7
RRT .5027 RRF .4944 RTF .9888
SGB 5026.8 R23 -.0044 R13 .9887
SG1 5020.8 SG2 245.3 THA 1.63

ORBIT DETERMINATION ACCURACY
ST 2746.8 SR 283.6 SS 919.1
CRT .8809 CRS -.8756 CST -.9999
LSA 2907.2 MSA 134.4 SSA 7.3
EL1 2758.1 EL2 133.7 ALF 5.21

LAUNCH DATE OCT 10 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAY 18 1971

HELIOCENTRIC CONIC DISTANCE 599.897

RL 149.39 LAL .00 LOL 16.28 VL 25.062 GAL 31.57 AZL 82.38 HCA 333.53 SMA 115.53 ECC .58004 INC 7.6191 V1 29.827
RP 108.78 LAP -3.39 LOP 350.01 VP 35.937 GAP 35.31 AZP 83.17 TAL 147.06 TAP 120.59 RCA 48.52 APO 182.55 V2 34.838
RC 218.823 GL 9.95 GP 8.86 ZAL 33.78 ZAP 162.41 ETS 149.88 ZAE 125.07 ETE 174.03 ZAC 104.54 ETC 281.12 CLP 164.74

PLANETOCENTRIC CONIC

C3 268.468 VHL 16.385 DLA 2.83 RAL 341.29 RAD 6571.6 VEL 19.743 PTH 3.12 VHP 21.949 DPA -4.59 RAP 334.65 ECC 5.4183

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 32 7	2862.69	-28.31	86.41	244.93	90.52	9 19 50	2262.7	-27.94	77.76
90.00	21 12 9	5331.17	27.54	242.59	241.96	83.14	22 41 1	4731.2	26.30	234.14
100.00	9 54 47	2596.06	-29.88	66.78	244.91	90.72	10 38 3	1996.1	-29.47	58.00
100.00	22 32 11	5073.03	29.10	223.39	241.74	82.84	23 56 44	4473.0	27.80	214.82
110.00	11 6 4	2372.98	-34.16	49.75	244.82	91.29	11 45 37	1773.0	-33.61	40.56
110.00	23 37 24	4868.88	33.34	207.23	241.08	81.98	24 58 33	4268.9	31.87	198.31

DIFFERENTIAL CORRECTIONS
TDE 6.7783 TRA12.4330 TC3 .0296 BAU .1073
RDE .8041 RRA .1067 RC3 .0044 FAU-.01367
FDE 1.2807 FRA 2.4039 FC3 .0441 BSP 16968
BDE 6.8259 BRA12.4334 BC3 .0299 FSP -282

MID-COURSE EXECUTION ACCURACY
SGT 4957.4 SGR 284.0 SG3 83.3
RRT .5898 RRF .5823 RTF .9914
SGB 4965.5 R23 -.0046 R13 .9914
SG1 4960.2 SG2 229.2 THA 1.94

ORBIT DETERMINATION ACCURACY
ST 2706.2 SR 281.4 SS 975.0
CRT .8944 CRS -.8899 CST -.9999
LSA 2887.5 MSA 126.0 SSA 6.7
EL1 2717.9 EL2 125.3 ALF 5.32

LAUNCH DATE OCT 11 1970 FLIGHT TIME 70.00 ARRIVAL DATE DEC 20 1970

HELIOCENTRIC CONIC DISTANCE 206.106

RL	149.34	LAL	-.00	LOL	17.27	VL	29.142	GAL	-14.71	AZL	88.04	HCA	94.20	SMA	143.00	ECC	.25748	INC	1.9564	V1	29.836
RP	107.52	LAP	1.95	LOP	111.47	VP	39.250	GAP	-4.08	AZP	90.14	TAL	245.70	TAP	339.90	RCA	106.18	APO	179.82	V2	35.245
RC	65.403	GL	7.72	GP	-22.95	ZAL	164.45	ZAP	58.02	ETS	11.89	ZAE	153.45	ETE	290.96	ZAC	77.71	ETC	258.96	CLP	-54.89

PLANETOCENTRIC CONIC

C3	51.326	VHL	7.164	DLA	-4.51	RAL	211.37	RAD	6568.9	VEL	13.141	PTH	2.40	VHP	5.118	DPA	-40.09	RAP	226.30	ECC	1.8447

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 44 32	2308.78	-21.74	47.54	87.52	108.61	1 23 1	1708.8	-19.00	39.94
90.00	11 35 24	5233.15	26.55	235.59	90.95	79.76	13 2 37	4633.2	24.86	227.32
100.00	2 3 45	2053.21	-23.06	28.25	87.02	109.57	2 37 59	1453.2	-20.18	20.64
100.00	12 58 52	4963.95	27.92	215.50	90.66	78.85	14 21 36	4364.0	26.09	207.17
110.00	3 7 9	1854.76	-26.60	11.70	85.53	112.31	3 38 4	1254.8	-23.33	4.06
110.00	14 11 58	4735.16	31.62	197.19	89.72	76.27	15 30 53	4135.2	29.41	188.68

DIFFERENTIAL CORRECTIONS

TDE	.1999	TRA	-.5497	TC3	.0448	BAU	.1890
RDE	-.2773	RRA	-.3228	RC3	-.2717	FAU	.08236
FDE	1.1755	FRA	-.9114	FC3	-1.3892	BSP	1081
BDE	.3418	BRA	.6375	BC3	.2754	FSP	-558

MID-COURSE EXECUTION ACCURACY

SGT	473.5	SGR	517.5	SG3	200.4		
RRT	.2194	RRF	.6296	RTF	.3141		
SGB	701.4	R23	.1351	R13	.6408		
SG1	551.4	SG2	433.6	THA	56.05		

ORBIT DETERMINATION ACCURACY

ST	207.5	SR	235.3	SS	427.7		
CRT	-.5161	CRS	.8383	CST	-.8928		
LSA	506.5	MSA	155.9	SSA	21.1		
EL1	274.1	EL2	152.6	ALF	128.14		

LAUNCH DATE OCT 11 1970 FLIGHT TIME 72.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 212.744

RL	149.34	LAL	-.00	LOL	17.27	VL	29.147	GAL	-14.55	AZL	87.88	HCA	97.44	SMA	143.04	ECC	.25489	INC	2.1232	V1	29.836
RP	107.51	LAP	2.11	LOP	114.71	VP	39.258	GAP	-3.38	AZP	90.28	TAL	245.82	TAP	343.26	RCA	106.58	APO	179.50	V2	35.249
RC	67.486	GL	8.47	GP	-24.11	ZAL	164.10	ZAP	62.84	ETS	9.85	ZAE	153.17	ETE	283.47	ZAC	76.34	ETC	258.59	CLP	-59.99

PLANETOCENTRIC CONIC

C3	50.406	VHL	7.100	DLA	-3.80	RAL	211.60	RAD	6568.9	VEL	13.106	PTH	2.39	VHP	4.920	DPA	-40.56	RAP	223.68	ECC	1.8296

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 40 7	2326.49	-22.12	48.70	87.64	108.15	1 18 53	1726.5	-19.43	41.05
90.00	11 41 40	5206.44	26.21	233.71	90.52	78.88	13 8 26	4606.4	24.41	225.50
100.00	1 59 41	2069.83	-23.43	29.34	87.16	109.11	2 34 10	1469.8	-20.61	21.69
100.00	13 4 47	4938.34	27.57	213.68	90.21	77.95	14 27 5	4338.3	25.63	205.41
110.00	3 3 51	1868.95	-26.96	12.64	85.71	111.86	3 34 59	1269.0	-23.75	4.95
110.00	14 17 6	4711.98	31.23	195.49	89.21	75.34	15 35 38	4112.0	28.90	187.06

DIFFERENTIAL CORRECTIONS

TDE	.2291	TRA	-.5896	TC3	.0033	BAU	.2007
RDE	-.2505	RRA	-.3296	RC3	-.2978	FAU	.08784
FDE	1.2958	FRA	-.9630	FC3	-1.5087	BSP	1247
BDE	.3395	BRA	.6754	BC3	.2978	FSP	-613

MID-COURSE EXECUTION ACCURACY

SGT	511.5	SGR	539.2	SG3	216.7		
RRT	.3181	RRF	.6671	RTF	.4324		
SGB	743.2	R23	.1477	R13	.6907		
SG1	604.2	SG2	432.7	THA	49.71		

ORBIT DETERMINATION ACCURACY

ST	233.8	SR	217.8	SS	456.3		
CRT	-.5096	CRS	.8209	CST	-.9037		
LSA	533.8	MSA	157.7	SSA	21.1		
EL1	277.9	EL2	157.6	ALF	138.97		

LAUNCH DATE OCT 11 1970 FLIGHT TIME 74.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 219.338

RL	149.34	LAL	-.00	LOL	17.27	VL	29.142	GAL	-14.41	AZL	87.71	HCA	100.68	SMA	143.00	ECC	.25247	INC	2.2924	V1	29.836
RP	107.50	LAP	2.25	LOP	117.96	VP	39.257	GAP	-2.71	AZP	90.43	TAL	245.80	TAP	346.48	RCA	106.90	APO	179.10	V2	35.253
RC	69.600	GL	9.23	GP	-25.24	ZAL	163.64	ZAP	67.72	ETS	7.74	ZAE	152.56	ETE	275.80	ZAC	74.96	ETC	258.20	CLP	-65.22

PLANETOCENTRIC CONIC

C3	49.541	VHL	7.039	DLA	-3.10	RAL	211.91	RAD	6568.8	VEL	13.073	PTH	2.39	VHP	4.759	DPA	-40.93	RAP	220.92	ECC	1.8153

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 36 7	2344.00	-22.48	49.85	87.87	107.68	1 15 11	1744.0	-19.86	42.16
90.00	11 48 9	5180.30	25.85	231.87	90.21	78.02	13 14 29	4580.3	23.94	223.72
100.00	1 56 1	2086.27	-23.79	30.43	87.40	108.65	2 30 47	1486.3	-21.02	22.73
100.00	13 10 56	4913.26	27.20	211.90	89.88	77.09	14 32 49	4313.3	25.15	203.70
110.00	3 0 57	1883.02	-27.31	13.58	85.98	111.40	3 32 20	1283.0	-24.16	5.84
110.00	14 22 30	4689.27	30.83	193.85	88.82	74.44	15 40 39	4089.3	28.39	185.50

DIFFERENTIAL CORRECTIONS

TDE	.2648	TRA	-.6345	TC3	-.0451	BAU	.2163
RDE	-.2228	RRA	-.3539	RC3	-.3234	FAU	.09270
FDE	1.4097	FRA	-1.0021	FC3	-1.6199	BSP	1454
BDE	.3461	BRA	.7170	BC3	.3266	FSP	-665

MID-COURSE EXECUTION ACCURACY

SGT	564.0	SGR	560.6	SG3	231.6		
RRT	.4130	RRF	.7004	RTF	.5389		
SGB	795.2	R23	.1539	R13	.7362		
SG1	668.4	SG2	430.8	THA	44.59		

ORBIT DETERMINATION ACCURACY

ST	265.6	SR	199.4	SS	483.3		
CRT	-.4984	CRS	.7987	CST	-.9145		
LSA	564.1	MSA	158.7	SSA	21.0		
EL1	292.8	EL2	156.8	ALF	150.13		

LAUNCH DATE OCT 11 1970 FLIGHT TIME 76.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 225.889

RL	149.34	LAL	-.00	LOL	17.27	VL	29.128	GAL	-14.26	AZL	87.53	HCA	103.93	SMA	142.88	ECC	.25017	INC	2.4654	V1	29.836
RP	107.49	LAP	2.39	LOP	121.21	VP	39.249	GAP	-2.08	AZP	90.59	TAL	245.65	TAP	349.57	RCA	107.13	APO	178.62	V2	35.255
RC	71.740	GL	10.02	GP	-26.33	ZAL	163.09	ZAP	72.61	ETS	5.54	ZAE	151.58	ETE	268.22	ZAC	73.61	ETC	257.81	CLP	-70.52

PLANETOCENTRIC CONIC

C3	48.718	VHL	6.980	DLA	-2.40	RAL	212.31	RAD	6568.8	VEL	13.042	PTH	2.38	VHP	4.633	DPA	-41.20	RAP	218.09	ECC	1.8018

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 32 30	2361.49	-22.84	51.01	88.19	107.21	1 11 51	1761.5	-20.27	43.28
90.00	11 54 54	5154.45	25.47	230.08	90.00	77.20	13 20 49	4554.5	23.46	221.98
100.00	1 52 43	2102.71	-24.15	31.52	87.74	108.18	2 27 46	1502.7	-21.44	23.78
100.00	13 17 22	4888.47	26.81	210.16	89.65	76.25	14 38 50	4288.5	24.65	202.03
110.00	2 58 24	1897.11	-27.66	14.53	86.35	110.94	3 30 1	1297.1	-24.56	6.73
110.00	14 28 11	4666.83	30.41	192.23	88.54	73.57	15 45 58	4066.8	27.86	183.97

DIFFERENTIAL CORRECTIONS

TDE	.3071	TRA	-.6838	TC3	-.0999	BAU	.2359
RDE	-.1947	RRA	-.3353	RC3	-.3481	FAU	.09671
FDE	1.5134	FRA	-1.0265	FC3	-1.7186	BSP	1700
BDE	.3637	BRA	.7616	BC3	.3621	FSP	-711

MID-COURSE EXECUTION ACCURACY

SGT	631.4	SGR	581.0	SG3	244.5		
RRT	.4969	RRF	.7295	RTF	.6277		
SGB	858.0	R23	.1576	R13	.7751		
SG1	743.6	SG2	428.1	THA	40.24		

ORBIT DETERMINATION ACCURACY

ST	303.3	SR	180.5	SS	508.3		
CRT	-.4805	CRS	.7704	CST	-.9248		
LSA	597.7	MSA	158.7	SSA	20.9		
EL1	319.3	EL2	150.4	ALF	159.24		

LAUNCH DATE OCT 11 1970 FLIGHT TIME 78.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 232.397

RL	149.34	LAL	-.00	LOL	17.27	VL	29.107	GAL	-14.11	AZL	87.36	HCA	107.17	SMA	142.69	ECC	.24799	INC	2.6433	V1	29.836
RP	107.48	LAP	2.53	LOP	124.45	VP	39.235	GAP	-1.48	AZP	90.78	TAL	245.38	TAP	352.55	RCA	107.30	APO	178.07	V2	35.257
RC	73.903	GL	10.84	GP	-27.37	ZAL	162.44	ZAP	77.47	ETS	3.27	ZAE	150.26	ETE	261.00	ZAC	72.29	ETC	257.41	CLP	-75.86

PLANETOCENTRIC CONIC

C3	47.932	VHL	6.923	DLA	-1.70	RAL	212.78	RAD	6568.8	VEL	13.011	PTH	2.37	VHP	4.540	DPA	-41.40	RAP	215.26	ECC	1.7888

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 29 10	2379.16	-23.19	52.18	88.61	106.72	1 8 50	1779.2	-20.68	44.41
90.00	12 1 59	5128.64	25.07	228.29	89.88	76.39	13 27 28	4528.6	22.95	220.26
100.00	1 49 43	2119.32	-24.49	32.64	88.17	107.69	2 25 3	1519.3	-21.84	24.84
100.00	13 24 7	4863.72	26.40	208.44	89.51	75.44	14 45 11	4263.7	24.13	200.37
110.00	2 56 9	1911.38	-28.00	15.50	86.82	110.46	3 28 0	1311.4	-24.96	7.65
110.00	14 34 11	4644.42	29.96	190.64	88.36	72.72	15 51 35	4044.4	27.31	182.45

DIFFERENTIAL CORRECTIONS

TDE	.3560	TRA	-.7366	TC3	-.1607	BAU	.2591
RDE	-.1668	RRA	-.3333	RC3	-.3710	FAU	.09971
FDE	1.6025	FRA	-1.0345	FC3	-1.8009	BSP	1982
BDE	.3932	BRA	.8085	BC3	.4043	FSP	-751

MID-COURSE EXECUTION ACCURACY

SGT	712.9	SGR	599.2	SG3	255.0		
RRT	.5663	RRF	.7544	RTF	.6976		
SGB	931.3	R23	.1609	R13	.8068		
SG1	828.7	SG2	424.9	THA	36.43		

ORBIT DETERMINATION ACCURACY

ST	346.9	SR	161.7	SS	530.7
CRT	-.4533	CRS	.7344	CST	-.9338
LSA	634.6	MSA	157.9	SSA	20.8
EL1	356.0	EL2	140.4	ALF	165.82

LAUNCH DATE OCT 11 1970 FLIGHT TIME 80.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 238.863

RL	149.34	LAL	-.00	LOL	17.27	VL	29.078	GAL	-13.96	AZL	87.17	HCA	110.41	SMA	142.43	ECC	.24588	INC	2.8276	V1	29.836
RP	107.48	LAP	2.65	LOP	127.70	VP	39.215	GAP	-.91	AZP	90.99	TAL	245.00	TAP	355.41	RCA	107.41	APO	177.45	V2	35.258
RC	76.087	GL	11.69	GP	-28.36	ZAL	161.70	ZAP	82.23	ETS	.93	ZAE	148.63	ETE	254.32	ZAC	71.01	ETC	257.04	CLP	-81.16

PLANETOCENTRIC CONIC

C3	47.177	VHL	6.869	DLA	-.99	RAL	213.33	RAD	6568.8	VEL	12.982	PTH	2.37	VHP	4.478	DPA	-41.53	RAP	212.51	ECC	1.7764

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 26 5	2397.24	-23.54	53.39	89.12	106.21	1 6 2	1797.2	-21.09	45.58
90.00	12 9 26	5102.62	24.64	226.51	89.85	75.59	13 34 29	4502.6	22.42	218.54
100.00	1 46 58	2136.34	-24.84	33.78	88.69	107.18	2 22 34	1536.3	-22.25	25.94
100.00	13 31 15	4838.75	25.96	206.72	89.47	74.63	14 51 53	4238.8	23.59	198.71
110.00	2 54 9	1926.02	-28.35	16.50	87.37	109.96	3 26 15	1326.0	-25.36	8.59
110.00	14 40 33	4621.84	29.50	189.05	88.26	71.88	15 57 35	4021.8	26.74	180.95

DIFFERENTIAL CORRECTIONS

TDE	.4113	TRA	-.7920	TC3	-.2263	BAU	.2853
RDE	-.1395	RRA	-.3276	RC3	-.3916	FAU	.10156
FDE	1.6753	FRA	-1.0254	FC3	-1.8638	BSP	2293
BDE	.4343	BRA	.8571	BC3	.4523	FSP	-782

MID-COURSE EXECUTION ACCURACY

SGT	806.8	SGR	614.5	SG3	262.6		
RRT	.6211	RRF	.7754	RTF	.7505		
SGB	1014.2	R23	.1647	R13	.8318		
SG1	922.6	SG2	421.2	THA	33.03		

ORBIT DETERMINATION ACCURACY

ST	396.3	SR	143.3	SS	550.6
CRT	-.4141	CRS	.6884	CST	-.9416
LSA	675.2	MSA	156.3	SSA	20.7
EL1	401.3	EL2	128.8	ALF	170.50

LAUNCH DATE OCT 11 1970 FLIGHT TIME 82.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 245.288

RL	149.34	LAL	-.00	LOL	17.27	VL	29.043	GAL	-13.82	AZL	86.98	HCA	113.66	SMA	142.12	ECC	.24384	INC	3.0198	V1	29.836
RP	107.48	LAP	2.77	LOP	130.95	VP	39.190	GAP	-.36	AZP	91.21	TAL	244.51	TAP	358.17	RCA	107.47	APO	176.78	V2	35.259
RC	78.289	GL	12.59	GP	-29.29	ZAL	160.87	ZAP	86.84	ETS	358.52	ZAE	146.76	ETE	248.31	ZAC	69.80	ETC	256.68	CLP	-86.38

PLANETOCENTRIC CONIC

C3	46.452	VHL	6.816	DLA	-.26	RAL	213.95	RAD	6568.7	VEL	12.954	PTH	2.36	VHP	4.446	DPA	-41.62	RAP	209.89	ECC	1.7645

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 23 9	2416.00	-23.89	54.66	89.72	105.67	1 3 25	1816.0	-21.51	46.79
90.00	12 17 20	5076.09	24.18	224.70	89.92	74.80	13 41 56	4476.1	21.86	216.80
100.00	1 44 22	2154.00	-25.19	34.98	89.31	106.65	2 20 16	1554.0	-22.67	27.09
100.00	13 38 48	4813.32	25.49	204.97	89.51	73.83	14 59 1	4213.3	23.02	197.04
110.00	2 52 20	1941.25	-28.69	17.55	88.03	109.43	3 24 41	1341.2	-25.78	9.59
110.00	14 47 19	4598.84	29.00	187.44	88.26	71.05	16 3 58	3998.8	26.14	179.43

DIFFERENTIAL CORRECTIONS

TDE	.4725	TRA	-.8488	TC3	-.2958	BAU	.3138
RDE	-.1131	RRA	-.3183	RC3	-.4096	FAU	.10226
FDE	1.7299	FRA	-1.0001	FC3	-1.9058	BSP	2627
BDE	.4858	BRA	.9065	BC3	.5052	FSP	-803

MID-COURSE EXECUTION ACCURACY

SGT	910.8	SGR	626.4	SG3	267.3		
RRT	.6631	RRF	.7932	RTF	.7897		
SGB	1105.4	R23	.1698	R13	.8512		
SG1	1023.6	SG2	417.2	THA	29.99		

ORBIT DETERMINATION ACCURACY

ST	451.4	SR	125.6	SS	567.7
CRT	-.3596	CRS	.6289	CST	-.9482
LSA	719.5	MSA	154.0	SSA	20.5
EL1	453.8	EL2	116.5	ALF	173.88

LAUNCH DATE OCT 11 1970 FLIGHT TIME 84.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 251.673

RL	149.34	LAL	-.00	LOL	17.27	VL	29.003	GAL	-13.66	AZL	86.78	HCA	116.90	SMA	141.76	ECC	.24185	INC	3.2218	V1	29.836
RP	107.48	LAP	2.87	LOP	134.20	VP	39.159	GAP	.16	AZP	91.46	TAL	243.93	TAP	.83	RCA	107.48	APO	176.05	V2	35.258
RC	80.507	GL	13.54	GP	-30.18	ZAL	159.95	ZAP	91.26	ETS	356.06	ZAE	144.70	ETE	243.00	ZAC	68.63	ETC	256.34	CLP	-91.46

PLANETOCENTRIC CONIC

C3	45.756	VHL	6.764	DLA	.50	RAL	214.64	RAD	6568.7	VEL	12.928	PTH	2.36	VHP	4.440	DPA	-41.71	RAP	207.45	ECC	1.7530

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 20 18	2435.73	-24.25	55.99	90.43	105.09	1 0 54	1835.7	-21.94	48.08
90.00	12 25 44	5048.79	23.68	222.85	90.06	74.01	13 49 53	4448.8	21.26	215.02
100.00	1 41 52	2172.60	-25.55	36.24	90.03	106.07	2 18 5	1572.6	-23.10	28.30
100.00	13 46 51	4787.15	24.98	203.19	89.64	73.02	15 6 38	4187.1	22.41	195.33
110.00	2 50 39	1957.32	-29.05	18.66	88.79	108.86	3 23 16	1357.3	-26.20	10.64
110.00	14 54 34	4575.20	28.46	185.81	88.34	70.22	16 10 49	3975.2	25.50	177.88

DIFFERENTIAL CORRECTIONS

TDE	.5399	TRA	-.9057	TC3	-.3679	BAU	.3424
RDE	-.0844	RRA	-.3020	RC3	-.4218	FAU	.10102
FDE	1.7836	FRA	-.9430	FC3	-1.9113	BSP	2930
BDE	.5465	BRA	.9547	BC3	.5597	FSP	-781

MID-COURSE EXECUTION ACCURACY

SGT	1022.4	SGR	629.5	SG3	267.8		
RRT	.6955	RRF	.8057	RTF	.8175		
SGB	1200.7	R23	.1757	R13	.8640		
SG1	1128.6	SG2	409.8	THA	27.03		

ORBIT DETERMINATION ACCURACY

ST	512.2	SR	106.3	SS	587.6
CRT	-.2714	CRS	.5423	CST	-.9525
LSA	771.7	MSA	151.4	SSA	20.0
EL1	513.0	EL2	102.1	ALF	176.64

LAUNCH DATE OCT 11 1970 FLIGHT TIME 86.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 258.020

RL 149.34 LAL -.00 LOL 17.27 VL 28.957 GAL -13.51 AZL 86.56 HCA 120.14 SMA 141.36 ECC .23992 INC 3.4358 V1 29.836
RP 107.46 LAP 2.97 LOP 137.45 VP 39.124 GAP .66 AZP 91.73 TAL 243.27 TAP 3.41 RCA 107.45 APO 175.27 V2 35.257
RC 82.739 GL 14.55 GP -31.05 ZAL 158.93 ZAP 95.45 ETS 353.54 ZAE 142.53 ETE 238.37 ZAC 67.52 ETC 256.04 CLP -96.37

PLANETOCENTRIC CONIC

C3 45.099 VHL 6.716 DLA 1.30 RAL 215.41 RAD 6568.7 VEL 12.902 PTH 2.35 VHP 4.459 DPA -41.83 RAP 205.21 ECC 1.7422

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 17 28	2456.82	-24.61	57.43	91.24	104.46	0 58 25	1856.8	-22.39	49.47
90.00	12 34 44	5020.42	23.14	220.95	90.30	73.21	13 58 24	4420.4	20.62	213.19
100.00	1 39 24	2192.50	-25.92	37.61	90.86	105.44	2 15 57	1592.5	-23.54	29.61
100.00	13 55 28	4759.98	24.42	201.36	89.86	72.21	15 14 48	4160.0	21.76	193.58
110.00	2 49 2	1974.55	-29.43	19.86	89.66	108.23	3 21 57	1374.6	-26.65	11.78
110.00	15 2 19	4550.69	27.89	184.13	88.52	69.38	16 18 10	3950.7	24.83	176.30

DIFFERENTIAL CORRECTIONS
TDE .6126 TRA -.9619 TC3 -.4415 BAU .3739
RDE -.0617 RRA -.2872 RC3 -.4354 FAU .09992
FDE 1.7946 FRA -.8990 FC3-1.9180 BSP 3321
BDE .6157 BRA 1.0038 BC3 .6201 FSP -803

MID-COURSE EXECUTION ACCURACY
SGT 1139.5 SGR 636.3 SG3 267.3
RRT .7178 RRF .8200 RTF .8390
SGB 1305.1 R23 .1841 R13 .8763
SG1 1240.0 SG2 407.1 THA 24.68

ORBIT DETERMINATION ACCURACY
ST 578.0 SR 92.1 SS 597.3
CRT -.1705 CRS .4362 CST -.9578
LSA 822.8 MSA 147.7 SSA 19.8
EL1 578.2 EL2 90.7 ALF 178.40

LAUNCH DATE OCT 11 1970 FLIGHT TIME 88.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 264.331

RL 149.34 LAL -.00 LOL 17.27 VL 28.906 GAL -13.35 AZL 86.34 HCA 123.38 SMA 140.92 ECC .23803 INC 3.6643 V1 29.836
RP 107.49 LAP 3.06 LOP 140.70 VP 39.085 GAP 1.13 AZP 92.02 TAL 242.52 TAP 5.90 RCA 107.38 APO 174.46 V2 35.255
RC 84.985 GL 15.64 GP -31.91 ZAL 157.82 ZAP 99.38 ETS 350.96 ZAE 140.30 ETE 234.37 ZAC 66.44 ETC 255.76 CLP-101.07

PLANETOCENTRIC CONIC

C3 44.483 VHL 6.670 DLA 2.15 RAL 216.26 RAD 6568.7 VEL 12.878 PTH 2.35 VHP 4.501 DPA -42.01 RAP 203.20 ECC 1.7321

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 14 33	2479.67	-24.99	59.00	92.17	103.76	0 55 53	1879.7	-22.85	50.98
90.00	12 44 24	4990.65	22.54	218.98	90.62	72.39	14 7 35	4390.7	19.92	211.28
100.00	1 36 54	2214.08	-26.30	39.10	91.81	104.75	2 13 48	1614.1	-24.01	31.04
100.00	14 4 45	4731.48	23.82	199.46	90.17	71.38	15 23 36	4131.5	21.05	191.76
110.00	2 47 26	1993.30	-29.82	21.18	90.65	107.54	3 20 39	1393.3	-27.13	13.03
110.00	15 10 42	4525.03	27.26	182.40	88.78	68.53	16 26 7	3925.0	24.10	174.66

DIFFERENTIAL CORRECTIONS
TDE .6904 TRA-1.0169 TC3 -.5159 BAU .4054
RDE -.0389 RRA -.2685 RC3 -.4455 FAU .09768
FDE 1.7952 FRA -.8409 FC3-1.9011 BSP 3716
BDE .6915 BRA 1.0517 BC3 .6817 FSP -809

MID-COURSE EXECUTION ACCURACY
SGT 1260.8 SGR 638.4 SG3 263.9
RRT .7342 RRF .8319 RTF .8547
SGB 1413.2 R23 .1941 R13 .8851
SG1 1354.4 SG2 403.5 THA 22.50

ORBIT DETERMINATION ACCURACY
ST 648.8 SR 78.9 SS 606.4
CRT -.0254 CRS .2859 CST -.9619
LSA 879.7 MSA 143.8 SSA 19.5
EL1 648.8 EL2 78.9 ALF 179.82

LAUNCH DATE OCT 11 1970 FLIGHT TIME 90.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 270.606

RL 149.34 LAL -.00 LOL 17.27 VL 28.852 GAL -13.18 AZL 86.09 HCA 126.62 SMA 140.45 ECC .23618 INC 3.9104 V1 29.836
RP 107.50 LAP 3.14 LOP 143.95 VP 39.042 GAP 1.59 AZP 92.34 TAL 241.69 TAP 8.32 RCA 107.28 APO 173.62 V2 35.253
RC 87.241 GL 16.80 GP -32.80 ZAL 156.59 ZAP 103.02 ETS 348.32 ZAE 138.04 ETE 230.97 ZAC 65.37 ETC 255.51 CLP-105.54

PLANETOCENTRIC CONIC

C3 43.918 VHL 6.627 DLA 3.06 RAL 217.19 RAD 6568.7 VEL 12.856 PTH 2.34 VHP 4.564 DPA -42.30 RAP 201.40 ECC 1.7228

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 11 28	2504.78	-25.39	60.73	93.24	102.98	0 53 13	1904.8	-23.35	52.65
90.00	12 54 54	4959.11	21.87	216.90	91.05	71.56	14 17 33	4359.1	19.15	209.29
100.00	1 34 14	2237.81	-26.70	40.75	92.89	103.97	2 11 32	1637.8	-24.51	32.63
100.00	14 14 49	4701.32	23.15	197.47	90.57	70.54	15 33 10	4101.3	20.28	189.85
110.00	2 45 46	2013.97	-30.23	22.65	91.79	106.77	3 19 19	1414.0	-27.64	14.42
110.00	15 19 47	4497.93	26.57	180.60	89.13	67.66	16 34 45	3897.9	23.31	172.96

DIFFERENTIAL CORRECTIONS
TDE .7741 TRA-1.0695 TC3 -.5898 BAU .4365
RDE -.0162 RRA -.2464 RC3 -.4525 FAU .09455
FDE 1.7860 FRA -.7723 FC3-1.8637 BSP 4110
BDE .7742 BRA 1.0975 BC3 .7434 FSP -802

MID-COURSE EXECUTION ACCURACY
SGT 1384.3 SGR 636.8 SG3 258.2
RRT .7454 RRF .8421 RTF .8661
SGB 1523.8 R23 .2056 R13 .8915
SG1 1470.4 SG2 399.6 THA 20.51

ORBIT DETERMINATION ACCURACY
ST 725.0 SR 67.9 SS 614.7
CRT .1787 CRS .0709 CST -.9652
LSA 942.4 MSA 139.7 SSA 19.1
EL1 725.1 EL2 66.8 ALF .97

LAUNCH DATE OCT 11 1970 FLIGHT TIME 92.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 276.847

RL 149.34 LAL -.00 LOL 17.27 VL 28.793 GAL -13.01 AZL 85.82 HCA 129.86 SMA 139.95 ECC .23437 INC 4.1782 V1 29.836
RP 107.51 LAP 3.21 LOP 147.21 VP 38.996 GAP 2.02 AZP 92.68 TAL 240.80 TAP 10.67 RCA 107.15 APO 172.76 V2 35.249
RC 89.506 GL 18.07 GP -33.74 ZAL 155.25 ZAP 106.35 ETS 345.61 ZAE 135.77 ETE 228.08 ZAC 64.28 ETC 255.27 CLP-109.78

PLANETOCENTRIC CONIC

C3 43.420 VHL 6.589 DLA 4.05 RAL 218.21 RAD 6568.6 VEL 12.837 PTH 2.34 VHP 4.648 DPA -42.72 RAP 199.80 ECC 1.7146

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 8 7	2532.77	-25.80	62.68	94.46	102.09	0 50 19	1932.8	-23.88	54.53
90.00	13 6 21	4925.39	21.13	214.71	91.58	70.70	14 28 26	4325.4	18.31	207.17
100.00	1 31 21	2264.28	-27.12	42.60	94.13	103.08	2 9 5	1664.3	-25.05	34.41
100.00	14 25 48	4669.10	22.40	195.37	91.09	69.67	15 43 37	4069.1	19.43	187.83
110.00	2 43 57	2037.08	-30.68	24.30	93.08	105.88	3 17 54	1437.1	-28.19	15.99
110.00	15 29 41	4469.07	25.81	178.70	89.60	66.77	16 44 10	3869.1	22.44	171.16

DIFFERENTIAL CORRECTIONS
TDE .8643 TRA-1.1189 TC3 -.6621 BAU .4669
RDE .0066 RRA -.2212 RC3 -.4567 FAU .09068
FDE 1.7688 FRA -.6967 FC3-1.8080 BSP 4504
BDE .8643 BRA 1.1405 BC3 .8043 FSP -785

MID-COURSE EXECUTION ACCURACY
SGT 1509.1 SGR 632.0 SG3 250.6
RRT .7523 RRF .8511 RTF .8744
SGB 1636.1 R23 .2187 R13 .8960
SG1 1587.5 SG2 395.8 THA 18.69

ORBIT DETERMINATION ACCURACY
ST 806.9 SR 60.9 SS 622.6
CRT .4421 CRS -.2189 CST -.9680
LSA 1011.8 MSA 135.6 SSA 18.6
EL1 807.3 EL2 54.6 ALF 1.92

LAUNCH DATE OCT 11 1970 FLIGHT TIME 94.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 283.057

RL	149.34	LAL	-.00	LOL	17.27	VL	28.732	GAL	-12.83	AZL	85.53	HCA	133.10	SMA	139.44	ECC	.23260	INC	4.4725
RP	107.52	LAP	3.26	LOP	150.46	VP	38.947	GAP	2.43	AZP	93.06	TAL	239.84	TAP	12.95	RCA	107.00	APO	171.87
RC	91.778	GL	19.46	GP	-34.76	ZAL	153.79	ZAP	109.35	ETS	342.80	ZAE	133.51	ETE	225.64	ZAC	63.15	ETC	255.04

V1	29.836	V2	35.245	CLP	-113.78														

PLANETOCENTRIC CONIC

C3	43.008	VHL	6.558	DLA	5.13	RAL	219.31	RAD	6568.6	VEL	12.821	PTH	2.33	VHP	4.752	DPA	-43.31	RAP	198.37
ECC	1.7078																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 4 20	2564.37	-26.23	64.89	95.86	101.06	0 47 5	1964.4	-24.44	56.68
90.00	13 18 56	4888.99	20.29	212.37	92.25	69.82	14 40 25	4289.0	17.36	204.92
100.00	1 28 6	2294.20	-27.56	44.71	95.56	102.05	2 6 20	1694.2	-25.62	36.45
100.00	14 37 52	4634.39	21.56	193.13	91.73	68.78	15 55 6	4034.4	18.49	185.69
110.00	2 41 53	2063.26	-31.15	26.20	94.57	104.85	3 16 17	1463.3	-28.80	17.79
110.00	15 40 34	4438.09	24.96	176.69	90.19	65.85	16 54 32	3838.1	21.49	169.26

DIFFERENTIAL CORRECTIONS

TDE	.9821	TRA	-1.1644	TC3	-.7316	BAU	.4963
RDE	.0298	RRA	-.1931	RC3	-.4581	FAU	.08624
FDE	1.7452	FRA	-.6168	FC3	-1.7360	BSP	4893
BDE	.9628	BRA	1.1803	BC3	.8631	FSP	-761

MID-COURSE EXECUTION ACCURACY

SGT	1634.1	SGR	624.8	SG3	241.3		
RRT	.7555	RRF	.8592	RTF	.8805		
SGB	1749.5	R23	.2333	R13	.8991		
SG1	1705.0	SG2	392.3	THA	17.04		

ORBIT DETERMINATION ACCURACY

ST	895.1	SR	59.9	SS	630.2
CRT	.7083	CRS	-.5348	CST	-.9705
LSA	1088.3	MSA	131.8	SSA	17.8
EL1	896.2	EL2	42.2	ALF	2.72

LAUNCH DATE OCT 11 1970 FLIGHT TIME 96.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 289.235

RL	149.34	LAL	-.00	LOL	17.27	VL	28.668	GAL	-12.64	AZL	85.20	HCA	136.34	SMA	138.90	ECC	.23087	INC	4.7995
RP	107.53	LAP	3.31	LOP	153.71	VP	38.896	GAP	2.83	AZP	93.48	TAL	238.83	TAP	15.17	RCA	106.83	APO	170.97
RC	94.056	GL	20.99	GP	-35.91	ZAL	152.17	ZAP	112.01	ETS	339.87	ZAE	131.25	ETE	223.61	ZAC	61.94	ETC	254.82

V1	29.836	V2	35.240	CLP	-117.56														

PLANETOCENTRIC CONIC

C3	42.711	VHL	6.535	DLA	6.34	RAL	220.52	RAD	6568.6	VEL	12.809	PTH	2.33	VHP	4.878	DPA	-44.08	RAP	197.05
ECC	1.7029																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 0 0	2600.52	-26.68	67.44	97.47	99.86	0 43 20	2000.5	-25.05	59.15
90.00	13 32 54	4849.33	19.34	209.85	93.06	68.91	14 53 43	4249.3	16.30	202.49
100.00	1 24 21	2328.45	-28.03	47.15	97.20	100.85	2 3 9	1728.4	-26.24	38.81
100.00	14 51 14	4596.64	20.61	190.73	92.52	67.86	16 7 50	3996.6	17.43	183.38
110.00	2 39 29	2093.30	-31.65	28.40	96.29	103.64	3 14 22	1493.3	-29.45	19.88
110.00	15 52 35	4404.55	24.01	174.55	90.92	64.91	17 6 0	3804.6	20.43	167.24

DIFFERENTIAL CORRECTIONS

TDE	1.0690	TRA	-1.2057	TC3	-.7974	BAU	.5248
RDE	.0533	RRA	-.1824	RC3	-.4570	FAU	.08140
FDE	1.7164	FRA	-.5358	FC3	-1.6499	BSP	5288
BDE	1.0703	BRA	1.2165	BC3	.9190	FSP	-734

MID-COURSE EXECUTION ACCURACY

SGT	1759.4	SGR	616.0	SG3	230.8		
RRT	.7554	RRF	.8665	RTF	.8851		
SGB	1864.1	R23	.2491	R13	.9014		
SG1	1823.0	SG2	389.6	THA	15.54		

ORBIT DETERMINATION ACCURACY

ST	990.5	SR	66.0	SS	637.6
CRT	.8888	CRS	-.7775	CST	-.9727
LSA	1172.7	MSA	128.5	SSA	16.9
EL1	992.2	EL2	30.2	ALF	3.39

LAUNCH DATE OCT 11 1970 FLIGHT TIME 98.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 295.385

RL	149.34	LAL	-.00	LOL	17.27	VL	28.602	GAL	-12.45	AZL	84.83	HCA	139.57	SMA	138.35	ECC	.22919	INC	5.1677
RP	107.55	LAP	3.35	LOP	156.96	VP	38.842	GAP	3.21	AZP	93.94	TAL	237.76	TAP	17.33	RCA	106.64	APO	170.06
RC	96.339	GL	22.68	GP	-37.22	ZAL	150.38	ZAP	114.30	ETS	336.79	ZAE	128.97	ETE	221.93	ZAC	60.60	ETC	254.58

V1	29.836	V2	35.235	CLP	-121.12														

PLANETOCENTRIC CONIC

C3	42.565	VHL	6.524	DLA	7.68	RAL	221.83	RAD	6568.6	VEL	12.804	PTH	2.33	VHP	5.027	DPA	-45.08	RAP	195.81
ECC	1.7005																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 50 56	2642.42	-27.13	70.42	99.35	98.43	24 34 59	2042.4	-25.69	62.05
90.00	13 48 32	4805.71	18.25	207.11	94.06	67.97	15 8 38	4205.7	15.10	199.85
100.00	1 19 54	2368.15	-28.50	50.01	99.11	99.41	1 59 22	1768.2	-26.91	41.57
100.00	15 6 11	4585.22	19.53	188.13	93.50	66.91	16 22 6	3955.2	16.24	180.89
110.00	2 36 35	2128.18	-32.18	30.98	98.29	102.20	3 12 3	1528.2	-30.17	22.34
110.00	16 5 59	4367.95	22.94	172.25	91.83	63.93	17 18 47	3768.0	19.25	165.06

DIFFERENTIAL CORRECTIONS

TDE	1.1882	TRA	-1.2409	TC3	-.8568	BAU	.5513
RDE	.0782	RRA	-.1278	RC3	-.4522	FAU	.07606
FDE	1.6870	FRA	-.4508	FC3	-1.5469	BSP	5655
BDE	1.1908	BRA	1.2474	BC3	.9689	FSP	-696

MID-COURSE EXECUTION ACCURACY

SGT	1883.6	SGR	604.8	SG3	219.1		
RRT	.7514	RRF	.8726	RTF	.8882		
SGB	1978.3	R23	.2660	R13	.9027		
SG1	1940.0	SG2	387.5	THA	14.14		

ORBIT DETERMINATION ACCURACY

ST	1094.9	SR	78.6	SS	646.1
CRT	.9693	CRS	-.9136	CST	-.9747
LSA	1267.4	MSA	126.0	SSA	15.8
EL1	1097.6	EL2	19.3	ALF	3.98

LAUNCH DATE OCT 11 1970 FLIGHT TIME 100.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 301.506

RL	149.34	LAL	-.00	LOL	17.27	VL	28.533	GAL	-12.26	AZL	84.41	HCA	142.81	SMA	137.79	ECC	.22755	INC	5.5880
RP	107.57	LAP	3.37	LOP	160.20	VP	38.786	GAP	3.57	AZP	94.46	TAL	236.63	TAP	19.44	RCA	106.43	APO	169.14
RC	98.624	GL	24.57	GP	-38.74	ZAL	148.40	ZAP	116.22	ETS	333.53	ZAE	126.67	ETE	220.54	ZAC	59.10	ETC	254.32

V1	29.836	V2	35.229	CLP	-124.49														

PLANETOCENTRIC CONIC

C3	42.627	VHL	6.529	DLA	9.20	RAL	223.28	RAD	6568.6	VEL	12.806	PTH	2.33	VHP	5.203	DPA	-46.32	RAP	194.55
ECC	1.7015																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 44 46	2691.64	-27.58	73.96	101.54	96.71	24 29 37	2091.6	-26.36	65.50
90.00	14 6 14	4757.22	16.99	204.12	95.30	67.00	15 25 31	4157.2	13.73	196.96
100.00	1 14 32	2414.79	-28.97	53.40	101.34	97.69	1 54 47	1814.8	-27.61	44.86
100.00	15 23 4	4509.31	18.28	185.30	94.71	65.93	16 38 14	3909.3	14.87	178.16
110.00	2 33 1	2169.18	-32.73	34.05	100.64	100.46	3 9 10	1569.2	-30.94	25.28
110.00	16 21 5	4327.68	21.71	169.77	92.96	62.92	17 33 12	3727.7	17.91	162.70

DIFFERENTIAL CORRECTIONS

TDE	1.3225	TRA	-1.2703	TC3	-.9087	BAU	.5764
RDE	.1037	RRA	-.0899	RC3	-.4441	FAU	.07044
FDE	1.6552	FRA	-.3673	FC3	-1.4306	BSP	6019
BDE	1.3265	BRA	1.2735	BC3	1.0115	FSP	-655

MID-COURSE EXECUTION ACCURACY

SGT	2007.5	SGR	592.4	SG3	206.4		
RRT	.7433	RRF	.8773	RTF	.8907		
SGB	2093.1	R23	.2835	R13	.9036		
SG1	2057.1	SG2	386.8	THA	12.83		

ORBIT DETERMINATION ACCURACY

ST	1209.5	SR	95.7	SS	654.9
CRT	.9879	CRS	-.9719	CST	-.9766
LSA	1373.1	MSA	124.4	SSA	14.5
EL1	1213.2	EL2	14.8	ALF	4.47

LAUNCH DATE OCT 11 1970 FLIGHT TIME 102.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 307.600

```
RL  149.34 LAL   -.00 LOL  17.27 VL  28.463 GAL -12.05 AZL  83.92 HCA 146.04 SMA 137.22 ECC .22596 INC 6.0757 V1  29.836
RP  107.59 LAP   3.39 LOP 163.45 VP  38.728 GAP   3.91 AZP  95.04 TAL 235.46 TAP  21.50 RCA 106.21 APO 168.22 V2  35.222
RC 100.910 GL   26.71 GP  -40.51 ZAL 146.18 ZAP 117.71 ETS 330.06 ZAE 124.29 ETE 219.40 ZAC  57.37 ETC 254.00 CLP-127.71
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PLANETOCENTRIC CONIC

```
C3  42.977 VHL  6.556 DLA  10.92 RAL 224.87 RAD 6568.6 VEL 12.820 PTH   2.33 VHP  5.413 DPA -47.84 RAP 193.18 ECC 1.7073
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 37 9	2750.28	-27.97	78.20	104.12	94.61	24 23 0	2150.3	-27.04	69.66
90.00	14 26 32	4702.71	15.51	200.80	96.84	66.01	15 44 55	4102.7	12.13	193.74
100.00	1 7 54	2470.30	-29.41	57.46	103.98	95.59	1 49 4	1870.3	-28.33	48.83
100.00	15 42 24	4457.92	16.82	182.18	96.22	64.92	16 56 42	3857.9	13.31	175.15
110.00	2 28 32	2217.96	-33.27	37.75	103.42	98.33	3 5 30	1618.0	-31.77	28.85
110.00	16 38 15	4283.02	20.30	167.07	94.38	61.89	17 49 38	3683.0	16.39	160.14

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE 1.4741 TRA-1.2949 TC3 -.9525 BAU  .6012    SGT 2132.6 SGR  580.7 SG3  193.1    ST  1334.5 SR   113.8 SS   662.0
RDE  .1279 RRA -.0494 RC3 -.4333 FAU .06484    RRT  .7301 RRF  .8801 RTF  .8933   CRT  .9822 CRS -.9916 CST -.9786
FDE 1.6162 FRA -.2917 FC3-1.3062 BSP   6443   SGB 2210.3 R23  .3004 R13  .9049   LSA 1488.9 MSA  123.0 SSA   13.1
BDE 1.4797 BRA 1.2959 BC3 1.0465 FSP   -623   SG1 2175.8 SG2  388.9 THA  11.62   EL1 1339.2 EL2   21.3 ALF   4.79
```

LAUNCH DATE OCT 11 1970 FLIGHT TIME 104.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 313.667

```
RL  149.34 LAL   -.00 LOL  17.27 VL  28.391 GAL -11.84 AZL  83.35 HCA 149.26 SMA 136.64 ECC .22442 INC 6.6522 V1  29.836
RP  107.61 LAP   3.39 LOP 166.70 VP  38.669 GAP   4.25 AZP  95.72 TAL 234.25 TAP  23.51 RCA 105.98 APO 167.31 V2  35.215
RC 103.196 GL   29.13 GP  -42.61 ZAL 143.68 ZAP 118.75 ETS 326.32 ZAE 121.79 ETE 218.45 ZAC  55.36 ETC 253.61 CLP-130.80
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PLANETOCENTRIC CONIC

```
C3  43.735 VHL  6.613 DLA  12.90 RAL 226.64 RAD 6568.7 VEL 12.849 PTH   2.34 VHP  5.666 DPA -49.64 RAP 191.57 ECC 1.7198
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 27 36	2821.24	-28.25	83.38	107.20	92.04	24 14 37	2221.2	-27.67	74.76
90.00	14 50 13	4640.55	13.75	197.08	98.80	65.00	16 7 34	4040.5	10.27	190.13
100.00	0 59 33	2537.37	-29.75	62.42	107.12	93.01	1 41 50	1937.4	-29.02	53.69
100.00	16 4 53	4399.66	15.11	178.70	98.13	63.90	17 18 12	3799.7	11.48	171.79
110.00	2 22 50	2276.75	-33.76	42.27	106.76	95.70	3 0 47	1676.8	-32.61	33.23
110.00	16 58 5	4233.04	18.67	164.11	96.18	60.83	18 8 38	3633.0	14.64	157.31

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE 1.6526 TRA-1.3111 TC3 -.9822 BAU  .6238    SGT 2257.3 SGR  566.5 SG3  178.8    ST  1474.3 SR   132.5 SS   670.0
RDE  .1518 RRA -.0030 RC3 -.4166 FAU .05891    RRT  .7094 RRF  .8785 RTF  .8958   CRT  .9682 CRS -.9952 CST -.9806
FDE 1.5775 FRA -.2171 FC3-1.1662 BSP   6855   SGB 2327.3 R23  .3165 R13  .9062   LSA 1620.2 MSA  122.8 SSA   11.6
BDE 1.6595 BRA 1.3111 BC3 1.0669 FSP   -586   SG1 2293.9 SG2  392.9 THA  10.40   EL1 1479.9 EL2   33.0 ALF   4.98
```

LAUNCH DATE OCT 11 1970 FLIGHT TIME 106.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 319.709

```
RL  149.34 LAL   -.00 LOL  17.27 VL  28.319 GAL -11.62 AZL  82.65 HCA 152.48 SMA 136.06 ECC .22294 INC 7.3491 V1  29.836
RP  107.64 LAP   3.39 LOP 169.94 VP  38.608 GAP   4.56 AZP  96.53 TAL 232.99 TAP  25.47 RCA 105.73 APO 166.40 V2  35.207
RC 105.482 GL   31.90 GP  -45.09 ZAL 140.84 ZAP 119.27 ETS 322.26 ZAE 119.11 ETE 217.61 ZAC  52.97 ETC 253.10 CLP-133.82
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PLANETOCENTRIC CONIC

```
C3  45.093 VHL  6.715 DLA  15.18 RAL 228.63 RAD 6568.7 VEL 12.902 PTH   2.35 VHP  5.979 DPA -51.77 RAP 189.52 ECC 1.7421
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 15 15	2908.76	-28.29	89.78	110.87	88.83	24 3 44	2308.8	-28.16	81.11
90.00	15 18 26	4568.42	11.64	192.84	101.33	64.00	16 34 35	3968.4	8.05	186.00
100.00	0 48 47	2619.79	-29.89	68.54	110.89	89.79	1 32 27	2019.8	-29.60	59.75
100.00	16 31 31	4332.62	13.06	174.77	100.60	62.87	17 43 44	3732.6	9.32	167.98
110.00	2 15 27	2348.63	-34.11	47.86	110.79	92.41	2 54 36	1748.6	-33.40	38.69
110.00	17 21 20	4176.54	16.76	160.84	98.51	59.76	18 30 57	3576.5	12.62	154.18

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE 1.8685 TRA-1.3162 TC3 -.9922 BAU  .6431    SGT 2381.5 SGR  548.4 SG3  163.5    ST  1632.5 SR   149.5 SS   679.2
RDE  .1735 RRA  .0519 RC3 -.3917 FAU .05261    RRT  .6766 RRF  .8693 RTF  .8985   CRT  .9498 CRS -.9898 CST -.9826
FDE 1.5394 FRA -.1437 FC3-1.0101 BSP   7243   SGB 2443.9 R23  .3311 R13  .9076   LSA 1770.1 MSA  123.8 SSA   10.0
BDE 1.8766 BRA 1.3173 BC3 1.0667 FSP   -540   SG1 2411.1 SG2  398.9 THA   9.11   EL1 1638.7 EL2   46.6 ALF   4.98
```

LAUNCH DATE OCT 11 1970 FLIGHT TIME 108.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 325.726

```
RL  149.34 LAL   -.00 LOL  17.27 VL  28.245 GAL -11.39 AZL  81.79 HCA 155.70 SMA 135.48 ECC .22150 INC 8.2142 V1  29.836
RP  107.66 LAP   3.37 LOP 173.19 VP  38.546 GAP   4.87 AZP  97.50 TAL 231.69 TAP  27.39 RCA 105.48 APO 165.49 V2  35.198
RC 107.765 GL   35.08 GP  -48.05 ZAL 137.60 ZAP 119.20 ETS 317.83 ZAE 116.15 ETE 216.79 ZAC  50.13 ETC 252.39 CLP-136.87
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PLANETOCENTRIC CONIC

```
C3  47.371 VHL  6.883 DLA  17.83 RAL 230.90 RAD 6568.8 VEL 12.990 PTH   2.37 VHP  6.379 DPA -54.21 RAP 186.74 ECC 1.7796
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 58 44	3019.38	-27.88	97.84	115.25	84.81	23 49 3	2419.4	-28.30	89.20
90.00	15 53 3	4482.53	9.03	187.88	104.69	63.05	17 7 45	3882.5	5.34	181.14
100.00	0 34 29	2723.28	-29.62	76.22	115.41	85.76	1 19 52	2123.3	-29.89	67.43
100.00	17 3 54	4253.92	10.58	170.25	103.87	61.88	18 14 48	3653.9	6.74	163.57
110.00	2 5 41	2437.94	-34.15	54.83	115.69	88.28	2 46 19	1837.9	-34.01	45.59
110.00	17 49 12	4111.97	14.52	157.19	101.57	58.71	18 57 44	3512.0	10.27	150.66

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE 2.1375 TRA-1.3072 TC3 -.9763 BAU  .6582    SGT 2505.8 SGR  525.1 SG3  147.2    ST  1812.6 SR   160.2 SS   688.8
RDE  .1880 RRA  .1184 RC3 -.3563 FAU .04598    RRT  .6226 RRF  .8452 RTF  .9020   CRT  .9242 CRS -.9758 CST -.9847
FDE 1.5005 FRA -.0737 FC3 -.8404 BSP   7611   SGB 2560.2 R23  .3428 R13  .9097   LSA 1941.5 MSA  126.0 SSA    8.3
BDE 2.1457 BRA 1.3125 BC3 1.0393 FSP   -488   SG1 2527.6 SG2  407.4 THA   7.63   EL1 1818.6 EL2   61.0 ALF   4.67
```

LAUNCH DATE OCT 11 1970 FLIGHT TIME 110.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 331.716

RL	149.34	LAL	-.00	LOL	17.27	VL	28.171	GAL	-11.15	AZL	80.68	HCA	158.91	SMA	134.91	ECC	.22010
INC	9.3242	V1	29.836	RP	107.69	LAP	3.34	LOP	176.43	VP	38.483	GAP	5.16	AZP	98.71	TAL	230.36
TAP	29.26	RCA	105.21	APO	164.60	V2	35.189	RC	110.046	GL	38.77	GP	-51.60	ZAL	133.84	ZAP	118.45
ETS	312.90	ZAE	112.81	ETE	215.78	ZAC	46.70	ETC	251.36	CLP	-140.07						

PLANETOCENTRIC CONIC

C3	51.136	VHL	7.151	DLA	20.90	RAL	233.53	RAD	6568.9	VEL	13.134	PTH	2.40	VHP	6.908	DPA	-56.95
RAP	182.74	ECC	1.8416														

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 35 22	3164.53	-26.54	108.25	120.40	79.76	23 28 6	2564.5	-27.69	99.77
90.00	16 37 26	4375.57	5.68	181.80	109.30	62.21	17 50 22	3775.6	1.91	175.15
100.00	0 14 36	2857.19	-28.54	86.02	120.79	80.71	1 2 14	2257.2	-29.53	77.36
100.00	17 44 49	4158.14	7.46	164.85	108.33	60.97	18 54 7	3558.1	3.53	158.27
110.00	1 52 26	2551.10	-33.57	63.61	121.62	83.12	2 34 57	1951.1	-34.15	54.42
110.00	18 23 28	4036.98	11.82	153.04	105.70	57.69	19 30 45	3437.0	7.48	146.65

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.4918	TRA	-1.2712	TC3	-.9204	BAU	.6627	SGT	2628.2	SGR	492.8	SG3	129.8	ST	2023.5	SR	159.5
SS	702.2	RDE	.1871	RRA	.2057	RC3	-.3042	FAU	.03864	RRT	.5248	RRF	.7876	RTF	.9064	CRT	.8753
CRS	-.9415	CST	-.9869	FDE	1.4679	FRA	-.0004	FC3	-.6541	BSP	7771	SGB	2674.0	R23	.3519	R13	.9121
LSA	2143.8	MSA	130.5	SSA	6.7	BDE	2.4988	BRA	1.2877	BC3	.9694	FSP	-414	SG1	2641.2	SG2	417.4
THA	5.76	EL1	2028.3	EL2	77.0	ALF	3.95										

LAUNCH DATE OCT 11 1970 FLIGHT TIME 112.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 337.676

RL	149.34	LAL	-.00	LOL	17.27	VL	28.096	GAL	-10.91	AZL	79.19	HCA	162.10	SMA	134.33	ECC	.21876
INC	10.8099	V1	29.836	RP	107.72	LAP	3.30	LOP	179.67	VP	38.420	GAP	5.43	AZP	100.30	TAL	228.99
TAP	31.09	RCA	104.94	APO	163.72	V2	35.179	RC	112.324	GL	43.03	GP	-55.84	ZAL	129.48	ZAP	116.91
ETS	307.24	ZAE	108.94	ETE	214.27	ZAC	42.54	ETC	249.77	CLP	-143.71						

PLANETOCENTRIC CONIC

C3	57.487	VHL	7.582	DLA	24.46	RAL	236.67	RAD	6569.0	VEL	13.373	PTH	2.44	VHP	7.646	DPA	-59.84
RAP	176.80	ECC	1.9461														

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	21 58 13	3369.95	-23.28	122.39	126.10	73.41	22 54 23	2769.9	-25.33	114.32
90.00	17 39 36	4227.97	.94	173.54	116.00	61.70	18 50 4	3628.0	-2.85	166.91
100.00	23 40 37	3039.79	-25.85	98.92	126.91	74.45	24 31 17	2439.8	-27.74	90.62
100.00	18 39 53	4033.36	3.28	157.94	114.70	60.27	19 47 6	3433.4	-.70	151.42
110.00	1 33 43	2698.26	-31.81	74.72	128.66	76.77	2 18 41	2098.3	-33.30	65.81
110.00	19 7 13	3947.66	8.53	148.22	111.47	56.77	20 13 0	3347.7	4.10	141.94

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.9464	TRA	-1.2214	TC3	-.8342	BAU	.6679	SGT	2754.3	SGR	460.1	SG3	111.9	ST	2247.6	SR	125.3
SS	705.5	RDE	.1302	RRA	.3085	RC3	-.2436	FAU	.03205	RRT	.3366	RRF	.6456	RTF	.9158	CRT	.6962
CRS	-.7929	CST	-.9894	FDE	1.4128	FRA	.0436	FC3	-.4827	BSP	8386	SGB	2792.4	R23	.3499	R13	.9190
LSA	2355.3	MSA	132.1	SSA	5.4	BDE	2.9493	BRA	1.2598	BC3	.8690	FSP	-382	SG1	2758.7	SG2	432.6
THA	3.30	EL1	2249.3	EL2	89.9	ALF	2.23										

LAUNCH DATE OCT 11 1970 FLIGHT TIME 114.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 343.603

RL	149.34	LAL	-.00	LOL	17.27	VL	28.021	GAL	-10.65	AZL	77.09	HCA	165.28	SMA	133.76	ECC	.21744
INC	12.9135	V1	29.836	RP	107.75	LAP	3.26	LOP	182.90	VP	38.355	GAP	5.70	AZP	102.50	TAL	227.58
TAP	32.86	RCA	104.67	APO	162.85	V2	35.169	RC	114.599	GL	47.92	GP	-60.90	ZAL	124.39	ZAP	114.48
ETS	300.29	ZAE	104.33	ETE	211.55	ZAC	37.47	ETC	247.14	CLP	-148.42						

PLANETOCENTRIC CONIC

C3	68.756	VHL	8.292	DLA	28.50	RAL	240.53	RAD	6569.3	VEL	13.788	PTH	2.52	VHP	8.739	DPA	-62.53
RAP	167.75	ECC	2.1316														

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
86.62	19 36 7	3933.53	-11.32	158.47	128.91	63.67	20 41 41	3333.5	-14.77	151.48
93.38	20 32 31	3750.82	-11.31	145.09	128.90	63.66	21 35 2	3150.8	-14.75	138.10
100.00	22 42 7	3333.45	-19.10	118.09	132.65	66.56	23 37 41	2733.4	-22.11	110.58
100.00	20 9 12	3826.14	-3.73	146.56	124.84	60.32	21 12 58	3226.1	-7.66	139.97
110.00	1 5 7	2898.14	-27.81	88.89	136.49	69.27	1 53 25	2298.1	-30.37	80.63
110.00	20 6 38	3834.21	4.25	142.22	119.90	56.05	21 10 32	3234.2	-.23	136.01

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	3.5999	TRA	-1.1053	TC3	-.6872	BAU	.6488	SGT	2870.8	SGR	449.8	SG3	93.5	ST	2501.3	SR	112.7
SS	716.3	RDE	-.0445	RRA	.4583	RC3	-.1612	FAU	.02473	RRT	-.0659	RRF	.2769	RTF	.9286	CRT	-.3705
CRS	.2499	CST	-.9919	FDE	1.3724	FRA	.0914	FC3	-.3114	BSP	8737	SGB	2905.8	R23	-.3403	R13	-.9280
LSA	2600.7	MSA	136.6	SSA	4.1	BDE	3.6001	BRA	1.1966	BC3	.7058	FSP	-321	SG1	2870.9	SG2	448.8
THA	179.39	EL1	2501.7	EL2	104.7	ALF	179.04										

LAUNCH DATE OCT 11 1970 FLIGHT TIME 116.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 349.483

RL	149.34	LAL	-.00	LOL	17.27	VL	27.945	GAL	-10.38	AZL	73.86	HCA	168.43	SMA	133.19	ECC	.21613
INC	16.1351	V1	29.836	RP	107.79	LAP	3.20	LOP	186.14	VP	38.290	GAP	5.94	AZP	105.82	TAL	226.13
TAP	34.56	RCA	104.41	APO	161.98	V2	35.158	RC	116.871	GL	53.32	GP	-66.84	ZAL	118.47	ZAP	111.04
ETS	290.50	ZAE	98.66	ETE	205.86	ZAC	31.25	ETC	242.32	CLP	-155.92						

PLANETOCENTRIC CONIC

C3	90.717	VHL	9.525	DLA	32.88	RAL	245.49	RAD	6569.8	VEL	14.562	PTH	2.64	VHP	10.497	DPA	-64.19
RAP	154.32	ECC	2.4930														

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
72.56	18 10 27	4332.81	-10.68	187.91	138.54	58.72	19 22 40	3732.8	-14.75	181.26
107.44	22 37 44	3478.74	-10.66	124.46	138.53	58.72	23 35 43	2878.7	-14.73	117.82
72.56	18 10 27	4332.81	-10.68	187.91	138.54	58.72	19 22 40	3732.8	-14.75	181.26
107.44	22 37 44	3478.74	-10.66	124.46	138.53	58.72	23 35 43	2878.7	-14.73	117.82
110.00	0 9 0	3210.10	-18.75	108.55	143.39	60.88	1 2 30	2610.1	-22.49	101.41
110.00	21 42 18	3649.45	-2.80	132.58	133.46	55.92	22 43 7	3049.5	-7.26	126.32

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	4.5480	TRA	-.8637	TC3	-.4826	BAU	.5912	SGT	2951.8	SGR	607.0	SG3	75.7	ST	2742.3	SR	375.8
SS	737.3	RDE	-.5769	RRA	.6711	RC3	-.0685	FAU	.01734	RRT	-.6289	RRF	-.3672	RTF	.9485	CRT	-.9471
CRS	.9093	CST	-.9947	FDE	1.3506	FRA	.1319	FC3	-.1655	BSP	9104	SGB	3013.5	R23	-.3146	R13	-.9421
LSA	2860.9	MSA	142.2	SSA	2.9	BDE	4.5845	BRA	1.0937	BC3	.4874	FSP	-264	SG1	2977.0	SG2	467.9
THA	172.44	EL1	2765.4	EL2	119.6	ALF	172.59										

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LAUNCH DATE  OCT 11 1970                          FLIGHT TIME 118.00                          ARRIVAL DATE  FEB  6 1971

  HELIOCENTRIC CONIC                              DISTANCE 355.285
   RL  149.34 LAL   -.00 LOL  17.27 VL  27.870 GAL -10.09 AZL  68.32 HCA 171.51 SMA 132.63 ECC .21472 INC21.6831 V1  29.836
   RP  107.82 LAP   3.13 LOP 189.37 VP  38.225 GAP   6.16 AZP 111.47 TAL 224.62 TAP  36.13 RCA 104.15 APO 161.11 V2  35.147
   RC 119.138 GL   58.68 GP  -73.27 ZAL 111.70 ZAP 106.58 ETS 272.99 ZAE  91.30 ETE 192.09 ZAC  23.53 ETC 232.24 CLP-172.21
  PLANETOCENTRIC CONIC
   C3 140.828 VHL 11.867 DLA  36.96 RAL 252.17 RAD 6570.5 VEL 16.191 PTH   2.84 VHP 13.667 DPA -63.14 RAP 136.89 ECC 3.3177
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      65.18    17 54 11   4552.26      -8.28     203.56     151.03      53.85   19 10  4    3952.3      -12.94     197.36
     114.82    23 47 16   3438.68      -8.26     119.69     151.02      53.84   24 44 35    2838.7      -12.92     113.49
      65.18    17 54 11   4552.26      -8.28     203.56     151.03      53.85   19 10  4    3952.3      -12.94     197.36
     114.82    23 47 16   3438.68      -8.26     119.69     151.02      53.84   24 44 35    2838.7      -12.92     113.49
      65.18    17 54 11   4552.26      -8.28     203.56     151.03      53.85   19 10  4    3952.3      -12.94     197.36
     114.82    23 47 16   3438.68      -8.26     119.69     151.02      53.84   24 44 35    2838.7      -12.92     113.49
  DIFFERENTIAL CORRECTIONS                        MID-COURSE EXECUTION ACCURACY           ORBIT DETERMINATION ACCURACY
   TDE 5.7855 TRA -.2667 TC3 -.2287 BAU  .4305     SGT 2850.1 SGR 1241.5 SG3   60.4       ST  2793.7 SR  1124.1 SS   799.3
   RDE-2.3029 RRA  .9139 RC3  .0020 FAU .00948     RRT -.9037 RRF -.7972 RTF  .9770      CRT -.9915 CRS  .9807 CST -.9978
   FDE 1.4003 FRA  .1822 FC3 -.0583 BSP   9261     SGB 3108.7 R23 -.2633 R13 -.9619      LSA 3112.1 MSA  150.8 SSA    1.8
   BDE 6.2269 BRA  .9520 BC3  .2287 FSP   -207     SG1 3069.3 SG2  493.7 THA 157.91      EL1 3008.4 EL2  136.1 ALF 158.20

LAUNCH DATE  OCT 11 1970                          FLIGHT TIME 120.00                          ARRIVAL DATE  FEB  8 1971

  HELIOCENTRIC CONIC                              DISTANCE 360.907
   RL  149.34 LAL   -.00 LOL  17.27 VL  27.794 GAL  -9.76 AZL  56.80 HCA 174.43 SMA 132.08 ECC .21295 INC33.2013 V1  29.836
   RP  107.86 LAP   3.05 LOP 192.60 VP  38.160 GAP   6.32 AZP 123.08 TAL 223.02 TAP  37.45 RCA 103.95 APO 160.21 V2  35.136
   RC 121.402 GL   61.64 GP  -76.17 ZAL 104.32 ZAP 101.25 ETS 235.75 ZAE  80.61 ETE 158.13 ZAC  14.33 ETC 216.95 CLP 144.72
  PLANETOCENTRIC CONIC
   C3 290.538 VHL 17.045 DLA  38.61 RAL 261.47 RAD 6571.7 VEL 20.294 PTH   3.15 VHP 20.456 DPA -56.56 RAP 120.05 ECC 5.7815
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      62.57    18 18  9   4701.95      -3.91     212.48     166.58      51.55   19 36 30    4102.0       -8.85     206.56
     117.43     0 41 29   3511.74      -3.89     122.32     166.56      51.55    1 40  1    2911.7       -8.83     116.41
      62.57    18 18  9   4701.95      -3.91     212.48     166.58      51.55   19 36 30    4102.0       -8.85     206.56
     117.43     0 41 29   3511.74      -3.89     122.32     166.56      51.55    1 40  1    2911.7       -8.83     116.41
      62.57    18 18  9   4701.95      -3.91     212.48     166.58      51.55   19 36 30    4102.0       -8.85     206.56
     117.43     0 41 29   3511.74      -3.89     122.32     166.56      51.55    1 40  1    2911.7       -8.83     116.41
  DIFFERENTIAL CORRECTIONS                        MID-COURSE EXECUTION ACCURACY           ORBIT DETERMINATION ACCURACY
   TDE 5.3271 TRA 1.1276 TC3 -.0195 BAU  .2215     SGT 1856.4 SGR 2550.8 SG3   49.6       ST  1796.6 SR  2539.3 SS   990.3
   RDE-7.5528 RRA  .3853 RC3 -.0536 FAU-.00138     RRT -.9405 RRF -.9559 RTF  .9976      CRT -.9949 CRS  .9960 CST -.9999
   FDE 1.6629 FRA  .3035 FC3  .0041 BSP   9373     SGB 3154.8 R23 -.1755 R13 -.9834      LSA 3260.7 MSA  156.8 SSA    1.3
   BDE 9.2425 BRA 1.1916 BC3  .0570 FSP   -165     SG1 3112.1 SG2  516.9 THA 125.52      EL1 3107.1 EL2  147.6 ALF 125.23

LAUNCH DATE  OCT 11 1970                          FLIGHT TIME 122.00                          ARRIVAL DATE  FEB 10 1971

  HELIOCENTRIC CONIC                              DISTANCE 365.872
   RL  149.34 LAL   -.00 LOL  17.27 VL  27.719 GAL  -9.29 AZL  25.90 HCA 176.71 SMA 131.53 ECC .20958 INC64.0957 V1  29.836
   RP  107.89 LAP   2.96 LOP 195.83 VP  38.094 GAP   6.29 AZP 154.06 TAL 221.10 TAP  37.81 RCA 103.97 APO 159.10 V2  35.124
   RC 123.660 GL   53.33 GP  -61.77 ZAL  97.45 ZAP  95.97 ETS 196.18 ZAE  60.80 ETE 122.47 ZAC  17.58 ETC 255.76 CLP 102.69
  PLANETOCENTRIC CONIC
   C3 941.085 VHL 30.677 DLA  29.94 RAL 273.25 RAD 6572.9 VEL 32.594 PTH   3.49 VHP 38.085 DPA -38.27 RAP 110.56 ECC16.4879
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      79.83    20 52 18   4468.28        .10     191.68     183.45      60.06   22  6 46    3868.3       -3.88     185.15
     100.17    23 37 23   3935.88        .12     152.51     183.44      60.06   24 42 59    3335.9       -3.86     145.99
      79.83    20 52 18   4468.28        .10     191.68     183.45      60.06   22  6 46    3868.3       -3.88     185.15
     100.17    23 37 23   3935.88        .12     152.51     183.44      60.06   24 42 59    3335.9       -3.86     145.99
     110.00     2 55 57   3324.73     -14.83     115.12     192.29      58.84    3 51 22    2724.7      -18.85     108.31
     110.00    22 36 50   4127.43      15.06     158.05     174.60      58.94   23 45 37    3527.4       10.83     151.50
  DIFFERENTIAL CORRECTIONS                        MID-COURSE EXECUTION ACCURACY           ORBIT DETERMINATION ACCURACY
   TDE-1.3550 TRA 1.9724 TC3 -.0437 BAU 2.3140     SGT  562.7 SGR 2891.6 SG3   45.2       ST   283.5 SR  2587.8 SS  1499.1
   RD-13.8067 RRA-3.3129 RC3 -.1787 FAU-.03424     RRT  .3951 RRF -.9950 RTF -.3053      CRT  .8526 CRS  .9994 CST  .8335
   FDE 2.4220 FRA  .8328 FC3  .0315 BSP   8512     SGB 2945.8 R23 -.1095 R13 -.9935      LSA 3000.0 MSA  156.8 SSA    1.5
   BDE13.8730 BRA 3.8556 BC3  .1839 FSP   -140     SG1 2900.4 SG2  515.3 THA  85.46      EL1 2599.1 EL2  147.5 ALF  84.65

LAUNCH DATE  OCT 11 1970                          FLIGHT TIME 124.00                          ARRIVAL DATE  FEB 12 1971

  HELIOCENTRIC CONIC                              DISTANCE 375.236
   RL  149.34 LAL   -.00 LOL  17.27 VL  27.644 GAL  -9.73 AZL 148.03 HCA 183.37 SMA 131.00 ECC .21824 INC58.0262 V1  29.836
   RP  107.93 LAP   2.86 LOP 199.05 VP  38.028 GAP   7.53 AZP  32.02 TAL 221.04 TAP  44.41 RCA 102.41 APO 159.59 V2  35.112
   RC 125.912 GL  -55.37 GP   62.67 ZAL  98.55 ZAP  97.46 ETS 170.63 ZAE  69.76 ETE 244.75 ZAC 141.31 ETC 263.98 CLP 106.42
  PLANETOCENTRIC CONIC
   C3 788.957 VHL 28.088 DLA -78.77 RAL 276.12 RAD 6572.8 VEL 30.170 PTH   3.45 VHP 36.682 DPA  77.50 RAP 187.77 ECC13.9842
   LNCH AZMTH  LNCH TIME  L-I TIME    INJ LAT   INJ LONG  INJ RT ASC  INJ AZMTH  INJ TIME  PO CST TIM  INJ 2 LAT INJ 2 LONG
      12.78     4 53 42   2446.12        .39      83.02     186.03     168.77    5 34 28    1846.1        8.24      81.87
     167.22    16  2 50    651.68        .40     282.80     186.05     168.77   16 13 41      51.7        8.24     281.64
      12.78     4 53 42   2446.12        .39      83.02     186.03     168.77    5 34 28    1846.1        8.24      81.87
     167.22    16  2 50    651.68        .40     282.80     186.05     168.77   16 13 41      51.7        8.24     281.64
      12.78     4 53 42   2446.12        .39      83.02     186.03     168.77    5 34 28    1846.1        8.24      81.87
     167.22    16  2 50    651.68        .40     282.80     186.05     168.77   16 13 41      51.7        8.24     281.64
  DIFFERENTIAL CORRECTIONS                        MID-COURSE EXECUTION ACCURACY           ORBIT DETERMINATION ACCURACY
   TDE 3.6943 TRA  .3076 TC3 -.0584 BAU 1.9433     SGT  882.7 SGR 2927.7 SG3   48.7       ST   759.8 SR  2618.8 SS  1596.3
   RD-12.7679 RRA  .8667 RC3  .1748 FAU-.02615     RRT -.7707 RRF  .9974 RTF -.7306      CRT -.9733 CRS -.9998 CST  .9689
   FDE-2.4507 FRA  .1954 FC3  .0287 BSP   8830     SGB 3057.9 R23 -.1034 R13  .9938      LSA 3154.9 MSA  174.9 SSA    2.0
   BDE13.2916 BRA  .9197 BC3  .1842 FSP   -145     SG1 3008.5 SG2  547.3 THA 103.54      EL1 2721.6 EL2  168.0 ALF 105.83
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LAUNCH DATE OCT 11 1970 FLIGHT TIME 126.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 380.244

RL 149.34 LAL -.00 LOL 17.27 VL 27.570 GAL -9.26 AZL 118.84 HCA 185.71 SMA 130.47 ECC .21513 INC28.8381 V1 29.836
RP 107.97 LAP 2.75 LOP 202.27 VP 37.963 GAP 7.50 AZP 61.28 TAL 219.16 TAP 44.87 RCA 102.40 APO 158.54 V2 35.099
RC 128.158 GL -61.34 GP 74.12 ZAL 105.27 ZAP 103.70 ETS 119.45 ZAE 88.93 ETE 195.71 ZAC 158.00 ETC 232.52 CLP 149.96

PLANETOCENTRIC CONIC

C3 223.736 VHL 14.958 DLA -81.27 RAL 209.11 RAD 6571.3 VEL 18.576 PTH 3.05 VHP 19.981 DPA 64.84 RAP 239.58 ECC 4.6821

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
9.93	0 20 49	2328.76	8.53	83.66	117.78	171.17	0 59 38	1728.8	16.43	82.80
170.07	11 41 6	5815.26	8.53	258.59	117.81	171.17	13 18 1	5215.3	16.44	257.73
9.93	0 20 49	2328.76	8.53	83.66	117.78	171.17	0 59 38	1728.8	16.43	82.80
170.07	11 41 6	5815.26	8.53	258.59	117.81	171.17	13 18 1	5215.3	16.44	257.73
9.93	0 20 49	2328.76	8.53	83.66	117.78	171.17	0 59 38	1728.8	16.43	82.80
170.07	11 41 6	5815.26	8.53	258.59	117.81	171.17	13 18 1	5215.3	16.44	257.73

DIFFERENTIAL CORRECTIONS
TDE-4.0423 TRA -.6546 TC3 -.0468 BAU .1445
RDE-3.0973 RRA -.9119 RC3 .0121 FAU .00555
FDE-1.1662 FRA -.1098 FC3 -.0215 BSP 10623
BDE 5.0925 BRA 1.1225 BC3 .0483 FSP -185

MID-COURSE EXECUTION ACCURACY
SGT 2268.8 SGR 2589.8 SG3 56.9
RRT .9591 RRF .9565 RTF .9993
SGB 3443.0 R23 -.1689 R13 .9850
SG1 3408.3 SG2 488.0 THA 48.94

ORBIT DETERMINATION ACCURACY
ST 1625.8 SR 1372.7 SS 810.1
CRT .9765 CRS -.9768 CST-1.0000
LSA 2264.5 MSA 237.1 SSA 1.1
EL1 2115.7 EL2 227.4 ALF 40.06

LAUNCH DATE OCT 11 1970 FLIGHT TIME 128.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 385.825

RL 149.34 LAL -.00 LOL 17.27 VL 27.496 GAL -8.90 AZL 107.84 HCA 188.64 SMA 129.95 ECC .21375 INC17.8360 V1 29.836
RP 108.01 LAP 2.64 LOP 205.49 VP 37.898 GAP 7.64 AZP 72.35 TAL 217.48 TAP 46.12 RCA 102.17 APO 157.72 V2 35.086
RC 130.397 GL -56.68 GP 69.24 ZAL 112.18 ZAP 110.73 ETS 79.49 ZAE 99.39 ETE 157.94 ZAC 161.22 ETC 224.45 CLP-176.93

PLANETOCENTRIC CONIC

C3 99.143 VHL 9.957 DLA -74.33 RAL 206.35 RAD 6569.9 VEL 14.849 PTH 2.68 VHP 13.596 DPA 52.96 RAP 244.73 ECC 2.6316

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.87	0 25 33	2169.59	17.91	76.49	111.13	163.51	1 1 43	1569.6	25.57	74.40
162.13	11 14 20	5680.62	17.92	259.21	111.16	163.51	12 49 0	5080.6	25.57	257.12
17.87	0 25 33	2169.59	17.91	76.49	111.13	163.51	1 1 43	1569.6	25.57	74.40
162.13	11 14 20	5680.62	17.92	259.21	111.16	163.51	12 49 0	5080.6	25.57	257.12
17.87	0 25 33	2169.59	17.91	76.49	111.13	163.51	1 1 43	1569.6	25.57	74.40
162.13	11 14 20	5680.62	17.92	259.21	111.16	163.51	12 49 0	5080.6	25.57	257.12

DIFFERENTIAL CORRECTIONS
TDE-2.8015 TRA-1.4145 TC3 -.4340 BAU .5752
RDE .3052 RRA -.3288 RC3 -.0009 FAU .01712
FDE -.8670 FRA -.2740 FC3 -.1495 BSP 11153
BDE 2.8181 BRA 1.4522 BC3 .4340 FSP -234

MID-COURSE EXECUTION ACCURACY
SGT 3524.6 SGR 722.1 SG3 71.2
RRT .7185 RRF .5410 RTF .9715
SGB 3597.8 R23 -.2461 R13 .9666
SG1 3563.4 SG2 496.8 THA 8.54

ORBIT DETERMINATION ACCURACY
ST 1848.3 SR 273.8 SS 621.2
CRT -.1841 CRS .3510 CST -.9850
LSA 1948.1 MSA 286.8 SSA 2.0
EL1 1849.0 EL2 269.1 ALF 178.40

LAUNCH DATE OCT 11 1970 FLIGHT TIME 130.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 391.548

RL 149.34 LAL -.00 LOL 17.27 VL 27.423 GAL -8.57 AZL 102.47 HCA 191.71 SMA 129.44 ECC .21291 INC12.4698 V1 29.836
RP 108.05 LAP 2.51 LOP 208.71 VP 37.832 GAP 7.82 AZP 77.78 TAL 215.85 TAP 47.56 RCA 101.88 APO 156.99 V2 35.074
RC 132.627 GL -50.00 GP 61.64 ZAL 118.01 ZAP 117.46 ETS 68.03 ZAE 106.51 ETE 149.42 ZAC 157.91 ETC 236.90 CLP-186.14

PLANETOCENTRIC CONIC

C3 58.429 VHL 7.644 DLA -67.67 RAL 213.13 RAD 6569.1 VEL 13.408 PTH 2.45 VHP 10.665 DPA 43.45 RAP 245.68 ECC 1.9816

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
25.57	1 8 57	2027.81	24.78	67.26	112.19	155.26	1 42 44	1427.8	31.99	63.74
154.43	11 25 2	5578.07	24.79	258.00	112.21	155.25	12 58 0	4978.1	32.00	254.48
25.57	1 8 57	2027.81	24.78	67.26	112.19	155.26	1 42 44	1427.8	31.99	63.74
154.43	11 25 2	5578.07	24.79	258.00	112.21	155.25	12 58 0	4978.1	32.00	254.48
25.57	1 8 57	2027.81	24.78	67.26	112.19	155.26	1 42 44	1427.8	31.99	63.74
154.43	11 25 2	5578.07	24.79	258.00	112.21	155.25	12 58 0	4978.1	32.00	254.48

DIFFERENTIAL CORRECTIONS
TDE-2.1823 TRA-1.4941 TC3 -.9537 BAU .7498
RDE .5463 RRA -.0931 RC3 .1096 FAU .02479
FDE -.8380 FRA -.2897 FC3 -.3673 BSP 11483
BDE 2.2496 BRA 1.4970 BC3 .9599 FSP -290

MID-COURSE EXECUTION ACCURACY
SGT 3672.3 SGR 479.0 SG3 88.0
RRT -.2121 RRF -.5054 RTF .9442
SGB 3703.4 R23 .3088 R13 -.9453
SG1 3673.8 SG2 468.0 THA 178.39

ORBIT DETERMINATION ACCURACY
ST 1859.9 SR 413.2 SS 600.2
CRT -.8085 CRS .9210 CST -.9739
LSA 1979.7 MSA 266.4 SSA 2.9
EL1 1890.2 EL2 239.3 ALF 169.65

LAUNCH DATE OCT 11 1970 FLIGHT TIME 132.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 397.318

RL 149.34 LAL -.00 LOL 17.27 VL 27.350 GAL -8.24 AZL 99.33 HCA 194.84 SMA 128.94 ECC .21233 INC 9.3297 V1 29.836
RP 108.09 LAP 2.38 LOP 211.92 VP 37.768 GAP 8.02 AZP 80.98 TAL 214.22 TAP 49.07 RCA 101.56 APO 156.31 V2 35.061
RC 134.850 GL -45.44 GP 54.57 ZAL 122.45 ZAP 123.54 ETS 63.33 ZAE 111.75 ETE 148.19 ZAC 152.81 ETC 245.31 CLP-162.41

PLANETOCENTRIC CONIC

C3 40.732 VHL 6.382 DLA -61.65 RAL 219.37 RAD 6568.6 VEL 12.732 PTH 2.31 VHP 9.106 DPA 35.50 RAP 246.13 ECC 1.6703

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
32.65	1 50 13	1911.94	28.70	57.38	112.17	147.22	2 22 5	1311.9	35.32	52.50
147.35	11 33 30	5513.98	28.71	256.13	112.19	147.22	13 5 24	4914.0	35.33	251.25
32.65	1 50 13	1911.94	28.70	57.38	112.17	147.22	2 22 5	1311.9	35.32	52.50
147.35	11 33 30	5513.98	28.71	256.13	112.19	147.22	13 5 24	4914.0	35.33	251.25
32.65	1 50 13	1911.94	28.70	57.38	112.17	147.22	2 22 5	1311.9	35.32	52.50
147.35	11 33 30	5513.98	28.71	256.13	112.19	147.22	13 5 24	4914.0	35.33	251.25

DIFFERENTIAL CORRECTIONS
TDE-1.8111 TRA-1.4732 TC3-1.5186 BAU .8353
RDE .4994 RRA -.0277 RC3 .2157 FAU .03068
FDE -.7916 FRA -.2722 FC3 -.6520 BSP 11800
BDE 1.8787 BRA 1.4735 BC3 1.5339 FSP -344

MID-COURSE EXECUTION ACCURACY
SGT 3762.6 SGR 528.7 SG3 104.5
RRT -.5614 RRF -.8146 RTF .9234
SGB 3799.5 R23 .3494 R13 -.9267
SG1 3774.4 SG2 436.2 THA 175.43

ORBIT DETERMINATION ACCURACY
ST 1828.9 SR 448.7 SS 572.5
CRT -.8729 CRS .9691 CST -.9662
LSA 1952.4 MSA 249.4 SSA 4.0
EL1 1871.0 EL2 214.0 ALF 167.75

LAUNCH DATE OCT 11 1970 FLIGHT TIME 134.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 403.105

```
RL  149.34 LAL   -.00 LOL  17.27 VL  27.278 GAL  -7.91 AZL  97.27 HCA 198.00 SMA 128.44 ECC .21193 INC 7.2692 V1  29.836
RP  108.13 LAP   2.24 LOP 215.13 VP  37.703 GAP   8.21 AZP  83.08 TAL 212.59 TAP  50.59 RCA 101.22 APO 155.67 V2  35.047
RC 137.063 GL  -37.53 GP   48.43 ZAL 125.49 ZAP 128.88 ETS  60.58 ZAE 115.68 ETE 149.15 ZAC 147.76 ETC 250.22 CLP-161.11
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PLANETOCENTRIC CONIC

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C3  31.490 VHL  5.612 DLA -56.38 RAL 224.62 RAD 6568.3 VEL 12.364 PTH   2.23 VHP  8.203 DPA  28.77 RAP 246.69 ECC 1.5182
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.98	2 27 30	1816.02	30.45	47.86	111.59	140.03	2 57 46	1216.0	36.43	41.90
141.02	11 38 8	5479.99	30.46	254.53	111.61	140.03	13 9 28	4880.0	36.44	248.57
38.98	2 27 30	1816.02	30.45	47.86	111.59	140.03	2 57 46	1216.0	36.43	41.90
141.02	11 38 8	5479.99	30.46	254.53	111.61	140.03	13 9 28	4880.0	36.44	248.57
38.98	2 27 30	1816.02	30.45	47.86	111.59	140.03	2 57 46	1216.0	36.43	41.90
141.02	11 38 8	5479.99	30.46	254.53	111.61	140.03	13 9 28	4880.0	36.44	248.57

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.5223 TRA-1.4128 TC3-2.0712 BAU  .8804   SGT 3821.7 SGR  539.1 SG3  117.2     ST  1741.2 SR   429.6 SS   522.6
RDE  .4206 RRA -.0159 RC3  .2892 FAU .03463   RRT -.6530 RRF -.8839 RTF  .9048     CRT -.8840 CRS  .9818 CST -.9565
FDE -.7112 FRA -.2246 FC3 -.9521 BSP  11796   SGB 3859.5 R23  .3780 R13 -.9086     LSA 1852.7 MSA  238.1 SSA    5.4
BDE 1.5794 BRA 1.4129 BC3 2.0913 FSP   -372   SG1 3838.1 SG2  406.5 THA 174.68     EL1 1782.6 EL2  196.2 ALF 167.54
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LAUNCH DATE OCT 11 1970 FLIGHT TIME 136.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 408.894

```
RL  149.34 LAL   -.00 LOL  17.27 VL  27.207 GAL  -7.58 AZL  95.81 HCA 201.17 SMA 127.96 ECC .21169 INC 5.8089 V1  29.836
RP  108.17 LAP   2.09 LOP 218.34 VP  37.639 GAP   8.41 AZP  84.58 TAL 210.95 TAP  52.12 RCA 100.87 APO 155.05 V2  35.034
RC 139.266 GL  -32.36 GP   43.21 ZAL 127.30 ZAP 133.51 ETS  58.61 ZAE 118.64 ETE 150.89 ZAC 143.25 ETC 253.31 CLP-160.84
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PLANETOCENTRIC CONIC

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C3  26.013 VHL  5.100 DLA -51.83 RAL 229.18 RAD 6568.1 VEL 12.140 PTH   2.18 VHP  7.653 DPA  23.06 RAP 247.49 ECC 1.4281
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
44.59	3 1 54	1733.27	30.86	39.13	111.14	133.94	3 30 47	1133.3	36.22	32.41
135.41	11 40 5	5467.34	30.88	253.64	111.15	133.94	13 11 13	4867.3	36.23	246.92
44.59	3 1 54	1733.27	30.86	39.13	111.14	133.94	3 30 47	1133.3	36.22	32.41
135.41	11 40 5	5467.34	30.88	253.64	111.15	133.94	13 11 13	4867.3	36.23	246.92
44.59	3 1 54	1733.27	30.86	39.13	111.14	133.94	3 30 47	1133.3	36.22	32.41
135.41	11 40 5	5467.34	30.88	253.64	111.15	133.94	13 11 13	4867.3	36.23	246.92

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.3120 TRA-1.3601 TC3-2.6297 BAU  .9224   SGT 3934.4 SGR  538.1 SG3  130.0     ST  1651.9 SR   405.9 SS   474.5
RDE  .3612 RRA -.0117 RC3  .3458 FAU .03789   RRT -.7046 RRF -.9077 RTF  .8952     CRT -.8860 CRS  .9881 CST -.9462
FDE -.6319 FRA -.1786 FC3-1.2610 BSP  12299   SGB 3971.0 R23  .3819 R13 -.8988     LSA 1750.9 MSA  229.6 SSA    7.2
BDE 1.3608 BRA 1.3601 BC3 2.6524 FSP   -421   SG1 3952.8 SG2  380.0 THA 174.44     EL1 1691.0 EL2  183.9 ALF 167.57
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LAUNCH DATE OCT 11 1970 FLIGHT TIME 138.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 414.681

```
RL  149.34 LAL   -.00 LOL  17.27 VL  27.136 GAL  -7.24 AZL  94.72 HCA 204.35 SMA 127.49 ECC .21159 INC 4.7152 V1  29.836
RP  108.21 LAP   1.94 LOP 221.54 VP  37.576 GAP   8.61 AZP  85.70 TAL 209.29 TAP  53.64 RCA 100.51 APO 154.47 V2  35.021
RC 141.459 GL  -27.84 GP   38.80 ZAL 128.06 ZAP 137.49 ETS  57.05 ZAE 120.87 ETE 152.85 ZAC 139.36 ETC 255.43 CLP-161.06
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PLANETOCENTRIC CONIC

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C3  22.451 VHL  4.738 DLA -47.91 RAL 233.30 RAD 6567.9 VEL 11.993 PTH   2.14 VHP  7.309 DPA  18.20 RAP 248.51 ECC 1.3695
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.59	3 34 31	1658.70	30.53	31.22	111.10	128.91	4 2 10	1058.7	35.33	24.01
130.41	11 40 19	5469.69	30.54	253.53	111.11	128.90	13 11 29	4869.7	35.34	246.32
49.59	3 34 31	1658.70	30.53	31.22	111.10	128.91	4 2 10	1058.7	35.33	24.01
130.41	11 40 19	5469.69	30.54	253.53	111.11	128.90	13 11 29	4869.7	35.34	246.32
49.59	3 34 31	1658.70	30.53	31.22	111.10	128.91	4 2 10	1058.7	35.33	24.01
130.41	11 40 19	5469.69	30.54	253.53	111.11	128.90	13 11 29	4869.7	35.34	246.32

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.1370 TRA-1.2933 TC3-3.1558 BAU  .9541   SGT 4034.5 SGR  525.2 SG3  139.4     ST  1545.4 SR   381.7 SS   420.0
RDE  .3155 RRA -.0144 RC3  .3800 FAU .03984   RRT -.7271 RRF -.9089 RTF  .8873     CRT -.8815 CRS  .9921 CST -.9323
FDE -.5460 FRA -.1225 FC3-1.5362 BSP  12667   SGB 4068.6 R23  .3766 R13 -.8905     LSA 1631.0 MSA  223.5 SSA    9.3
BDE 1.1800 BRA 1.2934 BC3 3.1786 FSP   -453   SG1 4052.7 SG2  358.9 THA 174.55     EL1 1582.1 EL2  176.0 ALF 167.56
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LAUNCH DATE OCT 11 1970 FLIGHT TIME 140.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 420.462

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RL  149.34 LAL   -.00 LOL  17.27 VL  27.066 GAL  -6.89 AZL  93.86 HCA 207.53 SMA 127.03 ECC .21163 INC 3.8613 V1  29.836
RP  108.25 LAP   1.78 LOP 224.74 VP  37.513 GAP   8.81 AZP  86.57 TAL 207.63 TAP  55.16 RCA 100.15 APO 153.91 V2  35.008
RC 143.643 GL  -23.89 GP   35.07 ZAL 127.97 ZAP 140.92 ETS  55.76 ZAE 122.55 ETE 154.80 ZAC 136.05 ETC 257.00 CLP-161.53
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PLANETOCENTRIC CONIC

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C3  19.967 VHL  4.468 DLA -44.52 RAL 237.15 RAD 6567.8 VEL 11.889 PTH   2.11 VHP  7.094 DPA  14.05 RAP 249.73 ECC 1.3286
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.09	4 6 16	1588.77	29.79	24.00	111.54	124.76	4 32 45	988.8	34.11	16.48
125.91	11 39 19	5483.24	29.80	254.16	111.55	124.75	13 10 43	4883.2	34.12	246.64
54.09	4 6 16	1588.77	29.79	24.00	111.54	124.76	4 32 45	988.8	34.11	16.48
125.91	11 39 19	5483.24	29.80	254.16	111.55	124.75	13 10 43	4883.2	34.12	246.64
54.09	4 6 16	1588.77	29.79	24.00	111.54	124.76	4 32 45	988.8	34.11	16.48
125.91	11 39 19	5483.24	29.80	254.16	111.55	124.75	13 10 43	4883.2	34.12	246.64

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.9890 TRA-1.2164 TC3-3.6512 BAU  .9805   SGT 4128.1 SGR  509.4 SG3  146.2     ST  1431.3 SR   362.1 SS   364.0
RDE  .2822 RRA -.0192 RC3  .3995 FAU .04082   RRT -.7362 RRF -.8986 RTF  .8810     CRT -.8742 CRS  .9951 CST -.9131
FDE -.4610 FRA -.0620 FC3-1.7698 BSP  12985   SGB 4159.4 R23  .3627 R13 -.8838     LSA 1504.7 MSA  218.7 SSA   11.9
BDE 1.0285 BRA 1.2166 BC3 3.6730 FSP   -475   SG1 4145.2 SG2  343.4 THA 174.77     EL1 1466.4 EL2  171.6 ALF 167.35
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LAUNCH DATE OCT 11 1970 FLIGHT TIME 142.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 426.237

RL	149.34	LAL	-.00	LOL	17.27	VL	26.997	GAL	-6.53	AZL	93.17	HCA	210.71	SMA	126.58	ECC	.21181	INC	3.1725	V1	29.836
RP	108.29	LAP	1.62	LOP	227.94	VP	37.451	GAP	9.01	AZP	87.27	TAL	205.95	TAP	56.66	RCA	99.77	APO	153.39	V2	34.995
RC	145.816	GL	-20.40	GP	31.91	ZAL	127.19	ZAP	143.90	ETS	54.70	ZAE	123.83	ETE	156.63	ZAC	133.23	ETC	258.26	CLP	-162.15

PLANETOCENTRIC CONIC

C3	18.141	VHL	4.259	DLA	-41.55	RAL	240.85	RAD	6567.7	VEL	11.812	PTH	2.09	VHP	6.964	DPA	10.47	RAP	251.13	ECC	1.2985

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.22	4 37 50	1520.94	28.84	17.26	112.43	121.32	5 3 11	920.9	32.75	9.55
121.78	11 37 18	5505.84	28.85	255.46	112.44	121.31	13 9 4	4905.8	32.76	247.75
58.22	4 37 50	1520.94	28.84	17.26	112.43	121.32	5 3 11	920.9	32.75	9.55
121.78	11 37 18	5505.84	28.85	255.46	112.44	121.31	13 9 4	4905.8	32.76	247.75
58.22	4 37 50	1520.94	28.84	17.26	112.43	121.32	5 3 11	920.9	32.75	9.55
121.78	11 37 18	5505.84	28.85	255.46	112.44	121.31	13 9 4	4905.8	32.76	247.75

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.8552	TRA	-1.1249	TC3	-4.1051	BAU	1.0004	SGT	4200.0	SGR	491.4	SG3	149.9	ST	1304.7	SR	346.0	SS	305.3
RDE	.2569	RRA	-.0263	RC3	.4063	FAU	.04082	RRT	-.7329	RRF	-.8791	RTF	.8739	CRT	-.8639	CRS	.9970	CST	-.8829
FDE	-.3754	FRA	.0048	FC3	-1.9482	BSP	13114	SGB	4228.6	R23	.3448	R13	-.8762	LSA	1367.1	MSA	214.9	SSA	15.1
BDE	.8929	BRA	1.1252	BC3	4.1251	FSP	-478	SG1	4215.5	SG2	333.1	THA	175.07	EL1	1339.1	EL2	169.8	ALF	166.88

LAUNCH DATE OCT 11 1970 FLIGHT TIME 144.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 432.002

RL	149.34	LAL	-.00	LOL	17.27	VL	26.929	GAL	-6.17	AZL	92.60	HCA	213.90	SMA	126.13	ECC	.21213	INC	2.6021	V1	29.836
RP	108.33	LAP	1.45	LOP	231.14	VP	37.390	GAP	9.21	AZP	87.84	TAL	204.25	TAP	58.15	RCA	99.38	APO	152.89	V2	34.982
RC	147.979	GL	-17.28	GP	29.22	ZAL	125.84	ZAP	146.51	ETS	53.83	ZAE	124.81	ETE	158.30	ZAC	130.83	ETC	259.31	CLP	-162.85

PLANETOCENTRIC CONIC

C3	16.747	VHL	4.092	DLA	-38.92	RAL	244.47	RAD	6567.7	VEL	11.753	PTH	2.07	VHP	6.892	DPA	7.38	RAP	252.69	ECC	1.2756

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
62.11	5 9 55	1452.80	27.79	10.78	113.72	118.42	5 34 8	852.8	31.35	2.96
117.89	11 34 6	5536.94	27.80	257.42	113.72	118.41	13 6 23	4936.9	31.36	249.60
62.11	5 9 55	1452.80	27.79	10.78	113.72	118.42	5 34 8	852.8	31.35	2.96
117.89	11 34 6	5536.94	27.80	257.42	113.72	118.41	13 6 23	4936.9	31.36	249.60
62.11	5 9 55	1452.80	27.79	10.78	113.72	118.42	5 34 8	852.8	31.35	2.96
117.89	11 34 6	5536.94	27.80	257.42	113.72	118.41	13 6 23	4936.9	31.36	249.60

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.7499	TRA	-1.0397	TC3	-4.5638	BAU	1.0260	SGT	4307.5	SGR	483.3	SG3	154.1	ST	1195.8	SR	339.4	SS	258.7
RDE	.2420	RRA	-.0301	RC3	.4158	FAU	.04084	RRT	-.7329	RRF	-.8578	RTF	.8729	CRT	-.8570	CRS	.9957	CST	-.8461
FDE	-.3072	FRA	.0591	FC3	-2.1113	BSP	13579	SGB	4334.6	R23	.3151	R13	-.8749	LSA	1251.7	MSA	212.0	SSA	18.8
BDE	.7880	BRA	1.0401	BC3	4.5827	FSP	-500	SG1	4322.2	SG2	327.7	THA	175.27	EL1	1231.4	EL2	169.9	ALF	166.06

LAUNCH DATE OCT 11 1970 FLIGHT TIME 146.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 437.758

RL	149.34	LAL	-.00	LOL	17.27	VL	26.861	GAL	-5.79	AZL	92.12	HCA	217.08	SMA	125.70	ECC	.21260	INC	2.1192	V1	29.836
RP	108.37	LAP	1.28	LOP	234.33	VP	37.329	GAP	9.40	AZP	88.31	TAL	202.55	TAP	59.63	RCA	98.98	APO	152.42	V2	34.969
RC	150.132	GL	-14.46	GP	26.91	ZAL	124.04	ZAP	148.80	ETS	53.14	ZAE	125.57	ETE	159.81	ZAC	128.78	ETC	260.23	CLP	-163.59

PLANETOCENTRIC CONIC

C3	15.655	VHL	3.957	DLA	-36.54	RAL	248.07	RAD	6567.6	VEL	11.706	PTH	2.06	VHP	6.860	DPA	4.70	RAP	254.37	ECC	1.2576

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.87	5 43 20	1381.90	26.68	4.34	115.35	115.95	6 6 22	781.9	29.94	356.46
114.13	11 29 23	5577.11	26.69	260.07	115.36	115.94	13 2 20	4977.1	29.95	252.18
65.87	5 43 20	1381.90	26.68	4.34	115.35	115.95	6 6 22	781.9	29.94	356.46
114.13	11 29 23	5577.11	26.69	260.07	115.36	115.94	13 2 20	4977.1	29.95	252.18
65.87	5 43 20	1381.90	26.68	4.34	115.35	115.95	6 6 22	781.9	29.94	356.46
114.13	11 29 23	5577.11	26.69	260.07	115.36	115.94	13 2 20	4977.1	29.95	252.18

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.6467	TRA	-.9386	TC3	-4.9786	BAU	1.0456	SGT	4388.6	SGR	473.9	SG3	155.8	ST	1071.7	SR	334.0	SS	210.4
RDE	.2302	RRA	-.0362	RC3	.4177	FAU	.04016	RRT	-.7231	RRF	-.8304	RTF	.8699	CRT	-.8475	CRS	.9852	CST	-.7806
FDE	-.2384	FRA	.1184	FC3	-2.2207	BSP	13824	SGB	4414.2	R23	.2865	R13	-.8716	LSA	1122.5	MSA	209.7	SSA	23.4
BDE	.6865	BRA	.9393	BC3	4.9961	FSP	-503	SG1	4402.1	SG2	326.3	THA	175.51	EL1	1109.4	EL2	171.3	ALF	164.83

LAUNCH DATE OCT 11 1970 FLIGHT TIME 148.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 443.503

RL	149.34	LAL	-.00	LOL	17.27	VL	26.795	GAL	-5.41	AZL	91.70	HCA	220.26	SMA	125.28	ECC	.21321	INC	1.7029	V1	29.836
RP	108.41	LAP	1.10	LOP	237.52	VP	37.269	GAP	9.60	AZP	88.70	TAL	200.84	TAP	61.10	RCA	98.57	APO	151.99	V2	34.956
RC	152.275	GL	-11.90	GP	24.92	ZAL	121.86	ZAP	150.84	ETS	52.64	ZAE	126.17	ETE	161.14	ZAC	127.01	ETC	261.07	CLP	-164.35

PLANETOCENTRIC CONIC

C3	14.788	VHL	3.845	DLA	-34.37	RAL	251.67	RAD	6567.6	VEL	11.669	PTH	2.05	VHP	6.859	DPA	2.35	RAP	256.17	ECC	1.2434

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.66	6 19 3	1305.06	25.55	357.66	117.30	113.81	6 40 48	705.1	28.54	349.74
110.34	11 22 24	5628.36	25.56	263.55	117.31	113.79	12 56 13	5028.4	28.55	255.64
69.66	6 19 3	1305.06	25.55	357.66	117.30	113.81	6 40 48	705.1	28.54	349.74
110.34	11 22 24	5628.36	25.56	263.55	117.31	113.79	12 56 13	5028.4	28.55	255.64
69.66	6 19 3	1305.06	25.55	357.66	117.30	113.81	6 40 48	705.1	28.54	349.74
110.34	11 22 24	5628.36	25.56	263.55	117.31	113.79	12 56 13	5028.4	28.55	255.64

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.5533	TRA	-.8328	TC3	-5.3755	BAU	1.0660	SGT	4475.7	SGR	468.7	SG3	157.0	ST	947.8	SR	332.3	SS	169.1
RDE	.2224	RRA	-.0421	RC3	.4195	FAU	.03931	RRT	-.7116	RRF	-.8014	RTF	.8689	CRT	-.8385	CRS	.9512	CST	-.6730
FDE	-.1773	FRA	.1734	FC3	-2.3013	BSP	14131	SGB	4500.2	R23	.2559	R13	-.8703	LSA	996.7	MSA	207.9	SSA	29.0
BDE	.5963	BRA	.8339	BC3	5.3919	FSP	-507	SG1	4488.2	SG2	328.4	THA	175.72	EL1	989.3	EL2	173.5	ALF	163.08

LAUNCH DATE OCT 11 1970 FLIGHT TIME 150.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 449.237

RL 149.34 LAL -.00 LOL 17.27 VL 26.729 GAL -5.02 AZL 91.34 HCA 223.45 SMA 124.86 ECC .21398 INC 1.3380 V1 29.836
RP 108.45 LAP .92 LOP 240.70 VP 37.210 GAP 9.81 AZP 89.03 TAL 199.11 TAP 62.55 RCA 98.15 APO 151.58 V2 34.943
RC 154.408 GL -9.53 GP 23.19 ZAL 119.37 ZAP 152.67 ETS 52.31 ZAE 126.64 ETE 162.33 ZAC 125.48 ETC 261.85 CLP-165.13

PLANETOCENTRIC CONIC

C3 14.098 VHL 3.755 DLA -32.34 RAL 255.30 RAD 6567.6 VEL 11.640 PTH 2.04 VHP 6.882 DPA .29 RAP 258.07 ECC 1.2320

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.69	6 58 49	1216.61	24.39	350.28	119.53	111.91	7 19 6	616.6	27.15	342.36
106.31	11 11 35	5695.64	24.40	268.21	119.53	111.90	12 46 30	5095.6	27.16	260.29
73.69	6 58 49	1216.61	24.39	350.28	119.53	111.91	7 19 6	616.6	27.15	342.36
106.31	11 11 35	5695.64	24.40	268.21	119.53	111.90	12 46 30	5095.6	27.16	260.29
110.00	10 10 6	5885.85	17.69	279.35	116.06	119.74	11 48 11	5285.9	21.51	272.31
110.00	12 59 29	5362.44	31.49	245.16	122.13	104.05	14 28 51	4762.4	33.10	236.30

DIFFERENTIAL CORRECTIONS
TDE -.4621 TRA -.7175 TC3-5.7582 BAU 1.0844
RDE .2168 RRA -.0489 RC3 .4194 FAU .03820
FDE -.1199 FRA .2274 FC3-2.3455 BSP 14392
BDE .5104 BRA .7192 BC3 5.7535 FSP -507

MID-COURSE EXECUTION ACCURACY
SGT 4554.6 SGR 465.2 SG3 157.1
RRT -.6966 RRF -.7704 RTF .8680
SGB 4578.3 R23 .2265 R13 -.8692
SG1 4566.2 SG2 332.9 THA 175.91

ORBIT DETERMINATION ACCURACY
ST 815.6 SR 332.0 SS 134.8
CRT -.8281 CRS .8536 CST -.4753
LSA 865.8 MSA 206.3 SSA 36.4
EL1 862.8 EL2 175.9 ALF 160.53

LAUNCH DATE OCT 11 1970 FLIGHT TIME 152.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 454.960

RL 149.34 LAL -.00 LOL 17.27 VL 26.665 GAL -4.61 AZL 91.01 HCA 226.63 SMA 124.46 ECC .21491 INC 1.0138 V1 29.836
RP 108.49 LAP .74 LOP 243.89 VP 37.152 GAP 10.01 AZP 89.30 TAL 197.37 TAP 64.00 RCA 97.71 APO 151.21 V2 34.931
RC 156.530 GL -7.34 GP 21.69 ZAL 116.61 ZAP 154.32 ETS 52.15 ZAE 127.03 ETE 163.38 ZAC 124.14 ETC 262.60 CLP-165.90

PLANETOCENTRIC CONIC

C3 13.556 VHL 3.682 DLA -30.42 RAL 258.97 RAD 6567.5 VEL 11.616 PTH 2.04 VHP 6.923 DPA -1.52 RAP 260.06 ECC 1.2231

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
78.40	7 46 26	1104.26	23.21	341.30	122.01	110.23	8 4 51	504.3	25.76	333.38
101.60	10 53 13	5790.82	23.23	274.90	122.02	110.21	12 29 44	5190.8	25.77	266.98
78.40	7 46 26	1104.26	23.21	341.30	122.01	110.23	8 4 51	504.3	25.76	333.38
101.60	10 53 13	5790.82	23.23	274.90	122.02	110.21	12 29 44	5190.8	25.77	266.98
110.00	9 49 0	704.97	13.97	307.52	117.29	121.52	10 0 45	105.0	18.04	300.77
110.00	13 49 49	5238.10	33.17	235.85	124.93	98.79	15 17 8	4638.1	34.03	226.72

DIFFERENTIAL CORRECTIONS
TDE -.3732 TRA -.5955 TC3-6.0687 BAU 1.1025
RDE .2130 RRA -.0561 RC3 .4188 FAU .03697
FDE -.0671 FRA .2785 FC3-2.3612 BSP 14665
BDE .4297 BRA .5981 BC3 6.0832 FSP -507

MID-COURSE EXECUTION ACCURACY
SGT 4632.8 SGR 463.9 SG3 156.6
RRT -.6802 RRF -.7392 RTF .8681
SGB 4655.9 R23 .1985 R13 -.8691
SG1 4643.5 SG2 339.3 THA 176.08

ORBIT DETERMINATION ACCURACY
ST 677.6 SR 333.0 SS 114.0
CRT -.8153 CRS .6249 CST -.1474
LSA 734.2 MSA 204.5 SSA 46.4
EL1 733.7 EL2 178.1 ALF 156.71

LAUNCH DATE OCT 11 1970 FLIGHT TIME 154.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 460.669

RL 149.34 LAL -.00 LOL 17.27 VL 26.601 GAL -4.20 AZL 90.72 HCA 229.81 SMA 124.06 ECC .21601 INC .7223 V1 29.836
RP 108.53 LAP .55 LOP 247.07 VP 37.095 GAP 10.22 AZP 89.53 TAL 195.62 TAP 65.43 RCA 97.26 APO 150.86 V2 34.919
RC 158.641 GL -5.29 GP 20.37 ZAL 113.62 ZAP 155.82 ETS 52.17 ZAE 127.35 ETE 164.31 ZAC 122.96 ETC 263.32 CLP-166.68

PLANETOCENTRIC CONIC

C3 13.144 VHL 3.625 DLA -28.57 RAL 262.67 RAD 6567.5 VEL 11.599 PTH 2.03 VHP 6.979 DPA -3.12 RAP 262.12 ECC 1.2163

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
86.02	9 1 15	904.93	22.01	326.11	124.74	108.70	9 16 20	304.9	24.36	318.20
93.98	10 8 0	688.72	22.02	310.28	124.74	108.68	10 19 28	88.7	24.37	302.38
100.00	9 41 29	774.30	16.73	314.31	122.49	115.14	9 54 23	174.3	19.98	307.03
100.00	12 10 27	5582.62	27.51	260.80	126.41	102.19	13 43 29	4982.6	28.91	252.28
110.00	9 37 50	785.75	11.05	311.96	119.27	122.55	9 50 56	185.7	15.27	305.40
110.00	14 30 34	5143.93	33.91	228.61	127.51	94.56	15 56 18	4543.9	34.17	219.37

DIFFERENTIAL CORRECTIONS
TDE -.2851 TRA -.4662 TC3-6.3616 BAU 1.1203
RDE .2107 RRA -.0639 RC3 .4175 FAU .03568
FDE -.0188 FRA .3271 FC3-2.3500 BSP 14948
BDE .3545 BRA .4705 BC3 6.3753 FSP -506

MID-COURSE EXECUTION ACCURACY
SGT 4710.1 SGR 464.5 SG3 155.8
RRT -.6628 RRF -.7086 RTF .8690
SGB 4732.9 R23 .1730 R13 -.8698
SG1 4720.2 SG2 347.1 THA 176.24

ORBIT DETERMINATION ACCURACY
ST 534.3 SR 334.9 SS 112.3
CRT -.7970 CRS .2639 CST .2409
LSA 604.9 MSA 201.7 SSA 60.7
EL1 604.7 EL2 178.7 ALF 150.65

LAUNCH DATE OCT 11 1970 FLIGHT TIME 156.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 466.365

RL 149.34 LAL -.00 LOL 17.27 VL 26.538 GAL -3.78 AZL 90.46 HCA 232.98 SMA 123.68 ECC .21729 INC .4570 V1 29.836
RP 108.56 LAP .37 LOP 250.25 VP 37.039 GAP 10.43 AZP 89.72 TAL 193.87 TAP 66.85 RCA 96.80 APO 150.55 V2 34.907
RC 160.740 GL -3.38 GP 19.21 ZAL 110.43 ZAP 157.19 ETS 52.35 ZAE 127.61 ETE 165.14 ZAC 121.90 ETC 264.02 CLP-167.45

PLANETOCENTRIC CONIC

C3 12.852 VHL 3.585 DLA -26.78 RAL 266.42 RAD 6567.5 VEL 11.586 PTH 2.03 VHP 7.049 DPA -4.53 RAP 264.26 ECC 1.2115

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 27 50	1059.44	15.27	334.59	125.49	114.14	8 45 30	459.4	18.40	327.32
90.00	11 11 18	5812.54	26.50	277.48	129.22	100.37	12 48 11	5212.5	27.66	269.01
100.00	9 16 51	901.12	12.91	321.80	124.33	117.20	9 31 52	301.1	16.46	314.80
100.00	13 4 58	5446.09	29.08	250.97	129.67	97.24	14 35 44	4846.1	29.78	242.23
110.00	9 31 37	854.74	8.50	315.68	121.71	123.23	9 45 52	254.7	12.82	309.24
110.00	15 6 41	5065.24	34.17	222.48	130.10	90.94	16 31 6	4465.2	33.92	213.24

DIFFERENTIAL CORRECTIONS
TDE -.1938 TRA -.3278 TC3-6.6038 BAU 1.1369
RDE .2091 RRA -.0726 RC3 .4145 FAU .03429
FDE .0273 FRA .3743 FC3-2.3100 BSP 15198
BDE .2851 BRA .3357 BC3 6.6168 FSP -502

MID-COURSE EXECUTION ACCURACY
SGT 4781.1 SGR 465.8 SG3 154.4
RRT -.6442 RRF -.6784 RTF .8702
SGB 4803.7 R23 .1500 R13 -.8709
SG1 4790.5 SG2 355.5 THA 176.39

ORBIT DETERMINATION ACCURACY
ST 383.5 SR 336.6 SS 128.9
CRT -.7585 CRS -.0883 CST .5154
LSA 481.5 MSA 195.8 SSA 82.8
EL1 479.1 EL2 175.6 ALF 139.89

LAUNCH DATE OCT 11 1970 FLIGHT TIME 158.00 ARRIVAL DATE MAR 18 1971

HELIOCENTRIC CONIC DISTANCE 472.047

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RL  149.34 LAL   -.00 LOL  17.27 VL  26.476 GAL  -3.34 AZL  90.21 HCA 236.16 SMA 123.30 ECC .21876 INC  .2126 V1  29.836
RP  108.60 LAP    .18 LOP 253.43 VP  36.984 GAP  10.65 AZP  89.88 TAL 192.10 TAP  68.26 RCA  96.32 APO 150.27 V2  34.896
RC 162.826 GL   -1.58 GP   18.18 ZAL 107.08 ZAP 158.44 ETS  52.70 ZAE 127.84 ETE 165.87 ZAC 120.96 ETC 264.71 CLP-168.21
PLANETOCENTRIC CONIC
C3  12.673 VHL  3.560 DLA -25.03 RAL 270.20 RAD 6567.5 VEL 11.578 PTH   2.02 VHP  7.130 DPA  -5.77 RAP 266.45 ECC 1.2086
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 5 11	1184.02	11.67	341.97	127.71	115.98	8 24 55	584.0	15.07	334.94
90.00	12 4 7	5681.97	27.75	268.14	132.57	95.85	13 38 48	5082.0	28.28	259.51
100.00	9 3 37	995.35	9.92	327.20	126.80	118.34	9 20 12	395.4	13.63	320.37
100.00	13 48 22	5345.86	29.72	243.59	132.75	93.41	15 17 27	4745.9	29.87	234.79
110.00	9 28 27	917.45	6.14	319.00	124.51	123.69	9 43 44	317.5	10.53	312.66
110.00	15 40 1	4996.52	34.12	217.11	132.80	87.77	17 3 17	4396.5	33.43	207.94

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.0989 TRA -.1810 TC3-6.7913 BAU 1.1527   SGT 4848.6 SGR  467.7 SG3  152.7      ST   236.0 SR   338.2 SS   157.5
RDE  .2083 RRA -.0820 RC3  .4098 FAU .03286   RRT -.6250 RRF -.6492 RTF  .8717     CRT -.6318 CRS -.3245 CST  .5434
FDE  .0709 FRA  .4199 FC3-2.2448 BSP  15437   SGB 4871.1 R23  .1298 R13 -.8723     LSA  385.3 MSA  180.5 SSA  117.6
BDE  .2306 BRA  .1987 BC3 6.8036 FSP   -498   SG1 4857.5 SG2  364.4 THA 176.53     EL1  378.6 EL2  163.4 ALF 119.90
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LAUNCH DATE OCT 11 1970 FLIGHT TIME 160.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 477.714

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RL  149.34 LAL   -.00 LOL  17.27 VL  26.414 GAL  -2.89 AZL  89.99 HCA 239.33 SMA 122.93 ECC .22043 INC  .0000 V1  29.836
RP  108.63 LAP   -.01 LOP 256.60 VP  36.930 GAP  10.87 AZP  90.01 TAL 190.32 TAP  69.66 RCA  95.83 APO 150.03 V2  34.885
RC 164.900 GL     .10 GP   17.26 ZAL 103.59 ZAP 159.60 ETS  53.22 ZAE 128.04 ETE 166.52 ZAC 120.10 ETC 265.39 CLP-168.97
PLANETOCENTRIC CONIC
C3  12.607 VHL  3.551 DLA -23.30 RAL 274.00 RAD 6567.5 VEL 11.576 PTH   2.02 VHP  7.222 DPA  -6.86 RAP 268.69 ECC 1.2075
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 32 24	1280.13	8.75	347.52	130.46	117.04	8 13 44	680.1	12.31	340.65
90.00	12 47 12	5583.62	28.23	260.98	135.81	92.30	14 20 16	4983.6	28.25	252.32
100.00	8 55 38	1076.01	7.28	331.73	129.67	119.07	9 13 34	476.0	11.10	325.03
100.00	14 26 39	5262.97	29.89	237.43	135.85	90.18	15 54 22	4663.0	29.60	228.64
110.00	9 27 20	976.63	3.90	322.12	127.59	123.99	9 43 36	376.6	8.34	315.84
110.00	16 11 27	4935.11	33.85	212.33	135.65	84.96	17 33 42	4335.1	32.79	203.26

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .0026 TRA -.0231 TC3-6.9087 BAU 1.1664   SGT 4906.2 SGR  469.2 SG3  150.5      ST   147.7 SR   338.9 SS   193.5
RDE  .2078 RRA -.0924 RC3  .4017 FAU .03131   RRT -.6045 RRF -.6199 RTF  .8726     CRT  .0146 CRS -.4692 CST -.0988
FDE  .1140 FRA  .4658 FC3-2.1503 BSP  15612   SGB 4928.6 R23  .1122 R13 -.8731     LSA  354.4 MSA  166.5 SSA  144.2
BDE  .2078 BRA  .0952 BC3 6.9204 FSP   -490   SG1 4914.5 SG2  373.1 THA 176.67     EL1  338.9 EL2  147.7 ALF  89.55
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LAUNCH DATE OCT 11 1970 FLIGHT TIME 162.00 ARRIVAL DATE MAR 22 1971

HELIOCENTRIC CONIC DISTANCE 483.364

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RL  149.34 LAL   -.00 LOL  17.27 VL  26.354 GAL  -2.42 AZL  89.78 HCA 242.51 SMA 122.57 ECC .22231 INC  .2241 V1  29.836
RP  108.66 LAP   -.20 LOP 259.77 VP  36.877 GAP  11.10 AZP  90.10 TAL 188.54 TAP  71.05 RCA  95.32 APO 149.82 V2  34.874
RC 166.961 GL    1.66 GP   16.45 ZAL 100.01 ZAP 160.68 ETS  53.92 ZAE 128.21 ETE 167.11 ZAC 119.32 ETC 266.07 CLP-169.71
PLANETOCENTRIC CONIC
C3  12.655 VHL  3.557 DLA -21.59 RAL 277.80 RAD 6567.5 VEL 11.578 PTH   2.02 VHP  7.323 DPA  -7.82 RAP 270.98 ECC 1.2083
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 44 24	1383.66	6.13	352.26	133.55	117.70	8 7 8	763.7	9.79	345.50
90.00	13 25 32	5501.70	28.31	254.99	139.08	89.30	14 57 14	4901.7	27.91	246.35
100.00	8 50 47	1149.45	4.83	335.81	132.84	119.53	9 9 56	549.5	8.73	329.19
100.00	15 1 51	5191.14	29.79	232.10	139.03	87.37	16 28 22	4591.1	29.10	223.36
110.00	9 27 40	1033.84	1.72	325.11	130.90	124.15	9 44 53	433.8	6.19	318.87
110.00	16 41 27	4879.51	33.44	208.05	138.65	82.45	18 2 47	4279.5	32.03	199.10

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .1101 TRA  .1439 TC3-6.9579 BAU 1.1790   SGT 4959.8 SGR  470.7 SG3  148.2      ST   243.1 SR   339.1 SS   232.4
RDE  .2078 RRA -.1035 RC3  .3911 FAU .02975   RRT -.5837 RRF -.5916 RTF  .8739     CRT  .6561 CRS -.5555 CST -.7916
FDE  .1555 FRA  .5103 FC3-2.0351 BSP  15759   SGB 4982.1 R23  .0966 R13 -.8743     LSA  421.8 MSA  197.3 SSA  105.8
BDE  .2351 BRA  .1772 BC3 6.9689 FSP   -480   SG1 4967.4 SG2  381.6 THA 176.81     EL1  384.6 EL2  161.7 ALF  58.66
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LAUNCH DATE OCT 11 1970 FLIGHT TIME 164.00 ARRIVAL DATE MAR 24 1971

HELIOCENTRIC CONIC DISTANCE 488.994

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RL  149.34 LAL   -.00 LOL  17.27 VL  26.295 GAL  -1.94 AZL  89.58 HCA 245.68 SMA 122.21 ECC .22443 INC  .4238 V1  29.836
RP  108.69 LAP   -.39 LOP 262.94 VP  36.825 GAP  11.33 AZP  90.17 TAL 186.75 TAP  72.43 RCA  94.79 APO 149.64 V2  34.864
RC 169.007 GL    3.11 GP   15.72 ZAL  96.35 ZAP 161.67 ETS  54.80 ZAE 128.37 ETE 167.63 ZAC 118.60 ETC 266.75 CLP-170.46
PLANETOCENTRIC CONIC
C3  12.820 VHL  3.581 DLA -19.89 RAL 281.59 RAD 6567.5 VEL 11.585 PTH   2.03 VHP  7.435 DPA  -8.65 RAP 273.31 ECC 1.2110
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 39 19	1440.28	3.69	356.57	136.90	118.10	8 3 20	840.3	7.42	349.87
90.00	14 0 49	5430.66	28.14	249.80	142.44	86.70	15 31 20	4830.7	27.39	241.22
100.00	8 48 0	1218.66	2.50	339.62	136.24	119.80	9 8 18	618.7	6.45	333.06
100.00	15 34 50	5127.51	29.50	227.39	142.33	84.91	17 0 17	4527.5	28.48	218.73
110.00	9 29 3	1090.00	-.43	328.04	134.41	124.18	9 47 13	490.0	4.06	321.83
110.00	17 10 16	4828.93	32.92	204.19	141.81	80.22	18 30 45	4228.9	31.22	195.38

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .1964 TRA  .2930 TC3-7.0211 BAU 1.2052   SGT 5062.3 SGR  477.2 SG3  146.6      ST   379.4 SR   343.0 SS   256.3
RDE  .2113 RRA -.1123 RC3  .3872 FAU .02896   RRT -.5725 RRF -.5758 RTF  .8831     CRT  .7411 CRS -.5901 CST -.9080
FDE  .1790 FRA  .5377 FC3-1.9557 BSP  16535   SGB 5084.8 R23  .0819 R13 -.8834     LSA  525.8 MSA  210.2 SSA   81.1
BDE  .2885 BRA  .3137 BC3 7.0318 FSP   -504   SG1 5069.7 SG2  390.7 THA 176.89     EL1  477.6 EL2  182.9 ALF  41.12
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LAUNCH DATE OCT 11 1970 FLIGHT TIME 166.00 ARRIVAL DATE MAR 26 1971

HELIOCENTRIC CONIC DISTANCE 494.609

RL	149.34	LAL	-.00	LOL	17.27	VL	26.236	GAL	-1.45	AZL	89.39	HCA	248.85	SMA	121.87	ECC	.22677	INC	.6138	V1	29.836
RP	108.72	LAP	-.57	LOP	266.11	VP	36.774	GAP	11.58	AZP	90.22	TAL	184.96	TAP	73.80	RCA	94.23	APO	149.51	V2	34.855
RC	171.039	GL	4.45	GP	15.06	ZAL	92.65	ZAP	162.60	ETS	55.86	ZAE	128.52	ETE	168.10	ZAC	117.92	ETC	267.42	CLP	-171.19

PLANETOCENTRIC CONIC

C3	13.109	VHL	3.621	DLA	-18.22	RAL	285.35	RAD	6567.5	VEL	11.597	PTH	2.03	VHP	7.557	DPA	-9.37	RAP	275.68	ECC	1.2157

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 36 13	1512.68	1.36	.61	140.47	118.29	8 1 26	912.7	5.13	353.96
90.00	14 33 55	5367.84	27.81	245.24	145.91	84.44	16 3 22	4767.8	26.75	236.73
100.00	8 46 42	1285.22	.24	343.27	139.85	119.89	9 8 8	685.2	4.22	336.74
100.00	16 6 6	5070.53	29.08	223.21	145.75	82.75	17 30 37	4470.5	27.77	214.65
110.00	9 31 15	1145.65	-2.56	330.94	138.10	124.10	9 50 21	545.7	1.94	324.74
110.00	17 38 3	4782.87	32.33	200.72	145.11	78.25	18 57 46	4182.9	30.38	192.06

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.3327	TRA	.4960	TC3	-6.8754	BAU	1.2066	SGT	5074.2	SGR	474.8	SG3	143.3	ST	600.8	SR	339.6	SS	304.6
RDE	.2108	RRA	-.1263	RC3	.3650	FAU	.02689	RRT	-.5455	RRF	-.5424	RTF	.8798	CRT	.7783	CRS	-.6368	CST	-.9564
FDE	.2270	FRA	.5906	FC3	-1.7758	BSP	16224	SGB	5096.3	RZS	.0710	RIS	-.8801	LSA	721.2	MSA	213.0	SSA	60.1
BDE	.3939	BRA	.5118	BC3	6.8851	FSP	-471	SG1	5080.8	SG2	397.4	THA	177.06	EL1	662.5	EL2	193.4	ALF	26.14

LAUNCH DATE OCT 11 1970 FLIGHT TIME 168.00 ARRIVAL DATE MAR 28 1971

HELIOCENTRIC CONIC DISTANCE 500.200

RL	149.34	LAL	-.00	LOL	17.27	VL	26.179	GAL	-.94	AZL	89.20	HCA	252.02	SMA	121.53	ECC	.22939	INC	.7955	V1	29.836
RP	108.75	LAP	-.76	LOP	269.28	VP	36.724	GAP	11.83	AZP	90.25	TAL	183.16	TAP	75.17	RCA	93.65	APO	149.41	V2	34.846
RC	173.056	GL	5.67	GP	14.47	ZAL	88.95	ZAP	163.46	ETS	57.11	ZAE	128.65	ETE	168.52	ZAC	117.29	ETC	268.09	CLP	-171.91

PLANETOCENTRIC CONIC

C3	13.529	VHL	3.678	DLA	-16.57	RAL	289.05	RAD	6567.5	VEL	11.615	PTH	2.04	VHP	7.688	DPA	-9.98	RAP	278.08	ECC	1.2227

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 34 31	1582.31	-.89	4.50	144.22	118.30	8 0 53	982.3	2.90	357.87
90.00	15 5 10	5311.91	27.37	241.20	149.48	82.46	16 33 42	4711.9	26.05	232.79
100.00	8 46 30	1350.04	-1.95	346.83	143.62	119.83	9 9 0	750.0	2.03	340.31
100.00	16 35 52	5019.40	28.58	219.49	149.28	80.85	17 59 32	4419.4	27.02	211.03
110.00	9 34 3	1201.08	-4.67	333.84	141.93	123.90	9 54 4	601.1	-.18	327.63
110.00	18 4 40	4741.13	31.71	197.63	148.55	76.52	19 23 50	4141.1	29.53	189.10

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.4585	TRA	.6901	TC3	-6.7158	BAU	1.2163	SGT	5116.3	SGR	475.0	SG3	140.5	ST	803.3	SR	338.4	SS	341.9
RDE	.2128	RRA	-.1388	RC3	.3463	FAU	.02534	RRT	-.5245	RRF	-.5167	RTF	.8818	CRT	.7830	CRS	-.6609	CST	-.9732
FDE	.2638	FRA	.6314	FC3	-1.6212	BSP	16338	SGB	5138.3	RZS	.0602	RIS	-.8821	LSA	910.2	MSA	214.4	SSA	48.2
BDE	.5055	BRA	.7039	BC3	6.7248	FSP	-461	SG1	5122.4	SG2	404.0	THA	177.19	EL1	848.6	EL2	199.3	ALF	19.36

LAUNCH DATE OCT 11 1970 FLIGHT TIME 170.00 ARRIVAL DATE MAR 30 1971

HELIOCENTRIC CONIC DISTANCE 505.769

RL	149.34	LAL	-.00	LOL	17.27	VL	26.122	GAL	-.41	AZL	89.03	HCA	255.18	SMA	121.20	ECC	.23228	INC	.9707	V1	29.836
RP	108.78	LAP	-.94	LOP	272.45	VP	36.676	GAP	12.10	AZP	90.25	TAL	181.35	TAP	76.53	RCA	93.05	APO	149.35	V2	34.837
RC	175.059	GL	6.77	GP	13.94	ZAL	85.26	ZAP	164.27	ETS	58.57	ZAE	128.77	ETE	168.91	ZAC	116.69	ETC	268.75	CLP	-172.63

PLANETOCENTRIC CONIC

C3	14.091	VHL	3.754	DLA	-14.95	RAL	292.68	RAD	6567.6	VEL	11.639	PTH	2.04	VHP	7.830	DPA	-10.49	RAP	280.50	ECC	1.2319

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 33 50	1649.96	-3.07	8.27	148.11	118.16	8 1 20	1050.0	.72	1.64
90.00	15 34 49	5262.09	26.88	237.64	153.14	80.74	17 2 31	4662.1	25.32	229.32
100.00	8 47 5	1413.62	-4.10	350.33	147.54	119.64	9 10 39	813.6	-.13	343.80
100.00	17 4 15	4973.66	28.04	216.19	152.91	79.20	18 27 9	4373.7	26.26	207.84
110.00	9 37 16	1256.43	-6.76	336.76	145.89	123.59	9 58 13	656.4	-2.30	330.51
110.00	18 30 34	4703.61	31.08	194.88	152.11	75.00	19 48 58	4103.6	28.71	186.49

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.5868	TRA	.8917	TC3	-6.5043	BAU	1.2269	SGT	5160.6	SGR	475.5	SG3	137.8	ST	1001.1	SR	337.6	SS	374.5
RDE	.2161	RRA	-.1514	RC3	.3264	FAU	.02392	RRT	-.5047	RRF	-.4940	RTF	.8851	CRT	.7811	CRS	-.6746	CST	-.9817
FDE	.2962	FRA	.6703	FC3	-1.4694	BSP	16521	SGB	5182.5	RZS	.0515	RIS	-.8853	LSA	1099.2	MSA	215.9	SSA	40.0
BDE	.6253	BRA	.9044	BC3	6.5124	FSP	-456	SG1	5166.2	SG2	410.0	THA	177.32	EL1	1036.7	EL2	203.6	ALF	15.37

LAUNCH DATE OCT 11 1970 FLIGHT TIME 172.00 ARRIVAL DATE APR 1 1971

HELIOCENTRIC CONIC DISTANCE 511.311

RL	149.34	LAL	-.00	LOL	17.27	VL	26.066	GAL	.14	AZL	88.86	HCA	258.35	SMA	120.88	ECC	.23547	INC	1.1409	V1	29.836
RP	108.80	LAP	-1.12	LOP	275.61	VP	36.628	GAP	12.37	AZP	90.23	TAL	179.54	TAP	77.89	RCA	92.42	APO	149.34	V2	34.829
RC	177.047	GL	7.75	GP	13.45	ZAL	81.63	ZAP	165.02	ETS	60.23	ZAE	128.89	ETE	169.25	ZAC	116.11	ETC	269.42	CLP	-173.34

PLANETOCENTRIC CONIC

C3	14.808	VHL	3.848	DLA	-13.38	RAL	296.23	RAD	6567.6	VEL	11.670	PTH	2.05	VHP	7.983	DPA	-10.91	RAP	282.94	ECC	1.2437

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 33 57	1716.10	-5.18	11.98	152.12	117.88	8 2 33	1116.1	-1.41	5.33
90.00	16 2 59	5217.92	26.36	234.51	156.89	79.26	17 29 57	4617.9	24.61	226.28
100.00	8 48 18	1476.23	-6.20	353.79	151.56	119.30	9 12 54	876.2	-2.25	347.23
100.00	17 31 20	4933.03	27.49	213.30	156.63	77.77	18 53 33	4333.0	25.53	205.05
110.00	9 40 49	1311.73	-8.83	339.70	149.96	123.16	10 2 41	711.7	-4.41	333.41
110.00	18 55 18	4670.30	30.47	192.48	155.77	73.70	20 13 8	4070.3	27.94	184.20

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.7253	TRA	1.1057	TC3	-6.2184	BAU	1.2325	SGT	5189.8	SGR	473.0	SG3	134.5	ST	1201.9	SR	335.4	SS	409.9
RDE	.2194	RRA	-.1645	RC3	.3010	FAU	.02215	RRT	-.4815	RRF	-.4655	RTF	.8847	CRT	.7776	CRS	-.6880	CST	-.9875
FDE	.3330	FRA	.7107	FC3	-1.2948	BSP	16601	SGB	5211.3	RZS	.0421	RIS	-.8848	LSA	1295.1	MSA	215.8	SSA	34.5
BDE	.7577	BRA	1.1179	BC3	6.2257	FSP	-441	SG1	5194.8	SG2	414.2	THA	177.47	EL1	1230.7	EL2	205.9	ALF	12.60

LAUNCH DATE OCT 11 1970 FLIGHT TIME 174.00 ARRIVAL DATE APR 3 1971

HELIOCENTRIC CONIC DISTANCE 516.825

RL	149.34	LAL	-.00	LOL	17.27	VL	26.011	GAL	.71	AZL	88.69	HCA	261.51	SMA	120.56	ECC	.23899	INC	1.3071
RP	108.83	LAP	-1.29	LOP	278.78	VP	36.582	GAP	12.67	AZP	90.19	TAL	177.73	TAP	79.25	RCA	91.75	APO	149.38
RC	179.021	GL	8.61	GP	13.01	ZAL	78.06	ZAP	165.71	ETS	62.12	ZAE	129.00	ETE	169.57	ZAC	115.55	ETC	270.07

V1 29.836 V2 34.822 CLP-174.05

PLANETOCENTRIC CONIC

C3 15.693 VHL 3.961 DLA -11.86 RAL 299.67 RAD 6567.6 VEL 11.708 PTH 2.06 VHP 8.147 DPA -11.24 RAP 285.40 ECC 1.2583

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 34 40	1780.98	-7.24	15.64	156.23	117.45	8 4 21	1181.0	-3.50	8.96
90.00	16 29 44	5179.13	25.84	231.79	160.71	77.99	17 56 3	4579.1	23.92	223.65
100.00	8 49 59	1537.98	-8.24	357.24	155.69	118.83	9 15 37	938.0	-4.33	350.63
100.00	17 57 6	4897.35	26.95	210.79	160.43	76.55	19 18 44	4297.4	24.83	202.63
110.00	9 44 36	1366.92	-10.87	342.67	154.11	122.61	10 7 23	766.9	-6.50	336.32
110.00	19 18 58	4641.18	29.90	190.41	159.51	72.60	20 36 19	4041.2	27.23	182.24

DIFFERENTIAL CORRECTIONS

TDE	.8618	TRA	1.3276	TC3	-5.9200	BAU	1.2434
RDE	.2250	RRA	-.1775	RC3	.2797	FAU	.02099
FDE	.3602	FRA	.7503	FC3	-1.1582	BSP	16748
BDE	.8907	BRA	1.3394	BC3	5.9266	FSP	-436

MID-COURSE EXECUTION ACCURACY

SGT	5234.7	SGR	473.2	SG3	132.2		
RRT	-.4637	RRF	-.4483	RTF	.8897		
SGB	5256.1	RZ3	.0374	R13	-.8898		
SG1	5239.4	SG2	418.9	THA	177.58		

ORBIT DETERMINATION ACCURACY

ST	1385.7	SR	334.9	SS	435.6
CRT	.7723	CRS	-.6910	CST	-.9904
LSA	1474.3	MSA	217.7	SSA	30.2
EL1	1410.2	EL2	209.1	ALF	10.82

LAUNCH DATE OCT 11 1970 FLIGHT TIME 176.00 ARRIVAL DATE APR 5 1971

HELIOCENTRIC CONIC DISTANCE 522.304

RL	149.34	LAL	-.00	LOL	17.27	VL	25.957	GAL	1.30	AZL	88.53	HCA	264.68	SMA	120.26	ECC	.24286	INC	1.4705
RP	108.85	LAP	-1.46	LOP	281.94	VP	36.537	GAP	12.98	AZP	90.14	TAL	175.92	TAP	80.60	RCA	91.05	APO	149.46
RC	180.980	GL	9.36	GP	12.61	ZAL	74.60	ZAP	166.36	ETS	64.24	ZAE	129.11	ETE	169.86	ZAC	115.01	ETC	270.73

V1 29.836 V2 34.815 CLP-174.76

PLANETOCENTRIC CONIC

C3 16.764 VHL 4.094 DLA -10.40 RAL 303.00 RAD 6567.7 VEL 11.754 PTH 2.07 VHP 8.324 DPA -11.48 RAP 287.87 ECC 1.2759

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 35 51	1844.69	-9.22	19.28	160.43	116.89	8 6 36	1244.7	-5.54	12.53
90.00	16 55 5	5145.53	25.34	229.46	164.59	76.92	18 20 51	4545.5	23.29	221.39
100.00	8 52 2	1598.92	-10.23	.67	159.90	118.24	9 18 41	998.9	-6.37	354.01
100.00	18 21 35	4866.52	26.44	208.64	164.29	75.53	19 42 42	4266.5	24.19	200.56
110.00	9 48 33	1421.94	-12.87	345.68	158.33	121.94	10 12 15	821.9	-8.56	339.24
110.00	19 41 34	4616.28	29.38	188.66	163.31	71.68	20 58 30	4016.3	26.59	180.58

DIFFERENTIAL CORRECTIONS

TDE	.9880	TRA	1.5413	TC3	-5.6202	BAU	1.2610
RDE	.2326	RRA	-.1890	RC3	.2591	FAU	.02011
FDE	.3809	FRA	.7802	FC3	-1.0384	BSP	17369
BDE	1.0150	BRA	1.5528	BC3	5.6262	FSP	-449

MID-COURSE EXECUTION ACCURACY

SGT	5282.1	SGR	472.5	SG3	129.3		
RRT	-.4471	RRF	-.4319	RTF	.8963		
SGB	5303.2	RZ3	.0320	R13	-.8964		
SG1	5286.4	SG2	422.3	THA	177.69		

ORBIT DETERMINATION ACCURACY

ST	1537.3	SR	335.4	SS	452.4
CRT	.7681	CRS	-.6942	CST	-.9923
LSA	1622.2	MSA	219.2	SSA	26.9
EL1	1559.1	EL2	211.8	ALF	9.69

LAUNCH DATE OCT 11 1970 FLIGHT TIME 178.00 ARRIVAL DATE APR 7 1971

HELIOCENTRIC CONIC DISTANCE 527.752

RL	149.34	LAL	-.00	LOL	17.27	VL	25.903	GAL	1.92	AZL	88.37	HCA	267.84	SMA	119.96	ECC	.24712	INC	1.6322
RP	108.87	LAP	-1.63	LOP	285.10	VP	36.493	GAP	13.31	AZP	90.06	TAL	174.12	TAP	81.96	RCA	90.31	APO	149.60
RC	182.925	GL	10.00	GP	12.25	ZAL	71.24	ZAP	166.95	ETS	66.59	ZAE	129.20	ETE	170.12	ZAC	114.48	ETC	271.38

V1 29.836 V2 34.809 CLP-175.46

PLANETOCENTRIC CONIC

C3 18.043 VHL 4.248 DLA -9.00 RAL 306.20 RAD 6567.7 VEL 11.808 PTH 2.09 VHP 8.515 DPA -11.65 RAP 290.35 ECC 1.2969

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 37 24	1907.35	-11.12	22.89	164.69	116.21	8 9 11	1307.3	-7.51	16.07
90.00	17 19 6	5116.91	24.88	227.48	168.52	76.03	18 44 22	4516.9	22.72	219.48
100.00	8 54 21	1659.09	-12.14	4.11	164.17	117.53	9 22 0	1059.1	-8.36	357.36
100.00	18 44 50	4840.40	25.99	206.83	168.20	74.68	20 5 30	4240.4	23.63	198.82
110.00	9 52 36	1476.71	-14.82	348.72	162.62	121.16	10 17 13	876.7	-10.59	342.18
110.00	20 3 4	4595.55	28.93	187.21	167.17	70.94	21 19 40	3995.5	26.05	179.21

DIFFERENTIAL CORRECTIONS

TDE	1.1544	TRA	1.8010	TC3	-5.2109	BAU	1.2582
RDE	.2388	RRA	-.2027	RC3	.2313	FAU	.01844
FDE	.4168	FRA	.8258	FC3	-.8846	BSP	17126
BDE	1.1789	BRA	1.8123	BC3	5.2160	FSP	-427

MID-COURSE EXECUTION ACCURACY

SGT	5298.2	SGR	468.0	SG3	126.8		
RRT	-.4232	RRF	-.4061	RTF	.8974		
SGB	5318.9	RZ3	.0264	R13	-.8975		
SG1	5302.0	SG2	423.7	THA	177.85		

ORBIT DETERMINATION ACCURACY

ST	1728.3	SR	332.7	SS	483.0
CRT	.7644	CRS	-.6998	CST	-.9942
LSA	1811.8	MSA	218.5	SSA	24.3
EL1	1747.2	EL2	212.2	ALF	8.50

LAUNCH DATE OCT 11 1970 FLIGHT TIME 180.00 ARRIVAL DATE APR 9 1971

HELIOCENTRIC CONIC DISTANCE 533.158

RL	149.34	LAL	-.00	LOL	17.27	VL	25.851	GAL	2.57	AZL	88.21	HCA	271.00	SMA	119.66	ECC	.25180	INC	1.7932
RP	108.88	LAP	-1.79	LOP	288.27	VP	36.451	GAP	13.66	AZP	89.97	TAL	172.31	TAP	83.31	RCA	89.53	APO	149.79
RC	184.054	GL	10.53	GP	11.92	ZAL	68.01	ZAP	167.49	ETS	69.20	ZAE	129.30	ETE	170.37	ZAC	113.96	ETC	272.02

V1 29.836 V2 34.804 CLP-176.16

PLANETOCENTRIC CONIC

C3 19.554 VHL 4.422 DLA -7.67 RAL 309.27 RAD 6567.8 VEL 11.872 PTH 2.11 VHP 8.721 DPA -11.74 RAP 292.83 ECC 1.3218

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 39 14	1968.92	-12.95	26.49	169.01	115.40	8 12 3	1368.9	-9.42	19.59
90.00	17 41 46	5093.16	24.48	225.86	172.48	75.31	19 6 39	4493.2	22.23	217.92
100.00	8 56 53	1718.41	-13.98	7.55	168.49	116.69	9 25 31	1118.4	-10.29	.71
100.00	19 6 48	4818.90	25.59	205.35	172.14	74.00	20 27 7	4218.9	23.15	197.41
110.00	9 56 42	1531.11	-16.72	351.80	166.96	120.26	10 22 13	931.1	-12.57	345.15
110.00	20 23 28	4578.96	28.55	186.07	171.07	70.35	21 39 47	3979.0	25.61	178.13

DIFFERENTIAL CORRECTIONS

TDE	1.3147	TRA	2.0813	TC3	-4.8155	BAU	1.2600
RDE	.2471	RRA	-.2152	RC3	.2058	FAU	.01706
FDE	.4482	FRA	.8666	FC3	-.7553	BSP	17149
BDE	1.3377	BRA	2.0725	BC3	4.8199	FSP	-416

MID-COURSE EXECUTION ACCURACY

SGT	5320.0	SGR	463.5	SG3	124.1		
RRT	-.4008	RRF	-.3834	RTF	.9005		
SGB	5340.1	RZ3	.0220	R13	-.9006		
SG1	5323.2	SG2	424.4	THA	177.99		

ORBIT DETERMINATION ACCURACY

ST	1890.0	SR	331.1	SS	505.6
CRT	.7613	CRS	-.7035	CST	-.9954
LSA	1972.1	MSA	218.3	SSA	22.2
EL1	1906.9	EL2	212.8	ALF	7.69

LAUNCH DATE OCT 11 1970 FLIGHT TIME 182.00 ARRIVAL DATE APR 11 1971

HELIOCENTRIC CONIC DISTANCE 538.518

```
RL  149.34 LAL   -.00 LOL  17.27 VL  25.799 GAL   3.25 AZL  88.05 HCA 274.16 SMA 119.38 ECC .25694 INC 1.9544 V1  29.836
RP  108.90 LAP  -1.95 LOP 291.43 VP  36.410 GAP  14.03 AZP  89.86 TAL 170.51 TAP  84.67 RCA  88.70 APO 150.05 V2  34.799
RC 186.768 GL   10.97 GP   11.62 ZAL  84.92 ZAP 167.97 ETS  72.07 ZAE 129.38 ETE 170.59 ZAC 113.45 ETC 272.65 CLP-176.86
```

PLANETOCENTRIC CONIC

```
C3  21.325 VHL  4.618 DLA  -6.42 RAL 312.21 RAD 6567.9 VEL 11.946 PTH   2.13 VHP  8.943 DPA -11.76 RAP 295.31 ECC 1.3510
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 41 17	2029.41	-14.69	30.09	173.37	114.48	8 15 6	1429.4	-11.26	23.08
90.00	18 3 7	5074.11	24.15	224.56	176.46	74.74	19 27 41	4474.1	21.82	216.67
100.00	8 59 34	1776.86	-15.74	11.00	172.86	115.74	9 29 11	1176.9	-12.15	4.05
100.00	19 27 31	4801.89	25.27	204.19	176.10	73.47	20 47 33	4201.9	22.76	196.29
110.00	10 0 50	1585.07	-18.54	354.93	171.34	119.25	10 27 15	985.1	-14.50	348.14
110.00	20 42 45	4566.44	28.26	185.21	175.00	69.92	21 58 52	3966.4	25.26	177.31

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.4777 TRA 2.3312 TC3-4.4213 BAU 1.2616   SGT 5339.2 SGR  458.1 SG3  121.5     ST  2034.5 SR   329.8 SS   524.8
 RDE  .2568 RRA -.2269 RC3  .1815 FAU .01578   RRT -.3781 RRF -.3608 RTF  .9043     CRT  .7591 CRS -.7073 CST -.9963
 FDE  .4740 FRA  .9062 FC3 -.6407 BSP  17231   SGB 5358.9 R23  .0180 R13 -.9044    LSA 2115.5 MSA  217.8 SSA   20.5
 BDE 1.4999 BRA 2.3422 BC3 4.4250 FSP   -407   SG1 5342.1 SG2  423.9 THA 178.13    EL1 2050.0 EL2  213.0 ALF   7.09
```

LAUNCH DATE OCT 11 1970 FLIGHT TIME 184.00 ARRIVAL DATE APR 13 1971

HELIOCENTRIC CONIC DISTANCE 543.825

```
RL  149.34 LAL   -.00 LOL  17.27 VL  25.748 GAL   3.96 AZL  87.88 HCA 277.32 SMA 119.10 ECC .26259 INC 2.1168 V1  29.836
RP  108.91 LAP  -2.10 LOP 294.59 VP  36.370 GAP  14.43 AZP  89.73 TAL 168.72 TAP  86.04 RCA  87.82 APO 150.37 V2  34.795
RC 188.667 GL   11.31 GP   11.34 ZAL  61.97 ZAP 168.41 ETS  75.21 ZAE 129.45 ETE 170.80 ZAC 112.94 ETC 273.27 CLP-177.57
```

PLANETOCENTRIC CONIC

```
C3  23.392 VHL  4.837 DLA  -5.25 RAL 315.00 RAD 6567.9 VEL 12.032 PTH   2.15 VHP  9.183 DPA -11.71 RAP 297.78 ECC 1.3850
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 43 30	2088.81	-16.33	33.67	177.76	113.46	8 18 19	1488.8	-13.02	26.56
90.00	18 23 12	5059.57	23.88	223.58	180.45	74.32	19 47 32	4459.6	21.50	215.72
100.00	9 2 22	1834.39	-17.41	14.46	177.26	114.69	9 32 57	1234.4	-13.94	7.39
100.00	19 47 1	4789.22	25.02	203.33	180.08	73.08	21 6 51	4189.2	22.46	195.47
110.00	10 4 57	1638.50	-20.29	358.09	175.75	118.12	10 32 15	1038.5	-16.37	351.15
110.00	21 0 57	4557.87	28.06	184.62	178.93	69.63	22 16 54	3957.9	25.03	176.76

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.6460 TRA 2.6144 TC3-4.0301 BAU 1.2613   SGT 5354.7 SGR  451.8 SG3  118.9     ST  2164.8 SR   328.5 SS   542.1
 RDE  .2678 RRA -.2378 RC3  .1582 FAU .01455   RRT -.3546 RRF -.3379 RTF  .9084     CRT  .7579 CRS -.7111 CST -.9970
 FDE  .5011 FRA  .9469 FC3 -.5384 BSP  17315   SGB 5373.7 R23  .0148 R13 -.9084    LSA 2245.2 MSA  217.0 SSA   19.1
 BDE 1.6677 BRA 2.6252 BC3 4.0332 FSP   -400   SG1 5357.1 SG2  422.3 THA 178.28    EL1 2179.2 EL2  212.9 ALF   6.62
```

LAUNCH DATE OCT 11 1970 FLIGHT TIME 186.00 ARRIVAL DATE APR 15 1971

HELIOCENTRIC CONIC DISTANCE 549.072

```
RL  149.34 LAL   -.00 LOL  17.27 VL  25.698 GAL   4.70 AZL  87.72 HCA 280.48 SMA 118.82 ECC .26879 INC 2.2816 V1  29.836
RP  108.92 LAP  -2.24 LOP 297.75 VP  36.332 GAP  14.86 AZP  89.58 TAL 166.95 TAP  87.42 RCA  86.88 APO 150.76 V2  34.791
RC 190.549 GL   11.58 GP   11.09 ZAL  59.17 ZAP 168.78 ETS  78.61 ZAE 129.52 ETE 171.00 ZAC 112.43 ETC 273.88 CLP-178.28
```

PLANETOCENTRIC CONIC

```
C3  25.796 VHL  5.079 DLA  -4.16 RAL 317.66 RAD 6568.0 VEL 12.131 PTH   2.17 VHP  9.443 DPA -11.60 RAP 300.25 ECC 1.4245
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 45 51	2147.10	-17.88	37.25	182.18	112.33	8 21 38	1547.1	-14.69	30.02
90.00	18 42 3	5049.34	23.69	222.89	184.44	74.02	20 6 12	4449.3	21.28	215.05
100.00	9 5 15	1890.99	-18.99	17.93	181.68	113.53	9 36 46	1291.0	-15.64	10.73
100.00	20 5 20	4780.69	24.85	202.76	184.06	72.83	21 25 1	4180.7	22.26	194.91
110.00	10 9 2	1691.33	-21.95	1.28	180.19	116.89	10 37 13	1091.3	-18.16	354.20
110.00	21 18 3	4553.11	27.95	184.30	182.88	69.46	22 33 56	3953.1	24.90	176.46

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.8198 TRA 2.9117 TC3-3.6479 BAU 1.2589   SGT 5365.8 SGR  444.6 SG3  116.3     ST  2281.0 SR   327.2 SS   557.7
 RDE  .2803 RRA -.2477 RC3  .1363 FAU .01336   RRT -.3298 RRF -.3142 RTF  .9127     CRT  .7578 CRS -.7155 CST -.9975
 FDE  .5279 FRA  .9884 FC3 -.4483 BSP  17402   SGB 5384.2 R23  .0121 R13 -.9127    LSA 2361.0 MSA  215.8 SSA   17.8
 BDE 1.8413 BRA 2.9222 BC3 3.6504 FSP   -392   SG1 5367.8 SG2  419.5 THA 178.43    EL1 2294.6 EL2  212.2 ALF   6.26
```

LAUNCH DATE OCT 11 1970 FLIGHT TIME 188.00 ARRIVAL DATE APR 17 1971

HELIOCENTRIC CONIC DISTANCE 554.249

```
RL  149.34 LAL   -.00 LOL  17.27 VL  25.649 GAL   5.49 AZL  87.55 HCA 283.64 SMA 118.55 ECC .27562 INC 2.4497 V1  29.836
RP  108.93 LAP  -2.38 LOP 300.91 VP  36.294 GAP  15.32 AZP  89.42 TAL 165.18 TAP  88.82 RCA  85.88 APO 151.23 V2  34.789
RC 192.414 GL   11.78 GP   10.85 ZAL  56.52 ZAP 169.10 ETS  82.28 ZAE 129.58 ETE 171.19 ZAC 111.92 ETC 274.49 CLP-179.00
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PLANETOCENTRIC CONIC

```
C3  28.585 VHL  5.346 DLA  -3.14 RAL 320.18 RAD 6568.1 VEL 12.246 PTH   2.20 VHP  9.725 DPA -11.42 RAP 302.71 ECC 1.4704
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 48 18	2204.27	-19.32	40.83	186.61	111.12	8 25 3	1604.3	-16.28	33.47
90.00	18 59 42	5043.21	23.58	222.48	188.42	73.85	20 23 45	4443.2	21.14	214.66
100.00	9 8 11	1946.60	-20.46	21.40	186.12	112.28	9 40 37	1346.6	-17.26	14.07
100.00	20 22 30	4776.11	24.76	202.45	188.03	72.69	21 42 6	4176.1	22.15	194.62
110.00	10 13 4	1743.50	-23.52	4.52	184.66	115.55	10 42 7	1143.5	-19.88	357.27
110.00	21 34 7	4551.98	27.92	184.22	186.82	69.43	22 49 59	3952.0	24.86	176.38

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.9997 TRA 3.2245 TC3-3.2795 BAU 1.2540   SGT 5372.8 SGR  436.4 SG3  113.8     ST  2383.6 SR   325.8 SS   572.1
 RDE  .2941 RRA -.2565 RC3  .1159 FAU .01220   RRT -.3036 RRF -.2894 RTF  .9172     CRT  .7587 CRS -.7205 CST -.9979
 FDE  .5546 FRA 1.0313 FC3 -.3695 BSP  17467   SGB 5390.4 R23  .0098 R13 -.9172    LSA 2463.5 MSA  214.2 SSA   16.8
 BDE 2.0212 BRA 3.2347 BC3 3.2816 FSP   -385   SG1 5374.4 SG2  415.7 THA 178.58    EL1 2396.4 EL2  211.1 ALF   5.97
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LAUNCH DATE OCT 11 1970 FLIGHT TIME 190.00 ARRIVAL DATE APR 19 1971

HELIOCENTRIC CONIC DISTANCE 559.346

RL	149.34	LAL	-.00	LOL	17.27	VL	25.601	GAL	6.32	AZL	87.38	HCA	286.79	SMA	118.29	ECC	.28315	INC	2.6224
RP	108.94	LAP	-2.51	LOP	304.08	VP	36.258	GAP	15.83	AZP	89.24	TAL	163.44	TAP	90.23	RCA	84.80	APO	151.79
RC	194.261	GL	11.91	GP	10.64	ZAL	54.01	ZAP	169.35	ETS	86.20	ZAE	129.62	ETE	171.36	ZAC	111.41	ETC	275.07

V1	29.836	V2	34.787	CLP	-179.72														

PLANETOCENTRIC CONIC

C3	31.819	VHL	5.641	DLA	-2.20	RAL	322.56	RAD	6568.3	VEL	12.377	PTH	2.23	VHP	10.032	DPA	-11.19	RAP	305.14
ECC	1.5237																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 50 50	2260.28	-20.65	44.40	191.04	109.82	8 28 30	1660.3	-17.76	36.91
90.00	19 16 10	5040.95	23.54	222.33	192.39	73.78	20 40 11	4441.0	21.09	214.51
100.00	9 11 9	2001.20	-21.83	24.88	190.57	110.94	9 44 30	1401.2	-18.79	17.40
100.00	20 38 33	4775.27	24.74	202.39	192.00	72.66	21 58 8	4175.3	22.13	194.56
110.00	10 17 2	1794.94	-24.99	7.79	189.14	114.12	10 46 57	1194.9	-21.52	.36
110.00	21 49 9	4554.29	27.97	184.38	190.76	69.50	23 5 3	3954.3	24.93	176.53

DIFFERENTIAL CORRECTIONS

TDE	2.1869	TRA	3.5529	TC3	-2.9277	BAU	1.2461
RDE	.3093	RRA	-.2637	RC3	.0972	FAU	.01109
FDE	.5812	FRA	1.0754	FC3	-.3019	BSP	17606
BDE	2.2087	BRA	3.5626	BC3	2.9293	FSP	-379

MID-COURSE EXECUTION ACCURACY

SGT	5374.6	SGR	427.3	SG3	111.3		
RRT	-.2754	RRF	-.2632	RTF	.9221		
SGB	5391.6	R23	.0081	R13	-.9221		
SG1	5375.9	SG2	410.7	THA	178.74		

ORBIT DETERMINATION ACCURACY

ST	2473.5	SR	324.4	SS	585.4		
CRT	.7610	CRS	-.7262	CST	-.9983		
LSA	2553.6	MSA	212.2	SSA	15.8		
EL1	2485.8	EL2	209.4	ALF	5.74		

LAUNCH DATE OCT 11 1970 FLIGHT TIME 192.00 ARRIVAL DATE APR 21 1971

HELIOCENTRIC CONIC DISTANCE 564.348

RL	149.34	LAL	-.00	LOL	17.27	VL	25.554	GAL	7.20	AZL	87.20	HCA	289.95	SMA	118.04	ECC	.29144	INC	2.8008
RP	108.94	LAP	-2.63	LOP	307.24	VP	36.224	GAP	16.37	AZP	89.04	TAL	161.72	TAP	91.67	RCA	83.64	APO	152.44
RC	196.090	GL	11.99	GP	10.45	ZAL	51.65	ZAP	169.54	ETS	90.34	ZAE	129.64	ETE	171.53	ZAC	110.90	ETC	275.64

V1	29.836	V2	34.786	CLP	179.54		

PLANETOCENTRIC CONIC

C3	35.569	VHL	5.964	DLA	-1.34	RAL	324.81	RAD	6568.4	VEL	12.528	PTH	2.27	VHP	10.368	DPA	-10.90	RAP	307.56
ECC	1.5854																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 53 24	2315.10	-21.87	47.95	195.47	108.44	8 31 59	1715.1	-19.15	40.33
90.00	19 31 32	5042.33	23.56	222.42	196.34	73.82	20 55 34	4442.3	21.12	214.60
100.00	9 14 7	2054.72	-23.09	28.35	195.01	109.53	9 48 22	1454.7	-20.22	20.73
100.00	20 53 30	4777.94	24.79	202.57	195.94	72.74	22 13 8	4177.9	22.20	194.74
110.00	10 20 56	1845.58	-26.36	11.09	193.63	112.60	10 51 41	1245.6	-23.06	3.48
110.00	22 3 11	4559.85	28.11	184.76	194.68	69.69	23 19 11	3959.8	25.08	176.89

DIFFERENTIAL CORRECTIONS

TDE	2.3774	TRA	3.8989	TC3	-2.5988	BAU	1.2364
RDE	.3280	RRA	-.2692	RC3	.0804	FAU	.01003
FDE	.6081	FRA	1.1213	FC3	-.2442	BSP	17678
BDE	2.3997	BRA	3.9082	BC3	2.6001	FSP	-373

MID-COURSE EXECUTION ACCURACY

SGT	5372.5	SGR	417.4	SG3	108.8		
RRT	-.2457	RRF	-.2353	RTF	.9270		
SGB	5388.7	R23	.0063	R13	-.9270		
SG1	5373.5	SG2	404.6	THA	178.90		

ORBIT DETERMINATION ACCURACY

ST	2547.3	SR	322.7	SS	598.1		
CRT	.7638	CRS	-.7326	CST	-.9986		
LSA	2628.0	MSA	209.7	SSA	15.0		
EL1	2559.3	EL2	207.3	ALF	5.56		

LAUNCH DATE OCT 11 1970 FLIGHT TIME 194.00 ARRIVAL DATE APR 23 1971

HELIOCENTRIC CONIC DISTANCE 569.239

RL	149.34	LAL	-.00	LOL	17.27	VL	25.508	GAL	8.14	AZL	87.01	HCA	293.11	SMA	117.79	ECC	.30060	INC	2.9866
RP	108.94	LAP	-2.75	LOP	310.40	VP	36.191	GAP	16.97	AZP	88.83	TAL	160.03	TAP	93.14	RCA	82.38	APO	153.20
RC	197.900	GL	12.02	GP	10.27	ZAL	49.43	ZAP	169.66	ETS	94.69	ZAE	129.65	ETE	171.69	ZAC	110.39	ETC	276.20

V1	29.836	V2	34.785	CLP	178.79		

PLANETOCENTRIC CONIC

C3	39.923	VHL	6.318	DLA	-.56	RAL	326.92	RAD	6568.5	VEL	12.700	PTH	2.31	VHP	10.735	DPA	-10.57	RAP	309.96
ECC	1.6570																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 56 0	2368.68	-22.99	51.49	199.88	107.01	8 35 29	1768.7	-20.44	43.74
90.00	19 45 49	5047.11	23.65	222.74	200.26	73.96	21 9 56	4447.1	21.23	214.91
100.00	9 17 5	2107.13	-24.24	31.82	199.45	108.05	9 52 12	1507.1	-21.55	24.06
100.00	21 7 25	4783.89	24.91	202.97	199.85	72.92	22 27 9	4183.9	22.34	195.12
110.00	10 24 45	1895.36	-27.62	14.41	198.12	111.00	10 56 20	1295.4	-24.51	6.62
110.00	22 16 15	4568.43	28.31	185.34	198.58	69.99	23 32 23	3968.4	25.32	177.44

DIFFERENTIAL CORRECTIONS

TDE	2.5773	TRA	4.2641	TC3	-2.2901	BAU	1.2228
RDE	.3443	RRA	-.2728	RC3	.0653	FAU	.00900
FDE	.6355	FRA	1.1695	FC3	-.1953	BSP	17811
BDE	2.6002	BRA	4.2728	BC3	2.2910	FSP	-368

MID-COURSE EXECUTION ACCURACY

SGT	5365.6	SGR	406.8	SG3	106.4		
RRT	-.2134	RRF	-.2051	RTF	.9322		
SGB	5381.0	R23	.0052	R13	-.9322		
SG1	5366.3	SG2	397.4	THA	179.07		

ORBIT DETERMINATION ACCURACY

ST	2610.6	SR	320.9	SS	610.6		
CRT	.7679	CRS	-.7398	CST	-.9988		
LSA	2692.2	MSA	206.8	SSA	14.3		
EL1	2622.3	EL2	204.6	ALF	5.43		

LAUNCH DATE OCT 11 1970 FLIGHT TIME 196.00 ARRIVAL DATE APR 25 1971

HELIOCENTRIC CONIC DISTANCE 573.998

RL	149.34	LAL	-.00	LOL	17.27	VL	25.463	GAL	9.15	AZL	86.82	HCA	296.26	SMA	117.55	ECC	.31074	INC	3.1814
RP	108.94	LAP	-2.85	LOP	313.56	VP	36.159	GAP	17.63	AZP	88.59	TAL	158.38	TAP	94.64	RCA	81.02	APO	154.08
RC	199.690	GL	12.01	GP	10.10	ZAL	47.35	ZAP	169.71	ETS	99.20	ZAE	129.64	ETE	171.85	ZAC	109.88	ETC	276.74

V1	29.836	V2	34.785	CLP	178.02		

PLANETOCENTRIC CONIC

C3	44.987	VHL	6.707	DLA	.16	RAL	328.91	RAD	6568.7	VEL	12.898	PTH	2.35	VHP	11.138	DPA	-10.19	RAP	312.33
ECC	1.7404																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 58 38	2420.96	-23.98	54.99	204.26	105.52	8 38 59	1821.0	-21.62	47.12
90.00	19 59 3	5055.03	23.80	223.27	204.15	74.19	21 23 18	4455.0	21.40	215.42
100.00	9 20 3	2158.34	-25.28	35.27	203.86	106.51	9 56 1	1558.3	-22.77	27.37
100.00	21 20 19	4792.89	25.09	203.58	203.73	73.20	22 40 12	4192.9	22.55	195.71
110.00	10 28 28	1944.18	-28.76	17.75	202.59	109.32	11 0 52	1344.2	-25.86	9.78
110.00	22 28 23	4579.81	28.57	186.12	202.45	70.38	23 44 43	3979.8	25.63	178.18

DIFFERENTIAL CORRECTIONS

TDE	2.7856	TRA	4.6513	TC3	-2.0021	BAU	1.2045
RDE	.3641	RRA	-.2739	RC3	.0521	FAU	.00800
FDE	.6638	FRA	1.2206	FC3	-.1539	BSP	17948
BDE	2.8093	BRA	4.6594	BC3	2.0028	FSP	-363

MID-COURSE EXECUTION ACCURACY

SGT	5353.8	SGR	395.4	SG3	104.1		
RRT	-.1782	RRF	-.1722	RTF	.9375		
SGB	5368.4	R23	.0043	R13	-.9375		
SG1	5354.3	SG2	389.1	THA	179.24		

ORBIT DETERMINATION ACCURACY

ST	2682.7	SR	318.8	SS	623.3		
CRT	.7730	CRS	-.7477	CST	-.9990		
LSA	2745.6	MSA	203.3	SSA	13.5		
EL1	2674.1	EL2	201.4	ALF	5.32		

LAUNCH DATE OCT 11 1970 FLIGHT TIME 198.00 ARRIVAL DATE APR 27 1971

HELIOCENTRIC CONIC DISTANCE 578.600

RL	149.34	LAL	-.00	LOL	17.27	VL	25.418	GAL	10.22	AZL	86.61	HCA	299.42	SMA	117.32	ECC	.32198	INC	3.3870	V1	29.836
RP	108.94	LAP	-2.95	LOP	316.73	VP	36.129	GAP	18.35	AZP	88.33	TAL	156.77	TAP	96.19	RCA	79.54	APO	155.09	V2	34.786
RC	201.461	GL	11.96	GP	9.95	ZAL	45.41	ZAP	169.67	ETS	103.83	ZAE	129.60	ETE	172.00	ZAC	109.37	ETC	277.26	CLP	177.23

PLANETOCENTRIC CONIC

C3	50.893	VHL	7.134	DLA	.81	RAL	330.77	RAD	6568.9	VEL	13.125	PTH	2.40	VHP	11.583	DPA	-9.76	RAP	314.66	ECC	1.8376

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 1 16	2471.84	-24.87	58.46	208.60	104.00	8 42 28	1871.8	-22.70	50.46
90.00	20 11 15	5065.88	24.00	224.01	207.99	74.50	21 35 41	4465.9	21.64	216.13
100.00	9 22 59	2208.26	-26.20	38.69	208.22	104.94	9 59 48	1608.3	-23.89	30.66
100.00	21 32 14	4804.70	25.32	204.38	207.57	73.56	22 52 18	4204.7	22.82	196.48
110.00	10 32 6	1991.95	-29.79	21.09	207.04	107.59	11 5 18	1392.0	-27.10	12.94
110.00	22 39 37	4593.77	28.89	187.09	206.28	70.87	23 56 10	3993.8	26.00	179.09

DIFFERENTIAL CORRECTIONS					MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	3.0053	TRA	5.0632	TC3 -1.7349	BAU 1.1808	SGT	5337.9	SGR 383.5	SG3 101.8	ST	2705.5	SR 316.5 SS 636.8
RDE	.3855	RRA	-.2725	RC3 .0405	FAU .00699	RRT	-.1396	RRF -.1360	RTF .9429	CRT	.7790	CRS -.7564 CST -.9992
FDE	.6938	FRA	1.2752	FC3 -.1189	BSP 18068	SGB	5351.6	R23 .0037	R13 -.9429	LSA	2790.3	MSA 199.3 SSA 12.9
BDE	3.0299	BRA	5.0705	BC3 1.7354	FSP -358	SG1	5338.1	SG2 379.8	THA 179.42	EL1	2716.8	EL2 197.6 ALF 5.23

LAUNCH DATE OCT 11 1970 FLIGHT TIME 200.00 ARRIVAL DATE APR 29 1971

HELIOCENTRIC CONIC DISTANCE 583.014

RL	149.34	LAL	-.00	LOL	17.27	VL	25.375	GAL	11.38	AZL	86.39	HCA	302.58	SMA	117.09	ECC	.33447	INC	3.6058	V1	29.836
RP	108.93	LAP	-3.04	LOP	319.89	VP	36.100	GAP	19.14	AZP	88.06	TAL	155.22	TAP	97.79	RCA	77.93	APO	156.25	V2	34.788
RC	203.212	GL	11.87	GP	9.81	ZAL	43.61	ZAP	169.56	ETS	108.52	ZAE	129.54	ETE	172.15	ZAC	108.86	ETC	277.76	CLP	176.41

PLANETOCENTRIC CONIC

C3	57.806	VHL	7.603	DLA	1.39	RAL	332.51	RAD	6569.1	VEL	13.385	PTH	2.45	VHP	12.074	DPA	-9.31	RAP	316.96	ECC	1.9513

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 3 55	2521.23	-25.64	61.87	212.88	102.46	8 45 56	1921.2	-23.66	53.76
90.00	20 22 28	5079.41	24.24	224.92	211.77	74.90	21 47 8	4479.4	21.93	217.01
100.00	9 25 54	2256.77	-27.00	42.07	212.54	103.33	10 3 31	1656.8	-24.90	35.91
100.00	21 43 10	4819.09	25.59	205.37	211.36	74.01	23 3 29	4219.1	23.15	197.42
110.00	10 35 37	2038.54	-30.70	24.41	211.44	105.82	11 9 36	1438.5	-28.23	16.09
110.00	22 49 56	4610.09	29.24	188.22	210.08	71.46	24 6 46	4010.1	26.43	180.17

DIFFERENTIAL CORRECTIONS					MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	3.2387	TRA	5.5042	TC3 -1.4871	BAU 1.1495	SGT	5318.4	SGR 371.2	SG3 99.6	ST	2740.6	SR 313.8 SS 651.8
RDE	.4086	RRA	-.2679	RC3 .0306	FAU .00596	RRT	-.0971	RRF -.0958	RTF .9483	CRT	.7860	CRS -.7658 CST -.9993
FDE	.7260	FRA	1.3345	FC3 -.0892	BSP 18147	SGB	5331.4	R23 .0033	R13 -.9483	LSA	2827.7	MSA 194.8 SSA 12.3
BDE	3.2643	BRA	5.5108	BC3 1.4874	FSP -352	SG1	5318.6	SG2 369.4	THA 179.61	EL1	2751.7	EL2 193.2 ALF 5.17

LAUNCH DATE OCT 11 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAY 1 1971

HELIOCENTRIC CONIC DISTANCE 587.200

RL	149.34	LAL	-.00	LOL	17.27	VL	25.333	GAL	12.64	AZL	86.16	HCA	305.73	SMA	116.87	ECC	.34839	INC	3.8407	V1	29.836
RP	108.92	LAP	-3.12	LOP	323.06	VP	36.073	GAP	20.03	AZP	87.75	TAL	153.73	TAP	99.46	RCA	76.16	APO	157.59	V2	34.790
RC	204.943	GL	11.77	GP	9.68	ZAL	41.94	ZAP	169.35	ETS	113.24	ZAE	129.44	ETE	172.30	ZAC	108.36	ETC	278.24	CLP	175.55

PLANETOCENTRIC CONIC

C3	65.932	VHL	8.120	DLA	1.90	RAL	334.12	RAD	6569.3	VEL	13.685	PTH	2.50	VHP	12.621	DPA	-8.81	RAP	319.21	ECC	2.0851

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 6 33	2568.96	-26.29	65.21	217.09	100.91	8 49 22	1969.0	-24.52	56.99
90.00	20 32 42	5095.40	24.52	226.01	215.49	75.38	21 57 38	4495.4	22.27	218.06
100.00	9 28 47	2303.73	-27.70	45.39	216.77	101.72	10 7 10	1703.7	-25.80	37.10
100.00	21 53 10	4835.86	25.90	206.52	215.08	74.54	23 13 46	4235.9	23.53	198.52
110.00	10 39 3	2083.79	-31.50	27.70	215.77	104.03	11 13 47	1483.8	-29.25	19.21
110.00	22 59 23	4628.57	29.64	189.52	213.82	72.13	24 16 32	4028.6	26.91	181.39

DIFFERENTIAL CORRECTIONS					MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	3.4879	TRA	5.9784	TC3 -1.2581	BAU 1.1091	SGT	5295.9	SGR 358.6	SG3 97.6	ST	2768.5	SR 310.9 SS 668.8
RDE	.4336	RRA	-.2598	RC3 .0223	FAU .00487	RRT	-.0501	RRF -.0511	RTF .9537	CRT	.7939	CRS -.7761 CST -.9994
FDE	.7609	FRA	1.3993	FC3 -.0639	BSP 18164	SGB	5308.1	R23 .0030	R13 -.9537	LSA	2858.7	MSA 189.6 SSA 11.7
BDE	3.5148	BRA	5.9841	BC3 1.2583	FSP -345	SG1	5296.0	SG2 358.1	THA 179.80	EL1	2779.5	EL2 188.3 ALF 5.12

LAUNCH DATE OCT 11 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAY 3 1971

HELIOCENTRIC CONIC DISTANCE 591.107

RL	149.34	LAL	-.00	LOL	17.27	VL	25.293	GAL	14.01	AZL	85.91	HCA	308.89	SMA	116.66	ECC	.36395	INC	4.0949	V1	29.836
RP	108.91	LAP	-3.19	LOP	326.23	VP	36.048	GAP	21.02	AZP	87.43	TAL	152.32	TAP	101.21	RCA	74.20	APO	159.12	V2	34.793
RC	206.655	GL	11.63	GP	9.56	ZAL	40.41	ZAP	169.06	ETS	117.92	ZAE	129.30	ETE	172.46	ZAC	107.85	ETC	278.69	CLP	174.65

PLANETOCENTRIC CONIC

C3	75.532	VHL	8.691	DLA	2.34	RAL	335.61	RAD	6569.5	VEL	14.031	PTH	2.56	VHP	13.230	DPA	-8.30	RAP	321.41	ECC	2.2431

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 9 11	2614.85	-26.84	68.46	221.18	99.37	8 52 46	2014.9	-25.27	60.14
90.00	20 41 57	5113.65	24.83	227.26	219.13	75.93	22 7 11	4513.7	22.65	219.27
100.00	9 31 37	2348.96	-28.28	48.63	220.91	100.11	10 10 46	1749.0	-26.59	40.23
100.00	22 2 13	4854.78	26.24	207.82	218.73	75.14	23 23 7	4254.8	23.94	199.77
110.00	10 42 22	2127.52	-32.17	30.93	220.02	102.23	11 17 49	1527.5	-30.16	22.29
110.00	23 7 57	4648.98	30.06	190.96	217.49	72.89	24 25 26	4049.0	27.42	182.76

DIFFERENTIAL CORRECTIONS					MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	3.7570	TRA	6.4913	TC3 -1.0469	BAU 1.0572	SGT	5271.6	SGR 346.0	SG3 95.6	ST	2790.8	SR 307.7 SS 688.2
RDE	.4608	RRA	-.2475	RC3 .0155	FAU .00370	RRT	.0020	RRF -.0010	RTF .9591	CRT	.8028	CRS -.7872 CST -.9995
FDE	.7994	FRA	1.4707	FC3 -.0424	BSP 18094	SGB	5283.0	R23 -.0029	R13 .9591	LSA	2885.0	MSA 184.0 SSA 11.1
BDE	3.7851	BRA	6.4960	BC3 1.0470	FSP -337	SG1	5271.6	SG2 346.0	THA .01	EL1	2801.8	EL2 182.7 ALF 5.08

LAUNCH DATE OCT 11 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAY 5 1971

HELIOCENTRIC CONIC DISTANCE 594.672

RL	149.34	LAL	-.00	LOL	17.27	VL	25.254	GAL	15.50	AZL	85.63	HCA	312.04	SMA	116.46	ECC	.38139	INC	4.3730
RP	108.90	LAP	-3.25	LOP	329.39	VP	36.024	GAP	22.12	AZP	87.07	TAL	151.01	TAP	103.06	RCA	72.04	APO	160.87
RC	208.346	GL	11.48	GP	9.45	ZAL	39.01	ZAP	168.66	ETS	122.53	ZAE	129.10	ETE	172.61	ZAC	107.35	ETC	279.12

V1	29.836	V2	34.797	CLP	173.71														

PLANETOCENTRIC CONIC

C3	86.941	VHL	9.324	DLA	2.72	RAL	336.97	RAD	6569.7	VEL	14.432	PTH	2.62	VHP	13.913	DPA	-7.76	RAP	323.55

ECC	2.4308																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 11 48	2658.69	-27.29	71.59	225.15	97.86	8 56 6	2058.7	-25.92	63.19
90.00	20 50 12	5133.98	25.16	228.66	222.68	76.56	22 15 46	4534.0	23.06	220.62
100.00	9 34 24	2392.22	-28.76	51.75	224.91	98.53	10 14 17	1792.2	-27.28	43.26
100.00	22 10 16	4875.67	26.60	209.27	222.29	75.83	23 31 32	4275.7	24.39	201.17
110.00	10 45 34	2169.51	-32.74	34.07	224.14	100.44	11 21 43	1569.5	-30.95	25.31
110.00	23 15 36	4671.15	30.49	192.54	221.09	73.74	24 33 28	4071.1	27.96	184.26

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	4.0487	TRA	7.0477	TC3	-.8530	BAU	.9915	SGT	5245.7	SGR	333.5	SG3	93.8	ST	2807.8	SR	304.3	SS	710.7
RDE	.4904	RRA	-.2303	RC3	.0102	FAU	.00241	RRT	.0601	RRF	.0552	RTF	.9643	CRT	.8126	CRS	-.7990	CST	-.9996
FDE	.8421	FRA	1.5497	FC3	-.0240	BSP	17923	SGB	5256.3	R23	-.0029	R13	.9643	LSA	2906.8	MSA	177.7	SSA	10.5
BDE	4.0783	BRA	7.0515	BC3	.8530	FSP	-327	SG1	5245.7	SG2	332.9	THA	.22	EL1	2818.7	EL2	176.7	ALF	5.05

LAUNCH DATE OCT 11 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAY 7 1971

HELIOCENTRIC CONIC DISTANCE 597.810

RL	149.34	LAL	-.00	LOL	17.27	VL	25.216	GAL	17.15	AZL	85.32	HCA	315.20	SMA	116.27	ECC	.40101	INC	4.6802
RP	108.89	LAP	-3.30	LOP	332.56	VP	36.002	GAP	23.38	AZP	86.68	TAL	149.83	TAP	105.03	RCA	69.64	APO	162.89
RC	210.017	GL	11.30	GP	9.35	ZAL	37.75	ZAP	168.16	ETS	127.03	ZAE	128.85	ETE	172.78	ZAC	106.85	ETC	279.53

V1	29.836	V2	34.802	CLP	172.70														

PLANETOCENTRIC CONIC

C3	100.589	VHL	10.029	DLA	3.03	RAL	338.20	RAD	6569.9	VEL	14.897	PTH	2.69	VHP	14.683	DPA	-7.21	RAP	325.63

ECC	2.6554																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 14 24	2700.19	-27.64	74.58	228.96	96.40	8 59 24	2100.2	-26.47	66.11
90.00	20 57 25	5156.21	25.50	230.20	226.12	77.25	22 23 21	4556.2	23.49	222.10
100.00	9 37 9	2433.26	-29.14	54.75	228.76	97.00	10 17 42	1833.3	-27.86	46.17
100.00	22 17 21	4898.38	26.97	210.86	225.74	76.59	23 38 59	4298.4	24.85	202.70
110.00	10 48 38	2209.50	-33.19	37.11	228.11	98.70	11 25 28	1609.5	-31.63	28.23
110.00	23 22 21	4694.89	30.93	194.25	224.58	74.66	24 40 36	4094.9	28.52	185.88

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	4.3667	TRA	7.6539	TC3	-.6757	BAU	.9087	SGT	5218.5	SGR	321.6	SG3	92.1	ST	2819.6	SR	300.8	SS	736.8
RDE	.5229	RRA	-.2073	RC3	.0063	FAU	.00096	RRT	.1245	RRF	.1181	RTF	.9694	CRT	.8234	CRS	-.8117	CST	-.9997
FDE	.8896	FRA	1.6379	FC3	-.0082	BSP	17625	SGB	5228.4	R23	-.0031	R13	.9694	LSA	2924.7	MSA	171.0	SSA	10.0
BDE	4.3979	BRA	7.6568	BC3	.6757	FSP	-315	SG1	5218.6	SG2	319.1	THA	.44	EL1	2830.5	EL2	170.0	ALF	5.04

LAUNCH DATE OCT 11 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAY 9 1971

HELIOCENTRIC CONIC DISTANCE 600.414

RL	149.34	LAL	-.00	LOL	17.27	VL	25.181	GAL	18.97	AZL	84.98	HCA	318.36	SMA	116.08	ECC	.42316	INC	5.0236
RP	108.87	LAP	-3.34	LOP	335.73	VP	35.982	GAP	24.80	AZP	86.24	TAL	148.78	TAP	107.14	RCA	66.96	APO	165.20
RC	211.667	GL	11.11	GP	9.25	ZAL	36.64	ZAP	167.55	ETS	131.40	ZAE	128.53	ETE	172.95	ZAC	106.37	ETC	279.90

V1	29.836	V2	34.807	CLP	171.62														

PLANETOCENTRIC CONIC

C3	117.041	VHL	10.819	DLA	3.27	RAL	339.29	RAD	6570.2	VEL	15.439	PTH	2.76	VHP	15.555	DPA	-6.66	RAP	327.63

ECC	2.9262																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 16 58	2739.02	-27.91	77.39	232.58	95.02	9 2 37	2139.0	-26.92	68.86
90.00	21 3 33	5180.23	25.85	231.87	229.43	78.02	22 29 53	4580.2	23.94	223.72
100.00	9 39 50	2471.73	-29.42	57.57	232.42	95.54	10 21 2	1871.7	-28.34	48.93
100.00	22 23 22	4922.75	27.34	212.57	229.07	77.42	23 45 25	4322.8	25.33	204.35
110.00	10 51 35	2247.17	-33.54	39.99	231.89	97.03	11 29 2	1647.2	-32.20	31.01
110.00	23 28 6	4720.08	31.37	196.08	227.96	75.66	24 46 46	4120.1	29.08	187.63

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	4.7152	TRA	8.3169	TC3	-.5145	BAU	.8051	SGT	5190.4	SGR	310.7	SG3	90.5	ST	2826.5	SR	297.3	SS	767.0
RDE	.5589	RRA	-.1773	RC3	.0036	FAU	-.00071	RRT	.1957	RRF	.1881	RTF	.9742	CRT	.8351	CRS	-.8250	CST	-.9998
FDE	.9428	FRA	1.7365	FC3	.0053	BSP	17194	SGB	5199.7	R23	-.0033	R13	.9742	LSA	2939.2	MSA	163.8	SSA	9.4
BDE	4.7482	BRA	8.3188	BC3	.5145	FSP	-301	SG1	5190.7	SG2	304.6	THA	.67	EL1	2837.4	EL2	163.0	ALF	5.04

LAUNCH DATE OCT 11 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAY 11 1971

HELIOCENTRIC CONIC DISTANCE 602.341

RL	149.34	LAL	-.00	LOL	17.27	VL	25.147	GAL	21.00	AZL	84.59	HCA	321.51	SMA	115.91	ECC	.44823	INC	5.4125
RP	108.86	LAP	-3.37	LOP	338.90	VP	35.964	GAP	26.42	AZP	85.76	TAL	147.92	TAP	109.43	RCA	63.96	APO	167.87
RC	213.296	GL	10.90	GP	9.15	ZAL	35.69	ZAP	166.80	ETS	135.62	ZAE	128.11	ETE	173.14	ZAC	105.89	ETC	280.25

V1	29.836	V2	34.813	CLP	170.45														

PLANETOCENTRIC CONIC

C3	137.037	VHL	11.706	DLA	3.43	RAL	340.24	RAD	6570.5	VEL	16.074	PTH	2.83	VHP	16.548	DPA	-6.12	RAP	329.53

ECC	3.2553																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 19 32	2774.79	-28.09	79.99	235.97	93.73	9 5 46	2174.8	-27.28	71.41
90.00	21 8 31	5205.95	26.20	233.67	232.59	78.86	22 35 17	4605.9	24.40	225.46
100.00	9 42 28	2507.25	-29.63	60.19	235.85	94.18	10 24 16	1907.2	-28.73	51.50
100.00	22 28 15	4948.72	27.71	214.41	232.25	78.32	23 50 44	4348.7	25.82	206.12
110.00	10 54 24	2282.14	-33.80	42.69	235.44	95.45	11 32 26	1682.1	-32.67	33.63
110.00	23 32 49	4746.59	31.80	198.03	231.20	76.74	24 51 56	4146.6	29.65	189.48

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	5.0979	TRA	9.0436	TC3	-.3690	BAU	.6760	SGT	5160.9	SGR	301.1	SG3	89.1	ST	2827.7	SR	293.9	SS	802.0
RDE	.5991	RRA	-.1391	RC3	.0021	FAU	-.00267	RRT	.2735	RRF	.2651	RTF	.9786	CRT	.8475	CRS	-.8390	CST	-.9998
FDE	1.0026	FRA	1.8474	FC3	.0169	BSP	16618	SGB	5169.7	R23	-.0035	R13	.9786	LSA	2949.8	MSA	156.2	SSA	8.9
BDE	5.1330	BRA	9.0447	BC3	.3690	FSP	-286	SG1	5161.6	SG2	289.6	THA	.92	EL1	2838.7	EL2	155.4	ALF	5.05

LAUNCH DATE OCT 11 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAY 13 1971

HELIOCENTRIC CONIC DISTANCE 603.395

RL 149.34 LAL -.00 LOL 17.27 VL 25.116 GAL 23.28 AZL 84.14 HCA 324.67 SMA 115.76 ECC .47672 INC 5.8595 V1 29.836
RP 108.83 LAP -3.38 LOP 342.07 VP 35.949 GAP 28.28 AZP 85.21 TAL 147.27 TAP 111.94 RCA 60.57 APO 170.94 V2 34.819
RC 214.903 GL 10.68 GP 9.05 ZAL 34.91 ZAP 165.91 ETS 139.68 ZAE 127.58 ETE 173.35 ZAC 105.43 ETC 280.57 CLP 169.16

PLANETOCENTRIC CONIC

C3 161.562 VHL 12.711 DLA 3.51 RAL 341.01 RAD 6570.8 VEL 16.819 PTH 2.91 VHP 17.687 DPA -5.59 RAP 331.33 ECC 3.6589

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 22 3	2806.98	-28.21	82.33	239.09	92.56	9 8 50	2207.0	-27.56	73.73
90.00	21 12 11	5233.36	26.55	235.60	235.56	79.77	22 39 25	4633.4	24.87	227.34
100.00	9 45 2	2539.33	-29.76	62.57	239.00	92.93	10 27 22	1939.3	-29.04	53.84
100.00	22 31 53	4976.25	28.07	216.38	235.24	79.29	23 54 50	4376.2	26.31	208.02
110.00	10 57 3	2313.96	-33.98	45.16	238.70	94.00	11 35 36	1714.0	-33.05	36.04
110.00	23 36 23	4774.38	32.21	200.09	234.27	77.89	24 55 57	4174.4	30.21	191.45

DIFFERENTIAL CORRECTIONS
TDE 5.4618 TRA 9.7845 TC3 -.2527 BAU .5458
RDE .6437 RRA -.0918 RC3 .0014 FAU-.00446
FDE 1.0577 FRA 1.9600 FC3 .0239 BSP 17261
BDE 5.4996 BRA 9.7849 BC3 .2527 FSP -294

MID-COURSE EXECUTION ACCURACY
SGT 5099.0 SGR 293.1 SG3 87.0
RRT .3538 RRF .3450 RTF .9825
SGB 5107.5 R23 -.0039 R13 .9825
SG1 5100.1 SG2 274.1 THA 1.17

ORBIT DETERMINATION ACCURACY
ST 2796.3 SR 290.4 SS 834.0
CRT .8593 CRS -.8520 CST -.9998
LSA 2928.6 MSA 148.7 SSA 8.3
EL1 2807.4 EL2 147.9 ALF 5.11

LAUNCH DATE OCT 11 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAY 15 1971

HELIOCENTRIC CONIC DISTANCE 603.339

RL 149.34 LAL -.00 LOL 17.27 VL 25.089 GAL 25.87 AZL 83.62 HCA 327.82 SMA 115.62 ECC .50916 INC 6.3821 V1 29.836
RP 108.81 LAP -3.39 LOP 345.25 VP 35.937 GAP 30.44 AZP 84.59 TAL 146.90 TAP 114.72 RCA 56.75 APO 174.48 V2 34.826
RC 216.489 GL 10.44 GP 8.96 ZAL 34.32 ZAP 164.86 ETS 143.58 ZAE 126.92 ETE 173.58 ZAC 104.99 ETC 280.85 CLP 167.74

PLANETOCENTRIC CONIC

C3 191.942 VHL 13.854 DLA 3.49 RAL 341.61 RAD 6571.0 VEL 17.699 PTH 2.98 VHP 18.999 DPA -5.09 RAP 332.99 ECC 4.1589

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 24 33	2835.06	-28.28	84.39	241.88	91.53	9 11 48	2235.1	-27.77	75.76
90.00	21 14 26	5262.51	26.88	237.67	238.31	80.75	22 42 8	4662.5	25.33	229.35
100.00	9 47 32	2567.43	-29.84	64.65	241.83	91.84	10 30 19	1967.4	-29.27	55.89
100.00	22 34 8	5005.37	28.43	218.47	238.02	80.34	23 57 34	4405.4	26.80	210.05
110.00	10 59 31	2342.13	-34.09	47.35	241.63	92.71	11 38 33	1742.1	-33.34	38.19
110.00	23 38 39	4803.44	32.61	202.27	237.14	79.12	24 58 42	4203.4	30.77	193.53

DIFFERENTIAL CORRECTIONS
TDE 5.8937 TRA10.6296 TC3 -.1414 BAU .3630
RDE .6947 RRA -.0327 RC3 .0018 FAU-.00702
FDE 1.1275 FRA 2.0948 FC3 .0317 BSP 17150
BDE 5.9345 BRA10.6297 BC3 .1415 FSP -288

MID-COURSE EXECUTION ACCURACY
SGT 5048.8 SGR 287.7 SG3 85.5
RRT .4397 RRF .4309 RTF .9861
SGB 5057.0 R23 -.0042 R13 .9861
SG1 5050.4 SG2 258.3 THA 1.44

ORBIT DETERMINATION ACCURACY
ST 2772.5 SR 287.3 SS 876.7
CRT .8723 CRS -.8661 CST -.9999
LSA 2918.5 MSA 140.6 SSA 7.7
EL1 2783.8 EL2 139.9 ALF 5.18

LAUNCH DATE OCT 11 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAY 17 1971

HELIOCENTRIC CONIC DISTANCE 601.836

RL 149.34 LAL -.00 LOL 17.27 VL 25.065 GAL 28.82 AZL 82.99 HCA 330.98 SMA 115.50 ECC .54615 INC 7.0053 V1 29.836
RP 108.79 LAP -3.39 LOP 348.42 VP 35.928 GAP 32.95 AZP 83.87 TAL 146.86 TAP 117.84 RCA 52.42 APO 178.58 V2 34.834
RC 218.051 GL 10.17 GP 8.86 ZAL 33.95 ZAP 163.61 ETS 147.31 ZAE 126.10 ETE 173.84 ZAC 104.57 ETC 281.09 CLP 166.15

PLANETOCENTRIC CONIC

C3 229.963 VHL 15.165 DLA 3.36 RAL 341.99 RAD 6571.3 VEL 18.742 PTH 3.06 VHP 20.521 DPA -4.65 RAP 334.50 ECC 4.7846

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 27 1	2858.32	-28.31	86.09	244.30	90.68	9 14 39	2258.3	-27.92	77.44
90.00	21 15 1	5293.57	27.20	239.89	240.80	81.82	22 43 15	4693.6	25.79	231.50
100.00	9 49 56	2590.88	-29.88	66.39	244.27	90.92	10 33 7	1990.9	-29.43	57.62
100.00	22 34 48	5036.24	28.76	220.71	240.54	81.47	23 58 44	4436.2	27.28	212.22
110.00	11 1 47	2366.00	-34.15	49.21	244.16	91.61	11 41 13	1766.0	-33.55	40.02
110.00	23 39 26	4833.89	32.98	204.57	239.76	80.44	25 0 0	4233.9	31.31	195.74

DIFFERENTIAL CORRECTIONS
TDE 6.3659 TRA11.5549 TC3 -.0434 BAU .1339
RDE .7531 RRA .0402 RC3 .0030 FAU-.01024
FDE 1.2064 FRA 2.2478 FC3 .0386 BSP 17031
BDE 6.4103 BRA11.5550 BC3 .0435 FSP -284

MID-COURSE EXECUTION ACCURACY
SGT 4992.8 SGR 285.1 SG3 84.0
RRT .5267 RRF .5185 RTF .9892
SGB 5000.9 R23 -.0045 R13 .9892
SG1 4995.1 SG2 242.2 THA 1.73

ORBIT DETERMINATION ACCURACY
ST 2739.8 SR 284.6 SS 926.3
CRT .8855 CRS -.8802 CST -.9999
LSA 2903.1 MSA 132.4 SSA 7.2
EL1 2751.4 EL2 131.7 ALF 5.27

LAUNCH DATE OCT 11 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAY 19 1971

HELIOCENTRIC CONIC DISTANCE 598.449

RL 149.34 LAL -.00 LOL 17.27 VL 25.046 GAL 32.21 AZL 82.23 HCA 334.13 SMA 115.40 ECC .58830 INC 7.7663 V1 29.836
RP 108.76 LAP -3.38 LOP 351.60 VP 35.922 GAP 35.91 AZP 83.00 TAL 147.24 TAP 121.36 RCA 47.51 APO 183.29 V2 34.842
RC 219.589 GL 9.89 GP 8.74 ZAL 33.85 ZAP 162.13 ETS 150.89 ZAE 125.07 ETE 174.13 ZAC 104.19 ETC 281.30 CLP 164.35

PLANETOCENTRIC CONIC

C3 278.044 VHL 16.675 DLA 3.11 RAL 342.13 RAD 6571.6 VEL 19.984 PTH 3.14 VHP 22.297 DPA -4.27 RAP 335.81 ECC 5.5759

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 29 27	2875.94	-28.32	87.38	246.27	90.03	9 17 23	2275.9	-28.01	78.72
90.00	21 13 41	5326.85	27.50	242.28	243.00	82.98	22 42 28	4726.8	26.25	233.84
100.00	9 52 14	2608.88	-29.89	67.73	246.27	90.22	10 35 43	2008.9	-29.54	58.94
100.00	22 33 35	5069.14	29.07	223.10	242.77	82.69	23 58 4	4469.1	27.75	214.55
110.00	11 3 49	2384.85	-34.18	50.68	246.22	90.74	11 43 34	1784.9	-33.70	41.47
110.00	23 38 29	4865.93	33.31	207.01	242.10	81.85	24 59 35	4265.9	31.83	198.09

DIFFERENTIAL CORRECTIONS
TDE 6.8809 TRA12.5647 TC3 .0420 BAU .1570
RDE .8208 RRA .1297 RC3 .0049 FAU-.01435
FDE 1.2960 FRA 2.4215 FC3 .0447 BSP 16889
BDE 6.9297 BRA12.5654 BC3 .0422 FSP -279

MID-COURSE EXECUTION ACCURACY
SGT 4930.0 SGR 286.0 SG3 82.6
RRT .6114 RRF .6040 RTF .9918
SGB 4938.2 R23 -.0047 R13 .9918
SG1 4933.1 SG2 226.2 THA 2.04

ORBIT DETERMINATION ACCURACY
ST 2696.8 SR 282.4 SS 983.8
CRT .8986 CRS -.8942 CST -.9999
LSA 2881.8 MSA 124.1 SSA 6.6
EL1 2708.7 EL2 123.4 ALF 5.39

LAUNCH DATE OCT 12 1970 FLIGHT TIME 70.00 ARRIVAL DATE DEC 21 1970

HELIOCENTRIC CONIC DISTANCE 207.280

RL 149.30 LAL -.00 LOL 18.26 VL 29.264 GAL -14.99 AZL 87.96 HCA 94.83 SMA 144.03 ECC .26103 INC 2.0363 V1 29.845
RP 107.51 LAP 2.03 LOP 113.09 VP 39.337 GAP -3.69 AZP 90.17 TAL 247.23 TAP 342.06 RCA 106.43 APO 181.62 V2 35.247
RC 66.441 GL 7.89 GP -23.05 ZAL 165.11 ZAP 60.99 ETS 10.25 ZAE 154.04 ETE 285.98 ZAC 77.41 ETC 258.68 CLP -58.19

PLANETOCENTRIC CONIC

C3 53.564 VHL 7.319 DLA -4.39 RAL 211.55 RAD 6568.9 VEL 13.226 PTH 2.42 VHP 5.062 DPA -39.63 RAP 224.38 ECC 1.8815

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 40 25	2323.02	-22.04	48.47	88.46	108.24	1 19 8	1723.0	-19.35	40.83
90.00	11 33 3	5240.08	26.63	236.08	91.86	79.99	13 0 23	4640.1	24.98	227.80
100.00	1 59 42	2067.27	-23.37	29.18	87.97	109.18	2 34 9	1467.3	-20.54	21.52
100.00	12 56 27	4971.06	28.01	216.01	91.58	79.10	14 19 18	4371.1	26.22	207.66
110.00	3 3 13	1868.42	-26.95	12.61	86.50	111.88	3 34 21	1268.4	-23.73	4.91
110.00	14 9 25	4742.68	31.74	197.74	90.65	76.58	15 28 28	4142.7	29.57	189.21

DIFFERENTIAL CORRECTIONS

TDE .2225 TRA -.5871 TC3 .0160 BAU .1900
RDE -.2818 RRA -.3259 RC3 -.2648 FAU .08454
FDE 1.2149 FRA -.9306 FC3-1.3664 BSP 1114
BDE .3591 BRA .6715 BC3 .2653 FSP -564

MID-COURSE EXECUTION ACCURACY

SGT 493.3 SGR 514.2 SG3 201.5
RRT .2778 RRF .6275 RTF .3962
SGB 712.6 R23 .1464 R13 .6524
SG1 570.2 SG2 427.4 THA 49.25

ORBIT DETERMINATION ACCURACY

ST 222.4 SR 233.9 SS 427.7
CRT -.5349 CRS .8408 CST -.9010
LSA 511.9 MSA 156.8 SSA 20.7
EL1 282.9 EL2 155.4 ALF 132.32

LAUNCH DATE OCT 12 1970 FLIGHT TIME 72.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 213.896

RL 149.30 LAL -.00 LOL 18.26 VL 29.260 GAL -14.83 AZL 87.80 HCA 98.08 SMA 143.99 ECC .25843 INC 2.2017 V1 29.845
RP 107.50 LAP 2.18 LOP 116.34 VP 39.337 GAP -3.00 AZP 90.31 TAL 247.25 TAP 345.32 RCA 106.78 APO 181.20 V2 35.251
RC 68.539 GL 8.62 GP -24.14 ZAL 164.69 ZAP 65.85 ETS 8.21 ZAE 153.59 ETE 278.23 ZAC 76.08 ETC 258.31 CLP -63.36

PLANETOCENTRIC CONIC

C3 52.582 VHL 7.251 DLA -3.72 RAL 211.82 RAD 6568.9 VEL 13.189 PTH 2.41 VHP 4.881 DPA -39.99 RAP 221.73 ECC 1.8654

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 36 26	2339.59	-22.39	49.56	88.62	107.80	1 15 26	1739.6	-19.75	41.88
90.00	11 39 14	5214.35	26.31	234.26	91.49	79.14	13 6 8	4614.4	24.55	226.04
100.00	1 56 2	2082.80	-23.72	30.20	88.15	108.75	2 30 45	1482.8	-20.94	22.51
100.00	13 2 18	4946.37	27.68	214.25	91.18	78.23	14 24 45	4346.4	25.78	205.96
110.00	3 0 18	1881.64	-27.28	13.49	86.71	111.45	3 31 39	1281.6	-24.12	5.75
110.00	14 14 32	4720.30	31.37	196.10	90.20	75.67	15 33 13	4120.3	29.09	187.64

DIFFERENTIAL CORRECTIONS

TDE .2552 TRA -.6302 TC3 -.0270 BAU .2038
RDE -.2560 RRA -.3309 RC3 -.2887 FAU .08968
FDE 1.3284 FRA -.9754 FC3-1.4766 BSP 1302
BDE .3614 BRA .7118 BC3 .2900 FSP -616

MID-COURSE EXECUTION ACCURACY

SGT 539.6 SGR 533.7 SG3 216.6
RRT .3693 RRF .6628 RTF .5033
SGB 759.0 R23 .1517 R13 .7026
SG1 628.0 SG2 426.2 THA 44.15

ORBIT DETERMINATION ACCURACY

ST 251.1 SR 217.3 SS 454.1
CRT -.5312 CRS .8258 CST -.9111
LSA 539.4 MSA 158.5 SSA 20.7
EL1 291.9 EL2 158.4 ALF 142.63

LAUNCH DATE OCT 12 1970 FLIGHT TIME 74.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 220.467

RL 149.30 LAL -.00 LOL 18.26 VL 29.248 GAL -14.68 AZL 87.63 HCA 101.32 SMA 143.88 ECC .25597 INC 2.3698 V1 29.845
RP 107.49 LAP 2.32 LOP 119.58 VP 39.330 GAP -2.35 AZP 90.47 TAL 247.14 TAP 348.45 RCA 107.05 APO 180.70 V2 35.254
RC 70.666 GL 9.37 GP -25.19 ZAL 164.18 ZAP 70.74 ETS 6.11 ZAE 152.77 ETE 270.47 ZAC 74.77 ETC 257.93 CLP -68.63

PLANETOCENTRIC CONIC

C3 51.651 VHL 7.187 DLA -3.05 RAL 212.18 RAD 6568.9 VEL 13.153 PTH 2.40 VHP 4.737 DPA -40.26 RAP 218.98 ECC 1.8501

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 32 51	2356.00	-22.73	50.64	88.88	107.36	1 12 7	1756.0	-20.14	42.93
90.00	11 45 39	5189.08	25.97	232.49	91.22	78.31	13 12 8	4589.1	24.10	224.32
100.00	1 52 46	2098.19	-24.05	31.22	88.42	108.31	2 27 44	1498.2	-21.32	23.49
100.00	13 8 25	4922.12	27.33	212.53	90.89	77.39	14 30 27	4322.1	25.32	204.30
110.00	2 57 45	1894.77	-27.60	14.37	87.01	111.02	3 29 20	1294.8	-24.49	6.58
110.00	14 19 55	4698.31	30.99	194.50	89.85	74.79	15 38 13	4098.3	28.59	186.12

DIFFERENTIAL CORRECTIONS

TDE .2940 TRA -.6781 TC3 -.0763 BAU .2217
RDE -.2295 RRA -.3331 RC3 -.3119 FAU .09410
FDE 1.4336 FRA-1.0085 FC3-1.5773 BSP 1529
BDE .3730 BRA .7555 BC3 .3211 FSP -663

MID-COURSE EXECUTION ACCURACY

SGT 600.0 SGR 552.4 SG3 230.1
RRT .4533 RRF .6940 RTF .5955
SGB 815.6 R23 .1546 R13 .7463
SG1 696.7 SG2 424.1 THA 39.83

ORBIT DETERMINATION ACCURACY

ST 285.2 SR 200.1 SS 478.9
CRT -.5238 CRS .8073 CST -.9209
LSA 570.0 MSA 159.3 SSA 20.7
EL1 311.4 EL2 156.1 ALF 152.32

LAUNCH DATE OCT 12 1970 FLIGHT TIME 76.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 226.994

RL 149.30 LAL -.00 LOL 18.26 VL 29.227 GAL -14.52 AZL 87.46 HCA 104.56 SMA 143.69 ECC .25362 INC 2.5418 V1 29.845
RP 107.48 LAP 2.46 LOP 122.83 VP 39.317 GAP -1.72 AZP 90.64 TAL 246.90 TAP 351.46 RCA 107.24 APO 180.13 V2 35.256
RC 72.818 GL 10.14 GP -26.20 ZAL 163.58 ZAP 75.62 ETS 3.93 ZAE 151.59 ETE 262.98 ZAC 73.49 ETC 257.55 CLP -73.94

PLANETOCENTRIC CONIC

C3 50.763 VHL 7.125 DLA -2.38 RAL 212.61 RAD 6568.9 VEL 13.120 PTH 2.40 VHP 4.627 DPA -40.44 RAP 216.22 ECC 1.8354

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 29 36	2372.44	-23.06	51.74	89.22	106.90	1 9 8	1772.4	-20.53	43.98
90.00	11 52 20	5164.00	25.62	230.74	91.04	77.50	13 18 24	4564.0	23.64	222.63
100.00	1 49 50	2113.62	-24.38	32.25	88.77	107.86	2 25 4	1513.6	-21.70	24.48
100.00	13 14 47	4898.05	26.96	210.84	90.70	76.57	14 36 26	4298.1	24.85	202.67
110.00	2 55 32	1907.95	-27.92	15.27	87.40	110.57	3 27 20	1308.0	-24.86	7.43
110.00	14 25 35	4676.49	30.59	192.93	89.61	73.94	15 43 31	4076.5	28.09	184.62

DIFFERENTIAL CORRECTIONS

TDE .3392 TRA -.7299 TC3 -.1314 BAU .2434
RDE -.2031 RRA -.3322 RC3 -.3537 FAU .09759
FDE 1.5264 FRA-1.0222 FC3-1.6643 BSP 1791
BDE .3953 BRA .8019 BC3 .3586 FSP -705

MID-COURSE EXECUTION ACCURACY

SGT 674.2 SGR 569.5 SG3 241.4
RRT .5251 RRF .7210 RTF .6700
SGB 882.5 R23 .1570 R13 .7826
SG1 775.4 SG2 421.4 THA 36.05

ORBIT DETERMINATION ACCURACY

ST 324.8 SR 182.5 SS 501.4
CRT -.5115 CRS .7849 CST -.9298
LSA 603.6 MSA 159.2 SSA 20.6
EL1 341.4 EL2 149.2 ALF 159.98

LAUNCH DATE OCT 12 1970 FLIGHT TIME 78.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 233.477

RL 149.30 LAL -.00 LOL 18.26 VL 29.198 GAL -14.37 AZL 87.28 HCA 107.80 SMA 143.43 ECC .25136 INC 2.7190 V1 29.845
RP 107.48 LAP 2.59 LOP 126.08 VP 39.297 GAP -1.13 AZP 90.83 TAL 246.55 TAP 354.36 RCA 107.38 APO 179.48 V2 35.258
RC 74.992 GL 10.95 GP -27.15 ZAL 162.89 ZAP 80.43 ETS 1.69 ZAE 150.08 ETE 256.00 ZAC 72.25 ETC 257.18 CLP -79.23

PLANETOCENTRIC CONIC

C3 49.909 VHL 7.065 DLA -1.71 RAL 213.11 RAD 6568.8 VEL 13.087 PTH 2.39 VHP 4.549 DPA -40.55 RAP 213.51 ECC 1.8214

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 26 37	2389.12	-23.39	52.85	89.66	106.44	1 6 26	1789.1	-20.91	45.05
90.00	11 59 22	5138.88	25.24	229.00	90.96	76.71	13 25 1	4538.9	23.16	220.94
100.00	1 47 10	2129.29	-24.70	33.31	89.22	107.40	2 22 39	1529.3	-22.08	25.48
100.00	13 21 30	4873.94	26.57	209.15	90.59	75.77	14 42 44	4273.9	24.35	201.05
110.00	2 53 35	1921.36	-28.24	16.18	87.88	110.12	3 25 37	1321.4	-25.24	8.29
110.00	14 31 34	4654.64	30.17	191.36	89.45	73.11	15 49 8	4054.6	27.56	183.14

DIFFERENTIAL CORRECTIONS
TDE .3904 TRA -.7847 TC3 -.1916 BAU .2684
RDE -.1770 RRA -.3280 RC3 -.3537 FAU .10003
FDE 1.6037 FRA-1.0220 FC3-1.7352 BSP 2085
BDE .4286 BRA .8505 BC3 .4023 FSP -739

MID-COURSE EXECUTION ACCURACY
SGT 760.8 SGR 584.2 SG3 250.3
RRT .5834 RRF .7442 RTF .7276
SGB 959.2 R23 .1600 R13 .8117
SG1 863.3 SG2 418.1 THA 32.69

ORBIT DETERMINATION ACCURACY
ST 369.8 SR 165.0 SS 521.3
CRT -.4931 CRS .7577 CST -.9376
LSA 640.5 MSA 158.3 SSA 20.5
EL1 380.1 EL2 139.6 ALF 165.61

LAUNCH DATE OCT 12 1970 FLIGHT TIME 80.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 239.919

RL 149.30 LAL -.00 LOL 18.26 VL 29.163 GAL -14.22 AZL 87.10 HCA 111.05 SMA 143.11 ECC .24917 INC 2.9028 V1 29.845
RP 107.48 LAP 2.71 LOP 129.33 VP 39.272 GAP -.57 AZP 91.04 TAL 246.10 TAP 357.14 RCA 107.45 APO 178.77 V2 35.259
RC 77.186 GL 11.79 GP -28.05 ZAL 162.11 ZAP 85.12 ETS 359.38 ZAE 148.30 ETE 249.68 ZAC 71.06 ETC 256.83 CLP -84.47

PLANETOCENTRIC CONIC

C3 49.087 VHL 7.006 DLA -1.02 RAL 213.69 RAD 6568.8 VEL 13.056 PTH 2.38 VHP 4.501 DPA -40.62 RAP 210.91 ECC 1.8078

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 23 50	2406.26	-23.71	54.00	90.18	105.95	1 3 56	1806.3	-21.30	46.16
90.00	12 6 46	5113.45	24.83	227.25	90.95	75.92	13 31 59	4513.4	22.65	219.25
100.00	1 44 42	2145.40	-25.02	34.39	89.76	106.91	2 20 27	1545.4	-22.47	26.53
100.00	13 28 35	4849.54	26.15	207.46	90.57	74.97	14 49 24	4249.5	23.83	199.43
110.00	2 51 52	1935.18	-28.56	17.13	88.45	109.64	3 24 7	1335.2	-25.61	9.19
110.00	14 37 55	4632.53	29.72	189.80	89.39	72.28	15 55 7	4032.5	27.01	181.66

DIFFERENTIAL CORRECTIONS
TDE .4475 TRA -.8413 TC3 -.2559 BAU .2960
RDE -.1517 RRA -.3201 RC3 -.3715 FAU .10132
FDE 1.6644 FRA-1.0054 FC3-1.7870 BSP 2403
BDE .4725 BRA .9001 BC3 .4511 FSP -765

MID-COURSE EXECUTION ACCURACY
SGT 857.9 SGR 595.7 SG3 256.3
RRT .6290 RRF .7639 RTF .7710
SGB 1044.5 R23 .1641 R13 .8344
SG1 958.7 SG2 414.4 THA 29.67

ORBIT DETERMINATION ACCURACY
ST 420.3 SR 147.7 SS 538.8
CRT -.4675 CRS .7249 CST -.9443
LSA 681.1 MSA 156.5 SSA 20.4
EL1 426.5 EL2 128.6 ALF 169.73

LAUNCH DATE OCT 12 1970 FLIGHT TIME 82.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 246.319

RL 149.30 LAL -.00 LOL 18.26 VL 29.122 GAL -14.06 AZL 86.91 HCA 114.29 SMA 142.74 ECC .24703 INC 3.0947 V1 29.845
RP 107.48 LAP 2.82 LOP 132.58 VP 39.241 GAP -.03 AZP 91.27 TAL 245.54 TAP 359.83 RCA 107.48 APO 178.00 V2 35.259
RC 79.396 GL 12.68 GP -28.91 ZAL 161.25 ZAP 89.63 ETS 357.02 ZAE 146.32 ETE 244.07 ZAC 69.93 ETC 256.50 CLP -89.58

PLANETOCENTRIC CONIC

C3 48.295 VHL 6.949 DLA -.31 RAL 214.34 RAD 6568.8 VEL 13.025 PTH 2.38 VHP 4.481 DPA -40.67 RAP 208.47 ECC 1.7948

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 21 11	2424.13	-24.04	55.21	90.80	105.43	1 1 35	1824.1	-21.69	47.32
90.00	12 14 36	5087.44	24.38	225.47	91.04	75.14	13 39 24	4487.4	22.11	217.54
100.00	1 42 23	2162.21	-25.35	35.54	90.39	106.39	2 18 25	1562.2	-22.86	27.62
100.00	13 36 5	4824.60	25.70	205.74	90.64	74.18	14 56 30	4224.6	23.28	197.78
110.00	2 50 18	1949.63	-28.88	18.13	89.12	109.13	3 22 47	1349.6	-26.00	10.13
110.00	14 44 40	4609.94	29.24	188.21	89.40	71.45	16 1 30	4009.9	26.43	180.16

DIFFERENTIAL CORRECTIONS
TDE .5101 TRA -.8989 TC3 -.3234 BAU .3255
RDE -.1273 RRA -.3088 RC3 -.3867 FAU .10150
FDE 1.7074 FRA -.9740 FC3-1.8195 BSP 2745
BDE .5257 BRA .9505 BC3 .5041 FSP -783

MID-COURSE EXECUTION ACCURACY
SGT 963.4 SGR 603.9 SG3 259.5
RRT .6637 RRF .7806 RTF .8031
SGB 1137.1 R23 .1698 R13 .8518
SG1 1060.4 SG2 410.4 THA 26.94

ORBIT DETERMINATION ACCURACY
ST 475.9 SR 130.8 SS 553.7
CRT -.4326 CRS .6848 CST -.9500
LSA 725.3 MSA 154.0 SSA 20.2
EL1 479.4 EL2 117.0 ALF 172.79

LAUNCH DATE OCT 12 1970 FLIGHT TIME 84.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 252.679

RL 149.30 LAL -.00 LOL 18.26 VL 29.075 GAL -13.90 AZL 86.70 HCA 117.53 SMA 142.32 ECC .24495 INC 3.2967 V1 29.845
RP 107.48 LAP 2.92 LOP 135.83 VP 39.206 GAP .48 AZP 91.53 TAL 244.90 TAP 2.43 RCA 107.46 APO 177.18 V2 35.258
RC 81.621 GL 13.62 GP -29.73 ZAL 160.30 ZAP 93.93 ETS 354.61 ZAE 144.20 ETE 239.17 ZAC 68.86 ETC 256.20 CLP -94.53

PLANETOCENTRIC CONIC

C3 47.533 VHL 6.894 DLA .43 RAL 215.07 RAD 6568.8 VEL 12.996 PTH 2.37 VHP 4.486 DPA -40.74 RAP 206.24 ECC 1.7823

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 18 36	2443.04	-24.38	56.49	91.52	104.87	0 59 19	1843.0	-22.10	48.56
90.00	12 22 58	5060.58	23.90	223.65	91.20	74.35	13 47 18	4460.6	21.52	215.78
100.00	1 40 8	2180.02	-25.69	36.75	91.12	105.84	2 16 28	1580.0	-23.27	28.79
100.00	13 44 6	4798.83	25.21	203.99	90.78	73.38	15 4 5	4198.8	22.69	196.09
110.00	2 48 50	1964.97	-29.22	19.19	89.89	108.58	3 21 35	1365.0	-26.41	11.14
110.00	14 51 54	4586.64	28.73	186.60	89.50	70.62	16 8 20	3986.6	25.81	178.63

DIFFERENTIAL CORRECTIONS
TDE .5789 TRA -.9556 TC3 -.3924 BAU .3543
RDE -.0997 RRA -.2900 RC3 -.3960 FAU .09963
FDE 1.7545 FRA -.9081 FC3-1.8146 BSP 3034
BDE .5875 BRA .9987 BC3 .5575 FSP -748

MID-COURSE EXECUTION ACCURACY
SGT 1074.7 SGR 602.6 SG3 258.6
RRT .6902 RRF .7914 RTF .8254
SGB 1232.1 R23 .1760 R13 .8627
SG1 1164.5 SG2 402.4 THA 24.23

ORBIT DETERMINATION ACCURACY
ST 537.1 SR 111.2 SS 572.6
CRT -.3748 CRS .6285 CST -.9535
LSA 778.1 MSA 151.4 SSA 19.7
EL1 538.8 EL2 102.8 ALF 175.39

LAUNCH DATE OCT 12 1970 FLIGHT TIME 86.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 259.002

RL 149.30 LAL -.00 LOL 18.26 VL 29.024 GAL -13.74 AZL 86.49 HCA 120.78 SMA 141.87 ECC .24291 INC 3.5110 V1 29.845
RP 107.48 LAP 3.02 LOP 139.08 VP 39.166 GAP .97 AZP 91.80 TAL 244.17 TAP 4.95 RCA 107.41 APO 176.33 V2 35.256
RC 83.861 GL 14.62 GP -30.53 ZAL 159.25 ZAP 97.99 ETS 352.15 ZAE 141.99 ETE 234.94 ZAC 67.82 ETC 255.93 CLP -99.29

PLANETOCENTRIC CONIC

C3 46.811 VHL 6.842 DLA 1.21 RAL 215.86 RAD 6568.7 VEL 12.968 PTH 2.36 VHP 4.514 DPA -40.85 RAP 204.22 ECC 1.7704

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 16 0	2463.36	-24.72	57.88	92.34	104.26	0 57 3	1863.4	-22.52	49.90
90.00	12 31 55	5032.59	23.38	221.77	91.44	73.55	13 55 47	4432.6	20.90	213.97
100.00	1 37 54	2199.18	-26.04	38.07	91.95	105.23	2 14 33	1599.2	-23.69	30.05
100.00	13 52 42	4772.01	24.67	202.17	91.01	72.57	15 12 14	4172.0	22.05	194.35
110.00	2 47 26	1981.54	-29.57	20.35	90.76	107.98	3 20 27	1381.5	-26.83	12.24
110.00	14 59 39	4562.41	28.17	184.93	89.68	69.78	16 15 41	3962.4	25.15	177.05

DIFFERENTIAL CORRECTIONS
TDE .0518 TRA-1.0121 TC3 -.4630 BAU .3861
RDE -.0790 RRA -.2743 RC3 -.4078 FAU .09828
FDE 1.7549 FRA -.8634 FC3-1.8176 BSP 3430
BDE .6565 BRA 1.0486 BC3 .6170 FSP -772

MID-COURSE EXECUTION ACCURACY
SGT 1190.8 SGR 607.1 SG3 257.3
RRT .7085 RRF .8058 RTF .8434
SGB 1336.6 R23 .1858 R13 .8740
SG1 1275.4 SG2 400.0 THA 22.15

ORBIT DETERMINATION ACCURACY
ST 602.5 SR 97.0 SS 580.1
CRT -.3128 CRS .5618 CST -.9583
LSA 828.7 MSA 147.6 SSA 19.6
EL1 603.2 EL2 92.0 ALF 177.05

LAUNCH DATE OCT 12 1970 FLIGHT TIME 88.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 265.288

RL 149.30 LAL -.00 LOL 18.26 VL 28.968 GAL -13.57 AZL 86.26 HCA 124.02 SMA 141.38 ECC .24092 INC 3.7403 V1 29.845
RP 107.49 LAP 3.10 LOP 142.33 VP 39.123 GAP 1.43 AZP 92.09 TAL 243.37 TAP 7.38 RCA 107.32 APO 175.44 V2 35.254
RC 86.111 GL 15.69 GP -31.35 ZAL 158.12 ZAP 101.77 ETS 349.64 ZAE 139.76 ETE 231.33 ZAC 66.81 ETC 255.69 CLP-103.82

PLANETOCENTRIC CONIC

C3 46.133 VHL 6.792 DLA 2.04 RAL 216.73 RAD 6568.7 VEL 12.942 PTH 2.36 VHP 4.563 DPA -41.06 RAP 202.42 ECC 1.7592

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 13 18	2485.51	-25.09	59.40	93.27	103.58	0 54 43	1885.5	-22.97	51.37
90.00	12 41 34	5003.12	22.79	219.80	91.77	72.73	14 4 57	4403.1	20.21	212.08
100.00	1 35 35	2220.08	-26.40	39.51	92.91	104.55	2 12 35	1620.1	-24.14	31.44
100.00	14 1 57	4743.79	24.08	200.28	91.32	71.74	15 21 1	4143.8	21.36	192.54
110.00	2 46 0	1999.65	-29.95	21.63	91.76	107.31	3 19 20	1399.7	-27.29	13.45
110.00	15 8 1	4536.98	27.56	183.21	89.94	68.92	16 23 38	3937.0	24.44	175.42

DIFFERENTIAL CORRECTIONS
TDE .7296 TRA-1.0868 TC3 -.5340 BAU .4176
RDE -.0578 RRA -.2546 RC3 -.4163 FAU .09583
FDE 1.7481 FRA -.8044 FC3-1.7983 BSP 3823
BDE .7319 BRA 1.0968 BC3 .6771 FSP -777

MID-COURSE EXECUTION ACCURACY
SGT 1309.9 SGR 607.0 SG3 253.4
RRT .7216 RRF .8176 RTF .8566
SGB 1443.7 R23 .1970 R13 .8820
SG1 1388.2 SG2 396.5 THA 20.21

ORBIT DETERMINATION ACCURACY
ST 672.5 SR 82.6 SS 587.6
CRT -.2205 CRS .4676 CST -.9620
LSA 885.1 MSA 143.5 SSA 19.3
EL1 672.8 EL2 80.6 ALF 178.43

LAUNCH DATE OCT 12 1970 FLIGHT TIME 90.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 271.539

RL 149.30 LAL -.00 LOL 18.26 VL 28.908 GAL -13.40 AZL 86.01 HCA 127.26 SMA 140.86 ECC .23896 INC 3.9877 V1 29.845
RP 107.50 LAP 3.17 LOP 145.58 VP 39.076 GAP 1.88 AZP 92.42 TAL 242.49 TAP 9.75 RCA 107.20 APO 174.52 V2 35.251
RC 88.372 GL 16.85 GP -32.20 ZAL 156.87 ZAP 105.26 ETS 347.06 ZAE 137.51 ETE 228.27 ZAC 65.80 ETC 255.47 CLP-108.12

PLANETOCENTRIC CONIC

C3 45.510 VHL 6.746 DLA 2.94 RAL 217.68 RAD 6568.7 VEL 12.918 PTH 2.35 VHP 4.633 DPA -41.39 RAP 200.83 ECC 1.7490

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 10 24	2509.99	-25.47	61.09	94.34	102.82	0 52 14	1910.0	-23.45	53.00
90.00	12 52 2	4971.81	22.15	217.74	92.20	71.89	14 14 54	4371.8	19.46	210.09
100.00	1 33 7	2243.20	-26.79	41.12	93.99	103.79	2 10 30	1643.2	-24.63	32.99
100.00	14 12 0	4713.84	23.43	198.30	91.73	70.89	15 30 34	4113.8	20.61	190.64
110.00	2 44 30	2019.76	-30.35	23.06	92.89	106.55	3 18 10	1419.8	-27.78	14.81
110.00	15 17 6	4510.04	26.88	181.40	90.30	68.05	16 32 16	3910.0	23.66	173.72

DIFFERENTIAL CORRECTIONS
TDE .8132 TRA-1.1190 TC3 -.6043 BAU .4485
RDE -.0363 RRA -.2316 RC3 -.4221 FAU .09255
FDE 1.7341 FRA -.7561 FC3-1.7606 BSP 4214
BDE .8140 BRA 1.1428 BC3 .7371 FSP -769

MID-COURSE EXECUTION ACCURACY
SGT 1430.9 SGR 603.5 SG3 247.5
RRT .7303 RRF .8278 RTF .8661
SGB 1552.9 R23 .2097 R13 .8877
SG1 1502.5 SG2 392.6 THA 18.42

ORBIT DETERMINATION ACCURACY
ST 747.7 SR 68.8 SS 595.0
CRT -.0779 CRS .3237 CST -.9650
LSA 947.7 MSA 139.3 SSA 18.9
EL1 747.7 EL2 68.6 ALF 179.59

LAUNCH DATE OCT 12 1970 FLIGHT TIME 92.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 277.757

RL 149.30 LAL -.00 LOL 18.26 VL 28.846 GAL -13.22 AZL 85.74 HCA 130.50 SMA 140.32 ECC .23705 INC 4.2573 V1 29.845
RP 107.51 LAP 3.24 LOP 148.83 VP 39.026 GAP 2.30 AZP 92.77 TAL 241.55 TAP 12.04 RCA 107.06 APO 173.58 V2 35.247
RC 90.841 GL 18.11 GP -33.12 ZAL 155.52 ZAP 108.44 ETS 344.40 ZAE 135.28 ETE 225.69 ZAC 64.76 ETC 255.26 CLP-112.19

PLANETOCENTRIC CONIC

C3 44.957 VHL 6.705 DLA 3.92 RAL 218.72 RAD 6568.7 VEL 12.897 PTH 2.35 VHP 4.722 DPA -41.86 RAP 199.43 ECC 1.7399

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 7 12	2537.42	-25.87	63.00	95.56	101.94	0 49 29	1937.4	-23.96	54.85
90.00	13 3 28	4938.24	21.42	215.54	92.73	71.02	14 25 46	4338.2	18.63	207.98
100.00	1 30 22	2269.13	-27.19	42.94	95.23	102.91	2 8 12	1669.1	-25.14	34.74
100.00	14 22 58	4681.76	22.70	196.19	92.24	70.01	15 41 0	4081.8	19.77	188.62
110.00	2 42 50	2042.38	-30.77	24.69	94.19	105.67	3 16 52	1442.4	-28.32	16.35
110.00	15 27 1	4481.28	26.14	179.50	90.76	67.14	16 41 42	3881.3	22.81	171.92

DIFFERENTIAL CORRECTIONS
TDE .9033 TRA-1.1878 TC3 -.6727 BAU .4784
RDE -.0143 RRA -.2058 RC3 -.4254 FAU .08860
FDE 1.7145 FRA -.6616 FC3-1.7063 BSP 4598
BDE .9035 BRA 1.1858 BC3 .7960 FSP -751

MID-COURSE EXECUTION ACCURACY
SGT 1552.5 SGR 597.2 SG3 239.8
RRT .7351 RRF .8370 RTF .8731
SGB 1663.4 R23 .2240 R13 .8916
SG1 1617.4 SG2 388.7 THA 16.79

ORBIT DETERMINATION ACCURACY
ST 828.6 SR 56.9 SS 602.4
CRT .1465 CRS .0919 CST -.9676
LSA 1016.9 MSA 135.2 SSA 18.3
EL1 828.7 EL2 56.3 ALF .58

LAUNCH DATE OCT 12 1970 FLIGHT TIME 94.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 283.943

RL 149.30 LAL -.00 LOL 18.26 VL 28.780 GAL -13.04 AZL 85.45 HCA 133.74 SMA 139.76 ECC .23518 INC 4.5543 V1 29.845
RP 107.53 LAP 3.29 LOP 152.08 VP 38.974 GAP 2.70 AZP 93.15 TAL 240.54 TAP 14.28 RCA 106.89 APO 172.63 V2 35.243
RC 92.917 GL 19.50 GP -34.14 ZAL 154.03 ZAP 111.29 ETS 341.63 ZAE 133.06 ETE 223.53 ZAC 63.66 ETC 255.06 CLP-116.02

PLANETOCENTRIC CONIC

C3 44.496 VHL 6.670 DLA 4.99 RAL 219.84 RAD 6568.7 VEL 12.879 PTH 2.35 VHP 4.831 DPA -42.51 RAP 198.19 ECC 1.7323

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 3 34	2568.55	+26.29	65.18	96.96	100.92	0 46 22	1968.6	-24.52	56.96
90.00	13 16 3	4901.92	20.60	213.20	93.39	70.13	14 37 45	4301.9	17.70	205.72
100.00	1 27 15	2298.60	-27.63	45.03	96.66	101.90	2 5 34	1698.6	-25.71	36.75
100.00	14 35 3	4647.11	21.87	193.95	92:88	69.10	15 52 30	4047.1	18.84	186.47
110.00	2 40 54	2068.15	-31.23	26.55	95.68	104.65	3 15 22	1468.1	-28.91	18.12
110.00	15 37 54	4450.32	25.30	177.48	91.34	66.21	16 52 4	3850.3	21.87	170.01

DIFFERENTIAL CORRECTIONS
TDE 1.0009 TRA-1.2128 TC3 -.7386 BAU .5073
RDE .0081 RRA -.1774 RC3 -.4265 FAU .08418
FDE 1.6896 FRA -.5841 FC3-1.6379 BSP 4983
BDE 1.0010 BRA 1.2257 BC3 .8529 FSP -728

MID-COURSE EXECUTION ACCURACY
SGT 1674.4 SGR 589.2 SG3 230.8
RRT .7365 RRF .8454 RTF .8781
SGB 1775.0 R23 .2398 R13 .8944
SG1 1732.7 SG2 385.2 THA 15.30

ORBIT DETERMINATION ACCURACY
ST 915.7 SR 49.5 SS 609.6
CRT .4616 CRS -.2518 CST -.9698
LSA 1093.1 MSA 131.3 SSA 17.6
EL1 915.9 EL2 43.9 ALF 1.43

LAUNCH DATE, OCT 12 1970 FLIGHT TIME 96.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 290.099

RL 149.30 LAL -.00 LOL 18.26 VL 28.712 GAL -12.85 AZL 85.11 HCA 136.97 SMA 139.19 ECC .23335 INC 4.8851 V1 29.845
RP 107.54 LAP 3.33 LOP 155.33 VP 38.919 GAP 3.09 AZP 93.58 TAL 239.48 TAP 16.46 RCA 106.71 APO 171.67 V2 35.238
RC 95.197 GL 21.02 GP -35.29 ZAL 152.39 ZAP 113.81 ETS 338.74 ZAE 130.85 ETE 221.74 ZAC 62.47 ETC 254.86 CLP-119.64

PLANETOCENTRIC CONIC

C3 44.155 VHL 6.645 DLA 6.19 RAL 221.06 RAD 6568.7 VEL 12.865 PTH 2.34 VHP 4.960 DPA -43.36 RAP 197.04 ECC 1.7267

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 55 24	2604.35	-26.73	67.71	98.58	99.73	24 38 48	2004.3	-25.11	59.42
90.00	13 30 2	4862.26	19.66	210.67	94.20	69.20	14 51 4	4262.3	16.65	203.28
100.00	1 23 37	2332.50	-28.08	47.45	98.31	100.70	2 2 29	1732.5	-26.31	39.09
100.00	14 48 26	4609.33	20.94	191.54	93.67	68.16	16 5 16	4009.3	17.79	184.16
110.00	2 38 35	2097.87	-31.72	28.73	97.41	103.45	3 13 33	1497.9	-29.55	20.20
110.00	15 49 57	4416.73	24.36	175.32	92.07	65.25	17 3 34	3816.7	20.82	167.97

DIFFERENTIAL CORRECTIONS
TDE 1.1076 TRA-1.2537 TC3 -.8009 BAU .5353
RDE .0310 RRA -.1465 RC3 -.4254 FAU .07941
FDE 1.6606 FRA -.5059 FC3-1.5570 BSP 5377
BDE 1.1081 BRA 1.2622 BC3 .9068 FSP -703

MID-COURSE EXECUTION ACCURACY
SGT 1796.4 SGR 580.1 SG3 220.7
RRT .7345 RRF .8530 RTF .8820
SGB 1887.8 R23 .2567 R13 .8963
SG1 1848.6 SG2 382.5 THA 13.95

ORBIT DETERMINATION ACCURACY
ST 1009.7 SR 49.6 SS 616.7
CRT .7700 CRS -.6223 CST -.9719
LSA 1177.2 MSA 127.9 SSA 16.7
EL1 1010.5 EL2 31.6 ALF 2.17

LAUNCH DATE OCT 12 1970 FLIGHT TIME 98.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 296.227

RL 149.30 LAL -.00 LOL 18.26 VL 28.641 GAL -12.65 AZL 84.74 HCA 140.21 SMA 138.60 ECC .23157 INC 5.2585 V1 29.845
RP 107.56 LAP 3.36 LOP 158.58 VP 38.862 GAP 3.46 AZP 94.05 TAL 238.37 TAP 18.58 RCA 106.51 APO 170.70 V2 35.232
RC 97.481 GL 22.72 GP -36.62 ZAL 150.58 ZAP 115.96 ETS 335.68 ZAE 128.62 ETE 220.28 ZAC 61.14 ETC 254.64 CLP-123.05

PLANETOCENTRIC CONIC

C3 43.975 VHL 6.631 DLA 7.54 RAL 222.39 RAD 6568.7 VEL 12.858 PTH 2.34 VHP 5.111 DPA -44.44 RAP 195.95 ECC 1.7237

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 50 21	2646.04	-27.17	70.68	100.46	98.30	24 34 27	2046.0	-25.74	62.31
90.00	13 45 43	4818.51	18.58	207.91	95.19	68.24	15 6 1	4218.5	15.46	200.62
100.00	1 19 15	2372.00	-28.54	50.29	100.22	99.27	1 58 47	1772.0	-26.97	41.84
100.00	15 3 26	4567.78	19.86	188.92	94.63	67.19	16 19 34	3967.8	16.60	181.64
110.00	2 35 46	2132.56	-32.25	31.30	99.41	102.01	3 11 18	1532.6	-30.26	22.65
110.00	16 3 25	4379.99	23.30	173.00	92.97	64.25	17 16 25	3780.0	19.64	165.77

DIFFERENTIAL CORRECTIONS
TDE 1.2279 TRA-1.2879 TC3 -.8565 BAU .5610
RDE .0558 RRA -.1114 RC3 -.4207 FAU .07411
FDE 1.6342 FRA -.4230 FC3-1.4590 BSP 5723
BDE 1.2292 BRA 1.2927 BC3 .9542 FSP -663

MID-COURSE EXECUTION ACCURACY
SGT 1917.2 SGR 568.4 SG3 209.4
RRT .7286 RRF .8592 RTF .8845
SGB 1999.7 R23 .2748 R13 .8973
SG1 1963.2 SG2 380.2 THA 12.67

ORBIT DETERMINATION ACCURACY
ST 1113.6 SR 58.8 SS 626.0
CRT .9403 CRS -.8676 CST -.9738
LSA 1272.6 MSA 125.6 SSA 15.6
EL1 1115.0 EL2 20.0 ALF 2.84

LAUNCH DATE OCT 12 1970 FLIGHT TIME 100.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 302.326

RL 149.30 LAL -.00 LOL 18.26 VL 28.569 GAL -12.44 AZL 84.31 HCA 143.44 SMA 138.01 ECC .22983 INC 5.6860 V1 29.845
RP 107.58 LAP 3.38 LOP 161.83 VP 38.803 GAP 3.82 AZP 94.57 TAL 237.21 TAP 20.65 RCA 106.29 APO 169.72 V2 35.226
RC 99.767 GL 24.62 GP -38.17 ZAL 148.57 ZAP 117.73 ETS 332.43 ZAE 126.36 ETE 219.09 ZAC 59.63 ETC 254.39 CLP-126.28

PLANETOCENTRIC CONIC

C3 44.015 VHL 6.634 DLA 9.06 RAL 223.85 RAD 6568.7 VEL 12.860 PTH 2.34 VHP 5.291 DPA -45.77 RAP 194.82 ECC 1.7244

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 44 13	2695.23	-27.60	74.22	102.66	96.58	24 29 8	2095.2	-26.40	65.76
90.00	14 3 29	4769.78	17.32	204.89	96.42	67.24	15 22 59	4169.8	14.09	197.70
100.00	1 13 55	2418.61	-29.01	53.68	102.47	97.55	1 54 14	1818.6	-27.66	45.13
100.00	15 20 25	4521.63	18.62	186.05	95.83	66.18	16 35 46	3921.6	15.24	178.89
110.00	2 32 14	2173.53	-32.78	34.38	101.78	100.27	3 8 28	1573.5	-31.02	25.60
110.00	16 18 35	4339.48	22.07	170.49	94.09	63.21	17 30 54	3739.5	18.30	163.39

DIFFERENTIAL CORRECTIONS
TDE 1.3608 TRA-1.3188 TC3 -.9069 BAU .5869
RDE .0791 RRA -.0751 RC3 -.4148 FAU .06892
FDE 1.5982 FRA -.3495 FC3-1.3556 BSP 6143
BDE 1.3631 BRA 1.3210 BC3 .9973 FSP -637

MID-COURSE EXECUTION ACCURACY
SGT 2039.5 SGR 558.5 SG3 197.7
RRT .7185 RRF .8643 RTF .8871
SGB 2114.6 R23 .2930 R13 .8987
SG1 2080.0 SG2 380.9 THA 11.52

ORBIT DETERMINATION ACCURACY
ST 1225.6 SR 73.0 SS 632.8
CRT .9803 CRS -.9598 CST -.9759
LSA 1375.7 MSA 123.3 SSA 14.4
EL1 1227.7 EL2 14.4 ALF 3.34

LAUNCH DATE OCT 12 1970 FLIGHT TIME 102.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 308.399

RL 149.30 LAL -.00 LOL 18.26 VL 28.496 GAL -12.23 AZL 83.82 HCA 146.67 SMA 137.41 ECC .22815 INC 6.1839 V1 29.845
RP 107.60 LAP 3.39 LOP 165.07 VP 38.742 GAP 4.16 AZP 95.17 TAL 236.01 TAP 22.67 RCA 106.06 APO 168.76 V2 35.218
RC 102.053 GL 26.77 GP -39.99 ZAL 146.32 ZAP 119.07 ETS 328.94 ZAE 124.01 ETE 218.13 ZAC 57.87 ETC 254.09 CLP-129.37

PLANETOCENTRIC CONIC

C3 44.360 VHL 6.660 DLA 10.80 RAL 225.46 RAD 6568.7 VEL 12.873 PTH 2.34 VHP 5.504 DPA -47.38 RAP 193.56 ECC 1.7300

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 36 37	2754.10	-27.99	78.48	105.27	94.48	24 22 31	2154.1	-27.08	69.93
90.00	14 23 56	4714.83	15.84	201.53	97.96	66.22	15 42 31	4114.8	12.49	194.45
100.00	1 7 17	2474.35	-29.44	57.76	105.12	95.44	1 48 32	1874.4	-28.37	49.12
100.00	15 39 53	4469.81	17.17	182.89	97.34	65.15	16 54 23	3869.8	13.67	175.84
110.00	2 27 46	2222.52	-33.32	38.10	104.58	98.13	3 4 49	1622.5	-31.84	29.18
110.00	16 35 54	4294.41	20.67	167.75	95.50	62.15	17 47 28	3694.4	16.78	160.79

DIFFERENTIAL CORRECTIONS
TDE 1.5156 TRA-1.3414 TC3 -.9462 BAU .6101
RDE .1039 RRA -.0329 RC3 -.4037 FAU .06324
FDE 1.5666 FRA -.2726 FC3-1.2343 BSP 6514
BDE 1.5191 BRA 1.3418 BC3 1.0287 FSP -598

MID-COURSE EXECUTION ACCURACY
SGT 2160.7 SGR 545.9 SG3 184.8
RRT .7022 RRF .8662 RTF .8891
SGB 2228.6 R23 .3111 R13 .8995
SG1 2195.5 SG2 382.5 THA 10.38

ORBIT DETERMINATION ACCURACY
ST 1351.1 SR 91.3 SS 642.2
CRT .9750 CRS -.9891 CST -.9778
LSA 1493.7 MSA 122.5 SSA 12.9
EL1 1354.0 EL2 20.2 ALF 3.77

LAUNCH DATE OCT 12 1970 FLIGHT TIME 104.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 314.446

RL 149.30 LAL -.00 LOL 18.26 VL 28.421 GAL -12.01 AZL 83.23 HCA 149.89 SMA 136.80 ECC .22652 INC 6.7747 V1 29.845
RP 107.63 LAP 3.39 LOP 168.32 VP 38.680 GAP 4.48 AZP 95.87 TAL 234.76 TAP 24.65 RCA 105.81 APO 167.79 V2 35.211
RC 104.339 GL 29.21 GP -42.15 ZAL 143.79 ZAP 119.96 ETS 325.18 ZAE 121.54 ETE 217.34 ZAC 55.81 ETC 253.71 CLP-132.35

PLANETOCENTRIC CONIC

C3 45.139 VHL 6.719 DLA 12.80 RAL 227.25 RAD 6568.7 VEL 12.904 PTH 2.35 VHP 5.762 DPA -49.30 RAP 192.03 ECC 1.7429

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 27 0	2825.67	-28.26	83.70	108.37	91.87	24 14 5	2225.7	-27.70	75.08
90.00	14 47 51	4652.02	14.08	197.76	99.92	65.18	16 5 23	4052.0	10.62	190.80
100.00	0 58 53	2542.01	-29.77	82.76	108.30	92.83	1 41 15	1942.0	-29.08	54.03
100.00	16 2 34	4410.92	15.45	179.37	99.25	64.09	17 16 5	3810.9	11.84	172.43
110.00	2 22 2	2281.84	-33.80	42.66	107.96	95.46	3 0 3	1681.8	-32.67	33.61
110.00	16 55 55	4243.84	19.03	164.74	97.31	61.05	18 6 39	3643.8	15.02	157.92

DIFFERENTIAL CORRECTIONS
TDE 1.6972 TRA-1.3565 TC3 -.9722 BAU .6316
RDE .1273 RRA .0144 RC3 -.3877 FAU .05741
FDE 1.5322 FRA -.2004 FC3-1.1010 BSP 6908
BDE 1.7020 BRA 1.3566 BC3 1.0467 FSP -560

MID-COURSE EXECUTION ACCURACY
SGT 2282.3 SGR 532.3 SG3 171.2
RRT .6772 RRF .8630 RTF .8915
SGB 2343.6 R23 .3280 R13 .9007
SG1 2311.4 SG2 386.7 THA 9.24

ORBIT DETERMINATION ACCURACY
ST 1491.0 SR 109.7 SS 651.4
CRT .9558 CRS -.9913 CST -.9799
LSA 1626.1 MSA 122.4 SSA 11.4
EL1 1494.7 EL2 32.2 ALF 4.02

LAUNCH DATE OCT 12 1970 FLIGHT TIME 106.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 320.469

RL 149.30 LAL -.00 LOL 18.26 VL 28.345 GAL -11.79 AZL 82.51 HCA 153.11 SMA 136.20 ECC .22495 INC 7.4923 V1 29.845
RP 107.65 LAP 3.38 LOP 171.56 VP 38.617 GAP 4.79 AZP 96.69 TAL 233.47 TAP 26.58 RCA 105.56 APO 166.84 V2 35.202
RC 106.624 GL 32.02 GP -44.73 ZAL 140.90 ZAP 120.32 ETS 321.09 ZAE 118.85 ETE 216.64 ZAC 53.35 ETC 253.20 CLP-135.28

PLANETOCENTRIC CONIC

C3 46.562 VHL 6.824 DLA 15.11 RAL 229.27 RAD 6568.7 VEL 12.959 PTH 2.36 VHP 6.083 DPA -51.54 RAP 190.02 ECC 1.7663

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 14 29	2914.36	-28.29	90.19	112.09	88.62	24 3 4	2314.4	-28.18	81.52
90.00	15 16 25	4578.91	11.95	193.45	102.47	64.14	16 32 44	3978.9	8.37	186.60
100.00	0 47 58	2625.55	-29.89	68.97	112.12	89.56	1 31 44	2025.6	-29.63	60.18
100.00	16 29 33	4342.95	13.38	175.37	101.74	63.02	17 41 56	3743.0	9.66	168.56
110.00	2 14 32	2354.73	-34.12	48.33	112.05	92.13	2 53 46	1754.7	-33.45	39.15
110.00	17 19 29	4186.54	17.11	161.41	99.64	59.94	18 29 15	3586.5	12.98	154.73

DIFFERENTIAL CORRECTIONS
TDE 1.9176 TRA-1.3608 TC3 -.9790 BAU .6502
RDE .1474 RRA .0702 RC3 -.3641 FAU .05125
FDE 1.4975 FRA -.1306 FC3 -.9528 BSP 7290
BDE 1.9233 BRA 1.3627 BC3 1.0445 FSP -517

MID-COURSE EXECUTION ACCURACY
SGT 2403.9 SGR 515.8 SG3 156.6
RRT .6380 RRF .8504 RTF .8943
SGB 2458.6 R23 .3429 R13 .9024
SG1 2426.9 SG2 393.4 THA 8.01

ORBIT DETERMINATION ACCURACY
ST 1649.4 SR 126.0 SS 661.4
CRT .9306 CRS -.9812 CST -.9820
LSA 1777.2 MSA 123.5 SSA 9.7
EL1 1653.5 EL2 46.0 ALF 4.07

LAUNCH DATE OCT 12 1970 FLIGHT TIME 108.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 326.465

RL 149.30 LAL -.00 LOL 18.26 VL 28.268 GAL -11.55 AZL 81.61 HCA 156.33 SMA 135.60 ECC .22343 INC 8.3883 V1 29.845
RP 107.68 LAP 3.36 LOP 174.81 VP 38.552 GAP 5.09 AZP 97.69 TAL 232.14 TAP 28.47 RCA 105.30 APO 165.89 V2 35.193
RC 108.906 GL 35.26 GP -47.80 ZAL 137.58 ZAP 120.07 ETS 316.59 ZAE 115.88 ETE 215.92 ZAC 50.41 ETC 252.49 CLP-138.25

PLANETOCENTRIC CONIC

C3 48.977 VHL 6.998 DLA 17.81 RAL 231.57 RAD 6568.8 VEL 13.051 PTH 2.38 VHP 6.494 DPA -54.11 RAP 187.22 ECC 1.8060

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 57 39	3027.05	-27.83	98.39	116.55	84.53	23 48 6	2427.1	-28.29	89.76
90.00	15 51 37	4491.54	9.30	188.39	105.87	63.13	17 6 28	3891.5	5.63	181.64
100.00	0 33 23	2731.01	-29.58	76.79	116.73	85.46	1 18 54	2131.0	-29.89	68.00
100.00	17 2 30	4262.82	10.86	170.76	105.05	61.98	18 13 32	3662.8	7.03	164.06
110.00	2 4 33	2445.77	-34.13	55.44	117.04	87.92	2 45 19	1845.8	-34.04	46.19
110.00	17 47 49	4120.82	14.83	157.68	102.74	58.84	18 56 30	3520.8	10.59	151.14

DIFFERENTIAL CORRECTIONS
TDE 2.1935 TRA-1.3512 TC3 -.9596 BAU .6645
RDE .1589 RRA .1380 RC3 -.3303 FAU .04476
FDE 1.4616 FRA -.0648 FC3 -.7911 BSP 7662
BDE 2.1993 BRA 1.3582 BC3 1.0149 FSP -469

MID-COURSE EXECUTION ACCURACY
SGT 2525.7 SGR 494.7 SG3 140.9
RRT .5737 RRF .8191 RTF .8983
SGB 2573.7 R23 .3544 R13 .9049
SG1 2542.0 SG2 402.6 THA 6.58

ORBIT DETERMINATION ACCURACY
ST 1829.8 SR 135.6 SS 671.8
CRT .8940 CRS -.9582 CST -.9842
LSA 1949.8 MSA 125.7 SSA 8.1
EL1 1833.8 EL2 60.6 ALF 3.79

LAUNCH DATE OCT 12 1970 FLIGHT TIME 110.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 332.437
RL 149.30 LAL -.00 LOL 18.26 VL 28.191 GAL -11.31 AZL 80.45 HCA 159.53 SMA 135.00 ECC .22195 INC 9.5467 V1 29.845
RP 107.71 LAP 3.32 LOP 178.05 VP 38.487 GAP 5.37 AZP 98.95 TAL 230.78 TAP 30.31 RCA 105.03 APO 164.96 V2 35.184
RC 111.186 GL 39.03 GP -51.49 ZAL 133.74 ZAP 119.12 ETS 311.57 ZAE 112.49 ETE 215.00 ZAC 46.85 ETC 251.43 CLP-141.41
PLANETOCENTRIC CONIC
C3 53.015 VHL 7.281 DLA 20.96 RAL 234.25 RAD 6568.9 VEL 13.205 PTH 2.41 VHP 7.045 DPA -56.98 RAP 183.11 ECC 1.8725

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 33 39	3175.88	-26.40	109.05	121.81	79.38	23 26 35	2575.9	-27.60	100.58
90.00	16 37 2	4382.13	5.88	182.17	110.58	62.25	17 50 4	3782.1	2.12	175.51
100.00	0 12 58	2868.29	-28.42	86.82	122.22	80.31	1 0 47	2268.3	-29.46	78.18
100.00	17 44 20	4164.95	7.68	165.23	109.60	61.02	18 53 45	3564.9	3.76	158.64
110.00	1 50 56	2561.78	-33.48	64.43	123.10	82.64	2 33 38	1961.8	-34.13	55.25
110.00	18 22 51	4044.22	12.09	153.44	106.96	57.78	19 30 15	3444.2	7.75	147.03

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE 2.5596 TRA-1.3135 TC3 -.8999 BAU .6680 SGT 2645.6 SGR 466.4 SG3 124.2 ST 2041.7 SR 133.5 SS 686.2
RDE .1523 RRA .2279 RC3 -.2801 FAU .03754 RRT .4565 RRF .7453 RTF .9033 CRT .8170 CRS -.8998 CST -.9865
FDE 1.4323 FRA .0044 FC3 -.6130 BSP 7833 SGB 2686.4 R23 .3626 R13 .9080 LSA 2154.1 MSA 130.2 SSA 6.5
BDE 2.5641 BRA 1.3332 BC3 .9425 FSP -398 SG1 2654.4 SG2 413.6 THA 4.72 EL1 2044.6 EL2 76.9 ALF 3.06

LAUNCH DATE OCT 12 1970 FLIGHT TIME 112.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 338.378
RL 149.30 LAL -.00 LOL 18.26 VL 28.114 GAL -11.06 AZL 78.89 HCA 162.73 SMA 134.40 ECC .22053 INC11.1121 V1 29.845
RP 107.74 LAP 3.28 LOP 181.29 VP 38.421 GAP 5.64 AZP 100.62 TAL 229.38 TAP 32.11 RCA 104.76 APO 164.04 V2 35.174
RC 113.462 GL 43.39 GP -55.91 ZAL 129.25 ZAP 117.36 ETS 305.76 ZAE 108.53 ETE 213.49 ZAC 42.51 ETC 249.78 CLP-145.08
PLANETOCENTRIC CONIC
C3 59.918 VHL 7.741 DLA 24.61 RAL 237.47 RAD 6569.1 VEL 13.464 PTH 2.46 VHP 7.821 DPA -59.99 RAP 176.88 ECC 1.9861

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	21 54 58	3388.77	-22.91	123.65	127.60	72.88	22 51 27	2788.8	-25.04	115.62
90.00	17 41 22	4229.38	.99	173.62	117.52	61.70	18 51 52	3629.4	-2.80	166.99
100.00	23 37 49	3057.16	-25.53	100.10	128.46	73.90	24 28 46	2457.2	-27.49	91.85
100.00	18 41 12	4036.23	3.38	158.10	116.19	60.28	19 48 28	3436.2	-.60	151.58
110.00	1 31 33	2713.65	-31.56	75.85	130.30	76.14	2 16 46	2113.7	-33.15	66.98
110.00	19 7 54	3952.50	8.71	148.48	112.91	56.81	20 13 46	3352.5	4.28	142.19

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE 3.0352 TRA-1.2598 TC3 -.8079 BAU .6709 SGT 2768.3 SGR 442.1 SG3 106.8 ST 2267.9 SR 103.2 SS 691.7
RDE .0832 RRA .3365 RC3 -.2205 FAU .03098 RRT .2324 RRF .5669 RTF .9137 CRT .4848 CRS -.6073 CST -.9892
FDE 1.3825 FRA .0457 FC3 -.4477 BSP 8433 SGB 2803.4 R23 .3591 R13 .9159 LSA 2369.6 MSA 132.0 SSA 5.1
BDE 3.0363 BRA 1.3040 BC3 .8375 FSP -366 SG1 2770.3 SG2 429.7 THA 2.18 EL1 2268.5 EL2 90.3 ALF 1.27

LAUNCH DATE OCT 12 1970 FLIGHT TIME 114.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 344.284
RL 149.30 LAL -.00 LOL 18.26 VL 28.036 GAL -10.80 AZL 76.64 HCA 165.90 SMA 133.81 ECC .21914 INC13.3581 V1 29.845
RP 107.77 LAP 3.23 LOP 184.52 VP 38.355 GAP 5.90 AZP 102.97 TAL 227.95 TAP 33.85 RCA 104.49 APO 163.13 V2 35.164
RC 115.736 GL 48.40 GP -61.20 ZAL 123.99 ZAP 114.65 ETS 298.53 ZAE 103.75 ETE 210.60 ZAC 37.20 ETC 246.99 CLP-149.97
PLANETOCENTRIC CONIC
C3 72.387 VHL 8.508 DLA 28.76 RAL 241.46 RAD 6569.4 VEL 13.919 PTH 2.54 VHP 8.989 DPA -62.74 RAP 167.26 ECC 2.1913

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
84.73	19 20 17	3996.18	-11.05	162.93	130.65	63.27	20 26 53	3396.2	-14.55	155.97
95.27	20 47 56	3712.47	-11.03	142.14	130.64	63.27	21 49 48	3112.5	-14.53	135.18
100.00	22 34 21	3370.31	-18.09	120.36	134.11	65.79	23 30 32	2770.3	-21.21	112.95
100.00	20 16 32	3813.56	-4.16	145.87	126.92	60.37	21 20 6	3213.6	-8.07	139.27
110.00	1 1 32	2921.81	-27.23	90.49	138.28	68.49	1 50 14	2321.8	-29.90	82.32
110.00	20 9 47	3834.83	4.28	142.26	121.71	56.05	21 13 41	3234.8	-.21	136.04

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE 3.7257 TRA-1.1325 TC3 -.6535 BAU .6468 SGT 2879.0 SGR 457.5 SG3 89.0 ST 2522.8 SR 142.1 SS 705.5
RDE -.1246 RRA .4965 RC3 -.1400 FAU .02367 RRT -.2107 RRF .1383 RTF .9282 CRT -.6700 CRS .5709 CST -.9920
FDE 1.3484 FRA .0908 FC3 -.2831 BSP 8761 SGB 2915.1 R23 -.3464 R13 -.9264 LSA 2619.9 MSA 136.6 SSA 3.8
BDE 3.7278 BRA 1.2366 BC3 .6684 FSP -307 SG1 2880.7 SG2 446.9 THA 178.04 EL1 2524.6 EL2 105.4 ALF 177.84

LAUNCH DATE OCT 12 1970 FLIGHT TIME 116.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 350.142
RL 149.30 LAL -.00 LOL 18.26 VL 27.959 GAL -10.52 AZL 73.13 HCA 169.04 SMA 133.23 ECC .21773 INC16.8650 V1 29.845
RP 107.80 LAP 3.16 LOP 187.75 VP 38.288 GAP 6.13 AZP 106.57 TAL 226.47 TAP 35.51 RCA 104.22 APO 162.23 V2 35.153
RC 118.005 GL 53.93 GP -67.40 ZAL 117.85 ZAP 110.90 ETS 288.02 ZAE 97.80 ETE 204.27 ZAC 30.65 ETC 241.72 CLP-158.14
PLANETOCENTRIC CONIC
C3 97.339 VHL 9.866 DLA 33.23 RAL 246.65 RAD 6569.9 VEL 14.788 PTH 2.67 VHP 10.909 DPA -64.25 RAP 152.94 ECC 2.6020

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
71.83	18 6 34	4362.41	-10.23	189.91	140.68	58.21	19 19 16	3762.4	-14.37	183.31
108.17	22 43 4	3479.90	-10.22	124.27	140.67	58.20	23 41 3	2879.9	-14.35	117.68
71.83	18 6 34	4362.41	-10.23	189.91	140.68	58.21	19 19 16	3762.4	-14.37	183.31
108.17	22 43 4	3479.90	-10.22	124.27	140.67	58.20	23 41 3	2879.9	-14.35	117.68
110.00	23 55 19	3258.22	-17.14	111.35	144.93	59.96	24 49 37	2658.2	-21.00	104.35
110.00	21 53 29	3632.08	-3.47	131.67	136.27	55.97	22 54 1	3032.1	-7.91	125.40

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE 4.7329 TRA -.8588 TC3 -.4408 BAU .5775 SGT 2943.9 SGR 678.2 SG3 71.9 ST 2754.5 SR 467.2 SS 733.0
RDE -.7611 RRA .7265 RC3 -.0512 FAU .01623 RRT -.7151 RRF -.4768 RTF .9506 CRT -.9650 CRS .9341 CST -.9950
FDE 1.3382 FRA .1299 FC3 -.1444 BSP 9073 SGB 3021.0 R23 -.3154 R13 -.9426 LSA 2884.9 MSA 142.6 SSA 2.6
BDE 4.7937 BRA 1.1249 BC3 .4437 FSP -249 SG1 2984.6 SG2 467.6 THA 170.41 EL1 2791.2 EL2 120.9 ALF 170.69

LAUNCH DATE OCT 12 1970 FLIGHT TIME 118.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 355.912

```
RL  149.30 LAL   -.00 LOL  18.26 VL  27.881 GAL -10.22 AZL  66.91 HCA 172.11 SMA 132.65 ECC .21622 INC23.0904 V1  29.845
RP  107.84 LAP   3.09 LOP 190.99 VP  38.221 GAP   6.34 AZP 112.89 TAL 224.94 TAP  37.04 RCA 103.97 APO 161.33 V2  35.141
RC 120.271 GL   59.25 GP  -73.88 ZAL 110.83 ZAP 106.09 ETS 268.31 ZAE  89.96 ETE 188.33 ZAC  22.51 ETC 230.50 CLP-177.04
```

PLANETOCENTRIC CONIC

```
C3 156.784 VHL 12.521 DLA  37.25 RAL 253.76 RAD 6570.7 VEL 16.677 PTH   2.89 VHP 14.482 DPA -62.59 RAP 134.79 ECC 3.5803
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.71	17 54 10	4578.90	-7.55	205.18	153.74	53.41	19 10 29	3978.9	-12.26	199.03
115.29	23 52 9	3450.93	-7.53	120.14	153.73	53.41	24 49 40	2850.9	-12.24	113.99
64.71	17 54 10	4578.90	-7.55	205.18	153.74	53.41	19 10 29	3978.9	-12.26	199.03
115.29	23 52 9	3450.93	-7.53	120.14	153.73	53.41	24 49 40	2850.9	-12.24	113.99
64.71	17 54 10	4578.90	-7.55	205.18	153.74	53.41	19 10 29	3978.9	-12.26	199.03
115.29	23 52 9	3450.93	-7.53	120.14	153.73	53.41	24 49 40	2850.9	-12.24	113.99

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 5.9550 TRA -.1630 TC3 -.1852 BAU  .3884   SGT 2765.7 SGR 1423.6 SG3   57.5      ST  2725.1 SR  1321.4 SS   810.5
RDE-2.8648 RRA  .9656 RC3  .0058 FAU .00818   RRT -.9221 RRF -.8361 RTF  .9816      CRT -.9935 CRS  .9847 CST -.9983
FDE 1.4139 FRA  .1821 FC3 -.0452 BSP   9301   SGB 3110.6 R23 -.2556 R13 -.9644     LSA 3131.5 MSA  151.7 SSA    1.7
BDE 6.6083 BRA  .9792 BC3  .1853 FSP   -197   SG1 3070.8 SG2  496.0 THA 153.87     EL1 3025.5 EL2  137.9 ALF 154.23
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LAUNCH DATE OCT 12 1970 FLIGHT TIME 120.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 361.463

```
RL  149.30 LAL   -.00 LOL  18.26 VL  27.804 GAL  -9.87 AZL  53.33 HCA 174.97 SMA 132.08 ECC .21423 INC36.6750 V1  29.845
RP  107.87 LAP   3.00 LOP 194.21 VP  38.154 GAP   6.48 AZP 126.57 TAL 223.30 TAP  38.26 RCA 103.79 APO 160.38 V2  35.130
RC 122.531 GL   61.30 GP  -75.13 ZAL 103.24 ZAP 100.49 ETS 227.39 ZAE  78.14 ETE 150.71 ZAC  13.32 ETC 218.70 CLP 135.17
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PLANETOCENTRIC CONIC

```
C3 347.878 VHL 18.651 DLA  38.08 RAL 263.78 RAD 6571.9 VEL 21.661 PTH   3.22 VHP 22.491 DPA -54.54 RAP 118.40 ECC 6.7252
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.40	18 27 29	4710.92	-3.00	212.50	169.96	52.02	19 45 59	4110.9	-7.89	206.56
116.60	0 42 42	3544.17	-2.98	124.28	169.95	52.02	1 41 46	2944.2	-7.88	118.34
63.40	18 27 29	4710.92	-3.00	212.50	169.96	52.02	19 45 59	4110.9	-7.89	206.56
116.60	0 42 42	3544.17	-2.98	124.28	169.95	52.02	1 41 46	2944.2	-7.88	118.34
63.40	18 27 29	4710.92	-3.00	212.50	169.96	52.02	19 45 59	4110.9	-7.89	206.56
116.60	0 42 42	3544.17	-2.98	124.28	169.95	52.02	1 41 46	2944.2	-7.88	118.34

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 4.6197 TRA 1.3649 TC3 -.0072 BAU  .3770   SGT 1516.0 SGR 2745.5 SG3   47.9      ST  1428.1 SR  2728.7 SS  1047.8
RDE-8.8826 RRA  .0999 RC3 -.0007 FAU-.00427   RRT -.9234 RRF -.9681 RTF  .9886      CRT -.9932 CRS  .9971 CST -.9992
FDE 1.7507 FRA  .3329 FC3  .0106 BSP   9384   SGB 3136.3 R23 -.1605 R13 -.9860     LSA 3249.5 MSA  155.9 SSA    1.4
BDE10.0121 BRA 1.3685 BC3  .0811 FSP   -159   SG1 3093.5 SG2  516.5 THA 117.86     EL1 3076.3 EL2  147.2 ALF 117.53
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LAUNCH DATE OCT 12 1970 FLIGHT TIME 122.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 366.143

```
RL  149.30 LAL   -.00 LOL  18.26 VL  27.727 GAL  -9.34 AZL  15.62 HCA 176.98 SMA 131.52 ECC .21006 INC74.3823 V1  29.845
RP  107.91 LAP   2.91 LOP 197.44 VP  38.087 GAP   6.37 AZP 164.36 TAL 221.25 TAP  38.22 RCA 103.89 APO 159.15 V2  35.118
RC 124.786 GL   49.09 GP  -56.25 ZAL  96.60 ZAP  95.29 ETS 192.35 ZAE  55.26 ETE 120.42 ZAC  22.65 ETC 260.27 CLP  99.55
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PLANETOCENTRIC CONIC

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C31215.453 VHL 34.863 DLA  25.82 RAL 275.92 RAD 6573.1 VEL 36.561 PTH   3.53 VHP 43.447 DPA -32.70 RAP 110.82 ECC21.0033
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 9 40	3870.19	-10.40	153.37	192.12	63.51	1 14 10	3270.2	-13.88	146.42
90.00	20 37 23	4555.94	11.26	192.11	181.50	63.85	21 53 19	3955.9	7.66	185.29
100.00	1 57 13	3523.45	-13.58	129.49	193.75	63.11	2 55 57	2923.4	-17.08	122.45
100.00	21 32 31	4377.92	14.45	177.42	179.88	63.55	22 45 29	3777.9	10.79	170.55
110.00	3 52 53	3161.57	-20.33	105.68	197.42	61.91	4 45 34	2561.6	-23.93	98.38
110.00	21 53 21	4312.57	21.24	168.85	176.26	62.56	23 5 14	3712.6	17.40	161.83

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.7035 TRA 1.9254 TC3 -.0578 BAU 3.0780   SGT  695.2 SGR 2722.1 SG3   44.8      ST   456.8 SR  2299.5 SS  1603.2
RD-13.9194 RRA-4.2231 RC3 -.1804 FAU-.04729   RRT  .6617 RRF -.9966 RTF -.6010      CRT  .9448 CRS  .9995 CST  .9341
FDE 2.5757 FRA 1.0260 FC3  .0337 BSP   7886   SGB 2809.4 R23 -.1104 R13 -.9936     LSA 2835.8 MSA  157.7 SSA    1.4
BDE14.1796 BRA 4.6413 BC3  .1894 FSP   -134   SG1 2762.1 SG2  513.7 THA  80.06     EL1 2339.9 EL2  147.1 ALF  79.33
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LAUNCH DATE OCT 12 1970 FLIGHT TIME 124.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 375.551

```
RL  149.30 LAL   -.00 LOL  18.26 VL  27.650 GAL  -9.79 AZL 139.39 HCA 183.70 SMA 130.97 ECC .21889 INC49.3915 V1  29.845
RP  107.95 LAP   2.81 LOP 200.66 VP  38.020 GAP   7.61 AZP  40.67 TAL 221.17 TAP  44.87 RCA 102.30 APO 159.64 V2  35.105
RC 127.036 GL  -58.22 GP   66.99 ZAL  99.95 ZAP  98.67 ETS 164.31 ZAE  74.94 ETE 238.68 ZAC 146.28 ETC 260.00 CLP 112.70
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PLANETOCENTRIC CONIC

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C3 592.137 VHL 24.334 DLA -81.65 RAL 266.73 RAD 6572.5 VEL 26.710 PTH   3.39 VHP 31.926 DPA  75.64 RAP 210.06 ECC10.7451
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
9.49	4 5 53	2431.92	1.62	84.52	176.48	171.65	4 46 25	1831.9	9.54	83.77
170.51	15 27 51	629.47	1.62	281.12	176.50	171.65	15 38 20	29.5	9.54	280.37
9.49	4 5 53	2431.92	1.62	84.52	176.48	171.65	4 46 25	1831.9	9.54	83.77
170.51	15 27 51	629.47	1.62	281.12	176.50	171.65	15 38 20	29.5	9.54	280.37
9.49	4 5 53	2431.92	1.62	84.52	176.48	171.65	4 46 25	1831.9	9.54	83.77
170.51	15 27 51	629.47	1.62	281.12	176.50	171.65	15 38 20	29.5	9.54	280.37

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.7941 TRA  .2952 TC3 -.0386 BAU 1.2788   SGT  665.7 SGR 3088.5 SG3   49.9      ST   446.2 SR  2979.4 SS  1538.8
RD-12.6478 RRA  .1821 RC3  .1569 FAU-.01551   RRT -.6128 RRF  .9946 RTF -.5345      CRT -.9367 CRS -.9996 CST  .9269
FDE-2.3653 FRA  .0650 FC3  .0227 BSP   9680   SGB 3159.4 R23 -.1175 R13  .9922     LSA 3379.0 MSA  161.7 SSA    1.8
BDE12.7744 BRA  .3469 BC3  .1615 FSP   -157   SG1 3116.1 SG2  521.4 THA  97.74     EL1 3008.7 EL2  154.7 ALF  98.01
```

LAUNCH DATE OCT 12 1970 FLIGHT TIME 126.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 380.748

```
RL  149.30 LAL   -.00 LOL  18.26 VL  27.574 GAL  -9.35 AZL 115.64 HCA 186.24 SMA 130.43 ECC .21627 INC25.6363 V1  29.845
RP  107.99 LAP   2.70 LOP 203.88 VP  37.953 GAP   7.64 AZP  64.50 TAL 219.35 TAP  45.59 RCA 102.22 APO 158.64 V2  35.093
RC 129.278 GL  -60.57 GP   73.59 ZAL 107.15 ZAP 105.41 ETS 106.22 ZAE  91.70 ETE 182.63 ZAC 159.58 ETC 225.83 CLP 160.09
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PLANETOCENTRIC CONIC

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C3 182.663 VHL 13.515 DLA -79.84 RAL 207.19 RAD 6571.0 VEL 17.435 PTH   2.96 VHP 18.148 DPA  61.66 RAP 241.54 ECC 4.0062
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
11.56	0 12 25	2295.66	10.58	82.40	115.26	169.66	0 50 41	1695.7	18.45	81.31
168.44	11 26 19	5786.00	10.59	258.90	115.29	169.66	13 2 45	5186.0	18.45	257.81
11.56	0 12 25	2295.66	10.58	82.40	115.26	169.66	0 50 41	1695.7	18.45	81.31
168.44	11 26 19	5786.00	10.59	258.90	115.29	169.66	13 2 45	5186.0	18.45	257.81
11.56	0 12 25	2295.66	10.58	82.40	115.26	169.66	0 50 41	1695.7	18.45	81.31
168.44	11 26 19	5786.00	10.59	258.90	115.29	169.66	13 2 45	5186.0	18.45	257.81

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-3.8875 TRA -.9444 TC3 -.1072 BAU  .2651   SGT 2819.5 SGR 2031.6 SG3   59.0      ST  1783.1 SR   878.1 SS   723.2
RDE-1.5634 RRA -.7990 RC3 -.0168 FAU .00883   RRT  .9536 RRF  .9233 RTF  .9954      CRT  .9481 CRS -.9308 CST -.9987
FDE-1.0252 FRA -.2141 FC3 -.0418 BSP  10781   SGB 3475.2 R23 -.1879 R13  .9812      LSA 2098.6 MSA  263.7 SSA    1.3
BDE 4.1901 BRA 1.2570 BC3  .1086 FSP   -194   SG1 3438.8 SG2  501.6 THA  35.36      EL1 1971.5 EL2  252.6 ALF  25.47
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LAUNCH DATE OCT 12 1970 FLIGHT TIME 128.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 386.366

```
RL  149.30 LAL   -.00 LOL  18.26 VL  27.499 GAL  -9.00 AZL 106.30 HCA 189.21 SMA 129.90 ECC .21498 INC16.3012 V1  29.845
RP  108.03 LAP   2.58 LOP 207.10 VP  37.887 GAP   7.79 AZP  73.90 TAL 217.68 TAP  46.89 RCA 101.97 APO 157.83 V2  35.080
RC 131.513 GL  -54.90 GP   67.28 ZAL 114.10 ZAP 112.57 ETS  75.89 ZAE 101.32 ETE 154.74 ZAC 160.76 ETC 227.66 CLP-173.53
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PLANETOCENTRIC CONIC

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C3  86.832 VHL  9.318 DLA -72.64 RAL 208.98 RAD 6569.7 VEL 14.428 PTH   2.62 VHP 12.787 DPA  50.27 RAP 245.17 ECC 2.4290
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
19.81	0 36 8	2136.34	19.63	74.43	112.57	161.53	1 11 44	1536.3	27.19	72.01
160.19	11 16 53	5655.76	19.64	259.12	112.59	161.53	12 51 9	5055.8	27.20	256.70
19.81	0 36 8	2136.34	19.63	74.43	112.57	161.53	1 11 44	1536.3	27.19	72.01
160.19	11 16 53	5655.76	19.64	259.12	112.59	161.53	12 51 9	5055.8	27.20	256.70
19.81	0 36 8	2136.34	19.63	74.43	112.57	161.53	1 11 44	1536.3	27.19	72.01
160.19	11 16 53	5655.76	19.64	259.12	112.59	161.53	12 51 9	5055.8	27.20	256.70

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.6263 TRA-1.4570 TC3 -.5451 BAU  .6332   SGT 3557.0 SGR  586.2 SG3   73.8      ST  1849.3 SR   298.0 SS   610.1
RDE  .4105 RRA -.2561 RC3  .0202 FAU .01908   RRT  .5460 RRF  .3123 RTF  .9636      CRT -.4811 CRS  .6398 CST -.9815
FDE -.8535 FRA -.2778 FC3 -.1902 BSP  11160   SGB 3604.9 R23 -.2673 R13  .9604      LSA 1949.9 MSA  280.6 SSA    2.2
BDE 2.6582 BRA 1.4793 BC3  .5455 FSP   -243   SG1 3571.6 SG2  489.1 THA   5.24      EL1 1854.9 EL2  260.4 ALF 175.48
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LAUNCH DATE OCT 12 1970 FLIGHT TIME 130.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 392.095

```
RL  149.30 LAL   -.00 LOL  18.26 VL  27.424 GAL  -8.66 AZL 101.56 HCA 192.30 SMA 129.38 ECC .21414 INC11.5590 V1  29.845
RP  108.07 LAP   2.45 LOP 210.32 VP  37.820 GAP   7.97 AZP  78.70 TAL 216.04 TAP  48.35 RCA 101.67 APO 157.09 V2  35.067
RC 133.740 GL  -47.97 GP   59.60 ZAL 119.81 ZAP 119.28 ETS  66.87 ZAE 108.01 ETE 148.89 ZAC 156.62 ETC 239.75 CLP-165.14
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PLANETOCENTRIC CONIC

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C3  53.485 VHL  7.313 DLA -65.91 RAL 215.67 RAD 6568.9 VEL 13.223 PTH   2.42 VHP 10.250 DPA  41.05 RAP 245.98 ECC 1.8802
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
27.63	1 19 45	1999.38	25.76	64.70	113.20	153.05	1 53 4	1399.4	32.82	60.81
152.37	11 26 37	5563.00	25.76	257.69	113.22	153.04	12 59 20	4963.0	32.83	253.80
27.63	1 19 45	1999.38	25.76	64.70	113.20	153.05	1 53 4	1399.4	32.82	60.81
152.37	11 26 37	5563.00	25.76	257.69	113.22	153.04	12 59 20	4963.0	32.83	253.80
27.63	1 19 45	1999.38	25.76	64.70	113.20	153.05	1 53 4	1399.4	32.82	60.81
152.37	11 26 37	5563.00	25.76	257.69	113.22	153.04	12 59 20	4963.0	32.83	253.80

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.0717 TRA-1.5101 TC3-1.0824 BAU  .7798   SGT 3679.6 SGR  481.3 SG3   90.5      ST  1841.8 SR   416.3 SS   585.8
RDE  .5282 RRA -.0787 RC3  .1325 FAU .02629   RRT -.3052 RRF -.6012 RTF  .9368      CRT -.8248 CRS  .9358 CST -.9711
FDE -.8178 FRA -.2850 FC3 -.4255 BSP  11521   SGB 3710.9 R23  .3263 R13 -.9385      LSA 1959.7 MSA  260.9 SSA    3.1
BDE 2.1379 BRA 1.5122 BC3 1.0905 FSP   -298   SG1 3682.5 SG2  457.9 THA 177.68      EL1 1874.1 EL2  231.3 ALF 169.27
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LAUNCH DATE OCT 12 1970 FLIGHT TIME 132.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 397.861

```
RL  149.30 LAL   -.00 LOL  18.26 VL  27.350 GAL  -8.33 AZL  98.71 HCA 195.44 SMA 128.87 ECC .21354 INC 8.7122 V1  29.845
RP  108.11 LAP   2.31 LOP 213.53 VP  37.755 GAP   8.16 AZP  81.60 TAL 214.40 TAP  49.85 RCA 101.35 APO 156.39 V2  35.054
RC 135.957 GL  -41.42 GP   52.67 ZAL 124.04 ZAP 125.27 ETS  62.78 ZAE 112.94 ETE 148.45 ZAC 151.35 ETC 247.10 CLP-162.20
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PLANETOCENTRIC CONIC

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C3  38.388 VHL  6.196 DLA -59.91 RAL 221.54 RAD 6568.5 VEL 12.639 PTH   2.29 VHP  8.878 DPA  33.34 RAP 246.50 ECC 1.6318
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.71	2 0 5	1887.75	29.01	54.64	112.78	145.02	2 31 33	1287.8	35.45	49.44
145.29	11 33 6	5508.23	29.02	255.89	112.80	145.02	13 4 54	4908.2	35.46	250.68
34.71	2 0 5	1887.75	29.01	54.64	112.78	145.02	2 31 33	1287.8	35.45	49.44
145.29	11 33 6	5508.23	29.02	255.89	112.80	145.02	13 4 54	4908.2	35.46	250.68
34.71	2 0 5	1887.75	29.01	54.64	112.78	145.02	2 31 33	1287.8	35.45	49.44
145.29	11 33 6	5508.23	29.02	255.89	112.80	145.02	13 4 54	4908.2	35.46	250.68

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.7141 TRA-1.4848 TC3-1.6473 BAU  .8536   SGT 3765.7 SGR  520.9 SG3  106.2      ST  1786.5 SR   432.8 SS   549.6
RDE  .4676 RRA -.0287 RC3  .2304 FAU .05173   RRT -.5728 RRF -.8297 RTF  .9163      CRT -.8703 CRS  .9713 CST -.9624
FDE -.7584 FRA -.2609 FC3 -.7156 BSP  11791   SGB 3801.6 R23  .3636 R13 -.9196      LSA 1902.7 MSA  246.1 SSA    4.3
BDE 1.7767 BRA 1.4851 BC3 1.6633 FSP   -348   SG1 3777.7 SG2  425.6 THA 175.41      EL1 1826.3 EL2  208.5 ALF 167.93
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LAUNCH DATE OCT 12 1970 FLIGHT TIME 134.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 403.641

RL 149.30 LAL -.00 LOL 18.26 VL 27.277 GAL -8.00 AZL 96.81 HCA 198.60 SMA 128.37 ECC .21312 INC 6.8127 V1 29.845
RP 108.15 LAP 2.17 LOP 216.74 VP 37.689 GAP 8.36 AZP 83.54 TAL 212.76 TAP 51.36 RCA 101.01 APO 155.73 V2 35.041
RC 138.166 GL -35.62 GP 46.72 ZAL 126.85 ZAP 130.47 ETS 60.24 ZAE 116.63 ETE 149.72 ZAC 146.35 ETC 251.41 CLP-161.22

PLANETOCENTRIC CONIC

C3 30.275 VHL 5.502 DLA -54.72 RAL 226.50 RAD 6568.2 VEL 12.315 PTH 2.22 VHP 8.076 DPA 26.83 RAP 247.17 ECC 1.4983

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.00	2 36 41	1794.44	30.29	45.14	112.07	138.02	3 6 35	1194.4	36.08	38.95
139.00	11 36 5	5481.81	30.31	254.54	112.09	138.02	13 7 27	4881.8	36.09	248.34
41.00	2 36 41	1794.44	30.29	45.14	112.07	138.02	3 6 35	1194.4	36.08	38.95
139.00	11 36 5	5481.81	30.31	254.54	112.09	138.02	13 7 27	4881.8	36.09	248.34
41.00	2 36 41	1794.44	30.29	45.14	112.07	138.02	3 6 35	1194.4	36.08	38.95
139.00	11 36 5	5481.81	30.31	254.54	112.09	138.02	13 7 27	4881.8	36.09	248.34

DIFFERENTIAL CORRECTIONS
TDE-1.4355 TRA-1.4258 TC3-2.1909 BAU .8948
RDE .3924 RRA -.0201 RC3 .2950 FAU .03530
FDE -.6708 FRA -.2099 FC3-1.0093 BSP 11805
BDE 1.4881 BRA 1.4259 BC3 2.2107 FSP -374

MID-COURSE EXECUTION ACCURACY
SGT 3828.4 SGR 523.1 SG3 118.0
RRT -.6494 RRF -.8851 RTF .8980
SGB 3864.0 R23 .3887 R13 -.9017
SG1 3843.6 SG2 396.3 THA 174.87

ORBIT DETERMINATION ACCURACY
ST 1683.6 SR 408.9 SS 494.3
CRT -.8762 CRS .9822 CST -.9508
LSA 1786.1 MSA 236.1 SSA 5.9
EL1 1721.8 EL2 192.7 ALF 167.83

LAUNCH DATE OCT 12 1970 FLIGHT TIME 136.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 409.421

RL 149.30 LAL -.00 LOL 18.26 VL 27.204 GAL -7.66 AZL 95.45 HCA 201.78 SMA 127.88 ECC .21286 INC 5.4504 V1 29.845
RP 108.19 LAP 2.02 LOP 219.94 VP 37.624 GAP 8.55 AZP 84.94 TAL 211.10 TAP 52.88 RCA 100.66 APO 155.10 V2 35.028
RC 140.364 GL -30.57 GP 41.69 ZAL 128.42 ZAP 134.95 ETS 58.35 ZAE 119.39 ETE 151.57 ZAC 141.96 ETC 254.17 CLP-161.09

PLANETOCENTRIC CONIC

C3 25.361 VHL 5.036 DLA -50.28 RAL 230.85 RAD 6568.0 VEL 12.114 PTH 2.17 VHP 7.585 DPA 21.32 RAP 248.05 ECC 1.4174

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
46.55	3 10 44	1712.85	30.42	36.51	111.64	132.18	3 39 17	1112.9	35.59	29.64
133.45	11 36 42	5475.21	30.43	253.97	111.65	132.17	13 7 57	4875.2	35.60	247.10
46.55	3 10 44	1712.85	30.42	36.51	111.64	132.18	3 39 17	1112.9	35.59	29.64
133.45	11 36 42	5475.21	30.43	253.97	111.65	132.17	13 7 57	4875.2	35.60	247.10
46.55	3 10 44	1712.85	30.42	36.51	111.64	132.18	3 39 17	1112.9	35.59	29.64
133.45	11 36 42	5475.21	30.43	253.97	111.65	132.17	13 7 57	4875.2	35.60	247.10

DIFFERENTIAL CORRECTIONS
TDE-1.2322 TRA-1.3735 TC3-2.7339 BAU .9342
RDE .3387 RRA -.0161 RC3 .3440 FAU .03819
FDE -.5884 FRA -.1621 FC3-1.3038 BSP 12506
BDE 1.2779 BRA 1.3736 BC3 2.7554 FSP -419

MID-COURSE EXECUTION ACCURACY
SGT 3940.3 SGR 519.0 SG3 129.8
RRT -.6963 RRF -.9040 RTF .8888
SGB 3974.4 R23 .3895 R13 -.8922
SG1 3957.0 SG2 371.0 THA 174.71

ORBIT DETERMINATION ACCURACY
ST 1584.3 SR 385.6 SS 443.1
CRT -.8753 CRS .9882 CST -.9383
LSA 1674.2 MSA 228.8 SSA 7.8
EL1 1620.4 EL2 182.3 ALF 167.82

LAUNCH DATE OCT 12 1970 FLIGHT TIME 138.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 415.199

RL 149.30 LAL -.00 LOL 18.26 VL 27.132 GAL -7.31 AZL 94.42 HCA 204.95 SMA 127.40 ECC .21273 INC 4.4211 V1 29.845
RP 108.23 LAP 1.86 LOP 223.14 VP 37.560 GAP 8.75 AZP 85.99 TAL 209.43 TAP 54.39 RCA 100.30 APO 154.51 V2 35.014
RC 142.552 GL -26.18 GP 37.45 ZAL 128.98 ZAP 138.79 ETS 56.83 ZAE 121.46 ETE 153.55 ZAC 138.21 ETC 256.10 CLP-161.38

PLANETOCENTRIC CONIC

C3 22.107 VHL 4.702 DLA -46.47 RAL 234.81 RAD 6567.9 VEL 11.979 PTH 2.13 VHP 7.278 DPA 16.64 RAP 249.16 ECC 1.3638

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
51.48	3 43 17	1638.34	29.91	28.70	111.68	127.39	4 10 35	1038.3	34.54	21.41
128.52	11 35 48	5482.57	29.92	254.20	111.69	127.38	13 7 10	4882.6	34.55	246.90
51.48	3 43 17	1638.34	29.91	28.70	111.68	127.39	4 10 35	1038.3	34.54	21.41
128.52	11 35 48	5482.57	29.92	254.20	111.69	127.38	13 7 10	4882.6	34.55	246.90
51.48	3 43 17	1638.34	29.91	28.70	111.68	127.39	4 10 35	1038.3	34.54	21.41
128.52	11 35 48	5482.57	29.92	254.20	111.69	127.38	13 7 10	4882.6	34.55	246.90

DIFFERENTIAL CORRECTIONS
TDE-1.0637 TRA-1.3075 TC3-3.2431 BAU .9648
RDE .2984 RRA -.0179 RC3 .3732 FAU .03987
FDE -.5028 FRA -.1062 FC3-1.5615 BSP 12687
BDE 1.1048 BRA 1.3076 BC3 3.2645 FSP -449

MID-COURSE EXECUTION ACCURACY
SGT 4041.3 SGR 506.3 SG3 138.4
RRT -.7175 RRF -.9026 RTF .8814
SGB 4072.9 R23 .3809 R13 -.8844
SG1 4057.7 SG2 351.2 THA 174.82

ORBIT DETERMINATION ACCURACY
ST 1473.1 SR 363.9 SS 387.9
CRT -.8687 CRS .9922 CST -.9214
LSA 1550.2 MSA 223.3 SSA 10.1
EL1 1507.2 EL2 176.2 ALF 167.72

LAUNCH DATE OCT 12 1970 FLIGHT TIME 140.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 420.971

RL 149.30 LAL -.00 LOL 18.26 VL 27.061 GAL -6.96 AZL 93.61 HCA 208.13 SMA 126.93 ECC .21275 INC 3.6119 V1 29.845
RP 108.27 LAP 1.70 LOP 226.34 VP 37.497 GAP 8.94 AZP 86.81 TAL 207.75 TAP 55.89 RCA 99.93 APO 153.94 V2 35.001
RC 144.730 GL -22.35 GP 33.88 ZAL 128.71 ZAP 142.10 ETS 55.57 ZAE 123.03 ETE 155.48 ZAC 135.02 ETC 257.56 CLP-161.89

PLANETOCENTRIC CONIC

C3 19.803 VHL 4.450 DLA -43.18 RAL 238.55 RAD 6567.8 VEL 11.882 PTH 2.11 VHP 7.087 DPA 12.64 RAP 250.47 ECC 1.3259

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.93	4 15 11	1567.55	29.07	21.53	112.20	123.45	4 41 19	967.5	33.25	13.96
124.07	11 33 43	5500.56	29.08	255.17	112.21	123.44	13 5 24	4900.6	33.26	247.60
55.93	4 15 11	1567.55	29.07	21.53	112.20	123.45	4 41 19	967.5	33.25	13.96
124.07	11 33 43	5500.56	29.08	255.17	112.21	123.44	13 5 24	4900.6	33.26	247.60
55.93	4 15 11	1567.55	29.07	21.53	112.20	123.45	4 41 19	967.5	33.25	13.96
124.07	11 33 43	5500.56	29.08	255.17	112.21	123.44	13 5 24	4900.6	33.26	247.60

DIFFERENTIAL CORRECTIONS
TDE -.9202 TRA-1.2301 TC3-3.7189 BAU .9900
RDE .2092 RRA -.0219 RC3 .3891 FAU .04060
FDE -.4193 FRA -.0461 FC3-1.7750 BSP 12979
BDE .9588 BRA 1.2303 BC3 3.7392 FSP -468

MID-COURSE EXECUTION ACCURACY
SGT 4132.3 SGR 491.5 SG3 144.4
RRT -.7251 RRF -.8899 RTF .8752
SGB 4161.4 R23 .3645 R13 -.8778
SG1 4147.8 SG2 337.2 THA 175.04

ORBIT DETERMINATION ACCURACY
ST 1355.8 SR 347.0 SS 332.2
CRT -.8591 CRS .9953 CST -.8977
LSA 1421.5 MSA 219.3 SSA 12.9
EL1 1388.7 EL2 173.4 ALF 167.40

LAUNCH DATE OCT 12 1970 FLIGHT TIME 142.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 426.736

```
RL  149.30 LAL   -.00 LOL  18.26 VL  26.991 GAL  -6.60 AZL  92.96 HCA 211.32 SMA 126.48 ECC .21291 INC 2.9557 V1  29.845
RP  108.31 LAP   1.54 LOP 229.54 VP  37.434 GAP   9.14 AZP  87.47 TAL 206.06 TAP  57.38 RCA  99.55 APO 153.40 V2  34.988
RC 146.899 GL  -18.97 GP   30.85 ZAL 127.78 ZAP 144.97 ETS  54.53 ZAE 124.22 ETE 157.28 ZAC 132.32 ETC 258.74 CLP-162.52
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PLANETOCENTRIC CONIC

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C3  18.089 VHL  4.253 DLA -40.30 RAL 242.16 RAD 6567.7 VEL 11.810 PTH   2.09 VHP  6.974 DPA   9.21 RAP 251.94 ECC 1.2977
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.04	4 47 8	1497.98	28.08	14.77	113.17	120.18	5 12 6	898.0	31.86	7.05
119.96	11 30 35	5527.46	28.09	256.81	113.17	120.17	13 2 42	4927.5	31.87	249.08
60.04	4 47 8	1497.98	28.08	14.77	113.17	120.18	5 12 6	898.0	31.86	7.05
119.96	11 30 35	5527.46	28.09	256.81	113.17	120.17	13 2 42	4927.5	31.87	249.08
60.04	4 47 8	1497.98	28.08	14.77	113.17	120.18	5 12 6	898.0	31.86	7.05
119.96	11 30 35	5527.46	28.09	256.81	113.17	120.17	13 2 42	4927.5	31.87	249.08

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.7994 TRA-1.1476 TC3-4.1755 BAU 1.0144   SGT 4228.9 SGR  480.0 SG3  149.0     ST  1241.4 SR   336.5 SS   280.6
 RDE  .2494 RRA -.0259 RC3  .3994 FAU .04080   RRT -.7269 RRF -.8708 RTF  .8715     CRT -.8490 CRS  .9967 CST -.8651
 FDE -.3437 FRA  .0119 FC3-1.9528 BSP  13334   SGB 4256.1 R23  .3399 R13 -.8737     LSA 1298.5 MSA  216.3 SSA   16.2
 BDE  .8375 BRA 1.1479 BC3 4.1945 FSP   -484   SG1 4243.4 SG2  328.5 THA 175.25     EL1 1274.5 EL2  173.2 ALF 166.79
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LAUNCH DATE OCT 12 1970 FLIGHT TIME 144.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 432.492

```
RL  149.30 LAL   -.00 LOL  18.26 VL  26.922 GAL  -6.23 AZL  92.41 HCA 214.50 SMA 126.03 ECC .21321 INC 2.4098 V1  29.845
RP  108.35 LAP   1.36 LOP 232.73 VP  37.372 GAP   9.33 AZP  88.01 TAL 204.36 TAP  58.86 RCA  99.16 APO 152.90 V2  34.975
RC 149.057 GL  -15.95 GP   28.28 ZAL 126.32 ZAP 147.48 ETS  53.69 ZAE 125.13 ETE 158.90 ZAC 130.02 ETC 259.75 CLP-163.22
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PLANETOCENTRIC CONIC

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C3  16.765 VHL  4.095 DLA -37.74 RAL 245.72 RAD 6567.7 VEL 11.754 PTH   2.07 VHP  6.912 DPA   6.25 RAP 253.56 ECC 1.2759
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.93	5 19 55	1427.14	27.01	8.20	114.52	117.43	5 43 42	827.1	30.45	.38
116.07	11 26 9	5563.11	27.02	259.12	114.52	117.42	12 58 52	4963.1	30.46	251.29
63.93	5 19 55	1427.14	27.01	8.20	114.52	117.43	5 43 42	827.1	30.45	.38
116.07	11 26 9	5563.11	27.02	259.12	114.52	117.42	12 58 52	4963.1	30.46	251.29
63.93	5 19 55	1427.14	27.01	8.20	114.52	117.43	5 43 42	827.1	30.45	.38
116.07	11 26 9	5563.11	27.02	259.12	114.52	117.42	12 58 52	4963.1	30.46	251.29

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.6895 TRA-1.0541 TC3-4.6005 BAU 1.0351   SGT 4313.2 SGR  469.5 SG3  151.6     ST  1121.1 SR   329.5 SS   230.4
 RDE  .2351 RRA -.0311 RC3  .4035 FAU .04039   RRT -.7208 RRF -.8456 RTF  .8679     CRT -.8372 CRS  .9935 CST -.8134
 FDE -.2719 FRA  .0711 FC3-2.0855 BSP  13598   SGB 4338.7 R23  .3123 R13 -.8697     LSA 1171.5 MSA  214.1 SSA   20.2
 BDE  .7285 BRA 1.0546 BC3 4.6181 FSP   -491   SG1 4326.5 SG2  324.4 THA 175.49     EL1 1155.4 EL2  174.9 ALF 165.85
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LAUNCH DATE OCT 12 1970 FLIGHT TIME 146.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 438.239

```
RL  149.30 LAL   -.00 LOL  18.26 VL  26.854 GAL  -5.85 AZL  91.95 HCA 217.68 SMA 125.59 ECC .21366 INC 1.9459 V1  29.845
RP  108.39 LAP   1.19 LOP 235.92 VP  37.311 GAP   9.53 AZP  88.46 TAL 202.64 TAP  60.32 RCA  98.76 APO 152.42 V2  34.962
RC 151.205 GL  -13.23 GP   26.07 ZAL 124.42 ZAP 149.69 ETS  53.04 ZAE 125.84 ETE 160.35 ZAC 128.06 ETC 260.64 CLP-163.96
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PLANETOCENTRIC CONIC

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C3  15.720 VHL  3.965 DLA -35.44 RAL 249.26 RAD 6567.6 VEL 11.709 PTH   2.06 VHP  6.889 DPA   3.68 RAP 255.30 ECC 1.2587
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.75	5 54 24	1352.26	25.90	1.56	116.20	115.07	6 16 56	752.3	29.05	353.68
112.25	11 19 55	5608.61	25.92	262.17	116.21	115.06	12 53 24	5008.6	29.07	254.30
67.75	5 54 24	1352.26	25.90	1.56	116.20	115.07	6 16 56	752.3	29.05	353.68
112.25	11 19 55	5608.61	25.92	262.17	116.21	115.06	12 53 24	5008.6	29.07	254.30
67.75	5 54 24	1352.26	25.90	1.56	116.20	115.07	6 16 56	752.3	29.05	353.68
112.25	11 19 55	5608.61	25.92	262.17	116.21	115.06	12 53 24	5008.6	29.07	254.30

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.5891 TRA -.9527 TC3-5.0015 BAU 1.0545   SGT 4394.2 SGR  461.9 SG3  153.0     ST   997.9 SR   326.0 SS   184.5
 RDE  .2251 RRA -.0367 RC3  .4055 FAU .03963   RRT -.7104 RRF -.8168 RTF  .8651     CRT -.8243 CRS  .9768 CST -.7274
 FDE -.2060 FRA  .1287 FC3-2.1823 BSP  13843   SGB 4418.4 R23  .2826 R13 -.8666     LSA 1044.2 MSA  212.7 SSA   25.1
 BDE  .6306 BRA  .9534 BC3 5.0179 FSP   -493   SG1 4406.5 SG2  324.2 THA 175.71     EL1 1034.6 EL2  178.0 ALF 164.46
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LAUNCH DATE OCT 12 1970 FLIGHT TIME 148.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 443.976

```
RL  149.30 LAL   -.00 LOL  18.26 VL  26.786 GAL  -5.46 AZL  91.54 HCA 220.87 SMA 125.16 ECC .21426 INC 1.5447 V1  29.845
RP  108.43 LAP   1.01 LOP 239.11 VP  37.250 GAP   9.73 AZP  88.83 TAL 200.91 TAP  61.78 RCA  98.35 APO 151.98 V2  34.949
RC 153.343 GL  -10.74 GP   24.17 ZAL 122.17 ZAP 151.66 ETS  52.57 ZAE 126.40 ETE 161.64 ZAC 126.36 ETC 261.46 CLP-164.72
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PLANETOCENTRIC CONIC

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C3  14.884 VHL  3.858 DLA -33.32 RAL 252.81 RAD 6567.6 VEL 11.673 PTH   2.05 VHP  6.894 DPA   1.43 RAP 257.15 ECC 1.2449
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
71.67	6 31 54	1269.09	24.78	354.49	118.19	113.02	6 53 3	669.1	27.67	346.59
108.33	11 10 47	5667.22	24.79	266.20	118.19	113.01	12 45 15	5067.2	27.68	258.31
71.67	6 31 54	1269.09	24.78	354.49	118.19	113.02	6 53 3	669.1	27.67	346.59
108.33	11 10 47	5667.22	24.79	266.20	118.19	113.01	12 45 15	5067.2	27.68	258.31
110.00	10 22 46	5814.56	20.05	275.17	115.73	118.29	11 59 40	5214.6	23.67	267.90
110.00	12 19 6	5457.78	29.71	252.01	120.25	107.75	13 50 3	4857.8	31.84	243.45

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.4975 TRA -.8457 TC3-5.3828 BAU 1.0741   SGT 4478.2 SGR  458.1 SG3  153.8     ST   874.5 SR   325.6 SS   146.3
 RDE  .2186 RRA -.0424 RC3  .4073 FAU .03870   RRT -.6979 RRF -.7865 RTF  .8640     CRT -.8108 CRS  .9245 CST -.5810
 FDE -.1477 FRA  .1823 FC3-2.2511 BSP  14137   SGB 4501.6 R23  .2517 R13 -.8653     LSA  919.9 MSA  212.1 SSA   31.1
 BDE  .5434 BRA  .8467 BC3 5.3982 FSP   -496   SG1 4489.7 SG2  327.3 THA 175.89     EL1  915.2 EL2  182.1 ALF 162.48
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LAUNCH DATE OCT 12 1970 FLIGHT TIME 150.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 449.701

```
RL  149.30 LAL   -.00 LOL  18.26 VL  26.720 GAL  -5.06 AZL  91.19 HCA 224.05 SMA 124.74 ECC .21502 INC 1.1922 V1  29.845
RP  108.47 LAP    .83 LOP 242.30 VP  37.191 GAP   9.93 AZP  89.14 TAL 199.17 TAP  63.22 RCA  97.92 APO 151.57 V2  34.937
RC 155.470 GL   -8.45 GP   22.51 ZAL 119.61 ZAP 153.42 ETS  52.27 ZAE 126.85 ETE 162.78 ZAC 124.89 ETC 262.23 CLP-165.49
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PLANETOCENTRIC CONIC

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C3  14.215 VHL  3.770 DLA -31.34 RAL 256.40 RAD 6567.6 VEL 11.645 PTH   2.04 VHP  6.921 DPA   -.54 RAP 259.09 ECC 1.2339
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
75.98	7 14 51	1169.76	23.63	346.40	120.45	111.21	7 34 20	569.8	26.30	338.49
104.02	10 56 29	5746.15	23.64	271.72	120.45	111.19	12 32 15	5146.1	26.31	263.82
75.98	7 14 51	1169.76	23.63	346.40	120.45	111.21	7 34 20	569.8	26.30	338.49
104.02	10 56 29	5746.15	23.64	271.72	120.45	111.19	12 32 15	5146.1	26.31	263.82
110.00	9 50 22	664.46	15.40	305.26	116.18	120.90	10 1 27	64.5	19.38	298.40
110.00	13 20 8	5299.44	32.43	240.49	123.36	101.44	14 48 27	4699.4	33.67	231.47

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.4089 TRA -.7306 TC3-5.7356 BAU 1.0928   SGT 4558.7 SGR  456.3 SG3  153.9     ST   745.0 SR   326.7 SS   117.3
 RDE  .2142 RRA -.0408 RC3  .4082 FAU .03759   RRT -.6829 RRF -.7550 RTF  .8636    CRT -.7943 CRS  .7801 CST -.3170
 FDE -.0935 FRA  .2340 FC3-2.2890 BSP  14413   SGB 4581.4 RZS  .2219 R13 -.8647   LSA  793.1 MSA  212.0 SSA   39.0
 BDE  .4616 BRA  .7322 BC3 5.7501 FSP   -497   SG1 4569.3 SG2  332.6 THA 176.07   EL1  791.7 EL2  186.8 ALF 159.61
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LAUNCH DATE OCT 12 1970 FLIGHT TIME 152.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 455.414

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RL  149.30 LAL   -.00 LOL  18.26 VL  26.655 GAL  -4.68 AZL  90.88 HCA 227.23 SMA 124.34 ECC .21594 INC  .8780 V1  29.845
RP  108.51 LAP    .64 LOP 245.48 VP  37.132 GAP  10.13 AZP  89.40 TAL 197.42 TAP  64.65 RCA  97.49 APO 151.18 V2  34.925
RC 157.587 GL   -6.32 GP   21.08 ZAL 116.80 ZAP 155.01 ETS  52.16 ZAE 127.21 ETE 163.79 ZAC 123.60 ETC 262.96 CLP-166.26
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PLANETOCENTRIC CONIC

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C3  13.689 VHL  3.700 DLA -29.46 RAL 260.03 RAD 6567.5 VEL 11.622 PTH   2.04 VHP  6.965 DPA  -2.28 RAP 261.12 ECC 1.2253
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.51	8 10 25	1050.90	22.47	335.55	122.96	109.58	8 27 36	430.9	24.93	327.66
98.49	10 29 54	5868.43	22.48	280.38	122.96	109.56	12 7 42	5268.4	24.94	272.48
100.00	9 58 49	679.90	19.36	308.54	121.65	113.23	10 10 9	79.9	22.34	301.01
100.00	11 24 11	5694.66	25.65	268.61	124.07	105.90	12 59 5	5094.7	27.58	260.34
110.00	9 35 12	754.31	12.20	310.25	117.75	122.18	9 47 46	154.3	16.36	303.61
110.00	14 4 17	5193.01	33.58	232.40	125.90	96.78	15 30 50	4593.0	34.16	223.20

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.3216 TRA -.6074 TC3-6.0549 BAU 1.1106   SGT 4635.7 SGR  456.4 SG3  153.4     ST   609.2 SR   328.7 SS   104.3
 RDE  .2113 RRA -.0559 RC3  .4084 FAU .03635   RRT -.6662 RRF -.7235 RTF  .8638    CRT -.7716 CRS  .4741 CST  .0820
 FDE -.0435 FRA  .2837 FC3-2.2992 BSP  14680   SGB 4658.1 RZS  .1943 R13 -.8648   LSA  665.2 MSA  212.3 SSA   49.8
 BDE  .3848 BRA  .6100 BC3 6.0687 FSP   -496   SG1 4645.7 SG2  339.6 THA 176.23   EL1  665.2 EL2  191.5 ALF 155.21
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LAUNCH DATE OCT 12 1970 FLIGHT TIME 154.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 461.115

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RL  149.30 LAL   -.00 LOL  18.26 VL  26.590 GAL  -4.24 AZL  90.60 HCA 230.41 SMA 123.94 ECC .21703 INC  .5949 V1  29.845
RP  108.54 LAP    .46 LOP 248.66 VP  37.075 GAP  10.33 AZP  89.62 TAL 195.66 TAP  66.07 RCA  97.04 APO 150.84 V2  34.913
RC 159.692 GL   -4.33 GP   19.81 ZAL 113.76 ZAP 156.46 ETS  52.21 ZAE 127.51 ETE 164.69 ZAC 122.46 ETC 263.68 CLP-167.03
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PLANETOCENTRIC CONIC

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C3  13.288 VHL  3.645 DLA -27.65 RAL 263.72 RAD 6567.5 VEL 11.605 PTH   2.03 VHP  7.024 DPA  -3.80 RAP 263.22 ECC 1.2187
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 41 5	974.17	17.57	329.39	124.24	112.57	8 57 19	374.2	20.48	321.93
90.00	10 28 36	624.19	25.09	306.53	126.87	103.59	10 39 0	24.2	26.71	298.24
100.00	9 19 19	850.59	14.46	318.85	122.77	116.45	9 33 29	250.6	17.90	311.74
100.00	12 33 3	5511.05	28.43	255.69	127.64	99.65	14 4 54	4911.0	29.47	247.04
110.00	9 26 49	827.02	9.53	314.19	119.89	122.98	9 40 36	227.0	13.81	307.70
110.00	14 42 2	5107.38	34.08	225.76	128.37	92.89	16 7 9	4507.4	34.10	216.52

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.2338 TRA -.4767 TC3-6.3356 BAU 1.1279   SGT 4710.2 SGR  457.7 SG3  152.5     ST   467.6 SR   331.1 SS   111.2
 RDE  .2095 RRA -.0637 RC3  .4076 FAU .03504   RRT -.6484 RRF -.6925 RTF  .8647    CRT -.7339 CRS  .0792 CST  .4623
 FDE  .0031 FRA  .3310 FC3-2.2826 BSP  14948   SGB 4732.4 RZS  .1690 R13 -.8655   LSA  539.8 MSA  212.1 SSA   65.2
 BDE  .3139 BRA  .4809 BC3 6.3487 FSP   -494   SG1 4719.6 SG2  347.8 THA 176.37   EL1  538.6 EL2  195.2 ALF 147.81
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LAUNCH DATE OCT 12 1970 FLIGHT TIME 156.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 466.803

```
RL  149.30 LAL   -.00 LOL  18.26 VL  26.526 GAL  -3.81 AZL  90.34 HCA 233.58 SMA 123.55 ECC .21831 INC  .3364 V1  29.845
RP  108.58 LAP    .27 LOP 251.84 VP  37.018 GAP  10.54 AZP  89.80 TAL 193.90 TAP  67.48 RCA  96.58 APO 150.52 V2  34.901
RC 161.784 GL   -2.47 GP   18.70 ZAL 110.54 ZAP 157.79 ETS  52.44 ZAE 127.77 ETE 165.48 ZAC 121.44 ETC 264.38 CLP-167.79
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PLANETOCENTRIC CONIC

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C3  13.005 VHL  3.606 DLA -25.90 RAL 267.44 RAD 6567.5 VEL 11.593 PTH   2.03 VHP  7.095 DPA  -5.15 RAP 265.39 ECC 1.2140
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 7 9	1131.89	13.21	338.91	125.92	115.28	8 26 1	531.9	16.50	331.79
90.00	11 32 14	5745.20	27.23	272.69	130.38	98.08	13 7 59	5145.2	28.07	264.12
100.00	9 1 53	955.12	11.21	324.91	124.90	117.89	9 17 49	355.1	14.86	318.01
100.00	13 20 11	5397.20	29.45	247.38	130.68	95.39	14 50 8	4797.2	29.88	238.60
110.00	9 22 17	891.12	7.14	317.61	122.45	123.52	9 37 8	291.1	11.50	311.23
110.00	15 16 16	5033.96	34.18	220.03	130.92	89.50	16 40 10	4434.0	33.73	210.82

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.1437 TRA -.3373 TC3-6.5693 BAU 1.1443   SGT 4780.8 SGR  459.9 SG3  151.2     ST   322.9 SR   333.5 SS   134.0
 RDE  .2084 RRA -.0724 RC3  .4055 FAU .03566   RRT -.6299 RRF -.6625 RTF  .8661    CRT -.6500 CRS -.2277 CST  .6491
 FDE  .0469 FRA  .3770 FC3-2.2409 BSP  15197   SGB 4802.9 RZS  .1466 R13 -.8668   LSA  426.8 MSA  208.4 SSA   88.3
 BDE  .2532 BRA  .3450 BC3 6.5818 FSP   -491   SG1 4789.6 SG2  356.6 THA 176.51   EL1  421.7 EL2  194.1 ALF 133.58
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LAUNCH DATE OCT 12 1970 FLIGHT TIME 158.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 472.476

RL 149.30 LAL -.00 LOL 18.26 VL 26.464 GAL -3.36 AZL 90.10 HCA 236.76 SMA 123.17 ECC .21978 INC .0982 V1 29.845
RP 108.61 LAP .08 LOP 255.01 VP 36.983 GAP 10.76 AZP 89.95 TAL 192.12 TAP 68.88 RCA 96.10 APO 150.24 V2 34.890
RC 163.865 GL -.73 GP 17.71 ZAL 107.16 ZAP 159.00 ETS 52.83 ZAE 127.99 ETE 166.18 ZAC 120.53 ETC 265.06 CLP-168.54

PLANETOCENTRIC CONIC

C3 12.834 VHL 3.583 DLA -24.17 RAL 271.20 RAD 6567.5 VEL 11.585 PTH 2.03 VHP 7.178 DPA -6.33 RAP 267.61 ECC 1.2112

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 50 40	1237.07	10.07	345.05	128.36	116.61	8 11 17	637.1	13.56	338.11
90.00	12 18 43	5634.33	28.04	264.68	133.56	94.14	13 52 37	5034.3	28.32	256.03
100.00	8 51 46	1039.82	8.47	329.70	127.51	118.77	9 9 6	439.8	12.25	322.95
100.00	14 0 18	5306.82	29.84	240.69	133.67	91.89	15 28 44	4706.8	29.78	231.89
110.00	9 20 15	950.47	4.89	320.74	125.32	123.87	9 36 6	350.5	9.31	314.44
110.00	15 48 18	4968.93	34.03	214.96	133.60	86.50	17 11 7	4368.9	33.17	205.83

DIFFERENTIAL CORRECTIONS
TDE -.0501 TRA -.1897 TC3-6.7485 BAU 1.1600
RDE .2080 RRA -.0818 RC3 .4013 FAU .03223
FDE .0884 FRA .4212 FC3-2.1743 BSP 15442
BDE .2140 BRA .2066 BC3 6.7604 FSP -487

MID-COURSE EXECUTION ACCURACY
SGT 4847.4 SGR 462.5 SG3 149.5
RRT -.6107 RRF -.6334 RTF .8677
SGB 4869.4 R23 .1268 R13 -.8683
SG1 4855.7 SG2 365.6 THA 176.65

ORBIT DETERMINATION ACCURACY
ST 193.5 SR 335.6 SS 165.5
CRT -.3640 CRS -.4143 CST .5163
LSA 355.9 MSA 189.5 SSA 121.8
EL1 345.6 EL2 175.0 ALF 106.08

LAUNCH DATE OCT 12 1970 FLIGHT TIME 160.00 ARRIVAL DATE MAR 21 1971

HELIOCENTRIC CONIC DISTANCE 478.135

RL 149.30 LAL -.00 LOL 18.26 VL 26.402 GAL -2.91 AZL 89.88 HCA 239.93 SMA 122.79 ECC .22145 INC .1209 V1 29.845
RP 108.65 LAP -.11 LOP 258.19 VP 36.909 GAP 10.98 AZP 90.06 TAL 190.33 TAP 70.26 RCA 95.60 APO 149.99 V2 34.880
RC 165.932 GL .90 GP 16.84 ZAL 103.65 ZAP 160.13 ETS 53.41 ZAE 128.18 ETE 166.81 ZAC 119.70 ETC 265.75 CLP-169.29

PLANETOCENTRIC CONIC

C3 12.776 VHL 3.574 DLA -22.47 RAL 274.98 RAD 6567.5 VEL 11.583 PTH 2.03 VHP 7.270 DPA -7.37 RAP 269.88 ECC 1.2103

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 40 44	1324.32	7.37	350.03	131.22	117.42	8 2 48	724.3	10.99	343.22
90.00	12 58 50	5545.12	28.30	258.17	136.73	90.89	14 31 15	4945.1	28.13	249.51
100.00	8 45 37	1114.88	5.99	333.89	130.47	119.34	9 4 12	514.9	9.85	327.24
100.00	14 36 37	5229.79	29.87	234.97	136.73	88.88	16 3 47	4629.8	29.40	226.19
110.00	9 19 59	1007.17	2.74	323.71	128.45	124.09	9 36 46	407.2	7.19	317.46
110.00	16 18 45	4910.27	33.69	210.41	136.44	83.83	17 40 35	4310.3	32.47	201.39

DIFFERENTIAL CORRECTIONS
TDE .0517 TRA -.0300 TC3-6.8570 BAU 1.1731
RDE .2077 RRA -.0923 RC3 .3936 FAU .03068
FDE .1301 FRA .4662 FC3-2.0793 BSP 15589
BDE .2141 BRA .0971 BC3 6.8683 FSP -478

MID-COURSE EXECUTION ACCURACY
SGT 4902.8 SGR 464.4 SG3 147.3
RRT -.5900 RRF -.6041 RTF .8687
SGB 4924.8 R23 .1096 R13 -.8692
SG1 4910.5 SG2 374.4 THA 176.78

ORBIT DETERMINATION ACCURACY
ST 169.5 SR 336.5 SS 202.9
CRT .4748 CRS -.5280 CST -.3659
LSA 369.4 MSA 162.7 SSA 142.2
EL1 348.1 EL2 144.2 ALF 73.68

LAUNCH DATE OCT 12 1970 FLIGHT TIME 162.00 ARRIVAL DATE MAR 23 1971

HELIOCENTRIC CONIC DISTANCE 483.777

RL 149.30 LAL -.00 LOL 18.26 VL 26.341 GAL -2.44 AZL 89.67 HCA 243.10 SMA 122.43 ECC .22334 INC .3283 V1 29.845
RP 108.68 LAP -.29 LOP 261.36 VP 36.855 GAP 11.20 AZP 90.15 TAL 188.54 TAP 71.64 RCA 95.09 APO 149.77 V2 34.869
RC 167.985 GL 2.41 GP 16.05 ZAL 100.04 ZAP 161.17 ETS 54.16 ZAE 128.35 ETE 167.37 ZAC 118.93 ETC 266.42 CLP-170.03

PLANETOCENTRIC CONIC

C3 12.831 VHL 3.582 DLA -20.78 RAL 278.77 RAD 6567.5 VEL 11.585 PTH 2.03 VHP 7.373 DPA -8.27 RAP 272.20 ECC 1.2112

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 34 27	1402.54	4.90	354.45	134.39	117.93	7 57 50	802.5	8.60	347.72
90.00	13 35 20	5468.77	28.28	252.58	139.98	88.09	15 6 28	4868.8	27.69	243.96
100.00	8 42 0	1184.57	3.65	337.74	133.70	119.69	9 1 44	584.6	7.58	331.16
100.00	15 10 28	5161.97	29.68	229.93	139.90	86.24	16 36 30	4562.0	28.84	221.23
110.00	9 20 58	1062.46	.62	326.60	131.82	124.18	9 38 40	462.5	5.10	320.38
110.00	16 48 0	4856.85	33.22	206.31	139.45	81.45	18 8 57	4256.8	31.68	197.42

DIFFERENTIAL CORRECTIONS
TDE .1574 TRA .1372 TC3-6.9037 BAU 1.1861
RDE .2082 RRA -.1033 RC3 .3840 FAU .02917
FDE .1691 FRA .5089 FC3-1.9683 BSP 15752
BDE .2610 BRA .1717 BC3 6.9144 FSP -470

MID-COURSE EXECUTION ACCURACY
SGT 4957.9 SGR 466.7 SG3 145.1
RRT -.5698 RRF -.5765 RTF .8705
SGB 4979.8 R23 .0943 R13 -.8709
SG1 4965.1 SG2 382.9 THA 176.91

ORBIT DETERMINATION ACCURACY
ST 300.6 SR 337.2 SS 241.1
CRT .7780 CRS -.5945 CST -.8156
LSA 466.3 MSA 185.1 SSA 102.3
EL1 426.4 EL2 149.4 ALF 49.21

LAUNCH DATE OCT 12 1970 FLIGHT TIME 164.00 ARRIVAL DATE MAR 25 1971

HELIOCENTRIC CONIC DISTANCE 489.398

RL 149.30 LAL -.00 LOL 18.26 VL 26.281 GAL -1.95 AZL 89.48 HCA 246.27 SMA 122.08 ECC .22546 INC .5239 V1 29.845
RP 108.71 LAP -.48 LOP 264.53 VP 36.803 GAP 11.44 AZP 90.21 TAL 186.74 TAP 73.02 RCA 94.55 APO 149.60 V2 34.859
RC 170.025 GL 3.82 GP 15.35 ZAL 96.37 ZAP 162.14 ETS 55.09 ZAE 128.51 ETE 167.87 ZAC 118.23 ETC 267.10 CLP-170.76

PLANETOCENTRIC CONIC

C3 13.006 VHL 3.606 DLA -19.11 RAL 282.55 RAD 6567.5 VEL 11.593 PTH 2.03 VHP 7.486 DPA -9.05 RAP 274.55 ECC 1.2140

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 30 33	1475.53	2.56	358.54	137.81	118.21	7 55 8	875.5	6.31	351.87
90.00	14 9 21	5401.58	28.01	247.69	143.33	85.65	15 39 23	4801.6	27.11	239.13
100.00	8 40 7	1251.04	1.40	341.40	137.16	119.86	9 0 58	651.0	5.37	334.85
100.00	15 42 28	5101.31	29.32	225.46	143.19	83.91	17 7 30	4501.3	28.17	216.85
110.00	9 22 52	1117.07	-1.46	329.45	135.37	124.16	9 41 29	517.1	3.03	323.24
110.00	17 16 13	4808.04	32.67	202.61	142.62	79.32	18 36 21	4208.0	30.85	193.86

DIFFERENTIAL CORRECTIONS
TDE .2469 TRA .2913 TC3-6.9483 BAU 1.2099
RDE .2118 RRA -.1126 RC3 .3788 FAU .02627
FDE .1933 FRA .5379 FC3-1.8817 BSP 16438
BDE .3251 BRA .3123 BC3 6.9586 FSP -489

MID-COURSE EXECUTION ACCURACY
SGT 5050.8 SGR 472.6 SG3 143.4
RRT -.5572 RRF -.5595 RTF .8787
SGB 5072.8 R23 .0806 R13 -.8790
SG1 5057.7 SG2 391.9 THA 177.00

ORBIT DETERMINATION ACCURACY
ST 445.0 SR 340.8 SS 266.4
CRT .8056 CRS -.6229 CST -.9082
LSA 583.1 MSA 197.5 SSA 78.1
EL1 534.8 EL2 168.0 ALF 35.74

LAUNCH DATE OCT 12 1970 FLIGHT TIME 166.00 ARRIVAL DATE MAR 27 1971

HELIOCENTRIC CONIC DISTANCE 495.004

RL	149.30	LAL	-.00	LOL	18.26	VL	26.222	GAL	-1.45	AZL	89.29	HCA	249.44	SMA	121.73	ECC	.22783	INC	.7100	V1	29.845
RP	108.74	LAP	-.66	LOP	267.70	VP	36.752	GAP	11.68	AZP	90.25	TAL	184.93	TAP	74.38	RCA	94.00	APO	149.46	V2	34.850
RC	172.049	GL	5.11	GP	14.72	ZAL	92.66	ZAP	163.04	ETS	56.21	ZAE	128.65	ETE	168.32	ZAC	117.57	ETC	267.77	CLP	-171.48

PLANETOCENTRIC CONIC

C3	13.304	VHL	3.648	DLA	-17.46	RAL	286.30	RAD	6567.5	VEL	11.606	PTH	2.03	VHP	7.608	DPA	-9.72	RAP	276.94	ECC	1.2190

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 28 19	1545.29	.31	2.43	141.43	118.32	7 54 4	945.3	4.09	355.79
90.00	14 41 31	5341.64	27.62	243.34	146.80	83.51	16 10 32	4741.6	26.43	234.88
100.00	8 39 31	1315.51	-.78	344.93	140.82	119.88	9 1 27	715.5	3.20	338.41
100.00	16 12 59	5046.65	28.86	221.46	146.62	81.85	17 37 6	4446.6	27.43	212.95
110.00	9 25 30	1171.46	-3.54	332.29	139.10	124.02	9 45 1	571.5	.95	326.08
110.00	17 43 30	4763.47	32.06	199.28	145.94	77.44	19 2 53	4163.5	29.99	190.67

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.3802	TRA	.4928	TC3	-6.8092	BAU	1.2128	SGT	5068.5	SGR	471.3	SG3	140.4	ST	661.9	SR	338.1	SS	312.4
RDE	.2115	RRA	-.1264	RC3	.3585	FAU	.02633	RRT	-.5315	RRF	-.5277	RTF	.8763	CRT	.8134	CRS	-.6588	CST	-.9530
FDE	.2302	FRA	.5883	FC3	-1.7131	BSP	16205	SGB	5090.4	R23	.0698	R13	-.8766	LSA	778.1	MSA	203.1	SSA	58.6
BDE	.4351	BRA	.5087	BC3	6.8187	FSP	-461	SG1	5074.8	SG2	398.7	THA	177.15	EL1	721.0	EL2	180.6	ALF	24.18

LAUNCH DATE OCT 12 1970 FLIGHT TIME 168.00 ARRIVAL DATE MAR 29 1971

HELIOCENTRIC CONIC DISTANCE 500.588

RL	149.30	LAL	-.00	LOL	18.26	VL	26.164	GAL	-.93	AZL	89.11	HCA	252.61	SMA	121.39	ECC	.23046	INC	.8885	V1	29.845
RP	108.77	LAP	-.85	LOP	270.86	VP	36.703	GAP	11.93	AZP	90.27	TAL	183.12	TAP	75.74	RCA	93.41	APO	149.36	V2	34.841
RC	174.060	GL	6.28	GP	14.15	ZAL	88.94	ZAP	163.88	ETS	57.53	ZAE	128.79	ETE	168.73	ZAC	116.94	ETC	268.44	CLP	-172.20

PLANETOCENTRIC CONIC

C3	13.737	VHL	3.706	DLA	-15.83	RAL	289.99	RAD	6567.5	VEL	11.624	PTH	2.04	VHP	7.740	DPA	-10.29	RAP	279.35	ECC	1.2261

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 27 16	1612.89	-1.87	6.20	145.22	118.26	7 54 9	1012.9	1.92	359.57
90.00	15 12 3	5287.98	27.15	239.49	150.37	81.63	16 40 11	4688.0	25.71	231.11
100.00	8 39 51	1378.68	-2.92	348.40	144.64	119.76	9 2 50	778.7	1.06	341.88
100.00	16 42 9	4997.41	28.33	217.90	150.16	80.05	18 5 27	4397.4	26.67	209.49
110.00	9 28 39	1225.84	-5.61	335.14	142.97	123.78	9 49 4	625.8	-1.13	328.92
110.00	18 9 51	4723.01	31.42	196.30	149.40	75.78	19 28 34	4123.0	29.14	187.83

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.5045	TRA	.6881	TC3	-6.6481	BAU	1.2225	SGT	5110.4	SGR	471.9	SG3	137.7	ST	860.3	SR	337.4	SS	348.1
RDE	.2138	RRA	-.1389	RC3	.3402	FAU	.02480	RRT	-.5108	RRF	-.5027	RTF	.8785	CRT	.8079	CRS	-.6772	CST	-.9706
FDE	.2729	FRA	.6284	FC3	-1.5631	BSP	16334	SGB	5132.1	R23	.0595	R13	-.8788	LSA	964.4	MSA	206.7	SSA	47.2
BDE	.5479	BRA	.7020	BC3	6.6568	FSP	-453	SG1	5116.1	SG2	405.2	THA	177.28	EL1	904.5	EL2	189.1	ALF	18.41

LAUNCH DATE OCT 12 1970 FLIGHT TIME 170.00 ARRIVAL DATE MAR 31 1971

HELIOCENTRIC CONIC DISTANCE 506.147

RL	149.30	LAL	-.00	LOL	18.26	VL	26.107	GAL	-.40	AZL	88.94	HCA	255.78	SMA	121.06	ECC	.23337	INC	1.0609	V1	29.845
RP	108.79	LAP	-1.03	LOP	274.03	VP	36.654	GAP	12.20	AZP	90.26	TAL	181.31	TAP	77.09	RCA	92.81	APO	149.31	V2	34.833
RC	176.055	GL	7.34	GP	13.64	ZAL	85.24	ZAP	164.66	ETS	59.05	ZAE	128.91	ETE	169.10	ZAC	116.35	ETC	269.10	CLP	-172.91

PLANETOCENTRIC CONIC

C3	14.313	VHL	3.783	DLA	-14.23	RAL	293.62	RAD	6567.6	VEL	11.649	PTH	2.04	VHP	7.883	DPA	-10.76	RAP	281.79	ECC	1.2356

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 27 8	1678.93	-4.00	9.89	149.15	118.06	7 55 7	1078.9	-.21	3.26
90.00	15 41 9	5240.01	26.63	236.07	154.05	79.99	17 8 29	4640.0	24.97	227.79
100.00	8 40 54	1440.92	-5.02	351.83	148.59	119.51	9 4 55	840.9	-1.05	345.29
100.00	17 10 4	4953.25	27.77	214.74	153.81	78.47	18 32 37	4353.3	25.90	206.43
110.00	9 32 11	1280.30	-7.66	338.03	146.97	123.42	9 53 31	680.3	-3.21	331.76
110.00	18 35 16	4686.63	30.78	193.66	152.97	74.34	19 53 23	4086.6	28.32	185.32

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.6325	TRA	.8216	TC3	-6.4360	BAU	1.2331	SGT	5154.9	SGR	472.5	SG3	135.2	ST	1055.3	SR	336.8	SS	380.0
RDE	.2173	RRA	-.1516	RC3	.3207	FAU	.02341	RRT	-.4912	RRF	-.4807	RTF	.8818	CRT	.8005	CRS	-.6876	CST	-.9798
FDE	.3043	FRA	.6675	FC3	-1.4162	BSP	16479	SGB	5176.5	R23	.0514	R13	-.8820	LSA	1151.5	MSA	209.7	SSA	39.5
BDE	.6688	BRA	.9044	BC3	6.4440	FSP	-445	SG1	5160.2	SG2	411.2	THA	177.41	EL1	1090.4	EL2	195.3	ALF	14.82

LAUNCH DATE OCT 12 1970 FLIGHT TIME 172.00 ARRIVAL DATE APR 2 1971

HELIOCENTRIC CONIC DISTANCE 511.680

RL	149.30	LAL	-.00	LOL	18.26	VL	26.050	GAL	.16	AZL	88.77	HCA	258.94	SMA	120.73	ECC	.23659	INC	1.2284	V1	29.845
RP	108.82	LAP	-1.21	LOP	277.20	VP	36.607	GAP	12.48	AZP	90.24	TAL	179.49	TAP	78.44	RCA	92.17	APO	149.30	V2	34.825
RC	178.036	GL	8.28	GP	13.18	ZAL	81.59	ZAP	165.38	ETS	60.78	ZAE	129.03	ETE	169.43	ZAC	115.78	ETC	269.77	CLP	-173.62

PLANETOCENTRIC CONIC

C3	15.046	VHL	3.879	DLA	-12.68	RAL	297.16	RAD	6567.6	VEL	11.680	PTH	2.05	VHP	8.037	DPA	-11.13	RAP	284.25	ECC	1.2476

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 27 41	1743.76	-6.06	13.54	153.21	117.71	7 56 45	1143.8	-2.31	6.87
90.00	16 8 51	5197.40	26.09	233.07	157.82	78.58	17 35 29	4597.4	24.25	224.88
100.00	8 42 29	1502.41	-7.07	355.25	152.66	119.12	9 7 32	902.4	-3.13	348.67
100.00	17 36 44	4913.98	27.21	211.95	157.55	77.11	18 58 38	4314.0	25.16	203.75
110.00	9 36 0	1334.83	-9.69	340.94	151.07	122.94	9 58 15	734.8	-5.28	334.62
110.00	18 59 43	4654.33	30.16	191.34	156.65	73.09	20 17 17	4054.3	27.55	183.12

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	.7689	TRA	1.1087	TC3	-6.1637	BAU	1.2413	SGT	5192.5	SGR	471.7	SG3	132.7	ST	1250.3	SR	335.2	SS	412.9
RDE	.2211	RRA	-.1649	RC3	.2982	FAU	.02194	RRT	-.4709	RRF	-.4573	RTF	.8837	CRT	.7931	CRS	-.6961	CST	-.9858
FDE	.3379	FRA	.7085	FC3	-1.2627	BSP	16582	SGB	5213.9	R23	.0436	R13	-.8839	LSA	1341.8	MSA	211.4	SSA	34.1
BDE	.8001	BRA	1.1189	BC3	6.1709	FSP	-434	SG1	5197.3	SG2	415.8	THA	177.53	EL1	1279.0	EL2	199.6	ALF	12.31

LAUNCH DATE OCT 12 1970 FLIGHT TIME 174.00 ARRIVAL DATE APR 4 1971

HELIOCENTRIC CONIC DISTANCE 517.185

```
RL  149.30 LAL   -.00 LOL  18.26 VL  25.995 GAL    .73 AZL  88.61 HCA 262.11 SMA 120.42 ECC .24015 INC 1.3922 V1  29.845
RP  108.84 LAP  -1.38 LOP 280.36 VP  36.561 GAP  12.77 AZP  90.19 TAL 177.67 TAP  79.78 RCA  91.50 APO 149.34 V2  34.818
RC 180.002 GL    9.10 GP   12.75 ZAL  78.02 ZAP 166.06 ETS  62.74 ZAE 129.14 ETE 169.74 ZAC 115.22 ETC 270.42 CLP-174.32
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PLANETOCENTRIC CONIC

```
C3  15.951 VHL  3.994 DLA -11.17 RAL 300.61 RAD 6567.6 VEL 11.719 PTH   2.06 VHP  8.203 DPA -11.42 RAP 286.72 ECC 1.2625
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 28 46	1807.55	-8.07	17.16	157.36	117.24	7 58 54	1207.6	-4.35	10.44
90.00	16 35 14	5159.95	25.56	230.46	161.66	77.37	18 1 14	4560.0	23.56	222.35
100.00	8 44 30	1563.24	-9.07	358.66	156.83	118.61	9 10 33	963.2	-5.18	352.03
100.00	18 2 11	4879.50	26.66	209.54	161.37	75.95	19 23 31	4279.5	24.47	201.43
110.00	9 40 1	1389.37	-11.69	343.89	155.26	122.35	10 3 10	789.4	-7.34	337.50
110.00	19 23 9	4626.14	29.59	189.35	160.42	72.04	20 40 15	4026.1	26.85	181.23

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE  .9084 TRA 1.3298 TC3-5.8534 BAU 1.2496    SGT 5228.8 SGR  470.3 SG3  129.9     ST  1434.6 SR   334.3 SS   439.5
RDE  .2266 RRA -.1774 RC3  .2750 FAU .02060    RRT -.4506 RRF -.4351 RTF  .8877    CRT  .7866 CRS -.7017 CST -.9895
FDE  .3669 FRA  .7449 FC3-1.1179 BSP  16750    SGB 5249.9 R23  .0365 R13 -.8878    LSA 1522.1 MSA  212.7 SSA   29.8
BDE  .9362 BRA 1.3416 BC3 5.8599 FSP   -429    SG1 5233.1 SG2  419.5 THA 177.66    EL1 1459.0 EL2  203.0 ALF  10.59
```

LAUNCH DATE OCT 12 1970 FLIGHT TIME 176.00 ARRIVAL DATE APR 6 1971

HELIOCENTRIC CONIC DISTANCE 522.655

```
RL  149.30 LAL   -.00 LOL  18.26 VL  25.940 GAL   1.34 AZL  88.45 HCA 265.27 SMA 120.11 ECC .24406 INC 1.5535 V1  29.845
RP  108.86 LAP  -1.55 LOP 283.52 VP  36.516 GAP  13.08 AZP  90.13 TAL 175.86 TAP  81.13 RCA  90.80 APO 149.42 V2  34.812
RC 181.954 GL    9.80 GP   12.37 ZAL  74.55 ZAP 166.68 ETS  64.94 ZAE 129.25 ETE 170.02 ZAC 114.68 ETC 271.07 CLP-175.02
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PLANETOCENTRIC CONIC

```
C3  17.046 VHL  4.129 DLA  -9.73 RAL 303.93 RAD 6567.7 VEL 11.766 PTH   2.08 VHP  8.381 DPA -11.63 RAP 289.20 ECC 1.2805
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 30 16	1870.36	-10.00	20.75	161.60	116.63	8 1 26	1270.4	-6.35	13.98
90.00	17 0 16	5127.53	25.06	228.21	165.56	76.36	18 25 44	4527.5	22.93	220.19
100.00	8 46 49	1623.40	-11.01	2.07	161.07	117.97	9 13 53	1023.4	-7.18	355.37
100.00	18 26 24	4849.73	26.15	207.47	165.25	74.98	19 47 14	4249.7	23.83	199.44
110.00	9 44 10	1443.81	-13.66	346.89	159.52	121.64	10 8 14	843.8	-9.37	340.41
110.00	19 45 32	4602.08	29.07	187.67	164.25	71.17	21 2 15	4002.1	26.22	179.64

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE 1.0373 TRA 1.5473 TC3-5.5452 BAU 1.2650    SGT 5271.1 SGR  469.2 SG3  126.9     ST  1586.9 SR   334.6 SS   456.9
RDE  .2341 RRA -.1890 RC3  .2535 FAU .01962    RRT -.4329 RRF -.4172 RTF  .8936    CRT  .7809 CRS -.7046 CST -.9917
FDE  .3883 FRA  .7751 FC3 -.9962 BSP  17289    SGB 5292.0 R23  .0309 R13 -.8937    LSA 1671.0 MSA  214.4 SSA   26.7
BDE 1.0634 BRA 1.5588 BC3 5.5510 FSP   -438    SG1 5275.1 SG2  422.6 THA 177.78    EL1 1608.6 EL2  206.2 ALF   9.51
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LAUNCH DATE OCT 12 1970 FLIGHT TIME 178.00 ARRIVAL DATE APR 8 1971

HELIOCENTRIC CONIC DISTANCE 528.092

```
RL  149.30 LAL   -.00 LOL  18.26 VL  25.887 GAL   1.96 AZL  88.29 HCA 268.43 SMA 119.81 ECC .24837 INC 1.7132 V1  29.845
RP  108.87 LAP  -1.71 LOP 286.69 VP  36.472 GAP  13.41 AZP  90.05 TAL 174.04 TAP  82.47 RCA  90.05 APO 149.56 V2  34.806
RC 183.891 GL   10.40 GP   12.02 ZAL  71.19 ZAP 167.25 ETS  67.38 ZAE 129.35 ETE 170.27 ZAC 114.15 ETC 271.72 CLP-175.72
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PLANETOCENTRIC CONIC

```
C3  18.353 VHL  4.284 DLA  -8.35 RAL 307.14 RAD 6567.7 VEL 11.821 PTH   2.09 VHP  8.573 DPA -11.76 RAP 291.68 ECC 1.3020
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 32 6	1932.24	-11.87	24.34	165.90	115.90	8 4 18	1332.2	-8.29	17.49
90.00	17 24 1	5099.97	24.60	226.32	169.51	75.51	18 49 1	4500.0	22.37	218.36
100.00	8 49 23	1682.88	-12.89	5.49	165.38	117.21	9 17 26	1082.9	-9.14	358.70
100.00	18 49 24	4824.57	25.70	205.74	169.18	74.18	20 9 49	4224.6	23.28	197.78
110.00	9 48 25	1498.07	-15.57	349.93	163.85	120.82	10 13 23	898.1	-11.37	343.34
110.00	20 6 53	4582.14	28.62	186.29	168.13	70.46	21 23 15	3982.1	25.69	178.33

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE 1.2019 TRA 1.8073 TC3-5.1419 BAU 1.2628    SGT 5287.8 SGR  464.9 SG3  124.5     ST  1771.6 SR   332.3 SS   485.5
RDE  .2407 RRA -.2024 RC3  .2264 FAU .01801    RRT -.4090 RRF -.3921 RTF  .8952    CRT  .7756 CRS -.7084 CST -.9937
FDE  .4220 FRA  .8198 FC3 -.8495 BSP  17078    SGB 5308.2 R23  .0259 R13 -.8953    LSA 1854.2 MSA  214.6 SSA   24.1
BDE 1.2258 BRA 1.8186 BC3 5.1468 FSP   -418    SG1 5291.3 SG2  424.0 THA 177.93    EL1 1790.5 EL2  207.6 ALF   8.39
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LAUNCH DATE OCT 12 1970 FLIGHT TIME 180.00 ARRIVAL DATE APR 10 1971

HELIOCENTRIC CONIC DISTANCE 533.487

```
RL  149.30 LAL   -.00 LOL  18.26 VL  25.834 GAL   2.62 AZL  88.13 HCA 271.59 SMA 119.51 ECC .25310 INC 1.8725 V1  29.845
RP  108.89 LAP  -1.87 LOP 289.85 VP  36.430 GAP  13.76 AZP  89.95 TAL 172.23 TAP  83.82 RCA  89.26 APO 149.76 V2  34.801
RC 185.813 GL   10.90 GP   11.70 ZAL  67.95 ZAP 167.77 ETS  70.08 ZAE 129.44 ETE 170.51 ZAC 113.63 ETC 272.36 CLP-176.41
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PLANETOCENTRIC CONIC

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C3  19.897 VHL  4.461 DLA  -7.04 RAL 310.21 RAD 6567.8 VEL 11.886 PTH   2.11 VHP  8.781 DPA -11.81 RAP 294.17 ECC 1.3275
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 34 10	1993.15	-13.65	27.93	170.26	115.05	8 7 23	1393.2	-10.17	20.98
90.00	17 46 28	5077.19	24.20	224.77	173.49	74.83	19 11 5	4477.2	21.89	216.87
100.00	8 52 8	1741.60	-14.69	8.92	169.75	116.33	9 21 10	1141.6	-11.03	2.03
100.00	19 11 11	4803.97	25.31	204.33	173.14	73.54	20 31 15	4204.0	22.81	196.43
110.00	9 52 41	1552.03	-17.43	353.01	168.22	119.88	10 18 33	952.0	-13.32	346.30
110.00	20 27 7	4566.31	28.26	185.20	172.05	69.91	21 43 14	3966.3	25.26	177.31

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE 1.3621 TRA 2.0685 TC3-4.7505 BAU 1.2648    SGT 5309.3 SGR  460.4 SG3  121.9     ST  1929.3 SR   330.9 SS   507.3
RDE  .2493 RRA -.2147 RC3  .2013 FAU .01667    RRT -.3865 RRF -.3691 RTF  .8986    CRT  .7716 CRS -.7118 CST -.9951
FDE  .4509 FRA  .8597 FC3 -.7252 BSP  17113    SGB 5329.2 R23  .0213 R13 -.8987    LSA 2010.6 MSA  214.7 SSA   22.0
BDE 1.3847 BRA 2.0796 BC3 4.7547 FSP   -408    SG1 5312.3 SG2  424.4 THA 178.07    EL1 1946.3 EL2  208.7 ALF   7.63
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LAUNCH DATE OCT 12 1970 FLIGHT TIME 182.00 ARRIVAL DATE APR 12 1971

HELIOCENTRIC CONIC DISTANCE 538.834

RL	149.30	LAL	-.00	LOL	18.26	VL	25.782	GAL	3.30	AZL	87.97	HCA	274.75	SMA	119.23	ECC	.25830	INC	2.0321	V1	29.845
RP	108.90	LAP	-2.03	LOP	293.01	VP	36.389	GAP	14.14	AZP	89.83	TAL	170.42	TAP	85.17	RCA	88.43	APO	150.02	V2	34.797
RC	187.719	GL	11.30	GP	11.41	ZAL	64.85	ZAP	168.23	ETS	73.04	ZAE	129.53	ETE	170.73	ZAC	113.12	ETC	272.99	CLP	-177.11

PLANETOCENTRIC CONIC

C3	21.707	VHL	4.659	DLA	-5.81	RAL	313.15	RAD	6567.9	VEL	11.962	PTH	2.13	VHP	9.004	DPA	-11.79	RAP	296.66	ECC	1.3572

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 36 26	2053.07	-15.35	31.51	174.66	114.09	8 10 39	1453.1	-11.97	24.46
90.00	18 7 38	5059.01	23.87	223.54	177.49	74.30	19 31 57	4459.0	21.49	215.68
100.00	8 55 1	1799.53	-16.41	12.36	174.16	115.34	9 25 1	1199.5	-12.86	5.36
100.00	19 31 44	4787.78	24.99	203.24	177.13	73.04	20 51 32	4187.8	22.43	195.37
110.00	9 56 58	1605.58	-19.22	356.13	172.65	118.83	10 23 44	1005.6	-15.22	349.29
110.00	20 46 17	4554.49	27.98	184.39	176.00	69.51	22 2 11	3954.5	24.93	176.54

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.5249	TRA	2.3404	TC3	-4.3590	BAU	1.2661	SGT	5327.7	SGR	455.1	SG3	119.4	ST	2069.9	SR	329.8	SS	525.7
RDE	.2593	RRA	-.2261	RC3	.1772	FAU	.01542	RRT	-.3635	RRF	-.3467	RTF	.9027	CRT	.7686	CRS	-.7149	CST	-.9960
FDE	.4777	FRA	.8993	FC3	-.6149	BSP	17204	SGB	5347.1	R23	.0176	R13	-.9027	LSA	2150.2	MSA	214.6	SSA	20.4
BDE	1.5468	BRA	2.3513	BC3	4.3626	FSP	-400	SG1	5330.3	SG2	423.7	THA	178.21	EL1	2085.5	EL2	209.4	ALF	7.05

LAUNCH DATE OCT 12 1970 FLIGHT TIME 184.00 ARRIVAL DATE APR 14 1971

HELIOCENTRIC CONIC DISTANCE 544.129

RL	149.30	LAL	-.00	LOL	18.26	VL	25.731	GAL	4.02	AZL	87.81	HCA	277.91	SMA	118.95	ECC	.26403	INC	2.1932	V1	29.845
RP	108.92	LAP	-2.17	LOP	296.17	VP	36.349	GAP	14.54	AZP	89.70	TAL	168.62	TAP	86.54	RCA	87.54	APO	150.35	V2	34.793
RC	189.610	GL	11.61	GP	11.14	ZAL	61.90	ZAP	168.65	ETS	76.27	ZAE	129.60	ETE	170.93	ZAC	112.60	ETC	273.61	CLP	-177.81

PLANETOCENTRIC CONIC

C3	23.821	VHL	4.881	DLA	-4.65	RAL	315.95	RAD	6568.0	VEL	12.050	PTH	2.15	VHP	9.247	DPA	-11.71	RAP	299.14	ECC	1.3920

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 38 51	2111.96	-16.95	35.09	179.09	113.03	8 14 3	1512.0	-13.69	27.93
90.00	18 27 34	5045.29	23.62	222.62	181.50	73.91	19 51 39	4445.3	21.19	214.79
100.00	8 58 0	1856.62	-18.04	15.81	178.59	114.25	9 28 57	1256.6	-14.61	8.70
100.00	19 51 6	4775.87	24.75	202.43	181.13	72.68	21 10 41	4175.9	22.15	194.60
110.00	10 1 14	1658.66	-20.93	359.30	177.10	117.67	10 28 53	1058.7	-17.06	352.31
110.00	21 4 21	4546.59	27.79	183.86	179.96	69.24	22 20 8	3946.6	24.71	176.04

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.6936	TRA	2.6258	TC3	-3.9708	BAU	1.2655	SGT	5342.5	SGR	448.8	SG3	116.9	ST	2197.1	SR	328.6	SS	542.6
RDE	.2707	RRA	-.2368	RC3	.1542	FAU	.01421	RRT	-.3396	RRF	-.3235	RTF	.9070	CRT	.7668	CRS	-.7184	CST	-.9968
FDE	.5045	FRA	.9397	FC3	-.5164	BSP	17281	SGB	5361.3	R23	.0144	R13	-.9070	LSA	2276.8	MSA	214.0	SSA	18.9
BDE	1.7151	BRA	2.6365	BC3	3.9738	FSP	-393	SG1	5344.6	SG2	421.9	THA	178.36	EL1	2211.7	EL2	209.6	ALF	6.60

LAUNCH DATE OCT 12 1970 FLIGHT TIME 186.00 ARRIVAL DATE APR 16 1971

HELIOCENTRIC CONIC DISTANCE 549.361

RL	149.30	LAL	-.00	LOL	18.26	VL	25.681	GAL	4.77	AZL	87.64	HCA	281.07	SMA	118.67	ECC	.27032	INC	2.3568	V1	29.845
RP	108.93	LAP	-2.31	LOP	299.33	VP	36.311	GAP	14.98	AZP	89.55	TAL	166.84	TAP	87.91	RCA	86.59	APO	150.75	V2	34.790
RC	191.483	GL	11.85	GP	10.90	ZAL	59.09	ZAP	169.00	ETS	79.77	ZAE	129.67	ETE	171.12	ZAC	112.09	ETC	274.21	CLP	-178.52

PLANETOCENTRIC CONIC

C3	26.279	VHL	5.126	DLA	-3.58	RAL	318.61	RAD	6568.1	VEL	12.151	PTH	2.18	VHP	9.510	DPA	-11.56	RAP	301.61	ECC	1.4325

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 41 22	2169.80	-18.46	38.67	183.55	111.86	8 17 32	1569.8	-15.33	31.39
90.00	18 46 16	5035.83	23.44	221.98	185.52	73.64	20 10 12	4435.8	20.97	214.18
100.00	9 1 3	1912.80	-19.57	19.28	183.06	113.06	9 32 55	1312.8	-16.28	12.03
100.00	20 9 17	4768.07	24.59	201.91	185.13	72.45	21 28 45	4168.1	21.96	194.10
110.00	10 5 27	1711.17	-22.55	2.51	181.59	116.40	10 33 58	1111.2	-18.82	355.35
110.00	21 21 21	4542.46	27.69	183.58	183.93	69.11	22 37 4	3942.5	24.60	175.77

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.8678	TRA	2.9255	TC3	-3.5919	BAU	1.2628	SGT	5352.9	SGR	441.5	SG3	114.4	ST	2310.1	SR	327.4	SS	557.8
RDE	.2834	RRA	-.2464	RC3	.1325	FAU	.01304	RRT	-.3144	RRF	-.2995	RTF	.9115	CRT	.7661	CRS	-.7225	CST	-.9973
FDE	.5309	FRA	.9813	FC3	-.4296	BSP	17366	SGB	5371.1	R23	.0117	R13	-.9115	LSA	2389.4	MSA	213.1	SSA	17.7
BDE	1.8892	BRA	2.9358	BC3	3.5944	FSP	-386	SG1	5354.7	SG2	419.0	THA	178.51	EL1	2323.8	EL2	209.2	ALF	6.25

LAUNCH DATE OCT 12 1970 FLIGHT TIME 188.00 ARRIVAL DATE APR 18 1971

HELIOCENTRIC CONIC DISTANCE 554.522

RL	149.30	LAL	-.00	LOL	18.26	VL	25.632	GAL	5.57	AZL	87.48	HCA	284.23	SMA	118.40	ECC	.27725	INC	2.5239	V1	29.845
RP	108.93	LAP	-2.45	LOP	302.50	VP	36.274	GAP	15.44	AZP	89.38	TAL	165.07	TAP	89.30	RCA	85.58	APO	151.23	V2	34.788
RC	193.340	GL	12.01	GP	10.68	ZAL	56.43	ZAP	169.30	ETS	83.52	ZAE	129.73	ETE	171.30	ZAC	111.58	ETC	274.81	CLP	-179.23

PLANETOCENTRIC CONIC

C3	29.133	VHL	5.397	DLA	-2.58	RAL	321.13	RAD	6568.2	VEL	12.268	PTH	2.21	VHP	9.795	DPA	-11.36	RAP	304.06	ECC	1.4795

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 43 59	2226.56	-19.86	42.24	186.01	110.61	8 21 5	1626.6	-16.88	34.84
90.00	19 3 47	5050.42	23.33	221.82	189.52	73.49	20 27 37	4430.4	20.85	213.83
100.00	9 4 7	1968.04	-21.01	22.76	187.54	111.77	9 36 55	1368.0	-17.87	15.37
100.00	20 26 19	4764.17	24.91	201.65	189.13	72.33	21 45 43	4164.2	21.86	193.85
110.00	10 9 37	1783.03	-24.09	5.73	186.09	115.02	10 39 0	1163.0	-20.51	358.43
110.00	21 37 19	4541.94	27.60	183.54	187.09	69.09	22 53 1	3941.9	24.58	175.74

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.0479	TRA	3.2407	TC3	-3.2284	BAU	1.2574	SGT	5358.6	SGR	433.3	SG3	112.0	ST	2409.2	SR	326.2	SS	571.9
RDE	.2978	RRA	-.2347	RC3	.1124	FAU	.01191	RRT	-.2877	RRF	-.2742	RTF	.9162	CRT	.7667	CRS	-.7274	CST	-.9978
FDE	.5573	FRA	1.0240	FC3	-.3538	BSP	17444	SGB	5376.1	R23	.0094	R13	-.9162	LSA	2488.5	MSA	211.7	SSA	16.7
BDE	2.0694	BRA	3.2507	BC3	3.2284	FSP	-379	SG1	5360.0	SG2	414.9	THA	178.66	EL1	2422.2	EL2	208.3	ALF	5.97

LAUNCH DATE OCT 12 1970 FLIGHT TIME 190.00 ARRIVAL DATE APR 20 1971

HELIOCENTRIC CONIC DISTANCE 559.601

RL 149.30 LAL -.00 LOL 18.26 VL 25.583 GAL 6.42 AZL 87.30 HCA 287.38 SMA 118.14 ECC .28488 INC 2.6957 V1 29.845
RP 108.94 LAP -2.57 LOP 305.66 VP 36.238 GAP 15.95 AZP 89.19 TAL 163.32 TAP 90.71 RCA 84.49 APO 151.80 V2 34.786
RC 195.178 GL 12.12 GP 10.47 ZAL 53.92 ZAP 169.53 ETS 87.52 ZAE 129.77 ETE 171.47 ZAC 111.07 ETC 275.39 CLP-179.96

PLANETOCENTRIC CONIC

C3 32.444 VHL 5.696 DLA -1.66 RAL 323.52 RAD 6568.3 VEL 12.402 PTH 2.24 VHP 10.106 DPA -11.09 RAP 306.50 ECC 1.5339

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 46 39	2282.19	-21.15	45.81	192.48	109.28	8 24 41	1682.2	-18.33	38.27
90.00	19 20 8	5028.84	23.30	221.52	193.51	73.44	20 43 57	4428.8	20.81	213.73
100.00	9 7 13	2022.28	-22.34	26.24	192.02	110.40	9 40 56	1422.3	-19.36	18.71
100.00	20 42 15	4763.98	24.51	201.63	193.11	72.33	22 1 39	4164.0	21.86	193.84
110.00	10 13 42	1814.19	-25.52	9.04	190.62	113.56	10 43 56	1214.2	-22.11	1.54
110.00	21 52 16	4544.84	27.75	183.74	191.85	69.19	23 8 1	3944.8	24.66	175.92

DIFFERENTIAL CORRECTIONS
TDE 2.2339 TRA 3.5718 TC3-2.8799 BAU 1.2498
RDE .3132 RRA -.2615 RC3 .0941 FAU .01083
FDE .5837 FRA 1.0683 FC3 -.2889 BSP 17545
BDE 2.2558 BRA 3.5814 BC3 2.8814 FSP -373

MID-COURSE EXECUTION ACCURACY
SGT 5360.3 SGR 424.3 SG3 109.6
RRT -.2592 RRF -.2475 RTF .9212
SGB 5377.0 R23 .0076 R13 -.9212
SG1 5361.4 SG2 409.7 THA 178.82

ORBIT DETERMINATION ACCURACY
ST 2494.4 SR 324.8 SS 585.0
CRT .7683 CRS -.7329 CST -.9982
LSA 2574.0 MSA 209.8 SSA 15.8
EL1 2506.9 EL2 206.9 ALF 5.75

LAUNCH DATE OCT 12 1970 FLIGHT TIME 192.00 ARRIVAL DATE APR 22 1971

HELIOCENTRIC CONIC DISTANCE 564.582

RL 149.30 LAL -.00 LOL 18.26 VL 25.536 GAL 7.31 AZL 87.13 HCA 290.54 SMA 117.89 ECC .29331 INC 2.8736 V1 29.845
RP 108.94 LAP -2.69 LOP 308.82 VP 36.204 GAP 16.51 AZP 88.99 TAL 161.60 TAP 92.14 RCA 83.31 APO 152.47 V2 34.785
RC 196.997 GL 12.17 GP 10.28 ZAL 51.56 ZAP 169.69 ETS 91.74 ZAE 129.80 ETE 171.64 ZAC 110.56 ETC 275.95 CLP 179.31

PLANETOCENTRIC CONIC

C3 36.286 VHL 6.024 DLA -.81 RAL 325.77 RAD 6568.4 VEL 12.556 PTH 2.28 VHP 10.446 DPA -10.78 RAP 308.92 ECC 1.5972

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 49 22	2336.65	-22.33	49.37	196.94	107.88	8 28 18	1736.7	-19.68	41.70
90.00	19 35 24	5030.87	23.34	221.65	197.48	73.50	20 59 14	4430.9	20.86	213.86
100.00	9 10 20	2075.48	-23.56	29.72	196.50	108.96	9 44 55	1475.5	-20.75	22.04
100.00	20 57 7	4767.27	24.58	201.85	197.07	72.42	22 16 34	4167.3	21.94	194.05
110.00	10 17 42	1864.56	-26.85	12.35	195.14	112.00	10 48 47	1264.6	-23.62	4.67
110.00	22 6 13	4550.95	27.90	184.15	195.78	69.39	23 22 4	3951.0	24.83	176.32

DIFFERENTIAL CORRECTIONS
TDE 2.4270 TRA 3.9200 TC3-2.5525 BAU 1.2388
RDE .3303 RRA -.2665 RC3 .0775 FAU .00978
FDE .6104 FRA 1.1144 FC3 -.2334 BSP 17661
BDE 2.4494 BRA 3.9291 BC3 2.5537 FSP -368

MID-COURSE EXECUTION ACCURACY
SGT 5356.4 SGR 414.4 SG3 107.2
RRT -.2285 RRF -.2189 RTF .9264
SGB 5372.4 R23 .0062 R13 -.9264
SG1 5357.2 SG2 403.4 THA 178.98

ORBIT DETERMINATION ACCURACY
ST 2566.9 SR 323.3 SS 597.5
CRT .7712 CRS -.7392 CST -.9985
LSA 2647.2 MSA 207.4 SSA 14.9
EL1 2579.1 EL2 204.8 ALF 5.58

LAUNCH DATE OCT 12 1970 FLIGHT TIME 194.00 ARRIVAL DATE APR 24 1971

HELIOCENTRIC CONIC DISTANCE 569.449

RL 149.30 LAL -.00 LOL 18.26 VL 25.490 GAL 8.26 AZL 86.94 HCA 293.70 SMA 117.64 ECC .30262 INC 3.0589 V1 29.845
RP 108.94 LAP -2.80 LOP 311.98 VP 36.171 GAP 17.11 AZP 88.77 TAL 159.91 TAP 93.61 RCA 82.04 APO 153.24 V2 34.785
RC 198.798 GL 12.17 GP 10.11 ZAL 49.34 ZAP 169.79 ETS 96.15 ZAE 129.81 ETE 171.80 ZAC 110.05 ETC 276.50 CLP 178.56

PLANETOCENTRIC CONIC

C3 40.749 VHL 6.384 DLA -.04 RAL 327.89 RAD 6568.6 VEL 12.732 PTH 2.31 VHP 10.818 DPA -10.42 RAP 311.31 ECC 1.6706

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 52 6	2369.89	-23.40	52.90	201.39	106.42	8 31 56	1789.9	-20.93	45.10
90.00	19 49 34	5036.25	23.45	222.01	201.42	73.65	21 13 30	4436.3	20.98	214.21
100.00	9 13 25	2127.56	-24.66	33.19	200.97	107.45	9 48 53	1527.6	-22.04	25.37
100.00	21 10 56	4773.81	24.71	202.29	201.00	72.62	22 30 30	4173.8	22.10	194.47
110.00	10 21 37	1914.07	-28.07	15.68	199.67	110.37	10 53 31	1314.1	-25.03	7.82
110.00	22 19 13	4560.07	28.11	184.77	199.70	69.70	23 35 13	3960.1	25.09	176.90

DIFFERENTIAL CORRECTIONS
TDE 2.6278 TRA 4.2889 TC3-2.2468 BAU 1.2245
RDE .3490 RRA -.2695 RC3 .0627 FAU .00877
FDE .6379 FRA 1.1630 FC3 -.1864 BSP 17788
BDE 2.6508 BRA 4.2973 BC3 2.2477 FSP -363

MID-COURSE EXECUTION ACCURACY
SGT 5348.9 SGR 403.8 SG3 104.9
RRT -.1954 RRF -.1880 RTF .9318
SGB 5364.1 R23 .0051 R13 -.9318
SG1 5349.5 SG2 396.0 THA 179.15

ORBIT DETERMINATION ACCURACY
ST 2627.5 SR 321.6 SS 610.0
CRT .7750 CRS -.7463 CST -.9987
LSA 2708.8 MSA 204.6 SSA 14.2
EL1 2639.4 EL2 202.3 ALF 5.45

LAUNCH DATE OCT 12 1970 FLIGHT TIME 196.00 ARRIVAL DATE APR 26 1971

HELIOCENTRIC CONIC DISTANCE 574.181

RL 149.30 LAL -.00 LOL 18.26 VL 25.444 GAL 9.28 AZL 86.75 HCA 296.85 SMA 117.40 ECC .31292 INC 3.2535 V1 29.845
RP 108.94 LAP -2.90 LOP 315.15 VP 36.139 GAP 17.78 AZP 88.53 TAL 158.25 TAP 95.11 RCA 80.66 APO 154.14 V2 34.786
RC 200.578 GL 12.14 GP 9.95 ZAL 47.26 ZAP 169.81 ETS 100.70 ZAE 129.79 ETE 171.95 ZAC 109.53 ETC 277.03 CLP 177.79

PLANETOCENTRIC CONIC

C3 45.945 VHL 6.778 DLA .66 RAL 329.88 RAD 6568.7 VEL 12.935 PTH 2.36 VHP 11.227 DPA -10.01 RAP 313.67 ECC 1.7561

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 54 51	2441.82	-24.36	56.41	205.80	104.91	8 35 32	1841.8	-22.07	48.48
90.00	20 2 42	5044.76	23.61	222.58	205.31	73.89	21 26 47	4444.8	21.17	214.76
100.00	9 16 30	2178.45	-25.66	36.64	205.41	105.89	9 52 48	1578.4	-23.23	28.69
100.00	21 23 44	4783.37	24.90	202.94	204.89	72.91	22 43 27	4183.4	22.33	195.09
110.00	10 25 27	1962.62	-29.17	19.03	204.18	108.67	10 58 9	1362.6	-26.34	10.99
110.00	22 31 16	4571.96	28.39	185.59	203.59	70.11	23 47 28	3972.0	25.42	177.67

DIFFERENTIAL CORRECTIONS
TDE 2.8374 TRA 4.6794 TC3-1.9620 BAU 1.2056
RDE .3693 RRA -.2700 RC3 .0498 FAU .00778
FDE .6664 FRA 1.2145 FC3 -.1466 BSP 17920
BDE 2.8613 BRA 4.6872 BC3 1.9627 FSP -358

MID-COURSE EXECUTION ACCURACY
SGT 5336.2 SGR 392.5 SG3 102.6
RRT -.1593 RRF -.1543 RTF .9373
SGB 5350.6 R23 .0042 R13 -.9373
SG1 5336.6 SG2 387.5 THA 179.32

ORBIT DETERMINATION ACCURACY
ST 2677.1 SR 319.6 SS 622.8
CRT .7799 CRS -.7541 CST -.9990
LSA 2759.8 MSA 201.2 SSA 13.5
EL1 2688.8 EL2 199.2 ALF 5.35

LAUNCH DATE OCT 12 1970 FLIGHT TIME 198.00 ARRIVAL DATE APR 28 1971

HELIOCENTRIC CONIC DISTANCE 578.750

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RL  149.30 LAL   -.00 LOL  18.26 VL  25.400 GAL  10.38 AZL  86.54 HCA 300.01 SMA 117.17 ECC .32436 INC 3.4592 V1  29.845
RP  108.93 LAP  -3.00 LOP 318.31 VP  36.109 GAP  18.51 AZP  88.27 TAL 156.65 TAP  96.66 RCA  79.16 APO 155.17 V2  34.787
RC 202.339 GL   12.07 GP    9.81 ZAL  45.33 ZAP 169.75 ETS 105.36 ZAE 129.76 ETE 172.10 ZAC 109.02 ETC 277.55 CLP 177.00
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PLANETOCENTRIC CONIC

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C3  52.011 VHL  7.212 DLA   1.29 RAL 331.74 RAD 6568.9 VEL 13.167 PTH   2.40 VHP 11.679 DPA  -9.56 RAP 316.00 ECC 1.8560
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 57 36	2492.36	-25.20	59.87	210.17	103.37	8 39 8	1892.4	-23.11	51.82
90.00	20 14 49	5056.16	23.82	223.35	209.17	74.22	21 39 5	4456.2	21.43	215.50
100.00	9 19 32	2228.04	-26.54	40.07	209.80	104.29	9 56 40	1628.0	-24.31	31.97
100.00	21 35 33	4795.71	25.15	203.77	208.74	73.28	22 55 29	4195.7	22.62	195.89
110.00	10 29 10	2010.11	-30.16	22.37	208.65	106.91	11 2 40	1410.1	-27.55	14.16
110.00	22 42 25	4586.41	28.72	186.58	207.43	70.61	23 58 51	3986.4	25.81	178.61

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 3.0586 TRA 5.0958 TC3-1.6972 BAU 1.1804   SGT 5319.4 SGR  380.7 SG3  100.4     ST  2717.7 SR   317.2 SS   636.6
RDE  .3911 RRA -.2679 RC3  .0385 FAU .00678   RRT -.1199 RRF -.1172 RTF  .9429     CRT  .7857 CRS -.7627 CST -.9991
FDE  .6967 FRA 1.2700 FC3 -.1129 BSP  18030   SGB 5333.0 R23  .0036 R13 -.9429     LSA 2802.3 MSA  197.2 SSA   12.8
BDE 3.0835 BRA 5.1029 BC3 1.6977 FSP   -353   SG1 5319.6 SG2  378.0 THA 179.51    EL1 2729.2 EL2  195.4 ALF   5.27
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LAUNCH DATE OCT 12 1970 FLIGHT TIME 200.00 ARRIVAL DATE APR 30 1971

HELIOCENTRIC CONIC DISTANCE 583.125

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RL  149.30 LAL   -.00 LOL  18.26 VL  25.357 GAL  11.56 AZL  86.32 HCA 303.17 SMA 116.94 ECC .33708 INC 3.6785 V1  29.845
RP  108.93 LAP  -3.08 LOP 321.48 VP  36.081 GAP  19.32 AZP  87.99 TAL 155.09 TAP  98.26 RCA  77.52 APO 156.36 V2  34.789
RC 204.080 GL   11.96 GP    9.67 ZAL  43.52 ZAP 169.60 ETS 110.06 ZAE 129.69 ETE 172.25 ZAC 108.51 ETC 278.04 CLP 176.17
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PLANETOCENTRIC CONIC

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C3  59.117 VHL  7.689 DLA   1.86 RAL 333.48 RAD 6569.1 VEL 13.434 PTH   2.46 VHP 12.179 DPA  -9.08 RAP 318.29 ECC 1.9729
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 0 21	2541.38	-25.92	63.28	214.47	101.81	8 42 42	1941.4	-24.04	55.12
90.00	20 25 56	5070.22	24.08	224.30	212.96	74.63	21 50 26	4470.2	21.74	216.41
100.00	9 22 33	2276.21	-27.30	43.44	214.13	102.67	10 0 29	1676.2	-25.28	35.22
100.00	21 46 24	4810.62	25.43	204.79	212.54	73.74	23 6 35	4210.6	22.96	196.86
110.00	10 32 47	2056.40	-31.03	25.70	213.08	105.12	11 7 3	1456.4	-28.64	17.31
110.00	22 52 40	4603.20	29.09	187.74	211.24	71.21	24 9 23	4003.2	26.25	179.71

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 3.2938 TRA 5.5419 TC3-1.4521 BAU 1.1479   SGT 5299.4 SGR  368.5 SG3   98.3     ST  2750.5 SR   314.6 SS   651.9
RDE  .4148 RRA -.2625 RC3  .0289 FAU .00576   RRT -.0764 RRF -.0760 RTF  .9484     CRT  .7925 CRS -.7721 CST -.9993
FDE  .7292 FRA 1.3301 FC3 -.0843 BSP  18100   SGB 5312.2 R23  .0032 R13 -.9485     LSA 2837.6 MSA  192.7 SSA   12.2
BDE 3.3198 BRA 5.5481 BC3 1.4524 FSP   -348   SG1 5299.4 SG2  367.5 THA 179.69    EL1 2761.9 EL2  191.1 ALF   5.20
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LAUNCH DATE OCT 12 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAY 2 1971

HELIOCENTRIC CONIC DISTANCE 587.264

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RL  149.30 LAL   -.00 LOL  18.26 VL  25.315 GAL  12.83 AZL  86.09 HCA 306.32 SMA 116.72 ECC .35127 INC 3.9143 V1  29.845
RP  108.92 LAP  -3.15 LOP 324.64 VP  36.054 GAP  20.22 AZP  87.68 TAL 153.61 TAP  99.93 RCA  75.72 APO 157.72 V2  34.792
RC 205.802 GL   11.84 GP    9.55 ZAL  41.86 ZAP 169.37 ETS 114.76 ZAE 129.59 ETE 172.40 ZAC 107.99 ETC 278.51 CLP 175.32
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PLANETOCENTRIC CONIC

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C3  67.480 VHL  8.215 DLA   2.36 RAL 335.09 RAD 6569.3 VEL 13.742 PTH   2.51 VHP 12.735 DPA  -8.57 RAP 320.54 ECC 2.1105
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 3 5	2588.72	-26.54	66.61	218.68	100.25	8 46 14	1988.7	-24.86	58.34
90.00	20 36 3	5086.72	24.37	225.42	216.69	75.12	22 0 50	4486.7	22.09	217.49
100.00	9 25 32	2322.81	-27.95	46.75	218.38	101.05	10 4 14	1722.8	-26.14	38.42
100.00	21 56 18	4827.87	25.76	205.97	216.27	74.28	23 16 46	4227.9	23.35	197.99
110.00	10 36 17	2101.33	-31.78	28.99	217.43	103.31	11 11 19	1501.3	-29.62	20.44
110.00	23 2 1	4622.11	29.50	189.07	214.98	71.89	24 19 4	4022.1	26.74	180.96

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 3.5456 TRA 6.0218 TC3-1.2257 BAU 1.1059   SGT 5276.5 SGR  356.1 SG3   96.4     ST  2776.7 SR   311.7 SS   669.2
RDE  .4404 RRA -.2535 RC3  .0209 FAU .00468   RRT -.0283 RRF -.0301 RTF  .9540     CRT  .8002 CRS -.7822 CST -.9994
FDE  .7647 FRA 1.3959 FC3 -.0600 BSP  18111   SGB 5288.5 R23  .0030 R13 -.9540     LSA 2867.0 MSA  187.6 SSA   11.6
BDE 3.5729 BRA 6.0271 BC3 1.2258 FSP   -341   SG1 5276.5 SG2  356.0 THA 179.89    EL1 2787.9 EL2  186.2 ALF   5.16
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LAUNCH DATE OCT 12 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAY 4 1971

HELIOCENTRIC CONIC DISTANCE 591.115

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RL  149.30 LAL   -.00 LOL  18.26 VL  25.274 GAL  14.22 AZL  85.83 HCA 309.48 SMA 116.51 ECC .36713 INC 4.1699 V1  29.845
RP  108.91 LAP  -3.22 LOP 327.81 VP  36.029 GAP  21.23 AZP  87.35 TAL 152.21 TAP 101.69 RCA  73.74 APO 159.29 V2  34.795
RC 207.503 GL   11.68 GP    9.43 ZAL  40.33 ZAP 169.05 ETS 119.42 ZAE 129.44 ETE 172.55 ZAC 107.49 ETC 278.95 CLP 174.42
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PLANETOCENTRIC CONIC

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C3  77.372 VHL  8.796 DLA   2.79 RAL 336.58 RAD 6569.5 VEL 14.097 PTH   2.57 VHP 13.356 DPA  -8.03 RAP 322.73 ECC 2.2733
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 5 49	2634.19	-27.05	69.84	222.78	98.71	8 49 43	2034.2	-25.57	61.48
90.00	20 45 11	5105.46	24.69	226.70	220.33	75.68	22 10 16	4505.5	22.48	218.73
100.00	9 28 27	2367.63	-28.50	49.97	222.52	99.43	10 7 55	1767.6	-26.90	41.53
100.00	22 5 14	4847.26	26.11	207.30	219.92	74.90	23 26 1	4247.3	23.78	199.28
110.00	10 39 41	2144.70	-32.41	32.21	221.68	101.50	11 15 26	1544.7	-30.49	23.52
110.00	23 10 29	4642.95	29.93	190.53	218.86	72.67	24 27 52	4042.9	27.27	182.36

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 3.8174 TRA 6.5408 TC3-1.0170 BAU 1.0520   SGT 5251.8 SGR  343.7 SG3   94.5     ST  2797.0 SR   308.6 SS   689.2
RDE  .4668 RRA -.2401 RC3  .0144 FAU .00550   RRT  .0250 RRF  .0211 RTF  .9594     CRT  .8089 CRS -.7932 CST -.9995
FDE  .8038 FRA 1.4685 FC3 -.0392 BSP  18033   SGB 5262.8 R23 -.0029 R13  .9594     LSA 2891.4 MSA  181.9 SSA   11.0
BDE 3.8460 BRA 6.5452 BC3 1.0171 FSP   -333   SG1 5251.6 SG2  343.6 THA    .09     EL1 2808.2 EL2  180.7 ALF   5.12
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LAUNCH DATE OCT 12 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAY 6 1971

HELIOCENTRIC CONIC DISTANCE 594.609

RL	149.30	LAL	-.00	LOL	18.26	VL	25.235	GAL	15.75	AZL	85.55	HCA	312.64	SMA	116.31	ECC	.38494	INC	4.4500
RP	108.90	LAP	-3.27	LOP	330.98	VP	36.006	GAP	22.36	AZP	86.98	TAL	150.91	TAP	103.55	RCA	71.54	APO	161.08
RC	209.184	GL	11.51	GP	9.33	ZAL	38.93	ZAP	168.63	ETS	123.98	ZAE	129.24	ETE	172.71	ZAC	106.98	ETC	279.37

PLANETOCENTRIC CONIC

C3	89.143	VHL	9.442	DLA	3.15	RAL	337.94	RAD	6569.7	VEL	14.508	PTH	2.63	VHP	14.053	DPA	-7.48	RAP	324.86

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 8 32	2677.56	-27.46	72.94	226.75	97.20	8 53 9	2077.6	-26.18	64.51
90.00	20 53 18	5126.26	25.03	228.13	223.88	76.32	22 18 45	4526.3	22.91	220.10
100.00	9 31 20	2410.45	-28.93	53.08	226.53	97.85	10 11 31	1810.4	-27.55	44.55
100.00	22 13 11	4868.60	26.48	208.78	223.48	75.60	23 34 19	4268.6	24.24	200.70
110.00	10 42 57	2186.29	-32.94	35.34	225.81	99.72	11 19 24	1586.3	-31.24	26.53
110.00	23 18 3	4665.52	30.38	192.14	222.26	73.52	24 35 49	4065.5	27.82	183.88

DIFFERENTIAL CORRECTIONS

TDE	4.1132	TRA	7.1051	TC3	-.8252	BAU	.9835												
RDE	.4985	RRA	-.2217	RC3	.0093	FAU	.00220												
FDE	.8473	FRA	1.5492	FC3	-.0214	BSP	17830												
BDE	4.1433	BRA	7.1086	BC3	.8252	FSP	-322												

MID-COURSE EXECUTION ACCURACY

SGT	5225.5	SGR	331.6	SG3	92.8				
RRT	.0841	RRF	.0785	RTF	.9648				
SGB	5236.0	R23	-.0030	R13	.9648				
SG1	5225.5	SG2	330.4	THA	.31				

ORBIT DETERMINATION ACCURACY

ST	2812.6	SR	305.2	SS	712.3		
CRT	.8186	CRS	-.8050	CST	-.9996		
LSA	2912.1	MSA	175.7	SSA	10.4		
EL1	2823.7	EL2	174.6	ALF	5.10		

LAUNCH DATE OCT 12 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAY 8 1971

HELIOCENTRIC CONIC DISTANCE 597.659

RL	149.30	LAL	-.00	LOL	18.26	VL	25.198	GAL	17.43	AZL	85.24	HCA	315.79	SMA	116.12	ECC	.40498	INC	4.7602
RP	108.88	LAP	-3.32	LOP	334.15	VP	35.984	GAP	23.64	AZP	86.58	TAL	149.74	TAP	105.53	RCA	69.09	APO	163.14
RC	210.844	GL	11.32	GP	9.22	ZAL	37.68	ZAP	168.10	ETS	128.43	ZAE	128.98	ETE	172.87	ZAC	106.49	ETC	279.77

PLANETOCENTRIC CONIC

C3	103.248	VHL	10.161	DLA	3.44	RAL	339.16	RAD	6570.0	VEL	14.986	PTH	2.70	VHP	14.839	DPA	-6.92	RAP	326.92

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 11 13	2718.53	-27.77	75.90	230.56	95.75	8 56 32	2118.5	-26.69	67.40
90.00	21 0 23	5148.95	25.39	229.69	227.32	77.02	22 26 12	4548.9	23.35	221.62
100.00	9 34 10	2450.97	-29.28	56.04	230.38	96.33	10 15 1	1851.0	-28.09	47.44
100.00	22 20 7	4891.74	26.86	210.39	226.93	76.36	23 41 39	4291.7	24.72	202.25
110.00	10 46 6	2225.83	-33.35	38.35	229.78	97.98	11 23 12	1625.8	-31.89	29.43
110.00	23 24 40	4689.65	30.83	193.87	225.75	74.45	24 42 50	4089.6	28.39	185.52

DIFFERENTIAL CORRECTIONS

TDE	4.4351	TRA	7.7197	TC3	-.6503	BAU	.8977												
RDE	.5318	RRA	-.1973	RC3	.0056	FAU	.00073												
FDE	.8957	FRA	1.6391	FC3	-.0062	BSP	17521												
BDE	4.4668	BRA	7.7222	BC3	.6503	FSP	-311												

MID-COURSE EXECUTION ACCURACY

SGT	5197.8	SGR	320.1	SG3	91.1				
RRT	.1495	RRF	.1425	RTF	.9699				
SGB	5207.7	R23	-.0031	R13	.9699				
SG1	5198.0	SG2	316.5	THA	.53				

ORBIT DETERMINATION ACCURACY

ST	2822.6	SR	301.7	SS	739.0		
CRT	.8292	CRS	-.8174	CST	-.9997		
LSA	2928.4	MSA	169.0	SSA	9.9		
EL1	2833.7	EL2	168.0	ALF	5.08		

LAUNCH DATE OCT 12 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAY 10 1971

HELIOCENTRIC CONIC DISTANCE 600.152

RL	149.30	LAL	-.00	LOL	18.26	VL	25.162	GAL	19.29	AZL	84.89	HCA	318.95	SMA	115.94	ECC	.42762	INC	5.1077
RP	108.86	LAP	-3.35	LOP	337.32	VP	35.965	GAP	25.09	AZP	86.14	TAL	148.72	TAP	107.67	RCA	66.36	APO	165.51
RC	212.484	GL	11.12	GP	9.13	ZAL	36.58	ZAP	167.46	ETS	132.74	ZAE	128.64	ETE	173.05	ZAC	106.00	ETC	280.13

PLANETOCENTRIC CONIC

C3	120.277	VHL	10.967	DLA	3.66	RAL	340.25	RAD	6570.3	VEL	15.544	PTH	2.77	VHP	15.731	DPA	-6.35	RAP	328.91

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 13 53	2756.76	-28.00	78.67	234.16	94.38	8 59 50	2156.8	-27.10	70.12
90.00	21 6 21	5173.42	25.75	231.39	230.62	77.80	22 32 35	4573.4	23.82	223.26
100.00	9 36 57	2488.86	-29.53	58.83	234.02	94.88	10 18 26	1888.9	-28.54	50.17
100.00	22 25 59	4916.54	27.25	212.14	230.25	77.20	23 47 56	4316.5	25.21	203.93
110.00	10 49 7	2262.97	-33.66	41.21	233.54	96.32	11 26 50	1663.0	-32.42	32.19
110.00	23 30 18	4715.20	31.29	195.73	229.12	75.47	24 48 53	4115.2	28.97	187.29

DIFFERENTIAL CORRECTIONS

TDE	4.7885	TRA	8.3925	TC3	-.4913	BAU	.7901												
RDE	.5687	RRA	-.1658	RC3	.0032	FAU	-.00097												
FDE	.9501	FRA	1.7398	FC3	.0070	BSP	17065												
BDE	4.8222	BRA	8.3941	BC3	.4914	FSP	-297												

MID-COURSE EXECUTION ACCURACY

SGT	5169.4	SGR	309.6	SG3	89.6				
RRT	.2215	RRF	.2134	RTF	.9747				
SGB	5178.7	R23	-.0033	R13	.9747				
SG1	5169.9	SG2	301.9	THA	.76				

ORBIT DETERMINATION ACCURACY

ST	2827.9	SR	298.3	SS	770.1		
CRT	.8406	CRS	-.8306	CST	-.9998		
LSA	2941.5	MSA	161.8	SSA	9.3		
EL1	2839.0	EL2	160.9	ALF	5.08		

LAUNCH DATE OCT 12 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAY 12 1971

HELIOCENTRIC CONIC DISTANCE 601.934

RL	149.30	LAL	-.00	LOL	18.26	VL	25.129	GAL	21.36	AZL	84.50	HCA	322.11	SMA	115.77	ECC	.45328	INC	5.5023
RP	108.85	LAP	-3.38	LOP	340.49	VP	35.947	GAP	26.75	AZP	85.65	TAL	147.88	TAP	109.99	RCA	63.29	APO	168.24
RC	214.102	GL	10.89	GP	9.03	ZAL	35.65	ZAP	166.68	ETS	136.89	ZAE	128.21	ETE	173.24	ZAC	105.52	ETC	280.47

PLANETOCENTRIC CONIC

C3	141.011	VHL	11.875	DLA	3.80	RAL	341.18	RAD	6570.5	VEL	16.197	PTH	2.84	VHP	16.748	DPA	-5.80	RAP	330.79

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 16 32	2791.82	-28.16	81.23	237.52	93.11	9 3 4	2191.8	-27.43	72.64
90.00	21 11 8	5199.60	26.12	233.22	233.76	78.65	22 37 47	4599.6	24.29	225.03
100.00	9 39 39	2523.71	-29.70	61.41	237.42	93.54	10 21 43	1923.7	-28.89	52.70
100.00	22 30 42	4942.95	27.63	214.00	233.41	78.11	23 53 5	4342.9	25.71	205.73
110.00	10 51 59	2297.33	-33.89	43.86	237.06	94.76	11 30 17	1697.3	-32.86	34.78
110.00	23 34 51	4742.09	31.73	197.70	232.35	76.56	24 53 53	4142.1	29.55	189.17

DIFFERENTIAL CORRECTIONS

TDE	5.1427	TRA	9.0999	TC3	-.3577	BAU	.6743												
RDE	.6098	RRA	-.1281	RC3	.0018	FAU	-.00283												
FDE	1.0037	FRA	1.8455	FC3	.0162	BSP	17280												
BDE	5.1787	BRA	9.0968	BC3	.3577	FSP	-297												

MID-COURSE EXECUTION ACCURACY

SGT	5121.1	SGR	300.4	SG3	87.8				
RRT	.2977	RRF	.2889	RTF	.9790				
SGB	5129.9	R23	-.0036	R13	.9790				
SG1	5121.8	SG2	286.8	THA	1.00				

ORBIT DETERMINATION ACCURACY

ST	2810.5	SR	294.7	SS	800.8		
CRT	.8520	CRS	-.8434	CST	-.9998		
LSA	2933.1	MSA	154.5	SSA	8.7		
EL1	2821.7	EL2	153.7	ALF	5.12		

LAUNCH DATE OCT 12 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAY 14 1971

HELIOCENTRIC CONIC DISTANCE 602.810

RL	149.30	LAL	-.00	LOL	18.26	VL	25.099	GAL	23.70	AZL	84.04	HCA	325.26	SMA	115.61	ECC	.48245	INC	5.9573	V1	29.845
RP	108.82	LAP	-3.39	LOP	343.66	VP	35.933	GAP	28.67	AZP	85.10	TAL	147.27	TAP	112.53	RCA	59.84	APO	171.39	V2	34.823
RC	215.699	GL	10.65	GP	8.94	ZAL	34.88	ZAP	165.76	ETS	140.89	ZAE	127.67	ETE	173.44	ZAC	105.06	ETC	280.77	CLP	168.87

PLANETOCENTRIC CONIC

C3	166.493	VHL	12.903	DLA	3.86	RAL	341.94	RAD	6570.8	VEL	16.965	PTH	2.92	VHP	17.915	DPA	-5.26	RAP	332.57	ECC	3.7400

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 19 9	2823.23	-28.25	83.52	240.60	91.96	9 6 12	2223.2	-27.68	74.90
90.00	21 14 36	5227.48	26.48	235.19	236.70	79.57	22 41 43	4627.5	24.77	226.94
100.00	9 42 18	2555.03	-29.81	63.73	240.53	92.32	10 24 53	1955.0	-29.17	54.98
100.00	22 34 8	4970.91	28.01	216.00	236.38	79.10	23 56 59	4370.9	26.22	207.65
110.00	10 54 42	2328.46	-34.04	46.28	240.29	93.34	11 33 30	1728.5	-33.20	37.14
110.00	23 38 14	4770.25	32.15	199.78	235.40	77.72	24 57 44	4170.2	30.13	191.16

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	5.5428	TRA	9.8787	TC3	-.2347	BAU	.5223	SGT	5074.9	SGR	293.2	SG3	86.2	ST	2792.4	SR	291.4	SS	838.6
RDE	.6557	RRA	-.0765	RC3	.0014	FAU	-.00478	RRT	.3795	RRF	.3705	RTF	.9830	CRT	.8643	CRS	-.8570	CST	-.9998
FDE	1.0670	FRA	1.9676	FC3	.0249	BSP	17191	SGB	5083.3	R23	-.0040	R13	.9830	LSA	2926.5	MSA	146.7	SSA	8.2
BDE	5.5814	BRA	9.8790	BC3	.2347	FSP	-291	SG1	5076.1	SG2	271.2	THA	1.26	EL1	2803.8	EL2	146.0	ALF	5.17

LAUNCH DATE OCT 12 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAY 16 1971

HELIOCENTRIC CONIC DISTANCE 602.518

RL	149.30	LAL	-.00	LOL	18.26	VL	25.071	GAL	26.35	AZL	83.51	HCA	328.42	SMA	115.48	ECC	.51569	INC	6.4911	V1	29.845
RP	108.80	LAP	-3.39	LOP	346.84	VP	35.921	GAP	30.88	AZP	84.46	TAL	146.95	TAP	115.36	RCA	55.93	APO	175.03	V2	34.830
RC	217.273	GL	10.40	GP	8.84	ZAL	34.32	ZAP	164.67	ETS	144.71	ZAE	126.98	ETE	173.68	ZAC	104.63	ETC	281.04	CLP	167.42

PLANETOCENTRIC CONIC

C3	198.122	VHL	14.076	DLA	3.82	RAL	342.51	RAD	6571.1	VEL	17.873	PTH	3.00	VHP	19.262	DPA	-4.77	RAP	334.21	ECC	4.2606

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 21 44	2850.38	-28.30	85.51	243.35	90.97	9 9 15	2250.4	-27.87	76.87
90.00	21 16 35	5257.14	26.82	237.29	239.43	80.57	22 44 12	4657.1	25.25	228.98
100.00	9 44 52	2582.24	-29.87	65.75	243.31	91.26	10 27 54	1982.2	-29.37	56.98
100.00	22 36 8	5000.51	28.37	218.12	239.13	80.16	23 59 28	4400.5	26.72	209.71
110.00	10 57 13	2355.81	-34.13	48.41	243.17	92.08	11 36 29	1755.8	-33.46	39.24
110.00	23 40 17	4799.71	32.56	201.99	238.24	78.97	25 0 16	4199.7	30.70	193.26

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	5.9810	TRA	10.7366	TC3	-.1255	BAU	.3323	SGT	5023.7	SGR	288.3	SG3	84.7	ST	2766.6	SR	288.2	SS	882.5
RDE	.7081	RRA	-.0151	RC3	.0020	FAU	-.00743	RRT	.4645	RRF	.4557	RTF	.9865	CRT	.8769	CRS	-.8708	CST	-.9999
FDE	1.1385	FRA	2.1056	FC3	.0325	BSP	17078	SGB	5032.0	R23	-.0043	R13	.9865	LSA	2914.9	MSA	138.7	SSA	7.6
BDE	6.0228	BRA	10.7366	BC3	.1255	FSP	-286	SG1	5025.5	SG2	255.3	THA	1.53	EL1	2778.2	EL2	138.0	ALF	5.23

LAUNCH DATE OCT 12 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAY 18 1971

HELIOCENTRIC CONIC DISTANCE 600.708

RL	149.30	LAL	-.00	LOL	18.26	VL	25.048	GAL	29.38	AZL	82.87	HCA	331.57	SMA	115.36	ECC	.55359	INC	7.1303	V1	29.845
RP	108.78	LAP	-3.39	LOP	350.01	VP	35.913	GAP	33.47	AZP	83.72	TAL	146.97	TAP	118.54	RCA	51.50	APO	179.22	V2	34.838
RC	218.823	GL	10.12	GP	8.74	ZAL	33.99	ZAP	163.37	ETS	148.38	ZAE	126.13	ETE	173.94	ZAC	104.21	ETC	281.28	CLP	165.80

PLANETOCENTRIC CONIC

C3	237.791	VHL	15.420	DLA	3.67	RAL	342.87	RAD	6571.4	VEL	18.950	PTH	3.07	VHP	20.827	DPA	-4.32	RAP	335.68	ECC	4.9134

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 24 17	2872.55	-28.32	87.13	245.70	90.16	9 12 10	2272.6	-27.99	78.48
90.00	21 16 52	5288.77	27.16	239.54	241.89	81.65	22 45 0	4688.8	25.72	231.17
100.00	9 47 21	2604.65	-29.89	67.42	245.69	90.38	10 30 46	2004.6	-29.52	58.63
100.00	22 36 29	5031.91	28.71	220.39	241.62	81.31	24 0 21	4431.9	27.21	211.91
110.00	10 59 32	2378.73	-34.17	50.20	245.63	91.02	11 39 11	1778.7	-33.65	41.00
110.00	23 40 48	4830.59	32.94	204.32	240.83	80.30	25 1 18	4230.6	31.25	195.50

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	6.4604	TRA	11.6754	TC3	-.0294	BAU	.0942	SGT	4966.5	SGR	286.5	SG3	83.3	ST	2731.8	SR	285.5	SS	933.5
RDE	.7682	RRA	.0806	RC3	.0033	FAU	-.01077	RRT	.5498	RRF	.5415	RTF	.9896	CRT	.8898	CRS	-.8847	CST	-.9999
FDE	1.2194	FRA	2.2622	FC3	.0392	BSP	16959	SGB	4974.8	R23	-.0045	R13	.9896	LSA	2898.0	MSA	130.5	SSA	7.1
BDE	6.5059	BRA	11.6756	BC3	.0296	FSP	-281	SG1	4969.0	SG2	239.2	THA	1.82	EL1	2743.6	EL2	129.7	ALF	5.32

LAUNCH DATE OCT 12 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAY 20 1971

HELIOCENTRIC CONIC DISTANCE 596.919

RL	149.30	LAL	-.00	LOL	18.26	VL	25.030	GAL	32.88	AZL	82.09	HCA	334.72	SMA	115.27	ECC	.59678	INC	7.9147	V1	29.845
RP	108.75	LAP	-3.37	LOP	353.19	VP	35.908	GAP	36.52	AZP	82.83	TAL	147.42	TAP	122.15	RCA	46.48	APO	184.06	V2	34.847
RC	220.349	GL	9.82	GP	8.63	ZAL	33.93	ZAP	161.84	ETS	151.88	ZAE	125.06	ETE	174.23	ZAC	103.83	ETC	281.47	CLP	163.96

PLANETOCENTRIC CONIC

C3	288.062	VHL	16.972	DLA	3.39	RAL	342.97	RAD	6571.7	VEL	20.233	PTH	3.15	VHP	22.654	DPA	-3.96	RAP	336.95	ECC	5.7408

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 26 48	2888.90	-28.31	88.32	247.60	89.56	9 14 57	2288.9	-28.08	79.67
90.00	21 15 9	5322.70	27.47	241.98	244.03	82.84	22 43 52	4722.7	26.19	233.54
100.00	9 49 44	2621.42	-29.89	68.66	247.61	89.73	10 33 25	2021.4	-29.61	59.87
100.00	22 34 55	5065.41	29.03	222.83	243.81	82.55	23 59 20	4465.4	27.70	214.28
110.00	11 1 36	2396.46	-34.18	51.59	247.61	90.20	11 41 33	1796.5	-33.78	42.37
110.00	23 39 31	4863.13	33.28	206.79	243.12	81.72	25 0 35	4263.1	31.78	197.89

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	6.9831	TRA	12.8891	TC3	.0541	BAU	.2093	SGT	4902.4	SGR	288.1	SG3	82.0	ST	2686.4	SR	283.3	SS	992.8
RDE	.8379	RRA	.1532	RC3	.0054	FAU	-.01507	RRT	.6319	RRF	.6246	RTF	.9921	CRT	.9025	CRS	-.8982	CST	-.9999
FDE	1.3114	FRA	2.4401	FC3	.0453	BSP	16805	SGB	4910.8	R23	-.0047	R13	.9921	LSA	2875.4	MSA	122.2	SSA	6.5
BDE	7.0332	BRA	12.7000	BC3	.0543	FSP	-277	SG1	4905.8	SG2	223.2	THA	2.13	EL1	2698.6	EL2	121.5	ALF	5.45

LAUNCH DATE OCT 13 1970 FLIGHT TIME 70.00 ARRIVAL DATE DEC 22 1970

HELIOCENTRIC CONIC DISTANCE 208.463

RL	149.25	LAL	-.00	LOL	19.24	VL	29.386	GAL	-15.27	AZL	87.89	HCA	95.47	SMA	145.07	ECC	.26481	INC	2.1149	V1	29.854
RP	107.51	LAP	2.11	LOP	114.71	VP	39.422	GAP	-3.30	AZP	90.20	TAL	248.69	TAP	344.16	RCA	106.65	APO	183.48	V2	35.249
RC	67.486	GL	8.05	GP	-23.08	ZAL	165.71	ZAP	64.00	ETS	8.64	ZAE	154.54	ETE	280.69	ZAC	77.15	ETC	258.40	CLP	-61.54

PLANETOCENTRIC CONIC

C3	55.879	VHL	7.475	DLA	-4.30	RAL	211.76	RAD	6569.0	VEL	13.313	PTH	2.43	VHP	5.018	DPA	-39.08	RAP	222.46	ECC	1.9196

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 36 40	2336.25	-22.32	49.34	89.43	107.89	1 15 36	1736.2	-19.67	41.67
90.00	11 30 38	5247.74	26.72	236.62	92.82	80.25	12 58 6	4647.7	25.10	228.33
100.00	1 55 59	2080.36	-23.66	30.04	88.95	108.82	2 30 40	1480.4	-20.88	22.35
100.00	12 54 0	4978.86	28.11	216.57	92.54	79.38	14 16 59	4378.9	26.35	208.20
110.00	2 59 36	1881.21	-27.27	13.46	87.49	111.46	3 30 57	1281.2	-24.10	5.72
110.00	14 6 52	4750.77	31.86	198.34	91.63	76.91	15 26 3	4150.8	29.74	189.78

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2469	TRA	-.6267	TC3	-.0120	BAU	.1923	SGT	517.8	SGR	509.6	SG3	201.7	ST	238.1	SR	233.4	SS	425.9
RDE	-.2877	RRA	-.3275	RC3	-.2571	FAU	.08648	RRT	.3274	RRF	.6232	RTF	.4681	CRT	-.5545	CRS	.8450	CST	-.9080
FDE	1.2472	FRA	-.9432	FC3	-1.3398	BSP	1163	SGB	726.5	R23	.1491	R13	.6665	LSA	517.0	MSA	157.7	SSA	20.4
BDE	.3791	BRA	.7071	BC3	.2574	FSP	-566	SG1	592.0	SG2	421.2	THA	43.60	EL1	294.0	EL2	157.3	ALF	136.03

LAUNCH DATE OCT 13 1970 FLIGHT TIME 72.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 215.055

RL	149.25	LAL	-.00	LOL	19.24	VL	29.374	GAL	-15.11	AZL	87.72	HCA	98.71	SMA	144.95	ECC	.26217	INC	2.2789	V1	29.854
RP	107.50	LAP	2.25	LOP	117.96	VP	39.416	GAP	-2.82	AZP	90.35	TAL	248.62	TAP	347.33	RCA	106.95	APO	182.96	V2	35.253
RC	69.600	GL	8.76	GP	-24.10	ZAL	165.23	ZAP	68.89	ETS	6.62	ZAE	153.88	ETE	272.78	ZAC	75.88	ETC	258.04	CLP	-66.76

PLANETOCENTRIC CONIC

C3	54.828	VHL	7.405	DLA	-3.66	RAL	212.08	RAD	6569.0	VEL	13.274	PTH	2.43	VHP	4.855	DPA	-39.33	RAP	219.80	ECC	1.9023

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 33 6	2351.71	-22.64	50.36	89.63	107.47	1 12 18	1751.7	-20.04	42.65
90.00	11 36 45	5222.92	26.42	234.86	92.49	79.42	13 3 48	4622.9	24.69	226.62
100.00	1 52 44	2094.84	-23.98	31.00	89.15	108.41	2 27 39	1494.8	-21.24	23.27
100.00	12 59 48	4955.03	27.80	214.86	92.19	78.54	14 22 23	4355.0	25.93	206.56
110.00	2 57 3	1893.48	-27.57	14.29	87.72	111.06	3 28 37	1293.5	-24.46	6.50
110.00	14 11 58	4729.14	31.52	196.75	91.22	76.03	15 30 48	4129.1	29.28	188.26

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2825	TRA	-.6729	TC3	-.0561	BAU	.2084	SGT	571.8	SGR	526.7	SG3	215.5	ST	268.9	SR	217.9	SS	450.2
RDE	-.2630	RRA	-.3304	RC3	-.2787	FAU	.09121	RRT	.4099	RRF	.6561	RTF	.5626	CRT	-.5535	CRS	.8327	CST	-.9172
FDE	1.3529	FRA	-.9799	FC3	-1.4402	BSP	1371	SGB	777.4	R23	.1511	R13	.7150	LSA	544.7	MSA	159.2	SSA	20.4
BDE	.3860	BRA	.7497	BC3	.2843	FSP	-614	SG1	654.3	SG2	419.8	THA	39.33	EL1	307.6	EL2	158.6	ALF	145.48

LAUNCH DATE OCT 13 1970 FLIGHT TIME 74.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 221.602

RL	149.25	LAL	-.00	LOL	19.24	VL	29.353	GAL	-14.95	AZL	87.55	HCA	101.95	SMA	144.76	ECC	.25964	INC	2.4459	V1	29.854
RP	107.49	LAP	2.39	LOP	121.21	VP	39.403	GAP	-1.98	AZP	90.51	TAL	248.42	TAP	350.37	RCA	107.18	APO	182.35	V2	35.255
RC	71.740	GL	9.50	GP	-25.07	ZAL	164.67	ZAP	73.78	ETS	4.53	ZAE	152.84	ETE	265.05	ZAC	74.64	ETC	257.67	CLP	-72.04

PLANETOCENTRIC CONIC

C3	53.826	VHL	7.337	DLA	-3.02	RAL	212.47	RAD	6568.9	VEL	13.236	PTH	2.42	VHP	4.728	DPA	-39.50	RAP	217.11	ECC	1.8858

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 29 54	2367.07	-22.95	51.38	89.91	107.05	1 9 21	1767.1	-20.40	43.64
90.00	11 43 6	5198.45	26.10	233.14	92.26	78.61	13 9 45	4598.5	24.27	224.95
100.00	1 49 50	2109.22	-24.28	31.96	89.45	107.99	2 24 59	1509.2	-21.60	24.19
100.00	13 5 51	4931.53	27.47	213.19	91.94	77.72	14 28 3	4331.5	25.50	204.95
110.00	2 54 51	1905.71	-27.87	15.12	88.05	110.65	3 26 36	1305.7	-24.80	7.28
110.00	14 17 20	4707.82	31.16	195.19	90.92	75.17	15 35 48	4107.8	28.81	186.78

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.3242	TRA	-.7235	TC3	-.1059	BAU	.2285	SGT	639.0	SGR	542.6	SG3	227.5	ST	304.8	SR	201.9	SS	472.4
RDE	-.2381	RRA	-.3306	RC3	-.2994	FAU	.09515	RRT	.4829	RRF	.6852	RTF	.6412	CRT	-.5500	CRS	.8181	CST	-.9259
FDE	1.4473	FRA	-1.0034	FC3	-1.5304	BSP	1616	SGB	838.3	R23	.1526	R13	.7562	LSA	575.2	MSA	159.9	SSA	20.3
BDE	.4022	BRA	.7954	BC3	.3176	FSP	-658	SG1	726.8	SG2	417.8	THA	35.61	EL1	331.0	EL2	155.3	ALF	153.80

LAUNCH DATE OCT 13 1970 FLIGHT TIME 76.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 228.104

RL	149.25	LAL	-.00	LOL	19.24	VL	29.324	GAL	-14.79	AZL	87.38	HCA	105.19	SMA	144.50	ECC	.25721	INC	2.6170	V1	29.854
RP	107.48	LAP	2.53	LOP	124.45	VP	39.384	GAP	-1.37	AZP	90.69	TAL	248.11	TAP	353.30	RCA	107.33	APO	181.67	V2	35.257
RC	73.903	GL	10.26	GP	-25.99	ZAL	164.03	ZAP	78.63	ETS	2.38	ZAE	151.46	ETE	257.77	ZAC	73.43	ETC	257.31	CLP	-77.33

PLANETOCENTRIC CONIC

C3	52.865	VHL	7.271	DLA	-2.38	RAL	212.94	RAD	6568.9	VEL	13.199	PTH	2.41	VHP	4.633	DPA	-39.60	RAP	214.44	ECC	1.8700

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 27 0	2382.51	-23.26	52.41	90.27	106.62	1 6 43	1782.5	-20.76	44.63
90.00	11 49 44	5174.09	25.76	231.44	92.12	77.82	13 15 58	4574.1	23.83	223.31
100.00	1 47 14	2123.69	-24.58	32.93	89.83	107.56	2 22 38	1523.7	-21.95	25.12
100.00	13 12 11	4908.15	27.12	211.54	91.78	76.92	14 33 59	4308.1	25.05	203.36
110.00	2 52 56	1918.02	-28.16	15.95	88.46	110.23	3 24 54	1318.0	-25.14	8.08
110.00	14 22 59	4686.58	30.78	193.65	90.71	74.33	15 41 5	4086.6	28.32	185.31

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.3718	TRA	-.7773	TC3	-.1608	BAU	.2522	SGT	718.6	SGR	556.4	SG3	237.3	ST	346.0	SR	185.6	SS	492.6
RDE	-.2133	RRA	-.3274	RC3	-.3186	FAU	.09809	RRT	.5438	RRF	.7103	RTF	.7032	CRT	-.5434	CRS	.8015	CST	-.9337
FDE	1.5292	FRA	-1.0107	FC3	-1.6063	BSP	1891	SGB	908.8	R23	.1548	R13	.7894	LSA	609.0	MSA	159.7	SSA	20.3
BDE	.4286	BRA	.8434	BC3	.3569	FSP	-695	SG1	808.5	SG2	415.0	THA	32.29	EL1	363.5	EL2	148.3	ALF	160.35

LAUNCH DATE OCT 13 1970 FLIGHT TIME 78.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 234.562

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RL  149.25 LAL   -.00 LOL  19.24 VL  29.289 GAL -14.63 AZL  87.21 HCA 108.44 SMA 144.17 ECC .25486 INC 2.7934 V1  29.854
RP  107.48 LAP   2.65 LOP 127.70 VP  39.358 GAP   -.79 AZP  90.88 TAL 247.68 TAP 356.83 RCA 107.43 APO 180.92 V2  35.258
RC  76.087 GL   11.05 GP  -26.86 ZAL 163.30 ZAP  83.37 ETS    .17 ZAE 149.78 ETE 251.12 ZAC  72.28 ETC 256.97 CLP -82.57
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PLANETOCENTRIC CONIC

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C3  51.939 VHL  7.207 DLA  -1.73 RAL 213.48 RAD 6568.9 VEL 13.164 PTH   2.40 VHP  4.569 DPA -39.64 RAP 211.87 ECC 1.8548
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 24 20	2398.23	-23.56	53.46	90.72	106.18	1 4 18	1798.2	-21.12	45.64
90.00	11 56 42	5149.60	25.40	229.74	92.06	77.05	13 22 32	4549.6	23.37	221.66
100.00	1 44 53	2138.44	-24.88	33.92	90.29	107.12	2 20 31	1538.4	-22.30	26.08
100.00	13 18 51	4884.63	26.74	209.90	91.70	76.13	14 40 16	4284.6	24.57	201.77
110.00	2 51 16	1930.60	-28.45	16.82	88.96	109.80	3 23 27	1330.6	-25.49	8.89
110.00	14 28 57	4665.23	30.38	192.12	90.58	73.51	15 46 42	4065.2	27.82	183.86

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .4250 TRA -.8335 TC3 -.2200 BAU  .2788    SGT  808.9 SGR  567.6 SG3  244.5      ST   392.2 SR   169.3 SS   510.2
 RDE -.1891 RRA -.3210 RC3 -.3359 FAU .09995    RRT  .5924 RRF  .7318 RTF  .7507      CRT -.5334 CRS  .7825 CST -.9405
 FDE 1.5950 FRA-1.0023 FC3-1.6660 BSP   2192    SGB  988.1 RZS  .1581 RIS  .8157      LSA  646.0 MSA  158.6 SSA   20.2
 BDE  .4652 BRA  .8932 BC3  .4015 FSP   -724    SG1  898.2 SG2  411.8 THA  29.29      EL1  403.9 EL2  139.1 ALF 165.24
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LAUNCH DATE OCT 13 1970 FLIGHT TIME 80.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 240.977

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RL  149.25 LAL   -.00 LOL  19.24 VL  29.247 GAL -14.47 AZL  87.02 HCA 111.68 SMA 143.79 ECC .25257 INC 2.9766 V1  29.854
RP  107.48 LAP   2.77 LOP 130.95 VP  39.328 GAP   -.24 AZP  91.10 TAL 247.15 TAP 358.83 RCA 107.47 APO 180.11 V2  35.259
RC  78.289 GL   11.88 GP  -27.68 ZAL 162.49 ZAP  87.97 ETS 357.91 ZAE 147.88 ETE 245.20 ZAC  71.18 ETC 256.65 CLP -87.70
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PLANETOCENTRIC CONIC

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C3  51.044 VHL  7.145 DLA  -1.07 RAL 214.09 RAD 6568.9 VEL 13.130 PTH   2.40 VHP  4.534 DPA -39.66 RAP 209.44 ECC 1.8401
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 21 51	2414.48	-23.86	54.56	91.26	105.71	1 2 5	1814.5	-21.48	46.70
90.00	12 4 3	5124.72	25.01	228.02	92.08	76.27	13 29 28	4524.7	22.88	220.00
100.00	1 42 42	2153.69	-25.19	34.96	90.84	106.66	2 18 35	1553.7	-22.66	27.07
100.00	13 25 53	4860.74	26.34	208.23	91.71	75.34	14 46 54	4260.7	24.07	200.17
110.00	2 49 48	1943.64	-28.75	17.71	89.54	109.34	3 22 12	1343.6	-25.84	9.74
110.00	14 38 16	4643.56	29.95	190.58	90.54	72.69	15 52 40	4043.6	27.29	182.40

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .4835 TRA -.8912 TC3 -.2826 BAU  .3075    SGT  908.0 SGR  575.7 SG3  249.1      ST   443.3 SR   153.2 SS   525.5
 RDE -.1656 RRA -.3111 RC3 -.3510 FAU .10070    RRT  .6302 RRF  .7501 RTF  .7863      CRT -.5192 CRS  .7609 CST -.9463
 FDE 1.6441 FRA -.9789 FC3-1.7080 BSP   2518    SGB 1075.1 RZS  .1630 RIS  .8361      LSA  686.4 MSA  156.7 SSA   20.1
 BDE  .5111 BRA  .9440 BC3  .4506 FSP   -746    SG1  994.7 SG2  408.0 THA  26.59      EL1  451.0 EL2  128.7 ALF 168.92
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LAUNCH DATE OCT 13 1970 FLIGHT TIME 82.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 247.351

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RL  149.25 LAL   -.00 LOL  19.24 VL  29.200 GAL -14.31 AZL  86.83 HCA 114.92 SMA 143.36 ECC .25033 INC 3.1682 V1  29.854
RP  107.48 LAP   2.87 LOP 134.20 VP  39.292 GAP    .29 AZP  91.34 TAL 246.53 TAP   1.45 RCA 107.47 APO 179.24 V2  35.258
RC  80.507 GL   12.75 GP  -28.46 ZAL 161.60 ZAP  92.37 ETS 355.61 ZAE 145.81 ETE 240.02 ZAC  70.14 ETC 256.35 CLP -92.69
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PLANETOCENTRIC CONIC

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C3  50.181 VHL  7.084 DLA   -.38 RAL 214.77 RAD 6568.8 VEL 13.097 PTH   2.39 VHP  4.525 DPA -39.68 RAP 207.20 ECC 1.8259
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 19 28	2431.51	-24.17	55.71	91.89	105.21	1 0 0	1831.5	-21.85	47.81
90.00	12 11 51	5099.20	24.59	226.27	92.18	75.49	13 36 50	4499.2	22.35	218.31
100.00	1 40 38	2169.70	-25.49	36.05	91.48	106.16	2 16 48	1569.7	-23.03	28.11
100.00	13 33 22	4836.24	25.91	206.54	91.79	74.55	14 53 58	4236.2	23.54	198.55
110.00	2 48 28	1957.35	-29.05	18.66	90.22	108.86	3 21 6	1357.4	-26.21	10.64
110.00	14 42 1	4621.35	29.49	189.01	90.57	71.87	15 59 2	4021.4	26.73	180.91

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .5472 TRA -.9492 TC3 -.3477 BAU  .3377    SGT 1014.0 SGR  580.8 SG3  251.1      ST   499.2 SR   137.2 SS   538.5
 RDE -.1429 RRA -.2979 RC3 -.3638 FAU .10041    RRT  .6588 RRF  .7658 RTF  .8127      CRT -.5003 CRS  .7360 CST -.9513
 FDE 1.6769 FRA -.9419 FC3-1.7323 BSP   2859    SGB 1168.4 RZS  .1696 RIS  .8517      LSA  730.6 MSA  154.0 SSA   19.9
 BDE  .5655 BRA  .9949 BC3  .5033 FSP   -759    SG1 1096.4 SG2  404.0 THA  24.15      EL1  504.1 EL2  117.6 ALF 171.72
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LAUNCH DATE OCT 13 1970 FLIGHT TIME 84.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 253.687

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RL  149.25 LAL   -.00 LOL  19.24 VL  29.147 GAL -14.14 AZL  86.63 HCA 118.17 SMA 142.88 ECC .24813 INC 3.3702 V1  29.854
RP  107.48 LAP   2.97 LOP 137.45 VP  39.252 GAP    .79 AZP  91.59 TAL 245.82 TAP   3.99 RCA 107.43 APO 178.34 V2  35.257
RC  82.739 GL   13.68 GP  -29.21 ZAL 160.62 ZAP  96.54 ETS 353.26 ZAE 143.64 ETE 235.56 ZAC  69.14 ETC 256.09 CLP -97.49
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PLANETOCENTRIC CONIC

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C3  49.348 VHL  7.025 DLA    .34 RAL 215.52 RAD 6568.8 VEL 13.066 PTH   2.38 VHP  4.539 DPA -39.75 RAP 205.18 ECC 1.8121
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 17 8	2449.62	-24.49	56.94	92.61	104.68	0 57 57	1849.6	-22.24	48.99
90.00	12 20 10	5072.73	24.12	224.47	92.35	74.70	13 44 42	4472.7	21.79	216.58
100.00	1 38 37	2186.74	-25.81	37.21	92.21	105.63	2 15 4	1586.7	-23.42	29.23
100.00	13 41 21	4810.85	25.44	204.80	91.94	73.75	15 1 32	4210.9	22.97	196.88
110.00	2 47 14	1971.99	-29.37	19.68	90.99	108.33	3 20 6	1372.0	-26.59	11.61
110.00	14 49 14	4598.36	28.99	187.41	90.68	71.04	16 5 52	3998.4	26.13	179.40

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .6173 TRA-1.0055 TC3 -.4135 BAU  .3663    SGT 1124.1 SGR  575.5 SG3  248.9      ST   560.6 SR   117.6 SS   556.9
 RDE -.1162 RRA -.2769 RC3 -.3706 FAU .09796    RRT  .6803 RRF  .7748 RTF  .8306      CRT -.4670 CRS  .7031 CST -.9540
 FDE 1.7190 FRA -.8682 FC3-1.7186 BSP   3130    SGB 1262.8 RZS  .1759 RIS  .8607      LSA  784.2 MSA  151.4 SSA   19.4
 BDE  .6281 BRA 1.0429 BC3  .5553 FSP   -713    SG1 1199.3 SG2  395.3 THA  21.67      EL1  563.4 EL2  103.4 ALF 174.21
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LAUNCH DATE OCT 13 1970 FLIGHT TIME 86.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 259.984

RL	149.25	LAL	-.00	LOL	19.24	VL	29.090	GAL	-13.97	AZL	86.42	HCA	121.41	SMA	142.37	ECC	.24598	INC	3.5849
RP	107.49	LAP	3.06	LOP	140.70	VP	39.208	GAP	1.27	AZP	91.87	TAL	245.04	TAP	6.45	RCA	107.35	APO	177.40
RC	84.985	GL	14.67	GP	-29.97	ZAL	159.56	ZAP	100.45	ETS	350.86	ZAE	141.43	ETE	231.73	ZAC	68.18	ETC	255.85

V1	29.854	V2	35.255	CLP	-102.09														

PLANETOCENTRIC CONIC

C3	48.559	VHL	6.968	DLA	1.10	RAL	216.34	RAD	6568.8	VEL	13.035	PTH	2.38	VHP	4.576	DPA	-39.88	RAP	203.37
ECC	1.7992																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 14 44	2469.22	-24.82	58.28	93.43	104.08	0 55 54	1869.2	-22.64	50.29
90.00	12 29 4	5045.08	23.61	222.60	92.60	73.90	13 53 9	4445.1	21.18	214.78
100.00	1 36 36	2205.20	-26.14	38.48	93.05	105.04	2 13 21	1605.2	-23.82	30.45
100.00	13 49 54	4784.34	24.92	203.00	92.18	72.94	15 9 38	4184.3	22.35	195.15
110.00	2 46 1	1987.91	-29.71	20.80	91.87	107.74	3 19 9	1387.9	-27.00	12.67
110.00	14 56 58	4574.39	28.45	185.75	90.86	70.19	16 13 13	3974.4	25.48	177.83

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.6899	TRA	-1.0821	TC3	-.4812	BAU	.3984	SGT	1238.7	SGR	578.0	SG3	247.0	ST	625.2	SR	103.8	SS	562.4
RDE	-.0972	RRA	-.2603	RC3	-.3809	FAU	.09642	RRT	.6952	RRF	.7893	RTF	.8459	CRT	-.4345	CRS	.6652	CST	-.9584
FDE	1.7103	FRA	-.8236	FC3	-1.7190	BSP	3532	SGB	1367.0	R23	.1874	R13	.8711	LSA	834.1	MSA	147.4	SSA	19.3
BDE	.6967	BRA	1.0935	BC3	.6138	FSP	-739	SG1	1309.2	SG2	393.1	THA	19.83	EL1	626.8	EL2	93.2	ALF	175.78

LAUNCH DATE OCT 13 1970 FLIGHT TIME 88.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 266.245

RL	149.25	LAL	-.00	LOL	19.24	VL	29.029	GAL	-13.80	AZL	86.19	HCA	124.65	SMA	141.84	ECC	.24387	INC	3.8148
RP	107.50	LAP	3.14	LOP	143.95	VP	39.160	GAP	1.73	AZP	92.17	TAL	244.18	TAP	8.83	RCA	107.25	APO	176.42
RC	87.241	GL	15.74	GP	-30.74	ZAL	158.40	ZAP	104.09	ETS	348.41	ZAE	139.21	ETE	228.48	ZAC	67.23	ETC	255.64
V1	29.854	V2	35.253	CLP	-106.46														

PLANETOCENTRIC CONIC

C3	47.816	VHL	6.915	DLA	1.92	RAL	217.23	RAD	6568.8	VEL	13.007	PTH	2.37	VHP	4.632	DPA	-40.12	RAP	201.79
ECC	1.7869																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 12 14	2490.70	-25.17	59.76	94.37	103.42	0 53 45	1890.7	-23.07	51.71
90.00	12 38 41	5015.89	23.05	220.65	92.94	73.08	14 2 17	4415.9	20.51	212.90
100.00	1 34 28	2225.45	-26.49	39.89	94.01	104.38	2 11 33	1625.5	-24.26	31.80
100.00	13 59 8	4756.37	24.35	201.12	92.50	72.10	15 18 25	4156.4	21.67	193.35
110.00	2 44 46	2005.44	-30.06	22.04	92.86	107.09	3 18 11	1405.4	-27.43	13.84
110.00	15 5 30	4549.15	27.85	184.03	91.13	69.33	16 21 9	3949.2	24.78	176.20

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.7076	TRA	-1.1166	TC3	-.5489	BAU	.4298	SGT	1355.7	SGR	576.2	SG3	242.8	ST	694.4	SR	89.0	SS	568.7
RDE	-.0772	RRA	-.2399	RC3	-.3883	FAU	.09383	RRT	.7055	RRF	.8013	RTF	.8570	CRT	-.3847	CRS	.6132	CST	-.9617
FDE	1.6974	FRA	-.7652	FC3	-1.6988	BSP	3926	SGB	1473.0	R23	.1999	R13	.8783	LSA	890.3	MSA	143.2	SSA	19.1
BDE	.7715	BRA	1.1421	BC3	.6724	FSP	-744	SG1	1420.6	SG2	389.7	THA	18.10	EL1	695.2	EL2	82.0	ALF	177.14

LAUNCH DATE OCT 13 1970 FLIGHT TIME 90.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 272.471

RL	149.25	LAL	-.00	LOL	19.24	VL	28.964	GAL	-13.62	AZL	85.94	HCA	127.89	SMA	141.27	ECC	.24180	INC	4.0635
RP	107.51	LAP	3.21	LOP	147.21	VP	39.109	GAP	2.16	AZP	92.50	TAL	243.25	TAP	11.14	RCA	107.11	APO	175.43
RC	89.506	GL	16.89	GP	-31.57	ZAL	157.14	ZAP	107.43	ETS	345.88	ZAE	136.99	ETE	225.74	ZAC	66.27	ETC	255.45
V1	29.854	V2	35.249	CLP	-110.59														

PLANETOCENTRIC CONIC

C3	47.131	VHL	6.865	DLA	2.80	RAL	218.19	RAD	6568.8	VEL	12.981	PTH	2.37	VHP	4.707	DPA	-40.50	RAP	200.40
ECC	1.7757																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 9 31	2514.58	-25.54	61.41	95.44	102.67	0 51 25	1914.6	-23.54	53.31
90.00	12 49 8	4984.78	22.42	218.59	93.37	72.23	14 12 13	4384.8	19.78	210.91
100.00	1 32 10	2248.00	-26.86	41.46	95.10	103.63	2 9 38	1648.0	-24.72	33.31
100.00	14 9 10	4726.60	23.71	199.14	92.90	71.24	15 27 57	4126.6	20.93	191.45
110.00	2 43 24	2025.01	-30.45	23.44	94.00	106.35	3 17 9	1425.0	-27.91	15.16
110.00	15 14 25	4522.35	27.19	182.22	91.49	68.44	16 29 47	3922.4	24.02	174.49

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.8507	TRA	-1.1685	TC3	-.6158	BAU	.4604	SGT	1473.9	SGR	571.4	SG3	236.8	ST	768.4	SR	73.8	SS	575.1
RDE	-.0567	RRA	-.2165	RC3	-.3932	FAU	.09047	RRT	.7119	RRF	.8118	RTF	.8650	CRT	-.3050	CRS	.5340	CST	-.9645
FDE	1.6793	FRA	-.6983	FC3	-1.6619	BSP	4317	SGB	1580.8	R23	.2139	R13	.8834	LSA	952.4	MSA	138.9	SSA	18.7
BDE	.8526	BRA	1.1884	BC3	.7307	FSP	-737	SG1	1533.0	SG2	385.8	THA	16.50	EL1	768.8	EL2	70.3	ALF	178.31

LAUNCH DATE OCT 13 1970 FLIGHT TIME 92.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 278.665

RL	149.25	LAL	-.00	LOL	19.24	VL	28.897	GAL	-13.44	AZL	85.66	HCA	131.13	SMA	140.69	ECC	.23978	INC	4.3350
RP	107.52	LAP	3.26	LOP	150.46	VP	39.056	GAP	2.58	AZP	92.85	TAL	242.26	TAP	13.39	RCA	106.95	APO	174.42
RC	91.778	GL	18.15	GP	-32.48	ZAL	155.76	ZAP	110.46	ETS	343.27	ZAE	134.80	ETE	223.45	ZAC	65.27	ETC	255.26
V1	29.854	V2	35.245	CLP	-114.48														

PLANETOCENTRIC CONIC

C3	46.521	VHL	6.821	DLA	3.77	RAL	219.24	RAD	6568.7	VEL	12.957	PTH	2.36	VHP	4.801	DPA	-41.03	RAP	199.19
ECC	1.7656																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 6 28	2541.48	-25.93	63.28	96.66	101.81	0 48 49	1941.5	-24.04	55.12
90.00	13 0 33	4951.35	21.71	216.40	93.90	71.36	14 23 5	4351.3	18.96	208.80
100.00	1 29 34	2273.42	-27.26	43.25	96.34	102.77	2 7 28	1673.4	-25.23	35.03
100.00	14 20 8	4694.64	23.00	197.04	93.41	70.36	15 38 23	4094.6	20.11	189.43
110.00	2 41 52	2047.16	-30.86	25.03	95.30	105.49	3 15 59	1447.2	-28.43	16.68
110.00	15 24 20	4493.67	26.46	180.31	91.94	67.53	16 39 14	3893.7	23.18	172.69

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.9406	TRA	-1.2168	TC3	-.6809	BAU	.4899	SGT	1592.6	SGR	564.2	SG3	229.2	ST	848.2	SR	58.8	SS	582.0
RDE	-.0354	RRA	-.1902	RC3	-.3960	FAU	.08651	RRT	.7148	RRF	.8211	RTF	.8708	CRT	-.1658	CRS	.3969	CST	-.9669
FDE	1.6579	FRA	-.6257	FC3	-1.6098	BSP	4696	SGB	1689.6	R23	.2294	R13	.8868	LSA	1021.4	MSA	134.7	SSA	18.1
BDE	.9412	BRA	1.2316	BC3	.7876	FSP	-720	SG1	1645.9	SG2	381.8	THA	15.04	EL1	848.3	EL2	57.9	ALF	179.34

LAUNCH DATE OCT 13 1970 FLIGHT TIME 94.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 284.828

RL	149.25	LAL	-.00	LOL	19.24	VL	28.827	GAL	-13.24	AZL	85.37	HCA	134.37	SMA	140.09	ECC	.23779	INC	4.6347	V1	29.854
RP	107.53	LAP	3.31	LOP	153.71	VP	39.000	GAP	2.98	AZP	93.24	TAL	241.21	TAP	15.58	RCA	106.77	APO	173.40	V2	35.240
RC	94.056	GL	19.53	GP	-33.49	ZAL	154.26	ZAP	113.17	ETS	340.54	ZAE	132.63	ETE	221.55	ZAC	64.20	ETC	255.09	CLP	-118.15

PLANETOCENTRIC CONIC

C3	46.007	VHL	6.783	DLA	4.84	RAL	220.38	RAD	6568.7	VEL	12.937	PTH	2.36	VHP	4.913	DPA	-41.75	RAP	198.11	ECC	1.7572

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 2 57	2572.18	-26.33	65.44	98.07	100.80	0 45 49	1972.2	-24.58	57.21
90.00	13 13 9	4915.08	20.90	214.04	94.55	70.45	14 35 4	4315.1	18.04	206.53
100.00	1 26 34	2302.47	-27.68	45.30	97.77	101.76	2 4 57	1702.5	-25.78	37.02
100.00	14 32 13	4660.02	22.19	194.78	94.04	69.44	15 49 53	4060.0	19.19	187.27
110.00	2 40 2	2072.54	-31.31	26.87	96.79	104.48	3 14 35	1472.5	-29.00	18.43
110.00	15 35 14	4462.72	25.64	178.28	92.52	66.58	16 49 37	3862.7	22.25	170.77

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.0381	TRA	-1.2613	TC3	-.7433	BAU	.5183	SGT	1711.4	SGR	555.7	SG3	220.5	ST	934.2	SR	45.6
RDE	-.0135	RRA	-.1615	RC3	-.3969	FAU	.08213	RRT	.7144	RRF	.8299	RTF	.8750	CRT	.0868	CRS	.1409
FDE	1.6327	FRA	-.5508	FC3	-1.5455	BSP	5076	SGB	1799.4	R23	.2464	R13	.8892	LSA	1097.4	MSA	130.8
BDE	1.0382	BRA	1.2716	BC3	.8426	FSP	-698	SG1	1759.1	SG2	378.3	THA	13.70	EL1	934.2	EL2	45.4

SS	589.0	CST	-.9690	SSA	17.4
ALF	.24				

LAUNCH DATE OCT 13 1970 FLIGHT TIME 96.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 290.961

RL	149.25	LAL	-.00	LOL	19.24	VL	28.755	GAL	-13.05	AZL	85.03	HCA	137.60	SMA	139.47	ECC	.23586	INC	4.9694	V1	29.854
RP	107.55	LAP	3.35	LOP	156.96	VP	38.941	GAP	3.35	AZP	93.67	TAL	240.11	TAP	17.72	RCA	106.58	APO	172.37	V2	35.235
RC	96.339	GL	21.05	GP	-34.66	ZAL	152.60	ZAP	115.54	ETS	337.68	ZAE	130.47	ETE	220.00	ZAC	63.02	ETC	254.90	CLP	-121.61

PLANETOCENTRIC CONIC

C3	45.621	VHL	6.754	DLA	6.04	RAL	221.62	RAD	6568.7	VEL	12.922	PTH	2.36	VHP	5.045	DPA	-42.67	RAP	197.13	ECC	1.7508

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 54 53	2607.66	-26.76	67.95	99.69	99.61	24 38 21	2007.7	-25.16	59.65
90.00	13 27 9	4875.37	19.97	211.50	95.35	69.50	14 48 24	4275.4	17.00	204.08
100.00	1 23 1	2336.06	-28.12	47.70	99.41	100.57	2 1 57	1736.1	-26.38	39.33
100.00	14 45 38	4622.20	21.26	192.35	94.82	68.48	16 2 40	4022.2	18.15	184.94
110.00	2 37 49	2101.97	-31.79	29.03	98.52	103.28	3 12 51	1502.0	-29.64	20.49
110.00	15 47 19	4429.05	24.71	176.11	93.23	65.59	17 1 8	3829.1	21.21	168.71

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.1450	TRA	-1.3015	TC3	-.8022	BAU	.5456	SGT	1830.4	SGR	546.1	SG3	210.9	ST	1027.3	SR	37.8
RDE	.0091	RRA	-.1303	RC3	-.3958	FAU	.07742	RRT	.7106	RRF	.8378	RTF	.8782	CRT	.4935	CRS	-.3012
FDE	1.6051	FRA	-.4753	FC3	-1.4692	BSP	5457	SGB	1910.1	R23	.2646	R13	.8908	LSA	1181.5	MSA	127.4
BDE	1.1450	BRA	1.3080	BC3	.8946	FSP	-671	SG1	1872.8	SG2	375.6	THA	12.48	EL1	1027.5	EL2	32.9

SS	596.4	CST	-.9710	SSA	16.5
ALF	1.04				

LAUNCH DATE OCT 13 1970 FLIGHT TIME 98.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 297.066

RL	149.25	LAL	-.00	LOL	19.24	VL	28.680	GAL	-12.84	AZL	84.65	HCA	140.84	SMA	138.85	ECC	.23397	INC	5.3481	V1	29.854
RP	107.57	LAP	3.37	LOP	160.20	VP	38.881	GAP	3.72	AZP	94.15	TAL	238.96	TAP	19.80	RCA	106.36	APO	171.34	V2	35.229
RC	98.624	GL	22.76	GP	-36.02	ZAL	150.77	ZAP	117.55	ETS	334.64	ZAE	128.29	ETE	218.74	ZAC	61.69	ETC	254.71	CLP	-124.88

PLANETOCENTRIC CONIC

C3	45.405	VHL	6.738	DLA	7.38	RAL	222.97	RAD	6568.7	VEL	12.914	PTH	2.35	VHP	5.199	DPA	-43.84	RAP	196.17	ECC	1.7472

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 49 55	2649.17	-27.20	70.91	101.57	98.19	24 34 4	2049.2	-25.79	62.52
90.00	13 42 53	4831.48	18.90	208.72	96.33	68.51	15 3 24	4231.5	15.82	201.41
100.00	1 18 44	2375.39	-28.58	50.53	101.33	99.15	1 58 19	1775.4	-27.02	42.08
100.00	15 0 41	4580.49	20.20	189.71	95.78	67.48	16 17 1	3980.5	16.97	182.41
110.00	2 35 4	2136.50	-32.30	31.60	100.54	101.85	3 10 40	1536.5	-30.33	22.93
110.00	16 0 50	4392.14	23.65	173.76	94.12	64.57	17 14 2	3792.1	20.03	166.49

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.2662	TRA	-1.3346	TC3	-.8542	BAU	.5703	SGT	1947.8	SGR	534.1	SG3	200.1	ST	1130.6	SR	40.9
RDE	.0339	RRA	-.0947	RC3	-.3911	FAU	.07217	RRT	.7024	RRF	.8439	RTF	.8801	CRT	.8633	CRS	-.7624
FDE	1.5818	FRA	-.3942	FC3	-1.3760	BSP	5781	SGB	2019.7	R23	.2837	R13	.8914	LSA	1277.4	MSA	125.2
BDE	1.2667	BRA	1.3379	BC3	.9395	FSP	-630	SG1	1984.9	SG2	373.1	THA	11.31	EL1	1131.2	EL2	20.6

SS	606.4	CST	-.9729	SSA	15.3
ALF	1.79				

LAUNCH DATE OCT 13 1970 FLIGHT TIME 100.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 303.143

RL	149.25	LAL	-.00	LOL	19.24	VL	28.605	GAL	-12.63	AZL	84.22	HCA	144.07	SMA	138.22	ECC	.23214	INC	5.7831	V1	29.854
RP	107.59	LAP	3.39	LOP	163.45	VP	38.819	GAP	4.06	AZP	94.69	TAL	237.77	TAP	21.83	RCA	106.14	APO	170.31	V2	35.222
RC	100.910	GL	24.67	GP	-37.60	ZAL	148.74	ZAP	119.18	ETS	331.38	ZAE	126.07	ETE	217.73	ZAC	60.17	ETC	254.47	CLP	-127.98

PLANETOCENTRIC CONIC

C3	45.422	VHL	6.740	DLA	8.91	RAL	224.44	RAD	6568.7	VEL	12.915	PTH	2.35	VHP	5.381	DPA	-45.26	RAP	195.16	ECC	1.7475

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 43 49	2698.37	-27.63	74.44	103.79	96.47	24 28 47	2098.4	-26.44	65.98
90.00	14 0 45	4782.46	17.65	205.67	97.85	67.49	15 20 27	4182.5	14.45	198.46
100.00	1 13 26	2422.01	-29.04	53.92	103.59	97.42	1 53 48	1822.0	-27.71	45.37
100.00	15 17 45	4534.06	18.96	186.82	96.97	66.45	16 33 19	3934.1	15.61	179.63
110.00	2 31 34	2177.48	-32.83	34.68	102.91	100.10	3 7 52	1577.5	-31.09	25.89
110.00	16 16 6	4351.35	22.44	171.22	95.23	63.51	17 28 37	3751.3	18.70	164.08

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.3992	TRA	-1.3659	TC3	-.9024	BAU	.5961	SGT	2067.9	SGR	525.3	SG3	189.1	ST	1241.2	SR	52.6
RDE	.0563	RRA	-.0587	RC3	-.3863	FAU	.06721	RRT	.6901	RRF	.8492	RTF	.8827	CRT	.9631	CRS	-.9380
FDE	1.5467	FRA	-.3264	FC3	-1.2811	BSP	6215	SGB	2133.5	R23	.3030	R13	.8929	LSA	1379.8	MSA	122.7
BDE	1.4003	BRA	1.3671	BC3	.9816	FSP	-610	SG1	2100.4	SG2	374.3	THA	10.27	EL1	1242.2	EL2	14.2

SS	613.0	CST	-.9750	SSA	14.2
ALF	2.34				

LAUNCH DATE OCT 13 1970 FLIGHT TIME 102.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 309.195

```
RL  149.25 LAL   -.00 LOL  19.24 VL  28.528 GAL -12.41 AZL  83.71 HCA 147.30 SMA 137.59 ECC .23036 INC 6.2913 V1  29.854
RP  107.61 LAP   3.39 LOP 166.70 VP  38.755 GAP   4.39 AZP  95.30 TAL 236.53 TAP  23.82 RCA 105.90 APO 169.29 V2  35.215
RC 103.196 GL   26.83 GP  -39.48 ZAL 146.46 ZAP 120.39 ETS 327.88 ZAE 123.76 ETE 216.94 ZAC  58.38 ETC 254.19 CLP-130.95
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PLANETOCENTRIC CONIC

```
C3  45.762 VHL  6.765 DLA  10.66 RAL 226.07 RAD 6568.7 VEL 12.928 PTH   2.36 VHP  5.597 DPA -46.96 RAP 194.00 ECC 1.7531
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 36 12	2757.52	-28.01	78.73	106.41	94.35	24 22 9	2157.5	-27.11	70.18
90.00	14 21 20	4727.06	16.17	202.27	99.09	66.44	15 40 7	4127.1	12.85	195.17
100.00	1 6 47	2478.02	-29.46	58.03	106.27	95.30	1 48 5	1878.0	-28.42	49.39
100.00	15 37 21	4481.79	17.51	183.62	98.47	65.38	16 52 3	3881.8	14.04	176.54
110.00	2 27 6	2226.72	-33.36	38.42	105.74	97.94	3 4 13	1626.7	-31.90	29.50
110.00	16 33 32	4305.86	21.03	168.44	96.64	62.41	17 45 18	3705.9	17.17	161.44

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.5554 TRA-1.3882 TC3 -.9389 BAU  .6188   SGT 2186.5 SGR  513.6 SG3  176.9     ST  1365.9 SR    69.9 SS   622.8
 RDE  .0804 RRA -.0183 RC3 -.3761 FAU .06171   RRT  .6706 RRF  .8503 RTF  .8846    CRT  .9614 CRS -.9832 CST -.9770
 FDE 1.5175 FRA -.2535 FC3-1.1674 BSP   6589   SGB 2246.0 R23  .3220 R13  .8938    LSA 1497.8 MSA  121.9 SSA   12.7
 BDE 1.5575 BRA 1.3883 BC3 1.0115 FSP   -574   SG1 2214.2 SG2  376.2 THA   9.22    EL1 1367.6 EL2   19.2 ALF   2.82
```

LAUNCH DATE OCT 13 1970 FLIGHT TIME 104.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 315.222

```
RL  149.25 LAL   -.00 LOL  19.24 VL  28.450 GAL -12.19 AZL  83.10 HCA 150.52 SMA 136.96 ECC .22864 INC 6.8971 V1  29.854
RP  107.64 LAP   3.39 LOP 169.94 VP  38.691 GAP   4.71 AZP  96.01 TAL 235.25 TAP  25.77 RCA 105.65 APO 168.28 V2  35.207
RC 105.482 GL   29.30 GP  -41.71 ZAL 143.88 ZAP 121.13 ETS 324.08 ZAE 121.30 ETE 216.29 ZAC  56.27 ETC 253.82 CLP-133.83
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PLANETOCENTRIC CONIC

```
C3  46.566 VHL  6.824 DLA  12.69 RAL 227.88 RAD 6568.7 VEL 12.959 PTH   2.36 VHP  5.860 DPA -48.99 RAP 192.54 ECC 1.7664
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 26 29	2829.77	-28.27	84.00	109.55	91.72	24 13 39	2229.8	-27.73	75.37
90.00	14 45 29	4863.55	14.41	198.45	101.05	65.36	16 3 12	4063.5	10.96	191.46
100.00	0 58 19	2546.33	-29.78	63.08	109.48	92.66	1 40 45	1946.3	-29.10	54.35
100.00	16 0 16	4422.22	15.78	180.04	100.38	64.28	17 13 59	3822.2	12.19	173.08
110.00	2 21 18	2286.64	-33.83	43.04	109.15	95.25	2 59 25	1686.6	-32.73	33.97
110.00	16 53 46	4254.69	19.38	165.38	98.44	61.28	18 4 41	3654.7	15.40	158.53

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.7406 TRA-1.4022 TC3 -.9615 BAU  .6394   SGT 2305.3 SGR  500.9 SG3  164.0     ST  1506.1 SR    88.2 SS   633.1
 RDE  .1031 RRA  .0318 RC3 -.3609 FAU .05596   RRT  .6407 RRF  .8451 RTF  .8869    CRT  .9343 CRS -.9823 CST -.9791
 FDE 1.4873 FRA -.1841 FC3-1.0405 BSP   6959   SGB 2359.0 R23  .3397 R13  .8951    LSA 1631.6 MSA  122.0 SSA   11.1
 BDE 1.7436 BRA 1.4026 BC3 1.0270 FSP   -536   SG1 2328.1 SG2  380.8 THA   8.15    EL1 1508.4 EL2   31.4 ALF   3.13
```

LAUNCH DATE OCT 13 1970 FLIGHT TIME 106.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 321.224

```
RL  149.25 LAL   -.00 LOL  19.24 VL  28.371 GAL -11.96 AZL  82.36 HCA 153.74 SMA 136.33 ECC .22698 INC 7.6364 V1  29.854
RP  107.66 LAP   3.37 LOP 173.19 VP  38.625 GAP   5.02 AZP  96.86 TAL 233.93 TAP  27.67 RCA 105.39 APO 167.28 V2  35.198
RC 107.765 GL   32.14 GP  -44.37 ZAL 140.94 ZAP 121.33 ETS 319.94 ZAE 118.62 ETE 215.72 ZAC  53.74 ETC 253.31 CLP-136.67
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PLANETOCENTRIC CONIC

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C3  48.058 VHL  6.932 DLA  15.04 RAL 229.92 RAD 6568.8 VEL 13.016 PTH   2.37 VHP  6.188 DPA -51.34 RAP 190.56 ECC 1.7909
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 13 48	2919.73	-28.28	90.58	113.32	88.43	24 2 28	2319.7	-28.20	81.91
90.00	15 14 26	4589.39	12.26	194.06	103.61	64.27	16 30 55	3989.4	8.70	187.19
100.00	0 47 14	2631.09	-29.89	69.38	113.36	89.35	1 31 5	2031.1	-29.66	60.59
100.00	16 27 37	4353.26	13.70	175.97	102.88	63.17	17 40 10	3753.3	9.99	169.15
110.00	2 13 41	2360.62	-34.14	48.79	113.31	91.86	2 53 2	1760.6	-35.50	39.60
110.00	17 17 39	4196.49	17.44	161.99	100.78	60.13	18 27 36	3596.5	13.34	155.28

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.9654 TRA-1.4064 TC3 -.9654 BAU  .6573   SGT 2424.6 SGR  486.0 SG3  150.0     ST  1664.5 SR   104.1 SS   643.9
 RDE  .1217 RRA  .0885 RC3 -.3386 FAU .04995   RRT  .5945 RRF  .8283 RTF  .8899    CRT  .8990 CRS -.9644 CST -.9813
 FDE 1.4561 FRA -.1183 FC3 -.8998 BSP   7343   SGB 2472.9 R23  .3548 R13  .8970    LSA 1783.5 MSA  123.2 SSA    9.5
 BDE 1.9691 BRA 1.4091 BC3 1.0231 FSP   -496   SG1 2442.2 SG2  388.0 THA   6.97    EL1 1667.1 EL2   45.5 ALF   3.22
```

LAUNCH DATE OCT 13 1970 FLIGHT TIME 108.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 327.201

```
RL  149.25 LAL   -.00 LOL  19.24 VL  28.291 GAL -11.72 AZL  81.43 HCA 156.95 SMA 135.70 ECC .22537 INC 8.5654 V1  29.854
RP  107.69 LAP   3.34 LOP 176.43 VP  38.558 GAP   5.31 AZP  97.89 TAL 232.57 TAP  29.53 RCA 105.12 APO 166.29 V2  35.189
RC 110.046 GL   35.44 GP  -47.56 ZAL 137.55 ZAP 120.91 ETS 315.38 ZAE 115.62 ETE 215.11 ZAC  50.69 ETC 252.59 CLP-139.57
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PLANETOCENTRIC CONIC

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C3  50.623 VHL  7.115 DLA  17.79 RAL 232.25 RAD 6568.9 VEL 13.114 PTH   2.39 VHP  6.612 DPA -54.04 RAP 187.73 ECC 1.8331
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 56 38	3034.65	-27.78	98.94	117.86	84.26	23 47 12	2434.6	-28.28	90.31
90.00	15 50 15	4500.42	9.58	188.90	107.06	63.22	17 5 15	3900.4	5.91	182.14
100.00	0 32 21	2738.65	-29.53	77.36	118.05	85.17	1 17 59	2138.7	-29.89	68.57
100.00	17 1 8	4271.65	11.15	171.26	106.23	62.08	18 12 20	3671.7	7.32	164.56
110.00	2 3 29	2453.51	-34.11	56.04	118.39	87.57	2 44 23	1853.5	-34.07	46.80
110.00	17 46 30	4129.56	15.13	158.17	103.92	58.98	18 55 19	3529.6	10.91	151.61

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 2.2491 TRA-1.3955 TC3 -.9425 BAU  .6706   SGT 2544.0 SGR  467.4 SG3  135.0     ST  1845.9 SR   113.2 SS   655.6
 RDE  .1304 RRA  .1584 RC3 -.3059 FAU .04355   RRT  .5180 RRF  .7881 RTF  .8942    CRT  .8447 CRS -.9261 CST -.9837
 FDE 1.4244 FRA -.0556 FC3 -.7449 BSP   7705   SGB 2586.6 R23  .3662 R13  .8999    LSA 1958.1 MSA  125.5 SSA    7.9
 BDE 2.2529 BRA 1.4044 BC3  .9909 FSP   -449   SG1 2555.8 SG2  390.0 THA   5.57    EL1 1848.4 EL2   60.5 ALF   2.97
```

LAUNCH DATE OCT 13 1970 FLIGHT TIME 110.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 333.153

RL	149.25	LAL	-.00	LOL	19.24	VL	28.212	GAL	-11.47	AZL	80.22	HCA	160.16	SMA	135.08	ECC	.22382	INC	9.7755
RP	107.72	LAP	3.30	LOP	179.67	VP	38.491	GAP	5.58	AZP	99.21	TAL	231.18	TAP	31.34	RCA	104.85	APO	165.32
RC	112.324	GL	39.29	GP	-51.40	ZAL	133.61	ZAP	119.76	ETS	310.26	ZAE	112.17	ETE	214.26	ZAC	46.98	ETC	251.51

V1	29.854	V2	35.179	CLP	-142.70														

PLANETOCENTRIC CONIC

C3	54.961	VHL	7.414	DLA	21.02	RAL	234.99	RAD	6569.0	VEL	13.279	PTH	2.43	VHP	7.185	DPA	-57.05	RAP	183.49

ECC	1.9045	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	22 31 50	3187.43	-26.26	109.86	123.23	79.00	23 25 3	2587.4	-27.51	101.42							
		90.00	16 36 46	4388.40	6.08	182.53	111.88	62.29	17 49 55	3788.4	2.33	175.86							
		100.00	0 11 20	2879.58	-28.28	87.64	123.65	79.90	0 59 20	2279.6	-29.39	79.01							
		100.00	17 43 59	4171.49	7.90	165.60	110.89	61.08	18 53 31	3571.5	3.98	159.00							
		110.00	1 49 28	2572.60	-33.38	65.26	124.59	82.16	2 32 20	1972.6	-34.10	56.09							
		110.00	18 22 21	4051.23	12.34	153.82	108.23	57.87	19 29 52	3451.2	8.01	147.41							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.6269	TRA	-1.3570	TC3	-.8796	BAU	.6735	SGT	2661.7	SGR	444.3	SG3	118.9	ST	2058.3	SR	110.4	SS	670.5
RDE	.1170	RRA	.2508	RC3	-.2578	FAU	.03651	RRT	.3794	RRF	.6952	RTF	.9001	CRT	.7173	CRS	-.8223	CST	-.9862
FDE	1.3973	FRA	.0083	FC3	-.5751	BSP	7907	SG8	2698.5	R23	.3732	R13	.9039	LSA	2163.7	MSA	129.9	SSA	6.3
BDE	2.6295	BRA	1.3800	BC3	.9166	FSP	-384	SG1	2667.2	SG2	410.2	THA	3.71	EL1	2059.8	EL2	76.9	ALF	2.21

LAUNCH DATE OCT 13 1970 FLIGHT TIME 112.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 339.075

RL	149.25	LAL	-.00	LOL	19.24	VL	28.132	GAL	-11.21	AZL	78.57	HCA	163.35	SMA	134.47	ECC	.22232	INC	11.4280
RP	107.75	LAP	3.26	LOP	182.90	VP	38.423	GAP	5.84	AZP	100.96	TAL	229.76	TAP	33.11	RCA	104.57	APO	164.36
RC	114.599	GL	43.77	GP	-56.02	ZAL	128.99	ZAP	117.75	ETS	304.29	ZAE	108.10	ETE	212.74	ZAC	42.45	ETC	249.79

V1	29.854	V2	35.169	CLP	-146.41														

PLANETOCENTRIC CONIC

C3	62.481	VHL	7.904	DLA	24.77	RAL	238.29	RAD	6569.2	VEL	13.559	PTH	2.48	VHP	8.003	DPA	-60.18	RAP	176.94

ECC	2.0283	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	21 51 32	3408.53	-22.51	124.96	129.12	72.35	22 48 20	2808.5	-24.71	116.98							
		90.00	17 43 30	4229.95	1.01	173.65	119.07	61.70	18 54 0	3630.0	-2.79	167.02							
		100.00	23 34 54	3075.26	-25.18	101.34	130.02	73.34	24 26 9	2475.3	-27.22	93.13							
		100.00	18 42 49	4038.46	3.46	158.22	117.71	60.29	19 50 7	3438.5	-.52	151.70							
		110.00	1 29 20	2729.56	-31.30	77.02	131.96	75.50	2 14 49	2129.6	-32.97	68.19							
		110.00	19 8 40	3956.92	8.88	148.72	114.38	56.85	20 14 45	3356.9	4.45	142.42							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	3.1298	TRA	-1.2980	TC3	-.7813	BAU	.6734	SGT	2780.8	SGR	430.1	SG3	102.0	ST	2287.3	SR	91.8	SS	678.7
RDE	.0347	RRA	.3685	RC3	-.1988	FAU	.02993	RRT	.1187	RRF	.4763	RTF	.9117	CRT	.1433	CRS	-.2873	CST	-.9891
FDE	1.3539	FRA	.0479	FC3	-.4147	BSP	8488	SG8	2813.9	R23	.3681	R13	.9128	LSA	2384.0	MSA	132.0	SSA	4.9
BDE	3.1260	BRA	1.3488	BC3	.8062	FSP	-350	SG1	2781.3	SG2	427.0	THA	1.08	EL1	2287.3	EL2	90.9	ALF	.33

LAUNCH DATE OCT 13 1970 FLIGHT TIME 114.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 344.961

RL	149.25	LAL	-.00	LOL	19.24	VL	28.052	GAL	-10.94	AZL	76.17	HCA	166.52	SMA	133.86	ECC	.22084	INC	13.8326
RP	107.79	LAP	3.20	LOP	186.14	VP	38.355	GAP	6.09	AZP	103.47	TAL	228.30	TAP	34.82	RCA	104.30	APO	163.42
RC	116.871	GL	48.91	GP	-61.55	ZAL	123.55	ZAP	114.76	ETS	296.73	ZAE	103.14	ETE	209.64	ZAC	36.87	ETC	246.81

V1	29.854	V2	35.158	CLP	-151.53														

PLANETOCENTRIC CONIC

C3	76.328	VHL	8.737	DLA	29.04	RAL	242.43	RAD	6569.5	VEL	14.060	PTH	2.56	VHP	9.256	DPA	-62.96	RAP	166.68

ECC	2.2562	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		83.26	19 8 17	4046.98	-10.77	166.52	132.43	62.86	20 15 44	3447.0	-14.32	159.60							
		96.74	20 59 46	3686.38	-10.75	140.07	132.42	62.86	22 1 13	3086.4	-14.30	133.14							
		100.00	22 25 7	3412.47	-16.89	122.92	135.51	64.97	23 22 0	2812.5	-20.13	115.61							
		100.00	20 25 37	3796.13	-4.74	144.91	129.15	60.45	21 28 53	3196.1	-8.64	138.29							
		110.00	0 57 46	2946.78	-26.60	92.15	140.09	67.69	1 46 53	2346.8	-29.38	84.07							
		110.00	20 13 24	3834.59	4.27	142.24	123.59	56.05	21 17 18	3234.6	-.22	136.03							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	3.8552	TRA	-1.1599	TC3	-.6203	BAU	.6447	SGT	2885.1	SGR	475.5	SG3	84.7	ST	2541.9	SR	184.3	SS	695.6
RDE	-.2117	RRA	.5379	RC3	-.1201	FAU	.02265	RRT	-.3460	RRF	.0011	RTF	.9282	CRT	-.8162	CRS	.7372	CST	-.9921
FDE	1.3258	FRA	.0893	FC3	-.2569	BSP	8828	SG8	2924.0	R23	-.3518	R13	-.9251	LSA	2638.3	MSA	136.7	SSA	3.6
BDE	3.8610	BRA	1.2786	BC3	.6318	FSP	-294	SG1	2889.9	SG2	445.4	THA	176.66	EL1	2546.4	EL2	106.3	ALF	176.61

LAUNCH DATE OCT 13 1970 FLIGHT TIME 116.00 ARRIVAL DATE FEB 6 1971

HELIOCENTRIC CONIC DISTANCE 350.795

RL	149.25	LAL	-.00	LOL	19.24	VL	27.972	GAL	-10.66	AZL	72.33	HCA	169.65	SMA	133.26	ECC	.21935	INC	17.6670
RP	107.82	LAP	3.13	LOP	189.37	VP	38.286	GAP	6.32	AZP	107.40	TAL	226.80	TAP	36.45	RCA	104.03	APO	162.48
RC	119.138	GL	54.56	GP	-68.00	ZAL	117.18	ZAP	110.68	ETS	285.38	ZAE	96.89	ETE	202.53	ZAC	29.98	ETC	241.03

V1	29.854	V2	35.147	CLP	-160.52														

PLANETOCENTRIC CONIC

C3	104.848	VHL	10.240	DLA	33.61	RAL	247.88	RAD	6570.0	VEL	15.040	PTH	2.71	VHP	11.364	DPA	-64.27	RAP	151.40

ECC	2.7255	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		71.10	18 2 57	4392.32	-9.76	191.92	142.90	57.68	19 16 9	3792.3	-13.96	185.38							
		108.90	22 48 37	3481.64	-9.75	124.11	142.88	57.68	23 46 38	2881.6	-13.94	117.57							
		71.10	18 2 57	4392.32	-9.76	191.92	142.90	57.68	19 16 9	3792.3	-13.96	185.38							
		108.90	22 48 37	3481.64	-9.75	124.11	142.88	57.68	23 46 38	2881.6	-13.94	117.57							
		110.00	23 42 53	3315.57	-15.15	114.61	146.30	58.99	24 38 9	2715.6	-19.15	107.77							
		110.00	22 7 51	3606.39	-4.44	130.32	139.40	56.07	23 7 57	3006.4	-8.87	124.03							

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	4.9231	TRA	-.8490	TC3	-.3995	BAU	.5623	SGT	2929.8	SGR	763.2	SG3	68.3	ST	2760.2	SR	567.9	SS	730.4
RDE	-.9748	RRA	.7874	RC3	-.0356	FAU	.01515	RRT	-.7801	RRF	-.5659	RTF	.9532	CRT	-.9756	CRS	.8499	CST	-.9954
FDE	1.3286	FRA	.1270	FC3	-.1251	BSP	9110	SG8	3027.5	R23	-.3149	R13	-.9435	LSA	2907.6	MSA	143.1	SSA	2.5
BDE	5.0186	BRA	1.1579	BC3	.4011	FSP	-237	SG1	2991.2	SG2	467.7	THA	168.22	EL1	2815.3	EL2	122.3	ALF	168.63

LAUNCH DATE OCT 13 1970 FLIGHT TIME 118.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 356.530

```
RL  149.25 LAL   -.00 LOL  19.24 VL  27.892 GAL -10.35 AZL  65.29 HCA 172.69 SMA 132.66 ECC .21771 INC24.7053 V1  29.854
RP  107.86 LAP   3.05 LOP 192.60 VP  38.218 GAP   6.52 AZP 114.53 TAL 225.24 TAP  37.94 RCA 103.78 APO 161.54 V2  35.136
RC 121.402 GL   59.78 GP  -74.45 ZAL 109.89 ZAP 105.53 ETS 263.03 ZAE  88.48 ETE 183.96 ZAC  21.41 ETC 228.56 CLP 177.35
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PLANETOCENTRIC CONIC

```
C3 176.131 VHL 13.271 DLA  37.51 RAL 255.47 RAD 6570.9 VEL 17.247 PTH   2.94 VHP 15.420 DPA -61.89 RAP 132.62 ECC 3.8987
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.30	17 54 59	4604.98	-6.78	206.72	156.58	53.02	19 11 44	4005.0	-11.54	200.63
115.70	0 1 6	3464.70	-6.76	120.68	156.57	53.02	0 58 50	2864.7	-11.52	114.59
64.30	17 54 59	4604.98	-6.78	206.72	156.58	53.02	19 11 44	4005.0	-11.54	200.63
115.70	0 1 6	3464.70	-6.76	120.68	156.57	53.02	0 58 50	2864.7	-11.52	114.59
64.30	17 54 59	4604.98	-6.78	206.72	156.58	53.02	19 11 44	4005.0	-11.54	200.63
115.70	0 1 6	3464.70	-6.76	120.68	156.57	53.02	0 58 50	2864.7	-11.52	114.59

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 6.0823 TRA -.0253 TC3 -.1427 BAU  .3362   SGT 2653.1 SGR 1626.0 SG3   54.8     ST  2625.9 SR  1540.0 SS   827.1
 RDE-3.5467 RRA 1.0048 RC3  .0042 FAU .00676   RRT -.9348 RRF -.8685 RTF  .9866     CRT -.9945 CRS  .9880 CST -.9988
 FDE 1.4362 FRA  .1840 FC3 -.0332 BSP   9271   SGB 3111.7 R23 -.2455 R13 -.9675     LSA 3150.8 MSA  152.5 SSA    1.5
 BDE 7.0409 BRA 1.0051 BC3  .1428 FSP   -187   SG1 3071.4 SG2  498.9 THA 149.29     EL1 3040.9 EL2  139.7 ALF 149.68
```

LAUNCH DATE OCT 13 1970 FLIGHT TIME 120.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 361.993

```
RL  149.25 LAL   -.00 LOL  19.24 VL  27.813 GAL  -9.98 AZL  49.07 HCA 175.48 SMA 132.08 ECC .21546 INC40.9280 V1  29.854
RP  107.89 LAP   2.96 LOP 195.83 VP  38.149 GAP   6.63 AZP 130.84 TAL 223.55 TAP  39.04 RCA 103.62 APO 160.54 V2  35.124
RC 123.660 GL   60.57 GP  -73.45 ZAL 102.12 ZAP  99.66 ETS 219.14 ZAE  75.29 ETE 143.43 ZAC  12.74 ETC 223.56 CLP 126.10
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PLANETOCENTRIC CONIC

```
C3 424.513 VHL 20.604 DLA  37.21 RAL 266.28 RAD 6572.2 VEL 23.363 PTH   3.29 VHP 24.971 DPA -52.06 RAP 116.97 ECC 7.9864
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.79	18 40 33	4710.33	-2.12	211.77	173.50	52.85	19 59 4	4110.3	-6.93	205.77
115.21	0 41 41	3584.66	-2.10	126.92	173.49	52.85	1 41 26	2984.7	-6.91	120.92
64.79	18 40 33	4710.33	-2.12	211.77	173.50	52.85	19 59 4	4110.3	-6.93	205.77
115.21	0 41 41	3584.66	-2.10	126.92	173.49	52.85	1 41 26	2984.7	-6.91	120.92
64.79	18 40 33	4710.33	-2.12	211.77	173.50	52.85	19 59 4	4110.3	-6.93	205.77
115.21	0 41 41	3584.66	-2.10	126.92	173.49	52.85	1 41 26	2984.7	-6.91	120.92

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 3.6388 TRA 1.5877 TC3 -.0048 BAU  .6172   SGT 1154.0 SGR 2885.6 SG3   46.5     ST  1025.5 SR  2848.9 SS  1120.1
 RD-10.2441 RRA -.2973 RC3 -.1086 FAU-.00795   RRT -.8803 RRF -.9777 RTF  .9584     CRT -.9885 CRS  .9979 CST -.9962
 FDE 1.8615 FRA  .3754 FC3  .0162 BSP   9426   SGB 3107.7 R23 -.1459 R13 -.9884     LSA 3224.7 MSA  154.6 SSA    1.4
 BDE10.8712 BRA 1.6153 BC3  .1087 FSP   -156   SG1 3064.7 SG2  515.4 THA 109.98     EL1 3024.3 EL2  146.3 ALF 109.63
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LAUNCH DATE OCT 13 1970 FLIGHT TIME 122.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 366.297

```
RL  149.25 LAL   -.00 LOL  19.24 VL  27.734 GAL  -9.36 AZL   3.82 HCA 177.13 SMA 131.51 ECC .21024 INC86.1716 V1  29.854
RP  107.93 LAP   2.86 LOP 199.05 VP  38.080 GAP   6.41 AZP 176.17 TAL 221.34 TAP  38.47 RCA 103.86 APO 159.15 V2  35.112
RC 125.912 GL   43.96 GP  -49.97 ZAL  95.86 ZAP  94.70 ETS 189.49 ZAE  49.16 ETE 119.92 ZAC  28.70 ETC 262.86 CLP  97.32
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PLANETOCENTRIC CONIC

```
C31546.890 VHL 39.331 DLA  20.85 RAL 278.52 RAD 6573.2 VEL 40.843 PTH   3.57 VHP 49.182 DPA -26.44 RAP 111.53 ECC26.4579
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 31 31	3613.45	-17.70	138.05	197.23	67.53	2 31 45	3013.5	-20.59	130.57
90.00	19 28 22	4829.22	18.84	208.58	182.79	68.47	20 48 52	4229.2	15.75	201.27
100.00	3 6 46	3306.35	-19.83	116.40	198.18	67.16	4 1 52	2706.4	-22.75	108.82
100.00	20 35 49	4611.56	20.99	191.68	181.89	68.22	21 52 41	4011.6	17.85	184.29
110.00	4 44 28	3000.69	-25.15	95.68	200.67	66.05	5 34 28	2400.7	-28.17	87.80
110.00	21 14 37	4489.98	26.37	180.07	179.50	67.41	22 29 27	3890.0	23.07	172.46

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-3.7999 TRA 1.8021 TC3 -.0701 BAU 3.8717   SGT  830.1 SGR 2493.6 SG3   44.5     ST   560.2 SR  1947.4 SS  1668.9
 RD-13.2665 RRA-5.0425 RC3 -.1736 FAU-.06294   RRT  .7738 RRF -.9977 RTF -.7308     CRT  .9631 CRS  .9996 CST  .9550
 FDE 2.6652 FRA 1.2539 FC3  .0352 BSP   7335   SGB 2628.1 R23 -.1177 R13 -.9928     LSA 2620.4 MSA  158.1 SSA    1.4
 BDE13.8000 BRA 5.3549 BC3  .1872 FSP   -134   SG1 2578.4 SG2  508.5 THA  74.96     EL1 2021.2 EL2  145.3 ALF  74.43
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LAUNCH DATE OCT 13 1970 FLIGHT TIME 124.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 375.932

```
RL  149.25 LAL   -.00 LOL  19.24 VL  27.656 GAL  -9.86 AZL 132.28 HCA 184.09 SMA 130.94 ECC .21972 INC42.2808 V1  29.854
RP  107.97 LAP   2.75 LOP 202.27 VP  38.012 GAP   7.72 AZP  47.79 TAL 221.32 TAP  45.41 RCA 102.17 APO 159.72 V2  35.099
RC 128.158 GL  -60.02 GP   70.21 ZAL 101.55 ZAP 100.07 ETS 155.05 ZAE  79.47 ETE 229.58 ZAC 150.46 ETC 253.97 CLP 121.10
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PLANETOCENTRIC CONIC

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C3 447.906 VHL 21.164 DLA -83.17 RAL 251.25 RAD 6572.2 VEL 23.858 PTH   3.31 VHP 27.907 DPA  72.53 RAP 223.74 ECC 8.3714
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
7.76	2 56 53	2411.20	3.14	85.31	160.87	173.16	3 37 5	1811.2	11.08	84.76
172.24	14 25 30	605.52	3.14	280.25	160.89	173.16	14 35 35	5.5	11.08	279.70
7.76	2 56 53	2411.20	3.14	85.31	160.87	173.16	3 37 5	1811.2	11.08	84.76
172.24	14 25 30	605.52	3.14	280.25	160.89	173.16	14 35 35	5.5	11.08	279.70
7.76	2 56 53	2411.20	3.14	85.31	160.87	173.16	3 37 5	1811.2	11.08	84.76
172.24	14 25 30	605.52	3.14	280.25	160.89	173.16	14 35 35	5.5	11.08	279.70

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.7660 TRA  .1828 TC3 -.0194 BAU  .7697   SGT  472.4 SGR 3205.2 SG3   51.1     ST   242.1 SR  3079.8 SS  1412.3
 RD-11.3464 RRA -.3251 RC3  .1271 FAU-.00752   RRT  .1880 RRF  .9892 RTF  .3260     CRT  .8171 CRS -.9992 CST -.8401
 FDE-2.1626 FRA -.0266 FC3  .0145 BSP  10003   SGB 3239.8 R23 -.1386 R13  .9898     LSA 3393.6 MSA  147.7 SSA    1.3
 BDE11.3723 BRA  .3729 BC3  .1285 FSP   -162   SG1 3206.4 SG2  463.8 THA  88.38     EL1 3086.2 EL2  139.3 ALF  86.32
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LAUNCH DATE OCT 13 1970 FLIGHT TIME 126.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 381.264

RL	149.25	LAL	-.00	LOL	19.24	VL	27.578	GAL	-9.44	AZL	112.93	HCA	186.78	SMA	130.39	ECC	.21746	INC	22.9276	V1	29.854
RP	108.01	LAP	2.64	LOP	205.49	VP	37.944	GAP	7.79	AZP	67.22	TAL	219.55	TAP	46.33	RCA	102.04	APO	158.75	V2	35.086
RC	130.397	GL	-59.42	GP	72.44	ZAL	109.11	ZAP	107.20	ETS	95.73	ZAE	94.25	ETE	172.35	ZAC	160.63	ETC	222.66	CLP	168.58

PLANETOCENTRIC CONIC

C3	151.551	VHL	12.311	DLA	-78.25	RAL	207.43	RAD	6570.6	VEL	16.519	PTH	2.88	VHP	16.615	DPA	58.58	RAP	242.92	ECC	3.4942

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
13.38	0 13 1	2261.21	12.65	80.90	114.75	167.95	0 50 42	1661.2	20.47	79.54
166.62	11 19 47	5756.54	12.66	259.16	114.77	167.95	12 55 43	5156.5	20.47	257.81
13.38	0 13 1	2261.21	12.65	80.90	114.75	167.95	0 50 42	1661.2	20.47	79.54
166.62	11 19 47	5756.54	12.66	259.16	114.77	167.95	12 55 43	5156.5	20.47	257.81
13.38	0 13 1	2261.21	12.65	80.90	114.75	167.95	0 50 42	1661.2	20.47	79.54
166.62	11 19 47	5756.54	12.66	259.16	114.77	167.95	12 55 43	5156.5	20.47	257.81

DIFFERENTIAL CORRECTIONS				MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-3.5680	TRA	-1.1459	TC3	-.1869	BAU	.3825	SGT	3134.5	SGR	1512.5
RDE	-.6551	RRA	-.6477	RC3	-.0270	FAU	.01157	RRT	.9306	RRF	.8669
FDE	-.9448	FRA	-.2307	FC3	-.0661	BSP	10696	SGB	3480.3	R23	-.2103
BDE	3.6276	BRA	1.3163	BC3	.1888	FSP	-199	SG1	3443.6	SG2	503.9

SG3	61.0	ST	1837.1	SR	538.6	SS	670.9
RTF	.9882	CRT	.8642	CRS	-.8116	CST	-.9953
R13	.9763	LSA	2009.8	MSA	275.5	SSA	1.5
THA	24.75	EL1	1896.3	EL2	262.5	ALF	14.50

LAUNCH DATE OCT 13 1970 FLIGHT TIME 128.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 386.908

RL	149.25	LAL	-.00	LOL	19.24	VL	27.501	GAL	-9.09	AZL	104.94	HCA	189.79	SMA	129.85	ECC	.21623	INC	14.9380	V1	29.854
RP	108.05	LAP	2.51	LOP	208.71	VP	37.876	GAP	7.94	AZP	75.27	TAL	217.88	TAP	47.67	RCA	101.77	APO	157.93	V2	35.074
RC	132.627	GL	-52.97	GP	65.23	ZAL	116.06	ZAP	114.44	ETS	73.19	ZAE	103.16	ETE	152.51	ZAC	159.99	ETC	231.21	CLP	-170.94

PLANETOCENTRIC CONIC

C3	76.886	VHL	8.768	DLA	-70.86	RAL	211.65	RAD	6569.5	VEL	14.080	PTH	2.57	VHP	12.088	DPA	47.62	RAP	245.57	ECC	2.2653

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.86	0 47 9	2103.71	21.19	72.16	113.91	159.42	1 22 12	1503.7	28.64	69.38
158.14	11 19 18	5633.03	21.19	258.97	113.93	159.41	12 53 11	5033.0	28.65	256.19
21.86	0 47 9	2103.71	21.19	72.16	113.91	159.42	1 22 12	1503.7	28.64	69.38
158.14	11 19 18	5633.03	21.19	258.97	113.93	159.41	12 53 11	5033.0	28.65	256.19
21.86	0 47 9	2103.71	21.19	72.16	113.91	159.42	1 22 12	1503.7	28.64	69.38
158.14	11 19 18	5633.03	21.19	258.97	113.93	159.41	12 53 11	5033.0	28.65	256.19

DIFFERENTIAL CORRECTIONS				MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-2.4804	TRA	-1.4907	TC3	-.6822	BAU	.6821	SGT	3575.1	SGR	512.6
RDE	.4828	RRA	-.2041	RC3	.0432	FAU	.02091	RRT	.3454	RRF	.0653
FDE	-.8385	FRA	-.2794	FC3	-.2354	BSP	11170	SGB	3611.7	R23	-.2885
BDE	2.5124	BRA	1.5046	BC3	.6836	FSP	-251	SG1	3579.6	SG2	480.4

SG3	76.3	ST	1843.8	SR	326.1	SS	598.4
RTF	.9554	CRT	-.6307	CRS	.7778	CST	-.9783
R13	.9535	LSA	1946.5	MSA	274.3	SSA	2.3
THA	2.89	EL1	1855.4	EL2	251.5	ALF	173.51

LAUNCH DATE OCT 13 1970 FLIGHT TIME 130.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 392.639

RL	149.25	LAL	-.00	LOL	19.24	VL	27.425	GAL	-8.76	AZL	100.72	HCA	192.90	SMA	129.32	ECC	.21538	INC	10.7245	V1	29.854
RP	108.09	LAP	2.38	LOP	211.92	VP	37.808	GAP	8.12	AZP	79.54	TAL	216.23	TAP	49.12	RCA	101.47	APO	157.18	V2	35.061
RC	134.850	GL	-45.89	GP	57.56	ZAL	121.60	ZAP	121.11	ETS	65.89	ZAE	109.45	ETE	148.63	ZAC	155.22	ETC	242.31	CLP	-164.39

PLANETOCENTRIC CONIC

C3	49.346	VHL	7.025	DLA	-64.10	RAL	218.10	RAD	6568.8	VEL	13.066	PTH	2.38	VHP	9.887	DPA	38.68	RAP	246.32	ECC	1.8121

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
29.75	1 30 24	1971.74	26.54	62.01	114.05	150.77	2 3 15	1371.7	33.45	57.75
150.25	11 27 29	5550.59	26.55	257.39	114.06	150.77	13 0 0	4950.6	33.46	253.14
29.75	1 30 24	1971.74	26.54	62.01	114.05	150.77	2 3 15	1371.7	33.45	57.75
150.25	11 27 29	5550.59	26.55	257.39	114.06	150.77	13 0 0	4950.6	33.46	253.14
29.75	1 30 24	1971.74	26.54	62.01	114.05	150.77	2 3 15	1371.7	33.45	57.75
150.25	11 27 29	5550.59	26.55	257.39	114.06	150.77	13 0 0	4950.6	33.46	253.14

DIFFERENTIAL CORRECTIONS				MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-1.9601	TRA	-1.5249	TC3	-1.2111	BAU	.8053	SGT	3682.0	SGR	481.9
RDE	.5038	RRA	-.0887	RC3	.1533	FAU	.02765	RRT	-.3682	RRF	-.6669
FDE	-.7920	FRA	-.2780	FC3	-.4852	BSP	11507	SGB	3713.4	R23	.3439
BDE	2.0238	BRA	1.5265	BC3	1.2208	FSP	-305	SG1	3686.3	SG2	447.5

SG3	92.7	ST	1813.3	SR	412.8	SS	567.9
RTF	.9290	CRT	-.8335	CRS	.9456	CST	-.9679
R13	-.9311	LSA	1927.5	MSA	256.2	SSA	3.4
THA	177.20	EL1	1846.2	EL2	224.0	ALF	169.09

LAUNCH DATE OCT 13 1970 FLIGHT TIME 132.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 398.401

RL	149.25	LAL	-.00	LOL	19.24	VL	27.350	GAL	-8.42	AZL	98.14	HCA	196.04	SMA	128.80	ECC	.21477	INC	8.1351	V1	29.854
RP	108.13	LAP	2.24	LOP	215.13	VP	37.741	GAP	8.31	AZP	82.18	TAL	214.58	TAP	50.62	RCA	101.14	APO	156.47	V2	35.047
RC	137.063	GL	-39.39	GP	50.79	ZAL	125.59	ZAP	126.98	ETS	62.28	ZAE	114.08	ETE	148.82	ZAC	149.86	ETC	248.70	CLP	-162.08

PLANETOCENTRIC CONIC

C3	36.593	VHL	6.033	DLA	-58.16	RAL	223.61	RAD	6568.4	VEL	12.560	PTH	2.28	VHP	8.678	DPA	31.20	RAP	246.91	ECC	1.5989

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.82	2 9 51	1864.00	29.17	51.84	113.32	142.83	2 40 55	1264.0	35.41	46.34
143.18	11 32 2	5505.00	29.18	255.72	113.34	142.83	13 3 47	4905.0	35.42	250.21
36.82	2 9 51	1864.00	29.17	51.84	113.32	142.83	2 40 55	1264.0	35.41	46.34
143.18	11 32 2	5505.00	29.18	255.72	113.34	142.83	13 3 47	4905.0	35.42	250.21
36.82	2 9 51	1864.00	29.17	51.84	113.32	142.83	2 40 55	1264.0	35.41	46.34
143.18	11 32 2	5505.00	29.18	255.72	113.34	142.83	13 3 47	4905.0	35.42	250.21

DIFFERENTIAL CORRECTIONS				MID-COURSE EXECUTION ACCURACY				ORBIT DETERMINATION ACCURACY			
TDE	-1.6185	TRA	-1.4901	TC3	-1.7744	BAU	.8713	SGT	3772.3	SGR	510.7
RDE	.4369	RRA	-.0305	RC3	.2426	FAU	.03270	RRT	-.5793	RRF	-.8406
FDE	-.7226	FRA	-.2486	FC3	-.7778	BSP	11813	SGB	3806.7	R23	.3772
BDE	1.6764	BRA	1.4994	BC3	1.7909	FSP	-353	SG1	3784.0	SG2	415.0

SG3	107.6	ST	1738.6	SR	415.3	SS	524.7
RTF	.9090	CRT	-.8656	CRS	.9728	CST	-.9579
R13	-.9124	LSA	1847.0	MSA	243.3	SSA	4.7
THA	175.46	EL1	1775.9	EL2	203.6	ALF	168.16

LAUNCH DATE OCT 13 1970 FLIGHT TIME 134.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 404.173

RL 149.25 LAL -.00 LOL 19.24 VL 27.275 GAL -8.08 AZL 96.38 HCA 199.20 SMA 128.30 ECC .21432 INC 6.3799 V1 29.854
RP 108.17 LAP 2.09 LOP 218.34 VP 37.675 GAP 8.50 AZP 83.97 TAL 212.92 TAP 52.12 RCA 100.80 APO 155.79 V2 35.034
RC 139.266 GL -33.71 GP 45.03 ZAL 128.15 ZAP 132.04 ETS 59.90 ZAE 117.53 ETE 150.32 ZAC 144.95 ETC 252.49 CLP-161.36

PLANETOCENTRIC CONIC

C3 29.239 VHL 5.407 DLA -53.07 RAL 228.31 RAD 6568.2 VEL 12.272 PTH 2.21 VHP 7.965 DPA 24.91 RAP 247.68 ECC 1.4812

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.04	2 45 53	1772.87	30.03	42.41	112.55	136.06	3 15 26	1172.9	35.61	36.01
136.96	11 33 26	5485.94	30.04	254.66	112.56	136.05	13 4 52	4885.9	35.62	248.26
43.04	2 45 53	1772.87	30.03	42.41	112.55	136.06	3 15 26	1172.9	35.61	36.01
136.96	11 33 26	5485.94	30.04	254.66	112.56	136.05	13 4 52	4885.9	35.62	248.26
43.04	2 45 53	1772.87	30.03	42.41	112.55	136.06	3 15 26	1172.9	35.61	36.01
136.96	11 33 26	5485.94	30.04	254.66	112.56	136.05	13 4 52	4885.9	35.62	248.26

DIFFERENTIAL CORRECTIONS
TDE-1.3499 TRA-1.4406 TC3-2.3051 BAU .9086
RDE .3668 RRA -.0237 RC3 .2989 FAU .03589
FDE -.6299 FRA -.1950 FC3-1.0625 BSP 11838
BDE 1.3989 BRA 1.4408 BC3 2.3244 FSP -376

MID-COURSE EXECUTION ACCURACY
SGT 3836.1 SGR 507.3 SG3 118.6
RRT -.6452 RRF -.8854 RTF .8913
SGB 3869.5 R23 .3984 R13 -.8947
SG1 3850.2 SG2 386.1 THA 175.07

ORBIT DETERMINATION ACCURACY
ST 1622.5 SR 389.0 SS 465.3
CRT -.8668 CRS .9825 CST -.9441
LSA 1716.2 MSA 234.5 SSA 6.3
EL1 1657.6 EL2 189.8 ALF 168.10

LAUNCH DATE OCT 13 1970 FLIGHT TIME 136.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 409.945

RL 149.25 LAL -.00 LOL 19.24 VL 27.201 GAL -7.74 AZL 95.11 HCA 202.38 SMA 127.80 ECC .21403 INC 5.1072 V1 29.854
RP 108.21 LAP 1.94 LOP 221.54 VP 37.609 GAP 8.69 AZP 85.28 TAL 211.25 TAP 53.63 RCA 100.45 APO 155.15 V2 35.021
RC 141.459 GL -28.80 GP 40.20 ZAL 129.50 ZAP 136.36 ETS 58.08 ZAE 120.11 ETE 152.26 ZAC 140.69 ETC 254.96 CLP-161.35

PLANETOCENTRIC CONIC

C3 24.813 VHL 4.981 DLA -48.74 RAL 232.46 RAD 6568.0 VEL 12.091 PTH 2.16 VHP 7.527 DPA 19.61 RAP 248.66 ECC 1.4084

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
48.51	3 19 41	1692.09	29.90	33.89	112.16	130.48	3 47 53	1092.1	34.88	26.90
131.49	11 32 48	5485.19	29.91	254.44	112.17	130.47	13 4 13	4885.2	34.89	247.44
48.51	3 19 41	1692.09	29.90	33.89	112.16	130.48	3 47 53	1092.1	34.88	26.90
131.49	11 32 48	5485.19	29.91	254.44	112.17	130.47	13 4 13	4885.2	34.89	247.44
48.51	3 19 41	1692.09	29.90	33.89	112.16	130.48	3 47 53	1092.1	34.88	26.90
131.49	11 32 48	5485.19	29.91	254.44	112.17	130.47	13 4 13	4885.2	34.89	247.44

DIFFERENTIAL CORRECTIONS
TDE-1.1546 TRA-1.3890 TC3-2.8321 BAU .9463
RDE .3187 RRA -.0199 RC3 .3412 FAU .03845
FDE -.5459 FRA -.1461 FC3-1.3416 BSP 12338
BDE 1.1977 BRA 1.3891 BC3 2.8526 FSP -417

MID-COURSE EXECUTION ACCURACY
SGT 3948.9 SGR 501.1 SG3 129.5
RRT -.6883 RRF -.8998 RTF .8825
SGB 3980.6 R23 .3959 R13 -.8857
SG1 3964.1 SG2 362.1 THA 174.97

ORBIT DETERMINATION ACCURACY
ST 1516.3 SR 366.8 SS 412.2
CRT -.8631 CRS .9882 CST -.9290
LSA 1597.3 MSA 228.1 SSA 8.4
EL1 1549.4 EL2 181.3 ALF 168.04

LAUNCH DATE OCT 13 1970 FLIGHT TIME 138.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 415.714

RL 149.25 LAL -.00 LOL 19.24 VL 27.128 GAL -7.39 AZL 94.14 HCA 205.56 SMA 127.31 ECC .21388 INC 4.1373 V1 29.854
RP 108.25 LAP 1.78 LOP 224.74 VP 37.544 GAP 8.89 AZP 86.27 TAL 209.57 TAP 55.12 RCA 100.08 APO 154.54 V2 35.008
RC 143.643 GL -24.55 GP 36.13 ZAL 129.85 ZAP 140.07 ETS 56.59 ZAE 122.03 ETE 154.25 ZAC 137.08 ETC 256.73 CLP-161.70

PLANETOCENTRIC CONIC

C3 21.829 VHL 4.672 DLA -45.05 RAL 236.29 RAD 6567.9 VEL 11.967 PTH 2.13 VHP 7.254 DPA 15.11 RAP 249.86 ECC 1.3592

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.38	3 52 15	1617.27	29.24	26.17	112.29	125.93	4 19 12	1017.3	33.71	18.80
126.62	11 30 45	5497.50	29.26	255.03	112.30	125.92	13 2 22	4897.5	33.72	247.66
53.38	3 52 15	1617.27	29.24	26.17	112.29	125.93	4 19 12	1017.3	33.71	18.80
126.62	11 30 45	5497.50	29.26	255.03	112.30	125.92	13 2 22	4897.5	33.72	247.66
53.38	3 52 15	1617.27	29.24	26.17	112.29	125.93	4 19 12	1017.3	33.71	18.80
126.62	11 30 45	5497.50	29.26	255.03	112.30	125.92	13 2 22	4897.5	33.72	247.66

DIFFERENTIAL CORRECTIONS
TDE -.9910 TRA-1.3218 TC3-3.3208 BAU .9750
RDE .2831 RRA -.0211 RC3 .3654 FAU .03983
FDE -.4605 FRA -.0895 FC3-1.5796 BSP 12687
BDE 1.0306 BRA 1.3220 BC3 3.3408 FSP -444

MID-COURSE EXECUTION ACCURACY
SGT 4045.9 SGR 488.3 SG3 137.2
RRT -.7072 RRF -.8954 RTF .8752
SGB 4075.3 R23 .3846 R13 -.8780
SG1 4060.7 SG2 344.0 THA 175.09

ORBIT DETERMINATION ACCURACY
ST 1399.8 SR 347.5 SS 356.2
CRT -.8538 CRS .9924 CST -.9081
LSA 1468.6 MSA 223.4 SSA 10.9
EL1 1431.4 EL2 176.9 ALF 167.84

LAUNCH DATE OCT 13 1970 FLIGHT TIME 140.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 421.477

RL 149.25 LAL -.00 LOL 19.24 VL 27.056 GAL -7.03 AZL 93.37 HCA 208.74 SMA 126.84 ECC .21388 INC 3.3701 V1 29.854
RP 108.29 LAP 1.62 LOP 227.94 VP 37.480 GAP 9.08 AZP 87.04 TAL 207.87 TAP 56.61 RCA 99.71 APO 153.97 V2 34.995
RC 145.816 GL -20.84 GP 32.71 ZAL 129.41 ZAP 143.25 ETS 55.36 ZAE 123.49 ETE 156.16 ZAC 134.02 ETC 258.09 CLP-162.24

PLANETOCENTRIC CONIC

C3 19.685 VHL 4.437 DLA -41.86 RAL 239.92 RAD 6567.8 VEL 11.877 PTH 2.11 VHP 7.085 DPA 11.28 RAP 251.24 ECC 1.3240

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.78	4 24 23	1545.31	28.34	19.02	112.90	122.20	4 50 9	945.3	32.36	11.43
122.22	11 27 36	5519.93	28.35	256.34	112.91	122.19	12 59 36	4919.9	32.38	248.74
57.78	4 24 23	1545.31	28.34	19.02	112.90	122.20	4 50 9	945.3	32.36	11.43
122.22	11 27 36	5519.93	28.35	256.34	112.91	122.19	12 59 36	4919.9	32.38	248.74
57.78	4 24 23	1545.31	28.34	19.02	112.90	122.20	4 50 9	945.3	32.36	11.43
122.22	11 27 36	5519.93	28.35	256.34	112.91	122.19	12 59 36	4919.9	32.38	248.74

DIFFERENTIAL CORRECTIONS
TDE -.8533 TRA-1.2453 TC3-3.7804 BAU .9999
RDE .2580 RRA -.0242 RC3 .3790 FAU .04038
FDE -.3795 FRA -.0308 FC3-1.7759 BSP 13002
BDE .8914 BRA 1.2455 BC3 3.7994 FSP -461

MID-COURSE EXECUTION ACCURACY
SGT 4138.8 SGR 475.2 SG3 142.7
RRT -.7142 RRF -.8806 RTF .8694
SGB 4166.0 R23 .3652 R13 -.8719
SG1 4152.7 SG2 331.5 THA 175.28

ORBIT DETERMINATION ACCURACY
ST 1282.2 SR 333.5 SS 301.6
CRT -.8418 CRS .9954 CST -.8790
LSA 1340.7 MSA 220.1 SSA 13.8
EL1 1313.1 EL2 175.8 ALF 167.42

LAUNCH DATE OCT 13 1970 FLIGHT TIME 142.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 427.293

RL	149.25	LAL	-.00	LOL	19.24	VL	26.985	GAL	-6.65	AZL	92.74	HCA	211.92	SMA	126.37	ECC	.21388	INC	2.7445
RP	108.33	LAP	1.45	LOP	231.14	VP	37.417	GAP	9.26	AZP	87.67	TAL	206.12	TAP	58.05	RCA	99.35	APO	153.40
RC	147.979	GL	-17.60	GP	29.85	ZAL	128.27	ZAP	145.98	ETS	54.32	ZAE	124.60	ETE	157.87	ZAC	131.46	ETC	259.22

PLANETOCENTRIC CONIC

C3	18.027	VHL	4.246	DLA	-39.10	RAL	243.53	RAD	6567.7	VEL	11.807	PTH	2.09	VHP	6.981	DPA	8.01	RAP	252.81

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.82	4 56 57	1473.70	27.35	12.25	113.99	119.11	5 21 30	873.7	31.00	4.52
118.18	11 23 49	5550.13	27.36	258.25	114.00	119.10	12 56 19	4950.1	31.01	250.51
61.82	4 56 57	1473.70	27.35	12.25	113.99	119.11	5 21 30	873.7	31.00	4.52
118.18	11 23 49	5550.13	27.36	258.25	114.00	119.10	12 56 19	4950.1	31.01	250.51
61.82	4 56 57	1473.70	27.35	12.25	113.99	119.11	5 21 30	873.7	31.00	4.52
118.18	11 23 49	5550.13	27.36	258.25	114.00	119.10	12 56 19	4950.1	31.01	250.51

DIFFERENTIAL CORRECTIONS

TDE	-.1804	TRA	-.6007	TC3	-2.9926	BAU	.7216
RDE	.1130	RRA	-.1575	RC3	.0942	FAU	.01882
FDE	.1495	FRA	.4875	FC3	-.9038	BSP	1750
BDE	.2129	BRA	.6210	BC3	2.9941	FSP	469

MID-COURSE EXECUTION ACCURACY

SGT	2758.3	SGR	323.5	SG3	100.3		
RRT	.0513	RRF	-.6996	RTF	.3171		
SGB	2777.2	R23	-.7170	R13	.3166		
SG1	2758.4	SG2	323.1	THA	.35		

ORBIT DETERMINATION ACCURACY

ST	404.1	SR	173.2	SS	196.3
CRT	-.1650	CRS	-.1739	CST	.9862
LSA	448.0	MSA	170.4	SSA	45.7
EL1	405.3	EL2	170.3	ALF	175.08

LAUNCH DATE OCT 13 1970 FLIGHT TIME 144.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 432.979

RL	149.25	LAL	-.00	LOL	19.24	VL	26.915	GAL	-6.29	AZL	92.22	HCA	215.10	SMA	125.92	ECC	.21429	INC	2.2218
RP	108.37	LAP	1.28	LOP	234.33	VP	37.354	GAP	9.46	AZP	88.18	TAL	204.45	TAP	59.56	RCA	98.94	APO	152.91
RC	150.132	GL	-14.65	GP	27.36	ZAL	126.76	ZAP	148.43	ETS	53.54	ZAE	125.44	ETE	159.48	ZAC	129.23	ETC	260.18

PLANETOCENTRIC CONIC

C3	16.808	VHL	4.100	DLA	-36.59	RAL	246.94	RAD	6567.7	VEL	11.755	PTH	2.07	VHP	6.936	DPA	5.15	RAP	254.45

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.79	5 30 31	1399.45	26.23	5.51	115.35	116.48	5 53 50	799.5	29.56	357.69
114.21	11 17 29	5591.96	26.24	261.02	115.36	116.47	12 50 41	4992.0	29.57	253.20
65.79	5 30 31	1399.45	26.23	5.51	115.35	116.48	5 53 50	799.5	29.56	357.69
114.21	11 17 29	5591.96	26.24	261.02	115.36	116.47	12 50 41	4992.0	29.57	253.20
65.79	5 30 31	1399.45	26.23	5.51	115.35	116.48	5 53 50	799.5	29.56	357.69
114.21	11 17 29	5591.96	26.24	261.02	115.36	116.47	12 50 41	4992.0	29.57	253.20

DIFFERENTIAL CORRECTIONS

TDE	-.6287	TRA	-1.0675	TC3	-4.6265	BAU	1.0433
RDE	.2286	RRA	-.0323	RC3	.3609	FAU	.03986
FDE	-.2372	FRA	.0842	FC3	-2.0532	BSP	13580
BDE	.6690	BRA	1.0680	BC3	4.6429	FSP	-479

MID-COURSE EXECUTION ACCURACY

SGT	4314.5	SGR	456.2	SG3	148.8		
RRT	-.7075	RRF	-.8323	RTF	.8621		
SGB	4338.5	R23	.3098	R13	-.8639		
SG1	4326.6	SG2	321.5	THA	175.70		

ORBIT DETERMINATION ACCURACY

ST	1046.7	SR	320.3	SS	202.7
CRT	-.8131	CRS	.9897	CST	-.7698
LSA	1091.7	MSA	216.6	SSA	21.7
EL1	1079.6	EL2	180.8	ALF	165.62

LAUNCH DATE OCT 13 1970 FLIGHT TIME 146.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 438.717

RL	149.25	LAL	-.00	LOL	19.24	VL	26.846	GAL	-5.90	AZL	91.78	HCA	218.29	SMA	125.48	ECC	.21472	INC	1.7762
RP	108.41	LAP	1.10	LOP	237.52	VP	37.292	GAP	9.65	AZP	88.61	TAL	202.72	TAP	61.01	RCA	98.54	APO	152.42
RC	152.275	GL	-12.02	GP	25.25	ZAL	124.77	ZAP	150.56	ETS	52.92	ZAE	126.10	ETE	160.89	ZAC	127.35	ETC	261.04

PLANETOCENTRIC CONIC

C3	15.803	VHL	3.975	DLA	-34.35	RAL	250.43	RAD	6567.6	VEL	11.713	PTH	2.06	VHP	6.920	DPA	2.68	RAP	256.25

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.69	6 6 23	1319.51	25.13	358.58	117.08	114.23	6 28 22	719.5	28.18	350.72
110.31	11 9 26	5643.77	25.14	264.55	117.09	114.22	12 43 29	5043.8	28.19	256.69
69.69	6 6 23	1319.51	25.13	358.58	117.08	114.23	6 28 22	719.5	28.18	350.72
110.31	11 9 26	5643.77	25.14	264.55	117.09	114.22	12 43 29	5043.8	28.19	256.69
69.69	6 6 23	1319.51	25.13	358.58	117.08	114.23	6 28 22	719.5	28.18	350.72
110.31	11 9 26	5643.77	25.14	264.55	117.09	114.22	12 43 29	5043.8	28.19	256.69

DIFFERENTIAL CORRECTIONS

TDE	-.5321	TRA	-.9666	TC3	-5.0158	BAU	1.0630
RDE	.2207	RRA	-.0372	RC3	.3935	FAU	.03907
FDE	-.1753	FRA	.1391	FC3	-2.1402	BSP	13853
BDE	.5761	BRA	.9673	BC3	5.0312	FSP	-483

MID-COURSE EXECUTION ACCURACY

SGT	4397.6	SGR	450.8	SG3	150.1		
RRT	-.6970	RRF	-.8024	RTF	.8599		
SGB	4420.7	R23	.2786	R13	-.8614		
SG1	4408.9	SG2	322.5	THA	175.89		

ORBIT DETERMINATION ACCURACY

ST	926.7	SR	318.8	SS	160.1
CRT	-.7961	CRS	.9633	CST	-.6567
LSA	968.8	MSA	216.4	SSA	26.9
EL1	962.3	EL2	185.8	ALF	164.07

LAUNCH DATE OCT 13 1970 FLIGHT TIME 148.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 444.444

RL	149.25	LAL	-.00	LOL	19.24	VL	26.778	GAL	-5.51	AZL	91.39	HCA	221.47	SMA	125.05	ECC	.21531	INC	1.3894
RP	108.45	LAP	.92	LOP	240.70	VP	37.231	GAP	9.85	AZP	88.96	TAL	200.98	TAP	62.45	RCA	98.12	APO	151.97
RC	154.408	GL	-9.61	GP	23.43	ZAL	122.45	ZAP	152.45	ETS	52.49	ZAE	126.62	ETE	162.13	ZAC	125.72	ETC	261.84

PLANETOCENTRIC CONIC

C3	14.995	VHL	3.872	DLA	-32.29	RAL	253.94	RAD	6567.6	VEL	11.678	PTH	2.05	VHP	6.930	DPA	.53	RAP	258.15

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.80	6 46 13	1228.19	24.01	351.00	119.10	112.27	7 6 41	628.2	26.81	343.12
106.20	10 57 37	5711.45	24.02	269.25	119.11	112.25	12 32 48	5111.5	26.82	261.37
73.80	6 46 13	1228.19	24.01	351.00	119.10	112.27	7 6 41	628.2	26.81	343.12
106.20	10 57 37	5711.45	24.02	269.25	119.11	112.25	12 32 48	5111.5	26.82	261.37
110.00	9 55 45	614.91	17.11	302.43	115.49	120.05	10 5 59	14.9	20.98	295.44
110.00	12 47 16	5372.72	31.31	245.91	121.84	104.47	14 16 49	4772.7	32.98	237.08

DIFFERENTIAL CORRECTIONS

TDE	-.4422	TRA	-.8585	TC3	-5.3835	BAU	1.0821
RDE	.2154	RRA	-.0427	RC3	.3956	FAU	.03809
FDE	-.1192	FRA	.1913	FC3	-2.1909	BSP	14134
BDE	.4918	BRA	.8596	BC3	5.3981	FSP	-485

MID-COURSE EXECUTION ACCURACY

SGT	4479.9	SGR	448.4	SG3	150.7		
RRT	-.6839	RRF	-.7709	RTF	.8589		
SGB	4502.3	R23	.2473	R13	-.8601		
SG1	4490.5	SG2	326.4	THA	176.06		

ORBIT DETERMINATION ACCURACY

ST	804.3	SR	319.6	SS	125.3
CRT	-.7762	CRS	.8809	CST	-.4543
LSA	846.4	MSA	217.3	SSA	33.4
EL1	843.9	EL2	192.0	ALF	161.89

LAUNCH DATE OCT 13 1970 FLIGHT TIME 150.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 450.161

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RL  149.25 LAL   -.00 LOL  19.24 VL  26.711 GAL  -5.11 AZL  91.05 HCA 224.65 SMA 124.62 ECC .21605 INC 1.0487 V1  29.854
RP  108.49 LAP    .74 LOP 243.89 VP  37.171 GAP  10.05 AZP  89.25 TAL 199.23 TAP  63.88 RCA  97.70 APO 151.55 V2  34.931
RC 156.530 GL   -7.39 GP   21.85 ZAL 119.83 ZAP 154.15 ETS  52.24 ZAE 127.04 ETE 163.23 ZAC 124.31 ETC 262.60 CLP-165.85
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PLANETOCENTRIC CONIC

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C3  14.346 VHL  3.788 DLA -30.36 RAL 257.49 RAD 6567.6 VEL 11.650 PTH   2.05 VHP  6.961 DPA  -1.36 RAP 260.13 ECC 1.2361
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
78.57	7 33 54	1112.88	22.88	341.81	121.39	110.52	7 52 27	512.9	25.46	333.93
101.43	10 38 16	5807.06	22.89	275.98	121.39	110.51	12 15 4	5207.1	25.47	268.10
78.57	7 33 54	1112.88	22.88	341.81	121.39	110.52	7 52 27	512.9	25.46	333.93
101.43	10 38 16	5807.06	22.89	275.98	121.39	110.51	12 15 4	5207.1	25.47	268.10
110.00	9 34 22	720.35	13.42	308.38	116.51	121.74	9 46 23	120.4	17.52	301.67
110.00	13 36 59	5247.59	33.07	236.58	124.44	99.21	15 4 26	4647.6	33.98	227.46

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.3558 TRA -.7431 TC3-5.7253 BAU 1.1007   SGT 4560.3 SGR  448.1 SG3  150.7     ST   677.8 SR   321.9 SS   102.9
 RDE  .2120 RRA -.0488 RC3  .3973 FAU .03696   RRT -.6687 RRF -.7390 RTF  .8588    CRT -.7507 CRS  .6681 CST -.1084
 FDE -.0682 FRA  .2410 FC3-2.2306 BSP  14419   SGB 4582.3 R23  .2175 R13 -.8599    LSA  723.7 MSA  219.3 SSA   41.8
 BDE  .4142 BRA  .7447 BC3 5.7391 FSP   -486   SG1 4570.2 SG2  332.5 THA 176.22    EL1  723.4 EL2  199.3 ALF 158.68
```

LAUNCH DATE OCT 13 1970 FLIGHT TIME 152.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 455.865

```
RL  149.25 LAL   -.00 LOL  19.24 VL  26.644 GAL  -4.70 AZL  90.74 HCA 227.83 SMA 124.21 ECC .21697 INC  .7443 V1  29.854
RP  108.53 LAP    .55 LOP 247.07 VP  37.113 GAP  10.24 AZP  89.50 TAL 197.47 TAP  65.30 RCA  97.26 APO 151.16 V2  34.919
RC 158.641 GL   -5.32 GP   20.48 ZAL 116.97 ZAP 155.69 ETS  52.16 ZAE 127.39 ETE 164.20 ZAC 123.07 ETC 263.33 CLP-166.61
```

PLANETOCENTRIC CONIC

```
C3  13.832 VHL  3.719 DLA -28.52 RAL 261.10 RAD 6567.5 VEL 11.628 PTH   2.04 VHP  7.008 DPA  -3.02 RAP 262.20 ECC 1.2276
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
86.42	8 50 23	905.34	21.73	326.03	123.92	108.95	9 5 29	305.3	24.11	318.16
93.58	9 50 32	710.52	21.74	311.78	123.92	108.93	10 2 22	110.5	24.13	303.90
100.00	9 25 58	789.85	16.27	315.25	121.57	115.43	9 39 8	189.8	19.56	308.00
100.00	11 57 38	5589.29	27.41	261.28	125.67	102.42	13 30 48	4989.3	28.85	252.77
110.00	9 23 3	798.98	10.57	312.68	118.31	122.70	9 36 22	199.0	14.80	306.14
110.00	14 17 2	5152.92	33.86	229.30	126.82	94.97	15 42 55	4552.9	34.18	220.07

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.2701 TRA -.6194 TC3-6.0338 BAU 1.1182   SGT 4636.4 SGR  449.2 SG3  150.2     ST   545.4 SR   324.8 SS    98.7
 RDE  .2099 RRA -.0558 RC3  .3981 FAU .03571   RRT -.6517 RRF -.7071 RTF  .8592    CRT -.7123 CRS  .2869 CST  .3322
 FDE -.0207 FRA  .2888 FC3-2.2350 BSP  14680   SGB 4658.1 R23  .1900 R13 -.8601    LSA  600.3 MSA  222.4 SSA   53.1
 BDE  .3421 BRA  .6219 BC3 6.0469 FSP   -484   SG1 4645.7 SG2  340.0 THA 176.37    EL1  600.0 EL2  207.2 ALF 153.63
```

LAUNCH DATE OCT 13 1970 FLIGHT TIME 154.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 461.558

```
RL  149.25 LAL   -.00 LOL  19.24 VL  26.579 GAL  -4.27 AZL  90.47 HCA 231.00 SMA 123.81 ECC .21806 INC  .4693 V1  29.854
RP  108.56 LAP    .37 LOP 250.25 VP  37.055 GAP  10.45 AZP  89.70 TAL 195.70 TAP  66.71 RCA  96.81 APO 150.81 V2  34.907
RC 160.740 GL   -3.40 GP   19.27 ZAL 113.89 ZAP 157.09 ETS  52.26 ZAE 127.68 ETE 165.05 ZAC 121.97 ETC 264.04 CLP-167.37
```

PLANETOCENTRIC CONIC

```
C3  13.442 VHL  3.666 DLA -26.75 RAL 264.75 RAD 6567.5 VEL 11.612 PTH   2.03 VHP  7.069 DPA  -4.47 RAP 264.34 ECC 1.2212
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 12 34	1071.59	14.93	335.32	124.42	114.34	8 30 26	471.6	18.09	328.07
90.00	10 57 30	5819.81	26.41	277.99	128.28	100.62	12 34 30	5219.8	27.60	269.53
100.00	9 1 49	912.53	12.56	322.46	123.24	117.35	9 17 1	312.5	16.12	315.48
100.00	12 50 57	5454.10	29.01	251.55	128.75	97.54	14 21 51	4854.1	29.75	242.83
110.00	9 16 47	865.53	8.10	316.25	120.59	123.32	9 31 13	265.5	12.43	309.83
110.00	14 52 28	5073.87	34.16	223.15	129.21	91.34	16 17 1	4473.9	33.97	213.91

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.1836 TRA -.4875 TC3-6.3054 BAU 1.1354   SGT 4710.4 SGR  451.5 SG3  149.2     ST   408.7 SR   327.8 SS   113.7
 RDE  .2086 RRA -.0636 RC3  .3981 FAU .03440   RRT -.6339 RRF -.6761 RTF  .8603    CRT -.6432 CRS -.0949 CST  .6424
 FDE  .0237 FRA  .3349 FC3-2.2153 BSP  14944   SGB 4732.0 R23  .1652 R13 -.8611    LSA  481.3 MSA  225.9 SSA   69.1
 BDE  .2779 BRA  .4917 BC3 6.3180 FSP   -483   SG1 4719.1 SG2  348.6 THA 176.50    EL1  478.0 EL2  214.6 ALF 144.53
```

LAUNCH DATE OCT 13 1970 FLIGHT TIME 156.00 ARRIVAL DATE MAR 18 1971

HELIOCENTRIC CONIC DISTANCE 467.237

```
RL  149.25 LAL   -.00 LOL  19.24 VL  26.515 GAL  -3.84 AZL  90.22 HCA 234.18 SMA 123.42 ECC .21933 INC  .2179 V1  29.854
RP  108.60 LAP    .18 LOP 253.43 VP  36.998 GAP  10.65 AZP  89.87 TAL 193.92 TAP  68.10 RCA  96.35 APO 150.49 V2  34.896
RC 162.826 GL   -1.59 GP   18.20 ZAL 110.64 ZAP 158.38 ETS  52.53 ZAE 127.92 ETE 165.81 ZAC 120.99 ETC 264.73 CLP-168.12
```

PLANETOCENTRIC CONIC

```
C3  13.167 VHL  3.629 DLA -25.03 RAL 268.45 RAD 6567.5 VEL 11.600 PTH   2.03 VHP  7.142 DPA  -5.75 RAP 266.53 ECC 1.2167
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 50 22	1192.15	11.43	342.44	126.48	116.09	8 10 14	592.1	14.84	335.43
90.00	11 49 14	5690.28	27.70	268.74	131.45	96.15	13 24 5	5090.3	28.26	260.12
100.00	8 48 48	1003.50	9.66	327.66	125.55	118.43	9 5 31	403.5	13.38	320.85
100.00	13 33 30	5354.15	29.68	244.20	131.64	93.73	15 2 44	4754.2	29.88	235.40
110.00	9 13 37	925.62	5.84	319.43	123.23	123.74	9 29 3	325.6	10.23	313.10
110.00	15 25 9	5004.80	34.14	217.76	131.73	88.15	16 48 34	4404.8	33.51	208.57

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE -.0947 TRA -.3474 TC3-6.5301 BAU 1.1516   SGT 4779.8 SGR  454.5 SG3  147.9     ST   274.9 SR   330.8 SS   140.9
 RDE  .2081 RRA -.0722 RC3  .3965 FAU .03302   RRT -.6153 RRF -.6462 RTF  .8618    CRT -.4783 CRS -.3437 CST  .7120
 FDE  .0653 FRA  .3793 FC3-2.1710 BSP  15197   SGB 4801.4 R23  .1433 R13 -.8625    LSA  381.9 MSA  224.8 SSA   92.1
 BDE  .2286 BRA  .3548 BC3 6.5421 FSP   -480   SG1 4788.0 SG2  357.7 THA 176.63    EL1  373.0 EL2  214.0 ALF 124.36
```

LAUNCH DATE OCT 13 1970 FLIGHT TIME 158.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 472.902

```
RL  149.25 LAL   -.00 LOL  19.24 VL  26.451 GAL  -3.39 AZL  89.99 HCA 237.36 SMA 123.03 ECC .22080 INC  .0099 V1  29.854
RP  108.63 LAP   -.01 LOP 256.60 VP  36.942 GAP  10.87 AZP  90.01 TAL 192.13 TAP  69.49 RCA  95.87 APO 150.20 V2  34.885
RC 164.900 GL     .10 GP   17.26 ZAL 107.23 ZAP 159.56 ETS  52.97 ZAE 128.13 ETE 166.49 ZAC 120.10 ETC 265.42 CLP-168.87
```

PLANETOCENTRIC CONIC

```
C3  13.003 VHL  3.606 DLA -23.33 RAL 272.19 RAD 6567.5 VEL 11.593 PTH   2.03 VHP  7.226 DPA  -6.88 RAP 268.79 ECC 1.2140
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 37 50	1284.98	8.60	347.79	129.07	117.08	7 59 15	685.0	12.16	340.93
90.00	12 31 37	5592.05	28.21	261.60	134.52	92.61	14 4 49	4992.0	28.27	252.93
100.00	8 40 59	1081.11	7.11	332.01	128.27	119.11	8 59 0	481.1	10.94	325.32
100.00	14 11 9	5271.15	29.89	250.04	134.57	90.50	15 39 0	4671.2	29.64	229.25
110.00	9 12 34	982.10	3.69	322.40	126.16	124.01	9 28 56	382.1	8.13	316.13
110.00	15 56 3	4942.92	33.90	212.94	134.40	85.31	17 18 26	4342.9	32.88	203.85

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE -.0017 TRA -.1987 TC3-6.7019 BAU 1.1671   SGT 4845.7 SGR  457.7 SG3  146.2   ST   178.0 SR   333.2 SS   174.3
RDE  .2080 RRA -.0816 RC3  .3930 FAU .03161   RRT -.5963 RRF -.6174 RTF  .8637   CRT  .0374 CRS -.4883 CST  .3316
FDE  .1049 FRA  .4222 FC3-2.1043 BSP  15434   SGB 4867.2 RZ3  .1238 RI3 -.8642   LSA  346.5 MSA  195.4 SSA  121.9
BDE  .2080 BRA  .2148 BC3 6.7135 FSP   -476   SG1 4853.4 SG2  366.8 THA 176.76   EL1  333.3 EL2  177.8 ALF  88.40
```

LAUNCH DATE OCT 13 1970 FLIGHT TIME 160.00 ARRIVAL DATE MAR 22 1971

HELIOCENTRIC CONIC DISTANCE 478.552

```
RL  149.25 LAL   -.00 LOL  19.24 VL  26.389 GAL  -2.93 AZL  89.77 HCA 240.53 SMA 122.66 ECC .22248 INC  .2284 V1  29.854
RP  108.66 LAP   -.20 LOP 259.77 VP  36.888 GAP  11.08 AZP  90.11 TAL 190.34 TAP  70.87 RCA  95.37 APO 149.95 V2  34.874
RC 166.981 GL    1.68 GP   16.42 ZAL 103.70 ZAP 160.65 ETS  53.60 ZAE 128.32 ETE 167.09 ZAC 119.29 ETC 266.10 CLP-169.61
```

PLANETOCENTRIC CONIC

```
C3  12.952 VHL  3.599 DLA -21.65 RAL 275.96 RAD 6567.5 VEL 11.590 PTH   2.03 VHP  7.320 DPA  -7.86 RAP 271.08 ECC 1.2132
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 30 3	1365.53	6.07	352.37	132.03	117.71	7 52 48	765.5	9.74	345.60
90.00	13 9 27	5509.79	28.31	255.58	137.65	89.60	14 41 17	4909.8	27.96	246.94
100.00	8 36 19	1151.66	4.76	335.93	131.31	119.55	8 55 30	551.7	8.66	329.31
100.00	14 45 52	5198.89	29.81	232.67	137.61	87.67	16 12 31	4598.9	29.17	223.93
110.00	9 13 0	1036.63	1.61	325.25	129.35	124.15	9 30 17	436.6	6.08	319.02
110.00	16 25 40	4886.68	33.50	208.60	137.24	82.77	17 47 6	4286.7	32.14	199.63

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE  .1001 TRA -.0371 TC3-6.8023 BAU 1.1797   SGT 4899.1 SGR  480.0 SG3  144.2   ST   217.6 SR   334.4 SS   212.5
RDE  .2079 RRA -.0922 RC3  .3859 FAU .03007   RRT -.5755 RRF -.5881 RTF  .8646   CRT  .7206 CRS -.5771 CST -.5292
FDE  .1453 FRA  .4665 FC3-2.0097 BSP  15564   SGB 4920.6 RZ3  .1070 RI3 -.8651   LSA  401.1 MSA  160.2 SSA  133.5
BDE  .2307 BRA  .0994 BC3 6.8132 FSP   -466   SG1 4906.3 SG2  375.7 THA 176.89   EL1  375.7 EL2  134.3 ALF  60.80
```

LAUNCH DATE OCT 13 1970 FLIGHT TIME 162.00 ARRIVAL DATE MAR 24 1971

HELIOCENTRIC CONIC DISTANCE 484.186

```
RL  149.25 LAL   -.00 LOL  19.24 VL  26.328 GAL  -2.45 AZL  89.57 HCA 243.70 SMA 122.29 ECC .22437 INC  .4310 V1  29.854
RP  108.69 LAP   -.39 LOP 262.94 VP  36.834 GAP  11.31 AZP  90.19 TAL 188.53 TAP  72.23 RCA  94.85 APO 149.73 V2  34.864
RC 169.007 GL    3.15 GP   15.67 ZAL 100.07 ZAP 161.66 ETS  54.40 ZAE 128.49 ETE 167.63 ZAC 118.55 ETC 266.78 CLP-170.34
```

PLANETOCENTRIC CONIC

```
C3  13.015 VHL  3.608 DLA -19.99 RAL 279.74 RAD 6567.5 VEL 11.593 PTH   2.03 VHP  7.423 DPA  -8.71 RAP 273.42 ECC 1.2142
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 25 10	1439.41	3.72	356.52	135.27	118.09	7 49 10	839.4	7.45	349.82
90.00	13 44 27	5438.00	28.17	250.34	140.88	86.97	15 15 5	4838.0	27.45	241.75
100.00	8 33 44	1218.17	2.52	339.59	134.61	119.80	8 54 2	618.2	6.46	333.03
100.00	15 18 35	5134.47	29.54	227.90	140.77	85.18	16 44 9	4534.5	28.55	219.24
110.00	9 14 34	1090.21	-.44	328.05	132.76	124.18	9 32 44	490.2	4.05	321.84
110.00	16 54 14	4835.20	32.99	204.67	140.26	80.50	18 14 49	4235.2	31.33	195.84

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE  .2042 TRA  .1305 TC3-6.8447 BAU 1.1927   SGT 4954.1 SGR  462.9 SG3  142.0   ST   362.6 SR   335.7 SS   249.5
RDE  .2087 RRA -.1032 RC3  .3769 FAU .02858   RRT -.5556 RRF -.5613 RTF  .8667   CRT  .8448 CRS -.6272 CST -.8277
FDE  .1818 FRA  .5077 FC3-1.9012 BSP  15744   SGB 4975.7 RZ3  .0924 RI3 -.8671   LSA  515.6 MSA  176.2 SSA   97.4
BDE  .2920 BRA  .1664 BC3 6.8550 FSP   -460   SG1 4960.8 SG2  384.3 THA 177.01   EL1  474.7 EL2  137.2 ALF  42.39
```

LAUNCH DATE OCT 13 1970 FLIGHT TIME 164.00 ARRIVAL DATE MAR 26 1971

HELIOCENTRIC CONIC DISTANCE 489.799

```
RL  149.25 LAL   -.00 LOL  19.24 VL  26.267 GAL  -1.96 AZL  89.38 HCA 246.87 SMA 121.94 ECC .22651 INC  .6224 V1  29.854
RP  108.72 LAP   -.57 LOP 266.11 VP  36.782 GAP  11.54 AZP  90.24 TAL 186.72 TAP  73.59 RCA  94.32 APO 149.56 V2  34.855
RC 171.039 GL    4.50 GP   14.99 ZAL  96.38 ZAP 162.60 ETS  55.39 ZAE 128.64 ETE 168.11 ZAC 117.85 ETC 267.45 CLP-171.06
```

PLANETOCENTRIC CONIC

```
C3  13.197 VHL  3.633 DLA -18.34 RAL 283.50 RAD 6567.5 VEL 11.601 PTH   2.03 VHP  7.537 DPA  -9.44 RAP 275.80 ECC 1.2172
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 22 16	1509.33	1.47	.43	138.74	118.28	7 47 25	909.3	5.24	353.77
90.00	14 17 24	5374.10	27.85	245.69	144.22	84.66	15 46 58	4774.1	26.82	237.18
100.00	8 32 38	1282.26	.34	343.11	138.12	119.89	8 54 0	682.3	4.32	336.58
100.00	15 49 43	5076.40	29.13	223.63	144.06	82.97	17 14 20	4476.4	27.85	215.06
110.00	9 16 56	1143.44	-2.47	330.82	136.36	124.10	9 36 0	543.4	2.02	324.62
110.00	17 21 54	4787.99	32.40	201.11	143.44	78.47	18 41 42	4188.0	30.48	192.42

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE  .2969 TRA  .2895 TC3-6.8748 BAU 1.2147   SGT 5039.9 SGR  468.5 SG3  140.3   ST   512.4 SR   338.8 SS   276.2
RDE  .2118 RRA -.1130 RC3  .3710 FAU .02761   RRT -.5422 RRF -.5435 RTF  .8744   CRT  .8471 CRS -.6511 CST -.9083
FDE  .2069 FRA  .5379 FC3-1.8115 BSP  16339   SGB 5061.6 RZ3  .0791 RI3 -.8747   LSA  642.5 MSA  187.8 SSA   74.8
BDE  .3647 BRA  .3108 BC3 6.8848 FSP   -474   SG1 5046.3 SG2  393.1 THA 177.10   EL1  594.4 EL2  155.2 ALF  31.67
```

LAUNCH DATE OCT 13 1970 FLIGHT TIME 166.00 ARRIVAL DATE MAR 28 1971

HELIOCENTRIC CONIC DISTANCE 495.397

RL	149.25	LAL	-.00	LOL	19.24	VL	26.208	GAL	-1.45	AZL	89.19	HCA	250.04	SMA	121.59	ECC	.22889	INC	.8050	V1	29.854
RP	108.75	LAP	-.76	LOP	269.28	VP	36.731	GAP	11.78	AZP	90.27	TAL	184.91	TAP	74.95	RCA	93.76	APO	149.42	V2	34.846
RC	173.056	GL	5.75	GP	14.39	ZAL	92.65	ZAP	163.47	ETS	56.57	ZAE	128.79	ETE	168.54	ZAC	117.21	ETC	268.12	CLP	-171.78

PLANETOCENTRIC CONIC

C3	13.506	VHL	3.675	DLA	-16.71	RAL	287.24	RAD	6567.5	VEL	11.614	PTH	2.04	VHP	7.660	DPA	-10.06	RAP	278.21	ECC	1.2223		
LNCH AZMTH		LNCH TIME		L-I TIME		INJ LAT		INJ LONG		INJ RT ASC		INJ AZMTH		INJ TIME		PO CST TIM		INJ 2 LAT		INJ 2 LONG			
90.00		7 20 46		1576.78		-.71		4.19		142.41		118.31		7 47 3		976.8		3.08		357.56			
90.00		14 48 45		5316.68		27.42		241.55		147.69		82.63		16 17 21		4716.7		26.11		233.12			
100.00		8 32 38		1344.89		-1.78		346.55		141.82		119.84		8 55 3		744.9		2.20		340.02			
100.00		16 19 34		5023.81		28.63		219.80		147.50		81.01		17 43 18		4423.8		27.09		211.34			
110.00		9 19 57		1196.68		-4.50		333.61		140.12		123.92		9 39 53		596.7		-.01		327.40			
110.00		17 48 45		4744.78		31.77		197.90		146.78		76.67		19 7 49		4144.8		29.61		189.35			

DIFFERENTIAL CORRECTIONS

TDE	.4268	TRA	.4887	TC3	-6.7422	BAU	1.2190	SGT	5062.9	SGR	467.9
RDE	.2124	RRA	-.1263	RC3	.3521	FAU	.02577	RRT	-.5175	RRF	-.5129
FDE	.2486	FRA	.5851	FC3	-1.6521	BSP	16177	SGB	5084.5	R23	.0681
BDE	.4767	BRA	.5048	BC3	6.7514	FSP	-451	SG1	5068.8	SG2	399.9

MID-COURSE EXECUTION ACCURACY

SG3	137.5				
RTF	.8730				
R13	-.8733				
THA	177.25				

ORBIT DETERMINATION ACCURACY

ST	722.3	SR	336.9	SS	319.6
CRT	.8400	CRS	-.6787	CST	-.9503
LSA	834.3	MSA	195.0	SSA	57.0
EL1	778.8	EL2	169.5	ALF	22.52

LAUNCH DATE OCT 13 1970 FLIGHT TIME 168.00 ARRIVAL DATE MAR 30 1971

HELIOCENTRIC CONIC DISTANCE 500.971

RL	149.25	LAL	-.00	LOL	19.24	VL	26.149	GAL	-.93	AZL	89.02	HCA	253.21	SMA	121.25	ECC	.23154	INC	.9804	V1	29.854		
RP	108.78	LAP	-.94	LOP	272.45	VP	36.681	GAP	12.04	AZP	90.28	TAL	183.09	TAP	76.29	RCA	93.17	APO	149.32	V2	34.837		
RC	175.059	GL	6.88	GP	13.84	ZAL	88.92	ZAP	164.29	ETS	57.95	ZAE	128.92	ETE	168.94	ZAC	116.59	ETC	268.79	CLP	-172.49		

PLANETOCENTRIC CONIC

C3	13.950	VHL	3.735	DLA	-15.10	RAL	290.93	RAD	6567.5	VEL	11.633	PTH	2.04	VHP	7.793	DPA	-10.58	RAP	280.64	ECC	1.2296		
LNCH AZMTH		LNCH TIME		L-I TIME		INJ LAT		INJ LONG		INJ RT ASC		INJ AZMTH		INJ TIME		PO CST TIM		INJ 2 LAT		INJ 2 LONG			
90.00		7 20 19		1642.57		-2.83		7.86		146.25		118.19		7 47 42		1042.6		.96		1.23			
90.00		15 18 39		5265.04		26.91		237.85		151.28		80.84		16 46 24		4665.0		25.37		229.52			
100.00		8 33 28		1406.57		-3.86		349.94		145.67		119.66		8 56 54		806.6		.11		343.41			
100.00		16 48 12		4976.27		28.07		216.38		151.05		79.29		18 11 8		4376.3		26.31		208.02			
110.00		9 23 25		1250.09		-6.52		336.42		144.03		123.63		9 44 15		650.1		-2.06		330.18			
110.00		18 14 44		4705.52		31.12		195.02		150.26		75.08		19 33 9		4105.5		28.76		186.62			

DIFFERENTIAL CORRECTIONS

TDE	.5511	TRA	.6854	TC3	-6.5828	BAU	1.2293	SGT	5106.9	SGR	468.9
RDE	.2148	RRA	-.1389	RC3	.3348	FAU	.02433	RRT	-.4976	RRF	-.4887
FDE	.2824	FRA	.6246	FC3	-1.5101	BSP	16294	SGB	5128.4	R23	.0578
BDE	.5915	BRA	.6994	BC3	6.5913	FSP	-442	SG1	5112.3	SG2	406.3

MID-COURSE EXECUTION ACCURACY

SG3	135.1				
RTF	.8758				
R13	-.8760				
THA	177.37				

ORBIT DETERMINATION ACCURACY

ST	918.3	SR	336.2	SS	354.7
CRT	.8288	CRS	-.6934	CST	-.9686
LSA	1019.9	MSA	199.7	SSA	46.3
EL1	961.3	EL2	179.7	ALF	17.51

LAUNCH DATE OCT 13 1970 FLIGHT TIME 170.00 ARRIVAL DATE APR 1 1971

HELIOCENTRIC CONIC DISTANCE 506.522

RL	149.25	LAL	-.00	LOL	19.24	VL	26.092	GAL	-.39	AZL	88.85	HCA	256.37	SMA	120.91	ECC	.23448	INC	1.1498	V1	29.854		
RP	108.80	LAP	-1.12	LOP	275.61	VP	36.633	GAP	12.30	AZP	90.27	TAL	181.26	TAP	77.64	RCA	92.56	APO	149.27	V2	34.829		
RC	177.047	GL	7.89	GP	13.35	ZAL	85.21	ZAP	165.04	ETS	59.54	ZAE	129.05	ETE	169.29	ZAC	116.00	ETC	269.46	CLP	-173.19		

PLANETOCENTRIC CONIC

C3	14.540	VHL	3.813	DLA	-13.52	RAL	294.56	RAD	6567.6	VEL	11.659	PTH	2.05	VHP	7.937	DPA	-11.01	RAP	283.09	ECC	1.2393		
LNCH AZMTH		LNCH TIME		L-I TIME		INJ LAT		INJ LONG		INJ RT ASC		INJ AZMTH		INJ TIME		PO CST TIM		INJ 2 LAT		INJ 2 LONG			
90.00		7 20 40		1707.17		-4.90		11.48		150.22		117.92		7 49 7		1107.2		-1.13		4.83			
90.00		15 47 14		5218.75		26.37		234.57		154.97		79.28		17 14 13		4618.8		24.62		226.34			
100.00		8 34 55		1467.59		-5.91		353.31		149.67		119.36		8 59 23		867.6		-1.96		346.76			
100.00		17 15 40		4933.56		27.50		213.34		154.72		77.79		18 37 53		4333.6		25.54		205.08			
110.00		9 27 14		1303.73		-8.53		339.27		148.06		123.23		9 48 58		703.7		-4.10		332.99			
110.00		18 39 50		4670.19		30.47		192.47		153.85		73.70		19 57 40		4070.2		27.94		184.20			

DIFFERENTIAL CORRECTIONS

TDE	.6796	TRA	.8901	TC3	-6.3679	BAU	1.2394	SGT	5149.7	SGR	469.4
RDE	.2184	RRA	-.1515	RC3	.3155	FAU	.02296	RRT	-.4779	RRF	-.4663
FDE	.3134	FRA	.6626	FC3	-1.3670	BSP	16457	SGB	5171.0	R23	.0493
BDE	.7138	BRA	.9029	BC3	6.3757	FSP	-436	SG1	5154.6	SG2	411.9

MID-COURSE EXECUTION ACCURACY

SG3	132.6				
RTF	.8793				
R13	-.8795				
THA	177.49				

ORBIT DETERMINATION ACCURACY

ST	1111.0	SR	335.6	SS	386.1
CRT	.8180	CRS	-.7022	CST	-.9786
LSA	1205.5	MSA	203.3	SSA	38.9
EL1	1145.3	EL2	187.3	ALF	14.27

LAUNCH DATE OCT 13 1970 FLIGHT TIME 172.00 ARRIVAL DATE APR 3 1971

HELIOCENTRIC CONIC DISTANCE 512.046

RL	149.25	LAL	-.00	LOL	19.24	VL	26.035	GAL	.18	AZL	88.69	HCA	259.54	SMA	120.59	ECC	.23773	INC	1.3147	V1	29.854		
RP	108.83	LAP	-1.29	LOP	278.78	VP	36.585	GAP	12.58	AZP	90.24	TAL	179.44	TAP	78.97	RCA	91.92	APO	149.26	V2	34.822		
RC	179.021	GL	8.79	GP	12.90	ZAL	81.56	ZAP	165.75	ETS	61.35	ZAE	129.17	ETE	169.61	ZAC	115.44	ETC	270.12	CLP	-173.89		

PLANETOCENTRIC CONIC

C3	15.290	VHL	3.910	DLA	-11.99	RAL	298.10	RAD	6567.6	VEL	11.691	PTH	2.06	VHP	8.091	DPA	-11.34	RAP	285.56	ECC	1.2516		
LNCH AZMTH		LNCH TIME		L-I TIME		INJ LAT		INJ LONG		INJ RT ASC		INJ AZMTH		INJ TIME		PO CST TIM		INJ 2 LAT		INJ 2 LONG			
90.00		7 21 37		1770.81		-6.92		15.07		154.32		117.53		7 51 8		1170.8		-3.18		8.39			
90.00		16 14 32		5177.57		25.81		231.68		158.76		77.94		17 40 50		4577.6		23.89		223.54			
100.00		8 36 51		1528.07		-7.92		356.68		153.77		118.92		9 2 19		928.1		-4.00		350.08			
100.00		17 41 59		4895.54		26.92		210.66		158.48		76.49		19 3 34		4295.5		24.79		202.50			
110.00		9 31 18		1357.55		-10.53		342.17		152.20		122.71		9 53 56		757.5		-6.14		335.82			
110.00		19 4 1		4638.83		29.85		190.24		157.55		72.51		20 21 20		4038.8		27.17		182.08			

DIFFERENTIAL CORRECTIONS

TDE	.8160	TRA	1.1081	TC3	-6.0952	BAU	1.2474	SGT	5187.2	SGR	469.0
RDE	.2225	RRA	-.1649	RC3	.2934	FAU	.02154	RRT	-.4580	RRF	-.4440
FDE	.3455	FRA	.7040	FC3	-1.2198	BSP	16535	SGB	5208.4	R23	.0424
BDE	.8458	BRA	1.1203	BC3	6.1023	FSP	-422	SG1	5191.7	SG2	416.5

MID-COURSE EXECUTION ACCURACY

SG3	130.4				
RTF	.8816				
R13	-.8818				
THA	177.61				

ORBIT DETERMINATION ACCURACY

ST	1303.1	SR	334.4	SS	417.8
CRT	.8076	CRS	-.7075	CST	-.9848
LSA	1393.1	MSA	206.2	SSA	33.6
EL1	1331.4	EL2	193.0	ALF	11.96

LAUNCH DATE OCT 13 1970 FLIGHT TIME 174.00 ARRIVAL DATE APR 5 1971

HELIOCENTRIC CONIC DISTANCE 517.541

RL 149.85 LAL -.00 LOL 19.24 VL 25.979 GAL .76 AZL 88.52 HCA 262.70 SMA 120.27 ECC .24132 INC 1.4761 V1 29.854
RP 108.85 LAP -1.46 LOP 281.94 VP 36.539 GAP 12.88 AZP 90.19 TAL 177.61 TAP 80.31 RCA 91.25 APO 149.30 V2 34.815
RC 180.980 GL 9.57 GP 12.50 ZAL 77.97 ZAP 166.40 ETS 63.39 ZAE 129.28 ETE 169.91 ZAC 114.89 ETC 270.77 CLP-174.59

PLANETOCENTRIC CONIC

C3 16.215 VHL 4.027 DLA -10.50 RAL 301.54 RAD 6567.6 VEL 11.730 PTH 2.07 VHP 8.258 DPA -11.59 RAP 288.04 ECC 1.2669

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 23 2	1833.62	-8.88	18.64	158.51	117.00	7 53 36	1233.6	-5.18	11.91
90.00	16 40 34	5141.36	25.27	229.17	162.62	76.79	18 6 15	4541.4	23.21	221.11
100.00	8 39 10	1588.05	-9.87	.06	157.98	118.36	9 5 38	988.0	-6.01	353.40
100.00	18 7 8	4862.16	26.37	208.33	162.32	75.38	19 28 10	4262.2	24.10	200.27
110.00	9 35 33	1411.47	-12.49	345.10	156.42	122.08	9 59 4	811.5	-8.17	338.68
110.00	19 27 14	4611.51	29.28	188.32	161.34	71.51	20 44 6	4011.5	26.47	180.26

DIFFERENTIAL CORRECTIONS
TDE .9536 TRA 1.3515 TC3-5.7826 BAU 1.2549
RDE .2283 RRA -.1773 RC3 .2697 FAU .02012
FDE .3721 FRA .7390 FC3-1.0744 BSP 16735
BDE .9806 BRA 1.3432 BC3 5.7889 FSP -421

MID-COURSE EXECUTION ACCURACY
SGT 5219.4 SGR 467.5 SG3 127.4
RRT -.4364 RRF -.4212 RTF .8850
SGB 5240.3 R23 .0361 R13 -.8851
SG1 5223.4 SG2 420.3 THA 177.75

ORBIT DETERMINATION ACCURACY
ST 1481.5 SR 333.9 SS 442.1
CRT .7993 CRS -.7112 CST -.9886
LSA 1567.6 MSA 208.4 SSA 29.5
EL1 1505.8 EL2 197.4 ALF 10.39

LAUNCH DATE OCT 13 1970 FLIGHT TIME 176.00 ARRIVAL DATE APR 7 1971

HELIOCENTRIC CONIC DISTANCE 523.002

RL 149.25 LAL -.00 LOL 19.24 VL 25.924 GAL 1.37 AZL 88.36 HCA 265.86 SMA 119.96 ECC .24527 INC 1.6353 V1 29.854
RP 108.87 LAP -1.63 LOP 285.10 VP 36.494 GAP 13.19 AZP 90.12 TAL 175.78 TAP 81.65 RCA 90.54 APO 149.39 V2 34.809
RC 182.925 GL 10.23 GP 12.13 ZAL 74.49 ZAP 167.00 ETS 65.67 ZAE 129.39 ETE 170.17 ZAC 114.35 ETC 271.42 CLP-175.28

PLANETOCENTRIC CONIC

C3 17.334 VHL 4.163 DLA -9.07 RAL 304.87 RAD 6567.7 VEL 11.778 PTH 2.08 VHP 8.438 DPA -11.76 RAP 290.53 ECC 1.2853

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 24 50	1895.60	-10.77	22.21	162.78	116.35	7 56 25	1295.6	-7.15	15.41
90.00	17 5 20	5110.04	24.77	227.01	166.54	75.82	18 30 30	4510.0	22.58	219.03
100.00	8 41 44	1647.47	-11.78	3.44	162.26	117.67	9 9 12	1047.5	-7.98	356.71
100.00	18 31 6	4833.40	25.86	206.35	166.22	74.46	19 51 39	4233.4	23.48	198.36
110.00	9 39 54	1465.38	-14.42	348.09	160.72	121.33	10 4 19	865.4	-10.17	341.57
110.00	19 49 26	4588.26	28.76	186.71	165.19	70.68	21 5 54	3988.3	25.86	178.73

DIFFERENTIAL CORRECTIONS
TDE 1.0854 TRA 1.5534 TC3-5.4703 BAU 1.2690
RDE .2358 RRA -.1890 RC3 .2479 FAU .01912
FDE .3943 FRA .7705 FC3 -.9549 BSP 17204
BDE 1.1107 BRA 1.5649 BC3 5.4759 FSP -428

MID-COURSE EXECUTION ACCURACY
SGT 5259.9 SGR 466.1 SG3 124.6
RRT -.4184 RRF -.4029 RTF .8908
SGB 5280.5 R23 .0306 R13 -.8909
SG1 5263.5 SG2 423.1 THA 177.86

ORBIT DETERMINATION ACCURACY
ST 1634.5 SR 334.1 SS 460.4
CRT .7923 CRS -.7134 CST -.9911
LSA 1717.6 MSA 210.4 SSA 26.4
EL1 1656.1 EL2 201.2 ALF 9.34

LAUNCH DATE OCT 13 1970 FLIGHT TIME 178.00 ARRIVAL DATE APR 9 1971

HELIOCENTRIC CONIC DISTANCE 528.428

RL 149.25 LAL -.00 LOL 19.24 VL 25.870 GAL 2.00 AZL 88.21 HCA 269.02 SMA 119.66 ECC .24963 INC 1.7931 V1 29.854
RP 108.88 LAP -1.79 LOP 288.27 VP 36.451 GAP 13.52 AZP 90.03 TAL 173.96 TAP 82.98 RCA 89.79 APO 149.53 V2 34.804
RC 184.854 GL 10.79 GP 11.79 ZAL 71.12 ZAP 167.55 ETS 68.20 ZAE 129.49 ETE 170.42 ZAC 113.82 ETC 272.06 CLP-175.97

PLANETOCENTRIC CONIC

C3 18.670 VHL 4.321 DLA -7.71 RAL 308.08 RAD 6567.8 VEL 11.834 PTH 2.10 VHP 8.632 DPA -11.85 RAP 293.03 ECC 1.3073

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 26 55	1956.77	-12.59	25.78	167.13	115.57	7 59 31	1356.8	-9.05	18.89
90.00	17 28 50	5083.48	24.31	225.20	170.51	75.02	18 53 34	4483.5	22.02	217.28
100.00	8 44 33	1706.32	-13.61	6.85	166.61	116.87	9 12 59	1106.3	-9.90	.03
100.00	18 53 54	4809.15	25.41	204.69	170.17	73.70	20 14 3	4209.2	22.93	196.77
110.00	9 44 19	1519.17	-16.31	351.12	165.09	120.47	10 9 38	919.2	-12.14	344.49
110.00	20 10 37	4569.07	28.32	185.39	169.10	70.01	21 26 46	3969.1	25.34	177.49

DIFFERENTIAL CORRECTIONS
TDE 1.2487 TRA 1.8130 TC3-5.0739 BAU 1.2676
RDE .2428 RRA -.2020 RC3 .2216 FAU .01760
FDE .4269 FRA .8133 FC3 -.8160 BSP 17035
BDE 1.2721 BRA 1.8242 BC3 5.0787 FSP -409

MID-COURSE EXECUTION ACCURACY
SGT 5277.6 SGR 461.9 SG3 122.3
RRT -.3948 RRF -.3779 RTF .8931
SGB 5297.8 R23 .0251 R13 -.8932
SG1 5280.7 SG2 424.2 THA 178.01

ORBIT DETERMINATION ACCURACY
ST 1813.5 SR 332.0 SS 487.6
CRT .7860 CRS -.7169 CST -.9933
LSA 1895.2 MSA 210.9 SSA 23.9
EL1 1832.4 EL2 203.2 ALF 8.29

LAUNCH DATE OCT 13 1970 FLIGHT TIME 180.00 ARRIVAL DATE APR 11 1971

HELIOCENTRIC CONIC DISTANCE 533.812

RL 149.25 LAL -.00 LOL 19.24 VL 25.817 GAL 2.66 AZL 88.05 HCA 272.18 SMA 119.36 ECC .25442 INC 1.9506 V1 29.854
RP 108.90 LAP -1.95 LOP 291.43 VP 36.409 GAP 13.87 AZP 89.93 TAL 172.14 TAP 84.32 RCA 89.00 APO 149.73 V2 34.799
RC 186.768 GL 11.25 GP 11.48 ZAL 67.88 ZAP 168.05 ETS 70.99 ZAE 129.59 ETE 170.65 ZAC 113.30 ETC 272.70 CLP-176.66

PLANETOCENTRIC CONIC

C3 20.247 VHL 4.500 DLA -6.42 RAL 311.16 RAD 6567.8 VEL 11.901 PTH 2.11 VHP 8.841 DPA -11.87 RAP 295.52 ECC 1.3332

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 29 13	2017.06	-14.34	29.35	171.53	114.68	8 2 50	1417.1	-10.89	22.37
90.00	17 51 5	5061.59	23.92	223.72	174.51	74.38	19 15 27	4461.6	21.55	215.85
100.00	8 47 30	1764.50	-15.37	10.27	171.02	115.95	9 16 54	1164.5	-11.76	3.34
100.00	19 15 29	4789.38	25.02	203.34	174.16	73.09	20 35 18	4189.4	22.47	195.48
110.00	9 48 45	1572.71	-18.13	354.20	169.51	119.49	10 14 58	972.7	-14.06	347.45
110.00	20 30 43	4553.94	27.97	184.35	173.04	69.49	21 46 37	3953.9	24.92	176.51

DIFFERENTIAL CORRECTIONS
TDE 1.4083 TRA 2.0759 TC3-4.6857 BAU 1.2695
RDE .2517 RRA -.2141 RC3 .1968 FAU .01629
FDE .4546 FRA .8529 FC3 -.6965 BSP 17081
BDE 1.4306 BRA 2.0870 BC3 4.6898 FSP -400

MID-COURSE EXECUTION ACCURACY
SGT 5298.4 SGR 457.5 SG3 119.8
RRT -.3721 RRF -.3552 RTF .8968
SGB 5318.1 R23 .0208 R13 -.8969
SG1 5301.1 SG2 424.4 THA 178.15

ORBIT DETERMINATION ACCURACY
ST 1966.8 SR 330.9 SS 508.4
CRT .7810 CRS -.7194 CST -.9947
LSA 2047.2 MSA 211.4 SSA 21.9
EL1 1983.9 EL2 204.9 ALF 7.57

LAUNCH DATE OCT 13 1970 FLIGHT TIME 182.00 ARRIVAL DATE APR 13 1971

HELIOCENTRIC CONIC DISTANCE 539.147

RL 149.25 LAL -.00 LOL 19.24 VL 25.765 GAL 3.36 AZL 87.89 HCA 275.34 SMA 119.08 ECC .25969 INC 2.1087 V1 29.854
RP 108.91 LAP -2.10 LOP 294.59 VP 36.368 GAP 14.25 AZP 89.80 TAL 170.33 TAP 85.67 RCA 88.15 APO 150.00 V2 34.795
RC 188.667 GL 11.61 GP 11.20 ZAL 64.78 ZAP 168.49 ETS 74.04 ZAE 129.68 ETE 170.86 ZAC 112.78 ETC 273.32 CLP-177.36

PLANETOCENTRIC CONIC

C3 22.098 VHL 4.701 DLA -5.20 RAL 314.10 RAD 6567.9 VEL 11.978 PTH 2.13 VHP 9.067 DPA -11.81 RAP 298.01 ECC 1.3637

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 31 41	2076.44	-15.99	32.92	175.97	113.68	8 6 17	1476.4	-12.66	25.83
90.00	18 12 5	5044.26	23.60	222.55	178.53	73.88	19 36 9	4444.3	21.16	214.72
100.00	8 50 34	1821.95	-17.06	13.71	175.47	114.93	9 20 56	1221.9	-13.55	6.67
100.00	19 35 53	4773.98	24.71	202.30	178.17	72.62	20 55 27	4174.0	22.10	194.48
110.00	9 53 11	1625.89	-19.88	357.33	173.97	118.40	10 20 17	1025.9	-15.93	350.44
110.00	20 49 45	4542.80	27.70	183.60	177.01	69.12	22 5 28	3942.8	24.61	175.79

DIFFERENTIAL CORRECTIONS
TDE 1.5716 TRA 2.3499 TC3-4.2966 BAU 1.2704
RDE .2620 RRA -.2253 RC3 .1730 FAU .01506
FDE .4812 FRA .8923 FC3 -.5899 BSP 17168
BDE 1.5933 BRA 2.3607 BC3 4.3001 FSP -393

MID-COURSE EXECUTION ACCURACY
SGT 5315.9 SGR 452.1 SG3 117.3
RRT -.3488 RRF -.3324 RTF .9010
SGB 5335.1 R23 .0171 R13 -.9011
SG1 5318.2 SG2 423.6 THA 178.29

ORBIT DETERMINATION ACCURACY
ST 2104.4 SR 329.9 SS 526.4
CRT .7774 CRS -.7221 CST -.9958
LSA 2183.8 MSA 211.6 SSA 20.2
EL1 2120.1 EL2 206.0 ALF 7.01

LAUNCH DATE OCT 13 1970 FLIGHT TIME 184.00 ARRIVAL DATE APR 15 1971

HELIOCENTRIC CONIC DISTANCE 544.428

RL 149.25 LAL -.00 LOL 19.24 VL 25.714 GAL 4.08 AZL 87.73 HCA 278.50 SMA 118.80 ECC .26549 INC 2.2684 V1 29.854
RP 108.92 LAP -2.24 LOP 297.75 VP 36.328 GAP 14.66 AZP 89.66 TAL 168.52 TAP 87.02 RCA 87.26 APO 150.33 V2 34.791
RC 190.549 GL 11.90 GP 10.95 ZAL 61.82 ZAP 168.88 ETS 77.37 ZAE 129.75 ETE 171.06 ZAC 112.27 ETC 273.94 CLP-178.06

PLANETOCENTRIC CONIC

C3 24.258 VHL 4.925 DLA -4.06 RAL 316.90 RAD 6568.0 VEL 12.068 PTH 2.16 VHP 9.311 DPA -11.70 RAP 300.49 ECC 1.3992

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 34 17	2134.86	-17.56	36.50	180.44	112.58	8 9 51	1534.9	-14.35	29.29
90.00	18 31 51	5031.32	23.35	221.68	182.57	73.51	19 55 43	4431.3	20.87	213.89
100.00	8 53 43	1878.60	-18.65	17.16	179.95	113.80	9 25 1	1278.6	-15.27	9.99
100.00	19 55 6	4762.81	24.48	201.55	182.19	72.29	21 14 29	4162.8	21.83	193.76
110.00	9 57 35	1678.63	-21.55	.51	178.47	117.20	10 25 34	1078.6	-17.74	353.46
110.00	21 7 43	4535.55	27.52	183.11	181.00	68.88	22 23 18	3935.5	24.40	175.33

DIFFERENTIAL CORRECTIONS
TDE 1.7403 TRA 2.6370 TC3-3.9118 BAU 1.2696
RDE .2736 RRA -.2357 RC3 .1502 FAU .01388
FDE .5074 FRA .9326 FC3 -.4954 BSP 17250
BDE 1.7617 BRA 2.6476 BC3 3.9147 FSP -386

MID-COURSE EXECUTION ACCURACY
SGT 5329.6 SGR 445.8 SG3 114.9
RRT -.3245 RRF -.3090 RTF .9056
SGB 5348.3 R23 .0140 R13 -.9056
SG1 5331.6 SG2 421.5 THA 178.44

ORBIT DETERMINATION ACCURACY
ST 2227.8 SR 328.9 SS 542.7
CRT .7751 CRS -.7254 CST -.9966
LSA 2306.7 MSA 211.3 SSA 18.8
EL1 2242.5 EL2 206.4 ALF 6.58

LAUNCH DATE OCT 13 1970 FLIGHT TIME 186.00 ARRIVAL DATE APR 17 1971

HELIOCENTRIC CONIC DISTANCE 549.646

RL 149.25 LAL -.00 LOL 19.24 VL 25.663 GAL 4.85 AZL 87.57 HCA 281.66 SMA 118.52 ECC .27187 INC 2.4308 V1 29.854
RP 108.93 LAP -2.38 LOP 300.91 VP 36.290 GAP 15.09 AZP 89.51 TAL 166.73 TAP 88.39 RCA 86.30 APO 150.74 V2 34.789
RC 192.414 GL 12.10 GP 10.71 ZAL 59.01 ZAP 169.22 ETS 80.96 ZAE 129.82 ETE 171.25 ZAC 111.75 ETC 274.54 CLP-178.76

PLANETOCENTRIC CONIC

C3 26.773 VHL 5.174 DLA -3.00 RAL 319.57 RAD 6568.1 VEL 12.172 PTH 2.18 VHP 9.577 DPA -11.52 RAP 302.97 ECC 1.4406

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 36 58	2192.27	-19.02	40.07	184.93	111.38	8 13 30	1592.3	-15.95	32.75
90.00	18 50 25	5022.59	23.18	221.10	186.60	73.27	20 14 8	4422.6	20.67	213.33
100.00	8 56 55	1934.40	-20.14	20.63	184.45	112.57	9 29 9	1334.4	-16.91	13.33
100.00	20 13 10	4755.70	24.34	201.08	186.21	72.08	21 32 26	4155.7	21.66	193.30
110.00	10 1 56	1730.82	-23.14	3.73	183.00	115.89	10 30 47	1130.8	-19.47	356.51
110.00	21 24 38	4532.04	27.44	182.87	184.98	68.76	22 40 10	3932.0	24.30	175.11

DIFFERENTIAL CORRECTIONS
TDE 1.9152 TRA 2.9393 TC3-3.5354 BAU 1.2663
RDE .2867 RRA -.2449 RC3 .1288 FAU .01273
FDE .5336 FRA .9742 FC3 -.4116 BSP 17330
BDE 1.9365 BRA 2.9495 BC3 3.5378 FSP -380

MID-COURSE EXECUTION ACCURACY
SGT 5339.1 SGR 438.6 SG3 112.6
RRT -.2988 RRF -.2846 RTF .9103
SGB 5357.1 R23 .0114 R13 -.9103
SG1 5340.7 SG2 418.4 THA 178.59

ORBIT DETERMINATION ACCURACY
ST 2337.8 SR 327.8 SS 557.7
CRT .7740 CRS -.7293 CST -.9972
LSA 2416.5 MSA 210.5 SSA 17.6
EL1 2351.7 EL2 206.3 ALF 6.24

LAUNCH DATE OCT 13 1970 FLIGHT TIME 188.00 ARRIVAL DATE APR 19 1971

HELIOCENTRIC CONIC DISTANCE 554.791

RL 149.25 LAL -.00 LOL 19.24 VL 25.614 GAL 5.66 AZL 87.40 HCA 284.82 SMA 118.25 ECC .27889 INC 2.5968 V1 29.854
RP 108.94 LAP -2.51 LOP 304.08 VP 36.253 GAP 15.57 AZP 89.34 TAL 164.96 TAP 89.78 RCA 85.27 APO 151.23 V2 34.787
RC 194.261 GL 12.24 GP 10.50 ZAL 56.35 ZAP 169.49 ETS 84.80 ZAE 129.88 ETE 171.42 ZAC 111.24 ETC 275.13 CLP-179.47

PLANETOCENTRIC CONIC

C3 29.693 VHL 5.449 DLA -2.02 RAL 322.09 RAD 6568.2 VEL 12.291 PTH 2.21 VHP 9.866 DPA -11.28 RAP 305.42 ECC 1.4887

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 39 44	2248.64	-20.38	43.65	189.43	110.10	8 17 12	1648.6	-17.46	36.19
90.00	19 7 49	5017.88	23.09	220.78	190.63	73.13	20 31 27	4417.9	20.56	213.02
100.00	9 0 8	1989.28	-21.54	24.11	188.97	111.25	9 33 17	1389.3	-18.46	16.67
100.00	20 30 6	4752.47	24.27	200.86	190.23	71.99	21 49 18	4152.5	21.58	193.10
110.00	10 6 13	1782.40	-24.64	6.99	187.54	114.48	10 35 56	1182.4	-21.12	359.60
110.00	21 40 30	4532.11	27.44	182.88	188.97	68.76	22 56 2	3932.1	24.30	175.11

DIFFERENTIAL CORRECTIONS
TDE 2.0955 TRA 3.2569 TC3-3.1783 BAU 1.2624
RDE .3012 RRA -.2529 RC3 .1089 FAU .01162
FDE .5598 FRA 1.0170 FC3 -.3388 BSP 17356
BDE 2.1170 BRA 3.2667 BC3 3.1802 FSP -373

MID-COURSE EXECUTION ACCURACY
SGT 5347.4 SGR 430.3 SG3 110.2
RRT -.2716 RRF -.2589 RTF .9150
SGB 5364.7 R23 .0091 R13 -.9150
SG1 5348.7 SG2 414.1 THA 178.74

ORBIT DETERMINATION ACCURACY
ST 2433.6 SR 326.6 SS 571.6
CRT .7742 CRS -.7340 CST -.9977
LSA 2512.3 MSA 209.3 SSA 16.6
EL1 2446.8 EL2 205.6 ALF 5.97

LAUNCH DATE OCT 13 1970 FLIGHT TIME 190.00 ARRIVAL DATE APR 21 1971

HELIOCENTRIC CONIC DISTANCE 559.851

RL	149.25	LAL	-.00	LOL	19.24	VL	25.565	GAL	6.51	AZL	87.23	HCA	287.97	SMA	117.99	ECC	.28664	INC	2.7678
RP	108.94	LAP	-2.63	LOP	307.24	VP	36.218	GAP	16.08	AZP	89.15	TAL	163.20	TAP	91.18	RCA	84.17	APO	151.81
RC	196.090	GL	12.31	GP	10.30	ZAL	53.84	ZAP	169.70	ETS	88.88	ZAE	129.92	ETE	171.59	ZAC	110.72	ETC	275.70

V1	29.854	V2	34.786	CLP	179.81														

PLANETOCENTRIC CONIC

C3	33.083	VHL	5.752	DLA	-1.11	RAL	324.48	RAD	6568.3	VEL	12.428	PTH	2.25	VHP	10.181	DPA	-10.99	RAP	307.86
ECC	1.5445																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 42 32	2303.91	-21.63	47.22	193.94	108.73	8 20 56	1703.9	-18.87	39.63
90.00	19 24 4	5016.96	23.07	220.72	194.64	73.11	20 47 41	4417.0	20.54	212.96
100.00	9 3 22	2043.19	-22.83	27.60	193.49	109.84	9 37 25	1443.2	-19.91	20.01
100.00	20 45 56	4752.91	24.28	200.89	194.23	72.00	22 5 9	4152.9	21.59	193.12
110.00	10 10 25	1833.28	-26.03	10.28	192.11	112.98	10 40 59	1233.3	-22.69	2.72
110.00	21 55 22	4535.58	27.52	183.11	192.94	68.88	23 10 57	3935.6	24.40	175.33

DIFFERENTIAL CORRECTIONS

TDE	2.2830	TRA	3.5907	TC3	-2.8300	BAU	1.2523
RDE	.3172	RRA	-.2592	RC3	.0909	FAU	.01056
FDE	.5861	FRA	1.0614	FC3	-.2762	BSP	17503
BDE	2.3049	BRA	3.6000	BC3	2.8315	FSP	-367

MID-COURSE EXECUTION ACCURACY

SGT	5345.0	SGR	421.3	SG3	107.9		
RRT	-.2424	RRF	-.2316	RTF	.9205		
SGB	5361.5	R23	.0074	R13	-.9205		
SG1	5345.9	SG2	408.7	THA	178.90		

ORBIT DETERMINATION ACCURACY

ST	2516.6	SR	325.4	SS	584.5
CRT	.7757	CRS	-.7394	CST	-.9981
LSA	2595.7	MSA	207.5	SSA	15.7
EL1	2529.3	EL2	204.3	ALF	5.76

LAUNCH DATE OCT 13 1970 FLIGHT TIME 192.00 ARRIVAL DATE APR 23 1971

HELIOCENTRIC CONIC DISTANCE 564.811

RL	149.25	LAL	-.00	LOL	19.24	VL	25.518	GAL	7.42	AZL	87.05	HCA	291.13	SMA	117.74	ECC	.29520	INC	2.9450
RP	108.94	LAP	-2.75	LOP	310.40	VP	36.184	GAP	16.64	AZP	88.94	TAL	161.48	TAP	92.61	RCA	82.98	APO	152.49
RC	197.900	GL	12.34	GP	10.12	ZAL	51.47	ZAP	169.84	ETS	93.17	ZAE	129.95	ETE	171.75	ZAC	110.21	ETC	276.26

V1	29.854	V2	34.785	CLP	179.08														

PLANETOCENTRIC CONIC

C3	37.019	VHL	6.084	DLA	-.28	RAL	326.74	RAD	6568.4	VEL	12.585	PTH	2.28	VHP	10.525	DPA	-10.65	RAP	310.28
ECC	1.6092																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 45 23	2358.03	-22.77	50.78	198.44	107.30	8 24 41	1758.0	-20.19	43.06
90.00	19 39 13	5019.60	23.12	220.90	198.62	73.18	21 2 53	4419.6	20.60	213.13
100.00	9 6 36	2096.07	-24.00	31.08	198.00	108.37	9 41 32	1496.1	-21.27	23.35
100.00	21 0 42	4756.80	24.36	201.15	198.20	72.12	22 19 58	4156.8	21.68	193.37
110.00	10 14 32	1883.39	-27.32	13.61	196.67	111.39	10 45 56	1283.4	-24.17	5.86
110.00	22 9 14	4542.24	27.68	183.56	196.90	69.10	23 24 57	3942.2	24.59	175.76

DIFFERENTIAL CORRECTIONS

TDE	2.4767	TRA	3.9428	TC3	-2.5062	BAU	1.2409
RDE	.3348	RRA	-.2638	RC3	.0746	FAU	.00953
FDE	.6128	FRA	1.1080	FC3	-.2229	BSP	17616
BDE	2.4992	BRA	3.9517	BC3	2.5073	FSP	-362

MID-COURSE EXECUTION ACCURACY

SGT	5341.0	SGR	411.5	SG3	105.7		
RRT	-.2111	RRF	-.2024	RTF	.9259		
SGB	5356.9	R23	.0060	R13	-.9259		
SG1	5341.8	SG2	402.1	THA	179.06		

ORBIT DETERMINATION ACCURACY

ST	2586.3	SR	323.9	SS	597.0
CRT	.7782	CRS	-.7456	CST	-.9984
LSA	2666.0	MSA	205.2	SSA	14.8
EL1	2598.6	EL2	202.5	ALF	5.60

LAUNCH DATE OCT 13 1970 FLIGHT TIME 194.00 ARRIVAL DATE APR 25 1971

HELIOCENTRIC CONIC DISTANCE 569.654

RL	149.25	LAL	-.00	LOL	19.24	VL	25.471	GAL	8.39	AZL	86.87	HCA	294.29	SMA	117.49	ECC	.30466	INC	3.1299
RP	108.94	LAP	-2.85	LOP	313.56	VP	36.151	GAP	17.26	AZP	88.71	TAL	159.78	TAP	94.07	RCA	81.70	APO	153.28
RC	199.690	GL	12.32	GP	9.96	ZAL	49.25	ZAP	169.91	ETS	97.63	ZAE	129.96	ETE	171.90	ZAC	109.69	ETC	276.80

V1	29.854	V2	34.785	CLP	178.33														

PLANETOCENTRIC CONIC

C3	41.596	VHL	6.449	DLA	.47	RAL	328.86	RAD	6568.6	VEL	12.766	PTH	2.32	VHP	10.902	DPA	-10.26	RAP	312.66
ECC	1.6846																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 48 14	2410.93	-23.80	54.32	202.91	105.82	8 28 25	1810.9	-21.40	46.46
90.00	19 53 18	5025.59	23.24	221.30	202.58	73.35	21 17 3	4425.6	20.74	213.52
100.00	9 9 48	2147.84	-25.07	34.56	202.50	106.84	9 45 36	1547.8	-22.53	26.69
100.00	21 14 25	4763.91	24.51	201.63	202.15	72.32	22 33 49	4163.9	21.86	193.83
110.00	10 18 33	1932.64	-28.50	16.96	201.23	109.73	10 50 46	1332.6	-25.54	9.02
110.00	22 22 9	4551.87	27.92	184.21	200.83	69.42	23 38 1	3951.9	24.86	176.38

DIFFERENTIAL CORRECTIONS

TDE	2.6780	TRA	4.3142	TC3	-2.2037	BAU	1.2259
RDE	.3539	RRA	-.2661	RC3	.0602	FAU	.00855
FDE	.6402	FRA	1.1567	FC3	-.1779	BSP	17752
BDE	2.7012	BRA	4.3224	BC3	2.2045	FSP	-358

MID-COURSE EXECUTION ACCURACY

SGT	5332.0	SGR	400.9	SG3	103.4		
RRT	-.1772	RRF	-.1708	RTF	.9315		
SGB	5347.0	R23	.0049	R13	-.9315		
SG1	5332.5	SG2	394.5	THA	179.23		

ORBIT DETERMINATION ACCURACY

ST	2643.7	SR	322.3	SS	609.4
CRT	.7819	CRS	-.7526	CST	-.9987
LSA	2724.6	MSA	202.4	SSA	14.1
EL1	2655.8	EL2	200.0	ALF	5.48

LAUNCH DATE OCT 13 1970 FLIGHT TIME 196.00 ARRIVAL DATE APR 27 1971

HELIOCENTRIC CONIC DISTANCE 574.357

RL	149.25	LAL	-.00	LOL	19.24	VL	25.426	GAL	9.42	AZL	86.68	HCA	297.44	SMA	117.25	ECC	.31514	INC	3.3242
RP	108.94	LAP	-2.95	LOP	316.73	VP	36.120	GAP	17.93	AZP	88.47	TAL	158.13	TAP	95.57	RCA	80.30	APO	154.20
RC	201.461	GL	12.26	GP	9.80	ZAL	47.17	ZAP	169.90	ETS	102.23	ZAE	129.95	ETE	172.05	ZAC	109.18	ETC	277.32

V1	29.854	V2	34.786	CLP	177.56														

PLANETOCENTRIC CONIC

C3	46.928	VHL	6.850	DLA	1.16	RAL	330.85	RAD	6568.8	VEL	12.973	PTH	2.37	VHP	11.318	DPA	-9.82	RAP	315.02
ECC	1.7723																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 51 6	2462.53	-24.71	57.82	207.35	104.29	8 32 9	1862.5	-22.51	49.84
90.00	20 6 20	5034.66	23.42	221.91	206.49	73.60	21 30 14	4434.7	20.95	214.10
100.00	9 12 59	2198.41	-26.02	38.02	206.97	105.25	9 49 38	1598.4	-23.68	30.00
100.00	21 27 8	4774.01	24.71	202.31	206.06	72.62	22 46 42	4174.0	22.10	194.48
110.00	10 22 28	1980.93	-29.56	20.31	205.77	108.00	10 55 29	1380.9	-26.82	12.20
110.00	22 34 8	4564.26	28.21	185.06	204.73	69.84	23 50 13	3964.3	25.20	177.17

DIFFERENTIAL CORRECTIONS

TDE	2.8888	TRA	4.7089	TC3	-1.9218	BAU	1.2061
RDE	.3746	RRA	-.2660	RC3	.0475	FAU	.00757
FDE	.6688	FRA	1.2089	FC3	-.1396	BSP	17883
BDE	2.9129	BRA	4.7164	BC3	1.9224	FSP	-354

MID-COURSE EXECUTION ACCURACY

SGT	5318.6	SGR	389.7	SG3	101.2		
RRT	-.1404	RRF	-.1363	RTF	.9372		
SGB	5332.9	R23	.0041	R13	-.9372		
SG1	5318.9	SG2	385.9	THA	179.41		

ORBIT DETERMINATION ACCURACY

ST	2690.8	SR	320.3	SS	622.3
CRT	.7865	CRS	-.7603	CST	-.9989
LSA	2773.2	MSA	199.1	SSA	13.4
EL1	2702.6	EL2	197.0	ALF	5.38

LAUNCH DATE OCT 13 1970 FLIGHT TIME 198.00 ARRIVAL DATE APR 29 1971

HELIOCENTRIC CONIC DISTANCE 578.893
RL 149.25 LAL -.00 LOL 19.24 VL 25.381 GAL 10.53 AZL 86.47 HCA 300.60 SMA 117.02 ECC .32678 INC 3.5301 V1 29.854
RP 108.93 LAP -3.04 LOP 319.89 VP 36.090 GAP 18.67 AZP 88.20 TAL 156.52 TAP 97.12 RCA 78.78 APO 155.25 V2 34.788
RC 203.212 GL 12.17 GP 9.66 ZAL 45.23 ZAP 169.82 ETS 106.90 ZAE 129.91 ETE 172.20 ZAC 108.66 ETC 277.83 CLP 176.77
PLANETOCENTRIC CONIC
C3 55.157 VHL 7.291 DLA 1.78 RAL 332.72 RAD 6568.9 VEL 13.211 PTH 2.41 VHP 11.777 DPA -9.35 RAP 317.34 ECC 1.8748

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 53 58	2512.73	-25.51	61.28	211.74	102.73	8 35 51	1912.7	-23.50	53.19
90.00	20 18 21	5046.61	23.64	222.71	210.35	73.94	21 42 27	4446.6	21.21	214.88
100.00	9 16 8	2247.68	-26.86	41.44	211.38	103.64	9 53 36	1647.7	-24.72	33.29
100.00	21 38 52	4786.88	24.97	203.18	209.92	73.01	22 58 38	4186.9	22.41	195.32
110.00	10 26 17	2028.14	-30.51	23.66	210.28	106.22	11 0 5	1428.1	-27.98	15.38
110.00	22 45 12	4579.19	28.56	186.08	208.59	70.36	24 1 32	3979.2	25.61	178.14

DIFFERENTIAL CORRECTIONS
TDE 3.1116 TRA 5.1294 TC3-1.6600 BAU 1.1800
RDE .3969 RRA -.2631 RC3 .0365 FAU .00658
FDE .6994 FRA 1.2649 FC3 -.1072 BSP 17990
BDE 3.1368 BRA 5.1361 BC3 1.6604 FSP -349

MID-COURSE EXECUTION ACCURACY
SGT 5301.1 SGR 378.0 SG3 99.1
RRT -.0999 RRF -.0982 RTF .9429
SGB 5314.6 R23 .0035 R13 -.9429
SG1 5301.3 SG2 376.1 THA 179.59

ORBIT DETERMINATION ACCURACY
ST 2729.1 SR 318.1 SS 636.3
CRT .7921 CRS -.7688 CST -.9991
LSA 2813.5 MSA 195.2 SSA 12.7
EL1 2740.8 EL2 193.3 ALF 5.30

LAUNCH DATE OCT 13 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAY 1 1971

HELIOCENTRIC CONIC DISTANCE 583.228
RL 149.25 LAL -.00 LOL 19.24 VL 25.338 GAL 11.73 AZL 86.25 HCA 303.76 SMA 116.79 ECC .33974 INC 3.7498 V1 29.854
RP 108.92 LAP -3.12 LOP 323.06 VP 36.062 GAP 19.50 AZP 87.91 TAL 154.97 TAP 98.73 RCA 77.11 APO 156.47 V2 34.790
RC 204.943 GL 12.04 GP 9.53 ZAL 43.43 ZAP 169.65 ETS 111.61 ZAE 129.84 ETE 172.35 ZAC 108.14 ETC 278.31 CLP 175.94
PLANETOCENTRIC CONIC
C3 60.464 VHL 7.776 DLA 2.33 RAL 334.45 RAD 6569.1 VEL 13.484 PTH 2.46 VHP 12.285 DPA -8.85 RAP 319.63 ECC 1.9951

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 56 50	2561.38	-26.19	64.68	216.05	101.16	8 39 31	1961.4	-24.39	56.47
90.00	20 29 21	5061.19	23.91	223.69	214.16	74.37	21 53 43	4461.2	21.54	215.82
100.00	9 19 15	2295.52	-27.58	44.81	215.74	102.00	9 57 31	1695.5	-25.65	36.54
100.00	21 49 37	4802.29	25.27	204.22	213.73	73.48	23 9 39	4202.3	22.77	196.32
110.00	10 29 59	2074.13	-31.34	26.99	214.72	104.42	11 4 33	1474.1	-29.04	18.54
110.00	22 55 23	4596.44	28.95	187.27	212.40	70.97	24 11 59	3996.4	26.08	179.27

DIFFERENTIAL CORRECTIONS
TDE 3.3485 TRA 5.5806 TC3-1.4174 BAU 1.1459
RDE .4211 RRA -.2569 RC3 .0272 FAU .00556
FDE .7323 FRA 1.3260 FC3 -.0796 BSP 18052
BDE 3.3749 BRA 5.5865 BC3 1.4176 FSP -343

MID-COURSE EXECUTION ACCURACY
SGT 5280.4 SGR 366.0 SG3 97.1
RRT -.0555 RRF -.0560 RTF .9486
SGB 5293.1 R23 .0032 R13 -.9486
SG1 5280.5 SG2 365.4 THA 179.78

ORBIT DETERMINATION ACCURACY
ST 2759.8 SR 315.5 SS 651.9
CRT .7987 CRS -.7781 CST -.9993
LSA 2846.8 MSA 190.7 SSA 12.1
EL1 2771.3 EL2 189.0 ALF 5.24

LAUNCH DATE OCT 13 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAY 3 1971

HELIOCENTRIC CONIC DISTANCE 587.318
RL 149.25 LAL -.00 LOL 19.24 VL 25.296 GAL 13.03 AZL 86.01 HCA 306.91 SMA 116.57 ECC .35420 INC 3.9864 V1 29.854
RP 108.91 LAP -3.19 LOP 326.23 VP 36.035 GAP 20.41 AZP 87.60 TAL 153.49 TAP 100.41 RCA 75.28 APO 157.86 V2 34.793
RC 206.655 GL 11.90 GP 9.41 ZAL 41.77 ZAP 169.39 ETS 116.29 ZAE 129.73 ETE 172.49 ZAC 107.63 ETC 278.77 CLP 175.08
PLANETOCENTRIC CONIC
C3 69.072 VHL 8.311 DLA 2.81 RAL 336.07 RAD 6569.3 VEL 13.799 PTH 2.52 VHP 12.851 DPA -8.32 RAP 321.86 ECC 2.1367

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 59 40	2608.34	-26.77	68.00	220.28	99.59	8 43 9	2008.3	-25.17	59.69
90.00	20 39 23	5078.19	24.22	224.84	217.89	74.86	22 4 1	4478.2	21.91	216.93
100.00	9 22 19	2341.74	-28.19	48.11	220.00	100.37	10 1 21	1741.7	-26.47	39.73
100.00	21 59 25	4820.02	25.61	205.43	217.46	74.03	23 19 45	4220.0	23.18	197.48
110.00	10 33 34	2118.74	-32.04	30.27	219.09	102.59	11 8 53	1518.7	-29.98	21.67
110.00	23 4 39	4615.79	29.37	188.62	216.16	71.66	24 21 35	4015.8	26.58	180.54

DIFFERENTIAL CORRECTIONS
TDE 3.6030 TRA 6.0662 TC3-1.1933 BAU 1.1021
RDE .4473 RRA -.2469 RC3 .0195 FAU .00448
FDE .7684 FRA 1.3929 FC3 -.0561 BSP 18048
BDE 3.6307 BRA 6.0712 BC3 1.1935 FSP -336

MID-COURSE EXECUTION ACCURACY
SGT 5257.0 SGR 353.8 SG3 95.2
RRT -.0064 RRF -.0091 RTF .9543
SGB 5268.9 R23 .0030 R13 -.9543
SG1 5257.0 SG2 353.8 THA 179.98

ORBIT DETERMINATION ACCURACY
ST 2784.1 SR 312.6 SS 669.7
CRT .8063 CRS -.7882 CST -.9994
LSA 2874.5 MSA 185.6 SSA 11.5
EL1 2795.5 EL2 184.1 ALF 5.20

LAUNCH DATE OCT 13 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAY 5 1971

HELIOCENTRIC CONIC DISTANCE 591.109
RL 149.25 LAL -.00 LOL 19.24 VL 25.255 GAL 14.45 AZL 85.76 HCA 310.07 SMA 116.36 ECC .37038 INC 4.2434 V1 29.854
RP 108.90 LAP -3.25 LOP 329.39 VP 36.011 GAP 21.44 AZP 87.27 TAL 152.10 TAP 102.17 RCA 73.26 APO 159.46 V2 34.797
RC 208.346 GL 11.73 GP 9.30 ZAL 40.25 ZAP 169.04 ETS 120.92 ZAE 129.58 ETE 172.64 ZAC 107.12 ETC 279.21 CLP 174.18
PLANETOCENTRIC CONIC
C3 79.267 VHL 8.903 DLA 3.22 RAL 337.55 RAD 6569.5 VEL 14.164 PTH 2.58 VHP 13.484 DPA -7.76 RAP 324.05 ECC 2.3045

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 2 30	2653.38	-27.24	71.21	224.39	98.05	8 46 43	2053.4	-25.85	62.82
90.00	20 48 24	5097.41	24.56	226.15	221.54	75.44	22 13 21	4497.4	22.32	218.19
100.00	9 25 21	2386.16	-28.70	51.31	224.15	98.75	10 5 7	1786.2	-27.19	42.84
100.00	22 8 14	4839.87	25.98	206.79	221.12	74.66	23 28 54	4239.9	23.62	198.79
110.00	10 37 3	2161.75	-32.64	33.49	223.36	100.78	11 13 4	1561.8	-30.81	24.75
110.00	23 13 1	4637.04	29.81	190.12	219.84	72.45	24 30 18	4037.0	27.12	181.96

DIFFERENTIAL CORRECTIONS
TDE 3.8777 TRA 6.5918 TC3 -.9871 BAU 1.0461
RDE .4757 RRA -.2325 RC3 .0132 FAU .00331
FDE .8081 FRA 1.4668 FC3 -.0361 BSP 17952
BDE 3.9068 BRA 6.5959 BC3 .9872 FSP -328

MID-COURSE EXECUTION ACCURACY
SGT 5231.6 SGR 341.7 SG3 93.4
RRT .0480 RRF .0433 RTF .9598
SGB 5242.7 R23 -.0029 R13 .9598
SG1 5231.6 SG2 341.3 THA .18

ORBIT DETERMINATION ACCURACY
ST 2802.6 SR 309.4 SS 690.1
CRT .8148 CRS -.7990 CST -.9995
LSA 2897.3 MSA 180.0 SSA 10.9
EL1 2814.0 EL2 178.7 ALF 5.16

LAUNCH DATE OCT 13 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAY 7 1971

HELIOCENTRIC CONIC DISTANCE 594.530

RL	149.25	LAL	-.00	LOL	19.24	VL	25.216	GAL	16.00	AZL	85.47	HCA	313.23	SMA	116.16	ECC	.38856	INC	4.5256	V1	29.854
RP	108.89	LAP	-3.30	LOP	332.56	VP	35.988	GAP	22.60	AZP	86.90	TAL	150.81	TAP	104.04	RCA	71.03	APO	161.30	V2	34.802
RC	210.017	GL	11.54	GP	9.20	ZAL	38.86	ZAP	168.59	ETS	125.44	ZAE	129.38	ETE	172.80	ZAC	106.61	ETC	279.62	CLP	173.22

PLANETOCENTRIC CONIC

C3	91.416	VHL	9.561	DLA	3.57	RAL	338.91	RAD	6569.8	VEL	14.586	PTH	2.64	VHP	14.195	DPA	-7.19	RAP	326.17	ECC	2.5045

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 5 18	2696.27	-27.61	74.29	228.36	96.54	8 50 15	2096.3	-26.42	65.83
90.00	20 56 23	5118.67	24.91	227.61	225.09	76.08	22 21 42	4518.7	22.75	219.60
100.00	9 28 19	2428.52	-29.10	54.40	228.15	97.18	10 8 47	1828.5	-27.80	45.84
100.00	22 16 4	4861.66	26.36	208.30	224.68	75.37	23 37 6	4261.7	24.09	200.23
110.00	10 40 23	2202.94	-33.12	36.61	227.49	98.99	11 17 6	1602.9	-31.52	27.74
110.00	23 20 29	4660.00	30.27	191.75	223.44	73.31	24 38 9	4060.0	27.69	183.50

DIFFERENTIAL CORRECTIONS

TDE	4.1767	TRA	7.1836	TC3	-.7978	BAU	.9751
RDE	.5067	RRA	-.2129	RC3	.0085	FAU	.00199
FDE	.8524	FRA	1.5490	FC3	-.0189	BSP	17743
BDE	4.2073	BRA	7.1668	BC3	.7979	FSP	-318

MID-COURSE EXECUTION ACCURACY

SGT	5205.0	SGR	329.9	SG3	91.7		
RRT	.1081	RRF	.1018	RTF	.9652		
SGB	5215.4	R23	-.0030	R13	.9652		
SG1	5205.1	SG2	327.9	THA	.39		

ORBIT DETERMINATION ACCURACY

ST	2816.3	SR	306.1	SS	713.9
CRT	.8243	CRS	-.8106	CST	-.9996
LSA	2916.3	MSA	173.8	SSA	10.3
EL1	2827.6	EL2	172.6	ALF	5.14

LAUNCH DATE OCT 13 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAY 9 1971

HELIOCENTRIC CONIC DISTANCE 597.489

RL	149.25	LAL	-.00	LOL	19.24	VL	25.179	GAL	17.71	AZL	85.16	HCA	316.39	SMA	115.97	ECC	.40904	INC	4.8387	V1	29.854
RP	108.87	LAP	-3.34	LOP	335.73	VP	35.966	GAP	23.90	AZP	86.49	TAL	149.66	TAP	106.04	RCA	68.53	APO	163.41	V2	34.807
RC	211.667	GL	11.33	GP	9.10	ZAL	37.62	ZAP	168.03	ETS	129.83	ZAE	129.11	ETE	172.96	ZAC	106.11	ETC	280.00	CLP	172.20

PLANETOCENTRIC CONIC

C3	105.995	VHL	10.295	DLA	3.85	RAL	340.12	RAD	6570.0	VEL	15.078	PTH	2.71	VHP	14.998	DPA	-6.62	RAP	328.22	ECC	2.7444

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 8 5	2736.71	-27.89	77.22	232.15	95.10	8 53 42	2136.7	-26.89	68.69
90.00	21 3 20	5141.82	25.28	229.20	228.52	76.80	22 29 1	4541.8	23.21	221.14
100.00	9 31 14	2468.53	-29.40	57.33	231.99	95.66	10 12 22	1868.5	-28.31	48.70
100.00	22 22 52	4885.23	26.75	209.94	228.13	76.15	23 44 17	4285.2	24.58	201.81
110.00	10 43 37	2242.00	-33.50	39.59	231.44	97.26	11 20 59	1642.0	-32.13	30.63
110.00	23 26 30	4684.52	30.74	193.50	226.93	74.25	24 45 3	4084.5	28.27	185.17

DIFFERENTIAL CORRECTIONS

TDE	4.5031	TRA	7.7871	TC3	-.6252	BAU	.8859
RDE	.5409	RRA	-.1871	RC3	.0090	FAU	.00051
FDE	.9019	FRA	1.6407	FC3	-.0041	BSP	17408
BDE	4.5355	BRA	7.7893	BC3	.6252	FSP	-306

MID-COURSE EXECUTION ACCURACY

SGT	5177.2	SGR	318.8	SG3	90.2		
RRT	.1744	RRF	.1668	RTF	.9704		
SGB	5187.0	R23	-.0031	R13	.9704		
SG1	5177.5	SG2	313.9	THA	.62		

ORBIT DETERMINATION ACCURACY

ST	2824.9	SR	302.6	SS	741.3
CRT	.8347	CRS	-.8230	CST	-.9997
LSA	2931.4	MSA	167.1	SSA	9.8
EL1	2836.2	EL2	166.0	ALF	5.13

LAUNCH DATE OCT 13 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAY 11 1971

HELIOCENTRIC CONIC DISTANCE 599.866

RL	149.25	LAL	-.00	LOL	19.24	VL	25.144	GAL	19.61	AZL	84.81	HCA	319.54	SMA	115.79	ECC	.43219	INC	5.1904	V1	29.854
RP	108.86	LAP	-3.37	LOP	338.90	VP	35.947	GAP	25.39	AZP	86.05	TAL	148.66	TAP	108.20	RCA	65.75	APO	165.83	V2	34.813
RC	213.296	GL	11.11	GP	9.01	ZAL	36.53	ZAP	167.36	ETS	134.07	ZAE	128.76	ETE	173.14	ZAC	105.63	ETC	280.36	CLP	171.09

PLANETOCENTRIC CONIC

C3	123.627	VHL	11.119	DLA	4.05	RAL	341.20	RAD	6570.3	VEL	15.651	PTH	2.78	VHP	15.910	DPA	-6.04	RAP	330.19	ECC	3.0346

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 10 51	2774.32	-28.09	79.95	235.73	93.74	8 57 5	2174.3	-27.27	71.38
90.00	21 9 8	5166.74	25.66	230.93	231.81	77.59	22 35 15	4566.7	23.69	222.81
100.00	9 34 5	2505.83	-29.62	60.09	235.61	94.23	10 15 51	1905.8	-28.72	51.40
100.00	22 28 35	4910.46	27.15	211.71	231.43	77.00	23 50 25	4310.5	25.09	203.51
110.00	10 46 41	2278.62	-33.77	42.42	235.19	95.61	11 24 40	1678.6	-32.63	33.37
110.00	23 32 28	4710.44	31.20	195.38	230.29	75.28	24 50 59	4110.4	28.87	186.96

DIFFERENTIAL CORRECTIONS

TDE	4.8609	TRA	8.4693	TC3	-.4686	BAU	.7745
RDE	.5787	RRA	-.1540	RC3	.0028	FAU	-.00122
FDE	.9573	FRA	1.7435	FC3	.0086	BSP	16939
BDE	4.8952	BRA	8.4707	BC3	.4686	FSP	-292

MID-COURSE EXECUTION ACCURACY

SGT	5148.1	SGR	308.7	SG3	88.7		
RRT	.2469	RRF	.2384	RTF	.9752		
SGB	5157.3	R23	-.0033	R13	.9752		
SG1	5148.7	SG2	299.1	THA	.85		

ORBIT DETERMINATION ACCURACY

ST	2828.1	SR	299.2	SS	773.2
CRT	.8459	CRS	-.8359	CST	-.9998
LSA	2942.8	MSA	159.9	SSA	9.2
EL1	2839.4	EL2	158.9	ALF	5.13

LAUNCH DATE OCT 13 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAY 13 1971

HELIOCENTRIC CONIC DISTANCE 601.500

RL	149.25	LAL	-.00	LOL	19.24	VL	25.111	GAL	21.74	AZL	84.41	HCA	322.70	SMA	115.62	ECC	.45845	INC	5.5909	V1	29.854
RP	108.83	LAP	-3.38	LOP	342.08	VP	35.931	GAP	27.09	AZP	85.55	TAL	147.85	TAP	110.55	RCA	62.62	APO	168.63	V2	34.819
RC	214.903	GL	10.87	GP	8.91	ZAL	35.61	ZAP	166.55	ETS	138.16	ZAE	128.31	ETE	173.33	ZAC	105.15	ETC	280.68	CLP	169.89

PLANETOCENTRIC CONIC

C3	145.135	VHL	12.047	DLA	4.17	RAL	342.12	RAD	6570.6	VEL	16.324	PTH	2.86	VHP	16.952	DPA	-5.48	RAP	332.05	ECC	3.3885

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 13 35	2808.67	-28.22	82.46	239.07	92.49	9 0 24	2208.7	-27.57	73.85
90.00	21 13 43	5193.38	26.03	232.79	234.93	78.45	22 40 17	4593.4	24.18	224.61
100.00	9 36 53	2539.99	-29.76	62.61	238.98	92.91	10 19 13	1940.0	-29.04	53.88
100.00	22 33 6	4937.30	27.55	213.60	234.58	77.92	23 55 24	4337.3	25.61	205.34
110.00	10 49 37	2312.36	-33.97	45.03	238.68	94.07	11 28 9	1712.4	-33.03	35.92
110.00	23 36 52	4737.70	31.66	197.38	233.50	76.38	24 55 50	4137.7	29.46	188.86

DIFFERENTIAL CORRECTIONS

TDE	5.2175	TRA	9.1805	TC3	-.3379	BAU	.6556
RDE	.6207	RRA	-.1126	RC3	.0016	FAU	-.00290
FDE	1.0116	FRA	1.8510	FC3	.0173	BSP	17215
BDE	5.2542	BRA	9.1812	BC3	.3379	FSP	-294

MID-COURSE EXECUTION ACCURACY

SGT	5097.6	SGR	300.0	SG3	86.9		
RRT	.3231	RRF	.3140	RTF	.9796		
SGB	5106.4	R23	-.0037	R13	.9796		
SG1	5098.5	SG2	283.9	THA	1.09		

ORBIT DETERMINATION ACCURACY

ST	2807.6	SR	295.6	SS	804.4
CRT	.8570	CRS	-.8485	CST	-.9998
LSA	2931.5	MSA	152.6	SSA	8.6
EL1	2819.1	EL2	151.7	ALF	5.17

LAUNCH DATE OCT 13 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAY 15 1971

HELIOCENTRIC CONIC DISTANCE 602.186

RL 149.25 LAL -.00 LOL 19.24 VL 25.081 GAL 24.13 AZL 83.95 HCA 325.86 SMA 115.47 ECC .48832 INC 6.0541 V1 29.854
RP 108.81 LAP -3.39 LOP 345.25 VP 35.917 GAP 29.06 AZP 84.98 TAL 147.28 TAP 113.13 RCA 59.08 APO 171.86 V2 34.826
RC 216.489 GL 10.62 GP 8.82 ZAL 34.86 ZAP 165.60 ETS 142.08 ZAE 127.75 ETE 173.54 ZAC 104.69 ETC 280.97 CLP 168.57

PLANETOCENTRIC CONIC

C3 171.620 VHL 13.100 DLA 4.21 RAL 342.86 RAD 6570.9 VEL 17.116 PTH 2.93 VHP 18.149 DPA -4.94 RAP 333.81 ECC 3.8244

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 16 17	2839.26	-28.29	84.69	242.11	91.38	9 3 37	2239.3	-27.80	76.06
90.00	21 16 58	5221.74	26.41	234.78	237.86	79.38	22 44 0	4621.7	24.67	226.54
100.00	9 39 36	2570.53	-29.85	64.88	242.06	91.72	10 22 27	1970.5	-29.29	56.12
100.00	22 36 20	4965.71	27.94	215.63	237.52	78.91	23 59 6	4365.7	26.13	207.29
110.00	10 52 23	2342.77	-34.09	47.40	241.87	92.68	11 31 25	1742.8	-33.34	38.24
110.00	23 40 3	4766.23	32.10	199.49	236.52	77.55	24 59 29	4166.2	30.05	190.87

DIFFERENTIAL CORRECTIONS
TDE 5.6231 TRA 9.9750 TC3 -.2170 BAU .4978
RDE .6679 RRA -.0609 RC3 .0015 FAU-.00512
FDE 1.0763 FRA 1.9758 FC3 .0258 BSP 17124
BDE 5.6626 BRA 9.9752 BC3 .2170 FSP -288

MID-COURSE EXECUTION ACCURACY
SGT 5050.5 SGR 293.4 SG3 85.4
RRT .4045 RRF .3953 RTF .9835
SGB 5059.0 R23 -.0040 R13 .9835
SG1 5051.9 SG2 268.2 THA 1.35

ORBIT DETERMINATION ACCURACY
ST 2787.6 SR 292.2 SS 843.2
CRT .8690 CRS -.8618 CST -.9998
LSA 2923.4 MSA 144.8 SSA 8.1
EL1 2799.2 EL2 144.0 ALF 5.22

LAUNCH DATE OCT 13 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAY 17 1971

HELIOCENTRIC CONIC DISTANCE 601.647

RL 149.25 LAL -.00 LOL 19.24 VL 25.054 GAL 26.85 AZL 83.40 HCA 329.01 SMA 115.34 ECC .52237 INC 6.5994 V1 29.854
RP 108.79 LAP -3.39 LOP 348.42 VP 35.905 GAP 31.34 AZP 84.34 TAL 147.00 TAP 116.01 RCA 55.09 APO 175.59 V2 34.834
RC 218.051 GL 10.35 GP 8.73 ZAL 34.33 ZAP 164.47 ETS 145.83 ZAE 127.04 ETE 173.78 ZAC 104.26 ETC 281.23 CLP 167.10

PLANETOCENTRIC CONIC

C3 204.563 VHL 14.303 DLA 4.15 RAL 343.41 RAD 6571.1 VEL 18.052 PTH 3.01 VHP 19.532 DPA -4.44 RAP 335.42 ECC 4.3666

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 18 58	2865.45	-28.31	86.61	244.80	90.42	9 6 43	2265.5	-27.96	77.96
90.00	21 18 41	5251.92	26.77	236.92	240.55	80.39	22 46 13	4651.9	25.17	228.62
100.00	9 42 15	2596.82	-29.89	66.83	244.79	90.69	10 25 32	1996.8	-29.47	58.05
100.00	22 38 5	4995.79	28.31	217.78	240.25	79.99	24 1 21	4395.8	26.64	209.38
110.00	10 54 57	2369.28	-34.16	49.47	244.69	91.46	11 34 26	1769.3	-33.58	40.27
110.00	23 41 52	4796.10	32.51	201.72	239.33	78.81	25 1 48	4196.1	30.63	193.00

DIFFERENTIAL CORRECTIONS
TDE 6.0881 TRA10.8460 TC3 -.1097 BAU .3001
RDE .7217 RRA .0029 RC3 .0022 FAU-.00786
FDE 1.1496 FRA 2.1172 FC3 .0333 BSP 17005
BDE 6.1109 BRA10.8460 BC3 .1097 FSP -283

MID-COURSE EXECUTION ACCURACY
SGT 4998.5 SGR 289.2 SG3 84.0
RRT .4884 RRF .4795 RTF .9870
SGB 5006.9 R23 -.0043 R13 .9870
SG1 5000.5 SG2 252.3 THA 1.62

ORBIT DETERMINATION ACCURACY
ST 2759.9 SR 289.1 SS 888.5
CRT .8814 CRS -.8753 CST -.9999
LSA 2910.6 MSA 136.8 SSA 7.5
EL1 2771.7 EL2 136.0 ALF 5.29

LAUNCH DATE OCT 13 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAY 19 1971

HELIOCENTRIC CONIC DISTANCE 599.513

RL 149.25 LAL -.00 LOL 19.24 VL 25.031 GAL 29.97 AZL 82.74 HCA 332.17 SMA 115.22 ECC .56122 INC 7.2553 V1 29.854
RP 108.76 LAP -3.38 LOP 351.60 VP 35.898 GAP 34.01 AZP 83.58 TAL 147.09 TAP 119.26 RCA 50.56 APO 179.89 V2 34.842
RC 219.589 GL 10.06 GP 8.63 ZAL 34.03 ZAP 163.13 ETS 149.43 ZAE 126.15 ETE 174.04 ZAC 103.85 ETC 281.46 CLP 165.44

PLANETOCENTRIC CONIC

C3 245.968 VHL 15.683 DLA 3.97 RAL 343.74 RAD 6571.4 VEL 19.165 PTH 3.09 VHP 21.141 DPA -4.00 RAP 336.86 ECC 5.0480

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 21 36	2886.51	-28.31	88.15	247.09	89.64	9 9 43	2286.5	-28.06	79.49
90.00	21 18 38	5284.13	27.11	239.21	242.97	81.49	22 46 42	4684.1	25.66	230.85
100.00	9 44 48	2618.15	-29.89	68.42	247.10	89.85	10 28 26	2018.1	-29.59	59.63
100.00	22 38 7	5027.73	28.67	220.09	242.70	81.16	24 1 55	4427.7	27.15	211.62
110.00	10 57 19	2391.22	-34.18	51.18	247.09	90.44	11 37 10	1791.2	-33.74	41.96
110.00	23 42 6	4827.42	32.90	204.08	241.89	80.16	25 2 34	4227.4	31.19	195.27

DIFFERENTIAL CORRECTIONS
TDE 6.5544 TRA11.7986 TC3 -.0157 BAU .0531
RDE .7835 RRA .0813 RC3 .0037 FAU-.01134
FDE 1.2326 FRA 2.2775 FC3 .0399 BSP 16881
BDE 6.6011 BRA11.7988 BC3 .0161 FSP -279

MID-COURSE EXECUTION ACCURACY
SGT 4940.1 SGR 288.0 SG3 82.6
RRT .5717 RRF .5636 RTF .9900
SGB 4948.5 R23 -.0045 R13 .9900
SG1 4942.9 SG2 236.2 THA 1.91

ORBIT DETERMINATION ACCURACY
ST 2722.8 SR 286.4 SS 941.0
CRT .8938 CRS -.8888 CST -.9999
LSA 2892.2 MSA 128.6 SSA 7.0
EL1 2734.9 EL2 127.8 ALF 5.38

LAUNCH DATE OCT 13 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAY 21 1971

HELIOCENTRIC CONIC DISTANCE 595.302

RL 149.25 LAL -.00 LOL 19.24 VL 25.014 GAL 33.56 AZL 81.94 HCA 335.32 SMA 115.14 ECC .60546 INC 8.0645 V1 29.854
RP 108.74 LAP -3.36 LOP 354.78 VP 35.894 GAP 37.15 AZP 82.66 TAL 147.63 TAP 122.95 RCA 45.43 APO 184.85 V2 34.851
RC 221.103 GL 9.74 GP 8.52 ZAL 34.01 ZAP 161.54 ETS 152.87 ZAE 125.04 ETE 174.34 ZAC 103.47 ETC 281.64 CLP 163.56

PLANETOCENTRIC CONIC

C3 298.547 VHL 17.279 DLA 3.65 RAL 343.80 RAD 6571.7 VEL 20.490 PTH 3.17 VHP 23.022 DPA -3.64 RAP 338.09 ECC 5.9133

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 24 12	2901.54	-28.30	89.25	248.91	89.09	9 12 34	2301.5	-28.13	80.59
90.00	21 16 32	5318.74	27.43	241.69	245.06	82.70	22 45 11	4718.7	26.14	233.27
100.00	9 47 15	2633.66	-29.88	69.57	248.93	89.25	10 31 9	2033.7	-29.67	60.78
100.00	22 36 10	5061.85	29.00	222.57	244.83	82.42	24 0 32	4461.9	27.65	214.03
110.00	10 59 25	2407.80	-34.18	52.47	248.98	89.68	11 39 33	1807.8	-33.85	43.25
110.00	23 40 30	4860.48	33.26	206.59	244.13	81.61	25 1 30	4260.5	31.74	197.69

DIFFERENTIAL CORRECTIONS
TDE 7.0847 TRA12.8360 TC3 .0659 BAU .2640
RDE .8552 RRA .1771 RC3 .0059 FAU-.01582
FDE 1.3269 FRA 2.4597 FC3 .0459 BSP 16719
BDE 7.1361 BRA12.8372 BC3 .0661 FSP -275

MID-COURSE EXECUTION ACCURACY
SGT 4874.6 SGR 290.3 SG3 81.4
RRT .6513 RRF .6441 RTF .9925
SGB 4883.3 R23 -.0047 R13 .9925
SG1 4878.3 SG2 220.1 THA 2.23

ORBIT DETERMINATION ACCURACY
ST 2675.1 SR 284.1 SS 1002.0
CRT .9062 CRS -.9021 CST -.9999
LSA 2868.2 MSA 120.3 SSA 6.4
EL1 2687.5 EL2 119.6 ALF 5.51

LAUNCH DATE OCT 14 1970 FLIGHT TIME 70.00 ARRIVAL DATE DEC 23 1970

HELIOCENTRIC CONIC DISTANCE 209.655

RL	149.21	LAL	-.00	LOL	20.23	VL	29.506	GAL	-15.55	AZL	87.81	HCA	96.10	SMA	146.12	ECC	.26879	INC	2.1923	V1	29.862
RP	107.50	LAP	2.18	LOP	116.34	VP	39.507	GAP	-2.91	AZP	90.23	TAL	250.10	TAP	346.20	RCA	106.84	APO	185.40	V2	35.251
RC	68.539	GL	8.19	GP	-23.04	ZAL	166.25	ZAP	67.04	ETS	7.07	ZAE	154.91	ETE	275.15	ZAC	76.95	ETC	258.13	CLP	-64.92

PLANETOCENTRIC CONIC

C3	58.271	VHL	7.634	DLA	-4.24	RAL	212.01	RAD	6569.1	VEL	13.403	PTH	2.45	VHP	4.988	DPA	-38.44	RAP	220.55	ECC	1.9590

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 33 16	2348.50	-22.58	50.15	90.43	107.56	1 12 25	1748.5	-19.96	42.45
90.00	11 28 11	5256.06	26.81	237.21	93.81	80.53	12 55 47	4656.1	25.23	228.90
100.00	1 52 37	2092.51	-23.93	30.85	89.95	108.47	2 27 30	1492.5	-21.18	23.13
100.00	12 51 31	4987.27	28.21	217.17	93.54	79.68	14 14 38	4387.3	26.50	208.79
110.00	2 56 18	1893.15	-27.56	14.27	88.50	111.07	3 27 51	1293.1	-24.45	6.48
110.00	14 4 19	4759.40	31.99	198.98	92.65	77.27	15 23 39	4159.4	29.91	190.39

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2726	TRA	-.6683	TC3	-.0389	BAU	.1959	SGT	546.3	SGR	503.6	SG3	201.0	ST	254.3	SR	233.8	SS	422.4
RDE	-.2951	RRA	-.3273	RC3	-.2484	FAU	.08810	RRT	.3675	RRF	.6164	RTF	.5295	CRT	-.5746	CRS	.8508	CST	-.9139
FDE	1.2719	FRA	-.9482	FC3	-1.3088	BSP	1227	SGB	743.0	R23	.1470	R13	.6815	LSA	521.7	MSA	158.6	SSA	20.0
BDE	.4018	BRA	.7442	BC3	.2515	FSP	-567	SG1	616.1	SG2	415.3	THA	38.75	EL1	306.9	EL2	158.5	ALF	139.16

LAUNCH DATE OCT 14 1970 FLIGHT TIME 72.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 216.222

RL	149.21	LAL	-.00	LOL	20.23	VL	29.486	GAL	-15.38	AZL	87.65	HCA	99.34	SMA	145.93	ECC	.26608	INC	2.3549	V1	29.862
RP	107.49	LAP	2.32	LOP	119.58	VP	39.495	GAP	-2.25	AZP	90.38	TAL	249.94	TAP	349.28	RCA	107.10	APO	184.75	V2	35.254
RC	70.666	GL	8.89	GP	-23.98	ZAL	165.73	ZAP	71.94	ETS	5.07	ZAE	154.03	ETE	267.19	ZAC	75.75	ETC	257.78	CLP	-70.17

PLANETOCENTRIC CONIC

C3	57.144	VHL	7.559	DLA	-3.63	RAL	212.37	RAD	6569.0	VEL	13.360	PTH	2.44	VHP	4.842	DPA	-38.59	RAP	217.93	ECC	1.9404

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 30 6	2362.90	-22.87	51.10	90.65	107.17	1 9 29	1762.9	-20.30	43.37
90.00	11 34 14	5232.08	26.53	235.51	93.53	79.73	13 1 26	4632.1	24.84	227.25
100.00	1 49 45	2105.97	-24.22	31.74	90.18	108.08	2 24 51	1506.0	-21.52	23.99
100.00	12 57 16	4964.24	27.92	215.52	93.24	78.86	14 20 0	4364.2	26.10	207.19
110.00	2 54 6	1904.51	-27.84	15.03	88.76	110.69	3 25 50	1304.5	-24.77	7.21
110.00	14 9 24	4738.47	31.67	197.43	92.29	76.41	15 28 23	4138.5	29.48	188.91

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.3110	TRA	-.7173	TC3	-.0837	BAU	.2144	SGT	606.9	SGR	518.2	SG3	213.5	ST	286.9	SR	219.4	SS	444.5
RDE	-.2717	RRA	-.3282	RC3	-.2678	FAU	.09238	RRT	.4403	RRF	.6470	RTF	.6112	CRT	-.5763	CRS	.8412	CST	-.9222
FDE	1.3683	FRA	-.9772	FC3	-1.3995	BSP	1452	SGB	798.0	R23	.1477	R13	.7272	LSA	549.6	MSA	160.0	SSA	20.0
BDE	.4130	BRA	.7888	BC3	.2806	FSP	-611	SG1	682.4	SG2	413.8	THA	35.08	EL1	324.5	EL2	158.5	ALF	147.61

LAUNCH DATE OCT 14 1970 FLIGHT TIME 74.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 222.743

RL	149.21	LAL	-.00	LOL	20.23	VL	29.457	GAL	-15.21	AZL	87.48	HCA	102.58	SMA	145.66	ECC	.26347	INC	2.5207	V1	29.862
RP	107.48	LAP	2.46	LOP	122.83	VP	39.475	GAP	-1.62	AZP	90.55	TAL	249.66	TAP	352.24	RCA	107.28	APO	184.03	V2	35.256
RC	72.818	GL	9.61	GP	-24.87	ZAL	165.12	ZAP	76.81	ETS	3.00	ZAE	152.78	ETE	259.62	ZAC	74.58	ETC	257.43	CLP	-75.44

PLANETOCENTRIC CONIC

C3	56.065	VHL	7.488	DLA	-3.02	RAL	212.80	RAD	6569.0	VEL	13.320	PTH	2.43	VHP	4.730	DPA	-38.67	RAP	215.31	ECC	1.9227

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 27 15	2377.25	-23.15	52.06	90.95	106.77	1 6 53	1777.3	-20.64	44.29
90.00	11 40 31	5208.37	26.23	233.84	93.34	78.94	13 7 19	4608.4	24.44	225.63
100.00	1 47 11	2119.39	-24.50	32.64	90.49	107.69	2 22 31	1519.4	-21.85	24.85
100.00	13 3 16	4941.46	27.61	213.90	93.02	78.06	14 25 38	4341.5	25.69	205.63
110.00	2 52 12	1915.86	-28.11	15.81	89.11	110.31	3 24 8	1315.9	-25.08	7.94
110.00	14 14 45	4717.75	31.33	195.91	92.02	75.57	15 33 22	4117.8	29.03	187.46

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.3552	TRA	-.7700	TC3	-.1335	BAU	.2366	SGT	679.7	SGR	531.1	SG3	223.9	ST	324.4	SR	204.6	SS	464.6
RDE	-.2482	RRA	-.3261	RC3	-.2861	FAU	.09577	RRT	.5027	RRF	.6737	RTF	.6773	CRT	-.5767	CRS	.8307	CST	-.9298
FDE	1.4531	FRA	-.9916	FC3	-1.4788	BSP	1710	SGB	862.6	R23	.1491	R13	.7649	LSA	580.4	MSA	160.5	SSA	20.0
BDE	.4333	BRA	.8362	BC3	.3157	FSP	-650	SG1	758.0	SG2	411.7	THA	31.81	EL1	351.1	EL2	154.5	ALF	154.81

LAUNCH DATE OCT 14 1970 FLIGHT TIME 76.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 229.218

RL	149.21	LAL	-.00	LOL	20.23	VL	29.421	GAL	-15.05	AZL	87.31	HCA	105.83	SMA	145.32	ECC	.26094	INC	2.6908	V1	29.862
RP	107.48	LAP	2.59	LOP	126.08	VP	39.450	GAP	-1.02	AZP	90.73	TAL	249.26	TAP	355.09	RCA	107.40	APO	183.24	V2	35.258
RC	74.992	GL	10.36	GP	-25.71	ZAL	164.44	ZAP	81.61	ETS	.89	ZAE	151.21	ETE	252.65	ZAC	73.45	ETC	257.09	CLP	-80.68

PLANETOCENTRIC CONIC

C3	55.026	VHL	7.418	DLA	-2.40	RAL	213.31	RAD	6569.0	VEL	13.281	PTH	2.43	VHP	4.650	DPA	-38.70	RAP	212.77	ECC	1.9056

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 24 41	2391.73	-23.44	53.03	91.33	106.36	1 4 33	1791.7	-20.97	45.22
90.00	11 47 6	5184.68	25.91	232.18	93.23	78.17	13 13 30	4584.7	24.02	224.02
100.00	1 44 55	2132.94	-24.77	33.55	90.89	107.29	2 20 28	1532.9	-22.17	25.72
100.00	13 9 33	4918.70	27.28	212.29	92.89	77.28	14 31 32	4318.7	25.25	204.07
110.00	2 50 35	1927.35	-28.38	16.59	89.53	109.91	3 22 43	1327.3	-25.40	8.68
110.00	14 20 22	4697.06	30.97	194.41	91.84	74.75	15 38 39	4097.1	28.56	186.03

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.4048	TRA	-.8256	TC3	-.1878	BAU	.2621	SGT	763.4	SGR	541.8	SG3	232.2	ST	366.7	SR	189.6	SS	482.4
RDE	-.2251	RRA	-.3209	RC3	-.3028	FAU	.09817	RRT	.5539	RRF	.6970	RTF	.7289	CRT	-.5753	CRS	.8193	CST	-.9366
FDE	1.5232	FRA	-.9912	FC3	-1.5445	BSP	1995	SGB	936.1	R23	.1517	R13	.7952	LSA	614.1	MSA	160.1	SSA	20.0
BDE	.4632	BRA	.8858	BC3	.3563	FSP	-682	SG1	842.1	SG2	408.9	THA	28.87	EL1	385.6	EL2	147.5	ALF	160.46

LAUNCH DATE OCT 14 1970 FLIGHT TIME 78.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 235.650

RL	149.21	LAL	-.00	LOL	20.23	VL	29.379	GAL	-14.89	AZL	87.13	HCA	109.07	SMA	144.92	ECC	.25848	INC	2.8664	V1	29.862
RP	107.48	LAP	2.71	LOP	129.33	VP	39.419	GAP	-.45	AZP	90.94	TAL	248.76	TAP	357.83	RCA	107.46	APO	182.38	V2	35.259
RC	77.186	GL	11.14	GP	-26.49	ZAL	163.67	ZAP	86.27	ETS	358.73	ZAE	149.39	ETE	246.41	ZAC	72.38	ETC	256.78	CLP	-85.83

PLANETOCENTRIC CONIC

C3	54.022	VHL	7.350	DLA	-1.78	RAL	213.88	RAD	6569.0	VEL	13.243	PTH	2.42	VHP	4.600	DPA	-38.69	RAP	210.36	ECC	1.8891

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 22 20	2406.54	-23.72	54.02	91.80	105.94	1 2 26	1806.5	-21.30	46.18
90.00	11 54 0	5160.77	25.57	230.51	93.19	77.40	13 20 1	4560.8	23.58	222.41
100.00	1 42 51	2146.82	-25.05	34.49	91.37	106.87	2 18 37	1546.8	-22.50	26.62
100.00	13 16 10	4895.73	26.92	210.67	92.84	76.50	14 37 46	4295.7	24.80	202.52
110.00	2 49 11	1939.13	-28.65	17.40	90.04	109.50	3 21 30	1339.1	-25.72	9.45
110.00	14 26 19	4676.18	30.58	192.90	91.74	73.93	15 44 15	4076.2	28.08	184.60

DIFFERENTIAL CORRECTIONS

TDE	.4596	TRA	-.8830	TC3	-.2457	BAU	.2900
RDE	-.2025	RRA	-.3123	RC3	-.3176	FAU	.09949
FDE	1.5780	FRA	-.9753	FC3	-1.5944	BSP	2302
BDE	.5023	BRA	.9366	BC3	.4016	FSP	-706

MID-COURSE EXECUTION ACCURACY

SGT	856.2	SGR	549.8	SG3	237.9		
RRT	.5944	RRF	.7168	RTF	.7680		
SGB	1017.5	R23	.1559	R13	.8187		
SG1	933.2	SG2	405.6	THA	26.20		

ORBIT DETERMINATION ACCURACY

ST	413.7	SR	174.5	SS	498.0
CRT	-.5722	CRS	.8073	CST	-.9425
LSA	651.1	MSA	158.9	SSA	19.9
EL1	427.1	EL2	138.7	ALF	164.79

LAUNCH DATE OCT 14 1970 FLIGHT TIME 80.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 242.038

RL	149.21	LAL	-.00	LOL	20.23	VL	29.330	GAL	-14.72	AZL	86.95	HCA	112.31	SMA	144.47	ECC	.25607	INC	3.0490	V1	29.862
RP	107.48	LAP	2.82	LOP	132.58	VP	39.383	GAP	.10	AZP	91.16	TAL	248.16	TAP	.48	RCA	107.48	APO	181.47	V2	35.259
RC	79.396	GL	11.96	GP	-27.24	ZAL	162.84	ZAP	90.76	ETS	356.52	ZAE	147.37	ETE	240.94	ZAC	71.37	ETC	256.49	CLP	-90.85

PLANETOCENTRIC CONIC

C3	53.050	VHL	7.284	DLA	-1.14	RAL	214.51	RAD	6568.9	VEL	13.206	PTH	2.41	VHP	4.576	DPA	-38.67	RAP	208.11	ECC	1.8731

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 20 7	2421.93	-24.00	55.06	92.35	105.50	1 0 29	1821.9	-21.64	47.18
90.00	12 1 18	5136.40	25.20	228.83	93.23	76.63	13 26 55	4536.4	23.11	220.78
100.00	1 40 56	2161.24	-25.33	35.47	91.93	106.42	2 16 57	1561.2	-22.84	27.56
100.00	13 23 10	4872.32	26.54	209.04	92.86	75.72	14 44 23	4272.3	24.32	200.94
110.00	2 47 58	1951.42	-28.92	18.25	90.64	109.07	3 20 29	1351.4	-26.05	10.25
110.00	14 32 38	4654.91	30.17	191.38	91.71	73.12	15 50 13	4054.9	27.57	183.16

DIFFERENTIAL CORRECTIONS

TDE	.5192	TRA	-.9414	TC3	-.3064	BAU	.3197
RDE	-.1808	RRA	-.3007	RC3	-.3305	FAU	.09978
FDE	1.6158	FRA	-.9465	FC3	-1.6283	BSP	2632
BDE	.5498	BRA	.9882	BC3	.4507	FSP	-725

MID-COURSE EXECUTION ACCURACY

SGT	956.4	SGR	555.0	SG3	241.2		
RRT	.6256	RRF	.7340	RTF	.7974		
SGB	1105.8	R23	.1618	R13	.8370		
SG1	1030.1	SG2	402.0	THA	23.79		

ORBIT DETERMINATION ACCURACY

ST	465.2	SR	159.6	SS	511.1
CRT	-.5675	CRS	.7945	CST	-.9476
LSA	691.4	MSA	156.8	SSA	19.8
EL1	474.6	EL2	128.8	ALF	168.09

LAUNCH DATE OCT 14 1970 FLIGHT TIME 82.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 248.386

RL	149.21	LAL	-.00	LOL	20.23	VL	29.276	GAL	-14.55	AZL	86.76	HCA	115.56	SMA	143.98	ECC	.25371	INC	3.2403	V1	29.862
RP	107.48	LAP	2.92	LOP	135.83	VP	39.342	GAP	.61	AZP	91.40	TAL	247.48	TAP	3.03	RCA	107.45	APO	180.51	V2	35.258
RC	81.621	GL	12.82	GP	-27.95	ZAL	161.92	ZAP	95.04	ETS	354.28	ZAE	145.24	ETE	236.20	ZAC	70.41	ETC	256.23	CLP	-95.70

PLANETOCENTRIC CONIC

C3	52.110	VHL	7.219	DLA	-.47	RAL	215.22	RAD	6568.9	VEL	13.171	PTH	2.41	VHP	4.577	DPA	-38.69	RAP	206.08	ECC	1.8576

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 17 59	2438.16	-24.29	56.16	92.98	105.02	0 58 37	1838.2	-21.99	48.24
90.00	12 9 3	5111.32	24.79	227.10	93.34	75.86	13 34 14	4511.3	22.60	219.11
100.00	1 39 6	2176.48	-25.62	36.51	92.57	105.95	2 15 23	1576.5	-23.19	28.56
100.00	13 30 37	4848.23	26.13	207.37	92.96	74.93	14 51 25	4248.2	23.80	199.34
110.00	2 46 51	1964.42	-29.21	19.16	91.32	108.60	3 19 35	1364.4	-26.39	11.11
110.00	14 39 21	4633.05	29.73	189.83	91.76	72.30	15 56 34	4033.0	27.02	181.69

DIFFERENTIAL CORRECTIONS

TDE	.5834	TRA	-.9997	TC3	-.3692	BAU	.3503
RDE	-.1596	RRA	-.2859	RC3	-.3413	FAU	.09904
FDE	1.6394	FRA	-.9051	FC3	-1.6454	BSP	2974
BDE	.6048	BRA	1.0398	BC3	.5028	FSP	-734

MID-COURSE EXECUTION ACCURACY

SGT	1062.2	SGR	557.1	SG3	242.1		
RRT	.6491	RRF	.7487	RTF	.8193		
SGB	1199.4	R23	.1694	R13	.8508		
SG1	1131.5	SG2	397.8	THA	21.60		

ORBIT DETERMINATION ACCURACY

ST	520.9	SR	144.5	SS	522.4
CRT	-.5605	CRS	.7808	CST	-.9519
LSA	735.5	MSA	154.1	SSA	19.7
EL1	527.5	EL2	118.2	ALF	170.69

LAUNCH DATE OCT 14 1970 FLIGHT TIME 84.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 254.695

RL	149.21	LAL	-.00	LOL	20.23	VL	29.218	GAL	-14.38	AZL	86.56	HCA	118.80	SMA	143.44	ECC	.25138	INC	3.4423	V1	29.862
RP	107.48	LAP	3.02	LOP	139.08	VP	39.297	GAP	1.11	AZP	91.66	TAL	246.71	TAP	5.51	RCA	107.38	APO	179.50	V2	35.256
RC	83.861	GL	13.74	GP	-28.65	ZAL	160.92	ZAP	99.07	ETS	351.99	ZAE	143.06	ETE	232.16	ZAC	69.49	ETC	256.00	CLP	-100.35

PLANETOCENTRIC CONIC

C3	51.203	VHL	7.156	DLA	.23	RAL	215.99	RAD	6568.9	VEL	13.136	PTH	2.40	VHP	4.601	DPA	-38.76	RAP	204.27	ECC	1.8427

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 15 52	2455.52	-24.59	57.34	93.71	104.50	0 56 48	1855.5	-22.36	49.38
90.00	12 17 20	5085.22	24.34	225.32	93.53	75.07	13 42 5	4485.2	22.06	217.39
100.00	1 37 19	2192.79	-25.92	37.63	93.31	105.43	2 13 52	1592.8	-23.55	29.63
100.00	13 38 34	4823.18	25.67	205.65	93.13	74.13	14 58 57	4223.2	23.25	197.69
110.00	2 45 49	1978.40	-29.51	20.13	92.09	108.09	3 18 47	1378.4	-26.75	12.03
110.00	14 46 34	4610.33	29.25	188.24	91.88	71.47	16 3 24	4010.3	26.44	180.18

DIFFERENTIAL CORRECTIONS

TDE	.6546	TRA	-1.0551	TC3	-.4315	BAU	.3786
RDE	-.1336	RRA	-.2630	RC3	-.3459	FAU	.09607
FDE	1.6779	FRA	-.8245	FC3	-1.6244	BSP	3223
BDE	.6681	BRA	1.0874	BC3	.5530	FSP	-676

MID-COURSE EXECUTION ACCURACY

SGT	1170.4	SGR	548.5	SG3	238.9		
RRT	.6660	RRF	.7558	RTF	.8335		
SGB	1292.5	R23	.1758	R13	.8581		
SG1	1232.8	SG2	388.5	THA	19.33		

ORBIT DETERMINATION ACCURACY

ST	582.5	SR	125.1	SS	540.5
CRT	-.5458	CRS	.7651	CST	-.9540
LSA	789.8	MSA	151.4	SSA	19.1
EL1	586.6	EL2	104.1	ALF	173.10

LAUNCH DATE OCT 14 1970 FLIGHT TIME 86.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 260.966

RL 149.21 LAL -.00 LOL 20.23 VL 29.155 GAL -14.20 AZL 86.34 HCA 122.04 SMA 142.88 ECC .24911 INC 3.6572 V1 29.862
RP 107.49 LAP 3.10 LOP 142.33 VP 39.249 GAP 1.57 AZP 91.94 TAL 245.87 TAP 7.91 RCA 107.29 APO 178.47 V2 35.254
RC 86.111 GL 14.72 GP -29.36 ZAL 159.84 ZAP 102.84 ETS 349.66 ZAE 140.85 ETE 228.71 ZAC 68.59 ETC 255.79 CLP-104.78

PLANETOCENTRIC CONIC

C3 50.342 VHL 7.095 DLA .98 RAL 216.83 RAD 6568.9 VEL 13.104 PTH 2.39 VHP 4.644 DPA -38.92 RAP 202.67 ECC 1.8285

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 13 41	2474.43	-24.91	58.64	94.53	103.92	0 54 56	1874.4	-22.75	50.63
90.00	12 26 12	5057.88	23.85	223.47	93.79	74.27	13 50 30	4457.9	21.47	215.61
100.00	1 35 29	2210.58	-26.24	38.86	94.15	104.86	2 12 20	1610.6	-23.94	30.81
100.00	13 47 5	4796.96	25.17	203.86	93.37	73.32	15 7 2	4197.0	22.64	195.97
110.00	2 44 46	1993.71	-29.83	21.21	92.97	107.53	3 18 0	1303.7	-27.14	13.05
110.00	14 54 18	4586.60	28.72	186.59	92.07	70.62	16 10 44	3986.6	25.81	178.62

DIFFERENTIAL CORRECTIONS
TDE .7271 TRA-1.1116 TC3 -.4962 BAU .4106
RDE -.1158 RRA -.2456 RC3 -.3550 FAU .09436
FDE 1.6621 FRA -.7802 FC3-1.6227 BSP 3625
BDE .7362 BRA 1.1384 BC3 .6101 FSP -703

MID-COURSE EXECUTION ACCURACY
SGT 1283.2 SGR 549.4 SG3 236.6
RRT .6779 RRF .7705 RTF .8466
SGB 1395.8 R23 .1889 R13 .8675
SG1 1341.3 SG2 386.4 THA 17.70

ORBIT DETERMINATION ACCURACY
ST 646.3 SR 111.9 SS 544.6
CRT -.5333 CRS .7457 CST -.9581
LSA 839.5 MSA 147.3 SSA 19.1
EL1 649.1 EL2 94.2 ALF 174.61

LAUNCH DATE OCT 14 1970 FLIGHT TIME 88.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 267.201

RL 149.21 LAL -.00 LOL 20.23 VL 29.089 GAL -14.02 AZL 86.11 HCA 125.28 SMA 142.29 ECC .24688 INC 3.8879 V1 29.862
RP 107.50 LAP 3.17 LOP 145.58 VP 39.197 GAP 2.02 AZP 92.25 TAL 244.96 TAP 10.24 RCA 107.16 APO 177.42 V2 35.251
RC 88.372 GL 15.78 GP -30.11 ZAL 158.67 ZAP 106.34 ETS 347.26 ZAE 138.65 ETE 225.81 ZAC 67.70 ETC 255.61 CLP-108.97

PLANETOCENTRIC CONIC

C3 49.531 VHL 7.038 DLA 1.78 RAL 217.74 RAD 6568.8 VEL 13.073 PTH 2.39 VHP 4.706 DPA -39.20 RAP 201.28 ECC 1.8152

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 11 22	2495.27	-25.24	60.07	95.47	103.28	0 52 57	1895.3	-23.16	52.02
90.00	12 35 47	5028.93	23.30	221.52	94.12	73.44	13 59 36	4428.9	20.81	213.73
100.00	1 33 32	2230.23	-26.57	40.22	95.11	104.22	2 10 42	1630.2	-24.36	32.12
100.00	13 56 18	4769.21	24.61	201.98	93.68	72.48	15 15 47	4169.2	21.99	194.17
110.00	2 43 41	2010.67	-30.17	22.41	93.97	106.89	3 17 11	1410.7	-27.56	14.19
110.00	15 2 30	4561.53	28.15	184.87	92.34	69.75	16 18 40	3961.5	25.13	177.00

DIFFERENTIAL CORRECTIONS
TDE .8040 TRA-1.1662 TC3 -.5610 BAU .4419
RDE -.0970 RRA -.2248 RC3 -.3615 FAU .09171
FDE 1.6434 FRA -.7240 FC3-1.6029 BSP 4024
BDE .8099 BRA 1.1877 BC3 .6674 FSP -711

MID-COURSE EXECUTION ACCURACY
SGT 1398.0 SGR 546.5 SG3 232.3
RRT .6859 RRF .7829 RTF .8561
SGB 1501.0 R23 .2029 R13 .8741
SG1 1451.3 SG2 383.1 THA 16.17

ORBIT DETERMINATION ACCURACY
ST 714.3 SR 97.4 SS 549.5
CRT -.5129 CRS .7212 CST -.9612
LSA 894.9 MSA 143.0 SSA 18.9
EL1 716.1 EL2 83.4 ALF 175.94

LAUNCH DATE OCT 14 1970 FLIGHT TIME 90.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 273.402

RL 149.21 LAL -.00 LOL 20.23 VL 29.020 GAL -13.84 AZL 85.86 HCA 128.52 SMA 141.68 ECC .24469 INC 4.1378 V1 29.862
RP 107.51 LAP 3.24 LOP 148.83 VP 39.142 GAP 2.45 AZP 92.58 TAL 243.98 TAP 12.50 RCA 107.01 APO 176.35 V2 35.247
RC 90.641 GL 16.92 GP -30.92 ZAL 157.39 ZAP 109.53 ETS 344.79 ZAE 136.48 ETE 223.38 ZAC 66.78 ETC 255.44 CLP-112.93

PLANETOCENTRIC CONIC

C3 48.781 VHL 6.984 DLA 2.65 RAL 218.73 RAD 6568.8 VEL 13.044 PTH 2.38 VHP 4.786 DPA -39.63 RAP 200.09 ECC 1.8028

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 8 48	2518.58	-25.60	61.69	96.54	102.54	0 50 47	1918.6	-23.61	53.58
90.00	12 46 13	4998.00	22.69	219.46	94.55	72.59	14 9 31	4398.0	20.09	211.75
100.00	1 31 23	2252.22	-26.93	41.76	96.20	103.49	2 8 55	1652.2	-24.81	33.60
100.00	14 6 19	4739.60	23.99	200.00	94.09	71.62	15 25 19	4139.6	21.26	192.27
110.00	2 42 28	2029.74	-30.54	23.78	95.11	106.16	3 16 18	1429.7	-28.02	15.49
110.00	15 11 44	4534.85	27.50	183.06	92.69	68.85	16 27 18	3934.8	24.38	175.29

DIFFERENTIAL CORRECTIONS
TDE .8870 TRA-1.2175 TC3 -.6246 BAU .4720
RDE -.0770 RRA -.2008 RC3 -.3657 FAU .08830
FDE 1.6234 FRA -.6583 FC3-1.5670 BSP 4406
BDE .8904 BRA 1.2340 BC3 .7238 FSP -703

MID-COURSE EXECUTION ACCURACY
SGT 1513.4 SGR 540.5 SG3 226.3
RRT .6902 RRF .7936 RTF .8628
SGB 1607.1 R23 .2182 R13 .8785
SG1 1561.7 SG2 379.0 THA 14.74

ORBIT DETERMINATION ACCURACY
ST 787.5 SR 81.7 SS 555.5
CRT -.4778 CRS .6845 CST -.9638
LSA 957.0 MSA 138.6 SSA 18.5
EL1 788.5 EL2 71.7 ALF 177.14

LAUNCH DATE OCT 14 1970 FLIGHT TIME 92.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 279.571

RL 149.21 LAL -.00 LOL 20.23 VL 28.948 GAL -13.65 AZL 85.59 HCA 131.76 SMA 141.05 ECC .24255 INC 4.4113 V1 29.862
RP 107.53 LAP 3.29 LOP 152.08 VP 39.085 GAP 2.86 AZP 92.94 TAL 242.95 TAP 14.71 RCA 106.84 APO 175.26 V2 35.243
RC 92.917 GL 18.18 GP -31.82 ZAL 156.00 ZAP 112.42 ETS 342.23 ZAE 134.33 ETE 221.36 ZAC 65.82 ETC 255.28 CLP-116.66

PLANETOCENTRIC CONIC

C3 48.110 VHL 6.936 DLA 3.61 RAL 219.79 RAD 6568.8 VEL 13.018 PTH 2.37 VHP 4.884 DPA -40.22 RAP 199.06 ECC 1.7918

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 5 53	2544.99	-25.97	63.53	97.77	101.69	0 48 18	1945.0	-24.10	55.36
90.00	12 57 38	4964.67	21.99	217.27	95.08	71.70	14 20 22	4364.7	19.29	209.64
100.00	1 28 55	2277.17	-27.32	43.51	97.44	102.64	2 6 52	1677.2	-25.30	35.29
100.00	14 17 17	4707.72	23.29	197.89	94.60	70.72	15 35 45	4107.7	20.45	190.25
110.00	2 41 3	2051.44	-30.94	25.34	96.41	105.32	3 15 14	1451.4	-28.53	16.97
110.00	15 21 39	4506.21	26.79	181.14	93.14	67.92	16 36 45	3906.2	23.55	173.48

DIFFERENTIAL CORRECTIONS
TDE .9765 TRA-1.2654 TC3 -.6865 BAU .5010
RDE -.0562 RRA -.1742 RC3 -.3681 FAU .08435
FDE 1.6008 FRA -.5883 FC3-1.5179 BSP 4783
BDE .9781 BRA 1.2774 BC3 .7790 FSP -687

MID-COURSE EXECUTION ACCURACY
SGT 1629.3 SGR 532.7 SG3 218.9
RRT .6912 RRF .8033 RTF .8677
SGB 1714.1 R23 .2349 R13 .8815
SG1 1672.6 SG2 375.0 THA 13.42

ORBIT DETERMINATION ACCURACY
ST 866.1 SR 65.3 SS 562.0
CRT -.4141 CRS .6222 CST -.9660
LSA 1025.6 MSA 134.3 SSA 17.9
EL1 866.6 EL2 59.4 ALF 178.20

LAUNCH DATE OCT 14 1970 FLIGHT TIME 94.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 285.710

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RL  149.21 LAL   -.00 LOL  20.23 VL  28.873 GAL -13.45 AZL  85.29 HCA 135.00 SMA 140.41 ECC .24045 INC 4.7137 V1  29.862
RP  107.54 LAP   3.33 LOP 155.33 VP  39.025 GAP   3.24 AZP  93.34 TAL 241.86 TAP  16.86 RCA 106.65 APO 174.17 V2  35.238
RC  95.197 GL   19.55 GP  -32.84 ZAL 154.47 ZAP 114.98 ETS 339.53 ZAE 132.22 ETE 219.71 ZAC  64.77 ETC 255.13 CLP-120.18
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PLANETOCENTRIC CONIC

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C3  47.542 VHL  6.895 DLA   4.68 RAL 220.94 RAD 6568.8 VEL 12.996 PTH   2.37 VHP  4.998 DPA -41.01 RAP 198.14 ECC 1.7824
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 2 30	2575.29	-26.37	65.66	99.17	100.70	0 45 25	1975.3	-24.63	57.42
90.00	13 10 14	4928.42	21.20	214.91	95.72	70.78	14 32 22	4328.4	18.38	207.36
100.00	1 26 2	2305.83	-27.73	45.54	98.87	101.64	2 4 28	1705.8	-25.84	37.25
100.00	14 29 22	4673.12	22.50	195.63	95.22	69.78	15 47 15	4073.1	19.54	188.08
110.00	2 39 19	2076.46	-31.37	27.16	97.90	104.32	3 13 56	1476.5	-29.09	18.70
110.00	15 32 34	4475.25	25.98	179.10	93.71	66.96	16 47 10	3875.2	22.63	171.54

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE 1.0739 TRA-1.3094 TC3 -.7458 BAU  .5288   SGT 1745.2 SGR  523.8 SG3  210.6          ST   951.1 SR    48.8 SS   568.9
 RDE -.0346 RRA -.1454 RC3 -.3689 FAU .08004   RRT  .6890 RRF  .8124 RTF  .8712          CRT -.2866 CRS  .4988 CST -.9680
 FDE 1.5760 FRA -.5165 FC3-1.4576 BSP   5157   SGB 1822.1 R23  .2531 R13  .8835          LSA 1101.5 MSA  130.4 SSA   17.2
 BDE 1.0744 BRA 1.3174 BC3  .8321 FSP   -666   SG1 1783.9 SG2  371.4 THA  12.22          EL1  951.2 EL2   46.8 ALF 179.16
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LAUNCH DATE OCT 14 1970 FLIGHT TIME 96.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 291.819

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RL  149.21 LAL   -.00 LOL  20.23 VL  28.797 GAL -13.25 AZL  84.95 HCA 138.23 SMA 139.76 ECC .23840 INC 5.0522 V1  29.862
RP  107.56 LAP   3.36 LOP 158.58 VP  38.963 GAP   3.62 AZP  93.77 TAL 240.72 TAP  18.95 RCA 106.44 APO 173.07 V2  35.232
RC  97.481 GL   21.08 GP  -34.03 ZAL 152.80 ZAP 117.21 ETS 336.69 ZAE 130.11 ETE 218.37 ZAC  63.60 ETC 254.96 CLP-123.49
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PLANETOCENTRIC CONIC

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C3  47.109 VHL  6.864 DLA   5.87 RAL 222.20 RAD 6568.8 VEL 12.980 PTH   2.37 VHP  5.133 DPA -42.02 RAP 197.30 ECC 1.7753
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 54 31	2610.47	-26.79	68.15	100.79	99.52	24 38 1	2010.5	-25.21	59.84
90.00	13 24 15	4888.66	20.29	212.35	96.51	69.81	14 45 44	4288.7	17.35	204.90
100.00	1 22 34	2339.14	-28.16	47.92	100.52	100.46	2 1 33	1739.1	-26.43	39.55
100.00	14 42 49	4635.22	21.58	193.19	95.99	68.80	16 0 4	4035.2	18.51	185.74
110.00	2 37 11	2105.63	-31.85	29.30	99.63	103.13	3 12 17	1505.6	-29.71	20.74
110.00	15 44 41	4441.49	25.06	176.91	94.41	65.95	16 58 43	3841.5	21.60	169.47

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE 1.1808 TRA-1.3492 TC3 -.8018 BAU  .5557   SGT 1861.5 SGR  514.4 SG3  201.5          ST  1043.1 SR    34.1 SS   576.4
 RDE -.0123 RRA -.1141 RC3 -.3681 FAU .07546   RRT  .6834 RRF  .8207 RTF  .8739          CRT  .0033 CRS  .2084 CST -.9700
 FDE 1.5497 FRA -.4447 FC3-1.3868 BSP   5535   SGB 1931.3 R23  .2725 R13  .8849          LSA 1185.4 MSA  126.9 SSA   16.5
 BDE 1.1809 BRA 1.3540 BC3  .8823 FSP   -642   SG1 1895.7 SG2  368.7 THA  11.12          EL1 1043.1 EL2   34.1 ALF    .01
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LAUNCH DATE OCT 14 1970 FLIGHT TIME 98.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 297.902

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RL  149.21 LAL   -.00 LOL  20.23 VL  28.719 GAL -13.04 AZL  84.56 HCA 141.47 SMA 139.10 ECC .23641 INC 5.4364 V1  29.862
RP  107.58 LAP   3.38 LOP 161.83 VP  38.900 GAP   3.97 AZP  94.26 TAL 239.53 TAP  21.00 RCA 106.21 APO 171.98 V2  35.226
RC  99.767 GL   22.78 GP  -35.41 ZAL 150.95 ZAP 119.09 ETS 333.65 ZAE 127.98 ETE 217.30 ZAC  62.26 ETC 254.78 CLP-126.62
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PLANETOCENTRIC CONIC

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C3  46.855 VHL  6.845 DLA   7.22 RAL 223.56 RAD 6568.8 VEL 12.970 PTH   2.36 VHP  5.289 DPA -43.26 RAP 196.48 ECC 1.7711
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 49 36	2651.83	-27.23	71.10	102.68	98.10	24 33 48	2051.8	-25.82	62.71
90.00	13 40 2	4844.58	19.23	209.55	97.49	68.80	15 0 46	4244.6	16.17	202.20
100.00	1 18 20	2378.33	-28.61	50.75	102.45	99.04	1 57 58	1778.3	-27.07	42.28
100.00	14 57 55	4593.33	20.53	190.52	96.93	67.78	16 14 28	3993.3	17.34	183.18
110.00	2 34 29	2140.03	-32.35	31.86	101.65	101.70	3 10 9	1540.0	-30.40	23.19
110.00	15 58 16	4404.39	24.01	174.54	95.29	64.90	17 11 40	3804.4	20.43	167.23

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE 1.3030 TRA-1.3814 TC3 -.8506 BAU  .5794   SGT 1975.9 SGR  502.2 SG3  191.1          ST  1145.9 SR    26.8 SS   587.3
 RDE  .0124 RRA -.0779 RC3 -.3636 FAU .07027   RRT  .6728 RRF  .8266 RTF  .8753          CRT  .6106 CRS -.4628 CST -.9718
 FDE 1.5300 FRA -.3656 FC3-1.2983 BSP   5837   SGB 2038.7 R23  .2928 R13  .8852          LSA 1281.8 MSA  124.9 SSA   15.1
 BDE 1.3031 BRA 1.3836 BC3  .9250 FSP   -599   SG1 2005.5 SG2  366.0 THA  10.04          EL1 1146.0 EL2   21.3 ALF    .82
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LAUNCH DATE OCT 14 1970 FLIGHT TIME 100.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 303.957

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RL  149.21 LAL   -.00 LOL  20.23 VL  28.639 GAL -12.82 AZL  84.12 HCA 144.70 SMA 138.44 ECC .23448 INC 5.8791 V1  29.862
RP  107.60 LAP   3.39 LOP 165.07 VP  38.835 GAP   4.31 AZP  94.80 TAL 238.30 TAP  23.00 RCA 105.98 APO 170.90 V2  35.218
RC 102.053 GL   24.70 GP  -37.04 ZAL 148.89 ZAP 120.59 ETS 330.39 ZAE 125.80 ETE 216.46 ZAC  60.72 ETC 254.56 CLP-129.60
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PLANETOCENTRIC CONIC

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C3  46.849 VHL  6.845 DLA   8.76 RAL 225.05 RAD 6568.8 VEL 12.970 PTH   2.36 VHP  5.473 DPA -44.77 RAP 195.58 ECC 1.7710
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 43 31	2701.09	-27.85	74.64	104.91	96.37	24 28 32	2101.1	-26.48	66.17
90.00	13 57 59	4795.26	17.98	206.46	98.70	67.75	15 17 55	4195.3	14.81	199.22
100.00	1 13 3	2425.00	-29.07	54.14	104.71	97.31	1 53 28	1825.0	-27.75	45.59
100.00	15 15 4	4546.58	19.30	187.60	98.11	66.72	16 30 51	3946.6	15.98	180.37
110.00	2 31 1	2181.06	-32.87	34.95	104.04	99.94	3 7 22	1581.1	-31.15	26.15
110.00	16 13 36	4363.29	22.80	171.96	96.39	63.81	17 26 20	3763.3	19.09	164.78

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY                ORBIT DETERMINATION ACCURACY
 TDE 1.4366 TRA-1.4126 TC3 -.8964 BAU  .6049   SGT 2093.6 SGR  494.2 SG3  180.9          ST  1255.5 SR    34.0 SS   594.0
 RDE  .0343 RRA -.0419 RC3 -.3595 FAU .06551   RRT  .6580 RRF  .8319 RTF  .8777          CRT  .9113 CRS -.8789 CST -.9739
 FDE 1.4966 FRA -.3024 FC3-1.2106 BSP   6273   SGB 2151.2 R23  .3133 R13  .8868          LSA 1383.9 MSA  122.3 SSA   13.9
 BDE 1.4370 BRA 1.4132 BC3  .9658 FSP   -583   SG1 2119.5 SG2  367.6 THA   9.11          EL1 1255.9 EL2   14.0 ALF   1.41
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LAUNCH DATE OCT 14 1970 FLIGHT TIME 102.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 309.987

RL 149.21 LAL -.00 LOL 20.23 VL 28.559 GAL -12.59 AZL 83.60 HCA 147.93 SMA 137.78 ECC .23260 INC 6.3981 V1 29.862
RP 107.63 LAP 3.39 LOP 168.32 VP 38.768 GAP 4.63 AZP 95.43 TAL 237.03 TAP 24.95 RCA 105.73 APO 169.82 V2 35.211
RC 104.339 GL 26.88 GP -38.97 ZAL 146.58 ZAP 121.66 ETS 326.87 ZAE 121.31 ETE 215.82 ZAC 58.90 ETC 254.29 CLP-132.46

PLANETOCENTRIC CONIC

C3 47.184 VHL 6.869 DLA 10.52 RAL 226.69 RAD 6568.8 VEL 12.983 PTH 2.37 VHP 5.692 DPA -46.58 RAP 194.51 ECC 1.7765

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 35 53	2760.57	-28.02	78.95	107.55	94.24	24 21 53	2160.6	-27.14	70.40
90.00	14 18 44	4739.36	16.51	203.02	100.22	66.66	15 37 43	4139.4	13.21	195.90
100.00	1 6 24	2481.33	-29.48	58.28	107.41	95.17	1 47 45	1881.3	-28.45	49.62
100.00	15 34 50	4493.83	17.85	184.35	99.60	65.61	16 49 44	3893.8	14.41	177.25
110.00	2 26 32	2230.58	-33.39	38.72	106.90	97.77	3 3 42	1630.6	-31.96	29.78
110.00	16 31 12	4317.34	21.39	169.14	97.78	62.68	17 43 9	3717.3	17.56	162.10

DIFFERENTIAL CORRECTIONS
TDE 1.5944 TRA-1.4347 TC3 -.9303 BAU .6270
RDE .0578 RRA .0007 RC3 -.3502 FAU .06016
FDE 1.4703 FRA -.2338 FC3-1.1039 BSP 6644
BDE 1.5955 BRA 1.4347 BC3 .9940 FSP -549

MID-COURSE EXECUTION ACCURACY
SGT 2209.9 SGR 483.5 SG3 169.4
RRT .6348 RRF .8320 RTF .8796
SGB 2262.2 R23 .3332 R13 .8877
SG1 2231.7 SG2 369.9 THA 8.13

ORBIT DETERMINATION ACCURACY
ST 1379.7 SR 50.3 SS 604.3
CRT .9305 CRS -.9666 CST -.9760
LSA 1502.1 MSA 121.5 SSA 12.5
EL1 1380.5 EL2 18.4 ALF 1.94

LAUNCH DATE OCT 14 1970 FLIGHT TIME 104.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 315.993

RL 149.21 LAL -.00 LOL 20.23 VL 28.478 GAL -12.36 AZL 82.98 HCA 151.15 SMA 137.12 ECC .23078 INC 7.0194 V1 29.862
RP 107.65 LAP 3.38 LOP 171.56 VP 38.701 GAP 4.94 AZP 96.16 TAL 235.71 TAP 26.86 RCA 105.47 APO 168.76 V2 35.202
RC 106.624 GL 29.38 GP -41.27 ZAL 143.97 ZAP 122.25 ETS 323.03 ZAE 121.07 ETE 215.31 ZAC 56.73 ETC 253.93 CLP-135.24

PLANETOCENTRIC CONIC

C3 48.014 VHL 6.929 DLA 12.57 RAL 228.52 RAD 6568.8 VEL 13.014 PTH 2.37 VHP 5.959 DPA -48.71 RAP 193.11 ECC 1.7902

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 26 5	2833.56	-28.28	84.28	110.72	91.58	24 13 18	2233.6	-27.76	75.65
90.00	14 43 7	4675.10	14.73	199.14	102.18	65.54	16 1 2	4075.1	11.31	192.13
100.00	0 57 50	2550.35	-29.80	63.38	110.66	92.50	1 40 20	1950.4	-29.13	54.64
100.00	15 57 59	4433.54	16.11	180.71	101.52	64.48	17 11 53	3833.5	12.55	173.74
110.00	2 20 40	2291.15	-35.85	43.39	110.35	95.04	2 58 51	1691.2	-32.79	34.31
110.00	16 51 30	4265.50	19.74	166.02	99.58	61.51	18 2 44	3665.5	15.78	159.14

DIFFERENTIAL CORRECTIONS
TDE 1.7818 TRA-1.4490 TC3 -.9508 BAU .6474
RDE .0794 RRA .0494 RC3 -.3361 FAU .05461
FDE 1.4429 FRA -.1686 FC3 -.9846 BSP 7027
BDE 1.7836 BRA 1.4499 BC3 1.0085 FSP -515

MID-COURSE EXECUTION ACCURACY
SGT 2328.8 SGR 472.3 SG3 157.1
RRT .5998 RRF .8245 RTF .8820
SGB 2374.3 R23 .3515 R13 .8892
SG1 2344.5 SG2 375.0 THA 7.12

ORBIT DETERMINATION ACCURACY
ST 1519.2 SR 68.3 SS 615.1
CRT .8932 CRS -.9606 CST -.9782
LSA 1635.8 MSA 121.7 SSA 10.9
EL1 1520.4 EL2 30.7 ALF 2.30

LAUNCH DATE OCT 14 1970 FLIGHT TIME 106.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 321.975

RL 149.21 LAL -.00 LOL 20.23 VL 28.396 GAL -12.12 AZL 82.22 HCA 154.37 SMA 136.46 ECC .22903 INC 7.7817 V1 29.862
RP 107.68 LAP 3.36 LOP 174.81 VP 38.633 GAP 5.24 AZP 97.02 TAL 234.37 TAP 28.73 RCA 105.21 APO 167.71 V2 35.193
RC 108.906 GL 32.27 GP -44.02 ZAL 140.97 ZAP 122.30 ETS 318.83 ZAE 118.39 ETE 214.87 ZAC 54.12 ETC 253.43 CLP-138.00

PLANETOCENTRIC CONIC

C3 49.581 VHL 7.041 DLA 14.97 RAL 230.58 RAD 6568.8 VEL 13.075 PTH 2.39 VHP 6.295 DPA -51.18 RAP 191.15 ECC 1.8160

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 13 12	2924.89	-28.27	90.95	114.55	88.24	24 1 57	2324.9	-28.21	82.29
90.00	15 12 28	4599.82	12.57	194.67	104.76	64.41	16 29 8	3999.8	9.02	187.79
100.00	0 46 35	2636.43	-29.88	69.78	114.60	89.14	1 30 31	2036.4	-29.68	60.98
100.00	16 25 42	4383.51	14.02	176.57	104.03	63.32	17 38 26	3763.5	10.32	169.73
110.00	2 12 54	2366.31	-34.15	49.23	114.56	91.59	2 52 21	1766.3	-33.55	40.04
110.00	17 15 52	4206.39	17.78	162.56	101.93	60.31	18 25 58	3606.4	13.69	155.83

DIFFERENTIAL CORRECTIONS
TDE 2.0125 TRA-1.4517 TC3 -.9512 BAU .6641
RDE .0967 RRA .1076 RC3 -.3146 FAU .04867
FDE 1.4165 FRA -.1053 FC3 -.8498 BSP 7386
BDE 2.0149 BRA 1.4557 BC3 1.0019 FSP -474

MID-COURSE EXECUTION ACCURACY
SGT 2443.6 SGR 459.0 SG3 143.8
RRT .5452 RRF .8024 RTF .8852
SGB 2486.4 R23 .3670 R13 .8913
SG1 2456.7 SG2 382.7 THA 5.99

ORBIT DETERMINATION ACCURACY
ST 1678.7 SR 84.3 SS 627.3
CRT .8438 CRS -.9301 CST -.9806
LSA 1789.8 MSA 123.0 SSA 9.3
EL1 1680.2 EL2 45.2 ALF 2.43

LAUNCH DATE OCT 14 1970 FLIGHT TIME 108.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 327.933

RL 149.21 LAL -.00 LOL 20.23 VL 28.314 GAL -11.88 AZL 81.25 HCA 157.58 SMA 135.81 ECC .22734 INC 8.7455 V1 29.862
RP 107.71 LAP 3.32 LOP 178.05 VP 38.564 GAP 5.52 AZP 98.09 TAL 232.99 TAP 30.56 RCA 104.94 APO 166.68 V2 35.184
RC 111.186 GL 35.63 GP -47.34 ZAL 137.51 ZAP 121.70 ETS 314.19 ZAE 115.37 ETE 214.36 ZAC 50.96 ETC 252.70 CLP-140.84

PLANETOCENTRIC CONIC

C3 52.309 VHL 7.232 DLA 17.78 RAL 232.95 RAD 6568.9 VEL 13.178 PTH 2.41 VHP 6.732 DPA -54.01 RAP 188.28 ECC 1.8609

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 55 38	3042.21	-27.72	99.49	119.18	83.99	23 46 21	2442.2	-28.27	90.87
90.00	15 48 57	4509.15	9.84	189.40	108.26	63.32	17 4 6	3909.1	6.18	182.64
100.00	0 31 21	2746.26	-29.49	77.92	119.38	84.88	1 17 7	2146.3	-29.89	69.13
100.00	16 59 52	4280.34	11.42	171.76	107.43	62.19	18 11 12	3680.3	7.61	165.04
110.00	2 2 27	2461.21	-34.08	56.64	119.75	87.21	2 43 28	1861.2	-34.09	47.40
110.00	17 45 14	4138.15	15.44	158.66	105.11	59.12	18 54 13	3538.1	11.23	152.08

DIFFERENTIAL CORRECTIONS
TDE 2.3051 TRA-1.4392 TC3 -.9244 BAU .6761
RDE .1023 RRA .1796 RC3 -.2831 FAU .04237
FDE 1.3888 FRA -.0459 FC3 -.7013 BSP 7733
BDE 2.3074 BRA 1.4503 BC3 .9668 FSP -429

MID-COURSE EXECUTION ACCURACY
SGT 2560.5 SGR 443.4 SG3 129.3
RRT .4551 RRF .7516 RTF .8900
SGB 2598.6 R23 .3782 R13 .8947
SG1 2568.6 SG2 393.5 THA 4.61

ORBIT DETERMINATION ACCURACY
ST 1861.5 SR 93.4 SS 640.2
CRT .7611 CRS -.8657 CST -.9831
LSA 1966.7 MSA 125.4 SSA 7.6
EL1 1862.9 EL2 60.5 ALF 2.19

LAUNCH DATE OCT 14 1970 FLIGHT TIME 110.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 333.865

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RL  149.21 LAL   -.00 LOL  20.23 VL  28.231 GAL -11.62 AZL  79.99 HCA 160.78 SMA 135.17 ECC .22570 INC10.0115 V1  29.862
RP  107.74 LAP   3.28 LOP 181.29 VP  38.494 GAP   5.79 AZP  99.48 TAL 231.57 TAP  32.35 RCA 104.66 APO 165.67 V2  35.174
RC 113.462 GL   39.56 GP  -51.34 ZAL 133.47 ZAP 120.34 ETS 308.96 ZAE 111.85 ETE 213.56 ZAC  47.10 ETC 251.59 CLP-143.96
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PLANETOCENTRIC CONIC

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C3  56.979 VHL  7.548 DLA  21.08 RAL 235.74 RAD 6569.0 VEL 13.354 PTH   2.44 VHP  7.329 DPA -57.15 RAP 183.88 ECC 1.9377
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 30 12	3199.27	-26.10	110.69	124.66	78.61	23 23 31	2599.3	-27.41	102.27
90.00	16 36 40	4394.30	6.27	182.86	113.20	62.33	17 49 54	3794.3	2.52	176.19
100.00	0 9 42	2891.11	-28.14	88.47	125.10	79.49	0 57 53	2291.1	-29.31	79.86
100.00	17 43 47	4177.70	8.10	165.95	112.20	61.13	18 53 24	3577.7	4.19	159.35
110.00	1 47 59	2583.60	-33.27	66.10	126.09	81.67	2 31 3	1983.6	-34.07	56.95
110.00	18 21 59	4057.97	12.58	154.19	109.52	57.95	19 29 37	3458.0	8.26	147.77

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 2.6955 TRA-1.4000 TC3 -.8584 BAU  .6782   SGT 2676.3 SGR  426.1 SG3  113.8     ST  2074.7 SR    92.2 SS   656.1
 RDE  .0819 RRA  .2753 RC3 -.2365 FAU .03546   RRT  .2936 RRF  .6366 RTF  .8969    CRT  .5473 CRS -.6793 CST -.9858
 FDE 1.3647 FRA  .0130 FC3 -.5388 BSP   7963   SGB 2710.0 RZS  .3839 R13  .8997    LSA 2174.1 MSA  129.7 SSA    6.0
 BDE 2.6968 BRA 1.4268 BC3  .8903 FSP   -369   SG1 2679.3 SG2  406.8 THA   2.74    EL1 2075.3 EL2   77.1 ALF   1.39
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LAUNCH DATE OCT 14 1970 FLIGHT TIME 112.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 339.767

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RL  149.21 LAL   -.00 LOL  20.23 VL  28.149 GAL -11.36 AZL  78.24 HCA 163.97 SMA 134.53 ECC .22411 INC11.7590 V1  29.862
RP  107.77 LAP   3.23 LOP 184.52 VP  38.424 GAP   6.05 AZP 101.31 TAL 230.12 TAP  34.09 RCA 104.38 APO 164.68 V2  35.164
RC 115.736 GL   44.15 GP  -56.16 ZAL 128.71 ZAP 118.09 ETS 302.81 ZAE 107.66 ETE 212.01 ZAC  42.36 ETC 249.78 CLP-147.73
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PLANETOCENTRIC CONIC

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C3  65.192 VHL  8.074 DLA  24.95 RAL 239.13 RAD 6569.2 VEL 13.658 PTH   2.50 VHP  8.194 DPA -60.40 RAP 176.96 ECC 2.0729
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	21 47 52	3429.43	-22.07	126.33	130.65	71.79	22 45 2	2829.4	-24.35	118.40
90.00	17 46 2	4229.52	.99	173.63	120.66	61.70	18 56 31	3629.5	-2.80	167.00
100.00	23 31 50	3094.24	-24.81	102.62	131.60	72.76	24 23 24	2494.2	-26.93	94.47
100.00	18 44 45	4039.94	3.51	158.30	119.27	60.29	19 52 5	3439.9	-.47	151.78
110.00	1 27 3	2746.08	-31.01	78.22	133.64	74.84	2 12 49	2146.1	-32.78	69.44
110.00	19 9 56	3960.87	9.02	148.93	115.88	56.89	20 15 56	3360.9	4.60	142.63

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 3.2197 TRA-1.3353 TC3 -.7536 BAU  .6750   SGT 2791.7 SGR  424.7 SG3   97.4     ST  2306.4 SR    94.6 SS   666.7
 RDE -.0162 RRA  .3963 RC3 -.1784 FAU .02889   RRT -.0011 RRF  .3757 RTF  .9098    CRT -.2529 CRS  .1070 CST -.9889
 FDE 1.3267 FRA  .0499 FC3 -.3836 BSP   8519   SGB 2823.8 RZS -.3767 R13 -.9098    LSA 2399.1 MSA  132.1 SSA    4.7
 BDE 3.2197 BRA 1.3935 BC3  .7745 FSP   -335   SG1 2791.7 SG2  424.6 THA 179.99    EL1 2306.6 EL2   91.5 ALF 179.40
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LAUNCH DATE OCT 14 1970 FLIGHT TIME 114.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 345.633

```
RL  149.21 LAL   -.00 LOL  20.23 VL  28.067 GAL -11.08 AZL  75.66 HCA 167.13 SMA 133.90 ECC .22255 INC14.3411 V1  29.862
RP  107.80 LAP   3.16 LOP 187.76 VP  38.354 GAP   6.29 AZP 104.00 TAL 228.64 TAP  35.77 RCA 104.10 APO 163.70 V2  35.153
RC 118.005 GL   49.45 GP  -61.95 ZAL 123.08 ZAP 114.80 ETS 294.88 ZAE 102.50 ETE 208.65 ZAC  36.50 ETC 246.59 CLP-153.11
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PLANETOCENTRIC CONIC

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C3  80.628 VHL  8.979 DLA  29.35 RAL 243.43 RAD 6569.6 VEL 14.212 PTH   2.59 VHP  9.542 DPA -63.21 RAP 165.99 ECC 2.3269
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.96	18 58 0	4092.84	-10.47	169.75	134.26	62.43	20 6 13	3492.8	-14.08	162.86
98.04	21 10 11	3665.75	-10.46	138.39	134.25	62.42	22 11 17	3065.7	-14.07	131.50
100.00	22 13 26	3463.14	-15.41	125.95	136.81	64.07	23 11 9	2863.1	-18.77	118.77
100.00	20 37 27	3770.68	-5.60	143.50	131.59	60.59	21 40 17	3170.7	-9.47	136.86
110.00	0 53 45	2973.26	-25.90	93.90	141.92	66.87	1 43 18	2373.3	-28.80	85.92
110.00	20 17 33	3833.33	4.22	142.18	125.54	56.05	21 21 26	3233.3	-.27	135.97

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 3.9946 TRA-1.1812 TC3 -.5843 BAU  .6392   SGT 2888.9 SGR  503.9 SG3   80.7     ST  2562.2 SR   254.4 SS   687.7
 RDE -.3076 RRA  .5833 RC3 -.1013 FAU .02157   RRT -.4660 RRF -.1276 RTF  .9284    CRT -.8879 CRS  .8237 CST -.9922
 FDE 1.3067 FRA  .0892 FC3 -.2316 BSP   8798   SGB 2932.5 RZS -.3566 R13 -.9239    LSA 2659.7 MSA  137.0 SSA    3.4
 BDE 4.0064 BRA 1.3173 BC3  .5930 FSP   -278   SG1 2898.6 SG2  444.3 THA 175.24    EL1 2570.7 EL2  107.5 ALF 175.35
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LAUNCH DATE OCT 14 1970 FLIGHT TIME 116.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 351.442

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RL  149.21 LAL   -.00 LOL  20.23 VL  27.985 GAL -10.79 AZL  71.45 HCA 170.25 SMA 133.28 ECC .22096 INC18.5540 V1  29.862
RP  107.84 LAP   3.09 LOP 190.99 VP  38.284 GAP   6.51 AZP 108.30 TAL 227.12 TAP  37.37 RCA 103.83 APO 162.73 V2  35.141
RC 120.271 GL   55.21 GP  -68.65 ZAL 116.45 ZAP 110.39 ETS 282.52 ZAE  95.91 ETE 200.60 ZAC  29.23 ETC 240.21 CLP-163.12
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PLANETOCENTRIC CONIC

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C3 113.446 VHL 10.651 DLA  33.99 RAL 249.18 RAD 6570.2 VEL 15.323 PTH   2.74 VHP 11.868 DPA -64.25 RAP 149.68 ECC 2.8670
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
70.36	17 59 38	4422.58	-9.26	193.95	145.20	57.14	19 13 21	3822.6	-13.52	187.46
109.64	22 54 24	3484.02	-9.25	123.97	145.19	57.14	23 52 28	2884.0	-13.51	117.48
70.36	17 59 38	4422.58	-9.26	193.95	145.20	57.14	19 13 21	3822.6	-13.52	187.46
109.64	22 54 24	3484.02	-9.25	123.97	145.19	57.14	23 52 28	2884.0	-13.51	117.48
110.00	23 23 51	3394.17	-12.35	118.97	147.21	57.87	24 20 26	2794.2	-16.50	112.33
110.00	22 29 21	3560.43	-6.18	127.90	143.17	56.31	23 28 42	2960.4	-10.57	121.55

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 5.1200 TRA -.8295 TC3 -.3578 BAU  .5437   SGT 2908.0 SGR  862.5 SG3   64.9     ST  2759.0 SR   679.8 SS   730.0
 RDE-1.2253 RRA  .8537 RC3 -.0221 FAU .01406   RRT -.8286 RRF -.6384 RTF  .9565    CRT -.9823 CRS  .9608 CST -.9957
 FDE 1.3226 FRA  .1237 FC3 -.1073 BSP   9160   SGB 3033.1 RZS -.3128 R13 -.9449    LSA 2930.3 MSA  143.7 SSA    2.3
 BDE 5.2646 BRA 1.1903 BC3  .3585 FSP   -226   SG1 2996.7 SG2  468.4 THA 165.84    EL1 2838.8 EL2  123.9 ALF 166.37
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LAUNCH DATE OCT 14 1970 FLIGHT TIME 118.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 357.138

RL	149.21	LAL	-.00	LOL	20.23	VL	27.903	GAL	-10.47	AZL	63.42	HCA	173.28	SMA	132.67	ECC	.21919	INC	26.5798
RP	107.87	LAP	3.00	LOP	194.22	VP	38.213	GAP	6.69	AZP	116.42	TAL	225.53	TAP	38.80	RCA	103.59	APO	161.75
RC	122.531	GL	60.25	GP	-74.92	ZAL	108.88	ZAP	104.88	ETS	257.04	ZAE	86.85	ETE	178.90	ZAC	20.23	ETC	226.49

V1	29.862	V2	35.130	CLP	170.79														

PLANETOCENTRIC CONIC

C3	199.975	VHL	14.141	DLA	37.70	RAL	257.33	RAD	6571.1	VEL	17.925	PTH	3.00	VHP	16.512	DPA	-60.99	RAP	130.41
ECC	4.2911																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.99	17 56 51	4629.94	-5.97	208.15	159.57	52.70	19 14 1	4029.9	-10.77	202.09
116.01	0 6 8	3480.47	-5.95	121.35	159.56	52.70	1 4 8	2880.5	-10.75	115.30
63.99	17 56 51	4629.94	-5.97	208.15	159.57	52.70	19 14 1	4029.9	-10.77	202.09
116.01	0 6 8	3480.47	-5.95	121.35	159.56	52.70	1 4 8	2880.5	-10.75	115.30
63.99	17 56 51	4629.94	-5.97	208.15	159.57	52.70	19 14 1	4029.9	-10.77	202.09
116.01	0 6 8	3480.47	-5.95	121.35	159.56	52.70	1 4 8	2880.5	-10.75	115.30

DIFFERENTIAL CORRECTIONS

TDE	6.1319	TRA	.1479	TC3	-.1033	BAU	.2764	SGT	2502.7	SGR	1845.9
RDE	-4.3679	RRA	1.0248	RC3	-.0025	FAU	.00521	RRT	-.9427	RRF	-.8956
FDE	1.4687	FRA	.1879	FC3	-.0226	BSP	9289	SGB	3109.8	R23	-.2332
BDE	7.5285	BRA	1.0354	BC3	.1034	FSP	-179	SG1	3069.0	SG2	502.3

MID-COURSE EXECUTION ACCURACY

SG3	52.4	RTF	.9916	R13	-.9709	THA	144.08

ORBIT DETERMINATION ACCURACY

ST	2484.6	SR	1776.7	SS	850.0	CST	-.9992
CRT	-.9952	CRS	.9906	LSA	3166.8	MSA	153.4
SSA	1.4	ALF	144.47	EL1	3051.2	EL2	141.5

LAUNCH DATE OCT 14 1970 FLIGHT TIME 120.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 362.491

RL	149.21	LAL	-.00	LOL	20.23	VL	27.822	GAL	-10.07	AZL	43.80	HCA	175.97	SMA	132.08	ECC	.21660	INC	46.2041
RP	107.91	LAP	2.91	LOP	197.44	VP	38.143	GAP	6.77	AZP	136.13	TAL	223.79	TAP	39.75	RCA	103.47	APO	160.68
RC	124.786	GL	59.29	GP	-71.01	ZAL	100.96	ZAP	98.79	ETS	211.38	ZAE	71.93	ETE	136.72	ZAC	12.96	ETC	231.63

V1	29.862	V2	35.118	CLP	118.00														

PLANETOCENTRIC CONIC

C3	528.875	VHL	22.997	DLA	35.85	RAL	268.97	RAD	6572.4	VEL	25.498	PTH	3.35	VHP	28.018	DPA	-49.01	RAP	115.81
ECC	9.7039																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.03	18 59 23	4693.61	-1.31	209.82	177.19	54.17	20 17 37	4093.6	-5.97	203.73
112.97	0 36 32	3638.93	-1.29	130.69	177.17	54.17	1 37 10	3038.9	-5.95	124.59
67.03	18 59 23	4693.61	-1.31	209.82	177.19	54.17	20 17 37	4093.6	-5.97	203.73
112.97	0 36 32	3638.93	-1.29	130.69	177.17	54.17	1 37 10	3038.9	-5.95	124.59
67.03	18 59 23	4693.61	-1.31	209.82	177.19	54.17	20 17 37	4093.6	-5.97	203.73
112.97	0 36 32	3638.93	-1.29	130.69	177.17	54.17	1 37 10	3038.9	-5.95	124.59

DIFFERENTIAL CORRECTIONS

TDE	2.4101	TRA	1.7871	TC3	-.0103	BAU	.9546	SGT	815.2	SGR	2957.2
RDE	-11.5613	RRA	-.8278	RC3	-.1346	FAU	-.01293	RRT	-.7633	RRF	-.9648
FDE	2.0002	FRA	.4395	FC3	.0212	BSP	9320	SGB	3067.5	R23	-.1330
BDE	11.8099	BRA	1.9696	BC3	.1350	FSP	-151	SG1	3023.9	SG2	515.0

MID-COURSE EXECUTION ACCURACY

SG3	45.4	RTF	.8612	R13	-.9903	THA	102.24

ORBIT DETERMINATION ACCURACY

ST	622.7	SR	2881.5	SS	1210.4	CST	-.9826
CRT	-.9710	CRS	.9985	LSA	3183.1	MSA	153.9
SSA	1.5	ALF	101.88	EL1	2944.4	EL2	145.8

LAUNCH DATE OCT 14 1970 FLIGHT TIME 122.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 372.016

RL	149.21	LAL	-.00	LOL	20.23	VL	27.741	GAL	-10.55	AZL	171.30	HCA	182.84	SMA	131.49	ECC	.22601	INC	81.2996
RP	107.95	LAP	2.81	LOP	200.66	VP	38.073	GAP	8.06	AZP	8.71	TAL	223.56	TAP	46.40	RCA	101.77	APO	161.21
RC	127.036	GL	-45.89	GP	50.31	ZAL	97.02	ZAP	96.04	ETS	176.72	ZAE	57.20	ETE	247.52	ZAC	128.65	ETC	266.32

V1	29.862	V2	35.105	CLP	99.48														

PLANETOCENTRIC CONIC

C3	14409.963	VHL	37.549	DLA	-68.64	RAL	289.64	RAD	6573.2	VEL	39.131	PTH	3.55	VHP	48.643	DPA	70.77	RAP	146.67
ECC	24.2044																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
24.44	5 59 51	2446.66	-1.24	77.56	200.11	158.63	6 40 38	1846.7	6.20	75.05
155.56	16 20 55	702.05	-1.24	289.17	200.14	158.63	16 32 37	102.1	6.21	286.67
24.44	5 59 51	2446.66	-1.24	77.56	200.11	158.63	6 40 38	1846.7	6.20	75.05
155.56	16 20 55	702.05	-1.24	289.17	200.14	158.63	16 32 37	102.1	6.21	286.67
24.44	5 59 51	2446.66	-1.24	77.56	200.11	158.63	6 40 38	1846.7	6.20	75.05
155.56	16 20 55	702.05	-1.24	289.17	200.14	158.63	16 32 37	102.1	6.21	286.67

DIFFERENTIAL CORRECTIONS

TDE	5.5758	TRA	.0672	TC3	-.0837	BAU	3.5645	SGT	1058.3	SGR	2428.8
RDE	-10.8981	RRA	2.9357	RC3	.1696	FAU	-.05573	RRT	-.8484	RRF	.9989
FDE	-2.3864	FRA	.6714	FC3	.0342	BSP	7620	SGB	2649.4	R23	-.1091
BDE	12.2416	BRA	2.9365	BC3	.1891	FSP	-139	SG1	2597.0	SG2	523.9

MID-COURSE EXECUTION ACCURACY

SG3	45.5	RTF	-.8310	R13	.9935	THA	111.19

ORBIT DETERMINATION ACCURACY

ST	851.0	SR	1703.8	SS	1571.3	CST	.9719
CRT	-.9741	CRS	-1.0000	LSA	2462.1	MSA	184.9
SSA	2.1	ALF	116.18	EL1	1896.6	EL2	173.0

LAUNCH DATE OCT 14 1970 FLIGHT TIME 124.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 376.359

RL	149.21	LAL	-.00	LOL	20.23	VL	27.661	GAL	-9.93	AZL	126.48	HCA	184.54	SMA	130.92	ECC	.22069	INC	36.4794
RP	107.99	LAP	2.70	LOP	203.88	VP	38.003	GAP	7.84	AZP	53.61	TAL	221.48	TAP	46.01	RCA	102.02	APO	159.81
RC	129.278	GL	-60.87	GP	72.27	ZAL	103.34	ZAP	101.63	ETS	142.55	ZAE	83.46	ETE	217.22	ZAC	153.89	ETC	245.73

V1	29.862	V2	35.093	CLP	131.46														

PLANETOCENTRIC CONIC

C3	343.910	VHL	18.545	DLA	-83.30	RAL	234.25	RAD	6571.9	VEL	21.569	PTH	3.22	VHP	24.582	DPA	69.05	RAP	231.75
ECC	6.6599																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
7.62	1 44 51	2385.24	4.90	85.28	143.66	173.27	2 24 37	1785.2	12.84	84.74
172.38	13 14 1	5867.36	4.90	258.00	143.69	173.27	14 51 49	5267.4	12.85	257.45
7.62	1 44 51	2385.24	4.90	85.28	143.66	173.27	2 24 37	1785.2	12.84	84.74
172.38	13 14 1	5867.36	4.90	258.00	143.69	173.27	14 51 49	5267.4	12.85	257.45
7.62	1 44 51	2385.24	4.90	85.28	143.66	173.27	2 24 37	1785.2	12.84	84.74
172.38	13 14 1	5867.36	4.90	258.00	143.69	173.27	14 51 49	5267.4	12.85	257.45

DIFFERENTIAL CORRECTIONS

TDE	-3.1383	TRA	-.0473	TC3	-.0102	BAU	.3974	SGT	978.4	SGR	3147.9
RDE	-8.4047	RRA	-.6613	RC3	.0858	FAU	-.00147	RRT	.8847	RRF	.9909
FDE	-1.7849	FRA	-.0914	FC3	.0037	BSP	10111	SGB	3296.5	R23	-.1558
BDE	8.9715	BRA	.6630	BC3	.0864	FSP	-166	SG1	3267.0	SG2	439.5

MID-COURSE EXECUTION ACCURACY

SG3	52.0	RTF	.9578	R13	.9875	THA	74.33

ORBIT DETERMINATION ACCURACY

ST	970.3	SR	2649.3	SS	1181.4	CST	-.9957
CRT	.9871	CRS	-.9976	LSA	3054.8	MSA	156.0
SSA	.9	ALF	70.07	EL1	2817.6	EL2	146.2

LAUNCH DATE OCT 14 1970 FLIGHT TIME 126.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 381.787

RL 149.21 LAL -.00 LOL 20.23 VL 27.582 GAL -9.54 AZL 110.61 HCA 187.33 SMA 130.35 ECC .21869 INC20.6123 V1 29.862
RP 108.03 LAP 2.58 LOP 207.10 VP 37.933 GAP 7.93 AZP 69.54 TAL 219.73 TAP 47.07 RCA 101.85 APO 158.86 V2 35.080
RC 131.513 GL -57.94 GP 70.87 ZAL 111.15 ZAP 109.06 ETS 87.94 ZAE 96.63 ETE 164.85 ZAC 161.15 ETC 222.65 CLP 175.30

PLANETOCENTRIC CONIC

C3 127.672 VHL 11.299 DLA -76.53 RAL 208.88 RAD 6570.4 VEL 15.780 PTH 2.80 VHP 15.326 DPA 55.57 RAP 243.96 ECC 3.1012

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
15.34	0 18 44	2226.03	14.68	79.14	115.27	166.07	0 55 50	1626.0	22.44	77.48
164.66	11 17 42	5727.63	14.69	259.34	115.29	166.07	12 53 10	5127.6	22.44	257.68
15.34	0 18 44	2226.03	14.68	79.14	115.27	166.07	0 55 50	1626.0	22.44	77.48
164.66	11 17 42	5727.63	14.69	259.34	115.29	166.07	12 53 10	5127.6	22.44	257.68
15.34	0 18 44	2226.03	14.68	79.14	115.27	166.07	0 55 50	1626.0	22.44	77.48
164.66	11 17 42	5727.63	14.69	259.34	115.29	166.07	12 53 10	5127.6	22.44	257.68

DIFFERENTIAL CORRECTIONS
TDE-3.2591 TRA-1.2890 TC3 -.2824 BAU .4837
RDE -.1455 RRA -.5133 RC3 -.0239 FAU .01409
FDE -.8992 FRA -.2448 FC3 -.0956 BSP 10821
BDE 3.2623 BRA 1.3874 BC3 .2834 FSP -208

MID-COURSE EXECUTION ACCURACY
SGT 3318.5 SGR 1121.2 SG3 63.4
RRT .8848 RRF .7788 RTF .9801
SGB 3502.8 R23 -.2326 R13 .9708
SG1 3466.9 SG2 500.1 THA 17.01

ORBIT DETERMINATION ACCURACY
ST 1854.8 SR 343.3 SS 639.9
CRT .6349 CRS -.5260 CST -.9910
LSA 1972.3 MSA 278.6 SSA 1.6
EL1 1867.8 EL2 263.4 ALF 6.84

LAUNCH DATE OCT 14 1970 FLIGHT TIME 128.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 387.450

RL 149.21 LAL -.00 LOL 20.23 VL 27.503 GAL -9.19 AZL 103.72 HCA 190.37 SMA 129.80 ECC .21749 INC13.7188 V1 29.862
RP 108.07 LAP 2.45 LOP 210.32 VP 37.864 GAP 8.09 AZP 76.50 TAL 218.06 TAP 48.44 RCA 101.57 APO 158.03 V2 35.067
RC 133.740 GL -50.93 GP 63.11 ZAL 118.04 ZAP 116.35 ETS 71.10 ZAE 104.92 ETE 150.99 ZAC 158.95 ETC 234.72 CLP-168.96

PLANETOCENTRIC CONIC

C3 68.792 VHL 8.294 DLA -69.01 RAL 214.29 RAD 6569.3 VEL 13.789 PTH 2.52 VHP 11.484 DPA 45.01 RAP 245.96 ECC 2.1321

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
24.01	0 58 19	2071.84	22.56	69.70	115.10	157.18	1 32 51	1471.8	29.90	66.55
155.99	11 21 17	5612.76	22.57	258.76	115.12	157.18	12 54 50	5012.8	29.90	255.61
24.01	0 58 19	2071.84	22.56	69.70	115.10	157.18	1 32 51	1471.8	29.90	66.55
155.99	11 21 17	5612.76	22.57	258.76	115.12	157.18	12 54 50	5012.8	29.90	255.61
24.01	0 58 19	2071.84	22.56	69.70	115.10	157.18	1 32 51	1471.8	29.90	66.55
155.99	11 21 17	5612.76	22.57	258.76	115.12	157.18	12 54 50	5012.8	29.90	255.61

DIFFERENTIAL CORRECTIONS
TDE-2.3235 TRA-1.5193 TC3 -.7839 BAU .7236
RDE .4829 RRA -.1668 RC3 .0668 FAU .02263
FDE -.8204 FRA -.2788 FC3 -.2848 BSP 11173
BDE 2.3731 BRA 1.5285 BC3 .7868 FSP -260

MID-COURSE EXECUTION ACCURACY
SGT 3585.4 SGR 476.6 SG3 78.9
RRT .1542 RRF -.1572 RTF .9470
SGB 3617.0 R23 -.3095 R13 .9461
SG1 3586.2 SG2 470.8 THA 1.19

ORBIT DETERMINATION ACCURACY
ST 1830.5 SR 347.3 SS 584.8
CRT -.7090 CRS .8477 CST -.9751
LSA 1934.3 MSA 268.2 SSA 2.5
EL1 1847.3 EL2 242.7 ALF 172.20

LAUNCH DATE OCT 14 1970 FLIGHT TIME 130.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 393.181

RL 149.21 LAL -.00 LOL 20.23 VL 27.426 GAL -8.85 AZL 99.96 HCA 193.49 SMA 129.26 ECC .21664 INC 9.9567 V1 29.862
RP 108.11 LAP 2.31 LOP 213.53 VP 37.796 GAP 8.27 AZP 80.31 TAL 216.40 TAP 49.89 RCA 101.26 APO 157.26 V2 35.054
RC 135.957 GL -43.77 GP 55.52 ZAL 123.38 ZAP 122.94 ETS 65.07 ZAE 110.83 ETE 148.59 ZAC 153.74 ETC 244.59 CLP-163.83

PLANETOCENTRIC CONIC

C3 45.870 VHL 6.773 DLA -62.25 RAL 220.42 RAD 6568.7 VEL 12.932 PTH 2.36 VHP 9.568 DPA 36.34 RAP 246.69 ECC 1.7549

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
31.93	1 40 54	1944.85	27.14	59.21	114.76	148.45	2 13 18	1344.9	33.87	54.60
148.07	11 27 37	5540.91	27.15	257.12	114.77	148.44	12 59 58	4940.9	33.88	252.50
31.93	1 40 54	1944.85	27.14	59.21	114.76	148.45	2 13 18	1344.9	33.87	54.60
148.07	11 27 37	5540.91	27.15	257.12	114.77	148.44	12 59 58	4940.9	33.88	252.50
31.93	1 40 54	1944.85	27.14	59.21	114.76	148.45	2 13 18	1344.9	33.87	54.60
148.07	11 27 37	5540.91	27.15	257.12	114.77	148.44	12 59 58	4940.9	33.88	252.50

DIFFERENTIAL CORRECTIONS
TDE-1.8526 TRA-1.5437 TC3-1.3422 BAU .8298
RDE .4765 RRA -.0640 RC3 .1721 FAU .02895
FDE -.7633 FRA -.2700 FC3 -.5464 BSP 11569
BDE 1.9129 BRA 1.5450 BC3 1.3532 FSP -312

MID-COURSE EXECUTION ACCURACY
SGT 3691.5 SGR 479.9 SG3 94.9
RRT -.4117 RRF -.7132 RTF .9211
SGB 3722.6 R23 .3605 R13 -.9235
SG1 3696.9 SG2 436.7 THA 176.89

ORBIT DETERMINATION ACCURACY
ST 1779.6 SR 404.7 SS 547.8
CRT -.8370 CRS .9521 CST -.9642
LSA 1888.8 MSA 252.1 SSA 3.6
EL1 1812.1 EL2 217.5 ALF 169.06

LAUNCH DATE OCT 14 1970 FLIGHT TIME 132.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 398.937

RL 149.21 LAL -.00 LOL 20.23 VL 27.349 GAL -8.51 AZL 97.59 HCA 196.64 SMA 128.73 ECC .21600 INC 7.5939 V1 29.862
RP 108.15 LAP 2.17 LOP 216.74 VP 37.728 GAP 8.46 AZP 82.72 TAL 214.74 TAP 51.38 RCA 100.93 APO 156.54 V2 35.041
RC 138.166 GL -37.36 GP 48.93 ZAL 127.11 ZAP 128.67 ETS 61.81 ZAE 115.17 ETE 149.27 ZAC 148.36 ETC 250.13 CLP-162.03

PLANETOCENTRIC CONIC

C3 34.697 VHL 5.890 DLA -56.40 RAL 225.60 RAD 6568.4 VEL 12.493 PTH 2.26 VHP 8.502 DPA 29.10 RAP 247.37 ECC 1.5710

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.95	2 19 34	1840.58	29.18	49.01	113.81	140.66	2 50 14	1240.6	35.22	43.23
141.05	11 30 19	5504.31	29.19	255.65	113.83	140.66	13 2 3	4904.3	35.23	249.87
38.95	2 19 34	1840.58	29.18	49.01	113.81	140.66	2 50 14	1240.6	35.22	43.23
141.05	11 30 19	5504.31	29.19	255.65	113.83	140.66	13 2 3	4904.3	35.23	249.87
38.95	2 19 34	1840.58	29.18	49.01	113.81	140.66	2 50 14	1240.6	35.22	43.23
141.05	11 30 19	5504.31	29.19	255.65	113.83	140.66	13 2 3	4904.3	35.23	249.87

DIFFERENTIAL CORRECTIONS
TDE-1.5239 TRA-1.5149 TC3-1.8970 BAU .8877
RDE .4079 RRA -.0326 RC3 .2524 FAU .03356
FDE -.6850 FRA -.2356 FC3 -.8375 BSP 11837
BDE 1.5776 BRA 1.5153 BC3 1.9138 FSP -357

MID-COURSE EXECUTION ACCURACY
SGT 3779.0 SGR 499.1 SG3 108.9
RRT -.5831 RRF -.8487 RTF .9017
SGB 3811.9 R23 .3900 R13 -.9050
SG1 3790.4 SG2 404.3 THA 175.55

ORBIT DETERMINATION ACCURACY
ST 1685.2 SR 397.2 SS 498.3
CRT -.8589 CRS .9740 CST -.9524
LSA 1785.5 MSA 240.9 SSA 5.1
EL1 1719.9 EL2 199.3 ALF 168.40

LAUNCH DATE OCT 14 1970 FLIGHT TIME 134.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 404.702

RL 149.21 LAL -.00 LOL 20.23 VL 27.273 GAL -8.17 AZL 95.97 HCA 199.81 SMA 128.22 ECC .21552 INC 5.9689 V1 29.862
RP 108.19 LAP 2.02 LOP 219.94 VP 37.661 GAP 8.65 AZP 84.38 TAL 213.07 TAP 52.87 RCA 100.58 APO 155.85 V2 35.028
RC 140.384 GL -31.81 GP 43.38 ZAL 129.41 ZAP 133.58 ETS 59.56 ZAE 118.40 ETE 150.97 ZAC 143.56 ETC 253.48 CLP-161.53

PLANETOCENTRIC CONIC

C3 28.361 VHL 5.326 DLA -51.43 RAL 230.05 RAD 6568.1 VEL 12.237 PTH 2.20 VHP 7.869 DPA 23.04 RAP 248.23 ECC 1.4668

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.09	2 55 8	1751.24	29.66	39.68	113.02	134.15	3 24 19	1151.2	35.05	33.09
134.91	11 30 15	5492.32	29.68	254.93	113.04	134.14	13 1 47	4892.3	35.07	248.34
45.09	2 55 8	1751.24	29.66	39.68	113.02	134.15	3 24 19	1151.2	35.05	33.09
134.91	11 30 15	5492.32	29.68	254.93	113.04	134.14	13 1 47	4892.3	35.07	248.34
45.09	2 55 8	1751.24	29.66	39.68	113.02	134.15	3 24 19	1151.2	35.05	33.09
134.91	11 30 15	5492.32	29.68	254.93	113.04	134.14	13 1 47	4892.3	35.07	248.34

DIFFERENTIAL CORRECTIONS
TDE-1.2666 TRA-1.4576 TC3-2.4141 BAU .9224
RDE .3435 RRA -.0271 RC3 .3007 FAU .03639
FDE -.5886 FRA -.1797 FC3-1.1108 BSP 11889
BDE 1.3123 BRA 1.4579 BC3 2.4328 FSP -377

MID-COURSE EXECUTION ACCURACY
SGT 3846.4 SGR 491.3 SG3 119.0
RRT -.6400 RRF -.8845 RTF .8844
SGB 3877.7 R23 .4073 R13 -.8877
SG1 3859.4 SG2 376.2 THA 175.28

ORBIT DETERMINATION ACCURACY
ST 1559.6 SR 369.9 SS 435.8
CRT -.8557 CRS .9827 CST -.9361
LSA 1644.6 MSA 233.1 SSA 6.9
EL1 1591.8 EL2 187.5 ALF 168.36

LAUNCH DATE OCT 14 1970 FLIGHT TIME 136.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 410.465

RL 149.21 LAL -.00 LOL 20.23 VL 27.198 GAL -7.82 AZL 94.78 HCA 202.98 SMA 127.71 ECC .21521 INC 4.7780 V1 29.862
RP 108.23 LAP 1.86 LOP 223.14 VP 37.594 GAP 8.83 AZP 85.60 TAL 211.39 TAP 54.37 RCA 100.23 APO 155.20 V2 35.014
RC 142.552 GL -27.05 GP 38.74 ZAL 130.52 ZAP 137.75 ETS 57.79 ZAE 120.79 ETE 152.96 ZAC 139.44 ETC 255.71 CLP-161.63

PLANETOCENTRIC CONIC

C3 24.357 VHL 4.935 DLA -47.22 RAL 234.03 RAD 6568.0 VEL 12.072 PTH 2.16 VHP 7.479 DPA 17.93 RAP 249.30 ECC 1.4009

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
50.48	3 28 46	1670.88	29.32	31.27	112.72	128.84	3 56 37	1070.9	34.12	24.17
129.52	11 28 22	5497.29	29.33	255.07	112.73	128.83	12 59 59	4897.3	34.13	247.96
50.48	3 28 46	1670.88	29.32	31.27	112.72	128.84	3 56 37	1070.9	34.12	24.17
129.52	11 28 22	5497.29	29.33	255.07	112.73	128.83	12 59 59	4897.3	34.13	247.96
50.48	3 28 46	1670.88	29.32	31.27	112.72	128.84	3 56 37	1070.9	34.12	24.17
129.52	11 28 22	5497.29	29.33	255.07	112.73	128.83	12 59 59	4897.3	34.13	247.96

DIFFERENTIAL CORRECTIONS
TDE-1.0771 TRA-1.4044 TC3-2.9201 BAU .9572
RDE .3005 RRA -.0233 RC3 .3365 FAU .03859
FDE -.5032 FRA -.1293 FC3-1.3717 BSP 12344
BDE 1.1183 BRA 1.4046 BC3 2.9394 FSP -414

MID-COURSE EXECUTION ACCURACY
SGT 3954.1 SGR 483.3 SG3 128.8
RRT -.6790 RRF -.8945 RTF .8758
SGB 3983.5 R23 .4019 R13 -.8788
SG1 3967.8 SG2 353.6 THA 175.22

ORBIT DETERMINATION ACCURACY
ST 1445.6 SR 349.2 SS 380.8
CRT -.8488 CRS .9884 CST -.9176
LSA 1518.2 MSA 227.6 SSA 9.1
EL1 1476.2 EL2 180.9 ALF 168.23

LAUNCH DATE OCT 14 1970 FLIGHT TIME 138.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 416.224

RL 149.21 LAL -.00 LOL 20.23 VL 27.124 GAL -7.46 AZL 93.86 HCA 206.16 SMA 127.22 ECC .21503 INC 3.8634 V1 29.862
RP 108.27 LAP 1.70 LOP 226.34 VP 37.528 GAP 9.02 AZP 86.53 TAL 209.69 TAP 55.85 RCA 99.87 APO 154.58 V2 35.001
RC 144.730 GL -22.94 GP 34.85 ZAL 130.66 ZAP 141.32 ETS 56.34 ZAE 122.58 ETE 154.96 ZAC 135.97 ETC 257.33 CLP-162.03

PLANETOCENTRIC CONIC

C3 21.610 VHL 4.649 DLA -43.65 RAL 237.73 RAD 6567.9 VEL 11.958 PTH 2.13 VHP 7.236 DPA 13.62 RAP 250.58 ECC 1.3557

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.28	4 1 27	1595.39	28.55	23.62	112.94	124.53	4 28 2	995.4	32.86	16.19
124.72	11 25 10	5514.53	28.56	256.02	112.95	124.53	12 57 5	4914.5	32.87	248.59
55.28	4 1 27	1595.39	28.55	23.62	112.94	124.53	4 28 2	995.4	32.86	16.19
124.72	11 25 10	5514.53	28.56	256.02	112.95	124.53	12 57 5	4914.5	32.87	248.59
55.28	4 1 27	1595.39	28.55	23.62	112.94	124.53	4 28 2	995.4	32.86	16.19
124.72	11 25 10	5514.53	28.56	256.02	112.95	124.53	12 57 5	4914.5	32.87	248.59

DIFFERENTIAL CORRECTIONS
TDE -.9205 TRA-1.3380 TC3-3.3915 BAU .9853
RDE .2697 RRA -.0237 RC3 .3572 FAU .03975
FDE -.4198 FRA -.0736 FC3-1.5923 BSP 12705
BDE .9592 BRA 1.3382 BC3 3.4102 FSP -439

MID-COURSE EXECUTION ACCURACY
SGT 4052.6 SGR 471.6 SG3 135.9
RRT -.6971 RRF -.8876 RTF .8690
SGB 4079.9 R23 .3872 R13 -.8717
SG1 4066.0 SG2 337.0 THA 175.33

ORBIT DETERMINATION ACCURACY
ST 1328.0 SR 332.8 SS 325.5
CRT -.8368 CRS .9926 CST -.8922
LSA 1389.3 MSA 223.7 SSA 11.7
EL1 1357.4 EL2 178.3 ALF 167.95

LAUNCH DATE OCT 14 1970 FLIGHT TIME 140.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 421.978

RL 149.21 LAL -.00 LOL 20.23 VL 27.051 GAL -7.10 AZL 93.14 HCA 209.34 SMA 126.74 ECC .21500 INC 3.1353 V1 29.862
RP 108.31 LAP 1.54 LOP 229.54 VP 37.463 GAP 9.21 AZP 87.27 TAL 207.99 TAP 57.33 RCA 99.49 APO 153.99 V2 34.988
RC 146.899 GL -19.36 GP 31.58 ZAL 130.06 ZAP 144.38 ETS 55.15 ZAE 123.92 ETE 156.83 ZAC 133.04 ETC 258.61 CLP-162.60

PLANETOCENTRIC CONIC

C3 19.607 VHL 4.428 DLA -40.56 RAL 241.27 RAD 6567.8 VEL 11.874 PTH 2.11 VHP 7.088 DPA 9.94 RAP 252.03 ECC 1.3227

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.65	4 33 58	1521.78	27.58	16.47	113.64	121.00	4 59 20	921.8	31.47	8.85
120.35	11 20 52	5541.59	27.60	257.68	113.64	120.99	12 53 14	4941.6	31.48	250.06
59.65	4 33 58	1521.78	27.58	16.47	113.64	121.00	4 59 20	921.8	31.47	8.85
120.35	11 20 52	5541.59	27.60	257.68	113.64	120.99	12 53 14	4941.6	31.48	250.06
59.65	4 33 58	1521.78	27.58	16.47	113.64	121.00	4 59 20	921.8	31.47	8.85
120.35	11 20 52	5541.59	27.60	257.68	113.64	120.99	12 53 14	4941.6	31.48	250.06

DIFFERENTIAL CORRECTIONS
TDE -.7872 TRA-1.2608 TC3-3.8320 BAU 1.0091
RDE .2479 RRA -.0262 RC3 .3681 FAU .04008
FDE -.3408 FRA -.0154 FC3-1.7696 BSP 13002
BDE .8253 BRA 1.2611 BC3 3.8497 FSP -453

MID-COURSE EXECUTION ACCURACY
SGT 4143.2 SGR 459.5 SG3 140.7
RRT -.7024 RRF -.8703 RTF .8633
SGB 4168.6 R23 .3654 R13 -.8656
SG1 4155.8 SG2 326.1 THA 175.52

ORBIT DETERMINATION ACCURACY
ST 1209.5 SR 321.2 SS 271.7
CRT -.8214 CRS .9954 CST -.8556
LSA 1261.3 MSA 221.1 SSA 14.9
EL1 1238.6 EL2 178.9 ALF 167.43

LAUNCH DATE OCT 14 1970 FLIGHT TIME 142.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 427.723

RL	149.21	LAL	-.00	LOL	20.23	VL	26.979	GAL	-6.73	AZL	92.54	HCA	212.52	SMA	126.27	ECC	.21512	INC	2.5387	V1	29.862
RP	108.35	LAP	1.36	LOP	232.73	VP	37.399	GAP	9.40	AZP	87.86	TAL	206.27	TAP	58.79	RCA	99.11	APO	153.44	V2	34.975
RC	149.057	GL	-16.21	GP	28.82	ZAL	128.85	ZAP	147.03	ETS	54.17	ZAE	124.94	ETE	158.54	ZAC	130.56	ETC	259.67	CLP	-163.25

PLANETOCENTRIC CONIC

C3	18.079	VHL	4.252	DLA	-37.86	RAL	244.72	RAD	6567.7	VEL	11.809	PTH	2.09	VHP	7.003	DPA	6.79	RAP	253.64	ECC	1.2975

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.74	5 7 7	1447.40	26.53	9.58	114.74	118.07	5 31 15	847.4	30.06	1.84
116.26	11 15 17	5577.77	26.55	260.04	114.75	118.05	12 48 15	4977.8	30.07	252.30
63.74	5 7 7	1447.40	26.53	9.58	114.74	118.07	5 31 15	847.4	30.06	1.84
116.26	11 15 17	5577.77	26.55	260.04	114.75	118.05	12 48 15	4977.8	30.07	252.30
63.74	5 7 7	1447.40	26.53	9.58	114.74	118.07	5 31 15	847.4	30.06	1.84
116.26	11 15 17	5577.77	26.55	260.04	114.75	118.05	12 48 15	4977.8	30.07	252.30

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.6809	TRA	-1.1845	TC3	-4.2690	BAU	1.0358	SGT	4255.4	SGR	454.5	SG3	145.3	ST	1105.3	SR	317.4	SS	227.6
RDE	.2352	RRA	-.0273	RC3	.3791	FAU	.04023	RRT	-.7068	RRF	-.8493	RTF	.8627	CRT	-.8078	CRS	.9949	CST	-.8095
FDE	-.2764	FRA	.0341	FC3	-1.9266	BSP	13512	SGB	4279.6	R23	.3337	R13	-.8646	LSA	1151.3	MSA	220.0	SSA	18.6
BDE	.7204	BRA	1.1848	BC3	4.2858	FSP	-478	SG1	4267.5	SG2	320.6	THA	175.66	EL1	1135.4	EL2	182.1	ALF	166.59

LAUNCH DATE OCT 14 1970 FLIGHT TIME 144.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 433.462

RL	149.21	LAL	-.00	LOL	20.23	VL	26.908	GAL	-6.35	AZL	92.04	HCA	215.71	SMA	125.81	ECC	.21538	INC	2.0382	V1	29.862
RP	108.39	LAP	1.19	LOP	235.92	VP	37.336	GAP	9.59	AZP	88.34	TAL	204.54	TAP	60.25	RCA	98.72	APO	152.91	V2	34.962
RC	151.205	GL	-13.39	GP	26.47	ZAL	127.17	ZAP	149.35	ETS	53.39	ZAE	125.73	ETE	160.06	ZAC	128.45	ETC	260.60	CLP	-163.96

PLANETOCENTRIC CONIC

C3	16.873	VHL	4.108	DLA	-35.46	RAL	248.15	RAD	6567.7	VEL	11.758	PTH	2.08	VHP	6.961	DPA	4.07	RAP	255.37	ECC	1.2777

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.70	5 41 51	1369.23	25.45	2.67	116.21	115.58	6 4 40	769.2	28.67	354.86
112.30	11 7 55	5623.97	25.46	263.16	116.22	115.56	12 41 39	5024.0	28.68	255.35
67.70	5 41 51	1369.23	25.45	2.67	116.21	115.58	6 4 40	769.2	28.67	354.86
112.30	11 7 55	5623.97	25.46	263.16	116.22	115.56	12 41 39	5024.0	28.68	255.35
67.70	5 41 51	1369.23	25.45	2.67	116.21	115.58	6 4 40	769.2	28.67	354.86
112.30	11 7 55	5623.97	25.46	263.16	116.22	115.56	12 41 39	5024.0	28.68	255.35

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.5710	TRA	-1.0836	TC3	-4.6495	BAU	1.0523	SGT	4320.8	SGR	444.6	SG3	146.2	ST	978.5	SR	312.6	SS	177.5
RDE	.2237	RRA	-.0328	RC3	.3794	FAU	.03938	RRT	-.6949	RRF	-.8187	RTF	.8569	CRT	-.7853	CRS	.9838	CST	-.7163
FDE	-.2056	FRA	.0952	FC3	-2.0205	BSP	13615	SGB	4343.6	R23	.3059	R13	-.8586	LSA	1018.8	MSA	219.6	SSA	23.3
BDE	.6133	BRA	1.0841	BC3	4.6650	FSP	-471	SG1	4331.9	SG2	318.9	THA	175.89	EL1	1010.0	EL2	187.5	ALF	165.40

LAUNCH DATE OCT 14 1970 FLIGHT TIME 146.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 439.191

RL	149.21	LAL	-.00	LOL	20.23	VL	26.838	GAL	-5.96	AZL	91.61	HCA	218.89	SMA	125.37	ECC	.21579	INC	1.6099	V1	29.862
RP	108.43	LAP	1.01	LOP	239.11	VP	37.273	GAP	9.78	AZP	88.75	TAL	202.80	TAP	61.69	RCA	98.31	APO	152.42	V2	34.949
RC	153.343	GL	-10.84	GP	24.45	ZAL	125.09	ZAP	151.40	ETS	52.80	ZAE	126.35	ETE	161.41	ZAC	126.65	ETC	261.44	CLP	-164.70

PLANETOCENTRIC CONIC

C3	15.905	VHL	3.988	DLA	-33.29	RAL	251.59	RAD	6567.6	VEL	11.717	PTH	2.06	VHP	6.952	DPA	1.71	RAP	257.22	ECC	1.2618

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
71.72	6 19 29	1283.00	24.36	355.37	117.98	113.43	6 40 52	683.0	27.31	347.52
108.28	10 57 43	5683.20	24.37	267.24	117.99	113.41	12 32 26	5083.2	27.32	259.39
71.72	6 19 29	1283.00	24.36	355.37	117.98	113.43	6 40 52	683.0	27.31	347.52
108.28	10 57 43	5683.20	24.37	267.24	117.99	113.41	12 32 26	5083.2	27.32	259.39
110.00	10 9 7	5832.29	19.47	276.22	115.41	118.67	11 46 20	5232.3	23.14	269.01
110.00	12 7 15	5469.94	29.45	252.87	120.16	108.19	13 38 25	4869.9	31.65	244.35

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.4765	TRA	-.9816	TC3	-5.0240	BAU	1.0714	SGT	4401.5	SGR	440.6	SG3	147.2	ST	859.8	SR	312.5	SS	137.6
RDE	.2170	RRA	-.0375	RC3	.3820	FAU	.03850	RRT	-.6834	RRF	-.7873	RTF	.8546	CRT	-.7620	CRS	.9413	CST	-.5626
FDE	-.1461	FRA	.1490	FC3	-2.0957	BSP	13867	SGB	4423.5	R23	.2742	R13	-.8560	LSA	897.9	MSA	220.9	SSA	28.8
BDE	.5236	BRA	.9823	BC3	5.0385	FSP	-472	SG1	4411.8	SG2	320.9	THA	176.07	EL1	893.8	EL2	194.7	ALF	163.73

LAUNCH DATE OCT 14 1970 FLIGHT TIME 148.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 444.909

RL	149.21	LAL	-.00	LOL	20.23	VL	26.769	GAL	-5.56	AZL	91.24	HCA	222.07	SMA	124.93	ECC	.21636	INC	1.2370	V1	29.862
RP	108.47	LAP	.83	LOP	242.30	VP	37.212	GAP	9.97	AZP	89.08	TAL	201.05	TAP	63.12	RCA	97.90	APO	151.96	V2	34.937
RC	155.470	GL	-8.51	GP	22.71	ZAL	122.70	ZAP	153.23	ETS	52.41	ZAE	126.84	ETE	162.61	ZAC	125.09	ETC	262.22	CLP	-165.45

PLANETOCENTRIC CONIC

C3	15.121	VHL	3.889	DLA	-31.28	RAL	255.06	RAD	6567.6	VEL	11.684	PTH	2.05	VHP	6.967	DPA	-.35	RAP	259.16	ECC	1.2489

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
76.11	7 2 33	1180.59	23.25	347.05	120.04	111.54	7 22 14	580.6	25.97	339.19
103.89	10 42 20	5762.80	23.26	272.82	120.04	111.53	12 18 23	5162.8	25.98	264.95
76.11	7 2 33	1180.59	23.25	347.05	120.04	111.54	7 22 14	580.6	25.97	339.19
103.89	10 42 20	5762.80	23.26	272.82	120.04	111.53	12 18 23	5162.8	25.98	264.95
110.00	9 36 11	681.37	14.81	306.21	115.62	121.17	9 47 32	81.4	18.83	299.40
110.00	13 7 53	5310.02	32.29	241.28	123.10	101.89	14 36 23	4710.0	33.59	232.29

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.3885	TRA	-.8727	TC3	-5.3789	BAU	1.0901	SGT	4482.3	SGR	439.6	SG3	147.7	ST	739.7	SR	314.5	SS	107.4
RDE	.2128	RRA	-.0428	RC3	.3845	FAU	.03748	RRT	-.6698	RRF	-.7550	RTF	.8538	CRT	-.7336	CRS	.8125	CST	-.2876
FDE	-.0928	FRA	.1995	FC3	-2.1458	BSP	14138	SGB	4503.8	R23	.2425	R13	-.8550	LSA	778.7	MSA	223.7	SSA	35.7
BDE	.4430	BRA	.8738	BC3	5.3926	FSP	-474	SG1	4492.0	SG2	325.7	THA	176.22	EL1	777.7	EL2	203.3	ALF	161.36

LAUNCH DATE OCT 14 1970 FLIGHT TIME 150.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 450.617

RL 149.21 LAL -.00 LOL 20.23 VL 26.701 GAL -5.15 AZL 90.91 HCA 225.25 SMA 124.50 ECC .21710 INC .9075 V1 29.862
RP 108.51 LAP .64 LOP 245.48 VP 37.152 GAP 10.16 AZP 89.36 TAL 199.29 TAP 64.53 RCA 97.47 APO 151.53 V2 34.925
RC 157.587 GL -6.35 GP 21.21 ZAL 120.03 ZAP 154.87 ETS 52.20 ZAE 127.23 ETE 163.66 ZAC 123.73 ETC 262.97 CLP-166.20

PLANETOCENTRIC CONIC

C3 14.488 VHL 3.806 DLA -29.40 RAL 258.58 RAD 6567.6 VEL 11.656 PTH 2.05 VHP 7.002 DPA -2.15 RAP 261.19 ECC 1.2384

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.74	7 58 30	1037.74	22.14	335.93	122.35	109.86	8 15 48	437.7	24.64	328.07
98.26	10 14 27	5886.58	22.15	281.60	122.35	109.85	11 52 34	5286.6	24.65	273.73
100.00	9 42 21	701.42	18.78	309.88	120.92	113.69	9 54 2	101.4	21.82	302.40
100.00	11 13 18	5698.13	25.59	268.85	123.57	106.01	12 48 16	5098.1	27.54	260.59
110.00	9 20 43	769.57	11.64	311.08	116.98	122.37	9 33 32	169.6	15.83	304.48
110.00	13 51 26	5202.75	33.50	233.15	125.44	97.22	15 18 8	4602.8	34.14	223.96

DIFFERENTIAL CORRECTIONS
TDE -.3040 TRA -.7566 TC3-5.7100 BAU 1.1085
RDE .2103 RRA -.0487 RC3 .3870 FAU .03634
FDE -.0443 FRA .2474 FC3-2.1714 BSP 14424
BDE .3697 BRA .7581 BC3 5.7231 FSP -475

MID-COURSE EXECUTION ACCURACY
SGT 4562.1 SGR 440.6 SG3 147.6
RRT -.6544 RRF -.7227 RTF .8540
SGB 4583.4 R23 .2128 R13 -.8550
SG1 4571.3 SG2 332.5 THA 176.36

ORBIT DETERMINATION ACCURACY
ST 616.6 SR 317.8 SS 92.5
CRT -.6949 CRS .5109 CST .1409
LSA 660.0 MSA 228.4 SSA 44.4
EL1 660.0 EL2 213.5 ALF 157.86

LAUNCH DATE OCT 14 1970 FLIGHT TIME 152.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 456.313

RL 149.21 LAL -.00 LOL 20.23 VL 26.634 GAL -4.73 AZL 90.61 HCA 228.43 SMA 124.09 ECC .21800 INC .6127 V1 29.862
RP 108.54 LAP .46 LOP 248.66 VP 37.093 GAP 10.36 AZP 89.59 TAL 197.51 TAP 65.94 RCA 97.04 APO 151.14 V2 34.913
RC 159.692 GL -4.35 GP 19.89 ZAL 117.12 ZAP 156.36 ETS 52.16 ZAE 127.56 ETE 164.59 ZAC 122.54 ETC 263.69 CLP-166.96

PLANETOCENTRIC CONIC

C3 13.987 VHL 3.740 DLA -27.61 RAL 262.15 RAD 6567.6 VEL 11.635 PTH 2.04 VHP 7.052 DPA -3.74 RAP 263.30 ECC 1.2302

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 25 6	991.49	17.12	330.46	123.35	112.91	8 41 38	391.5	20.07	323.03
90.00	10 16 22	629.23	25.00	306.88	126.15	103.74	10 26 51	29.2	26.65	298.60
100.00	9 4 12	865.12	14.02	319.70	121.87	116.67	9 18 38	265.1	17.49	312.63
100.00	12 19 57	5518.88	28.34	256.25	126.93	99.93	13 51 56	4918.9	29.42	247.61
110.00	9 12 10	840.13	9.04	314.89	118.95	123.11	9 26 10	240.1	13.34	308.43
110.00	14 28 29	5116.64	34.04	226.48	127.70	93.31	15 53 46	4516.6	34.13	217.24

DIFFERENTIAL CORRECTIONS
TDE -.2202 TRA -.6321 TC3-6.0103 BAU 1.1262
RDE .2089 RRA -.0556 RC3 .3887 FAU .03509
FDE .0005 FRA .2937 FC3-2.1723 BSP 14700
BDE .3035 BRA .6345 BC3 6.0229 FSP -474

MID-COURSE EXECUTION ACCURACY
SGT 4638.8 SGR 442.9 SG3 147.1
RRT -.6375 RRF -.6909 RTF .8547
SGB 4659.9 R23 .1857 R13 -.8556
SG1 4647.4 SG2 340.6 THA 176.50

ORBIT DETERMINATION ACCURACY
ST 489.4 SR 321.5 SS 97.4
CRT -.6338 CRS .0888 CST .5574
LSA 542.1 MSA 235.2 SSA 56.0
EL1 540.5 EL2 225.1 ALF 152.16

LAUNCH DATE OCT 14 1970 FLIGHT TIME 154.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 461.997

RL 149.21 LAL -.00 LOL 20.23 VL 26.568 GAL -4.30 AZL 90.35 HCA 231.60 SMA 123.68 ECC .21909 INC .3457 V1 29.862
RP 108.58 LAP .27 LOP 251.84 VP 37.034 GAP 10.56 AZP 89.79 TAL 195.73 TAP 67.34 RCA 96.59 APO 150.78 V2 34.901
RC 161.784 GL -2.49 GP 18.73 ZAL 114.01 ZAP 157.71 ETS 52.30 ZAE 127.84 ETE 165.41 ZAC 121.48 ETC 264.40 CLP-167.71

PLANETOCENTRIC CONIC

C3 13.605 VHL 3.688 DLA -25.87 RAL 265.78 RAD 6567.5 VEL 11.619 PTH 2.04 VHP 7.114 DPA -5.12 RAP 265.47 ECC 1.2239

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 52 10	1143.35	12.87	339.59	124.86	115.44	8 11 14	543.4	16.19	332.49
90.00	11 18 15	5753.29	27.15	273.27	129.46	98.36	12 54 9	5153.3	28.03	264.71
100.00	8 47 2	966.20	10.86	325.54	123.82	118.02	9 3 8	366.2	14.52	318.66
100.00	13 6 5	5405.68	29.39	248.00	129.77	95.71	14 36 10	4805.7	29.87	239.23
110.00	9 7 34	901.78	6.74	318.18	121.33	123.59	9 22 35	301.8	11.11	311.81
110.00	15 2 2	5042.86	34.18	220.73	130.05	89.91	16 26 5	4442.9	33.79	211.50

DIFFERENTIAL CORRECTIONS
TDE -.1346 TRA -.4992 TC3-6.2714 BAU 1.1429
RDE .2081 RRA -.0634 RC3 .3892 FAU .03377
FDE .0428 FRA .3383 FC3-2.1490 BSP 14950
BDE .2479 BRA .5032 BC3 6.2835 FSP -472

MID-COURSE EXECUTION ACCURACY
SGT 4710.6 SGR 446.0 SG3 146.1
RRT -.6195 RRF -.6598 RTF .8559
SGB 4731.7 R23 .1613 R13 -.8566
SG1 4718.8 SG2 349.5 THA 176.62

ORBIT DETERMINATION ACCURACY
ST 360.3 SR 325.1 SS 118.8
CRT -.5149 CRS -.2438 CST .7550
LSA 430.0 MSA 243.9 SSA 72.1
EL1 423.4 EL2 237.2 ALF 140.66

LAUNCH DATE OCT 14 1970 FLIGHT TIME 156.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 467.667

RL 149.21 LAL -.00 LOL 20.23 VL 26.503 GAL -3.86 AZL 90.10 HCA 234.78 SMA 123.29 ECC .22036 INC .1009 V1 29.862
RP 108.61 LAP .08 LOP 255.01 VP 36.977 GAP 10.77 AZP 89.94 TAL 193.94 TAP 68.72 RCA 96.12 APO 150.45 V2 34.890
RC 163.865 GL -.74 GP 17.71 ZAL 110.72 ZAP 158.96 ETS 52.62 ZAE 128.07 ETE 166.14 ZAC 120.53 ETC 265.09 CLP-168.45

PLANETOCENTRIC CONIC

C3 13.356 VHL 3.652 DLA -24.18 RAL 269.46 RAD 6567.5 VEL 11.607 PTH 2.03 VHP 7.189 DPA -6.34 RAP 267.70 ECC 1.2195

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 35 59	1244.96	9.83	345.50	127.14	116.69	7 56 44	645.0	13.33	338.58
90.00	12 3 48	5643.01	27.99	265.31	132.46	94.46	13 37 51	5043.0	28.32	256.66
100.00	8 37 4	1047.77	8.21	330.15	126.27	118.84	8 54 32	447.8	12.00	323.41
100.00	13 45 24	5315.44	29.82	241.33	132.58	92.23	15 14 0	4715.4	29.81	232.53
110.00	9 5 32	958.51	4.59	321.16	124.05	123.91	9 21 30	358.5	9.01	314.87
110.00	15 33 26	4977.46	34.06	215.62	132.54	86.89	16 56 23	4377.5	33.25	206.48

DIFFERENTIAL CORRECTIONS
TDE -.0468 TRA -.3582 TC3-6.4890 BAU 1.1590
RDE .2079 RRA -.0720 RC3 .3883 FAU .03240
FDE .0824 FRA .3814 FC3-2.1036 BSP 15202
BDE .2131 BRA .3654 BC3 6.5006 FSP -469

MID-COURSE EXECUTION ACCURACY
SGT 4779.9 SGR 449.7 SG3 144.8
RRT -.6010 RRF -.6301 RTF .8576
SGB 4801.0 R23 .1399 R13 -.8582
SG1 4787.5 SG2 358.8 THA 176.75

ORBIT DETERMINATION ACCURACY
ST 244.5 SR 328.5 SS 149.0
CRT -.2278 CRS -.4376 CST .6701
LSA 349.7 MSA 242.5 SSA 93.7
EL1 337.7 EL2 231.5 ALF 108.62

LAUNCH DATE OCT 14 1970 FLIGHT TIME 158.00 ARRIVAL DATE MAR 21 1971

HELIOCENTRIC CONIC DISTANCE 473.325

RL 149.21 LAL -.00 LOL 20.23 VL 26.439 GAL -3.41 AZL 89.88 HCA 237.95 SMA 122.90 ECC .22183 INC .1235 V1 29.862
RP 108.65 LAP -.11 LOP 258.19 VP 36.921 GAP 10.98 AZP 90.07 TAL 192.14 TAP 70.09 RCA 95.64 APO 150.16 V2 34.880
RC 165.932 GL .90 GP 16.81 ZAL 107.29 ZAP 160.10 ETS 53.12 ZAE 128.28 ETE 166.79 ZAC 119.67 ETC 265.77 CLP-169.19

PLANETOCENTRIC CONIC

C3 13.179 VHL 3.630 DLA -22.51 RAL 273.18 RAD 6567.5 VEL 11.600 PTH 2.03 VHP 7.274 DPA -7.40 RAP 269.98 ECC 1.2169

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 26 15	1329.03	7.22	350.30	129.85	117.45	7 48 24	729.0	10.84	343.50
90.00	12 43 14	5553.80	28.29	258.80	135.47	91.21	14 15 48	4953.8	28.16	250.14
100.00	8 31 4	1119.83	5.82	334.17	129.09	119.37	8 49 44	519.8	9.69	327.52
100.00	14 21 7	5238.23	29.88	235.59	135.47	89.21	15 48 25	4638.2	29.45	226.82
110.00	9 5 18	1012.51	2.53	323.99	127.05	124.10	9 22 11	412.5	6.99	317.74
110.00	16 3 22	4918.32	33.75	211.03	135.21	84.19	17 25 20	4318.3	32.57	202.00

DIFFERENTIAL CORRECTIONS

TDE .0499 TRA -.2037 TC3-6.6398 BAU 1.1718
RDE .2076 RRA -.0820 RC3 .3837 FAU .03087
FDE .1232 FRA .4260 FC3-2.0277 BSP 15328
BDE .2136 BRA .2196 BC3 6.6509 FSP -459

MID-COURSE EXECUTION ACCURACY

SGT 4834.1 SGR 452.4 SG3 142.9
RRT -.5801 RRF -.5994 RTF .8581
SGB 4855.3 R23 .1212 R13 -.8586
SG1 4841.3 SG2 367.9 THA 176.87

ORBIT DETERMINATION ACCURACY

ST 195.0 SR 330.5 SS 185.8
CRT .4501 CRS -.5543 CST .0189
LSA 361.0 MSA 193.2 SSA 119.0
EL1 345.8 EL2 166.5 ALF 70.41

LAUNCH DATE OCT 14 1970 FLIGHT TIME 160.00 ARRIVAL DATE MAR 23 1971

HELIOCENTRIC CONIC DISTANCE 478.966

RL 149.21 LAL -.00 LOL 20.23 VL 26.376 GAL -2.94 AZL 89.67 HCA 241.12 SMA 122.52 ECC .22351 INC .3345 V1 29.862
RP 108.68 LAP -.29 LOP 261.36 VP 36.867 GAP 11.19 AZP 90.16 TAL 190.34 TAP 71.46 RCA 95.14 APO 149.91 V2 34.869
RC 167.985 GL 2.43 GP 16.00 ZAL 103.74 ZAP 161.16 ETS 53.79 ZAE 128.46 ETE 167.37 ZAC 118.88 ETC 266.46 CLP-169.92

PLANETOCENTRIC CONIC

C3 13.134 VHL 3.624 DLA -20.85 RAL 276.94 RAD 6567.5 VEL 11.598 PTH 2.03 VHP 7.369 DPA -8.33 RAP 272.30 ECC 1.2162

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 20 10	1404.29	4.84	354.55	132.89	117.93	7 43 34	804.3	8.54	347.82
90.00	13 19 15	5477.06	28.28	253.19	138.56	88.40	14 50 32	4877.1	27.75	244.56
100.00	8 27 36	1186.65	3.58	337.86	132.19	119.70	8 47 23	586.6	7.51	331.27
100.00	14 54 30	5169.93	29.71	230.52	138.49	86.55	16 20 40	4569.9	28.92	221.81
110.00	9 6 23	1065.12	.52	326.74	130.28	124.18	9 24 8	465.1	5.00	320.52
110.00	16 32 13	4864.23	33.30	206.88	138.06	81.77	17 53 17	4264.2	31.80	197.97

DIFFERENTIAL CORRECTIONS

TDE .1469 TRA -.0453 TC3-6.7465 BAU 1.1865
RDE .2083 RRA -.0921 RC3 .3786 FAU .02946
FDE .1590 FRA .4663 FC3-1.9421 BSP 15552
BDE .2549 BRA .1027 BC3 6.7571 FSP -456

MID-COURSE EXECUTION ACCURACY

SGT 4896.1 SGR 456.1 SG3 141.1
RRT -.5612 RRF -.5724 RTF .8606
SGB 4917.3 R23 .1045 R13 -.8610
SG1 4902.8 SG2 377.0 THA 176.99

ORBIT DETERMINATION ACCURACY

ST 275.6 SR 332.8 SS 221.5
CRT .8324 CRS -.6168 CST -.6168
LSA 442.1 MSA 159.2 SSA 122.3
EL1 414.3 EL2 122.7 ALF 51.41

LAUNCH DATE OCT 14 1970 FLIGHT TIME 162.00 ARRIVAL DATE MAR 25 1971

HELIOCENTRIC CONIC DISTANCE 484.591

RL 149.21 LAL -.00 LOL 20.23 VL 26.314 GAL -2.46 AZL 89.47 HCA 244.30 SMA 122.16 ECC .22541 INC .5323 V1 29.862
RP 108.71 LAP -.48 LOP 264.53 VP 36.813 GAP 11.42 AZP 90.23 TAL 188.52 TAP 72.82 RCA 94.62 APO 149.69 V2 34.859
RC 170.025 GL 3.86 GP 15.28 ZAL 100.09 ZAP 162.14 ETS 54.65 ZAE 128.63 ETE 167.89 ZAC 118.16 ETC 267.13 CLP-170.64

PLANETOCENTRIC CONIC

C3 13.204 VHL 3.634 DLA -19.21 RAL 280.70 RAD 6567.5 VEL 11.601 PTH 2.03 VHP 7.473 DPA -9.13 RAP 274.66 ECC 1.2173

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 16 27	1474.56	2.59	358.49	136.19	118.21	7 41 2	874.6	6.34	351.81
90.00	13 53 0	5409.08	28.05	248.23	141.78	85.92	15 23 9	4809.1	27.18	239.67
100.00	8 25 55	1250.43	1.42	341.36	135.54	119.86	8 46 45	650.4	5.39	334.82
100.00	15 26 13	5108.44	29.37	225.99	141.65	84.18	16 51 22	4508.4	28.26	217.36
110.00	9 8 27	1117.16	-1.47	329.45	133.73	124.16	9 27 4	517.2	3.02	323.25
110.00	17 0 11	4814.48	32.75	203.10	141.08	79.60	18 20 25	4214.5	30.97	194.33

DIFFERENTIAL CORRECTIONS

TDE .2504 TRA .1235 TC3-6.7855 BAU 1.1996
RDE .2094 RRA -.1031 RC3 .3702 FAU .02801
FDE .1941 FRA .5066 FC3-1.8368 BSP 15739
BDE .3264 BRA .1609 BC3 6.7956 FSP -450

MID-COURSE EXECUTION ACCURACY

SGT 4951.4 SGR 459.4 SG3 139.1
RRT -.5417 RRF -.5461 RTF .8630
SGB 4972.7 R23 .0902 R13 -.8633
SG1 4957.7 SG2 385.7 THA 177.11

ORBIT DETERMINATION ACCURACY

ST 426.2 SR 334.2 SS 258.0
CRT .8843 CRS -.6559 CST -.8366
LSA 568.0 MSA 169.9 SSA 92.0
EL1 526.7 EL2 126.3 ALF 37.24

LAUNCH DATE OCT 14 1970 FLIGHT TIME 164.00 ARRIVAL DATE MAR 27 1971

HELIOCENTRIC CONIC DISTANCE 490.197

RL 149.21 LAL -.00 LOL 20.23 VL 26.253 GAL -1.97 AZL 89.28 HCA 247.46 SMA 121.80 ECC .22756 INC .7200 V1 29.862
RP 108.74 LAP -.66 LOP 267.70 VP 36.761 GAP 11.65 AZP 90.28 TAL 186.70 TAP 74.17 RCA 94.08 APO 149.51 V2 34.850
RC 172.049 GL 5.17 GP 14.64 ZAL 96.38 ZAP 163.05 ETS 55.70 ZAE 128.78 ETE 168.35 ZAC 117.48 ETC 267.80 CLP-171.36

PLANETOCENTRIC CONIC

C3 13.395 VHL 3.660 DLA -17.58 RAL 284.46 RAD 6567.5 VEL 11.610 PTH 2.03 VHP 7.588 DPA -9.81 RAP 277.06 ECC 1.2204

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 14 24	1541.84	.42	2.24	139.71	118.31	7 40 6	941.8	4.20	355.60
90.00	14 25 1	5348.03	27.67	243.80	145.12	83.73	15 54 9	4748.0	26.51	235.33
100.00	8 25 29	1312.45	-.68	344.77	139.09	119.89	8 47 22	712.4	3.30	338.24
100.00	15 56 37	5052.66	28.92	221.90	144.95	82.08	17 20 49	4452.7	27.52	213.38
110.00	9 11 14	1169.13	-3.45	332.17	137.36	124.03	9 30 43	569.1	1.04	325.96
110.00	17 27 21	4768.74	32.13	199.67	144.28	77.66	18 46 50	4168.7	30.10	191.05

DIFFERENTIAL CORRECTIONS

TDE .3453 TRA .2862 TC3-6.8027 BAU 1.2199
RDE .2123 RRA -.1132 RC3 .3635 FAU .02698
FDE .2195 FRA .5373 FC3-1.7437 BSP 16272
BDE .4054 BRA .3078 BC3 6.8124 FSP -461

MID-COURSE EXECUTION ACCURACY

SGT 5030.7 SGR 464.6 SG3 137.3
RRT -.5274 RRF -.5275 RTF .8700
SGB 5052.1 R23 .0774 R13 -.8703
SG1 5036.7 SG2 394.3 THA 177.19

ORBIT DETERMINATION ACCURACY

ST 578.3 SR 337.1 SS 285.5
CRT .8752 CRS -.6754 CST -.9086
LSA 701.4 MSA 180.4 SSA 71.6
EL1 653.7 EL2 144.3 ALF 28.55

LAUNCH DATE OCT 14 1970 FLIGHT TIME 166.00 ARRIVAL DATE MAR 29 1971

HELIOCENTRIC CONIC DISTANCE 495.785

RL 149.21 LAL -.00 LOL 20.23 VL 26.193 GAL -1.45 AZL 89.10 HCA 250.63 SMA 121.45 ECC .22996 INC .8988 V1 29.862
RP 108.77 LAP -.85 LOP 270.86 VP 36.710 GAP 11.89 AZP 90.30 TAL 184.88 TAP 75.51 RCA 93.52 APO 149.37 V2 34.841
RC 174.060 GL 8.37 GP 14.06 ZAL 92.64 ZAP 163.90 ETS 56.94 ZAE 128.93 ETE 168.76 ZAC 116.84 ETC 268.47 CLP-172.07

PLANETOCENTRIC CONIC

C3 13.713 VHL 3.703 DLA -15.97 RAL 288.19 RAD 6567.5 VEL 11.623 PTH 2.04 VHP 7.712 DPA -10.39 RAP 279.49 ECC 1.2257

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 13 34	1607.23	-1.69	5.89	143.42	118.27	7 40 21	1007.2	2.10	359.26
90.00	14 55 39	5292.85	27.20	239.84	148.60	81.80	16 23 51	4692.8	25.78	231.45
100.00	8 26 2	1373.43	-2.75	348.11	142.83	119.78	8 48 56	773.4	1.24	341.59
100.00	16 25 51	5001.91	28.39	218.22	148.39	80.21	17 49 13	4401.9	26.74	209.81
110.00	9 14 35	1221.33	-5.43	334.91	141.16	123.80	9 34 57	621.3	-.96	328.68
110.00	17 53 48	4726.78	31.48	196.57	147.83	75.93	19 12 34	4126.8	29.23	188.09

DIFFERENTIAL CORRECTIONS

TDE .4727 TRA .4851 TC3-6.6734 BAU 1.2251
RDE .2134 RRA -.1264 RC3 .3459 FAU .02523
FDE .2583 FRA .5826 FC3-1.5930 BSP 16156
BDE .5186 BRA .5013 BC3 6.6824 FSP -441

MID-COURSE EXECUTION ACCURACY

SGT 5056.9 SGR 464.8 SG3 134.7
RRT -.5036 RRF -.4983 RTF .8695
SGB 5078.2 R23 .0867 R13 -.8698
SG1 5062.4 SG2 401.1 THA 177.33

ORBIT DETERMINATION ACCURACY

ST 782.1 SR 335.8 SS 326.4
CRT .8605 CRS -.6958 CST -.9483
LSA 890.2 HSA 188.4 SSA 55.3
EL1 835.9 EL2 160.1 ALF 21.09

LAUNCH DATE OCT 14 1970 FLIGHT TIME 168.00 ARRIVAL DATE MAR 31 1971

HELIOCENTRIC CONIC DISTANCE 501.351

RL 149.21 LAL -.00 LOL 20.23 VL 26.134 GAL -.92 AZL 88.93 HCA 253.80 SMA 121.10 ECC .23263 INC 1.0710 V1 29.862
RP 108.79 LAP -1.03 LOP 274.03 VP 36.660 GAP 12.14 AZP 90.30 TAL 183.05 TAP 76.85 RCA 92.93 APO 149.28 V2 34.833
RC 176.055 GL 7.46 GP 13.53 ZAL 88.90 ZAP 164.69 ETS 58.39 ZAE 129.06 ETE 169.14 ZAC 116.23 ETC 269.14 CLP-172.77

PLANETOCENTRIC CONIC

C3 14.169 VHL 3.764 DLA -14.38 RAL 291.88 RAD 6567.6 VEL 11.643 PTH 2.04 VHP 7.846 DPA -10.86 RAP 281.93 ECC 1.2332

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 13 39	1671.44	-3.76	9.48	147.29	118.09	7 41 30	1071.4	.03	2.84
90.00	15 24 59	5243.02	26.66	236.29	152.20	80.09	16 52 22	4643.0	25.02	228.00
100.00	8 27 18	1433.77	-4.78	351.44	146.73	119.54	8 51 12	833.8	-.81	344.90
100.00	16 54 0	4955.92	27.81	214.93	151.96	78.57	18 16 36	4355.9	25.95	208.62
110.00	9 18 22	1273.85	-7.42	337.68	145.10	123.47	9 39 36	673.9	-2.96	331.43
110.00	18 19 26	4688.61	30.81	193.80	151.13	74.41	19 37 35	4088.6	28.37	185.45

DIFFERENTIAL CORRECTIONS

TDE .5956 TRA .6822 TC3-6.5122 BAU 1.2351
RDE .2162 RRA -.1368 RC3 .3286 FAU .02379
FDE .2898 FRA .6205 FC3-1.4535 BSP 16287
BDE .6336 BRA .6962 BC3 6.5205 FSP -433

MID-COURSE EXECUTION ACCURACY

SGT 5099.6 SGR 465.9 SG3 132.2
RRT -.4834 RRF -.4743 RTF .8725
SGB 5120.9 R23 .0570 R13 -.8727
SG1 5104.6 SG2 407.5 THA 177.46

ORBIT DETERMINATION ACCURACY

ST 973.1 SR 335.6 SS 359.5
CRT .8457 CRS -.7067 CST -.9666
LSA 1072.0 HSA 194.0 SSA 45.3
EL1 1014.9 EL2 171.7 ALF 16.75

LAUNCH DATE OCT 14 1970 FLIGHT TIME 170.00 ARRIVAL DATE APR 2 1971

HELIOCENTRIC CONIC DISTANCE 506.893

RL 149.21 LAL -.00 LOL 20.23 VL 26.076 GAL -.37 AZL 88.76 HCA 256.96 SMA 120.77 ECC .23559 INC 1.2375 V1 29.862
RP 108.82 LAP -1.21 LOP 277.20 VP 36.611 GAP 12.41 AZP 90.28 TAL 181.21 TAP 78.18 RCA 92.32 APO 149.22 V2 34.825
RC 178.036 GL 8.43 GP 13.06 ZAL 85.18 ZAP 165.42 ETS 60.06 ZAE 129.19 ETE 169.48 ZAC 115.65 ETC 269.80 CLP-173.47

PLANETOCENTRIC CONIC

C3 14.773 VHL 3.844 DLA -12.82 RAL 295.50 RAD 6567.6 VEL 11.669 PTH 2.05 VHP 7.990 DPA -11.24 RAP 284.40 ECC 1.2431

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 14 25	1734.73	-5.78	13.03	151.31	117.77	7 43 20	1134.7	-2.01	6.37
90.00	15 53 7	5198.25	26.10	233.13	155.90	78.61	17 19 45	4598.3	24.27	224.94
100.00	8 29 8	1493.68	-6.78	354.76	150.76	119.18	8 54 2	893.7	-2.84	348.19
100.00	17 21 5	4914.53	27.22	211.99	155.64	77.13	18 42 59	4314.5	25.17	203.79
110.00	9 22 26	1326.73	-9.39	340.51	149.17	123.02	9 44 33	726.7	-4.98	334.20
110.00	18 44 16	4654.25	30.16	191.34	154.74	73.09	20 1 50	4054.3	27.55	183.12

DIFFERENTIAL CORRECTIONS

TDE .7225 TRA .8996 TC3-6.2950 BAU 1.2448
RDE .2201 RRA -.1517 RC3 .3095 FAU .02244
FDE .3187 FRA .6591 FC3-1.3148 BSP 16469
BDE .7553 BRA .9024 BC3 6.3026 FSP -428

MID-COURSE EXECUTION ACCURACY

SGT 5140.6 SGR 466.9 SG3 130.0
RRT -.4639 RRF -.4532 RTF .8759
SGB 5161.8 R23 .0499 R13 -.8761
SG1 5145.2 SG2 413.3 THA 177.57

ORBIT DETERMINATION ACCURACY

ST 1160.9 SR 335.4 SS 389.3
CRT .8319 CRS -.7116 CST -.9768
LSA 1253.3 HSA 198.9 SSA 38.2
EL1 1194.8 EL2 180.9 ALF 13.84

LAUNCH DATE OCT 14 1970 FLIGHT TIME 172.00 ARRIVAL DATE APR 4 1971

HELIOCENTRIC CONIC DISTANCE 512.408

RL 149.21 LAL -.00 LOL 20.23 VL 26.019 GAL .19 AZL 88.60 HCA 260.13 SMA 120.44 ECC .23887 INC 1.3997 V1 29.862
RP 108.84 LAP -1.38 LOP 280.36 VP 36.564 GAP 12.69 AZP 90.24 TAL 179.38 TAP 79.51 RCA 91.67 APO 149.21 V2 34.818
RC 180.002 GL 9.28 GP 12.63 ZAL 81.51 ZAP 166.11 ETS 61.94 ZAE 129.31 ETE 169.79 ZAC 115.09 ETC 270.46 CLP-174.16

PLANETOCENTRIC CONIC

C3 15.540 VHL 3.942 DLA -11.30 RAL 299.04 RAD 6567.6 VEL 11.701 PTH 2.06 VHP 8.146 DPA -11.53 RAP 286.88 ECC 1.2557

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 15 44	1797.30	-7.75	16.57	155.44	117.32	7 45 41	1197.3	-4.03	9.87
90.00	16 20 2	5158.38	25.53	230.35	159.71	77.32	17 46 1	4558.4	23.53	222.25
100.00	8 31 23	1553.24	-8.74	358.09	154.91	118.70	8 57 16	953.2	-4.85	351.47
100.00	17 47 4	4877.67	26.63	209.41	159.42	75.89	19 8 22	4277.7	24.43	201.30
110.00	9 26 44	1379.90	-11.35	343.38	153.34	122.46	9 49 44	779.9	-6.98	337.00
110.00	19 8 13	4623.78	29.54	189.18	158.47	71.96	20 25 16	4023.8	26.79	181.08

DIFFERENTIAL CORRECTIONS

TDE .8606 TRA 1.1073 TC3-6.0238 BAU 1.2529
RDE .2239 RRA -.1647 RC3 .2874 FAU .02100
FDE .3531 FRA .6981 FC3-1.1699 BSP 16585
BDE .8892 BRA 1.1195 BC3 6.0307 FSP -420

MID-COURSE EXECUTION ACCURACY

SGT 5178.2 SGR 465.6 SG3 127.7
RRT -.4437 RRF -.4280 RTF .8781
SGB 5199.1 R23 .0400 R13 -.8782
SG1 5182.3 SG2 416.9 THA 177.70

ORBIT DETERMINATION ACCURACY

ST 1351.7 SR 333.6 SS 422.6
CRT .8204 CRS -.7193 CST -.9841
LSA 1440.6 HSA 201.2 SSA 33.3
EL1 1379.7 EL2 186.9 ALF 11.66

LAUNCH DATE OCT 14 1970 FLIGHT TIME 174.00 ARRIVAL DATE APR 6 1971

HELIOCENTRIC CONIC DISTANCE 517.894

RL 149.21 LAL -.00 LOL 20.23 VL 25.963 GAL .79 AZL 88.44 HCA 263.29 SMA 120.13 ECC .24250 INC 1.5589 V1 29.862
RP 108.86 LAP -1.55 LOP 283.52 VP 36.518 GAP 12.98 AZP 90.18 TAL 177.54 TAP 80.83 RCA 91.00 APO 149.26 V2 34.812
RC 181.954 GL 10.02 GP 12.24 ZAL 77.92 ZAP 166.74 ETS 64.06 ZAE 129.43 ETE 170.08 ZAC 114.54 ETC 271.12 CLP-174.85

PLANETOCENTRIC CONIC

C3 16.485 VHL 4.060 DLA -9.84 RAL 302.48 RAD 6567.7 VEL 11.742 PTH 2.07 VHP 8.314 DPA -11.74 RAP 289.38 ECC 1.2713

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 17 28	1859.21	-9.66	20.11	159.67	116.75	7 48 27	1259.2	-6.00	13.35
90.00	16 45 46	5123.32	24.99	227.92	163.59	76.23	18 11 9	4523.3	22.85	219.91
100.00	8 33 58	1612.44	-10.66	1.44	159.15	118.09	9 0 50	1012.4	-6.82	354.76
100.00	18 11 57	4845.33	26.07	207.17	163.28	74.84	19 32 43	4245.3	23.74	199.15
110.00	9 31 11	1433.25	-13.28	346.30	157.61	121.79	9 55 4	833.2	-8.98	339.84
110.00	19 31 13	4597.27	28.96	187.33	162.27	71.00	20 47 51	3997.3	26.10	179.32

DIFFERENTIAL CORRECTIONS
TDE .9990 TRA 1.3329 TC3-5.7139 BAU 1.2607
RDE .2300 RRA -.1771 RC3 .2647 FAU .01970
FDE .3782 FRA .7335 FC3-1.0346 BSP 16712
BDE 1.0251 BRA 1.3446 BC3 5.7201 FSP -413

MID-COURSE EXECUTION ACCURACY
SGT 5211.6 SGR 464.7 SG3 125.0
RRT -.4229 RRF -.4073 RTF .8825
SGB 5232.3 R23 .0349 R13 -.8827
SG1 5215.3 SG2 420.8 THA 177.83

ORBIT DETERMINATION ACCURACY
ST 1527.9 SR 333.4 SS 445.6
CRT .8108 CRS -.7207 CST -.9879
LSA 1613.0 MSA 204.1 SSA 29.2
EL1 1552.1 EL2 192.2 ALF 10.19

LAUNCH DATE OCT 14 1970 FLIGHT TIME 176.00 ARRIVAL DATE APR 8 1971

HELIOCENTRIC CONIC DISTANCE 523.345

RL 149.21 LAL -.00 LOL 20.23 VL 25.908 GAL 1.40 AZL 88.28 HCA 266.45 SMA 119.81 ECC .24650 INC 1.7159 V1 29.862
RP 108.87 LAP -1.71 LOP 286.69 VP 36.473 GAP 13.29 AZP 90.11 TAL 175.71 TAP 82.16 RCA 90.28 APO 149.35 V2 34.806
RC 183.891 GL 10.64 GP 11.89 ZAL 74.43 ZAP 167.32 ETS 66.43 ZAE 129.54 ETE 170.34 ZAC 114.01 ETC 271.76 CLP-175.54

PLANETOCENTRIC CONIC

C3 17.829 VHL 4.199 DLA -8.43 RAL 305.81 RAD 6567.7 VEL 11.790 PTH 2.08 VHP 8.495 DPA -11.87 RAP 291.87 ECC 1.2901

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 19 32	1920.42	-11.32	23.65	163.99	116.05	7 51 32	1320.4	-7.92	16.82
90.00	17 10 16	5093.02	24.48	225.85	167.53	75.31	18 35 9	4493.0	22.22	217.91
100.00	8 36 47	1671.18	-12.52	4.81	163.47	117.37	9 4 38	1071.2	-8.76	358.04
100.00	18 35 42	4817.50	25.56	205.26	167.20	73.96	19 55 59	4217.5	23.12	197.31
110.00	9 35 43	1486.66	-15.17	349.28	161.94	121.00	10 0 30	886.7	-10.95	342.72
110.00	19 53 15	4574.78	28.46	185.78	166.15	70.21	21 9 30	3974.8	25.49	177.86

DIFFERENTIAL CORRECTIONS
TDE 1.1329 TRA 1.5591 TC3-5.3964 BAU 1.2731
RDE .2376 RRA -.1889 RC3 .2427 FAU .01866
FDE .4001 FRA .7653 FC3 -.9164 BSP 17124
BDE 1.1575 BRA 1.5705 BC3 5.4019 FSP -417

MID-COURSE EXECUTION ACCURACY
SGT 5248.9 SGR 463.2 SG3 122.3
RRT -.4041 RRF -.3885 RTF .8883
SGB 5269.3 R23 .0298 R13 -.8884
SG1 5252.2 SG2 423.4 THA 177.94

ORBIT DETERMINATION ACCURACY
ST 1680.7 SR 333.6 SS 463.6
CRT .8026 CRS -.7220 CST -.9906
LSA 1762.9 MSA 206.5 SSA 26.2
EL1 1702.2 EL2 196.5 ALF 9.18

LAUNCH DATE OCT 14 1970 FLIGHT TIME 178.00 ARRIVAL DATE APR 10 1971

HELIOCENTRIC CONIC DISTANCE 528.760

RL 149.21 LAL -.00 LOL 20.23 VL 25.854 GAL 2.04 AZL 88.13 HCA 269.61 SMA 119.51 ECC .25090 INC 1.8718 V1 29.862
RP 108.89 LAP -1.87 LOP 289.85 VP 36.429 GAP 13.62 AZP 90.01 TAL 173.88 TAP 83.49 RCA 89.53 APO 149.50 V2 34.801
RC 185.813 GL 11.17 GP 11.56 ZAL 71.06 ZAP 167.85 ETS 69.05 ZAE 129.64 ETE 170.57 ZAC 113.48 ETC 272.40 CLP-176.23

PLANETOCENTRIC CONIC

C3 18.993 VHL 4.358 DLA -7.08 RAL 309.02 RAD 6567.8 VEL 11.848 PTH 2.10 VHP 8.690 DPA -11.93 RAP 294.38 ECC 1.3126

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 21 51	1980.93	-13.30	27.20	168.37	115.23	7 54 52	1380.9	-9.79	20.28
90.00	17 33 34	5067.39	24.03	224.11	171.52	74.55	18 58 1	4467.4	21.67	216.23
100.00	8 39 48	1729.44	-14.32	8.20	167.86	116.52	9 8 38	1129.4	-10.64	1.34
100.00	18 58 17	4794.11	25.11	203.67	171.17	73.23	20 18 11	4194.1	22.58	195.79
110.00	9 40 18	1540.01	-17.02	352.31	166.35	120.10	10 5 58	940.0	-12.89	345.64
110.00	20 14 17	4556.31	28.02	184.52	170.08	69.57	21 30 13	3956.3	24.98	176.66

DIFFERENTIAL CORRECTIONS
TDE 1.2947 TRA 1.8190 TC3-5.0063 BAU 1.2724
RDE .2450 RRA -.2017 RC3 .2168 FAU .01720
FDE .4311 FRA .8075 FC3 -.7839 BSP 16998
BDE 1.3176 BRA 1.8302 BC3 5.0110 FSP -402

MID-COURSE EXECUTION ACCURACY
SGT 5267.4 SGR 459.2 SG3 120.1
RRT -.3806 RRF -.3642 RTF .8910
SGB 5287.4 R23 .0247 R13 -.8911
SG1 5270.3 SG2 424.4 THA 178.09

ORBIT DETERMINATION ACCURACY
ST 1853.9 SR 332.0 SS 489.3
CRT .7954 CRS -.7244 CST -.9928
LSA 1934.6 MSA 207.6 SSA 23.7
EL1 1872.8 EL2 199.2 ALF 8.20

LAUNCH DATE OCT 14 1970 FLIGHT TIME 180.00 ARRIVAL DATE APR 12 1971

HELIOCENTRIC CONIC DISTANCE 534.133

RL 149.21 LAL -.00 LOL 20.23 VL 25.800 GAL 2.71 AZL 87.97 HCA 272.77 SMA 119.22 ECC .25575 INC 2.0275 V1 29.862
RP 108.90 LAP -2.03 LOP 293.01 VP 36.387 GAP 13.98 AZP 89.90 TAL 172.05 TAP 84.82 RCA 88.73 APO 149.70 V2 34.797
RC 187.719 GL 11.59 GP 11.27 ZAL 67.81 ZAP 168.32 ETS 71.93 ZAE 129.74 ETE 170.80 ZAC 112.96 ETC 273.03 CLP-176.91

PLANETOCENTRIC CONIC

C3 20.605 VHL 4.539 DLA -5.81 RAL 312.10 RAD 6567.8 VEL 11.916 PTH 2.12 VHP 8.901 DPA -11.91 RAP 296.88 ECC 1.3391

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 24 22	2040.65	-15.00	30.76	172.81	114.30	7 58 22	1440.7	-11.60	23.74
90.00	17 55 37	5046.37	23.64	222.69	175.54	73.94	19 19 44	4446.4	21.21	214.86
100.00	8 42 57	1787.11	-16.04	11.62	172.30	115.56	9 12 44	1187.1	-12.47	4.65
100.00	19 19 43	4775.14	24.74	202.38	175.18	72.66	20 39 18	4175.1	22.13	194.56
110.00	9 44 54	1593.16	-18.81	355.40	170.81	119.08	10 11 27	993.2	-14.79	348.59
110.00	20 34 15	4541.87	27.68	183.54	174.05	69.09	21 49 57	3941.9	24.58	175.73

DIFFERENTIAL CORRECTIONS
TDE 1.4540 TRA 2.0832 TC3-4.6215 BAU 1.2742
RDE .2541 RRA -.2135 RC3 .1924 FAU .01592
FDE .4582 FRA .8465 FC3 -.6690 BSP 17057
BDE 1.4760 BRA 2.0941 BC3 4.6255 FSP -393

MID-COURSE EXECUTION ACCURACY
SGT 5287.5 SGR 454.7 SG3 117.7
RRT -.3577 RRF -.3413 RTF .8950
SGB 5307.0 R23 .0204 R13 -.8950
SG1 5290.0 SG2 424.4 THA 178.23

ORBIT DETERMINATION ACCURACY
ST 2003.2 SR 331.0 SS 509.3
CRT .7898 CRS -.7265 CST -.9943
LSA 2082.7 MSA 208.4 SSA 21.7
EL1 2020.3 EL2 201.3 ALF 7.51

LAUNCH DATE OCT 14 1970 FLIGHT TIME 182.00 ARRIVAL DATE APR 14 1971

HELIOCENTRIC CONIC DISTANCE 539.456
RL 149.21 LAL -.00 LOL 20.23 VL 25.748 GAL 3.41 AZL 87.82 HCA 275.93 SMA 118.93 ECC .26109 INC 2.1841 V1 29.862
RP 108.92 LAP -2.17 LOP 296.17 VP 36.347 GAP 14.36 AZP 89.77 TAL 170.23 TAP 86.16 RCA 87.88 APO 149.98 V2 34.793
RC 189.610 GL 11.92 GP 11.00 ZAL 64.70 ZAP 168.75 ETS 75.08 ZAE 129.83 ETE 171.00 ZAC 112.44 ETC 273.65 CLP-177.60
PLANETOCENTRIC CONIC
C3 22.496 VHL 4.743 DLA -4.61 RAL 315.05 RAD 6567.9 VEL 11.995 PTH 2.14 VHP 9.129 DPA -11.82 RAP 299.37 ECC 1.3702

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 27 1	2099.53	-16.62	34.33	177.29	113.26	8 2 1	1499.5	-13.33	27.19
90.00	18 16 28	5029.83	23.32	221.58	179.59	73.47	19 40 18	4429.8	20.83	213.79
100.00	8 46 12	1844.11	-17.69	15.05	176.79	114.50	9 16 56	1244.1	-14.23	7.96
100.00	19 39 58	4760.49	24.44	201.40	179.21	72.22	20 59 19	4160.5	21.77	193.61
110.00	9 49 29	1645.99	-20.53	358.53	175.31	117.95	10 16 55	1046.0	-16.63	351.58
110.00	20 53 10	4531.37	27.42	182.83	178.04	68.74	22 8 42	3931.4	24.28	175.07

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE 1.6175 TRA 2.3589 TC3-4.2360 BAU 1.2750 SGT 5304.4 SGR 449.3 SG3 115.4 ST 2137.3 SR 330.1 SS 526.9
RDE .2647 RRA -.2245 RC3 .1688 FAU .01472 RRT -.3341 RRF -.3182 RTF .8994 CRT .7857 CRS -.7290 CST -.9955
FDE .4844 FRA .8856 FC3 -.5664 BSP 17140 SGB 5323.4 R23 .0167 R13 -.8995 LSA 2216.0 MSA 208.8 SSA 20.1
BDE 1.6390 BRA 2.3695 BC3 4.2394 FSP -386 SG1 5306.6 SG2 423.4 THA 178.37 EL1 2153.1 EL2 202.7 ALF 6.98

LAUNCH DATE OCT 14 1970 FLIGHT TIME 184.00 ARRIVAL DATE APR 16 1971

HELIOCENTRIC CONIC DISTANCE 544.723
RL 149.21 LAL -.00 LOL 20.23 VL 25.696 GAL 4.15 AZL 87.66 HCA 279.09 SMA 118.64 ECC .26696 INC 2.3424 V1 29.862
RP 108.93 LAP -2.31 LOP 299.33 VP 36.307 GAP 14.77 AZP 89.63 TAL 168.42 TAP 87.51 RCA 86.97 APO 150.32 V2 34.790
RC 191.483 GL 12.17 GP 10.75 ZAL 61.74 ZAP 169.12 ETS 78.50 ZAE 129.91 ETE 171.19 ZAC 111.92 ETC 274.26 CLP-178.30
PLANETOCENTRIC CONIC
C3 24.705 VHL 4.970 DLA -3.48 RAL 317.85 RAD 6568.0 VEL 12.086 PTH 2.16 VHP 9.376 DPA -11.67 RAP 301.85 ECC 1.4066

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 29 47	2157.51	-18.14	37.90	181.80	112.12	8 5 45	1557.5	-14.99	30.65
90.00	18 36 5	5017.64	23.08	220.77	183.65	73.13	19 59 43	4417.6	20.55	213.01
100.00	8 49 30	1900.36	-19.24	18.51	181.31	113.33	9 21 11	1300.4	-15.92	11.29
100.00	19 59 4	4750.02	24.22	200.70	183.26	71.92	21 18 14	4150.0	21.52	192.94
110.00	9 54 1	1698.40	-22.16	1.72	179.85	116.71	10 22 19	1098.4	-18.40	354.61
110.00	21 11 2	4524.74	27.25	182.38	182.04	68.52	22 26 27	3924.7	24.09	174.64

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE 1.7868 TRA 2.6486 TC3-3.8530 BAU 1.2735 SGT 5316.9 SGR 443.0 SG3 113.0 ST 2257.7 SR 329.2 SS 542.8
RDE .2767 RRA -.2345 RC3 .1462 FAU .01355 RRT -.3093 RRF -.2944 RTF .9041 CRT .7829 CRS -.7320 CST -.9964
FDE .5102 FRA .9258 FC3 -.4747 BSP 17225 SGB 5335.3 R23 .0137 R13 -.9041 LSA 2335.9 MSA 208.7 SSA 18.7
BDE 1.8081 BRA 2.6590 BC3 3.8558 FSP -380 SG1 5318.6 SG2 421.1 THA 178.51 EL1 2272.5 EL2 203.4 ALF 6.57

LAUNCH DATE OCT 14 1970 FLIGHT TIME 186.00 ARRIVAL DATE APR 18 1971

HELIOCENTRIC CONIC DISTANCE 549.926
RL 149.21 LAL -.00 LOL 20.23 VL 25.646 GAL 4.93 AZL 87.50 HCA 282.25 SMA 118.37 ECC .27343 INC 2.5035 V1 29.862
RP 108.93 LAP -2.45 LOP 302.50 VP 36.269 GAP 15.21 AZP 89.47 TAL 166.62 TAP 88.87 RCA 86.00 APO 150.74 V2 34.788
RC 193.340 GL 12.34 GP 10.53 ZAL 58.92 ZAP 169.43 ETS 82.18 ZAE 129.98 ETE 171.37 ZAC 111.40 ETC 274.86 CLP-178.99
PLANETOCENTRIC CONIC
C3 27.277 VHL 5.223 DLA -2.44 RAL 320.52 RAD 6568.1 VEL 12.192 PTH 2.19 VHP 9.645 DPA -11.46 RAP 304.33 ECC 1.4489

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 32 38	2214.52	-19.57	41.48	186.33	110.89	8 9 33	1614.5	-16.55	34.10
90.00	18 54 32	5009.62	22.92	220.23	187.70	72.91	20 18 2	4409.6	20.37	212.49
100.00	8 52 51	1955.79	-20.70	21.98	185.85	112.06	9 25 27	1355.8	-17.52	14.62
100.00	20 17 1	4743.58	24.08	200.27	187.30	71.73	21 36 4	4143.6	21.36	192.53
110.00	9 58 29	1750.31	-23.72	4.95	184.42	115.37	10 27 40	1150.3	-20.10	357.67
110.00	21 27 52	4521.83	27.18	182.19	186.05	68.43	22 43 13	3921.8	24.01	174.46

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE 1.9623 TRA 2.9529 TC3-3.4805 BAU 1.2700 SGT 5325.9 SGR 435.7 SG3 110.8 ST 2364.8 SR 328.2 SS 557.4
RDE .2901 RRA -.2435 RC3 .1251 FAU .01243 RRT -.2831 RRF -.2696 RTF .9091 CRT .7816 CRS -.7358 CST -.9970
FDE .5361 FRA .9672 FC3 -.3944 BSP 17293 SGB 5343.7 R23 .0112 R13 -.9092 LSA 2442.8 MSA 208.0 SSA 17.5
BDE 1.9836 BRA 2.9630 BC3 3.4827 FSP -373 SG1 5327.3 SG2 417.8 THA 178.67 EL1 2378.8 EL2 203.5 ALF 6.24

LAUNCH DATE OCT 14 1970 FLIGHT TIME 188.00 ARRIVAL DATE APR 20 1971

HELIOCENTRIC CONIC DISTANCE 555.055
RL 149.21 LAL -.00 LOL 20.23 VL 25.596 GAL 5.75 AZL 87.33 HCA 285.41 SMA 118.10 ECC .28056 INC 2.6685 V1 29.862
RP 108.94 LAP -2.57 LOP 305.66 VP 36.233 GAP 15.69 AZP 89.29 TAL 164.84 TAP 90.25 RCA 84.97 APO 151.24 V2 34.786
RC 195.178 GL 12.45 GP 10.32 ZAL 56.26 ZAP 169.68 ETS 86.11 ZAE 130.03 ETE 171.54 ZAC 110.89 ETC 275.44 CLP-179.70
PLANETOCENTRIC CONIC
C3 30.266 VHL 5.501 DLA -1.47 RAL 323.05 RAD 6568.2 VEL 12.314 PTH 2.22 VHP 9.937 DPA -11.19 RAP 306.78 ECC 1.4981

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 35 33	2270.52	-20.89	45.06	190.87	109.57	8 13 23	1670.5	-18.03	37.55
90.00	19 11 49	5005.57	22.84	219.97	191.75	72.79	20 35 14	4405.6	20.27	212.24
100.00	8 56 12	2010.33	-22.05	25.46	190.41	110.71	9 29 43	1410.3	-19.03	17.97
100.00	20 33 50	4740.99	24.02	200.10	191.34	71.66	21 52 51	4141.0	21.29	192.36
110.00	10 2 53	1801.61	-25.17	8.22	189.01	113.93	10 32 55	1201.6	-21.72	.77
110.00	21 43 39	4522.48	27.20	182.23	190.06	68.45	22 59 2	3922.5	24.03	174.50

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY
TDE 2.1323 TRA 3.2727 TC3-3.1216 BAU 1.2638 SGT 5324.8 SGR 427.4 SG3 108.5 ST 2447.2 SR 327.1 SS 570.8
RDE .3049 RRA -.2510 RC3 .1056 FAU .01134 RRT -.2572 RRF -.2438 RTF .9142 CRT .7802 CRS -.7402 CST -.9977
FDE .5618 FRA 1.0100 FC3 -.3243 BSP 17394 SGB 5341.9 R23 .0075 R13 -.9142 LSA 2525.5 MSA 207.2 SSA 16.5
BDE 2.1540 BRA 3.2823 BC3 3.1234 FSP -367 SG1 5325.9 SG2 412.9 THA 178.81 EL1 2460.5 EL2 203.5 ALF 5.99

LAUNCH DATE OCT 14 1970 FLIGHT TIME 190.00 ARRIVAL DATE APR 22 1971

HELIOCENTRIC CONIC DISTANCE 560.096

RL 149.21 LAL -.00 LOL 20.23 VL 25.547 GAL 6.61 AZL 87.16 HCA 288.56 SMA 117.84 ECC .28843 INC 2.8385 V1 29.862
RP 108.94 LAP -2.69 LOP 308.82 VP 36.197 GAP 16.21 AZP 89.10 TAL 163.08 TAP 91.65 RCA 83.85 APO 151.83 V2 34.785
RC 196.997 GL 12.50 GP 10.13 ZAL 53.74 ZAP 169.86 ETS 90.27 ZAE 130.08 ETE 171.71 ZAC 110.37 ETC 276.01 CLP 179.58

PLANETOCENTRIC CONIC

C3 33.737 VHL 5.808 DLA -.58 RAL 325.45 RAD 6568.3 VEL 12.454 PTH 2.25 VHP 10.256 DPA -10.87 RAP 309.22 ECC 1.5552

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 38 30	2325.45	-22.10	48.63	195.41	108.17	8 17 15	1725.4	-19.41	40.99
90.00	19 27 58	5005.29	22.84	219.95	195.78	72.79	20 51 23	4405.3	20.27	212.22
100.00	8 59 34	2063.93	-23.30	28.96	194.97	109.28	9 33 58	1463.9	-20.45	21.31
100.00	20 49 35	4742.04	24.05	200.17	195.35	71.69	22 8 37	4142.0	21.32	192.43
110.00	10 7 12	1852.24	-26.53	11.53	193.61	112.39	10 38 4	1252.2	-23.26	3.90
110.00	21 58 26	4526.50	27.30	182.50	194.05	68.58	23 13 53	3926.5	24.14	174.76

DIFFERENTIAL CORRECTIONS
TDE 2.3309 TRA 3.6097 TC3-2.7814 BAU 1.2551
RDE .3214 RRA -.2569 RC3 .0878 FAU .01030
FDE .5882 FRA 1.0547 FC3 -.2642 BSP 17476
BDE 2.3529 BRA 3.6188 BC3 2.7828 FSP -362

MID-COURSE EXECUTION ACCURACY
SGT 5329.8 SGR 418.5 SG3 106.3
RRT -.2255 RRF -.2157 RTF .9198
SGB 5346.2 R23 .0072 R13 -.9198
SG1 5330.6 SG2 407.6 THA 178.98

ORBIT DETERMINATION ACCURACY
ST 2537.2 SR 326.0 SS 583.9
CRT .7827 CRS -.7457 CST -.9980
LSA 2615.8 MSA 205.3 SSA 15.6
EL1 2550.1 EL2 201.9 ALF 5.78

LAUNCH DATE OCT 14 1970 FLIGHT TIME 192.00 ARRIVAL DATE APR 24 1971

HELIOCENTRIC CONIC DISTANCE 565.034

RL 149.21 LAL -.00 LOL 20.23 VL 25.499 GAL 7.53 AZL 86.98 HCA 291.72 SMA 117.59 ECC .29712 INC 3.0150 V1 29.862
RP 108.94 LAP -2.80 LOP 311.98 VP 36.163 GAP 16.78 AZP 88.88 TAL 161.35 TAP 93.07 RCA 82.65 APO 152.52 V2 34.785
RC 198.798 GL 12.49 GP 9.96 ZAL 51.38 ZAP 169.98 ETS 94.63 ZAE 130.11 ETE 171.86 ZAC 109.85 ETC 276.56 CLP 178.85

PLANETOCENTRIC CONIC

C3 37.770 VHL 6.146 DLA .24 RAL 327.71 RAD 6568.5 VEL 12.615 PTH 2.29 VHP 10.605 DPA -10.50 RAP 311.63 ECC 1.6216

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 41 28	2379.24	-23.19	52.19	199.94	106.72	8 21 7	1779.2	-20.68	44.42
90.00	19 43 1	5008.54	22.90	220.16	199.78	72.88	21 6 29	4408.5	20.34	212.43
100.00	9 2 55	2116.50	-24.44	32.45	199.52	107.78	9 38 11	1516.5	-21.78	24.66
100.00	21 4 15	4746.51	24.14	200.46	199.35	71.82	22 23 21	4146.5	21.43	192.72
110.00	10 11 25	1902.09	-27.78	14.87	198.22	110.77	10 43 7	1302.1	-24.70	7.05
110.00	22 12 14	4533.69	27.48	182.98	198.02	68.81	23 27 48	3933.7	24.35	175.21

DIFFERENTIAL CORRECTIONS
TDE 2.5249 TRA 3.9649 TC3-2.4609 BAU 1.2432
RDE .3393 RRA -.2609 RC3 .0718 FAU .00929
FDE .6148 FRA 1.1014 FC3 -.2130 BSP 17592
BDE 2.5476 BRA 3.9735 BC3 2.4619 FSP -357

MID-COURSE EXECUTION ACCURACY
SGT 5324.9 SGR 408.7 SG3 104.1
RRT -.1936 RRF -.1859 RTF .9254
SGB 5340.5 R23 .0058 R13 -.9254
SG1 5325.5 SG2 400.9 THA 179.14

ORBIT DETERMINATION ACCURACY
ST 2603.6 SR 324.7 SS 596.2
CRT .7849 CRS -.7517 CST -.9983
LSA 2683.0 MSA 203.1 SSA 14.7
EL1 2616.2 EL2 200.2 ALF 5.62

LAUNCH DATE OCT 14 1970 FLIGHT TIME 194.00 ARRIVAL DATE APR 26 1971

HELIOCENTRIC CONIC DISTANCE 569.852

RL 149.21 LAL -.00 LOL 20.23 VL 25.453 GAL 8.51 AZL 86.80 HCA 294.88 SMA 117.34 ECC .30674 INC 3.1994 V1 29.862
RP 108.94 LAP -2.90 LOP 315.15 VP 36.131 GAP 17.40 AZP 88.65 TAL 159.66 TAP 94.53 RCA 81.35 APO 153.33 V2 34.786
RC 200.578 GL 12.45 GP 9.80 ZAL 49.16 ZAP 170.02 ETS 99.15 ZAE 130.12 ETE 172.01 ZAC 109.33 ETC 277.10 CLP 178.10

PLANETOCENTRIC CONIC

C3 42.463 VHL 6.516 DLA .98 RAL 329.83 RAD 6568.6 VEL 12.800 PTH 2.33 VHP 10.988 DPA -10.09 RAP 314.02 ECC 1.6988

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 44 27	2431.82	-24.18	55.73	204.44	105.21	8 24 58	1831.8	-21.86	47.83
90.00	19 57 0	5015.10	23.03	220.60	203.75	73.06	21 20 35	4415.1	20.50	212.85
100.00	9 6 14	2167.97	-25.46	35.93	204.05	106.22	9 42 22	1568.0	-22.99	28.00
100.00	21 17 53	4754.18	24.30	200.98	203.31	72.04	22 37 7	4154.2	21.62	193.21
110.00	10 15 32	1951.08	-28.92	18.23	202.81	109.08	10 48 3	1351.1	-26.04	10.23
110.00	22 25 5	4543.83	27.72	183.67	201.97	69.15	23 40 49	3943.8	24.63	175.86

DIFFERENTIAL CORRECTIONS
TDE 2.7272 TRA 4.3398 TC3-2.1612 BAU 1.2273
RDE .3589 RRA -.2626 RC3 .0576 FAU .00832
FDE .6423 FRA 1.1507 FC3 -.1696 BSP 17719
BDE 2.7507 BRA 4.3477 BC3 2.1619 FSP -353

MID-COURSE EXECUTION ACCURACY
SGT 5314.9 SGR 398.2 SG3 101.9
RRT -.1589 RRF -.1536 RTF .9312
SGB 5329.7 R23 .0048 R13 -.9312
SG1 5315.2 SG2 393.1 THA 179.31

ORBIT DETERMINATION ACCURACY
ST 2658.6 SR 323.1 SS 608.7
CRT .7884 CRS -.7586 CST -.9986
LSA 2739.1 MSA 200.4 SSA 14.0
EL1 2670.8 EL2 197.8 ALF 5.50

LAUNCH DATE OCT 14 1970 FLIGHT TIME 196.00 ARRIVAL DATE APR 28 1971

HELIOCENTRIC CONIC DISTANCE 574.526

RL 149.21 LAL -.00 LOL 20.23 VL 25.407 GAL 9.56 AZL 86.61 HCA 298.03 SMA 117.10 ECC .31740 INC 3.3936 V1 29.862
RP 108.93 LAP -3.00 LOP 318.31 VP 36.100 GAP 18.08 AZP 88.40 TAL 158.00 TAP 96.03 RCA 79.93 APO 154.26 V2 34.787
RC 202.339 GL 12.37 GP 9.65 ZAL 47.08 ZAP 169.99 ETS 103.78 ZAE 130.10 ETE 172.16 ZAC 108.81 ETC 277.61 CLP 177.33

PLANETOCENTRIC CONIC

C3 47.935 VHL 6.923 DLA 1.65 RAL 331.83 RAD 6568.8 VEL 13.011 PTH 2.37 VHP 11.409 DPA -9.63 RAP 316.37 ECC 1.7889

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 47 25	2483.09	-25.05	59.23	208.91	103.66	8 28 48	1883.1	-22.92	51.21
90.00	20 9 56	5024.74	23.22	221.24	207.67	73.33	21 33 41	4424.7	20.72	213.46
100.00	9 9 32	2218.24	-26.37	39.39	208.54	104.61	9 46 30	1618.2	-24.10	31.32
100.00	21 30 31	4764.83	24.52	201.69	207.23	72.35	22 49 55	4164.8	21.88	193.89
110.00	10 19 32	1999.11	-29.94	21.59	207.38	107.33	10 52 51	1399.1	-27.28	13.42
110.00	22 37 0	4556.72	28.03	184.54	205.89	69.59	23 52 56	3956.7	25.00	176.69

DIFFERENTIAL CORRECTIONS
TDE 2.9393 TRA 4.7382 TC3-1.8822 BAU 1.2065
RDE .3800 RRA -.2619 RC3 .0452 FAU .00736
FDE .6711 FRA 1.2033 FC3 -.1329 BSP 17846
BDE 2.9638 BRA 4.7454 BC3 1.8827 FSP -349

MID-COURSE EXECUTION ACCURACY
SGT 5300.7 SGR 387.1 SG3 99.8
RRT -.1212 RRF -.1182 RTF .9370
SGB 5314.8 R23 .0040 R13 -.9370
SG1 5300.9 SG2 384.2 THA 179.49

ORBIT DETERMINATION ACCURACY
ST 2703.3 SR 321.1 SS 621.8
CRT .7928 CRS -.7663 CST -.9989
LSA 2785.4 MSA 197.1 SSA 13.3
EL1 2715.3 EL2 194.9 ALF 5.41

LAUNCH DATE OCT 14 1970 FLIGHT TIME 198.00 ARRIVAL DATE APR 30 1971

HELIOCENTRIC CONIC DISTANCE 579.027

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RL  149.21 LAL   -.00 LOL  20.23 VL  25.362 GAL  10.69 AZL  86.40 HCA 301.19 SMA 116.86 ECC .32925 INC 3.5994 V1  29.862
RP  108.93 LAP  -3.08 LOP 321.48 VP  36.071 GAP  18.84 AZP  88.13 TAL 156.39 TAP  97.58 RCA  78.39 APO 155.34 V2  34.789
RC 204.080 GL   12.25 GP    9.52 ZAL  45.14 ZAP 169.88 ETS 108.47 ZAE 130.06 ETE 172.30 ZAC 108.29 ETC 278.10 CLP 176.54
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PLANETOCENTRIC CONIC

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C3  54.334 VHL  7.371 DLA   2.25 RAL 333.69 RAD 6569.0 VEL 13.255 PTH   2.42 VHP 11.875 DPA  -9.13 RAP 318.69 ECC 1.8942
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 50 24	2532.95	-25.80	62.69	213.32	102.08	8 32 37	1932.9	-23.88	54.55
90.00	20 21 51	5037.22	23.46	222.08	211.55	73.68	21 45 49	4437.2	21.00	214.27
100.00	9 12 47	2267.19	-27.17	42.81	212.98	102.98	9 50 34	1667.2	-25.11	34.61
100.00	21 42 9	4778.21	24.80	202.59	211.11	72.75	23 1 47	4178.2	22.20	194.75
110.00	10 23 26	2046.05	-30.84	24.95	211.91	105.53	10 57 32	1446.0	-28.40	16.60
110.00	22 47 59	4572.12	28.39	185.60	209.76	70.11	24 4 11	3972.1	25.42	177.68

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 3.1636 TRA 5.1632 TC3-1.6232 BAU 1.1794   SGT 5282.5 SGR  375.5 SG3   97.8     ST  2739.3 SR   318.9 SS   635.9
 RDE  .4029 RRA -.2582 RC3  .0346 FAU .00639   RRT -.0799 RRF -.0792 RTF  .9429     CRT  .7983 CRS -.7747 CST -.9991
 FDE  .7019 FRA 1.2601 FC3 -.1018 BSP  17954   SGB 5295.9 R23  .0035 R13 -.9429     LSA 2823.6 MSA  193.2 SSA   12.6
 BDE 3.1891 BRA 5.1697 BC3 1.6236 FSP   -345   SG1 5282.6 SG2  374.3 THA 179.67     EL1 2751.2 EL2  191.2 ALF   5.34
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LAUNCH DATE OCT 14 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAY 2 1971

HELIOCENTRIC CONIC DISTANCE 583.321

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RL  149.21 LAL   -.00 LOL  20.23 VL  25.319 GAL  11.91 AZL  86.18 HCA 304.35 SMA 116.64 ECC .34245 INC 3.8196 V1  29.862
RP  108.92 LAP  -3.15 LOP 324.64 VP  36.043 GAP  19.68 AZP  87.84 TAL 154.85 TAP  99.19 RCA  76.70 APO 156.58 V2  34.792
RC 205.802 GL   12.11 GP    9.39 ZAL  43.34 ZAP 169.68 ETS 113.17 ZAE 129.99 ETE 172.45 ZAC 107.77 ETC 278.58 CLP 175.71
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PLANETOCENTRIC CONIC

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C3  61.848 VHL  7.864 DLA   2.79 RAL 335.43 RAD 6569.2 VEL 13.535 PTH   2.47 VHP 12.393 DPA  -8.61 RAP 320.96 ECC 2.0179
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 53 21	2581.24	-26.45	66.08	217.65	100.50	8 36 23	1981.2	-24.73	57.83
90.00	20 32 46	5052.31	23.75	223.09	215.36	74.11	21 56 59	4452.3	21.34	215.25
100.00	9 16 0	2314.68	-27.85	46.17	217.35	101.33	9 54 34	1714.7	-26.00	37.86
100.00	21 52 49	4794.11	25.11	203.66	214.92	73.23	23 12 43	4194.1	22.58	195.78
110.00	10 27 14	2091.74	-31.63	28.28	216.38	103.70	11 2 5	1491.7	-29.42	19.77
110.00	22 58 4	4589.81	28.80	186.82	213.58	70.73	24 14 34	3989.8	25.90	178.84

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 3.4026 TRA 5.6195 TC3-1.3831 BAU 1.1438   SGT 5261.1 SGR  363.6 SG3   95.9     ST  2768.0 SR   316.3 SS   651.9
 RDE  .4276 RRA -.2512 RC3  .0255 FAU .00537   RRT -.0345 RRF -.0360 RTF  .9488     CRT  .8047 CRS -.7839 CST -.9992
 FDE  .7353 FRA 1.3221 FC3 -.0752 BSP  18007   SGB 5273.7 R23  .0031 R13 -.9488     LSA 2855.0 MSA  188.8 SSA   12.0
 BDE 3.4293 BRA 5.6252 BC3 1.3834 FSP   -339   SG1 5261.2 SG2  363.4 THA 179.86     EL1 2779.7 EL2  187.0 ALF   5.28
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LAUNCH DATE OCT 14 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAY 4 1971

HELIOCENTRIC CONIC DISTANCE 587.361

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RL  149.21 LAL   -.00 LOL  20.23 VL  25.277 GAL  13.23 AZL  85.94 HCA 307.51 SMA 116.42 ECC .35719 INC 4.0570 V1  29.862
RP  108.91 LAP  -3.22 LOP 327.81 VP  36.017 GAP  20.61 AZP  87.53 TAL 153.37 TAP 100.88 RCA  74.84 APO 158.00 V2  34.795
RC 207.503 GL   11.95 GP    9.28 ZAL  41.68 ZAP 169.40 ETS 117.83 ZAE 129.88 ETE 172.59 ZAC 107.26 ETC 279.03 CLP 174.85
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PLANETOCENTRIC CONIC

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C3  70.710 VHL  8.409 DLA   3.26 RAL 337.04 RAD 6569.4 VEL 13.859 PTH   2.53 VHP 12.969 DPA  -8.06 RAP 323.19 ECC 2.1637
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 56 18	2627.81	-26.98	69.38	221.89	98.93	8 40 6	2027.8	-25.47	61.04
90.00	20 42 41	5069.80	24.07	224.27	219.10	74.62	22 7 11	4469.8	21.73	216.38
100.00	9 19 10	2360.53	-28.42	49.46	221.62	99.69	9 58 30	1760.5	-26.78	41.04
100.00	22 2 30	4812.31	25.47	204.90	218.67	73.79	23 22 43	4212.3	23.00	196.97
110.00	10 30 54	2136.02	-32.29	31.56	220.77	101.87	11 6 30	1536.0	-30.32	22.90
110.00	23 7 16	4609.59	29.23	188.19	217.34	71.44	24 24 5	4009.6	26.42	180.14

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 3.6594 TRA 6.1112 TC3-1.1616 BAU 1.0983   SGT 5237.2 SGR  351.6 SG3   94.0     ST  2790.4 SR   313.5 SS   670.1
 RDE  .4544 RRA -.2402 RC3  .0181 FAU .00429   RRT  .0156 RRF  .0120 RTF  .9546     CRT  .8121 CRS -.7939 CST -.9994
 FDE  .7719 FRA 1.3901 FC3 -.0526 BSP  17995   SGB 5249.0 R23 -.0030 R13  .9546     LSA 2880.9 MSA  183.7 SSA   11.4
 BDE 3.6875 BRA 6.1159 BC3 1.1618 FSP   -332   SG1 5237.2 SG2  351.6 THA    .06     EL1 2802.0 EL2  182.2 ALF   5.23
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LAUNCH DATE OCT 14 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAY 6 1971

HELIOCENTRIC CONIC DISTANCE 591.090

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RL  149.21 LAL   -.00 LOL  20.23 VL  25.236 GAL  14.68 AZL  85.68 HCA 310.66 SMA 116.21 ECC .37370 INC 4.3154 V1  29.862
RP  108.90 LAP  -3.27 LOP 330.98 VP  35.992 GAP  21.66 AZP  87.19 TAL 151.99 TAP 102.65 RCA  72.78 APO 159.64 V2  34.799
RC 209.184 GL   11.76 GP    9.17 ZAL  40.16 ZAP 169.02 ETS 122.42 ZAE 129.72 ETE 172.74 ZAC 106.74 ETC 279.45 CLP 173.94
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PLANETOCENTRIC CONIC

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C3  81.219 VHL  9.012 DLA   3.66 RAL 338.53 RAD 6569.6 VEL 14.233 PTH   2.59 VHP 13.614 DPA  -7.49 RAP 325.36 ECC 2.3367
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 59 13	2672.42	-27.42	72.58	226.00	97.38	8 43 46	2072.4	-26.11	64.15
90.00	20 51 35	5089.50	24.42	225.61	222.75	75.20	22 16 25	4489.5	22.15	217.67
100.00	9 22 16	2404.54	-28.88	52.65	225.78	98.07	10 2 21	1804.5	-27.46	44.13
100.00	22 11 13	4832.62	25.84	206.29	222.33	74.43	23 31 46	4232.6	23.46	198.31
110.00	10 34 26	2178.67	-32.85	34.76	225.04	100.05	11 10 45	1578.7	-31.11	25.97
110.00	23 15 32	4631.25	29.69	189.71	221.02	72.23	24 32 44	4031.3	26.98	181.57

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 3.9369 TRA 6.6437 TC3 -.9578 BAU 1.0401   SGT 5211.4 SGR  339.8 SG3   92.3     ST  2807.1 SR   310.3 SS   691.0
 RDE  .4834 RRA -.2247 RC3  .0122 FAU .00311   RRT  .0709 RRF  .0654 RTF  .9602     CRT  .8204 CRS -.8046 CST -.9995
 FDE  .8123 FRA 1.4654 FC3 -.0332 BSP  17883   SGB 5222.5 R23 -.0029 R13  .9602     LSA 2902.0 MSA  178.1 SSA   10.8
 BDE 3.9665 BRA 6.6475 BC3  .9579 FSP   -324   SG1 5211.4 SG2  338.9 THA    .27     EL1 2818.6 EL2  176.7 ALF   5.20
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LAUNCH DATE OCT 14 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAY 8 1971

HELIOCENTRIC CONIC DISTANCE 594.435

RL	149.21	LAL	-.00	LOL	20.23	VL	25.197	GAL	16.26	AZL	85.40	HCA	313.82	SMA	116.01	ECC	.39226	INC	4.5997
RP	108.88	LAP	-3.32	LOP	334.15	VP	35.970	GAP	22.84	AZP	86.81	TAL	150.72	TAP	104.54	RCA	70.50	APO	161.52
RC	210.844	GL	11.56	GP	9.07	ZAL	38.78	ZAP	168.55	ETS	126.89	ZAE	129.51	ETE	172.90	ZAC	106.24	ETC	279.85

V1	29.862	V2	34.804	CLP	172.98														

PLANETOCENTRIC CONIC

C3	93.761	VHL	9.683	DLA	3.99	RAL	339.88	RAD	6569.8	VEL	14.666	PTH	2.66	VHP	14.340	DPA	-6.90	RAP	327.47

ECC	2.5431	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	8 2 7	2714.83	-27.75	75.63	229.96	95.88	8 47 22	2114.8	-26.64	67.14							
		90.00	20 59 27	5111.22	24.79	227.09	226.30	75.86	22 24 39	4511.2	22.60	219.11							
		100.00	9 25 20	2446.44	-29.24	55.71	229.78	96.50	10 6 6	1846.4	-28.03	47.12							
		100.00	22 18 56	4854.85	26.24	207.83	225.89	75.15	23 39 51	4254.8	23.94	199.78							
		110.00	10 37 52	2219.44	-33.29	37.86	229.17	98.26	11 14 51	1619.4	-31.79	28.96							
		110.00	23 22 53	4654.61	30.17	191.36	224.62	73.11	24 40 28	4054.6	27.56	183.14							

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	4.2395	TRA	7.2231	TC3	-.7708	BAU	.9663	SGT	5184.3	SGR	328.3	SG3	90.7	ST	2819.0	SR	307.0
RDE	.5152	RRA	-.2039	RC3	.0076	FAU	.00179	RRT	.1319	RRF	.1249	RTF	.9657	CRT	.8297	CRS	-.8161
FDE	.8574	FRA	1.5491	FC3	-.0165	BSP	17657	SGB	5194.7	R23	-.0030	R13	.9657	LSA	2919.5	MSA	171.9
BDE	4.2707	BRA	7.2260	BC3	.7709	FSP	-314	SG1	5184.5	SG2	325.4	THA	.48	EL1	2830.6	EL2	170.7

SS	715.4	CST	-.9996	SSA	10.2	ALF	5.18										

LAUNCH DATE OCT 14 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAY 10 1971

HELIOCENTRIC CONIC DISTANCE 597.298

RL	149.21	LAL	-.00	LOL	20.23	VL	25.160	GAL	18.01	AZL	85.08	HCA	316.98	SMA	115.82	ECC	.41319	INC	4.9158
RP	108.86	LAP	-3.35	LOP	337.32	VP	35.949	GAP	24.18	AZP	86.40	TAL	149.58	TAP	106.55	RCA	67.97	APO	163.68
RC	212.484	GL	11.33	GP	8.97	ZAL	37.55	ZAP	167.96	ETS	131.22	ZAE	129.23	ETE	173.06	ZAC	105.74	ETC	280.23

V1	29.862	V2	34.810	CLP	171.94														

PLANETOCENTRIC CONIC

C3	108.836	VHL	10.452	DLA	4.25	RAL	341.09	RAD	6570.1	VEL	15.172	PTH	2.72	VHP	15.161	DPA	-6.31	RAP	329.51

ECC	2.7912	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	8 5 0	2754.72	-27.99	78.53	233.74	94.45	8 50 55	2154.7	-27.08	69.98							
		90.00	21 6 15	5134.82	25.17	228.72	229.73	76.58	22 31 50	4534.8	23.08	220.67							
		100.00	9 28 20	2485.92	-29.51	58.62	233.60	95.00	10 9 46	1885.9	-28.50	49.96							
		100.00	22 25 36	4878.85	26.65	209.49	229.32	75.93	23 46 55	4278.8	24.45	201.38							
		110.00	10 41 9	2258.04	-33.63	40.83	233.11	96.54	11 18 47	1658.0	-32.36	31.82							
		110.00	23 29 16	4679.50	30.65	193.14	228.10	74.06	24 47 16	4079.5	28.16	184.83							

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	4.5098	TRA	7.8555	TC3	-.6005	BAU	.8738	SGT	5156.1	SGR	317.5	SG3	89.2	ST	2825.8	SR	303.5
RDE	.5501	RRA	-.1767	RC3	.0045	FAU	.00028	RRT	.1989	RRF	.1908	RTF	.9709	CRT	.8399	CRS	-.8283
FDE	.9078	FRA	1.6427	FC3	-.0022	BSP	17303	SGB	5165.9	R23	-.0031	R13	.9709	LSA	2933.0	MSA	165.2
BDE	4.6028	BRA	7.8575	BC3	.6006	FSP	-302	SG1	5156.5	SG2	311.2	THA	.70	EL1	2837.3	EL2	164.1

SS	743.6	CST	-.9997	SSA	9.7	ALF	5.17										

LAUNCH DATE OCT 14 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAY 12 1971

HELIOCENTRIC CONIC DISTANCE 599.555

RL	149.21	LAL	-.00	LOL	20.23	VL	25.125	GAL	19.95	AZL	84.73	HCA	320.13	SMA	115.64	ECC	.43687	INC	5.2717
RP	108.85	LAP	-3.38	LOP	340.49	VP	35.930	GAP	25.70	AZP	85.95	TAL	148.60	TAP	108.73	RCA	65.12	APO	166.17
RC	214.102	GL	11.10	GP	8.88	ZAL	36.47	ZAP	167.26	ETS	135.39	ZAE	128.87	ETE	173.24	ZAC	105.25	ETC	280.57

V1	29.862	V2	34.816	CLP	170.83														

PLANETOCENTRIC CONIC

C3	127.098	VHL	11.274	DLA	4.43	RAL	342.15	RAD	6570.3	VEL	15.762	PTH	2.80	VHP	16.094	DPA	-5.72	RAP	331.46

ECC	3.0917	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	8 7 51	2791.71	-28.16	81.22	237.31	93.11	8 54 23	2191.7	-27.43	72.63							
		90.00	21 11 53	5160.20	25.56	230.47	233.00	77.38	22 37 54	4560.2	23.57	222.37							
		100.00	9 31 17	2522.62	-29.70	61.33	237.20	93.58	10 13 19	1922.6	-28.88	52.62							
		100.00	22 31 9	4904.51	27.06	211.29	232.62	76.79	23 52 54	4304.5	24.97	203.11							
		110.00	10 44 18	2294.10	-33.87	43.61	236.84	94.91	11 22 32	1694.1	-32.82	34.53							
		110.00	23 34 37	4705.80	31.12	195.04	231.46	75.09	24 53 3	4105.8	28.76	186.64							

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	4.9329	TRA	8.5479	TC3	-.4463	BAU	.7583	SGT	5126.7	SGR	308.0	SG3	87.9	ST	2827.5	SR	300.1
RDE	.5889	RRA	-.1419	RC3	.0025	FAU	-.00148	RRT	.2720	RRF	.2630	RTF	.9757	CRT	.8509	CRS	-.8410
FDE	.9645	FRA	1.7477	FC3	.0101	BSP	16810	SGB	5136.0	R23	-.0034	R13	.9757	LSA	2943.2	MSA	158.0
BDE	4.9679	BRA	8.5491	BC3	.4463	FSP	-288	SG1	5127.4	SG2	296.3	THA	.94	EL1	2839.0	EL2	157.0

SS	776.3	CST	-.9998	SSA	9.1	ALF	5.18										

LAUNCH DATE OCT 14 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAY 14 1971

HELIOCENTRIC CONIC DISTANCE 601.034

RL	149.21	LAL	-.00	LOL	20.23	VL	25.092	GAL	22.12	AZL	84.32	HCA	323.29	SMA	115.48	ECC	.46374	INC	5.6782
RP	108.82	LAP	-3.39	LOP	343.66	VP	35.914	GAP	27.45	AZP	85.44	TAL	147.82	TAP	111.11	RCA	61.93	APO	169.03
RC	215.699	GL	10.84	GP	8.79	ZAL	35.56	ZAP	166.42	ETS	139.41	ZAE	128.41	ETE	173.43	ZAC	104.77	ETC	280.89

V1	29.862	V2	34.823	CLP	169.61														

PLANETOCENTRIC CONIC

C3	149.415	VHL	12.224	DLA	4.54	RAL	343.06	RAD	6570.6	VEL	16.454	PTH	2.87	VHP	17.161	DPA	-5.15	RAP	333.31

ECC	3.4590	LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG							
		90.00	8 10 41	2825.33	-28.26	83.67	240.61	91.89	8 57 46	2225.3	-27.70	75.05							
		90.00	21 16 17	5187.30	25.95	232.36	236.11	78.25	22 42 44	4587.3	24.07	224.20							
		100.00	9 34 9	2556.09	-29.81	63.81	240.55	92.28	10 16 45	1956.1	-29.18	55.06							
		100.00	22 35 30	4931.78	27.47	213.21	235.74	77.73	23 57 41	4331.8	25.50	204.96							
		110.00	10 47 17	2327.21	-34.03	46.19	240.30	93.39	11 26 4	1727.2	-33.19	37.05							
		110.00	23 38 51	4733.42	31.59	197.06	234.65	76.20	24 57 44	4133.4	29.37	188.56							

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	5.2914	TRA	9.2670	TC3	-.3184	BAU	.6361	SGT	5073.9	SGR	299.8	SG3	86.1	ST	2803.8	SR	296.5
RDE	.6318	RRA	-.0988	RC3	.0015	FAU	-.00318	RRT	.3480	RRF	.3386	RTF	.9801	CRT	.8617	CRS	-.8533
FDE	1.0195	FRA	1.8570	FC3	.0184	BSP	17153	SGB	5082.8	R23	-.0037	R13	.9801	LSA	2929.0	MSA	150.7
BDE	5.3290	BRA	9.2675	BC3	.3184	FSP	-291	SG1	5075.0	SG2	281.0	THA	1.18	EL1	2815.4	EL2	149.8

SS	808.0	CST	-.9998	SSA	8.5	ALF	5.22										

LAUNCH DATE OCT 14 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAY 16 1971

HELIOCENTRIC CONIC DISTANCE 601.521

RL	149.21	LAL	-.00	LOL	20.23	VL	25.063	GAL	24.58	AZL	83.85	HCA	326.45	SMA	115.33	ECC	.49434	INC	6.1498	V1	29.862
RP	108.80	LAP	-3.39	LOP	346.84	VP	35.900	GAP	29.46	AZP	84.87	TAL	147.29	TAP	113.74	RCA	58.32	APO	172.34	V2	34.830
RC	217.273	GL	10.58	GP	8.70	ZAL	34.84	ZAP	165.43	ETS	143.26	ZAE	127.83	ETE	173.64	ZAC	104.32	ETC	281.17	CLP	168.27

PLANETOCENTRIC CONIC

C3	176.953	VHL	13.302	DLA	4.55	RAL	343.79	RAD	6570.9	VEL	17.271	PTH	2.95	VHP	18.389	DPA	-4.61	RAP	335.04	ECC	3.9122

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 13 28	2855.08	-28.31	85.85	243.61	90.80	9 1 3	2255.1	-27.90	77.21
90.00	21 19 17	5216.15	26.33	234.39	239.01	79.20	22 46 14	4616.2	24.58	226.16
100.00	9 36 57	2585.81	-29.87	66.02	243.58	91.12	10 20 3	1985.8	-29.40	57.24
100.00	22 38 30	4960.65	27.87	215.26	238.67	78.74	24 1 10	4360.6	26.03	206.94
110.00	10 50 6	2356.88	-34.13	48.50	243.44	92.03	11 29 23	1756.9	-33.47	39.32
110.00	23 41 50	4762.34	32.04	199.20	237.65	77.39	25 1 13	4162.3	29.97	190.59

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	5.7029	TRA10.0734	TC3	-.1996	BAU	.4722	SGT	5026.0	SGR	293.7	SG3	84.6	ST	2781.9	SR	293.1	SS	848.0
RDE	.6803	RRA -.0450	RC3	.0016	FAU	-.00546	RRT	.4288	RRF	.4194	RTF	.9840	CRT	.8735	CRS	-.8664	CST	-.9998
FDE	1.0857	FRA 1.9847	FC3	.0267	BSP	17057	SG8	5034.5	R23	-.0041	R13	.9840	LSA	2919.5	MSA	142.9	SSA	8.0
BDE	5.7433	BRA10.0735	BC3	.1996	FSP	-286	SG1	5027.5	SG2	265.3	THA	1.44	EL1	2793.7	EL2	142.1	ALF	5.27

LAUNCH DATE OCT 14 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAY 18 1971

HELIOCENTRIC CONIC DISTANCE 600.722

RL	149.21	LAL	-.00	LOL	20.23	VL	25.036	GAL	27.37	AZL	83.29	HCA	329.61	SMA	115.20	ECC	.52923	INC	6.7072	V1	29.862
RP	108.78	LAP	-3.39	LOP	350.01	VP	35.880	GAP	31.81	AZP	84.21	TAL	147.07	TAP	116.67	RCA	54.23	APO	176.16	V2	34.838
RC	218.823	GL	10.29	GP	8.61	ZAL	34.33	ZAP	164.26	ETS	146.94	ZAE	127.09	ETE	173.88	ZAC	103.89	ETC	281.42	CLP	166.77

PLANETOCENTRIC CONIC

C3	211.277	VHL	14.535	DLA	4.46	RAL	344.31	RAD	6571.2	VEL	18.237	PTH	3.02	VHP	19.810	DPA	-4.11	RAP	336.62	ECC	4.4771

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 16 14	2880.29	-28.32	87.69	246.25	89.87	9 4 14	2280.3	-28.03	79.04
90.00	21 20 44	5246.86	26.71	236.56	241.67	80.22	22 48 11	4646.9	25.08	228.27
100.00	9 39 40	2611.16	-29.89	67.90	246.25	90.13	10 23 11	2011.2	-29.55	59.11
100.00	22 39 59	4991.22	28.26	217.45	241.36	79.83	24 3 10	4391.2	26.56	209.06
110.00	10 52 43	2382.53	-34.17	50.50	246.21	90.84	11 32 26	1782.5	-33.68	41.29
110.00	23 43 25	4792.61	32.47	201.45	240.43	78.66	25 3 18	4192.6	30.56	192.75

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	6.1543	TRA10.9574	TC3	-.0944	BAU	.2668	SGT	4972.9	SGR	290.1	SG3	83.2	ST	2752.1	SR	289.9	SS	894.5
RDE	.7355	RRA .0215	RC3	.0025	FAU	-.00831	RRT	.5113	RRF	.5025	RTF	.9874	CRT	.8855	CRS	-.8796	CST	-.9999
FDE	1.1607	FRA 2.1293	FC3	.0340	BSP	16939	SG8	4981.3	R23	-.0043	R13	.9874	LSA	2905.2	MSA	134.9	SSA	7.4
BDE	6.1981	BRA10.9574	BC3	.0944	FSP	-281	SG1	4975.1	SG2	249.2	THA	1.71	EL1	2764.1	EL2	134.1	ALF	5.34

LAUNCH DATE OCT 14 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAY 20 1971

HELIOCENTRIC CONIC DISTANCE 598.248

RL	149.21	LAL	-.00	LOL	20.23	VL	25.015	GAL	30.57	AZL	82.62	HCA	332.76	SMA	115.09	ECC	.56904	INC	7.3806	V1	29.862
RP	108.75	LAP	-3.37	LOP	353.19	VP	35.883	GAP	34.56	AZP	83.43	TAL	147.22	TAP	119.98	RCA	49.60	APO	180.58	V2	34.847
RC	220.349	GL	9.99	GP	8.51	ZAL	34.07	ZAP	162.87	ETS	150.47	ZAE	126.17	ETE	174.15	ZAC	103.48	ETC	281.63	CLP	165.08

PLANETOCENTRIC CONIC

C3	254.510	VHL	15.953	DLA	4.26	RAL	344.61	RAD	6571.5	VEL	19.386	PTH	3.10	VHP	21.465	DPA	-3.67	RAP	338.03	ECC	5.1886

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 18 57	2900.19	-28.31	89.15	248.47	89.14	9 7 18	2300.2	-28.12	80.49
90.00	21 20 21	5279.66	27.07	238.89	244.04	81.34	22 48 21	4679.7	25.59	230.54
100.00	9 42 18	2631.38	-29.89	69.40	248.50	89.34	10 26 9	2031.4	-29.66	60.61
100.00	22 39 42	5023.71	28.63	219.80	243.77	81.01	24 3 26	4423.7	27.09	211.33
110.00	10 55 7	2403.46	-34.18	52.14	248.53	89.88	11 35 11	1803.5	-33.82	42.91
110.00	23 43 22	4824.39	32.87	203.85	242.95	80.03	25 3 46	4224.4	31.14	195.05

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	6.6479	TRA11.9239	TC3	-.0023	BAU	.0161	SGT	4913.4	SGR	289.6	SG3	81.9	ST	2713.0	SR	287.2	SS	948.5
RDE	.7990	RRA .1024	RC3	.0041	FAU	-.01192	RRT	.5927	RRF	.5846	RTF	.9904	CRT	.8977	CRS	-.8928	CST	-.9999
FDE	1.2458	FRA 2.2935	FC3	.0406	BSP	16811	SG8	4921.9	R23	-.0046	R13	.9904	LSA	2885.5	MSA	126.7	SSA	6.9
BDE	6.6958	BRA11.9244	BC3	.0047	FSP	-277	SG1	4916.4	SG2	233.1	THA	2.01	EL1	2725.2	EL2	126.0	ALF	5.44

LAUNCH DATE OCT 14 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAY 22 1971

HELIOCENTRIC CONIC DISTANCE 593.593

RL	149.21	LAL	-.00	LOL	20.23	VL	24.998	GAL	34.27	AZL	81.78	HCA	335.91	SMA	115.01	ECC	.61435	INC	8.2158	V1	29.862
RP	108.72	LAP	-3.34	LOP	356.37	VP	35.881	GAP	37.79	AZP	82.49	TAL	147.85	TAP	123.76	RCA	44.35	APO	185.66	V2	34.856
RC	221.851	GL	9.66	GP	8.40	ZAL	34.10	ZAP	161.23	ETS	153.84	ZAE	125.01	ETE	174.45	ZAC	103.11	ETC	281.80	CLP	163.15

PLANETOCENTRIC CONIC

C3	309.524	VHL	17.593	DLA	3.91	RAL	344.63	RAD	6571.8	VEL	20.756	PTH	3.18	VHP	23.402	DPA	-3.33	RAP	339.22	ECC	6.0940

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 21 38	2913.88	-28.29	90.15	250.20	88.64	9 10 12	2313.9	-28.18	81.49
90.00	21 17 51	5314.97	27.40	241.42	246.09	82.57	22 46 26	4715.0	26.09	233.00
100.00	9 44 49	2645.60	-29.87	70.46	250.25	88.78	10 28 54	2045.6	-29.72	61.66
100.00	22 37 21	5058.47	28.97	222.32	245.85	82.29	24 1 40	4458.5	27.60	213.79
110.00	10 57 16	2418.86	-34.17	53.34	250.34	89.16	11 37 35	1818.9	-33.91	44.10
110.00	23 41 24	4857.98	33.23	206.40	245.15	81.50	25 2 22	4258.0	31.70	197.51

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	7.1850	TRA12.9745	TC3	.0773	BAU	.3209	SGT	4848.3	SGR	292.6	SG3	80.7	ST	2662.6	SR	284.9	SS	1011.3
RDE	.8727	RRA .2013	RC3	.0064	FAU	-.01661	RRT	.6696	RRF	.6626	RTF	.9928	CRT	.9097	CRS	-.9057	CST	-.9999
FDE	1.3425	FRA 2.4799	FC3	.0465	BSP	16646	SG8	4855.1	R23	-.0048	R13	.9928	LSA	2860.0	MSA	118.5	SSA	6.3
BDE	7.2378	BRA12.9761	BC3	.0776	FSP	-273	SG1	4850.3	SG2	217.1	THA	2.32	EL1	2675.2	EL2	117.7	ALF	5.57

LAUNCH DATE OCT 15 1970 FLIGHT TIME 70.00 ARRIVAL DATE DEC 24 1970

HELIOCENTRIC CONIC DISTANCE 210.856

RL 149.17 LAL -.00 LOL 21.22 VL 29.626 GAL -15.82 AZL 87.73 HCA 96.73 SMA 147.19 ECC .27298 INC 2.2683 V1 29.871
RP 107.50 LAP 2.25 LOP 117.96 VP 39.592 GAP -2.53 AZP 90.27 TAL 251.46 TAP 348.18 RCA 107.01 APO 187.36 V2 35.253
RC 69.600 GL 8.32 GP -22.93 ZAL 166.75 ZAP 70.11 ETS 5.55 ZAE 155.15 ETE 269.41 ZAC 76.82 ETC 257.87 CLP -68.32

PLANETOCENTRIC CONIC

C3 60.738 VHL 7.793 DLA -4.20 RAL 212.30 RAD 6569.1 VEL 13.494 PTH 2.47 VHP 4.970 DPA -37.71 RAP 218.68 ECC 1.9996

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 30 12	2359.80	-22.81	50.90	91.44	107.25	1 9 32	1759.8	-20.23	43.17
90.00	11 25 41	5264.98	26.91	237.85	94.85	80.84	12 53 26	4665.0	25.37	229.52
100.00	1 49 34	2103.75	-24.17	31.59	90.96	108.15	2 24 38	1503.8	-21.46	23.84
100.00	12 49 0	4996.25	28.32	217.82	94.58	80.01	14 12 16	4396.2	26.65	209.41
110.00	2 53 18	1904.26	-27.83	15.02	89.53	110.70	3 25 2	1304.3	-24.76	7.19
110.00	14 1 46	4768.51	32.13	199.65	93.71	77.65	15 21 14	4168.5	30.10	191.03

DIFFERENTIAL CORRECTIONS
TDE .2995 TRA -.7117 TC3 -.0645 BAU .2010
RDE -.3040 RRA -.3254 RC3 -.2390 FAU .08937
FDE 1.2883 FRA -.9457 FC3-1.2738 BSP 1303
BDE .4268 BRA .7826 BC3 .2475 FSP -564

MID-COURSE EXECUTION ACCURACY
SGT 577.8 SGR 496.2 SG3 199.4
RRT .3980 RRF .6070 RTF .5805
SGB 761.7 R23 .1422 R13 .6962
SG1 642.1 SG2 409.7 THA 34.50

ORBIT DETERMINATION ACCURACY
ST 270.7 SR 235.1 SS 417.3
CRT -.5949 CRS .8579 CST -.9187
LSA 526.2 MSA 159.3 SSA 19.7
EL1 321.2 EL2 159.2 ALF 141.69

LAUNCH DATE OCT 15 1970 FLIGHT TIME 72.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 217.396

RL 149.17 LAL -.00 LOL 21.22 VL 29.597 GAL -15.65 AZL 87.57 HCA 99.97 SMA 146.91 ECC .27017 INC 2.4296 V1 29.871
RP 107.49 LAP 2.39 LOP 121.21 VP 39.573 GAP -1.87 AZP 90.42 TAL 251.20 TAP 351.18 RCA 107.22 APO 186.60 V2 35.255
RC 71.740 GL 9.01 GP -23.79 ZAL 166.18 ZAP 75.00 ETS 3.57 ZAE 154.04 ETE 261.56 ZAC 75.68 ETC 257.53 CLP -73.57

PLANETOCENTRIC CONIC

C3 59.528 VHL 7.715 DLA -3.62 RAL 212.70 RAD 6569.1 VEL 13.449 PTH 2.46 VHP 4.840 DPA -37.78 RAP 216.12 ECC 1.9797

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 27 24	2373.18	-23.07	51.79	91.68	106.88	1 6 57	1773.2	-20.54	44.03
90.00	11 31 40	5241.79	26.65	236.20	94.60	80.05	12 59 2	4641.8	25.00	227.92
100.00	1 47 3	2116.24	-24.43	32.43	91.22	107.78	2 22 19	1516.2	-21.77	24.64
100.00	12 54 42	4973.97	28.05	216.22	94.31	79.21	14 17 36	4374.0	26.27	207.86
110.00	2 51 25	1914.75	-28.08	15.73	89.81	110.34	3 23 19	1314.7	-25.05	7.87
110.00	14 6 50	4748.22	31.82	198.15	93.39	76.81	15 25 58	4148.2	29.68	189.60

DIFFERENTIAL CORRECTIONS
TDE .3404 TRA -.7631 TC3 -.1095 BAU .2218
RDE -.2820 RRA -.3243 RC3 -.2563 FAU .09318
FDE 1.3747 FRA -.9666 FC3-1.3552 BSP 1543
BDE .4420 BRA .8291 BC3 .2787 FSP -604

MID-COURSE EXECUTION ACCURACY
SGT 644.1 SGR 508.4 SG3 210.4
RRT .4609 RRF .6354 RTF .6501
SGB 820.6 R23 .1431 R13 .7384
SG1 711.8 SG2 408.3 THA 31.30

ORBIT DETERMINATION ACCURACY
ST 304.9 SR 221.9 SS 437.2
CRT -.5994 CRS .8512 CST -.9261
LSA 554.2 MSA 160.6 SSA 19.7
EL1 342.3 EL2 158.2 ALF 149.17

LAUNCH DATE OCT 15 1970 FLIGHT TIME 74.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 223.890

RL 149.17 LAL -.00 LOL 21.22 VL 29.561 GAL -15.48 AZL 87.41 HCA 103.22 SMA 146.56 ECC .26745 INC 2.5942 V1 29.871
RP 107.48 LAP 2.53 LOP 124.45 VP 39.547 GAP -1.25 AZP 90.59 TAL 250.84 TAP 354.05 RCA 107.36 APO 185.75 V2 35.257
RC 73.903 GL 9.72 GP -24.60 ZAL 165.53 ZAP 79.83 ETS 1.55 ZAE 152.58 ETE 254.27 ZAC 74.58 ETC 257.20 CLP -78.80

PLANETOCENTRIC CONIC

C3 58.365 VHL 7.640 DLA -3.03 RAL 213.17 RAD 6569.1 VEL 13.406 PTH 2.45 VHP 4.744 DPA -37.78 RAP 213.62 ECC 1.9605

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 24 54	2386.56	-23.34	52.68	92.00	106.51	1 4 40	1786.6	-20.85	44.89
90.00	11 37 54	5218.78	26.37	234.57	94.44	79.28	13 4 53	4618.8	24.62	226.34
100.00	1 44 50	2128.73	-24.69	33.27	91.55	107.41	2 20 18	1528.7	-22.07	25.45
100.00	13 0 39	4951.84	27.75	214.64	94.14	78.43	14 23 11	4351.8	25.88	206.34
110.00	2 49 49	1925.26	-28.33	16.45	90.18	109.98	3 21 55	1325.3	-25.34	8.55
110.00	14 12 9	4728.08	31.50	196.67	93.16	75.98	15 30 57	4128.1	29.26	188.18

DIFFERENTIAL CORRECTIONS
TDE .3866 TRA -.8177 TC3 -.1591 BAU .2460
RDE -.2601 RRA -.3201 RC3 -.2722 FAU .09604
FDE 1.4483 FRA -.9728 FC3-1.4245 BSP 1811
BDE .4659 BRA .8781 BC3 .3153 FSP -638

MID-COURSE EXECUTION ACCURACY
SGT 721.3 SGR 518.5 SG3 219.4
RRT .5138 RRF .6599 RTF .7056
SGB 888.3 R23 .1450 R13 .7726
SG1 790.0 SG2 406.1 THA 28.41

ORBIT DETERMINATION ACCURACY
ST 343.6 SR 208.3 SS 455.0
CRT -.6032 CRS .8443 CST -.9328
LSA 584.9 MSA 161.0 SSA 19.7
EL1 371.2 EL2 153.8 ALF 155.42

LAUNCH DATE OCT 15 1970 FLIGHT TIME 76.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 230.338

RL 149.17 LAL -.00 LOL 21.22 VL 29.617 GAL -15.31 AZL 87.24 HCA 106.46 SMA 146.14 ECC .26480 INC 2.7632 V1 29.871
RP 107.48 LAP 2.65 LOP 127.70 VP 39.516 GAP -.66 AZP 90.78 TAL 250.36 TAP 356.82 RCA 107.44 APO 184.84 V2 35.258
RC 76.087 GL 10.45 GP -25.36 ZAL 164.81 ZAP 84.55 ETS 359.48 ZAE 150.84 ETE 247.70 ZAC 73.54 ETC 256.90 CLP -83.97

PLANETOCENTRIC CONIC

C3 57.243 VHL 7.566 DLA -2.44 RAL 213.70 RAD 6569.0 VEL 13.364 PTH 2.44 VHP 4.678 DPA -37.75 RAP 211.22 ECC 1.9421

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 22 38	2400.12	-23.60	53.59	92.40	106.13	1 2 39	1800.1	-21.16	45.76
90.00	11 44 25	5195.71	26.07	232.95	94.36	78.52	13 11 1	4596.7	24.22	224.77
100.00	1 42 51	2141.40	-24.94	34.12	91.96	107.03	2 18 32	1541.4	-22.37	26.27
100.00	13 6 54	4929.66	27.44	213.06	94.03	77.65	14 29 4	4329.7	25.46	204.82
110.00	2 48 29	1935.95	-28.57	17.18	90.62	109.61	3 20 45	1335.9	-25.63	9.24
110.00	14 17 45	4707.88	31.16	195.20	93.00	75.17	15 36 13	4107.9	28.81	186.78

DIFFERENTIAL CORRECTIONS
TDE .4378 TRA -.8746 TC3 -.2124 BAU .2730
RDE -.2385 RRA -.3128 RC3 -.2867 FAU .09788
FDE 1.5077 FRA -.9648 FC3-1.4804 BSP 2104
BDE .4985 BRA .9288 BC3 .3568 FSP -666

MID-COURSE EXECUTION ACCURACY
SGT 807.9 SGR 526.3 SG3 226.2
RRT .5567 RRF .6812 RTF .7484
SGB 964.2 R23 .1484 R13 .7997
SG1 875.8 SG2 403.3 THA 25.78

ORBIT DETERMINATION ACCURACY
ST 386.7 SR 194.6 SS 470.7
CRT -.6062 CRS .8375 CST -.9388
LSA 618.7 MSA 160.5 SSA 19.7
EL1 407.2 EL2 147.0 ALF 160.38

LAUNCH DATE OCT 15 1970 FLIGHT TIME 78.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 236.741

RL 149.17 LAL -.00 LOL 21.22 VL 29.468 GAL -15.14 AZL 87.06 HCA 109.70 SMA 145.67 ECC .26221 INC 2.9380 V1 29.871
RP 107.48 LAP 2.77 LOP 130.95 VP 39.479 GAP -.10 AZP 90.99 TAL 249.79 TAP 359.49 RCA 107.48 APO 183.87 V2 35.259
RC 78.289 GL 11.22 GP -26.07 ZAL 164.02 ZAP 89.12 ETS 357.37 ZAE 148.89 ETE 241.92 ZAC 72.56 ETC 256.61 CLP -89.01

PLANETOCENTRIC CONIC

C3 56.155 VHL 7.494 DLA -1.84 RAL 214.30 RAD 6569.0 VEL 13.323 PTH 2.43 VHP 4.640 DPA -37.70 RAP 208.98 ECC 1.9242

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 20 34	2414.07	-23.86	54.53	92.88	105.72	1 0 48	1814.1	-21.47	46.67
90.00	11 51 17	5172.34	25.74	231.32	94.35	77.77	13 17 29	4572.3	23.80	223.19
100.00	1 41 3	2154.45	-25.20	35.01	92.45	106.63	2 16 58	1554.4	-22.68	27.12
100.00	13 13 29	4907.20	27.10	211.48	94.00	76.88	14 35 16	4307.2	25.03	203.29
110.00	2 47 20	1946.98	-28.82	17.94	91.14	109.23	3 19 47	1347.0	-25.93	9.96
110.00	14 23 41	4687.43	30.79	193.71	92.92	74.37	15 41 49	4087.4	28.34	185.37

DIFFERENTIAL CORRECTIONS
TDE .4938 TRA -.9328 TC3 -.2687 BAU .3020
RDE -.2175 RRA -.3023 RC3 -.2993 FAU .09870
FDE 1.5518 FRA -.9425 FC3-1.5217 BSP 2416
BDE .5396 BRA .9806 BC3 .4023 FSP -686

MID-COURSE EXECUTION ACCURACY
SGT 902.2 SGR 531.4 SG3 230.7
RRT .5901 RRF .6995 RTF .7809
SGB 1047.1 R23 .1536 R13 .8207
SG1 967.7 SG2 400.0 THA 23.40

ORBIT DETERMINATION ACCURACY
ST 434.2 SR 180.7 SS 484.3
CRT -.6089 CRS .8310 CST -.9439
LSA 655.7 MSA 159.1 SSA 19.7
EL1 449.4 EL2 138.5 ALF 164.25

LAUNCH DATE OCT 15 1970 FLIGHT TIME 80.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 243.102

RL 149.17 LAL -.00 LOL 21.22 VL 29.413 GAL -14.97 AZL 86.88 HCA 112.95 SMA 145.16 ECC .25967 INC 3.1200 V1 29.871
RP 107.48 LAP 2.87 LOP 134.20 VP 39.438 GAP .43 AZP 91.22 TAL 249.13 TAP 2.08 RCA 107.46 APO 182.85 V2 35.258
RC 80.507 GL 12.03 GP -26.74 ZAL 163.16 ZAP 93.49 ETS 355.22 ZAE 146.80 ETE 236.91 ZAC 71.63 ETC 256.36 CLP -93.91

PLANETOCENTRIC CONIC

C3 55.101 VHL 7.423 DLA -1.22 RAL 214.96 RAD 6569.0 VEL 13.284 PTH 2.43 VHP 4.628 DPA -37.67 RAP 206.93 ECC 1.9068

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 18 37	2428.64	-24.12	55.51	93.44	105.30	0 59 5	1828.6	-21.79	47.62
90.00	11 58 32	5148.44	25.38	229.66	94.40	77.01	13 24 20	4548.4	23.34	221.58
100.00	1 39 23	2168.08	-25.46	35.94	93.02	106.21	2 15 31	1568.1	-23.00	28.01
100.00	13 20 26	4884.23	26.74	209.87	94.04	76.11	14 41 50	4284.2	24.56	201.74
110.00	2 46 20	1958.54	-29.08	18.75	91.74	108.81	3 18 58	1358.5	-26.24	10.72
110.00	14 29 50	4666.54	30.40	192.21	92.91	73.56	15 47 46	4066.5	27.85	183.95

DIFFERENTIAL CORRECTIONS
TDE .5942 TRA -.9916 TC3 -.3274 BAU .3322
RDE -.1972 RRA -.2991 RC3 -.3102 FAU .09853
FDE 1.5803 FRA -.9087 FC3-1.5480 BSP 2745
BDE .5882 BRA 1.0329 BC3 .4510 FSP -700

MID-COURSE EXECUTION ACCURACY
SGT 1002.6 SGR 533.9 SG3 232.8
RRT .6157 RRF .7154 RTF .8053
SGB 1135.9 R23 .1606 R13 .8369
SG1 1064.6 SG2 396.2 THA 21.23

ORBIT DETERMINATION ACCURACY
ST 485.7 SR 166.8 SS 495.7
CRT -.6111 CRS .8248 CST -.9484
LSA 696.0 MSA 156.9 SSA 19.6
EL1 497.1 EL2 129.0 ALF 167.27

LAUNCH DATE OCT 15 1970 FLIGHT TIME 82.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 249.422

RL 149.17 LAL -.00 LOL 21.22 VL 29.353 GAL -14.79 AZL 86.69 HCA 116.19 SMA 144.60 ECC .25717 INC 3.3109 V1 29.871
RP 107.48 LAP 2.97 LOP 137.45 VP 39.392 GAP .93 AZP 91.46 TAL 248.38 TAP 4.57 RCA 107.41 APO 181.79 V2 35.257
RC 82.739 GL 12.88 GP -27.40 ZAL 162.22 ZAP 97.64 ETS 353.04 ZAE 144.64 ETE 232.62 ZAC 70.74 ETC 256.13 CLP -98.61

PLANETOCENTRIC CONIC

C3 54.082 VHL 7.354 DLA -.58 RAL 215.69 RAD 6569.0 VEL 13.245 PTH 2.42 VHP 4.638 DPA -37.69 RAP 205.10 ECC 1.8900

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 16 43	2444.10	-24.40	56.56	94.08	104.84	0 57 27	1844.1	-22.12	48.63
90.00	12 6 14	5123.76	24.99	227.96	94.53	76.24	13 31 38	4523.8	22.86	219.94
100.00	1 37 48	2182.58	-25.73	36.93	93.67	105.76	2 14 10	1582.6	-23.32	28.96
100.00	13 27 50	4860.52	26.34	208.22	94.15	75.33	14 48 51	4260.5	24.07	200.16
110.00	2 45 25	1970.88	-29.35	19.61	92.42	108.37	3 18 16	1370.9	-26.56	11.53
110.00	14 36 42	4644.99	29.97	190.68	92.97	72.74	15 54 7	4045.0	27.32	182.49

DIFFERENTIAL CORRECTIONS
TDE .6188 TRA-1.0499 TC3 -.3875 BAU .3630
RDE -.1771 RRA -.2729 RC3 -.3192 FAU .09741
FDE 1.5964 FRA -.8636 FC3-1.5594 BSP 3082
BDE .6436 BRA 1.0848 BC3 .5021 FSP -706

MID-COURSE EXECUTION ACCURACY
SGT 1107.5 SGR 533.6 SG3 232.8
RRT .6347 RRF .7292 RTF .8235
SGB 1229.3 R23 .1692 R13 .8491
SG1 1165.2 SG2 391.9 THA 19.27

ORBIT DETERMINATION ACCURACY
ST 541.2 SR 152.7 SS 505.7
CRT -.6126 CRS .8189 CST -.9522
LSA 740.2 MSA 154.1 SSA 19.5
EL1 549.7 EL2 118.8 ALF 169.71

LAUNCH DATE OCT 15 1970 FLIGHT TIME 84.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 255.703

RL 149.17 LAL -.00 LOL 21.22 VL 29.288 GAL -14.62 AZL 86.49 HCA 119.43 SMA 144.01 ECC .25472 INC 3.5128 V1 29.871
RP 107.49 LAP 3.06 LOP 140.70 VP 39.342 GAP 1.42 AZP 91.73 TAL 247.56 TAP 6.99 RCA 107.33 APO 180.69 V2 35.255
RC 84.985 GL 13.79 GP -28.05 ZAL 161.21 ZAP 101.53 ETS 350.82 ZAE 142.44 ETE 228.97 ZAC 69.89 ETC 255.93 CLP-103.09

PLANETOCENTRIC CONIC

C3 53.100 VHL 7.287 DLA .11 RAL 216.48 RAD 6568.9 VEL 13.208 PTH 2.41 VHP 4.669 DPA -37.78 RAP 203.49 ECC 1.8739

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 14 49	2460.77	-24.68	57.70	94.81	104.34	0 55 49	1860.8	-22.47	49.73
90.00	12 14 28	5098.03	24.57	226.19	94.72	75.46	13 39 26	4498.0	22.33	218.24
100.00	1 36 12	2198.22	-26.02	38.00	94.42	105.26	2 12 50	1598.2	-23.67	29.99
100.00	13 35 45	4835.81	25.90	206.51	94.33	74.53	14 56 21	4235.8	23.53	198.52
110.00	2 44 34	1984.24	-29.63	20.54	93.20	107.88	3 17 38	1384.2	-26.90	12.42
110.00	14 43 53	4622.56	29.51	189.10	93.10	71.91	16 0 55	4022.6	26.76	180.99

DIFFERENTIAL CORRECTIONS
TDE .6875 TRA-1.1073 TC3 -.4486 BAU .3939
RDE -.1574 RRA -.2543 RC3 -.3266 FAU .09550
FDE 1.6001 FRA -.8105 FC3-1.5571 BSP 3433
BDE .7053 BRA 1.1361 BC3 .5549 FSP -706

MID-COURSE EXECUTION ACCURACY
SGT 1215.6 SGR 530.9 SG3 230.8
RRT .6483 RRF .7415 RTF .8371
SGB 1326.5 R23 .1798 R13 .8582
SG1 1268.7 SG2 387.3 THA 17.49

ORBIT DETERMINATION ACCURACY
ST 600.7 SR 138.3 SS 514.1
CRT -.6134 CRS .8130 CST -.9554
LSA 788.1 MSA 150.6 SSA 19.3
EL1 606.8 EL2 108.1 ALF 171.70

LAUNCH DATE OCT 15 1970 FLIGHT TIME 86.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 261.948

RL	149.17	LAL	-.00	LOL	21.22	VL	29.220	GAL	-14.43	AZL	86.27	HCA	122.67	SMA	143.39	ECC	.25231	INC	3.7281	V1	29.871
RP	107.50	LAP	3.14	LOP	143.93	VP	39.289	GAP	1.88	AZP	92.01	TAL	246.66	TAP	9.34	RCA	107.21	APO	179.56	V2	35.253
RC	87.241	GL	14.76	GP	-28.73	ZAL	160.11	ZAP	105.16	ETS	348.54	ZAE	140.25	ETE	225.90	ZAC	69.05	ETC	255.75	CLP	-107.35

PLANETOCENTRIC CONIC

C3	52.160	VHL	7.222	DLA	.84	RAL	217.34	RAD	6568.9	VEL	13.173	PTH	2.41	VHP	4.719	DPA	-37.98	RAP	202.10	ECC	1.8584

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 12 49	2479.00	-24.98	58.95	95.64	103.78	0 54 8	1879.0	-22.84	50.93
90.00	12 23 19	5070.94	24.09	224.35	94.98	74.65	13 47 49	4470.9	21.75	216.46
100.00	1 34 33	2215.36	-26.32	39.19	95.26	104.71	2 11 29	1615.4	-24.04	31.13
100.00	13 44 16	4809.81	25.42	204.73	94.57	73.72	15 4 25	4209.8	22.94	196.81
110.00	2 43 42	1998.94	-29.93	21.58	94.08	107.33	3 17 1	1398.9	-27.27	13.40
110.00	14 51 37	4599.00	29.00	187.45	93.29	71.06	16 8 16	3999.0	26.14	179.44

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.7627	TRA	-1.1609	TC3	-.5086	BAU	.4228	SGT	1324.4	SGR	521.9	SG3	226.2	ST	665.6	SR	121.1	SS	526.3
RDE	-.1349	RRA	-.2304	RC3	-.3302	FAU	.09219	RRT	.6569	RRF	.7495	RTF	.8459	CRT	-.6114	CRS	.8069	CST	-.9575
FDE	1.6099	FRA	-.7350	FC3	-1.5302	BSP	3716	SGB	1423.5	R23	.1904	R13	.8633	LSA	844.2	MSA	147.1	SSA	18.8
BDE	.7745	BRA	1.1835	BC3	.6064	FSP	-668	SG1	1371.9	SG2	379.9	THA	15.75	EL1	669.7	EL2	95.2	ALF	173.52

LAUNCH DATE OCT 15 1970 FLIGHT TIME 88.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 268.156

RL	149.17	LAL	-.00	LOL	21.22	VL	29.149	GAL	-14.25	AZL	86.04	HCA	125.92	SMA	142.74	ECC	.24994	INC	3.9594	V1	29.871
RP	107.51	LAP	3.21	LOP	147.21	VP	39.233	GAP	2.32	AZP	92.32	TAL	245.70	TAP	11.62	RCA	107.07	APO	178.42	V2	35.249
RC	89.506	GL	15.81	GP	-29.45	ZAL	158.92	ZAP	108.50	ETS	346.21	ZAE	138.09	ETE	223.32	ZAC	68.21	ETC	255.60	CLP	-111.37

PLANETOCENTRIC CONIC

C3	51.276	VHL	7.161	DLA	1.63	RAL	218.27	RAD	6568.9	VEL	13.139	PTH	2.40	VHP	4.786	DPA	-38.31	RAP	200.91	ECC	1.8439

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 10 40	2499.25	-25.30	60.35	96.58	103.15	0 52 19	1899.2	-23.24	52.28
90.00	12 32 52	5042.21	23.56	222.41	95.32	73.82	13 56 54	4442.2	21.12	214.59
100.00	1 32 46	2234.42	-26.64	40.51	96.22	104.08	2 10 1	1634.4	-24.44	32.40
100.00	13 53 27	4782.26	24.88	202.86	94.89	72.87	15 13 10	4182.3	22.30	195.02
110.00	2 42 45	2015.37	-30.26	22.75	95.08	106.71	3 16 21	1415.4	-27.68	14.51
110.00	14 59 56	4574.08	28.44	185.73	93.56	70.18	16 16 12	3974.1	25.47	177.81

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.8392	TRA	-1.2152	TC3	-.5705	BAU	.4539	SGT	1436.9	SGR	518.1	SG3	221.9	ST	732.5	SR	107.1	SS	530.3
RDE	-.1168	RRA	-.2092	RC3	-.3361	FAU	.08950	RRT	.6628	RRF	.7623	RTF	.8540	CRT	-.6085	CRS	.7979	CST	-.9604
FDE	1.5876	FRA	-.6807	FC3	-1.5112	BSP	4116	SGB	1527.4	R23	.2059	R13	.8693	LSA	899.2	MSA	142.7	SSA	18.7
BDE	.8473	BRA	1.2331	BC3	.6621	FSP	-677	SG1	1480.3	SG2	376.6	THA	14.39	EL1	735.5	EL2	84.6	ALF	174.85

LAUNCH DATE OCT 15 1970 FLIGHT TIME 90.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 274.332

RL	149.17	LAL	-.00	LOL	21.22	VL	29.075	GAL	-14.06	AZL	85.79	HCA	129.16	SMA	142.08	ECC	.24763	INC	4.2106	V1	29.871
RP	107.52	LAP	3.26	LOP	150.46	VP	39.174	GAP	2.73	AZP	92.66	TAL	244.68	TAP	13.83	RCA	106.90	APO	177.27	V2	35.245
RC	91.778	GL	16.95	GP	-30.25	ZAL	157.63	ZAP	111.55	ETS	343.79	ZAE	135.97	ETE	221.18	ZAC	67.33	ETC	255.45	CLP	-115.17

PLANETOCENTRIC CONIC

C3	50.459	VHL	7.103	DLA	2.49	RAL	219.27	RAD	6568.9	VEL	13.108	PTH	2.39	VHP	4.870	DPA	-38.79	RAP	199.89	ECC	1.8304

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 8 15	2522.02	-25.65	61.93	97.65	102.43	0 50 17	1922.0	-23.68	53.81
90.00	12 43 17	5011.43	22.96	220.35	95.75	72.96	14 6 48	4411.4	20.41	212.61
100.00	1 30 46	2255.90	-26.99	42.01	97.30	103.36	2 8 21	1655.9	-24.88	33.85
100.00	14 3 27	4752.79	24.27	200.88	95.29	72.00	15 22 40	4152.8	21.59	193.12
110.00	2 41 40	2033.96	-30.62	24.08	96.22	106.00	3 15 34	1434.0	-28.12	15.77
110.00	15 9 2	4547.50	27.81	183.92	93.91	69.27	16 24 50	3947.5	24.74	176.09

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.9216	TRA	-1.2664	TC3	-.6312	BAU	.4836	SGT	1549.9	SGR	511.5	SG3	216.0	ST	804.6	SR	91.6	SS	535.7
RDE	-.0974	RRA	-.1850	RC3	-.3399	FAU	.08611	RRT	.6652	RRF	.7734	RTF	.8597	CRT	-.6004	CRS	.7852	CST	-.9628
FDE	1.5656	FRA	-.6180	FC3	-1.4774	BSP	4498	SGB	1632.1	R23	.2225	R13	.8732	LSA	960.9	MSA	138.2	SSA	18.3
BDE	.9267	BRA	1.2798	BC3	.7169	FSP	-671	SG1	1589.0	SG2	372.5	THA	13.12	EL1	806.5	EL2	73.0	ALF	176.06

LAUNCH DATE OCT 15 1970 FLIGHT TIME 92.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 280.476

RL	149.17	LAL	-.00	LOL	21.22	VL	28.998	GAL	-13.86	AZL	85.51	HCA	132.39	SMA	141.41	ECC	.24536	INC	4.4859	V1	29.871
RP	107.53	LAP	3.31	LOP	153.71	VP	39.113	GAP	3.13	AZP	93.03	TAL	243.60	TAP	16.00	RCA	106.71	APO	176.11	V2	35.240
RC	94.056	GL	18.20	GP	-31.15	ZAL	156.22	ZAP	114.30	ETS	341.26	ZAE	133.88	ETE	219.41	ZAC	66.39	ETC	255.31	CLP	-118.74

PLANETOCENTRIC CONIC

C3	49.725	VHL	7.052	DLA	3.44	RAL	220.36	RAD	6568.8	VEL	13.080	PTH	2.39	VHP	4.970	DPA	-39.45	RAP	199.03	ECC	1.8183

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 5 28	2547.97	-26.01	63.74	98.87	101.60	0 47 56	1948.0	-24.15	55.56
90.00	12 54 41	4978.18	22.28	218.16	96.27	72.06	14 17 39	4378.2	19.62	210.49
100.00	1 28 25	2280.40	-27.36	43.74	98.54	102.53	2 6 26	1680.4	-25.36	35.51
100.00	14 14 25	4720.98	23.59	198.77	95.79	71.09	15 33 6	4121.0	20.79	191.09
110.00	2 40 22	2055.25	-31.01	25.62	97.52	105.17	3 14 37	1455.2	-28.62	17.23
110.00	15 18 58	4518.90	27.11	181.99	94.35	68.33	16 34 17	3918.9	23.92	174.27

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.0106	TRA	-1.3140	TC3	-.6902	BAU	.5121	SGT	1663.0	SGR	503.4	SG3	209.0	ST	882.1	SR	74.9	SS	541.9
RDE	-.0769	RRA	-.1583	RC3	-.3422	FAU	.08223	RRT	.6645	RRF	.7835	RTF	.8638	CRT	-.5825	CRS	.7643	CST	-.9649
FDE	1.5425	FRA	-.5512	FC3	-1.4317	BSP	4871	SGB	1737.6	R23	.2405	R13	.8758	LSA	1029.2	MSA	133.9	SSA	17.8
BDE	1.0136	BRA	1.3235	BC3	.7703	FSP	-656	SG1	1698.0	SG2	368.4	THA	11.94	EL1	883.2	EL2	60.8	ALF	177.15

LAUNCH DATE OCT 15 1970 FLIGHT TIME 94.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 286.590

RL	149.17	LAL	-.00	LOL	21.22	VL	28.919	GAL	-13.65	AZL	85.21	HCA	135.63	SMA	140.73	ECC	.24314	INC	4.7911	V1	29.871
RP	107.55	LAP	3.35	LOP	156.96	VP	39.050	GAP	3.51	AZP	93.43	TAL	242.47	TAP	18.10	RCA	106.51	APO	174.94	V2	35.235
RC	96.339	GL	19.57	GP	-32.19	ZAL	154.68	ZAP	116.73	ETS	338.59	ZAE	131.82	ETE	217.98	ZAC	65.36	ETC	255.18	CLP	-122.10

PLANETOCENTRIC CONIC

C3	49.099	VHL	7.007	DLA	4.50	RAL	221.52	RAD	6568.8	VEL	13.056	PTH	2.38	VHP	5.088	DPA	-40.31	RAP	198.27	ECC	1.8081

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 2 11	2577.89	-26.41	65.84	100.27	100.61	0 45 9	1977.9	-24.67	57.60
90.00	13 7 17	4941.95	21.50	215.78	96.90	71.12	14 29 39	4341.9	18.72	208.21
100.00	1 25 38	2308.70	-27.77	45.75	99.97	101.54	2 4 7	1708.7	-25.89	37.44
100.00	14 26 31	4686.37	22.81	196.49	96.41	70.13	15 44 37	4086.4	19.89	188.91
110.00	2 38 44	2079.93	-31.43	27.41	99.01	104.18	3 13 24	1479.9	-29.17	18.94
110.00	15 29 54	4487.90	26.31	179.93	94.91	67.35	16 44 42	3887.9	23.01	172.33

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.1079	TRA	-1.3575	TC3	-.7467	BAU	.5394	SGT	1776.4	SGR	494.2	SG3	201.0	ST	966.0	SR	57.3
RDE	-.0555	RRA	-.1292	RC3	-.3429	FAU	.07800	RRT	.6604	RRF	.7929	RTF	.8668	CRT	-.5430	CRS	.7237
FDE	1.5189	FRA	-.4823	FC3	-1.3754	BSP	5238	SGB	1843.8	RZS	.2599	RIS	.8775	LSA	1104.9	MSA	129.9
BDE	1.1093	BRA	1.3637	BC3	.8217	FSP	-635	SG1	1807.4	SG2	364.7	THA	10.86	EL1	966.5	EL2	48.1

SS	549.0	CST	-.9669
SSA	17.0	ALF	178.15

LAUNCH DATE OCT 15 1970 FLIGHT TIME 96.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 292.675

RL	149.17	LAL	-.00	LOL	21.22	VL	28.839	GAL	-13.44	AZL	84.87	HCA	138.87	SMA	140.04	ECC	.24098	INC	5.1336	V1	29.871
RP	107.57	LAP	3.37	LOP	160.20	VP	38.985	GAP	3.87	AZP	93.87	TAL	241.29	TAP	20.16	RCA	106.29	APO	173.78	V2	35.229
RC	98.624	GL	21.10	GP	-33.39	ZAL	152.99	ZAP	118.83	ETS	335.76	ZAE	129.76	ETE	216.84	ZAC	64.19	ETC	255.03	CLP	-125.28

PLANETOCENTRIC CONIC

C3	48.617	VHL	6.973	DLA	5.69	RAL	222.79	RAD	6568.8	VEL	13.038	PTH	2.38	VHP	5.224	DPA	-41.40	RAP	197.56	ECC	1.8001

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 54 17	2612.81	-26.82	68.31	101.89	99.44	24 37 50	2012.8	-25.24	60.00
90.00	13 21 20	4902.09	20.60	213.21	97.68	70.13	14 43 2	4302.1	17.71	205.73
100.00	1 22 15	2341.76	-28.19	48.11	101.62	100.37	2 1 17	1741.8	-26.47	39.73
100.00	14 39 59	4648.38	21.91	194.05	97.16	69.14	15 57 28	4048.4	18.87	186.55
110.00	2 36 40	2108.87	-31.90	29.54	100.74	103.00	3 11 49	1508.9	-29.78	20.97
110.00	15 42 4	4454.03	25.40	177.72	95.60	66.32	16 56 18	3854.0	21.98	170.24

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.2151	TRA	-1.3969	TC3	-.7999	BAU	.5655	SGT	1890.0	SGR	484.9	SG3	192.4	ST	1057.3	SR	39.3
RDE	-.0333	RRA	-.0978	RC3	-.3423	FAU	.07354	RRT	.6528	RRF	.8016	RTF	.8690	CRT	-.4454	CRS	.6271
FDE	1.4946	FRA	-.4139	FC3	-1.3095	BSP	5608	SGB	1951.2	RZS	.2806	RIS	.8786	LSA	1188.7	MSA	126.4
BDE	1.2155	BRA	1.4003	BC3	.8701	FSP	-613	SG1	1917.3	SG2	362.1	THA	9.86	EL1	1057.4	EL2	35.2

SS	556.8	CST	-.9688
SSA	16.1	ALF	179.05

LAUNCH DATE OCT 15 1970 FLIGHT TIME 98.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 298.735

RL	149.17	LAL	-.00	LOL	21.22	VL	28.757	GAL	-13.23	AZL	84.48	HCA	142.10	SMA	139.34	ECC	.23887	INC	5.5233	V1	29.871
RP	107.59	LAP	3.39	LOP	163.45	VP	38.918	GAP	4.22	AZP	94.36	TAL	240.07	TAP	22.17	RCA	106.06	APO	172.63	V2	35.222
RC	100.910	GL	22.81	GP	-34.80	ZAL	151.12	ZAP	120.58	ETS	332.72	ZAE	127.68	ETE	215.95	ZAC	62.85	ETC	254.86	CLP	-128.28

PLANETOCENTRIC CONIC

C3	48.324	VHL	6.952	DLA	7.05	RAL	224.16	RAD	6568.8	VEL	13.026	PTH	2.38	VHP	5.382	DPA	-42.72	RAP	196.85	ECC	1.7953

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 49 25	2654.06	-27.25	71.26	103.79	98.02	24 33 39	2054.1	-25.86	62.87
90.00	13 37 10	4857.81	19.55	210.38	98.65	69.10	14 58 8	4257.8	16.53	203.01
100.00	1 18 3	2380.84	-28.64	50.93	103.56	98.95	1 57 44	1780.8	-27.11	42.46
100.00	14 55 9	4606.27	20.86	191.34	98.10	68.09	16 11 55	4006.3	17.70	183.97
110.00	2 34 0	2143.16	-32.39	32.09	102.77	101.57	3 9 43	1543.2	-30.46	23.41
110.00	15 55 41	4416.71	24.36	175.32	96.46	65.25	17 9 18	3816.7	20.82	167.97

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.3389	TRA	-1.4276	TC3	-.8453	BAU	.5881	SGT	2001.2	SGR	472.2	SG3	182.6	ST	1160.0	SR	21.8
RDE	-.0082	RRA	-.0609	RC3	-.3377	FAU	.06837	RRT	.6394	RRF	.8070	RTF	.8698	CRT	-.0624	CRS	.2351
FDE	1.4799	FRA	-.3359	FC3	-1.2248	BSP	5876	SGB	2056.1	RZS	.3021	RIS	.8785	LSA	1286.1	MSA	124.7
BDE	1.3390	BRA	1.4289	BC3	.9102	FSP	-566	SG1	2024.6	SG2	358.9	THA	8.86	EL1	1160.0	EL2	21.7

SS	569.0	CST	-.9705
SSA	14.8	ALF	179.93

LAUNCH DATE OCT 15 1970 FLIGHT TIME 100.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 304.768

RL	149.17	LAL	-.00	LOL	21.22	VL	28.674	GAL	-13.00	AZL	84.03	HCA	145.33	SMA	138.65	ECC	.23683	INC	5.9739	V1	29.871
RP	107.61	LAP	3.39	LOP	166.70	VP	38.850	GAP	4.55	AZP	94.92	TAL	238.81	TAP	24.13	RCA	105.81	APO	171.49	V2	35.215
RC	103.196	GL	24.73	GP	-36.48	ZAL	149.04	ZAP	121.94	ETS	329.45	ZAE	125.54	ETE	215.27	ZAC	61.28	ETC	254.66	CLP	-131.14

PLANETOCENTRIC CONIC

C3	48.293	VHL	6.949	DLA	8.59	RAL	225.66	RAD	6568.8	VEL	13.025	PTH	2.38	VHP	5.568	DPA	-44.32	RAP	196.06	ECC	1.7948

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 43 21	2703.41	-27.67	74.81	106.03	96.29	24 28 24	2103.4	-26.51	66.33
90.00	13 55 14	4808.15	18.31	207.27	99.84	68.02	15 15 22	4208.2	15.17	200.00
100.00	1 12 48	2427.60	-29.09	54.33	105.84	97.21	1 53 15	1827.6	-27.78	45.77
100.00	15 12 24	4559.19	19.64	188.38	99.27	67.00	16 28 23	3959.2	16.35	181.13
110.00	2 30 33	2184.27	-32.91	35.19	105.17	99.80	3 6 57	1584.3	-31.21	26.38
110.00	16 11 8	4375.29	23.16	172.71	97.55	64.12	17 24 3	3775.3	19.49	165.49

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.4722	TRA	-1.4598	TC3	-.8896	BAU	.6136	SGT	2117.4	SGR	465.7	SG3	173.0	ST	1268.1	SR	18.6
RDE	.0128	RRA	-.0252	RC3	-.3347	FAU	.06389	RRT	.6221	RRF	.8125	RTF	.8724	CRT	.6618	CRS	-.6147
FDE	1.4468	FRA	-.2793	FC3	-1.1453	BSP	6338	SGB	2168.0	RZS	.3238	RIS	.8803	LSA	1387.2	MSA	121.9
BDE	1.4723	BRA	1.4600	BC3	.9504	FSP	-558	SG1	2137.7	SG2	361.2	THA	8.02	EL1	1268.1	EL2	13.9

SS	575.2	CST	-.9728
SSA	13.7	ALF	.56

LAUNCH DATE OCT 15 1970 FLIGHT TIME 102.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 310.776

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RL  149.17 LAL   -.00 LOL  21.22 VL  28.590 GAL -12.77 AZL  83.50 HCA 148.55 SMA 137.96 ECC .23486 INC 6.5041 V1  29.871
RP  107.64 LAP   3.39 LOP 169.94 VP  38.781 GAP   4.87 AZP  95.56 TAL 237.50 TAP  26.06 RCA 105.56 APO 170.36 V2  35.207
RC 105.482 GL   26.93 GP  -38.46 ZAL 146.70 ZAP 122.88 ETS 325.90 ZAE 123.29 ETE 214.77 ZAC  59.42 ETC 254.40 CLP-133.90
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PLANETOCENTRIC CONIC

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C3  48.625 VHL  6.973 DLA  10.38 RAL 227.32 RAD 6568.8 VEL 13.038 PTH   2.38 VHP  5.789 DPA -46.22 RAP 195.07 ECC 1.8062
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 35 40	2763.27	-28.04	79.15	108.69	94.14	24 21 43	2163.3	-27.17	70.59
90.00	14 16 8	4751.71	16.84	203.78	101.36	66.89	15 35 19	4151.7	13.57	196.63
100.00	1 6 6	2484.30	-29.50	58.50	108.56	95.06	1 47 30	1884.3	-28.49	49.84
100.00	15 32 19	4505.92	18.18	185.09	100.75	65.86	16 47 25	3905.9	14.77	177.96
110.00	2 26 3	2234.13	-33.43	38.99	108.05	97.61	3 3 17	1634.1	-32.01	30.04
110.00	16 28 52	4328.85	21.75	169.84	98.93	62.95	17 41 0	3728.9	17.95	162.77

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

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TDE 1.6317 TRA-1.4817 TC3 -.9213 BAU  .6353    SGT 2231.6 SGR  456.1 SG3  162.2    ST  1391.7 SR    32.6 SS   586.0
RDE  .0356 RRA  .0177 RC3 -.3262 FAU .05871    RRT  .5948 RRF  .8113 RTF  .8742   CRT  .8400 CRS -.9055 CST -.9749
FDE 1.4234 FRA -.2146 FC3-1.0453 BSP   6707    SGB 2277.8 R23  .3447 R13  .8813   LSA 1505.5 MSA  121.1 SSA   12.3
BDE 1.6321 BRA 1.4819 BC3  .9773 FSP   -526    SG1 2248.5 SG2  363.9 THA   7.12   EL1 1392.0 EL2   17.7 ALF   1.13
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LAUNCH DATE OCT 15 1970 FLIGHT TIME 104.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 316.762

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RL  149.17 LAL   -.00 LOL  21.22 VL  28.506 GAL -12.53 AZL  82.86 HCA 151.78 SMA 137.27 ECC .23293 INC 7.1417 V1  29.871
RP  107.68 LAP   3.37 LOP 173.19 VP  38.711 GAP   5.17 AZP  96.30 TAL 236.16 TAP  27.94 RCA 105.29 APO 169.24 V2  35.198
RC 107.765 GL   29.46 GP  -40.84 ZAL 144.04 ZAP 123.33 ETS 322.02 ZAE 120.86 ETE 214.40 ZAC  57.19 ETC 254.05 CLP-136.58
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PLANETOCENTRIC CONIC

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C3  49.480 VHL  7.034 DLA  12.45 RAL 229.17 RAD 6568.8 VEL 13.071 PTH   2.39 VHP  6.061 DPA -48.46 RAP 193.72 ECC 1.8143
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 25 45	2837.07	-28.28	84.53	111.90	91.46	24 13 3	2237.1	-27.78	75.90
90.00	14 40 47	4686.61	15.06	199.83	103.32	65.73	15 58 54	4086.6	11.66	192.80
100.00	0 57 26	2554.10	-29.81	63.66	111.84	92.36	1 40 0	1954.1	-29.16	54.92
100.00	15 55 44	4444.81	16.44	181.39	102.66	64.68	17 9 49	3844.8	12.90	174.39
110.00	2 20 6	2295.41	-33.88	43.72	111.54	94.85	2 58 22	1695.4	-32.84	34.63
110.00	16 49 38	4276.27	20.09	166.67	100.72	61.74	18 0 49	3676.3	16.15	159.75

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE 1.8335 TRA-1.4849 TC3 -.9307 BAU  .6485    SGT 2340.7 SGR  440.5 SG3  149.9    ST  1539.5 SR    55.2 SS   605.5
RDE  .0619 RRA  .0734 RC3 -.3080 FAU .05237    RRT  .5497 RRF  .7984 RTF  .8746   CRT  .8116 CRS -.9106 CST -.9770
FDE 1.4184 FRA -.1333 FC3 -.9164 BSP   6806    SGB 2381.8 R23  .3658 R13  .8807   LSA 1650.5 MSA  124.1 SSA   10.3
BDE 1.8345 BRA 1.4868 BC3  .9803 FSP   -454    SG1 2353.5 SG2  365.9 THA   6.05   EL1 1540.1 EL2   32.2 ALF   1.67
```

LAUNCH DATE OCT 15 1970 FLIGHT TIME 106.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 322.723

```
RL  149.17 LAL   -.00 LOL  21.22 VL  28.421 GAL -12.29 AZL  82.07 HCA 154.99 SMA 136.59 ECC .23109 INC 7.9281 V1  29.871
RP  107.69 LAP   3.34 LOP 176.43 VP  38.640 GAP   5.46 AZP  97.19 TAL 234.79 TAP  29.78 RCA 105.02 APO 168.15 V2  35.189
RC 110.046 GL   32.39 GP  -43.69 ZAL 141.00 ZAP 123.22 ETS 317.75 ZAE 118.18 ETE 214.07 ZAC  54.50 ETC 253.55 CLP-139.27
```

PLANETOCENTRIC CONIC

```
C3  51.132 VHL  7.151 DLA  14.89 RAL 231.26 RAD 6568.9 VEL 13.134 PTH   2.40 VHP  6.404 DPA -51.05 RAP 191.78 ECC 1.8415
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 12 39	2929.87	-28.26	91.32	115.79	88.06	24 1 29	2329.9	-28.23	82.65
90.00	15 10 33	4610.19	12.87	195.28	105.92	64.56	16 27 23	4010.2	9.34	188.38
100.00	0 45 59	2641.59	-29.88	70.16	115.84	88.94	1 30 0	2041.6	-29.70	61.36
100.00	16 23 50	4373.70	14.33	177.17	105.19	63.48	17 36 44	3773.7	10.65	170.31
110.00	2 12 11	2371.84	-34.16	49.67	115.83	91.34	2 51 43	1771.8	-33.60	40.47
110.00	17 14 7	4216.21	18.11	163.13	103.09	60.50	18 24 23	3616.2	14.04	156.37

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE 2.0577 TRA-1.4983 TC3 -.9373 BAU  .6712    SGT 2461.4 SGR  435.1 SG3  137.8    ST  1690.8 SR    66.8 SS   610.8
RDE  .0718 RRA  .1267 RC3 -.2925 FAU .04749    RRT  .4903 RRF  .7726 RTF  .8803   CRT  .7405 CRS -.8568 CST -.9798
FDE 1.3768 FRA -.0937 FC3 -.8040 BSP   7452    SGB 2499.6 R23  .3792 R13  .8855   LSA 1794.8 MSA  122.8 SSA    9.0
BDE 2.0590 BRA 1.5036 BC3  .9819 FSP   -456    SG1 2470.8 SG2  377.8 THA   5.07   EL1 1691.6 EL2   44.9 ALF   1.68
```

LAUNCH DATE OCT 15 1970 FLIGHT TIME 108.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 328.661

```
RL  149.17 LAL   -.00 LOL  21.22 VL  28.336 GAL -12.04 AZL  81.07 HCA 158.20 SMA 135.91 ECC .22931 INC 8.9291 V1  29.871
RP  107.72 LAP   3.30 LOP 179.67 VP  38.569 GAP   5.74 AZP  98.30 TAL 233.38 TAP  31.58 RCA 104.75 APO 167.08 V2  35.179
RC 112.324 GL   35.81 GP  -47.14 ZAL 137.46 ZAP 122.45 ETS 313.03 ZAE 115.12 ETE 213.65 ZAC  51.22 ETC 252.81 CLP-142.06
```

PLANETOCENTRIC CONIC

```
C3  54.039 VHL  7.351 DLA  17.77 RAL 233.67 RAD 6569.0 VEL 13.244 PTH   2.42 VHP  6.855 DPA -54.01 RAP 188.85 ECC 1.8893
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 54 41	3049.77	-27.67	100.04	120.50	83.72	23 45 31	2449.8	-28.25	91.42
90.00	15 47 44	4517.69	10.11	189.90	109.47	63.41	17 3 2	3917.7	6.45	183.12
100.00	0 30 22	2753.86	-29.44	78.48	120.71	84.58	1 16 16	2153.9	-29.88	69.70
100.00	16 58 39	4288.84	11.69	172.25	108.64	62.29	18 10 8	3688.8	7.89	165.52
110.00	2 1 27	2468.88	-34.06	57.24	121.12	86.86	2 42 36	1868.9	-34.12	48.00
110.00	17 44 4	4146.58	15.73	159.13	106.31	59.25	18 53 10	3546.6	11.54	152.54

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE 2.3587 TRA-1.4853 TC3 -.9078 BAU  .6825    SGT 2576.4 SGR  423.0 SG3  124.0    ST  1874.7 SR    76.7 SS   624.8
RDE  .0740 RRA  .2008 RC3 -.2622 FAU .04130    RRT  .3858 RRF  .7095 RTF  .8857   CRT  .6150 CRS -.7494 CST -.9826
FDE 1.3529 FRA -.0383 FC3 -.6617 BSP   7805    SGB 2610.9 R23  .3899 R13  .8896   LSA 1973.5 MSA  125.2 SSA    7.4
BDE 2.3599 BRA 1.4988 BC3  .9447 FSP   -413    SG1 2581.7 SG2  389.4 THA   3.71   EL1 1875.3 EL2   60.5 ALF   1.44
```

LAUNCH DATE OCT 15 1970 FLIGHT TIME 110.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 334.573

```
RL  149.17 LAL   -.00 LOL  21.22 VL  28.251 GAL -11.77 AZL  79.74 HCA 161.40 SMA 135.25 ECC .22759 INC10.2552 V1  29.871
RP  107.75 LAP   3.26 LOP 182.90 VP  38.497 GAP   6.00 AZP  99.73 TAL 231.94 TAP  33.34 RCA 104.47 APO 166.03 V2  35.169
RC 114.599 GL   39.84 GP  -51.30 ZAL 133.31 ZAP 120.88 ETS 307.67 ZAE 111.53 ETE 212.90 ZAC  47.19 ETC 251.66 CLP-145.17
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PLANETOCENTRIC CONIC

```
C3  59.076 VHL  7.686 DLA  21.16 RAL 236.51 RAD 6569.1 VEL 13.433 PTH   2.46 VHP  7.478 DPA -57.29 RAP 184.28 ECC 1.9722
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 28 25	3211.46	-25.93	111.55	126.10	78.21	23 21 56	2611.5	-27.30	103.14
90.00	16 36 44	4399.79	6.44	183.17	114.53	62.37	17 50 3	3799.8	2.69	176.50
100.00	0 8 2	2902.95	-27.99	89.31	126.57	79.06	0 56 24	2303.0	-29.22	80.72
100.00	17 43 44	4183.53	8.29	166.28	113.53	61.18	18 53 28	3583.5	4.38	159.67
110.00	1 46 31	2594.83	-33.16	66.96	127.61	81.18	2 29 45	1994.8	-34.02	57.82
110.00	18 21 44	4064.42	12.82	154.55	110.83	58.04	19 29 29	3464.4	8.50	148.11

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE 2.7651 TRA-1.4429 TC3 -.8366 BAU  .6826    SGT 2689.4 SGR  412.3 SG3  109.0    ST  2090.5 SR    80.5 SS   642.3
RDE  .0461 RRA  .3007 RC3 -.2168 FAU .03446    RRT  .2004 RRF  .5696 RTF  .8936   CRT  .2751 CRS -.4336 CST -.9855
FDE 1.3331 FRA  .0174 FC3 -.5049 BSP   8014    SGB 2720.9 R23  .3944 R13  .8955   LSA 2184.5 MSA  129.6 SSA    5.8
BDE 2.7655 BRA 1.4739 BC3  .8643 FSP   -354    SG1 2690.7 SG2  403.8 THA   1.80   EL1 2090.6 EL2   77.4 ALF    .61
```

LAUNCH DATE OCT 15 1970 FLIGHT TIME 112.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 340.456

```
RL  149.17 LAL   -.00 LOL  21.22 VL  28.166 GAL -11.50 AZL  77.89 HCA 164.59 SMA 134.59 ECC .22592 INC12.1071 V1  29.871
RP  107.79 LAP   3.20 LOP 186.14 VP  38.425 GAP   6.25 AZP 101.68 TAL 230.47 TAP  35.06 RCA 104.18 APO 165.00 V2  35.158
RC 116.871 GL   44.56 GP  -56.34 ZAL 128.40 ZAP 118.37 ETS 301.32 ZAE 107.20 ETE 211.30 ZAC  42.23 ETC 249.76 CLP-149.02
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PLANETOCENTRIC CONIC

```
C3  68.070 VHL  8.250 DLA  25.14 RAL 240.00 RAD 6569.3 VEL 13.763 PTH   2.51 VHP  8.394 DPA -60.65 RAP 176.94 ECC 2.1203
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	21 43 56	3451.66	-21.59	127.78	132.19	71.22	22 41 28	2851.7	-23.95	119.91
90.00	17 49 2	4227.93	.94	173.54	122.30	61.70	18 59 30	3627.9	-2.85	166.91
100.00	23 28 35	3114.26	-24.40	103.97	133.20	72.17	24 20 29	2514.3	-26.60	95.86
100.00	18 47 4	4040.56	3.53	158.34	120.87	60.30	19 54 24	3440.6	-.45	151.81
110.00	1 24 41	2763.30	-30.70	79.46	135.35	74.17	2 10 45	2163.3	-32.56	70.74
110.00	19 11 23	3964.29	9.15	149.11	117.42	56.92	20 17 27	3364.3	4.73	142.81

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE 3.3166 TRA-1.3722 TC3 -.7255 BAU  .6760    SGT 2801.1 SGR  425.8 SG3   93.1    ST  2325.0 SR   110.9 SS   655.5
RDE -.0697 RRA  .4321 RC3 -.1594 FAU .02787    RRT -.1220 RRF  .2687 RTF  .9081   CRT -.5531 CRS  .4231 CST -.9889
FDE 1.3011 FRA  .0517 FC3 -.3544 BSP   8550    SGB 2833.3 R23 -.3849 R13 -.9070   LSA 2414.6 MSA  132.2 SSA    4.5
BDE 3.3173 BRA 1.4386 BC3  .7428 FSP   -320    SG1 2801.6 SG2  422.6 THA 178.91   EL1 2325.8 EL2   92.3 ALF 178.49
```

LAUNCH DATE OCT 15 1970 FLIGHT TIME 114.00 ARRIVAL DATE FEB 6 1971

HELIOCENTRIC CONIC DISTANCE 346.300

```
RL  149.17 LAL   -.00 LOL  21.22 VL  28.081 GAL -11.22 AZL  75.11 HCA 167.75 SMA 133.94 ECC .22427 INC14.8889 V1  29.871
RP  107.82 LAP   3.13 LOP 189.37 VP  38.353 GAP   6.48 AZP 104.56 TAL 228.96 TAP  36.71 RCA 103.90 APO 163.98 V2  35.147
RC 119.138 GL   50.00 GP  -62.39 ZAL 122.56 ZAP 114.78 ETS 292.97 ZAE 101.82 ETE 207.63 ZAC  36.08 ETC 246.33 CLP-154.74
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PLANETOCENTRIC CONIC

```
C3  85.352 VHL  9.239 DLA  29.67 RAL 244.47 RAD 6569.7 VEL 14.377 PTH   2.61 VHP  9.851 DPA -63.46 RAP 165.16 ECC 2.4047
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
80.75	18 48 50	4135.87	-10.17	172.77	136.15	61.98	19 57 46	3535.9	-13.84	165.92
99.25	21 19 49	3648.53	-10.15	136.95	136.14	61.97	22 20 37	3048.5	-13.82	130.10
100.00	21 56 20	3531.75	-13.33	129.97	137.83	62.99	22 55 12	2931.8	-16.84	122.95
100.00	20 55 0	3727.88	-7.02	141.12	134.41	60.87	21 57 7	3127.9	-10.85	134.43
110.00	0 49 26	3001.47	-25.13	95.73	143.77	66.03	1 39 27	2401.5	-28.15	87.85
110.00	20 22 19	3830.93	4.13	142.05	127.59	56.04	21 26 10	3230.9	-.36	135.84

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE 4.1365 TRA-1.2045 TC3 -.5499 BAU  .6347    SGT 2890.0 SGR  541.9 SG3   76.8    ST  2578.5 SR   290.7 SS   680.0
RDE -.4148 RRA  .6318 RC3 -.0842 FAU .02059    RRT -.5679 RRF -.2440 RTF  .9292   CRT -.9268 CRS  .8736 CST -.9924
FDE 1.2879 FRA  .0865 FC3 -.2088 BSP   8879    SGB 2940.4 R23 -.3601 R13 -.9234   LSA 2678.9 MSA  137.1 SSA    3.2
BDE 4.1573 BRA 1.3601 BC3  .5563 FSP   -267    SG1 2906.8 SG2  443.5 THA 173.78   EL1 2592.5 EL2  108.6 ALF 174.03
```

LAUNCH DATE OCT 15 1970 FLIGHT TIME 116.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 352.083

```
RL  149.17 LAL   -.00 LOL  21.22 VL  27.997 GAL -10.92 AZL  70.46 HCA 170.86 SMA 133.31 ECC .22258 INC19.5426 V1  29.871
RP  107.86 LAP   3.05 LOP 192.60 VP  38.281 GAP   6.69 AZP 109.31 TAL 227.42 TAP  38.27 RCA 103.64 APO 162.98 V2  35.136
RC 121.402 GL   55.87 GP  -69.35 ZAL 115.67 ZAP 110.01 ETS 279.40 ZAE  94.84 ETE 198.42 ZAC  28.41 ETC 239.24 CLP-165.99
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PLANETOCENTRIC CONIC

```
C3 123.396 VHL 11.108 DLA  34.39 RAL 250.55 RAD 6570.3 VEL 15.644 PTH   2.78 VHP 12.431 DPA -64.16 RAP 147.79 ECC 3.0308
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.61	17 56 43	4453.07	-8.73	195.98	147.61	56.60	19 10 56	3853.1	-13.06	189.55
110.39	23 0 26	3487.26	-8.71	123.87	147.60	56.60	23 58 33	2887.3	-13.05	117.44
69.61	17 56 43	4453.07	-8.73	195.98	147.61	56.60	19 10 56	3853.1	-13.06	189.55
110.39	23 0 26	3487.26	-8.71	123.87	147.60	56.60	23 58 33	2887.3	-13.05	117.44
69.61	17 56 43	4453.07	-8.73	195.98	147.61	56.60	19 10 56	3853.1	-13.06	189.55
110.39	23 0 26	3487.26	-8.71	123.87	147.60	56.60	23 58 33	2887.3	-13.05	117.44

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

```
TDE 5.3226 TRA -.7966 TC3 -.3155 BAU  .5209    SGT 2876.9 SGR  976.2 SG3   61.7    ST  2749.5 SR   804.9 SS   732.3
RDE-1.5230 RRA  .9254 RC3 -.0109 FAU .01295    RRT -.8649 RRF -.6982 RTF  .9605   CRT -.9867 CRS  .9688 CST -.9962
FDE 1.3210 FRA  .1205 FC3 -.0908 BSP   9199    SGB 3038.0 R23 -.3088 R13 -.9470   LSA 2953.5 MSA  144.3 SSA    2.1
BDE 5.5364 BRA 1.2210 BC3  .3157 FSP   -216    SG1 3001.4 SG2  469.7 THA 163.22   EL1 2862.1 EL2  125.6 ALF 163.86
```

LAUNCH DATE OCT 15 1970 FLIGHT TIME 118.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 357.733
RL 149.17 LAL -.00 LOL 21.22 VL 27.913 GAL -10.59 AZL 61.22 HCA 173.85 SMA 132.68 ECC .22065 INC28.7830 V1 29.871
RP 107.89 LAP 2.96 LOP 195.83 VP 38.209 GAP 6.86 AZP 118.64 TAL 225.80 TAP 39.65 RCA 103.41 APO 161.96 V2 35.124
RC 123.660 GL 60.61 GP -75.20 ZAL 107.81 ZAP 104.15 ETS 250.26 ZAE 85.02 ETE 173.06 ZAC 18.99 ETC 224.47 CLP 163.17
PLANETOCENTRIC CONIC
C3 229.896 VHL 15.162 DLA 37.81 RAL 259.34 RAD 6571.3 VEL 18.741 PTH 3.06 VHP 17.799 DPA -59.86 RAP 128.20 ECC 4.7835

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.83	18 0 8	4653.02	-5.13	209.39	162.72	52.49	19 17 41	4053.0	-9.96	203.38
116.17	0 11 2	3498.79	-5.11	122.21	162.70	52.49	1 9 21	2898.8	-9.94	116.19
63.83	18 0 8	4653.02	-5.13	209.39	162.72	52.49	19 17 41	4053.0	-9.96	203.38
116.17	0 11 2	3498.79	-5.11	122.21	162.70	52.49	1 9 21	2898.8	-9.94	116.19
63.83	18 0 8	4653.02	-5.13	209.39	162.72	52.49	19 17 41	4053.0	-9.96	203.38
116.17	0 11 2	3498.79	-5.11	122.21	162.70	52.49	1 9 21	2898.8	-9.94	116.19

DIFFERENTIAL CORRECTIONS
TDE 6.0602 TRA .3612 TC3 -.0685 BAU .2154
RDE-5.3471 RRA 1.0111 RC3 -.0148 FAU .00346
FDE 1.5136 FRA .1948 FC3 -.0130 BSP 9376
BDE 8.0819 BRA 1.0736 BC3 .0701 FSP -172

MID-COURSE EXECUTION ACCURACY
SGT 2305.9 SGR 2078.1 SG3 50.2
RRT -.9462 RRF -.9186 RTF .9961
SGB 3104.2 R23 -.2189 R13 -.9745
SG1 3062.6 SG2 506.2 THA 138.14

ORBIT DETERMINATION ACCURACY
ST 2290.6 SR 2025.8 SS 880.6
CRT -.9956 CRS .9927 CST -.9997
LSA 3178.5 MSA 154.1 SSA 1.3
EL1 3054.6 EL2 143.1 ALF 138.53

LAUNCH DATE OCT 15 1970 FLIGHT TIME 120.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 362.942
RL 149.17 LAL -.00 LOL 21.22 VL 27.830 GAL -10.16 AZL 37.19 HCA 176.41 SMA 132.07 ECC .21763 INC52.8106 V1 29.871
RP 107.93 LAP 2.86 LOP 199.05 VP 38.137 GAP 6.90 AZP 142.76 TAL 224.00 TAP 40.41 RCA 103.33 APO 160.81 V2 35.112
RC 125.912 GL 57.28 GP -67.69 ZAL 99.81 ZAP 97.89 ETS 204.46 ZAE 67.95 ETE 130.99 ZAC 14.45 ETC 241.20 CLP 111.20
PLANETOCENTRIC CONIC
C3 672.868 VHL 25.940 DLA 33.85 RAL 271.86 RAD 6572.7 VEL 28.181 PTH 3.42 VHP 31.772 DPA -45.25 RAP 115.03 ECC12.0737

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
70.62	19 27 50	4647.63	-.59	205.71	181.00	56.15	20 45 18	4047.6	-5.04	199.46
109.38	0 23 15	3719.11	-.58	136.50	180.98	56.15	1 25 14	3119.1	-5.02	130.26
70.62	19 27 50	4647.63	-.59	205.71	181.00	56.15	20 45 18	4047.6	-5.04	199.46
109.38	0 23 15	3719.11	-.58	136.50	180.98	56.15	1 25 14	3119.1	-5.02	130.26
110.00	1 3 5	3597.45	-4.78	129.85	183.81	56.11	2 3 3	2997.4	-9.20	123.55
110.00	23 47 10	3817.29	3.61	141.34	178.17	55.98	24 50 48	3217.3	-.88	135.13

DIFFERENTIAL CORRECTIONS
TDE .9785 TRA 1.9407 TC3 -.0219 BAU 1.4167
RD-12.7350 RRA-1.5113 RC3 -.1560 FAU-.01971
FDE 2.1654 FRA .5329 FC3 .0254 BSP 9027
BDE12.7725 BRA 2.4598 BC3 .1575 FSP -145

MID-COURSE EXECUTION ACCURACY
SGT 571.1 SGR 2954.4 SG3 44.6
RRT -.4287 RRF -.9899 RTF .5484
SGB 3009.1 R23 -.1225 R13 -.9918
SG1 2964.9 SG2 514.1 THA 94.88

ORBIT DETERMINATION ACCURACY
ST 265.9 SR 2815.6 SS 1318.2
CRT -.8369 CRS .9990 CST -.8611
LSA 3116.5 MSA 153.4 SSA 1.5
EL1 2824.4 EL2 145.1 ALF 94.53

LAUNCH DATE OCT 15 1970 FLIGHT TIME 122.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 372.116
RL 149.17 LAL -.00 LOL 21.22 VL 27.748 GAL -10.56 AZL 159.13 HCA 182.95 SMA 131.47 ECC .22606 INC69.1327 V1 29.871
RP 107.97 LAP 2.75 LOP 202.27 VP 38.065 GAP 8.08 AZP 20.89 TAL 223.61 TAP 46.56 RCA 101.75 APO 161.19 V2 35.099
RC 128.158 GL -50.96 GP 56.66 ZAL 98.05 ZAP 96.90 ETS 173.79 ZAE 63.82 ETE 245.52 ZAC 135.35 ETC 264.49 CLP 102.63
PLANETOCENTRIC CONIC
C31076.794 VHL 32.815 DLA -73.85 RAL 289.27 RAD 6573.0 VEL 34.613 PTH 3.51 VHP 42.677 DPA 74.20 RAP 166.95 ECC18.7213

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
18.42	5 41 44	2451.52	-.62	80.41	199.43	163.84	6 22 35	1851.5	7.07	78.60
161.58	16 28 14	676.80	-.61	285.79	199.46	163.84	16 39 31	76.8	7.07	283.97
18.42	5 41 44	2451.52	-.62	80.41	199.43	163.84	6 22 35	1851.5	7.07	78.60
161.58	16 28 14	676.80	-.61	285.79	199.46	163.84	16 39 31	76.8	7.07	283.97
18.42	5 41 44	2451.52	-.62	80.41	199.43	163.84	6 22 35	1851.5	7.07	78.60
161.58	16 28 14	676.80	-.61	285.79	199.46	163.84	16 39 31	76.8	7.07	283.97

DIFFERENTIAL CORRECTIONS
TDE 4.7901 TRA .1985 TC3 -.0713 BAU 2.7071
RD-11.7496 RRA 2.0165 RC3 .1740 FAU-.03895
FDE-2.3487 FRA .4363 FC3 .0313 BSP 8508
BDE12.6885 BRA 2.0263 BC3 .1881 FSP -145

MID-COURSE EXECUTION ACCURACY
SGT 966.4 SGR 2667.3 SG3 46.2
RRT -.8118 RRF .9983 RTF -.7845
SGB 2837.0 R23 -.1036 R13 .9939
SG1 2785.0 SG2 540.5 THA 107.05

ORBIT DETERMINATION ACCURACY
ST 837.3 SR 2086.7 SS 1542.3
CRT -.9742 CRS -.9999 CST .9708
LSA 2720.2 MSA 185.2 SSA 2.0
EL1 2241.5 EL2 175.9 ALF 111.49

LAUNCH DATE OCT 15 1970 FLIGHT TIME 124.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 376.819
RL 149.17 LAL -.00 LOL 21.22 VL 27.666 GAL -10.02 AZL 121.74 HCA 185.02 SMA 130.88 ECC .22177 INC31.7384 V1 29.871
RP 108.01 LAP 2.64 LOP 205.49 VP 37.994 GAP 7.97 AZP 58.36 TAL 221.64 TAP 46.66 RCA 101.86 APO 159.91 V2 35.086
RC 130.397 GL -60.92 GP 73.20 ZAL 105.27 ZAP 103.33 ETS 127.82 ZAE 86.99 ETE 202.63 ZAC 156.63 ETC 236.41 CLP 142.90
PLANETOCENTRIC CONIC
C3 268.902 VHL 16.398 DLA -82.40 RAL 222.34 RAD 6571.6 VEL 19.754 PTH 3.12 VHP 21.853 DPA 65.55 RAP 236.65 ECC 5.4254

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
8.64	0 55 21	2355.18	6.86	84.58	131.40	172.35	1 34 36	1755.2	14.79	83.90
171.36	12 20 37	5839.09	6.86	258.26	131.43	172.35	13 57 56	5239.1	14.79	257.58
8.64	0 55 21	2355.18	6.86	84.58	131.40	172.35	1 34 36	1755.2	14.79	83.90
171.36	12 20 37	5839.09	6.86	258.26	131.43	172.35	13 57 56	5239.1	14.79	257.58
8.64	0 55 21	2355.18	6.86	84.58	131.40	172.35	1 34 36	1755.2	14.79	83.90
171.36	12 20 37	5839.09	6.86	258.26	131.43	172.35	13 57 56	5239.1	14.79	257.58

DIFFERENTIAL CORRECTIONS
TDE-4.2755 TRA -.3724 TC3 -.0244 BAU .1660
RDE-5.1359 RRA -.8214 RC3 .0392 FAU -.00328
FDE-1.4117 FRA -.1390 FC3 -.0106 BSP 10248
BDE 6.6826 BRA .9019 BC3 .0462 FSP -171

MID-COURSE EXECUTION ACCURACY
SGT 1790.7 SGR 2819.3 SG3 53.2
RRT .9521 RRF .9662 RTF .9983
SGB 3340.0 R23 -.1708 R13 .9849
SG1 3307.2 SG2 466.8 THA 58.13

ORBIT DETERMINATION ACCURACY
ST 1522.8 SR 1909.0 SS 954.3
CRT .9883 CRS -.9918 CST -.9997
LSA 2614.7 MSA 192.0 SSA .9
EL1 2435.2 EL2 182.0 ALF 51.50

LAUNCH DATE OCT 15 1970 FLIGHT TIME 126.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 382.316

```
RL  149.17 LAL   -.00 LOL  21.22 VL  27.585 GAL  -9.64 AZL 108.61 HCA 187.89 SHA 130.31 ECC .21994 INC18.6133 V1  29.871
RP  108.05 LAP   2.51 LOP 208.71 VP  37.923 GAP   8.08 AZP  71.55 TAL 219.92 TAP  47.81 RCA 101.65 APO 158.97 V2  35.074
RC 132.627 GL  -56.20 GP   69.01 ZAL 113.26 ZAP 110.99 ETS  82.27 ZAE  98.87 ETE 159.54 ZAC 161.18 ETC 224.82 CLP-179.52
```

PLANETOCENTRIC CONIC

```
C3 109.118 VHL 10.446 DLA -74.70 RAL 210.95 RAD 6570.1 VEL 15.181 PTH   2.73 VHP 14.236 DPA  52.63 RAP 244.77 ECC 2.7958
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
17.44	0 27 18	2190.65	16.63	77.15	116.25	164.02	1 3 49	1590.6	24.30	75.15
162.56	11 17 49	5699.96	16.63	259.43	116.28	164.02	12 52 49	5100.0	24.31	257.44
17.44	0 27 18	2190.65	16.63	77.15	116.25	164.02	1 3 49	1590.6	24.30	75.15
162.56	11 17 49	5699.96	16.63	259.43	116.28	164.02	12 52 49	5100.0	24.31	257.44
17.44	0 27 18	2190.65	16.63	77.15	116.25	164.02	1 3 49	1590.6	24.30	75.15
162.56	11 17 49	5699.96	16.63	259.43	116.28	164.02	12 52 49	5100.0	24.31	257.44

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.9901 TRA-1.3066 TC3 -.3873 BAU  .5652   SGT 3414.2 SGR  847.2 SG3   65.8    ST  1854.3 SR   264.1 SS   617.7
RDE  .1379 RRA -.4057 RC3 -.0112 FAU .01635   RRT  .8044 RRF  .6457 RTF  .9713    CRT  .1936 CRS -.0313 CST -.9867
FDE -.8685 FRA -.2546 FC3 -.1297 BSP  10885   SGB 3517.7 RZS -.2562 RIS  .9643    LSA 1952.7 MSA  276.8 SSA    1.8
BDE 2.9933 BRA 1.4447 BC3  .3875 FSP   -217   SG1 3482.9 SG2  493.4 THA  11.52    EL1 1855.0 EL2  259.0 ALF   1.61
```

LAUNCH DATE OCT 15 1970 FLIGHT TIME 128.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 387.991

```
RL  149.17 LAL   -.00 LOL  21.22 VL  27.505 GAL  -9.29 AZL 102.62 HCA 190.96 SHA 129.75 ECC .21877 INC12.6216 V1  29.871
RP  108.09 LAP   2.38 LOP 211.92 VP  37.853 GAP   8.24 AZP  77.60 TAL 218.24 TAP  49.20 RCA 101.36 APO 158.13 V2  35.061
RC 134.850 GL  -48.79 GP   60.96 ZAL 120.03 ZAP 118.29 ETS  69.45 ZAE 106.60 ETE 149.99 ZAC 157.70 ETC 238.01 CLP-167.45
```

PLANETOCENTRIC CONIC

```
C3  62.164 VHL  7.884 DLA -67.10 RAL 216.84 RAD 6569.2 VEL 13.547 PTH   2.48 VHP 10.959 DPA  42.42 RAP 246.36 ECC 2.0231
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.24	1 9 29	2040.80	23.74	67.06	116.12	154.84	1 43 30	1440.8	30.93	63.52
153.76	11 22 30	5595.22	23.75	258.52	116.14	154.84	12 55 54	4995.2	30.94	254.99
26.24	1 9 29	2040.80	23.74	67.06	116.12	154.84	1 43 30	1440.8	30.93	63.52
153.76	11 22 30	5595.22	23.75	258.52	116.14	154.84	12 55 54	4995.2	30.94	254.99
26.24	1 9 29	2040.80	23.74	67.06	116.12	154.84	1 43 30	1440.8	30.93	63.52
153.76	11 22 30	5595.22	23.75	258.52	116.14	154.84	12 55 54	4995.2	30.94	254.99

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-2.1082 TRA-1.5500 TC3 -.9119 BAU  .7615   SGT 3602.2 SGR  460.5 SG3   81.5    ST  1812.9 SR   359.4 SS   569.5
RDE  .4824 RRA -.1408 RC3  .0897 FAU .02428   RRT -.0000 RRF -.3296 RTF  .9384    CRT -.7512 CRS  .8859 CST -.9717
FDE -.7993 FRA -.2768 FC3 -.3581 BSP  11283   SGB 3631.5 RZS  .3296 RIS -.9384    LSA 1916.0 MSA  262.8 SSA    2.8
BDE 2.2417 BRA 1.5564 BC3  .9163 FSP   -269   SG1 3602.2 SG2  460.5 THA 180.00    EL1 1833.3 EL2  234.6 ALF 171.39
```

LAUNCH DATE OCT 15 1970 FLIGHT TIME 130.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 393.721

```
RL  149.17 LAL   -.00 LOL  21.22 VL  27.426 GAL  -8.94 AZL  99.25 HCA 194.08 SHA 129.20 ECC .21790 INC 9.2469 V1  29.871
RP  108.13 LAP   2.24 LOP 215.13 VP  37.783 GAP   8.42 AZP  81.03 TAL 216.57 TAP  50.66 RCA 101.05 APO 157.35 V2  35.047
RC 137.063 GL  -41.63 GP   53.49 ZAL 125.13 ZAP 124.77 ETS  84.34 ZAE 112.15 ETE 148.72 ZAC 152.20 ETC 246.61 CLP-163.43
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PLANETOCENTRIC CONIC

```
C3  42.949 VHL  6.554 DLA -60.37 RAL 222.63 RAD 6568.6 VEL 12.819 PTH   2.33 VHP  9.290 DPA  34.02 RAP 247.10 ECC 1.7068
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
34.16	1 51 16	1918.61	27.56	56.33	115.35	146.11	2 23 14	1318.6	34.10	51.37
145.84	11 27 2	5534.05	27.57	256.91	115.37	146.10	12 59 16	4934.0	34.11	251.94
34.16	1 51 16	1918.61	27.56	56.33	115.35	146.11	2 23 14	1318.6	34.10	51.37
145.84	11 27 2	5534.05	27.57	256.91	115.37	146.10	12 59 16	4934.0	34.11	251.94
34.16	1 51 16	1918.61	27.56	56.33	115.35	146.11	2 23 14	1318.6	34.10	51.37
145.84	11 27 2	5534.05	27.57	256.91	115.37	146.10	12 59 16	4934.0	34.11	251.94

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.7426 TRA-1.5600 TC3-1.4683 BAU  .8500   SGT 3692.7 SGR  475.2 SG3   96.6    ST  1734.8 SR   392.9 SS   524.7
RDE  .4478 RRA -.0608 RC3  .1883 FAU .03010   RRT -.4415 RRF -.7468 RTF  .9128    CRT -.8365 CRS  .9568 CST -.9596
FDE -.7304 FRA -.2596 FC3 -.6067 BSP  11542   SGB 3723.1 RZS  .3771 RIS -.9153    LSA 1837.8 MSA  248.5 SSA    3.9
BDE 1.7993 BRA 1.5612 BC3 1.4804 FSP   -317   SG1 3698.7 SG2  425.6 THA 176.70    EL1 1766.1 EL2  211.5 ALF 169.11
```

LAUNCH DATE OCT 15 1970 FLIGHT TIME 132.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 399.471

```
RL  149.17 LAL   -.00 LOL  21.22 VL  27.348 GAL  -8.60 AZL  97.09 HCA 197.24 SHA 128.66 ECC .21723 INC 7.0851 V1  29.871
RP  108.17 LAP   2.09 LOP 218.34 VP  37.714 GAP   8.60 AZP  83.23 TAL 214.90 TAP  52.14 RCA 100.71 APO 156.61 V2  35.034
RC 139.266 GL  -35.33 GP   47.11 ZAL 128.59 ZAP 130.35 ETS  61.36 ZAE 116.22 ETE 149.81 ZAC 146.85 ETC 251.42 CLP-162.05
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PLANETOCENTRIC CONIC

```
C3  33.259 VHL  5.767 DLA -54.63 RAL 227.51 RAD 6568.3 VEL 12.435 PTH   2.25 VHP  8.349 DPA  27.04 RAP 247.86 ECC 1.5474
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.11	2 29 14	1817.37	29.05	46.15	114.27	138.53	2 59 32	1217.4	34.90	40.12
138.89	11 27 58	5506.17	29.07	255.70	114.28	138.53	12 59 44	4906.2	34.91	249.67
41.11	2 29 14	1817.37	29.05	46.15	114.27	138.53	2 59 32	1217.4	34.90	40.12
138.89	11 27 58	5506.17	29.07	255.70	114.28	138.53	12 59 44	4906.2	34.91	249.67
41.11	2 29 14	1817.37	29.05	46.15	114.27	138.53	2 59 32	1217.4	34.90	40.12
138.89	11 27 58	5506.17	29.07	255.70	114.28	138.53	12 59 44	4906.2	34.91	249.67

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.4312 TRA-1.5328 TC3-2.0154 BAU  .9035   SGT 3787.7 SGR  486.3 SG3  109.9    ST  1627.8 SR   378.9 SS   470.7
RDE  .3008 RRA -.0350 RC3  .2597 FAU .03434   RRT -.5842 RRF -.8543 RTF  .8942    CRT -.8502 CRS  .9748 CST -.9459
FDE -.6459 FRA -.2218 FC3 -.8938 BSP  11881   SGB 3818.8 RZS  .4019 RIS -.8974    LSA 1719.8 MSA  238.8 SSA    5.5
BDE 1.4010 BRA 1.5332 BC3 2.0320 FSP   -360   SG1 3798.4 SG2  393.6 THA 175.66    EL1 1659.8 EL2  195.6 ALF 168.65
```

LAUNCH DATE OCT 15 1970 FLIGHT TIME 134.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 405.227

```
RL  149.17 LAL   -.00 LOL  21.22 VL  27.271 GAL  -8.25 AZL  95.58 HCA 200.41 SMA 128.14 ECC .21673 INC 5.5777 V1  29.871
RP  108.21 LAP   1.94 LOP 221.54 VP  37.646 GAP   8.79 AZP  84.77 TAL 213.21 TAP  53.62 RCA 100.37 APO 155.91 V2  35.021
RC 141.459 GL  -29.94 GP   41.77 ZAL 130.61 ZAP 135.09 ETS  59.21 ZAE 119.22 ETE 151.65 ZAC 142.18 ETC 254.38 CLP-161.73
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PLANETOCENTRIC CONIC

```
C3  27.622 VHL  5.256 DLA -49.80 RAL 231.74 RAD 6568.1 VEL 12.206 PTH   2.19 VHP  7.786 DPA  21.20 RAP 248.82 ECC 1.4546
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.16	3 4 27	1729.38	29.21	36.94	113.52	132.31	3 33 16	1129.4	34.41	30.19
132.84	11 26 30	5501.02	29.23	255.34	113.53	132.30	12 58 11	4901.0	34.42	248.59
47.16	3 4 27	1729.38	29.21	36.94	113.52	132.31	3 33 16	1129.4	34.41	30.19
132.84	11 26 30	5501.02	29.23	255.34	113.53	132.30	12 58 11	4901.0	34.42	248.59
47.16	3 4 27	1729.38	29.21	36.94	113.52	132.31	3 33 16	1129.4	34.41	30.19
132.84	11 26 30	5501.02	29.23	255.34	113.53	132.30	12 58 11	4901.0	34.42	248.59

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.1831 TRA-1.4746 TC3-2.5137 BAU  .9349   SGT 3853.2 SGR  475.1 SG3  119.1     ST  1492.7 SR   351.6 SS   405.4
RDE  .3221 RRA -.0304 RC3  .3005 FAU .03678   RRT -.6335 RRF -.8824 RTF  .8771     CRT -.8425 CRS  .9830 CST -.9263
FDE -.5466 FRA -.1635 FC3-1.1527 BSP  11911   SGB 3882.4 R23  .4158 R13 -.8802     LSA 1569.2 MSA  232.0 SSA    7.4
BDE 1.2262 BRA 1.4749 BC3 2.5316 FSP   -376   SG1 3865.1 SG2  366.5 THA 175.49     EL1 1522.3 EL2  185.8 ALF 168.60
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LAUNCH DATE OCT 15 1970 FLIGHT TIME 136.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 410.981

```
RL  149.17 LAL   -.00 LOL  21.22 VL  27.194 GAL  -7.90 AZL  94.46 HCA 203.58 SMA 127.63 ECC .21639 INC 4.4620 V1  29.871
RP  108.25 LAP   1.78 LOP 224.74 VP  37.579 GAP   8.97 AZP  85.91 TAL 211.52 TAP  55.10 RCA 100.01 APO 155.25 V2  35.008
RC 143.643 GL  -25.33 GP   37.31 ZAL 131.48 ZAP 139.12 ETS  57.50 ZAE 121.44 ETE 153.68 ZAC 138.21 ETC 256.40 CLP-161.92
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PLANETOCENTRIC CONIC

```
C3  23.985 VHL  4.897 DLA -45.73 RAL 235.56 RAD 6568.0 VEL 12.057 PTH   2.16 VHP  7.440 DPA  16.30 RAP 249.98 ECC 1.3947
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
52.46	3 38 3	1649.02	28.69	28.64	113.30	127.28	4 5 32	1049.0	33.32	21.44
127.54	11 23 23	5511.61	28.70	255.86	113.31	127.27	12 55 14	4911.6	33.33	248.66
52.46	3 38 3	1649.02	28.69	28.64	113.30	127.28	4 5 32	1049.0	33.32	21.44
127.54	11 23 23	5511.61	28.70	255.86	113.31	127.27	12 55 14	4911.6	33.33	248.66
52.46	3 38 3	1649.02	28.69	28.64	113.30	127.28	4 5 32	1049.0	33.32	21.44
127.54	11 23 23	5511.61	28.70	255.86	113.31	127.27	12 55 14	4911.6	33.33	248.66

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE-1.0082 TRA-1.4220 TC3-3.0016 BAU  .9683   SGT 3962.0 SGR  466.8 SG3  128.1     ST  1376.1 SR   333.3 SS   350.3
RDE  .2846 RRA -.0261 RC3  .3311 FAU .03869   RRT -.6701 RRF -.8887 RTF  .8692     CRT -.8324 CRS  .9886 CST -.9040
FDE -.4620 FRA -.1130 FC3-1.3966 BSP  12375   SGB 3989.4 R23  .4066 R13 -.8720     LSA 1440.7 MSA  227.3 SSA    9.8
BDE 1.0418 BRA 1.4222 BC3 3.0198 FSP   -411   SG1 3974.4 SG2  345.4 THA 175.45     EL1 1404.2 EL2  181.0 ALF 168.40
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LAUNCH DATE OCT 15 1970 FLIGHT TIME 138.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 416.731

```
RL  149.17 LAL   -.00 LOL  21.22 VL  27.119 GAL  -7.54 AZL  93.60 HCA 206.76 SMA 127.13 ECC .21619 INC 3.5988 V1  29.871
RP  108.29 LAP   1.62 LOP 227.94 VP  37.512 GAP   9.16 AZP  86.79 TAL 209.81 TAP  56.57 RCA  99.65 APO 154.61 V2  34.995
RC 145.816 GL  -21.37 GP   33.60 ZAL 131.43 ZAP 142.54 ETS  56.09 ZAE 123.09 ETE 155.66 ZAC 134.88 ETC 257.90 CLP-162.36
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PLANETOCENTRIC CONIC

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C3  21.447 VHL  4.631 DLA -42.27 RAL 239.14 RAD 6567.9 VEL 11.951 PTH   2.13 VHP  7.225 DPA  12.16 RAP 251.34 ECC 1.3530
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
57.20	4 10 56	1572.54	27.82	21.04	113.62	123.20	4 37 9	972.5	31.98	13.56
122.80	11 19 3	5533.72	27.84	257.17	113.63	123.19	12 51 17	4933.7	31.99	249.70
57.20	4 10 56	1572.54	27.82	21.04	113.62	123.20	4 37 9	972.5	31.98	13.56
122.80	11 19 3	5533.72	27.84	257.17	113.63	123.19	12 51 17	4933.7	31.99	249.70
57.20	4 10 56	1572.54	27.82	21.04	113.62	123.20	4 37 9	972.5	31.98	13.56
122.80	11 19 3	5533.72	27.84	257.17	113.63	123.19	12 51 17	4933.7	31.99	249.70

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.8515 TRA-1.3556 TC3-3.4540 BAU  .9954   SGT 4059.7 SGR  455.7 SG3  134.5     ST  1257.5 SR   319.4 SS   295.6
RDE  .2578 RRA -.0259 RC3  .3482 FAU .03960   RRT -.6863 RRF -.8789 RTF  .8626     CRT -.8170 CRS  .9928 CST -.8727
FDE -.3803 FRA -.0578 FC3-1.5983 BSP  12733   SGB 4085.2 R23  .3890 R13 -.8651     LSA 1311.6 MSA  224.1 SSA   12.7
BDE  .8897 BRA 1.3559 BC3 3.4715 FSP   -433   SG1 4071.8 SG2  330.4 THA 175.57     EL1 1284.9 EL2  180.3 ALF 168.04
```

LAUNCH DATE OCT 15 1970 FLIGHT TIME 140.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 422.475

```
RL  149.17 LAL   -.00 LOL  21.22 VL  27.045 GAL  -7.17 AZL  92.91 HCA 209.94 SMA 126.64 ECC .21613 INC 2.9074 V1  29.871
RP  108.33 LAP   1.45 LOP 231.14 VP  37.446 GAP   9.34 AZP  87.48 TAL 208.09 TAP  58.04 RCA  99.27 APO 154.01 V2  34.982
RC 147.979 GL  -17.92 GP   30.48 ZAL 130.66 ZAP 145.48 ETS  54.92 ZAE 124.33 ETE 157.50 ZAC 132.07 ETC 259.10 CLP-162.95
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PLANETOCENTRIC CONIC

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C3  19.568 VHL  4.424 DLA -39.29 RAL 242.58 RAD 6567.8 VEL 11.872 PTH   2.11 VHP  7.095 DPA   8.64 RAP 252.86 ECC 1.3220
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.54	4 43 57	1496.87	26.82	13.86	114.41	119.86	5 8 54	896.9	30.57	6.22
118.46	11 13 33	5565.55	26.83	259.20	114.42	119.85	12 46 18	4965.6	30.58	251.56
61.54	4 43 57	1496.87	26.82	13.86	114.41	119.86	5 8 54	896.9	30.57	6.22
118.46	11 13 33	5565.55	26.83	259.20	114.42	119.85	12 46 18	4965.6	30.58	251.56
61.54	4 43 57	1496.87	26.82	13.86	114.41	119.86	5 8 54	896.9	30.57	6.22
118.46	11 13 33	5565.55	26.83	259.20	114.42	119.85	12 46 18	4965.6	30.58	251.56

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.7236 TRA-1.2785 TC3-3.8784 BAU 1.0189   SGT 4150.9 SGR  445.7 SG3  138.8     ST  1140.6 SR   310.7 SS   243.7
RDE  .2395 RRA -.0275 RC3  .3579 FAU .03979   RRT -.6913 RRF -.8596 RTF  .8575     CRT -.7983 CRS  .9951 CST -.8276
FDE -.3049 FRA -.0015 FC3-1.7606 BSP  13043   SGB 4174.8 R23  .3642 R13 -.8597     LSA 1186.3 MSA  222.4 SSA   16.1
BDE  .7622 BRA 1.2788 BC3 3.8948 FSP   -447   SG1 4162.4 SG2  321.2 THA 175.73     EL1 1168.0 EL2  182.8 ALF 167.42
```

LAUNCH DATE OCT 15 1970 FLIGHT TIME 142.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 428.212

```
RL  149.17 LAL   -.00 LOL  21.22 VL  26.972 GAL  -6.79 AZL  92.34 HCA 213.13 SMA 126.17 ECC .21623 INC 2.3381 V1  29.871
RP  108.37 LAP   1.28 LOP 234.33 VP  37.381 GAP   9.53 AZP  88.04 TAL 206.36 TAP  59.49 RCA  98.89 APO 153.45 V2  34.969
RC 150.132 GL  -14.88 GP   27.84 ZAL 129.33 ZAP 148.03 ETS  53.97 ZAE 125.28 ETE 159.15 ZAC 129.71 ETC 260.11 CLP-163.61
```

PLANETOCENTRIC CONIC

```
C3  18.117 VHL  4.256 DLA -36.68 RAL 245.97 RAD 6567.7 VEL 11.811 PTH   2.09 VHP  7.022 DPA   5.62 RAP 254.53 ECC 1.2982
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.64	5 17 59	1419.16	25.76	6.83	115.59	117.08	5 41 38	819.2	29.17	359.09
114.36	11 6 32	5606.99	25.77	261.97	115.59	117.07	12 39 59	5007.0	29.18	254.22
65.64	5 17 59	1419.16	25.76	6.83	115.59	117.08	5 41 38	819.2	29.17	359.09
114.36	11 6 32	5606.99	25.77	261.97	115.59	117.07	12 39 59	5007.0	29.18	254.22
65.64	5 17 59	1419.16	25.76	6.83	115.59	117.08	5 41 38	819.2	29.17	359.09
114.36	11 6 32	5606.99	25.77	261.97	115.59	117.07	12 39 59	5007.0	29.18	254.22

DIFFERENTIAL CORRECTIONS

```
TDE -.6202 TRA-1.2008 TC3-4.2972 BAU 1.0446
RDE  .2289 RRA -.0283 RC3  .3675 FAU .03978
FDE -.2427 FRA  .0473 FC3-1.9011 BSP  13523
BDE  .6611 BRA 1.2011 BC3 4.3129 FSP   -469
```

MID-COURSE EXECUTION ACCURACY

```
SGT 4259.3 SGR  441.7 SG3  142.8
RRT -.6941 RRF -.8365 RTF  .8569
SGB 4282.1 R23  .3312 R13 -.8587
SG1 4270.4 SG2  317.1 THA 175.86
```

ORBIT DETERMINATION ACCURACY

```
ST  1036.7 SR   308.6 SS   200.9
CRT -.7804 CRS  .9928 CST -.7681
LSA 1077.2 MSA  222.4 SSA   20.0
EL1 1065.2 EL2  187.8 ALF 166.49
```

LAUNCH DATE OCT 15 1970 FLIGHT TIME 144.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 433.941

```
RL  149.17 LAL   -.00 LOL  21.22 VL  26.900 GAL  -6.41 AZL  91.86 HCA 216.31 SMA 125.70 ECC .21647 INC 1.8586 V1  29.871
RP  108.41 LAP   1.10 LOP 237.52 VP  37.318 GAP   9.71 AZP  88.50 TAL 204.62 TAP  60.93 RCA  98.49 APO 152.92 V2  34.956
RC 152.275 GL  -12.15 GP   25.60 ZAL 127.54 ZAP 150.26 ETS  53.23 ZAE 126.01 ETE 160.63 ZAC 127.69 ETC 261.01 CLP-164.32
```

PLANETOCENTRIC CONIC

```
C3  16.960 VHL  4.118 DLA -34.36 RAL 249.34 RAD 6567.7 VEL 11.762 PTH   2.08 VHP  6.989 DPA   3.02 RAP 256.31 ECC 1.2791
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.67	5 54 4	1336.04	24.68	359.65	117.10	114.71	6 16 20	736.0	27.79	351.85
110.33	10 57 22	5659.53	24.69	265.56	117.11	114.69	12 31 41	5059.5	27.81	257.76
69.67	5 54 4	1336.04	24.68	359.65	117.10	114.71	6 16 20	736.0	27.79	351.85
110.33	10 57 22	5659.53	24.69	265.56	117.11	114.69	12 31 41	5059.5	27.81	257.76
69.67	5 54 4	1336.04	24.68	359.65	117.10	114.71	6 16 20	736.0	27.79	351.85
110.33	10 57 22	5659.53	24.69	265.56	117.11	114.69	12 31 41	5059.5	27.81	257.76

DIFFERENTIAL CORRECTIONS

```
TDE -.5134 TRA-1.0992 TC3-4.6631 BAU 1.0606
RDE  .2192 RRA -.0334 RC3  .3677 FAU .03883
FDE -.1746 FRA  .1071 FC3-1.9823 BSP  13617
BDE  .5582 BRA 1.0997 BC3 4.8776 FSP   -460
```

MID-COURSE EXECUTION ACCURACY

```
SGT 4323.7 SGR  433.5 SG3  143.5
RRT -.6812 RRF -.8040 RTF  .8511
SGB 4345.4 R23  .3021 R13 -.8526
SG1 4333.8 SG2  316.6 THA 176.07
```

ORBIT DETERMINATION ACCURACY

```
ST   912.3 SR   305.6 SS   153.1
CRT -.7514 CRS  .9733 CST -.6441
LSA  948.0 MSA  223.2 SSA   25.0
EL1  942.1 EL2  195.2 ALF 165.22
```

LAUNCH DATE OCT 15 1970 FLIGHT TIME 146.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 439.661

```
RL  149.17 LAL   -.00 LOL  21.22 VL  26.829 GAL  -6.01 AZL  91.45 HCA 219.49 SMA 125.25 ECC .21687 INC 1.4468 V1  29.871
RP  108.45 LAP    .92 LOP 240.70 VP  37.255 GAP   9.90 AZP  88.88 TAL 202.87 TAP  62.36 RCA  98.09 APO 152.42 V2  34.943
RC 154.408 GL   -9.69 GP   23.67 ZAL 125.39 ZAP 152.24 ETS  52.68 ZAE 126.59 ETE 161.93 ZAC 125.96 ETC 261.83 CLP-165.06
```

PLANETOCENTRIC CONIC

```
C3  16.024 VHL  4.003 DLA -32.25 RAL 252.74 RAD 6567.6 VEL 11.722 PTH   2.07 VHP  6.986 DPA    .76 RAP 258.21 ECC 1.2637
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.88	6 34 5	1241.52	23.59	351.83	118.91	112.65	6 54 46	641.5	26.45	344.00
106.12	10 44 25	5728.07	23.61	270.33	118.92	112.64	12 19 53	5128.1	26.46	262.50
73.88	6 34 5	1241.52	23.59	351.83	118.91	112.65	6 54 46	641.5	26.45	344.00
106.12	10 44 25	5728.07	23.61	270.33	118.92	112.64	12 19 53	5128.1	26.46	262.50
110.00	9 42 14	632.54	16.51	303.44	115.16	120.37	9 52 46	32.5	20.42	296.50
110.00	12 35 26	5385.04	31.10	246.80	121.79	104.96	14 5 11	4785.0	32.84	238.01

DIFFERENTIAL CORRECTIONS

```
TDE -.4217 TRA -.9969 TC3-5.0258 BAU 1.0796
RDE  .2140 RRA -.0377 RC3  .3709 FAU .03793
FDE -.1184 FRA  .1585 FC3-2.0492 BSP  13877
BDE  .4729 BRA  .9976 BC3 5.0395 FSP   -462
```

MID-COURSE EXECUTION ACCURACY

```
SGT 4404.7 SGR  431.3 SG3  144.4
RRT -.6696 RRF -.7717 RTF  .8493
SGB 4425.7 R23  .2693 R13 -.8506
SG1 4414.2 SG2  319.7 THA 176.23
```

ORBIT DETERMINATION ACCURACY

```
ST   796.9 SR   307.0 SS   117.1
CRT -.7204 CRS  .9050 CST -.4368
LSA  831.2 MSA  226.3 SSA   30.8
EL1  829.1 EL2  204.6 ALF 163.45
```

LAUNCH DATE OCT 15 1970 FLIGHT TIME 148.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 445.370

```
RL  149.17 LAL   -.00 LOL  21.22 VL  26.760 GAL  -5.61 AZL  91.09 HCA 222.67 SMA 124.81 ECC .21742 INC 1.0873 V1  29.871
RP  108.49 LAP    .74 LOP 243.89 VP  37.193 GAP  10.09 AZP  89.20 TAL 201.11 TAP  63.77 RCA  97.68 APO 151.95 V2  34.931
RC 156.530 GL   -7.43 GP   22.01 ZAL 122.92 ZAP 154.00 ETS  52.33 ZAE 127.05 ETE 163.08 ZAC 124.47 ETC 262.60 CLP-165.80
```

PLANETOCENTRIC CONIC

```
C3  15.261 VHL  3.907 DLA -30.30 RAL 256.17 RAD 6567.6 VEL 11.690 PTH   2.06 VHP  7.006 DPA  -1.21 RAP 260.20 ECC 1.2512
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
78.74	7 22 2	1122.58	22.51	342.38	121.00	110.84	7 40 45	522.6	25.14	334.54
101.26	10 23 50	5824.95	22.52	277.17	121.00	110.83	12 0 55	5225.0	25.15	269.32
78.74	7 22 2	1122.58	22.51	342.38	121.00	110.84	7 40 45	522.6	25.14	334.54
101.26	10 23 50	5824.95	22.52	277.17	121.00	110.83	12 0 55	5225.0	25.15	269.32
110.00	9 20 19	737.15	12.82	309.31	115.96	121.96	9 32 36	137.1	16.95	302.63
110.00	13 24 44	5258.38	32.95	237.39	124.21	99.68	14 52 22	4658.4	33.93	228.29

DIFFERENTIAL CORRECTIONS

```
TDE -.3350 TRA -.8872 TC3-5.3693 BAU 1.0981
RDE  .2108 RRA -.0428 RC3  .3741 FAU .03687
FDE -.0879 FRA  .2074 FC3-2.0917 BSP  14150
BDE  .3966 BRA  .8883 BC3 5.3823 FSP   -463
```

MID-COURSE EXECUTION ACCURACY

```
SGT 4484.7 SGR  431.6 SG3  144.7
RRT -.6555 RRF -.7387 RTF  .8486
SGB 4505.4 R23  .2377 R13 -.8497
SG1 4493.7 SG2  325.3 THA 176.37
```

ORBIT DETERMINATION ACCURACY

```
ST   680.4 SR   310.1 SS    92.8
CRT -.6805 CRS  .7053 CST -.0712
LSA  716.1 MSA  231.5 SSA   37.9
EL1  715.9 EL2  216.0 ALF 160.97
```

LAUNCH DATE OCT 15 1970 FLIGHT TIME 150.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 451.069

```
RL  149.17 LAL   -.00 LOL  21.22 VL  26.691 GAL  -5.20 AZL  90.77 HCA 225.85 SMA 124.38 ECC .21815 INC  .7689 V1  29.871
RP  108.53 LAP    .55 LOP 247.07 VP  37.132 GAP  10.28 AZP  89.46 TAL 199.33 TAP  65.18 RCA  97.25 APO 151.52 V2  34.919
RC 158.641 GL   -5.35 GP   20.57 ZAL 120.20 ZAP 155.58 ETS  52.15 ZAE 127.42 ETE 164.09 ZAC 123.17 ETC 263.34 CLP-166.55
```

PLANETOCENTRIC CONIC

```
C3  14.642 VHL  3.827 DLA -28.47 RAL 259.65 RAD 6567.6 VEL 11.663 PTH   2.05 VHP  7.044 DPA  -2.93 RAP 262.27 ECC 1.2410
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
86.97	8 41 23	903.00	21.41	325.74	123.33	109.22	8 56 26	303.0	23.83	317.90
93.03	9 32 18	737.99	21.42	313.67	123.33	109.21	9 44 36	138.0	23.84	305.83
100.00	9 10 45	807.67	15.75	316.31	120.86	115.74	9 24 12	207.7	19.08	309.11
100.00	11 45 38	5596.59	27.30	261.79	125.18	102.67	13 18 54	4996.6	28.77	253.30
110.00	9 8 42	814.10	10.01	313.50	117.56	122.86	9 22 16	214.1	14.27	306.98
110.00	14 4 10	5162.93	33.80	230.08	126.38	95.43	15 30 13	4562.9	34.18	220.85

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.2533 TRA -.7704 TC3-5.6908 BAU 1.1165   SGT 4564.4 SGR  433.9 SG3  144.6     ST   562.1 SR   314.2 SS    86.6
RDE  .2091 RRA -.0486 RC3  .3772 FAU .03572   RRT -.6400 RRF -.7062 RTF  .8490    CRT -.6235 CRS  .3121 CST  .4027
FDE -.0220 FRA  .2537 FC3-2.1122 BSP  14432   SGB 4585.0 R23  .2081 R13 -.8500    LSA  602.2 MSA  239.5 SSA   46.8
BDE  .3285 BRA  .7719 BC3 5.7033 FSP   -464   SG1 4572.9 SG2  332.7 THA 176.50    EL1  601.6 EL2  229.5 ALF 157.30
```

LAUNCH DATE OCT 15 1970 FLIGHT TIME 152.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 456.757

```
RL  149.17 LAL   -.00 LOL  21.22 VL  26.623 GAL  -4.77 AZL  90.48 HCA 229.02 SMA 123.96 ECC .21904 INC  .4831 V1  29.871
RP  108.56 LAP    .37 LOP 250.25 VP  37.073 GAP  10.47 AZP  89.68 TAL 197.55 TAP  66.57 RCA  96.81 APO 151.12 V2  34.907
RC 160.740 GL   -3.41 GP   19.32 ZAL 117.25 ZAP 157.01 ETS  52.16 ZAE 127.73 ETE 164.98 ZAC 122.02 ETC 264.05 CLP-167.30
```

PLANETOCENTRIC CONIC

```
C3  14.151 VHL  3.762 DLA -26.71 RAL 263.20 RAD 6567.6 VEL 11.642 PTH   2.04 VHP  7.096 DPA  -4.43 RAP 264.41 ECC 1.2329
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 57 23	1086.67	14.50	336.23	123.55	114.59	8 15 29	486.7	17.70	329.01
90.00	10 44 36	5827.24	26.31	278.52	127.57	100.86	12 21 43	5227.2	27.55	270.07
100.00	8 46 59	926.47	12.12	323.26	122.35	117.54	9 2 25	326.5	15.71	316.31
100.00	12 37 41	5462.67	28.93	252.18	128.05	97.86	14 8 44	4862.7	29.72	243.46
110.00	9 2 15	878.49	7.61	316.94	119.66	123.43	9 16 54	278.5	11.96	310.54
110.00	14 38 54	5083.41	34.14	223.89	128.57	91.78	16 3 37	4483.4	34.01	214.65

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.1708 TRA -.6450 TC3-5.9799 BAU 1.1336   SGT 4638.8 SGR  437.0 SG3  143.9     ST   441.3 SR   318.6 SS    99.9
RDE  .2082 RRA -.0554 RC3  .3794 FAU .03446   RRT -.6229 RRF -.6741 RTF  .8499    CRT -.5286 CRS -.1004 CST  .7245
FDE  .0206 FRA  .2984 FC3-2.1082 BSP  14695   SGB 4659.3 R23  .1814 R13 -.8507    LSA  489.5 MSA  251.3 SSA   58.5
BDE  .2693 BRA  .6473 BC3 5.9920 FSP   -463   SG1 4646.8 SG2  341.3 THA 176.62    EL1  485.6 EL2  245.7 ALF 151.05
```

LAUNCH DATE OCT 15 1970 FLIGHT TIME 154.00 ARRIVAL DATE MAR 18 1971

HELIOCENTRIC CONIC DISTANCE 462.432

```
RL  149.17 LAL   -.00 LOL  21.22 VL  26.557 GAL  -4.34 AZL  90.22 HCA 232.20 SMA 123.55 ECC .22012 INC  .2239 V1  29.871
RP  108.60 LAP    .18 LOP 253.43 VP  37.014 GAP  10.67 AZP  89.86 TAL 195.76 TAP  67.96 RCA  96.36 APO 150.75 V2  34.896
RC 162.826 GL   -1.60 GP   18.21 ZAL 114.11 ZAP 158.32 ETS  52.35 ZAE 128.00 ETE 165.77 ZAC 121.00 ETC 264.75 CLP-168.04
```

PLANETOCENTRIC CONIC

```
C3  13.776 VHL  3.712 DLA -25.01 RAL 266.81 RAD 6567.5 VEL 11.626 PTH   2.04 VHP  7.161 DPA  -5.75 RAP 266.61 ECC 1.2267
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 35 36	1203.13	11.10	343.08	125.43	116.22	7 55 39	603.1	14.53	336.09
90.00	11 35 8	5699.00	27.63	269.37	130.55	96.46	13 10 7	5099.0	28.24	260.75
100.00	8 34 6	1014.27	9.31	328.26	124.49	118.53	8 51 0	414.3	13.05	321.47
100.00	13 19 20	5363.08	29.64	244.86	130.76	94.08	14 48 43	4763.1	29.89	236.07
110.00	8 59 1	936.13	5.44	319.99	122.13	123.80	9 14 37	336.1	9.84	313.67
110.00	15 10 54	5013.99	34.16	218.47	130.88	88.58	16 34 28	4414.0	33.58	209.28

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE -.0867 TRA -.5114 TC3-6.2343 BAU 1.1504   SGT 4711.1 SGR  441.0 SG3  143.0     ST   324.8 SR   322.7 SS   125.9
RDE  .2079 RRA -.0632 RC3  .3807 FAU .03315   RRT -.6051 RRF -.6434 RTF  .8514    CRT -.3407 CRS -.3666 CST  .7826
FDE  .0608 FRA  .3415 FC3-2.0833 BSP  14959   SGB 4731.7 R23  .1574 R13 -.8521    LSA  385.9 MSA  266.5 SSA   74.0
BDE  .2253 BRA  .5152 BC3 6.2459 FSP   -462   SG1 4718.7 SG2  350.5 THA 176.74    EL1  374.9 EL2  262.9 ALF 135.54
```

LAUNCH DATE OCT 15 1970 FLIGHT TIME 156.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 468.094

```
RL  149.17 LAL   -.00 LOL  21.22 VL  26.491 GAL  -3.89 AZL  89.99 HCA 235.38 SMA 123.16 ECC .22139 INC  .0000 V1  29.871
RP  108.63 LAP   -.01 LOP 256.60 VP  36.957 GAP  10.88 AZP  90.01 TAL 193.96 TAP  69.33 RCA  95.89 APO 150.42 V2  34.885
RC 164.900 GL     .10 GP   17.23 ZAL 110.80 ZAP 159.53 ETS  52.72 ZAE 128.22 ETE 166.47 ZAC 120.08 ETC 265.45 CLP-168.78
```

PLANETOCENTRIC CONIC

```
C3  13.514 VHL  3.676 DLA -23.35 RAL 270.47 RAD 6567.5 VEL 11.615 PTH   2.04 VHP  7.236 DPA  -6.91 RAP 268.87 ECC 1.2224
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 23 17	1292.61	8.36	348.23	127.87	117.15	7 44 49	692.6	11.94	341.38
90.00	12 16 40	5601.11	28.18	262.26	133.44	92.94	13 50 1	5001.1	28.29	253.60
100.00	8 26 25	1088.84	6.86	332.44	127.05	119.17	8 44 33	488.8	10.69	325.76
100.00	13 56 13	5280.12	29.88	238.71	133.51	90.85	15 24 13	4680.1	29.68	229.91
110.00	8 57 56	989.98	3.39	322.81	124.92	124.03	9 14 26	390.0	7.84	316.55
110.00	15 41 11	4951.74	33.95	213.62	133.36	85.71	17 3 43	4351.7	32.98	204.52

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .0006 TRA -.3689 TC3-6.4434 BAU 1.1662   SGT 4778.6 SGR  445.2 SG3  141.7     ST   235.6 SR   326.5 SS   157.8
RDE  .2081 RRA -.0718 RC3  .3803 FAU .03179   RRT -.5866 RRF -.6139 RTF  .8533    CRT  .0776 CRS -.5133 CST  .5070
FDE  .0985 FRA  .3833 FC3-2.0366 BSP  15193   SGB 4799.3 R23  .1365 R13 -.8539    LSA  338.2 MSA  252.7 SSA   93.4
BDE  .2081 BRA  .3759 BC3 6.4546 FSP   -458   SG1 4785.8 SG2  360.0 THA 176.85    EL1  327.5 EL2  234.1 ALF  83.42
```

LAUNCH DATE OCT 15 1970 FLIGHT TIME 158.00 ARRIVAL DATE MAR 22 1971

HELIOCENTRIC CONIC DISTANCE 473.743

```
RL  149.17 LAL   -.00 LOL  21.22 VL  26.426 GAL  -3.43 AZL  89.77 HCA 238.55 SMA 122.77 ECC .22286 INC  .2332 V1  29.871
RP  108.66 LAP   -.20 LOP 259.77 VP  36.901 GAP  11.08 AZP  90.12 TAL 192.15 TAP  70.70 RCA  95.41 APO 150.13 V2  34.874
RC 166.961 GL    1.69 GP   16.37 ZAL 107.34 ZAP 160.64 ETS  53.26 ZAE 128.42 ETE 167.09 ZAC 119.24 ETC 266.13 CLP-169.51
PLANETOCENTRIC CONIC
C3  13.362 VHL  3.655 DLA -21.70 RAL 274.17 RAD 6567.5 VEL 11.608 PTH   2.03 VHP  7.323 DPA  -7.91 RAP 271.18 ECC 1.2199
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 15 40	1370.05	5.93	352.62	130.67	117.74	7 38 30	770.0	9.60	345.86
90.00	12 53 51	5518.76	28.32	256.24	136.40	89.92	14 25 49	4918.8	28.01	247.59
100.00	8 21 52	1156.43	4.60	336.19	129.94	119.57	8 41 8	556.4	8.50	329.58
100.00	14 30 20	5207.62	29.83	233.32	136.37	88.01	15 57 8	4607.6	29.24	224.57
110.00	8 58 26	1041.81	1.41	325.52	127.96	124.16	9 15 47	441.8	5.89	319.29
110.00	16 10 16	4895.00	33.57	209.24	136.03	83.14	17 31 51	4295.0	32.26	200.25

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .0962 TRA -.2138 TC3-6.5896 BAU 1.1791   SGT 4833.4 SGR  448.6 SG3  139.9   ST   235.2 SR   328.9 SS   194.8
RDE  .2081 RRA -.0818 RC3  .3765 FAU .03029   RRT -.5661 RRF -.5837 RTF  .8540   CRT  .6783 CRS -.6018 CST -.2119
FDE  .1374 FRA  .4265 FC3-1.9622 BSP  15330   SGB 4854.2 RZS  .1182 RIS -.8545   LSA  391.3 MSA  188.7 SSA  112.9
BDE  .2292 BRA  .2289 BC3 6.6004 FSP   -450   SG1 4840.1 SG2  369.3 THA 176.98   EL1  374.8 EL2  151.7 ALF  58.36
```

LAUNCH DATE OCT 15 1970 FLIGHT TIME 160.00 ARRIVAL DATE MAR 24 1971

HELIOCENTRIC CONIC DISTANCE 479.376

```
RL  149.17 LAL   -.00 LOL  21.22 VL  26.363 GAL  -2.96 AZL  89.56 HCA 241.72 SMA 122.39 ECC .22455 INC  .4387 V1  29.871
RP  108.69 LAP   -.39 LOP 262.94 VP  36.846 GAP  11.30 AZP  90.21 TAL 190.33 TAP  72.05 RCA  94.91 APO 149.87 V2  34.864
RC 169.007 GL    3.17 GP   15.60 ZAL 103.77 ZAP 161.66 ETS  53.99 ZAE 128.60 ETE 167.64 ZAC 118.48 ETC 266.81 CLP-170.23
PLANETOCENTRIC CONIC
C3  13.323 VHL  3.650 DLA -20.07 RAL 277.91 RAD 6567.5 VEL 11.606 PTH   2.03 VHP  7.419 DPA  -8.79 RAP 273.53 ECC 1.2193
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 10 58	1441.01	3.67	356.61	133.78	118.10	7 34 59	841.0	7.40	349.91
90.00	13 28 22	5446.52	28.20	250.96	139.47	87.28	14 59 8	4846.5	27.52	242.36
100.00	8 19 25	1220.09	2.45	339.70	133.10	119.80	8 39 45	620.1	6.40	333.14
100.00	15 2 36	5142.67	29.58	228.51	139.37	85.49	16 28 18	4542.7	28.64	219.83
110.00	9 0 4	1092.71	-.53	328.18	131.24	124.18	9 18 17	492.7	3.96	321.97
110.00	16 38 86	4842.81	33.07	205.24	138.88	80.83	17 59 9	4242.8	31.46	196.39

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .1932 TRA -.0532 TC3-6.6881 BAU 1.1931   SGT 4882.6 SGR  452.5 SG3  138.1   ST   337.9 SR   331.3 SS   230.5
RDE  .2089 RRA -.0921 RC3  .3715 FAU .02887   RRT -.5469 RRF -.5567 RTF  .8565   CRT  .8890 CRS -.6504 CST -.6727
FDE  .1722 FRA  .4663 FC3-1.8760 BSP  15535   SGB 4913.5 RZS  .1020 RIS -.8569   LSA  489.4 MSA  158.9 SSA  111.1
BDE  .2846 BRA  .1064 BC3 6.6984 FSP   -445   SG1 4898.9 SG2  378.4 THA 177.09   EL1  459.9 EL2  111.4 ALF  44.36
```

LAUNCH DATE OCT 15 1970 FLIGHT TIME 162.00 ARRIVAL DATE MAR 26 1971

HELIOCENTRIC CONIC DISTANCE 484.993

```
RL  149.17 LAL   -.00 LOL  21.22 VL  26.301 GAL  -2.47 AZL  89.57 HCA 244.89 SMA 122.02 ECC .22646 INC  .6322 V1  29.871
RP  108.72 LAP   -.57 LOP 266.11 VP  36.792 GAP  11.52 AZP  90.27 TAL 188.51 TAP  73.40 RCA  94.39 APO 149.65 V2  34.855
RC 171.039 GL    4.54 GP   14.91 ZAL 100.10 ZAP 162.61 ETS  54.91 ZAE 128.77 ETE 168.14 ZAC 117.77 ETC 267.48 CLP-170.94
PLANETOCENTRIC CONIC
C3  13.399 VHL  3.661 DLA -18.45 RAL 281.66 RAD 6567.5 VEL 11.610 PTH   2.03 VHP  7.524 DPA  -9.53 RAP 275.91 ECC 1.2205
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 8 14	1508.22	1.50	.36	137.13	118.28	7 33 22	908.2	5.27	353.71
90.00	14 1 2	5381.80	27.90	246.25	142.68	84.94	15 30 44	4781.8	26.90	237.72
100.00	8 18 29	1281.51	.57	343.07	136.50	119.89	8 39 51	681.5	4.34	336.54
100.00	15 33 28	5083.74	29.19	224.17	142.53	83.24	16 58 12	4483.7	27.95	215.59
110.00	9 2 35	1143.37	-2.47	330.82	134.73	124.10	9 21 38	543.4	2.02	324.62
110.00	17 5 52	4794.64	32.49	201.61	141.92	78.75	18 25 47	4194.6	30.60	192.90

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .2963 TRA  .1166 TC3-6.7232 BAU 1.2061   SGT 4947.7 SGR  456.1 SG3  136.2   ST   490.1 SR   332.9 SS   266.3
RDE  .2101 RRA -.1031 RC3  .3637 FAU .02745   RRT -.5277 RRF -.5308 RTF  .8591   CRT  .9095 CRS -.6808 CST -.8445
FDE  .2058 FRA  .5054 FC3-1.7735 BSP  15723   SGB 4968.6 RZS  .0879 RIS -.8595   LSA  622.2 MSA  165.6 SSA   86.4
BDE  .3633 BRA  .1556 BC3 6.7331 FSP   -439   SG1 4953.5 SG2  387.0 THA 177.20   EL1  580.9 EL2  116.8 ALF  33.22
```

LAUNCH DATE OCT 15 1970 FLIGHT TIME 164.00 ARRIVAL DATE MAR 28 1971

HELIOCENTRIC CONIC DISTANCE 490.590

```
RL  149.17 LAL   -.00 LOL  21.22 VL  26.239 GAL  -1.97 AZL  89.18 HCA 248.06 SMA 121.66 ECC .22862 INC  .8158 V1  29.871
RP  108.75 LAP   -.76 LOP 269.28 VP  36.739 GAP  11.75 AZP  90.31 TAL 186.68 TAP  74.74 RCA  93.84 APO 149.47 V2  34.846
RC 173.056 GL    5.81 GP   14.29 ZAL  96.38 ZAP 163.50 ETS  56.02 ZAE 128.92 ETE 168.58 ZAC 117.10 ETC 268.16 CLP-171.65
PLANETOCENTRIC CONIC
C3  13.598 VHL  3.688 DLA -16.84 RAL 285.41 RAD 6567.5 VEL 11.618 PTH   2.04 VHP  7.639 DPA -10.16 RAP 278.33 ECC 1.2238
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 6 55	1573.20	-.59	3.99	140.69	118.31	7 33 8	973.2	3.19	357.36
90.00	14 32 15	5323.23	27.47	242.02	146.03	82.86	16 0 58	4723.2	26.20	233.58
100.00	8 18 40	1341.68	-1.67	346.37	140.10	119.85	8 41 2	741.7	2.31	339.85
100.00	16 3 11	5029.97	28.69	220.25	145.84	81.24	17 27 1	4430.0	27.18	211.77
110.00	9 5 45	1194.21	-4.41	333.48	138.39	123.93	9 25 39	594.2	.08	327.27
110.00	17 32 36	4750.22	31.85	198.30	145.13	76.89	18 51 46	4150.2	29.72	189.74

```
DIFFERENTIAL CORRECTIONS                MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE  .3931 TRA  .2827 TC3-6.7300 BAU 1.2252   SGT 5021.9 SGR  461.1 SG3  134.5   ST   643.6 SR   335.6 SS   294.3
RDE  .2130 RRA -.1135 RC3  .3566 FAU .02638   RRT -.5129 RRF -.5118 RTF  .8659   CRT  .8951 CRS -.6963 CST -.9096
FDE  .2313 FRA  .5366 FC3-1.6795 BSP  16203   SGB 5043.0 RZS  .0756 RIS -.8661   LSA  760.4 MSA  174.7 SSA   68.3
BDE  .4471 BRA  .3047 BC3 6.7394 FSP   -449   SG1 5027.5 SG2  395.4 THA 177.29   EL1  713.2 EL2  135.0 ALF  26.03
```

LAUNCH DATE OCT 15 1970 FLIGHT TIME 166.00 ARRIVAL DATE MAR 30 1971

HELIOCENTRIC CONIC DISTANCE 496.171

```
RL  149.17 LAL   -.00 LOL  21.22 VL  26.179 GAL  -1.45 AZL  89.01 HCA 251.23 SMA 121.30 ECC .23103 INC  .9914 V1  29.871
RP  108.78 LAP   -.94 LOP 272.45 VP  36.688 GAP  11.99 AZP  90.32 TAL 184.84 TAP  76.07 RCA  93.28 APO 149.33 V2  34.837
RC 175.059 GL    6.97 GP   13.73 ZAL  92.62 ZAP 164.32 ETS  57.33 ZAE 129.07 ETE 168.98 ZAC 116.47 ETC 268.83 CLP-172.36
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PLANETOCENTRIC CONIC

```
C3  13.926 VHL  3.732 DLA -15.25 RAL 289.14 RAD 6567.5 VEL 11.632 PTH   2.04 VHP  7.764 DPA -10.69 RAP 280.77 ECC 1.2292
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 6 40	1636.82	-2.65	7.54	144.45	118.20	7 33 57	1036.8	1.15	.91
90.00	15 2 14	5270.03	26.96	238.21	149.51	81.01	16 30 5	4670.0	25.45	229.87
100.00	8 19 42	1401.19	-3.68	349.64	143.87	119.69	8 43 3	801.2	.30	343.11
100.00	16 31 54	4980.89	28.13	216.71	149.29	79.46	17 54 55	4380.9	26.39	208.34
110.00	9 9 25	1245.44	-6.35	336.18	142.22	123.66	9 30 10	645.4	-1.88	329.94
110.00	17 58 40	4709.41	31.19	195.31	148.50	75.23	19 17 9	4109.4	28.84	186.89

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .5175 TRA  .4804 TC3-6.6053 BAU 1.2314   SGT 5051.6 SGR  461.9 SG3  132.0     ST   840.2 SR   334.9 SS   332.7
 RDE  .2145 RRA -.1264 RC3  .3399 FAU .02470   RRT -.4897 RRF -.4837 RTF  .8660     CRT  .8768 CRS -.7112 CST -.9467
 FDE  .2672 FRA  .5795 FC3-1.5357 BSP  16144   SGB 5072.7 R23  .0652 R13 -.8663     LSA  944.7 MSA  183.0 SSA   53.7
 BDE  .5602 BRA  .4968 BC3 6.6140 FSP   -431   SG1 5056.7 SG2  402.3 THA 177.42     EL1  891.7 EL2  151.7 ALF  19.87
```

LAUNCH DATE OCT 15 1970 FLIGHT TIME 168.00 ARRIVAL DATE APR 1 1971

HELIOCENTRIC CONIC DISTANCE 501.728

```
RL  149.17 LAL   -.00 LOL  21.22 VL  26.119 GAL   -.92 AZL  88.84 HCA 254.39 SMA 120.96 ECC .23372 INC 1.1602 V1  29.871
RP  108.80 LAP  -1.12 LOP 275.61 VP  36.638 GAP  12.24 AZP  90.31 TAL 183.00 TAP  77.40 RCA  92.69 APO 149.23 V2  34.829
RC 177.047 GL    8.01 GP   13.23 ZAL  88.87 ZAP 165.09 ETS  58.85 ZAE 129.20 ETE 169.35 ZAC 115.87 ETC 269.49 CLP-173.05
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PLANETOCENTRIC CONIC

```
C3  14.393 VHL  3.794 DLA -13.68 RAL 292.82 RAD 6567.6 VEL 11.652 PTH   2.05 VHP  7.898 DPA -11.12 RAP 283.24 ECC 1.2369
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 7 13	1699.56	-4.66	11.05	148.36	117.96	7 35 32	1099.6	-.88	4.41
90.00	15 31 5	5221.84	26.41	234.79	153.12	79.39	16 58 6	4621.8	24.67	226.55
100.00	8 21 22	1460.32	-5.67	352.91	147.81	119.40	8 45 42	860.3	-1.71	346.36
100.00	16 59 37	4936.31	27.54	213.53	152.87	77.88	18 21 53	4336.3	25.59	205.27
110.00	9 13 28	1297.15	-8.29	338.92	146.20	123.28	9 35 5	697.2	-3.85	332.64
110.00	18 24 0	4672.24	30.51	192.62	152.01	73.78	19 41 53	4072.2	27.99	184.34

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .6413 TRA  .6797 TC3-6.4431 BAU 1.2413   SGT 5094.5 SGR  463.2 SG3  129.8     ST  1029.6 SR   334.6 SS   365.8
 RDE  .2173 RRA -.1389 RC3  .3233 FAU .02332   RRT -.4702 RRF -.4602 RTF  .8695     CRT  .8600 CRS -.7202 CST -.9654
 FDE  .2986 FRA  .6171 FC3-1.4030 BSP  16277   SGB 5115.6 R23  .0553 R13 -.8697     LSA 1126.1 MSA  188.8 SSA   44.3
 BDE  .6771 BRA  .6937 BC3 6.4512 FSP   -425   SG1 5099.2 SG2  408.4 THA 177.54     EL1 1070.0 EL2  164.3 ALF  16.00
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LAUNCH DATE OCT 15 1970 FLIGHT TIME 170.00 ARRIVAL DATE APR 3 1971

HELIOCENTRIC CONIC DISTANCE 507.261

```
RL  149.17 LAL   -.00 LOL  21.22 VL  26.061 GAL   -.36 AZL  88.68 HCA 257.56 SMA 120.63 ECC .23671 INC 1.3239 V1  29.871
RP  108.83 LAP  -1.29 LOP 278.78 VP  36.590 GAP  12.51 AZP  90.29 TAL 181.16 TAP  78.72 RCA  92.07 APO 149.18 V2  34.822
RC 179.021 GL    8.94 GP   12.77 ZAL  85.14 ZAP 165.80 ETS  60.59 ZAE 129.33 ETE 169.67 ZAC 115.30 ETC 270.15 CLP-173.74
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PLANETOCENTRIC CONIC

```
C3  15.011 VHL  3.874 DLA -12.13 RAL 296.44 RAD 6567.6 VEL 11.679 PTH   2.05 VHP  8.044 DPA -11.46 RAP 285.72 ECC 1.2470
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 8 23	1761.67	-6.63	14.55	152.41	117.59	7 37 45	1161.7	-2.88	7.88
90.00	15 58 47	5178.46	25.83	231.74	156.85	77.97	17 25 6	4578.5	23.91	223.60
100.00	8 23 32	1519.23	-7.63	356.19	151.87	118.99	8 48 51	919.2	-3.70	349.60
100.00	17 26 20	4896.13	26.93	210.70	156.57	76.51	18 47 56	4296.1	24.81	202.54
110.00	9 17 47	1349.33	-10.22	341.72	150.30	122.80	9 40 16	749.3	-5.83	335.39
110.00	18 48 34	4638.80	29.85	190.24	155.65	72.51	20 5 53	4038.8	27.17	182.08

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .7680 TRA  .8870 TC3-6.2242 BAU 1.2506   SGT 5133.5 SGR  464.0 SG3  127.3     ST  1213.7 SR   334.8 SS   393.5
 RDE  .2215 RRA -.1514 RC3  .3042 FAU .02197   RRT -.4501 RRF -.4385 RTF  .8736     CRT  .8451 CRS -.7238 CST -.9757
 FDE  .3256 FRA  .6529 FC3-1.2672 BSP  16432   SGB 5154.4 R23  .0479 R13 -.8737     LSA 1304.2 MSA  193.9 SSA   37.5
 BDE  .7993 BRA  .8999 BC3 6.2317 FSP   -420   SG1 5137.7 SG2  414.0 THA 177.66     EL1 1246.9 EL2  174.2 ALF  13.39
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LAUNCH DATE OCT 15 1970 FLIGHT TIME 172.00 ARRIVAL DATE APR 5 1971

HELIOCENTRIC CONIC DISTANCE 512.767

```
RL  149.17 LAL   -.00 LOL  21.22 VL  26.003 GAL    .22 AZL  88.52 HCA 260.72 SMA 120.30 ECC .24003 INC 1.4836 V1  29.871
RP  108.85 LAP  -1.46 LOP 281.94 VP  36.542 GAP  12.79 AZP  90.24 TAL 179.32 TAP  80.04 RCA  91.42 APO 149.17 V2  34.815
RC 180.980 GL    9.75 GP   12.36 ZAL  81.46 ZAP 166.46 ETS  62.55 ZAE 129.45 ETE 169.97 ZAC 114.74 ETC 270.81 CLP-174.43
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PLANETOCENTRIC CONIC

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C3  15.795 VHL  3.974 DLA -10.63 RAL 299.98 RAD 6567.6 VEL 11.712 PTH   2.06 VHP  8.201 DPA -11.71 RAP 288.21 ECC 1.2599
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 10 2	1823.26	-8.56	18.05	156.58	117.10	7 40 25	1223.3	-4.85	11.33
90.00	16 25 23	5139.79	25.25	229.06	160.67	76.74	17 51 3	4539.8	23.17	221.00
100.00	8 26 4	1577.94	-9.55	359.49	156.05	118.46	8 52 22	977.9	-5.67	352.84
100.00	17 52 1	4860.35	26.34	208.21	160.37	75.32	19 13 2	4260.3	24.06	200.15
110.00	9 22 17	1401.89	-12.15	344.58	154.50	122.20	9 45 39	801.9	-7.81	338.17
110.00	19 12 18	4609.16	29.22	188.16	159.39	71.42	20 29 7	4009.2	26.41	180.11

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE  .9061 TRA 1.1059 TC3-5.9553 BAU 1.2590   SGT 5171.5 SGR  463.0 SG3  125.1     ST  1401.2 SR   333.4 SS   424.8
 RDE  .2257 RRA -.1643 RC3  .2824 FAU .02057   RRT -.4295 RRF -.4141 RTF  .8761     CRT  .8325 CRS -.7290 CST -.9831
 FDE  .3579 FRA  .6910 FC3-1.1275 BSP  16502   SGB 5192.2 R23  .0391 R13 -.8762     LSA 1488.3 MSA  196.9 SSA   32.7
 BDE  .9338 BRA 1.1180 BC3 5.9619 FSP   -407   SG1 5175.4 SG2  417.8 THA 177.78     EL1 1428.8 EL2  181.1 ALF  11.39
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LAUNCH DATE OCT 15 1970 FLIGHT TIME 174.00 ARRIVAL DATE APR 7 1971

HELIOCENTRIC CONIC DISTANCE 518.243

```
RL  149.17 LAL   -.00 LOL  21.22 VL  25.947 GAL    .81 AZL  88.36 HCA 263.88 SMA 119.98 ECC .24369 INC 1.6404 V1  29.871
RP  108.87 LAP  -1.63 LOP 285.10 VP  36.496 GAP  13.08 AZP  90.18 TAL 177.47 TAP  81.36 RCA  90.74 APO 149.22 V2  34.809
RC 182.925 GL   10.45 GP   11.99 ZAL  77.86 ZAP 167.07 ETS  64.75 ZAE 129.57 ETE 170.25 ZAC 114.20 ETC 271.46 CLP-175.11
PLANETOCENTRIC CONIC
C3  16.761 VHL  4.094 DLA  -9.18 RAL 303.42 RAD 6567.7 VEL 11.753 PTH   2.07 VHP  8.370 DPA -11.88 RAP 290.71 ECC 1.2758
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 12 3	1884.34	-10.43	21.56	160.85	116.48	7 43 27	1284.3	-6.79	14.77
90.00	16 50 50	5105.79	24.70	226.72	164.57	75.69	18 15 55	4505.8	22.49	218.75
100.00	8 28 54	1636.40	-11.42	2.81	160.33	117.81	8 56 11	1036.4	-7.61	356.09
100.00	18 16 39	4828.96	25.78	206.04	164.25	74.32	19 37 8	4229.0	23.38	198.07
110.00	9 26 55	1454.71	-14.05	347.49	158.80	121.49	9 51 10	854.7	-9.78	341.00
110.00	19 35 7	4583.42	28.65	186.37	163.22	70.51	20 51 31	3983.4	25.73	178.42

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.0436 TRA 1.3344 TC3-5.6434 BAU 1.2659   SGT 5202.3 SGR  482.0 SG3  122.6     ST  1573.0 SR   333.2 SS   448.1
RDE  .2319 RRA -.1770 RC3  .2595 FAU .01926   RRT -.4009 RRF -.3932 RTF  .8800    CRT  .8211 CRS -.7294 CST -.9872
FDE  .3832 FRA  .7276 FC3 -.9948 BSP  16679   SGB 5222.7 RZS  .0340 R13 -.8801   LSA 1656.8 MSA  200.4 SSA   28.9
BDE 1.0690 BRA 1.3461 BC3 5.6493 FSP   -404   SG1 5205.7 SG2  421.3 THA 177.91   EL1 1596.9 EL2  187.3 ALF   10.01
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LAUNCH DATE OCT 15 1970 FLIGHT TIME 176.00 ARRIVAL DATE APR 9 1971

HELIOCENTRIC CONIC DISTANCE 523.684

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RL  149.17 LAL   -.00 LOL  21.22 VL  25.891 GAL   1.44 AZL  88.20 HCA 267.04 SMA 119.67 ECC .24773 INC 1.7953 V1  29.871
RP  108.88 LAP  -1.79 LOP 288.27 VP  36.452 GAP  13.40 AZP  90.09 TAL 175.63 TAP  82.67 RCA  90.02 APO 149.31 V2  34.804
RC 184.854 GL   11.04 GP   11.64 ZAL  74.37 ZAP 167.63 ETS  67.21 ZAE 129.68 ETE 170.50 ZAC 113.66 ETC 272.10 CLP-175.80
PLANETOCENTRIC CONIC
C3  17.929 VHL  4.234 DLA  -7.79 RAL 306.75 RAD 6567.7 VEL 11.803 PTH   2.09 VHP  8.552 DPA -11.97 RAP 293.22 ECC 1.2951
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 14 22	1944.85	-12.24	25.08	165.20	115.73	7 46 46	1344.8	-8.68	18.21
90.00	17 15 6	5076.46	24.19	224.72	168.53	74.81	18 39 42	4476.5	21.87	216.82
100.00	8 31 57	1694.53	-13.25	6.16	164.69	117.04	9 0 12	1094.5	-9.52	359.36
100.00	18 40 11	4802.01	25.27	204.20	168.19	73.47	20 0 13	4202.0	22.76	196.30
110.00	9 31 38	1507.66	-15.91	350.47	163.18	120.66	9 56 46	907.7	-11.72	343.86
110.00	19 57 0	4561.65	28.15	184.88	167.12	69.75	21 13 1	3961.6	25.13	177.00

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.1797 TRA 1.5641 TC3-5.3238 BAU 1.2774   SGT 5238.1 SGR  480.4 SG3  120.2     ST  1725.5 SR   333.3 SS   466.6
RDE  .2395 RRA -.1888 RC3  .2374 FAU .01821   RRT -.3897 RRF -.3742 RTF  .8857    CRT  .8121 CRS -.7301 CST -.9901
FDE  .4055 FRA  .7603 FC3 -.8794 BSP  17053   SGB 5258.3 RZS  .0290 R13 -.8858   LSA 1806.7 MSA  203.0 SSA   25.9
BDE 1.2038 BRA 1.5755 BC3 5.3291 FSP   -408   SG1 5241.2 SG2  423.7 THA 178.03   EL1 1746.8 EL2  192.1 ALF    9.03
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LAUNCH DATE OCT 15 1970 FLIGHT TIME 178.00 ARRIVAL DATE APR 11 1971

HELIOCENTRIC CONIC DISTANCE 529.089

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RL  149.17 LAL   -.00 LOL  21.22 VL  25.837 GAL   2.09 AZL  88.05 HCA 270.20 SMA 119.36 ECC .25219 INC 1.9492 V1  29.871
RP  108.90 LAP  -1.95 LOP 291.43 VP  36.408 GAP  13.73 AZP  89.99 TAL 173.79 TAP  83.99 RCA  89.26 APO 149.46 V2  34.799
RC 186.768 GL   11.52 GP   11.33 ZAL  70.98 ZAP 168.14 ETS  69.92 ZAE 129.79 ETE 170.73 ZAC 113.13 ETC 272.74 CLP-176.48
PLANETOCENTRIC CONIC
C3  19.323 VHL  4.396 DLA  -6.46 RAL 309.97 RAD 6567.8 VEL 11.862 PTH   2.10 VHP  8.749 DPA -11.99 RAP 295.73 ECC 1.3180
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 16 54	2004.75	-13.99	28.61	169.63	114.87	7 50 19	1404.8	-10.52	21.65
90.00	17 38 11	5051.71	23.74	223.05	172.54	74.09	19 2 23	4451.7	21.33	215.21
100.00	8 35 10	1752.26	-15.01	9.54	169.12	118.16	9 4 22	1152.3	-11.37	2.64
100.00	19 2 36	4779.43	24.82	202.67	172.19	72.79	20 22 16	4179.4	22.23	194.83
110.00	9 36 23	1560.60	-17.72	353.50	167.62	119.72	10 2 24	960.6	-13.63	346.78
110.00	20 17 53	4543.86	27.72	183.67	171.07	69.15	21 33 37	3943.9	24.64	175.86

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.3402 TRA 1.8247 TC3-4.9388 BAU 1.2770   SGT 5256.7 SGR  458.5 SG3  117.9     ST  1893.1 SR   331.9 SS   490.7
RDE  .2473 RRA -.2013 RC3  .2120 FAU .01679   RRT -.3661 RRF -.3499 RTF  .8888    CRT  .8042 CRS -.7319 CST -.9924
FDE  .4351 FRA  .8010 FC3 -.7525 BSP  16960   SGB 5276.5 RZS  .0240 R13 -.8889   LSA 1973.0 MSA  204.4 SSA   23.5
BDE 1.3628 BRA 1.8358 BC3 4.9434 FSP   -394   SG1 5259.4 SG2  424.5 THA 178.17   EL1 1912.1 EL2  195.3 ALF    8.11
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LAUNCH DATE OCT 15 1970 FLIGHT TIME 180.00 ARRIVAL DATE APR 13 1971

HELIOCENTRIC CONIC DISTANCE 534.450

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RL  149.17 LAL   -.00 LOL  21.22 VL  25.783 GAL   2.76 AZL  87.90 HCA 273.36 SMA 119.07 ECC .25709 INC 2.1032 V1  29.871
RP  108.91 LAP  -2.10 LOP 294.59 VP  36.366 GAP  14.09 AZP  89.88 TAL 171.95 TAP  85.32 RCA  88.45 APO 149.68 V2  34.795
RC 188.667 GL   11.91 GP   11.05 ZAL  67.73 ZAP 168.59 ETS  72.90 ZAE 129.89 ETE 170.94 ZAC 112.61 ETC 273.37 CLP-177.16
PLANETOCENTRIC CONIC
C3  20.970 VHL  4.579 DLA  -5.20 RAL 313.05 RAD 6567.9 VEL 11.931 PTH   2.12 VHP  8.962 DPA -11.94 RAP 298.23 ECC 1.3451
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 19 36	2063.95	-15.65	32.16	174.10	113.90	7 54 0	1463.9	-12.29	25.10
90.00	18 0 5	5031.50	23.35	221.69	176.59	73.52	19 23 56	4431.5	20.87	213.90
100.00	8 38 30	1809.45	-16.69	12.95	173.61	115.16	9 8 39	1209.5	-13.17	5.94
100.00	19 23 53	4761.22	24.45	201.45	176.22	72.25	20 43 14	4161.2	21.79	193.66
110.00	9 41 8	1613.38	-19.47	356.59	172.12	118.67	10 8 1	1013.4	-15.50	349.73
110.00	20 37 44	4530.06	27.39	182.74	175.06	68.70	21 53 14	3930.1	24.24	174.98

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.4998 TRA 2.0807 TC3-4.5570 BAU 1.2786   SGT 5276.2 SGR  452.0 SG3  115.7     ST  2038.8 SR   331.1 SS   510.0
RDE  .2567 RRA -.2129 RC3  .1879 FAU .01556   RRT -.3430 RRF -.3270 RTF  .8932    CRT  .7981 CRS -.7335 CST -.9940
FDE  .4615 FRA  .8307 FC3 -.8422 BSP  17012   SGB 5295.5 RZS  .0199 R13 -.8932   LSA 2117.5 MSA  205.5 SSA   21.6
BDE 1.5213 BRA 2.1015 BC3 4.5608 FSP   -386   SG1 5278.5 SG2  424.4 THA 178.31   EL1 2056.0 EL2  197.8 ALF    7.45
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LAUNCH DATE OCT 15 1970 FLIGHT TIME 182.00 ARRIVAL DATE APR 15 1971

HELIOCENTRIC CONIC DISTANCE 539.759

RL	149.17	LAL	-.00	LOL	21.22	VL	25.730	GAL	3.47	AZL	87.74	HCA	276.52	SMA	118.78	ECC	.26250	INC	2.2581
RP	108.92	LAP	-2.24	LOP	297.75	VP	36.326	GAP	14.47	AZP	89.74	TAL	170.13	TAP	86.65	RCA	87.60	APO	149.96
RC	190.549	GL	12.21	GP	10.79	ZAL	64.62	ZAP	169.00	ETS	76.15	ZAE	129.98	ETE	171.14	ZAC	112.09	ETC	273.98

PLANETOCENTRIC CONIC

C3	22.903	VHL	4.786	DLA	-4.01	RAL	316.00	RAD	6567.9	VEL	12.012	PTH	2.14	VHP	9.192	DPA	-11.82	RAP	300.73

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 22 27	2122.35	-17.23	35.73	178.62	112.83	7 57 49	1522.3	-13.99	28.55
90.00	18 20 46	5015.73	23.05	220.64	180.65	73.07	19 44 22	4415.7	20.51	212.89
100.00	8 41 54	1866.02	-18.30	16.39	178.13	114.06	9 13 0	1266.0	-14.90	9.25
100.00	19 43 59	4747.29	24.16	200.52	180.27	71.84	21 3 7	4147.3	21.45	192.77
110.00	9 45 50	1665.87	-21.16	359.73	176.67	117.50	10 13 36	1065.9	-17.31	352.72
110.00	20 56 33	4520.20	27.14	182.08	179.07	68.37	22 11 53	3920.2	23.96	174.36

DIFFERENTIAL CORRECTIONS

TDE	1.6495	TRA	2.3548	TC3	-4.1982	BAU	1.2865
RDE	.2683	RRA	-.2229	RC3	.1658	FAU	.01462
FDE	.4821	FRA	.8737	FC3	-.5528	BSP	17437
BDE	1.6711	BRA	2.3653	BC3	4.2015	FSP	-390

MID-COURSE EXECUTION ACCURACY

SGT	5294.7	SGR	447.1	SG3	113.1		
RRT	-.3209	RRF	-.3062	RTF	.8990		
SGB	5313.5	R23	.0167	R13	-.8991		
SG1	5296.7	SG2	423.3	THA	178.44		

ORBIT DETERMINATION ACCURACY

ST	2152.5	SR	331.1	SS	522.2		
CRT	.7937	CRS	-.7352	CST	-.9951		
LSA	2229.9	MSA	206.5	SSA	19.9		
EL1	2168.6	EL2	199.9	ALF	7.02		

LAUNCH DATE OCT 15 1970 FLIGHT TIME 184.00 ARRIVAL DATE APR 17 1971

HELIOCENTRIC CONIC DISTANCE 545.014

RL	149.17	LAL	-.00	LOL	21.22	VL	25.678	GAL	4.22	AZL	87.58	HCA	279.68	SMA	118.49	ECC	.26846	INC	2.4150
RP	108.93	LAP	-2.38	LOP	300.91	VP	36.286	GAP	14.88	AZP	89.59	TAL	168.31	TAP	87.99	RCA	86.68	APO	150.30
RC	192.414	GL	12.42	GP	10.56	ZAL	61.65	ZAP	169.34	ETS	79.67	ZAE	130.06	ETE	171.33	ZAC	111.57	ETC	274.59

PLANETOCENTRIC CONIC

C3	25.162	VHL	5.016	DLA	-2.91	RAL	318.81	RAD	6568.0	VEL	12.105	PTH	2.17	VHP	9.442	DPA	-11.63	RAP	303.22

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 25 23	2179.92	-18.71	39.30	183.17	111.65	8 1 43	1579.9	-15.61	32.00
90.00	18 40 16	5004.24	22.82	219.88	184.73	72.76	20 3 41	4404.2	20.24	212.15
100.00	8 45 22	1921.90	-19.81	19.85	182.69	112.85	9 17 24	1321.9	-16.55	12.58
100.00	20 2 58	4737.49	23.95	199.86	184.34	71.56	21 21 56	4137.5	21.21	192.14
110.00	9 50 30	1718.00	-22.76	2.93	181.25	116.22	10 19 8	1118.0	-19.05	355.76
110.00	21 14 20	4514.16	26.99	181.67	183.10	68.18	22 29 34	3914.2	23.78	173.98

DIFFERENTIAL CORRECTIONS

TDE	1.8328	TRA	2.6607	TC3	-3.7943	BAU	1.2773
RDE	.2799	RRA	-.2334	RC3	.1423	FAU	.01323
FDE	.5127	FRA	.9190	FC3	-.4552	BSP	17180
BDE	1.8540	BRA	2.6709	BC3	3.7970	FSP	-373

MID-COURSE EXECUTION ACCURACY

SGT	5304.0	SGR	440.3	SG3	111.2		
RRT	-.2940	RRF	-.2798	RTF	.9028		
SGB	5322.3	R23	.0133	R13	-.9029		
SG1	5305.6	SG2	420.7	THA	178.59		

ORBIT DETERMINATION ACCURACY

ST	2286.7	SR	329.6	SS	542.7		
CRT	.7903	CRS	-.7384	CST	-.9962		
LSA	2364.2	MSA	206.2	SSA	18.6		
EL1	2301.6	EL2	200.6	ALF	6.55		

LAUNCH DATE OCT 15 1970 FLIGHT TIME 186.00 ARRIVAL DATE APR 19 1971

HELIOCENTRIC CONIC DISTANCE 550.202

RL	149.17	LAL	-.00	LOL	21.22	VL	25.628	GAL	5.01	AZL	87.43	HCA	282.84	SMA	118.22	ECC	.27502	INC	2.5748
RP	108.94	LAP	-2.51	LOP	304.08	VP	36.249	GAP	15.33	AZP	89.43	TAL	166.51	TAP	89.35	RCA	85.71	APO	150.73
RC	194.261	GL	12.57	GP	10.34	ZAL	58.83	ZAP	169.63	ETS	83.44	ZAE	130.13	ETE	171.50	ZAC	111.05	ETC	275.18

PLANETOCENTRIC CONIC

C3	27.792	VHL	5.272	DLA	-1.88	RAL	321.49	RAD	6568.1	VEL	12.213	PTH	2.19	VHP	9.713	DPA	-11.39	RAP	305.69

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 28 23	2236.56	-20.10	42.88	187.74	110.38	8 5 40	1636.6	-17.14	35.45
90.00	18 58 36	4996.89	22.67	219.39	188.81	72.56	20 21 53	4396.9	20.07	211.68
100.00	8 48 51	1976.98	-21.23	23.32	187.27	111.55	9 21 48	1377.0	-18.12	15.91
100.00	20 20 49	4731.70	23.82	199.48	188.40	71.39	21 39 41	4131.7	21.06	191.77
110.00	9 55 6	1769.62	-24.27	6.17	185.86	114.84	10 24 35	1169.6	-20.72	358.83
110.00	21 31 4	4511.82	26.93	181.52	187.13	68.10	22 46 16	3911.8	23.72	173.83

DIFFERENTIAL CORRECTIONS

TDE	2.0081	TRA	2.9678	TC3	-3.4251	BAU	1.2734
RDE	.2936	RRA	-.2419	RC3	.1214	FAU	.01212
FDE	.5384	FRA	.9605	FC3	-.3775	BSP	17250
BDE	2.0295	BRA	2.9777	BC3	3.4272	FSP	-367

MID-COURSE EXECUTION ACCURACY

SGT	5312.2	SGR	432.9	SG3	109.0		
RRT	-.2674	RRF	-.2545	RTF	.9080		
SGB	5329.8	R23	.0107	R13	-.9080		
SG1	5313.5	SG2	417.1	THA	178.74		

ORBIT DETERMINATION ACCURACY

ST	2390.1	SR	328.7	SS	557.1		
CRT	.7886	CRS	-.7420	CST	-.9969		
LSA	2467.5	MSA	205.7	SSA	17.4		
EL1	2404.2	EL2	201.0	ALF	6.23		

LAUNCH DATE OCT 15 1970 FLIGHT TIME 188.00 ARRIVAL DATE APR 21 1971

HELIOCENTRIC CONIC DISTANCE 555.314

RL	149.17	LAL	-.00	LOL	21.22	VL	25.578	GAL	5.84	AZL	87.26	HCA	286.00	SMA	117.95	ECC	.28225	INC	2.7387
RP	108.94	LAP	-2.63	LOP	307.24	VP	36.212	GAP	15.81	AZP	89.24	TAL	164.72	TAP	90.72	RCA	84.66	APO	151.24
RC	196.090	GL	12.64	GP	10.14	ZAL	56.16	ZAP	169.86	ETS	87.47	ZAE	130.19	ETE	171.67	ZAC	110.53	ETC	275.75

PLANETOCENTRIC CONIC

C3	30.851	VHL	5.554	DLA	-.92	RAL	324.02	RAD	6568.2	VEL	12.338	PTH	2.22	VHP	10.009	DPA	-11.09	RAP	308.14

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 31 26	2292.21	-21.37	46.46	192.32	109.03	8 9 38	1692.2	-18.58	38.90
90.00	19 15 47	4993.49	22.60	219.16	192.88	72.47	20 39 0	4393.5	19.99	211.46
100.00	8 52 21	2031.21	-22.55	26.82	191.87	110.16	9 26 12	1431.2	-19.60	19.26
100.00	20 37 33	4729.73	23.78	199.35	192.46	71.33	21 56 23	4129.7	21.01	191.65
110.00	9 59 36	1820.67	-25.69	9.46	190.49	113.36	10 29 57	1220.7	-22.31	1.94
110.00	21 46 47	4513.03	26.96	181.60	191.16	68.14	23 2 0	3913.0	23.75	173.90

DIFFERENTIAL CORRECTIONS

TDE	2.1900	TRA	3.2920	TC3	-3.0699	BAU	1.2669
RDE	.3088	RRA	-.2490	RC3	.1022	FAU	.01106
FDE	.5642	FRA	1.0035	FC3	-.3103	BSP	17340
BDE	2.2117	BRA	3.3014	BC3	3.0716	FSP	-361

MID-COURSE EXECUTION ACCURACY

SGT	5316.8	SGR	424.7	SG3	106.9		
RRT	-.2391	RRF	-.2279	RTF	.9135		
SGB	5333.8	R23	.0084	R13	-.9135		
SG1	5317.8	SG2	412.3	THA	178.90		

ORBIT DETERMINATION ACCURACY

ST	2480.4	SR	327.8	SS	570.5		
CRT	.7882	CRS	-.7465	CST	-.9975		
LSA	2557.9	MSA	204.7	SSA	16.4		
EL1	2493.9	EL2	200.6	ALF	5.99		

LAUNCH DATE OCT 15 1970 FLIGHT TIME 190.00 ARRIVAL DATE APR 23 1971

HELIOCENTRIC CONIC DISTANCE 560.336

RL	149.17	LAL	-.00	LOL	21.22	VL	25.529	GAL	6.71	AZL	87.09	HCA	289.15	SMA	117.69	ECC	.29024	INC	2.9079
RP	108.94	LAP	-2.75	LOP	310.40	VP	36.177	GAP	16.34	AZP	89.05	TAL	162.96	TAP	92.11	RCA	83.53	APO	151.85
RC	197.900	GL	12.67	GP	9.96	ZAL	53.65	ZAP	170.02	ETS	91.71	ZAE	130.24	ETE	171.83	ZAC	110.01	ETC	276.31

V1	29.871	V2	34.785	CLP	179.35														

PLANETOCENTRIC CONIC

C3	34.405	VHL	5.866	DLA	-.05	RAL	326.42	RAD	6568.4	VEL	12.481	PTH	2.26	VHP	10.332	DPA	-10.74	RAP	310.58
ECC	1.5662																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 34 31	2346.81	-22.54	50.04	196.89	107.61	8 13 37	1746.8	-19.92	42.34
90.00	19 31 50	4993.82	22.60	219.19	196.92	72.48	20 55 4	4393.8	19.99	211.49
100.00	8 55 50	2084.50	-23.75	30.31	196.46	108.70	9 30 34	1484.5	-20.98	22.62
100.00	20 53 12	4731.37	23.82	199.46	196.49	71.38	22 12 3	4131.4	21.05	191.75
110.00	10 4 1	1871.04	-27.01	12.78	195.13	111.79	10 35 12	1271.0	-23.81	5.08
110.00	22 1 29	4517.59	27.08	181.90	195.17	68.29	23 16 47	3917.6	23.88	174.19

DIFFERENTIAL CORRECTIONS

TDE	2.3783	TRA	3.6291	TC3	-2.7328	BAU	1.2576
RDE	.3256	RRA	-.2545	RC3	.0847	FAU	.01004
FDE	.5901	FRA	1.0482	FC3	-.2526	BSP	17438
BDE	2.4005	BRA	3.6380	BC3	2.7341	FSP	-356

MID-COURSE EXECUTION ACCURACY

SGT	5314.3	SGR	415.7	SG3	104.7		
RRT	-.2085	RRF	-.1996	RTF	.9191		
SGB	5330.5	R23	.0070	R13	-.9191		
SG1	5315.0	SG2	406.5	THA	179.06		

ORBIT DETERMINATION ACCURACY

ST	2556.8	SR	326.7	SS	583.1		
CRT	.7893	CRS	-.7517	CST	-.9979		
LSA	2634.9	MSA	203.2	SSA	15.5		
EL1	2569.9	EL2	199.6	ALF	5.79		

LAUNCH DATE OCT 15 1970 FLIGHT TIME 192.00 ARRIVAL DATE APR 25 1971

HELIOCENTRIC CONIC DISTANCE 565.252

RL	149.17	LAL	-.00	LOL	21.22	VL	25.481	GAL	7.65	AZL	86.92	HCA	292.31	SMA	117.43	ECC	.29907	INC	3.0836
RP	108.94	LAP	-2.85	LOP	313.56	VP	36.144	GAP	16.92	AZP	88.83	TAL	161.23	TAP	93.54	RCA	82.31	APO	152.56
RC	199.690	GL	12.64	GP	9.79	ZAL	51.28	ZAP	170.11	ETS	96.13	ZAE	130.26	ETE	171.98	ZAC	109.49	ETC	276.86

V1	29.871	V2	34.785	CLP	178.62		

PLANETOCENTRIC CONIC

C3	38.538	VHL	6.208	DLA	.75	RAL	328.68	RAD	6568.5	VEL	12.645	PTH	2.30	VHP	10.685	DPA	-10.35	RAP	312.99
ECC	1.6342																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 37 36	2400.28	-23.60	53.60	201.45	106.12	8 17 36	1800.3	-21.16	45.77
90.00	19 46 47	4997.67	22.68	219.44	200.94	72.58	21 10 5	4397.7	20.09	211.73
100.00	8 59 18	2136.77	-24.85	33.81	201.04	107.17	9 34 54	1536.8	-22.26	25.97
100.00	21 7 47	4736.41	23.93	199.79	200.51	71.52	22 26 43	4136.4	21.18	192.07
110.00	10 8 21	1920.65	-28.22	16.13	199.77	110.14	10 40 21	1320.6	-25.22	8.25
110.00	22 15 13	4525.30	27.27	182.42	199.16	68.54	23 30 39	3925.3	24.11	174.68

DIFFERENTIAL CORRECTIONS

TDE	2.5730	TRA	3.9875	TC3	-2.4155	BAU	1.2450
RDE	.3440	RRA	-.2579	RC3	.0690	FAU	.00906
FDE	.6168	FRA	1.0952	FC3	-.2035	BSP	17558
BDE	2.5959	BRA	3.9958	BC3	2.4165	FSP	-352

MID-COURSE EXECUTION ACCURACY

SGT	5308.5	SGR	406.0	SG3	102.6		
RRT	-.1759	RRF	-.1692	RTF	.9250		
SGB	5324.0	R23	.0056	R13	-.9250		
SG1	5309.0	SG2	399.6	THA	179.22		

ORBIT DETERMINATION ACCURACY

ST	2620.5	SR	325.4	SS	595.5		
CRT	.7914	CRS	-.7577	CST	-.9983		
LSA	2699.4	MSA	201.1	SSA	14.7		
EL1	2633.2	EL2	198.0	ALF	5.64		

LAUNCH DATE OCT 15 1970 FLIGHT TIME 194.00 ARRIVAL DATE APR 27 1971

HELIOCENTRIC CONIC DISTANCE 570.044

RL	149.17	LAL	-.00	LOL	21.22	VL	25.434	GAL	8.64	AZL	86.73	HCA	295.47	SMA	117.19	ECC	.30885	INC	3.2676
RP	108.94	LAP	-2.95	LOP	316.73	VP	36.111	GAP	17.55	AZP	88.59	TAL	159.53	TAP	94.99	RCA	80.99	APO	153.38
RC	201.461	GL	12.57	GP	9.64	ZAL	49.06	ZAP	170.13	ETS	100.69	ZAE	130.27	ETE	172.13	ZAC	108.96	ETC	277.38

V1	29.871	V2	34.786	CLP	177.87		

PLANETOCENTRIC CONIC

C3	43.351	VHL	6.584	DLA	1.48	RAL	330.81	RAD	6568.6	VEL	12.834	PTH	2.34	VHP	11.074	DPA	-9.90	RAP	315.37
ECC	1.7134																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 40 42	2452.55	-24.54	57.14	205.99	104.59	8 21 34	1852.5	-22.30	49.19
90.00	20 0 41	5004.80	22.83	219.91	204.93	72.77	21 24 5	4404.8	20.25	212.19
100.00	9 2 44	2187.95	-25.83	37.30	205.60	105.59	9 39 12	1587.9	-23.44	29.31
100.00	21 21 20	4744.63	24.10	200.34	204.48	71.76	22 40 24	4144.6	21.38	192.60
110.00	10 12 33	1969.40	-29.32	19.50	204.40	108.42	10 45 23	1369.4	-26.52	11.43
110.00	22 28 0	4535.95	27.53	183.14	203.12	68.89	23 43 36	3936.0	24.41	175.36

DIFFERENTIAL CORRECTIONS

TDE	2.7759	TRA	4.3658	TC3	-2.1191	BAU	1.2286
RDE	.3640	RRA	-.2590	RC3	.0551	FAU	.00810
FDE	.6442	FRA	1.1448	FC3	-.1618	BSP	17693
BDE	2.7997	BRA	4.3735	BC3	2.1198	FSP	-348

MID-COURSE EXECUTION ACCURACY

SGT	5297.7	SGR	395.5	SG3	100.5		
RRT	-.1406	RRF	-.1361	RTF	.9309		
SGB	5312.5	R23	.0046	R13	-.9309		
SG1	5298.0	SG2	391.6	THA	179.40		

ORBIT DETERMINATION ACCURACY

ST	2672.5	SR	323.9	SS	607.9		
CRT	.7946	CRS	-.7645	CST	-.9986		
LSA	2752.7	MSA	198.4	SSA	13.9		
EL1	2684.9	EL2	195.7	ALF	5.53		

LAUNCH DATE OCT 15 1970 FLIGHT TIME 196.00 ARRIVAL DATE APR 29 1971

HELIOCENTRIC CONIC DISTANCE 574.688

RL	149.17	LAL	-.00	LOL	21.22	VL	25.388	GAL	9.71	AZL	86.54	HCA	298.62	SMA	116.95	ECC	.31970	INC	3.4614
RP	108.93	LAP	-3.04	LOP	319.89	VP	36.081	GAP	18.24	AZP	88.34	TAL	157.87	TAP	96.49	RCA	79.56	APO	154.33
RC	203.212	GL	12.47	GP	9.50	ZAL	46.98	ZAP	170.07	ETS	105.35	ZAE	130.26	ETE	172.27	ZAC	108.44	ETC	277.89

V1	29.871	V2	34.788	CLP	177.11		

PLANETOCENTRIC CONIC

C3	48.967	VHL	6.998	DLA	2.14	RAL	332.81	RAD	6568.8	VEL	13.051	PTH	2.38	VHP	11.502	DPA	-9.42	RAP	317.72
ECC	1.8059																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 43 47	2503.50	-25.37	60.64	210.48	103.02	8 25 31	1903.5	-23.33	52.57
90.00	20 13 31	5014.98	23.03	220.59	208.87	73.05	21 37 6	4415.0	20.49	212.84
100.00	9 6 8	2237.92	-26.70	40.75	210.12	103.96	9 43 25	1637.9	-24.52	32.64
100.00	21 33 52	4755.80	24.34	201.08	208.42	72.09	22 53 8	4155.8	21.66	193.31
110.00	10 16 39	2017.16	-30.30	22.88	209.00	106.65	10 50 16	1417.2	-27.72	14.63
110.00	22 39 50	4549.32	27.86	184.04	207.05	69.34	23 55 39	3949.3	24.79	176.21

DIFFERENTIAL CORRECTIONS

TDE	2.9894	TRA	4.7683	TC3	-1.8429	BAU	1.2068
RDE	.3856	RRA	-.2576	RC3	.0430	FAU	.00715
FDE	.6733	FRA	1.1980	FC3	-.1265	BSP	17812
BDE	3.0142	BRA	4.7753	BC3	1.8434	FSP	-344

MID-COURSE EXECUTION ACCURACY

SGT	5282.8	SGR	384.5	SG3	98.5		
RRT	-.1020	RRF	-.0999	RTF	.9370		
SGB	5296.8	R23	.0039	R13	-.9370		
SG1	5283.0	SG2	382.5	THA	179.57		

ORBIT DETERMINATION ACCURACY

ST	2715.0	SR	322.0	SS	621.1		
CRT	.7989	CRS	-.7721	CST	-.9988		
LSA	2796.8	MSA	195.2	SSA	13.2		
EL1	2727.2	EL2	192.8	ALF	5.44		

LAUNCH DATE OCT 15 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAY 1 1971

HELIOCENTRIC CONIC DISTANCE 579.153

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RL  149.17 LAL   -.00 LOL  21.22 VL  25.343 GAL  10.86 AZL  86.33 HCA 301.78 SMA 116.71 ECC .33176 INC 3.6673 V1  29.871
RP  108.92 LAP  -3.12 LOP 323.06 VP  36.052 GAP  19.01 AZP  88.07 TAL 156.26 TAP  98.05 RCA  77.99 APO 155.43 V2  34.790
RC 204.943 GL   12.33 GP    9.37 ZAL  45.04 ZAP 169.94 ETS 110.05 ZAE 130.22 ETE 172.41 ZAC 107.92 ETC 278.38 CLP 176.31
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PLANETOCENTRIC CONIC

```
C3  55.542 VHL  7.453 DLA   2.73 RAL 334.68 RAD 6569.0 VEL 13.300 PTH   2.43 VHP 11.976 DPA  -8.91 RAP 320.03 ECC 1.9141
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 46 52	2553.02	-26.08	64.09	214.91	101.43	8 29 25	1953.0	-24.24	55.91
90.00	20 25 21	5027.98	23.29	221.46	212.75	73.42	21 49 9	4428.0	20.79	213.67
100.00	9 9 29	2286.55	-27.45	44.17	214.58	102.32	9 47 35	1686.6	-25.48	35.93
100.00	21 45 25	4769.69	24.62	202.02	212.31	72.50	23 4 55	4169.7	22.00	194.20
110.00	10 20 38	2063.83	-31.16	26.24	213.56	104.83	10 55 2	1463.8	-28.81	17.82
110.00	22 50 45	4565.18	28.23	185.12	210.93	69.88	24 6 50	3965.2	25.23	177.23

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 3.2150 TRA 5.1981 TC3-1.5866 BAU 1.1784   SGT 5263.9 SGR  373.1 SG3   96.5     ST  2748.6 SR   319.8 SS   635.6
 RDE  .4090 RRA -.2532 RC3  .0327 FAU .00619   RRT -.0599 RRF -.0601 RTF  .9430     CRT  .8042 CRS -.7804 CST -.9990
 FDE  .7044 FRA 1.2556 FC3 -.0965 BSP  17914   SGB 5277.1 R23  .0034 R13 -.9430     LSA 2832.7 MSA  191.3 SSA   12.5
 BDE 3.2409 BRA 5.2042 BC3 1.5869 FSP   -340   SG1 5263.9 SG2  372.4 THA 179.76     EL1 2760.7 EL2  189.3 ALF   5.37
```

LAUNCH DATE OCT 15 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAY 3 1971

HELIOCENTRIC CONIC DISTANCE 583.404

```
RL  149.17 LAL   -.00 LOL  21.22 VL  25.300 GAL  12.10 AZL  86.11 HCA 304.94 SMA 116.49 ECC .34521 INC 3.8878 V1  29.871
RP  108.91 LAP  -3.19 LOP 326.23 VP  36.024 GAP  19.86 AZP  87.77 TAL 154.72 TAP  99.66 RCA  76.28 APO 156.70 V2  34.793
RC 206.655 GL   12.17 GP    9.25 ZAL  43.25 ZAP 169.71 ETS 114.74 ZAE 130.14 ETE 172.55 ZAC 107.40 ETC 278.84 CLP 175.48
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PLANETOCENTRIC CONIC

```
C3  63.270 VHL  7.954 DLA   3.25 RAL 336.41 RAD 6569.2 VEL 13.588 PTH   2.48 VHP 12.502 DPA  -8.36 RAP 322.29 ECC 2.0413
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 49 56	2600.96	-26.69	67.47	219.26	99.84	8 33 17	2001.0	-25.05	59.18
90.00	20 36 10	5043.58	23.59	222.50	216.58	73.86	22 0 13	4443.6	21.15	214.68
100.00	9 12 47	2333.70	-28.09	47.53	218.97	100.66	9 51 41	1733.7	-26.34	39.17
100.00	21 56 0	4786.07	24.96	203.12	216.13	72.99	23 15 46	4186.1	22.39	195.26
110.00	10 24 31	2109.22	-31.90	29.57	218.05	102.99	10 59 40	1509.2	-29.79	21.00
110.00	23 0 46	4583.32	28.65	186.37	214.76	70.50	24 17 9	3983.3	25.72	178.41

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 3.4561 TRA 5.6595 TC3-1.3492 BAU 1.1414   SGT 5241.8 SGR  361.4 SG3   94.7     ST  2775.3 SR   317.2 SS   651.8
 RDE  .4342 RRA -.2453 RC3  .0239 FAU .00518   RRT -.0135 RRF -.0159 RTF  .9490     CRT  .8104 CRS -.7895 CST -.9992
 FDE  .7382 FRA 1.3185 FC3 -.0709 BSP  17960   SGB 5254.3 R23  .0031 R13 -.9490     LSA 2862.3 MSA  186.9 SSA   11.9
 BDE 3.4833 BRA 5.6649 BC3 1.3494 FSP   -335   SG1 5241.8 SG2  361.3 THA 179.95     EL1 2787.2 EL2  185.1 ALF   5.32
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LAUNCH DATE OCT 15 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAY 5 1971

HELIOCENTRIC CONIC DISTANCE 587.392

```
RL  149.17 LAL   -.00 LOL  21.22 VL  25.258 GAL  13.44 AZL  85.87 HCA 308.10 SMA 116.27 ECC .36024 INC 4.1260 V1  29.871
RP  108.90 LAP  -3.25 LOP 329.39 VP  35.998 GAP  20.81 AZP  87.45 TAL 153.25 TAP 101.35 RCA  74.39 APO 158.16 V2  34.797
RC 208.346 GL   11.99 GP    9.14 ZAL  41.59 ZAP 169.40 ETS 119.38 ZAE 130.03 ETE 172.70 ZAC 106.88 ETC 279.28 CLP 174.62
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PLANETOCENTRIC CONIC

```
C3  72.395 VHL  8.509 DLA   3.70 RAL 338.03 RAD 6569.4 VEL 13.919 PTH   2.54 VHP 13.089 DPA  -7.79 RAP 324.51 ECC 2.1914
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 52 58	2647.14	-27.18	70.76	223.50	98.26	8 37 5	2047.1	-25.76	62.38
90.00	20 45 58	5061.56	23.92	223.71	220.32	74.38	22 10 20	4461.6	21.55	215.85
100.00	9 16 3	2379.19	-28.62	50.81	223.25	99.01	9 55 42	1779.2	-27.08	42.35
100.00	22 5 35	4804.74	25.32	204.39	219.88	73.56	23 25 40	4204.7	22.83	196.48
110.00	10 28 15	2153.17	-32.53	32.84	222.45	101.14	11 4 9	1553.2	-30.65	24.13
110.00	23 9 52	4603.52	29.10	187.77	218.53	71.22	24 26 35	4003.5	26.26	179.73

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 3.7152 TRA 6.1573 TC3-1.1301 BAU 1.0939   SGT 5217.3 SGR  349.6 SG3   92.9     ST  2795.7 SR   314.4 SS   670.5
 RDE  .4616 RRA -.2334 RC3  .0168 FAU .00410   RRT  .0375 RRF  .0331 RTF  .9549     CRT  .8177 CRS -.7994 CST -.9994
 FDE  .7753 FRA 1.3877 FC3 -.0490 BSP  17932   SGB 5229.0 R23 -.0029 R13  .9549     LSA 2886.4 MSA  181.8 SSA   11.3
 BDE 3.7438 BRA 6.1617 BC3 1.1303 FSP   -328   SG1 5217.4 SG2  349.3 THA    .14     EL1 2807.5 EL2  180.2 ALF   5.28
```

LAUNCH DATE OCT 15 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAY 7 1971

HELIOCENTRIC CONIC DISTANCE 591.058

```
RL  149.17 LAL   -.00 LOL  21.22 VL  25.217 GAL  14.91 AZL  85.61 HCA 311.25 SMA 116.06 ECC .37709 INC 4.3858 V1  29.871
RP  108.89 LAP  -3.30 LOP 332.56 VP  35.974 GAP  21.88 AZP  87.10 TAL 151.88 TAP 103.13 RCA  72.30 APO 159.83 V2  34.802
RC 210.017 GL   11.79 GP    9.04 ZAL  40.07 ZAP 169.00 ETS 123.92 ZAE 129.87 ETE 172.84 ZAC 106.36 ETC 279.70 CLP 173.70
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PLANETOCENTRIC CONIC

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C3  83.232 VHL  9.123 DLA   4.08 RAL 339.51 RAD 6569.6 VEL 14.303 PTH   2.60 VHP 13.747 DPA  -7.20 RAP 326.67 ECC 2.3698
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 55 59	2691.32	-27.57	73.94	227.62	96.72	8 40 51	2091.3	-26.36	65.48
90.00	20 54 46	5081.73	24.28	225.08	223.97	74.97	22 19 27	4481.7	21.98	217.16
100.00	9 19 15	2422.78	-29.05	53.98	227.41	97.39	9 59 38	1822.8	-27.72	45.43
100.00	22 14 11	4825.50	25.71	205.80	223.54	74.21	23 34 37	4225.5	23.30	197.84
110.00	10 31 53	2195.45	-33.04	36.04	226.72	99.32	11 8 28	1595.5	-31.40	27.20
110.00	23 18 3	4625.59	29.58	189.31	222.22	72.02	24 35 8	4025.6	26.83	181.20

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 3.9961 TRA 6.6970 TC3 -.9286 BAU 1.0334   SGT 5191.3 SGR  338.0 SG3   91.3     ST  2810.9 SR   311.2 SS   692.0
 RDE  .4913 RRA -.2167 RC3  .0111 FAU .00292   RRT  .0938 RRF  .0875 RTF  .9606     CRT  .8258 CRS -.8100 CST -.9995
 FDE  .8165 FRA 1.4644 FC3 -.0303 BSP  17804   SGB 5202.3 R23 -.0029 R13  .9606     LSA 2906.1 MSA  176.2 SSA   10.7
 BDE 4.0262 BRA 6.7006 BC3  .9287 FSP   -320   SG1 5191.4 SG2  336.5 THA    .35     EL1 2822.7 EL2  174.8 ALF   5.24
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LAUNCH DATE OCT 15 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAY 9 1971

HELIOCENTRIC CONIC DISTANCE 594.323

RL	149.17	LAL	-.00	LOL	21.22	VL	25.178	GAL	16.52	AZL	85.33	HCA	314.41	SMA	115.86	ECC	.39604	INC	4.6722
RP	108.87	LAP	-3.34	LOP	335.73	VP	35.952	GAP	23.09	AZP	86.73	TAL	150.62	TAP	105.03	RCA	69.98	APO	161.75
RC	211.667	GL	11.57	GP	8.94	ZAL	38.70	ZAP	168.50	ETS	128.33	ZAE	129.65	ETE	173.00	ZAC	105.85	ETC	280.09

V1	29.871	V2	34.807	CLP	172.73														

PLANETOCENTRIC CONIC

C3	96.182	VHL	9.807	DLA	4.40	RAL	340.85	RAD	6569.9	VEL	14.749	PTH	2.67	VHP	14.488	DPA	-6.60	RAP	328.77
ECC	2.5829																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 58 59	2733.24	-27.87	76.97	231.57	95.23	8 44 32	2133.2	-26.85	68.45
90.00	21 2 30	5103.91	24.67	226.59	227.52	75.63	22 27 34	4503.9	22.45	218.62
100.00	9 22 24	2464.21	-29.37	57.02	231.41	95.83	10 3 28	1864.2	-28.25	48.39
100.00	22 21 47	4848.17	26.12	207.36	227.09	74.93	23 42 35	4248.2	23.80	199.34
110.00	10 35 22	2235.80	-33.44	39.12	230.85	97.54	11 12 38	1635.8	-32.04	30.17
110.00	23 25 17	4649.33	30.06	190.99	225.81	72.91	24 42 47	4049.3	27.43	182.79

DIFFERENTIAL CORRECTIONS

TDE	4.3021	TRA	7.2845	TC3	-.7441	BAU	.9569		
RDE	.5238	RRA	-.1946	RC3	.0069	FAU	.00158		
FDE	.8624	FRA	1.5497	FC3	-.0142	BSP	17559		
BDE	4.3338	BRA	7.2871	BC3	.7442	FSP	-309		

MID-COURSE EXECUTION ACCURACY

SGT	5163.9	SGR	326.8	SG3	89.8		
RRT	.1556	RRF	.1480	RTF	.9662		
SGB	5174.2	R23	-.0030	R13	.9662		
SG1	5164.1	SG2	322.8	THA	.57		

ORBIT DETERMINATION ACCURACY

ST	2821.1	SR	307.9	SS	717.0		
CRT	.8349	CRS	-.8214	CST	-.9996		
LSA	2922.0	MSA	170.0	SSA	10.1		
EL1	2832.8	EL2	168.7	ALF	5.23		

LAUNCH DATE OCT 15 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAY 11 1971

HELIOCENTRIC CONIC DISTANCE 597.087

RL	149.17	LAL	-.00	LOL	21.22	VL	25.141	GAL	18.31	AZL	85.01	HCA	317.57	SMA	115.67	ECC	.41743	INC	4.9913
RP	108.86	LAP	-3.37	LOP	338.90	VP	35.932	GAP	24.45	AZP	86.31	TAL	149.50	TAP	107.07	RCA	67.39	APO	163.96
RC	213.296	GL	11.33	GP	8.85	ZAL	37.48	ZAP	167.88	ETS	132.60	ZAE	129.36	ETE	173.16	ZAC	105.35	ETC	280.45

V1	29.871	V2	34.813	CLP	171.69														

PLANETOCENTRIC CONIC

C3	111.773	VHL	10.572	DLA	4.64	RAL	342.06	RAD	6570.1	VEL	15.268	PTH	2.74	VHP	15.326	DPA	-5.99	RAP	330.80
ECC	2.8395																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 1 57	2772.56	-28.08	79.82	235.34	93.81	8 48 10	2172.6	-27.26	71.26
90.00	21 9 9	5127.96	25.06	228.24	230.94	76.37	22 34 37	4528.0	22.94	220.22
100.00	9 25 29	2503.16	-29.61	59.89	235.22	94.33	10 7 12	1903.2	-28.69	51.20
100.00	22 28 18	4872.60	26.55	209.06	230.53	75.73	23 49 31	4272.6	24.32	200.96
110.00	10 38 44	2273.92	-33.74	42.05	234.78	95.82	11 16 37	1673.9	-32.57	33.01
110.00	23 31 33	4674.60	30.55	192.79	229.29	73.87	24 49 27	4074.6	28.04	184.50

DIFFERENTIAL CORRECTIONS

TDE	4.6365	TRA	7.9257	TC3	-.5762	BAU	.8611		
RDE	.5596	RRA	-.1660	RC3	.0040	FAU	.00005		
FDE	.9138	FRA	1.6452	FC3	-.0004	BSP	17193		
BDE	4.6701	BRA	7.9274	BC3	.5763	FSP	-298		

MID-COURSE EXECUTION ACCURACY

SGT	5135.1	SGR	316.5	SG3	88.3		
RRT	.2233	RRF	.2146	RTF	.9714		
SGB	5144.9	R23	-.0032	R13	.9714		
SG1	5135.6	SG2	308.5	THA	.79		

ORBIT DETERMINATION ACCURACY

ST	2826.0	SR	304.5	SS	745.9		
CRT	.8449	CRS	-.8334	CST	-.9997		
LSA	2934.1	MSA	163.3	SSA	9.6		
EL1	2837.8	EL2	162.2	ALF	5.22		

LAUNCH DATE OCT 15 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAY 13 1971

HELIOCENTRIC CONIC DISTANCE 599.218

RL	149.17	LAL	-.00	LOL	21.22	VL	25.106	GAL	20.29	AZL	84.65	HCA	320.73	SMA	115.50	ECC	.44165	INC	5.3516
RP	108.83	LAP	-3.38	LOP	342.08	VP	35.913	GAP	26.01	AZP	85.85	TAL	148.54	TAP	109.27	RCA	64.49	APO	166.51
RC	214.903	GL	11.08	GP	8.76	ZAL	36.42	ZAP	167.15	ETS	136.71	ZAE	128.99	ETE	173.34	ZAC	104.87	ETC	280.78

V1	29.871	V2	34.819	CLP	170.56														

PLANETOCENTRIC CONIC

C3	130.694	VHL	11.432	DLA	4.81	RAL	343.11	RAD	6570.4	VEL	15.875	PTH	2.81	VHP	16.281	DPA	-5.40	RAP	332.73
ECC	3.1509																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 4 54	2808.91	-28.22	82.47	238.88	92.49	8 51 43	2208.9	-27.57	73.87
90.00	21 14 37	5153.79	25.46	230.03	234.20	77.18	22 40 31	4553.8	23.45	221.94
100.00	9 28 30	2539.24	-29.76	62.56	238.80	92.94	10 10 49	1939.2	-29.04	53.83
100.00	22 33 42	4898.69	26.97	210.88	233.81	76.60	23 55 20	4298.7	24.86	202.72
110.00	10 41 56	2309.42	-33.95	44.80	238.49	94.21	11 20 25	1709.4	-33.00	35.69
110.00	23 36 45	4701.27	31.04	194.71	232.63	74.91	24 55 6	4101.3	28.66	186.32

DIFFERENTIAL CORRECTIONS

TDE	5.0044	TRA	8.6286	TC3	-.4242	BAU	.7412		
RDE	.5993	RRA	-.1296	RC3	.0022	FAU	-.00175		
FDE	.9717	FRA	1.7525	FC3	.0116	BSP	16676		
BDE	5.0402	BRA	8.6296	BC3	.4242	FSP	-284		

MID-COURSE EXECUTION ACCURACY

SGT	5105.4	SGR	307.4	SG3	87.0		
RRT	.2966	RRF	.2873	RTF	.9763		
SGB	5114.7	R23	-.0034	R13	.9763		
SG1	5106.2	SG2	293.5	THA	1.03		

ORBIT DETERMINATION ACCURACY

ST	2826.1	SR	301.0	SS	779.5		
CRT	.8557	CRS	-.8459	CST	-.9998		
LSA	2942.8	MSA	156.1	SSA	9.0		
EL1	2837.8	EL2	155.1	ALF	5.22		

LAUNCH DATE OCT 15 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAY 15 1971

HELIOCENTRIC CONIC DISTANCE 600.534

RL	149.17	LAL	-.00	LOL	21.22	VL	25.074	GAL	22.52	AZL	84.24	HCA	323.89	SMA	115.33	ECC	.46916	INC	5.7642
RP	108.81	LAP	-3.39	LOP	345.25	VP	35.898	GAP	27.81	AZP	85.34	TAL	147.80	TAP	111.69	RCA	61.22	APO	169.45
RC	216.489	GL	10.81	GP	8.67	ZAL	35.52	ZAP	166.28	ETS	140.65	ZAE	128.51	ETE	173.53	ZAC	104.39	ETC	281.09

V1	29.871	V2	34.826	CLP	169.32														

PLANETOCENTRIC CONIC

C3	153.859	VHL	12.404	DLA	4.89	RAL	344.00	RAD	6570.7	VEL	16.589	PTH	2.88	VHP	17.375	DPA	-4.82	RAP	334.56
ECC	3.5321																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 7 49	2841.79	-28.29	84.88	242.15	91.28	8 55 10	2241.8	-27.81	76.24
90.00	21 18 48	5181.36	25.87	231.95	237.29	78.06	22 45 10	4581.4	23.96	223.80
100.00	9 31 27	2572.00	-29.85	64.99	242.10	91.66	10 14 19	1972.0	-29.30	56.23
100.00	22 37 51	4926.39	27.39	212.83	236.92	77.54	23 59 57	4326.4	25.40	204.60
110.00	10 44 59	2341.88	-34.09	47.33	241.91	92.72	11 24 1	1741.9	-33.34	38.17
110.00	23 40 49	4729.27	31.52	196.76	235.80	76.03	24 59 38	4129.3	29.28	188.27

DIFFERENTIAL CORRECTIONS

TDE	5.3652	TRA	9.3559	TC3	-.2992	BAU	.6155		
RDE	.6432	RRA	-.0846	RC3	.0014	FAU	-.00347		
FDE	1.0274	FRA	1.8637	FC3	.0195	BSP	17079		
BDE	5.4036	BRA	9.3563	BC3	.2992	FSP	-288		

MID-COURSE EXECUTION ACCURACY

SGT	5050.4	SGR	299.7	SG3	85.3		
RRT	.3722	RRF	.3626	RTF	.9806		
SGB	5059.3	R23	-.0038	R13	.9806		
SG1	5051.6	SG2	278.1	THA	1.27		

ORBIT DETERMINATION ACCURACY

ST	2799.2	SR	297.3	SS	811.7		
CRT	.8662	CRS	-.8579	CST	-.9998		
LSA	2925.8	MSA	148.8	SSA	8.4		
EL1	2811.0	EL2	147.9	ALF	5.27		

LAUNCH DATE OCT 15 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAY 17 1971

HELIOCENTRIC CONIC DISTANCE 600.812

RL	149.17	LAL	-.00	LOL	21.22	VL	25.045	GAL	25.03	AZL	83.76	HCA	327.04	SMA	115.19	ECC	.50050	INC	6.2445	V1	29.871
RP	108.79	LAP	-3.39	LOP	348.42	VP	35.885	GAP	29.88	AZP	84.75	TAL	147.31	TAP	114.36	RCA	57.54	APO	172.84	V2	34.834
RC	218.051	GL	10.53	GP	8.58	ZAL	34.83	ZAP	165.25	ETS	144.43	ZAE	127.90	ETE	173.74	ZAC	103.94	ETC	281.36	CLP	167.96

PLANETOCENTRIC CONIC

C3	182.502	VHL	13.509	DLA	4.89	RAL	344.71	RAD	6571.0	VEL	17.431	PTH	2.96	VHP	18.635	DPA	-4.27	RAP	336.27	ECC	4.0035

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 10 41	2870.67	-28.32	86.99	245.10	90.22	8 58 32	2270.7	-27.98	78.34
90.00	21 21 35	5210.70	26.26	234.00	240.16	79.02	22 48 25	4610.7	24.48	225.79
100.00	9 34 20	2600.89	-29.89	67.14	245.09	90.53	10 17 41	2000.9	-29.49	58.35
100.00	22 40 37	4955.72	27.81	214.91	239.82	78.56	24 3 13	4355.7	25.95	206.60
110.00	10 47 51	2370.80	-34.16	49.58	245.01	91.39	11 27 22	1770.8	-33.59	40.39
110.00	23 43 36	4758.57	31.98	198.92	238.78	77.23	25 2 54	4158.6	29.90	190.33

DIFFERENTIAL CORRECTIONS

TDE	5.7824	TRA	10.1744	TC3	-.1825	BAU	.4452
RDE	.6929	RRA	-.0288	RC3	.0017	FAU	-.00582
FDE	1.0951	FRA	1.9943	FC3	.0276	BSP	16986
BDE	5.8238	BRA	10.1744	BC3	.1825	FSP	-283

MID-COURSE EXECUTION ACCURACY

SGT	5001.4	SGR	294.2	SG3	83.9		
RRT	.4523	RRF	.4429	RTF	.9845		
SGB	5010.1	R23	-.0041	R13	.9845		
SG1	5003.2	SG2	262.3	THA	1.53		

ORBIT DETERMINATION ACCURACY

ST	2775.4	SR	293.9	SS	852.8		
CRT	.8777	CRS	-.8708	CST	-.9999		
LSA	2914.9	MSA	141.1	SSA	7.9		
EL1	2787.4	EL2	140.2	ALF	5.32		

LAUNCH DATE OCT 15 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAY 19 1971

HELIOCENTRIC CONIC DISTANCE 599.740

RL	149.17	LAL	-.00	LOL	21.22	VL	25.019	GAL	27.90	AZL	83.19	HCA	330.20	SMA	115.06	ECC	.53626	INC	6.8143	V1	29.871
RP	108.76	LAP	-3.38	LOP	351.60	VP	35.875	GAP	32.29	AZP	84.08	TAL	147.14	TAP	117.34	RCA	53.36	APO	176.76	V2	34.842
RC	219.589	GL	10.23	GP	8.49	ZAL	34.34	ZAP	164.04	ETS	148.04	ZAE	127.14	ETE	173.98	ZAC	103.51	ETC	281.59	CLP	166.43

PLANETOCENTRIC CONIC

C3	218.279	VHL	14.774	DLA	4.78	RAL	345.21	RAD	6571.2	VEL	18.428	PTH	3.04	VHP	20.095	DPA	3.77	RAP	337.82	ECC	4.5923

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 13 32	2894.87	-28.31	88.76	247.69	89.34	9 1 47	2294.9	-28.10	80.10
90.00	21 22 44	5241.95	26.65	236.21	242.78	80.06	22 50 6	4641.9	25.01	227.93
100.00	9 37 8	2625.26	-29.89	68.95	247.71	89.58	10 20 53	2025.3	-29.63	60.15
100.00	22 41 50	4986.79	28.21	217.13	242.47	79.67	24 4 56	4386.8	26.49	208.75
110.00	10 50 31	2395.56	-34.18	51.52	247.72	90.24	11 30 27	1795.6	-33.77	42.30
110.00	23 44 55	4789.25	32.42	201.20	241.53	78.52	25 4 45	4189.3	30.50	192.51

DIFFERENTIAL CORRECTIONS

TDE	6.2402	TRA	11.0714	TC3	-.0794	BAU	.2317
RDE	.7496	RRA	.0399	RC3	.0027	FAU	-.00877
FDE	1.1719	FRA	2.1423	FC3	.0348	BSP	16867
BDE	6.2850	BRA	11.0715	BC3	.0794	FSP	-279

MID-COURSE EXECUTION ACCURACY

SGT	4947.2	SGR	291.2	SG3	82.5		
RRT	.5334	RRF	.5245	RTF	.9879		
SGB	4955.8	R23	-.0044	R13	.9879		
SG1	4949.6	SG2	246.2	THA	1.80		

ORBIT DETERMINATION ACCURACY

ST	2743.6	SR	290.7	SS	900.7		
CRT	.8895	CRS	-.8837	CST	-.9999		
LSA	2899.2	MSA	133.1	SSA	7.3		
EL1	2755.7	EL2	132.3	ALF	5.40		

LAUNCH DATE OCT 15 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAY 21 1971

HELIOCENTRIC CONIC DISTANCE 596.910

RL	149.17	LAL	-.00	LOL	21.22	VL	24.998	GAL	31.19	AZL	82.49	HCA	333.36	SMA	114.95	ECC	.57705	INC	7.5060	V1	29.871
RP	108.74	LAP	-3.36	LOP	354.78	VP	35.869	GAP	35.12	AZP	83.28	TAL	147.37	TAP	120.73	RCA	48.62	APO	181.29	V2	34.851
RC	221.103	GL	9.91	GP	8.39	ZAL	34.12	ZAP	162.61	ETS	151.50	ZAE	126.18	ETE	174.26	ZAC	103.11	ETC	281.79	CLP	164.71

PLANETOCENTRIC CONIC

C3	263.439	VHL	16.231	DLA	4.54	RAL	345.47	RAD	6571.5	VEL	19.615	PTH	3.12	VHP	21.798	DPA	-3.35	RAP	339.20	ECC	5.3355

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 16 21	2913.59	-28.29	90.13	249.84	88.65	9 4 55	2313.6	-28.18	81.47
90.00	21 22 0	5275.36	27.02	238.59	245.12	81.19	22 49 56	4675.4	25.53	230.24
100.00	9 39 50	2644.34	-29.87	70.37	249.88	88.83	10 23 54	2044.3	-29.71	61.57
100.00	22 41 13	5019.84	28.59	219.52	244.84	80.87	24 4 53	4419.8	27.03	211.06
110.00	10 52 58	2415.45	-34.18	53.07	249.96	89.32	11 33 13	1815.5	-33.89	43.84
110.00	23 44 34	4821.50	32.83	203.63	244.00	79.90	25 4 56	4221.5	31.09	194.84

DIFFERENTIAL CORRECTIONS

TDE	6.7410	TRA	12.0521	TC3	.0108	BAU	.0412
RDE	.8147	RRA	.1239	RC3	.0045	FAU	-.01254
FDE	1.2592	FRA	2.3104	FC3	.0412	BSP	16727
BDE	6.7900	BRA	12.0528	BC3	.0117	FSP	-275

MID-COURSE EXECUTION ACCURACY

SGT	4886.6	SGR	291.3	SG3	81.3		
RRT	.6127	RRF	.6047	RTF	.9908		
SGB	4895.2	R23	-.0046	R13	.9908		
SG1	4889.8	SG2	230.1	THA	2.10		

ORBIT DETERMINATION ACCURACY

ST	2702.2	SR	287.9	SS	956.3		
CRT	.9014	CRS	-.8966	CST	-.9999		
LSA	2878.1	MSA	124.9	SSA	6.8		
EL1	2714.6	EL2	124.1	ALF	5.50		

LAUNCH DATE OCT 15 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAY 23 1971

HELIOCENTRIC CONIC DISTANCE 591.789

RL	149.17	LAL	-.00	LOL	21.22	VL	24.983	GAL	35.00	AZL	81.63	HCA	336.51	SMA	114.88	ECC	.62346	INC	8.3688	V1	29.871
RP	108.71	LAP	-3.33	LOP	357.96	VP	35.867	GAP	38.47	AZP	82.32	TAL	148.09	TAP	124.60	RCA	43.26	APO	186.50	V2	34.860
RC	222.592	GL	9.57	GP	8.28	ZAL	34.19	ZAP	160.91	ETS	154.80	ZAE	124.98	ETE	174.57	ZAC	102.75	ETC	281.95	CLP	162.74

PLANETOCENTRIC CONIC

C3	321.022	VHL	17.917	DLA	4.16	RAL	345.45	RAD	6571.8	VEL	21.032	PTH	3.19	VHP	23.792	DPA	-3.01	RAP	340.35	ECC	6.2832

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 19 7	2925.88	-28.26	91.03	251.49	88.20	9 7 53	2325.9	-28.22	82.36
90.00	21 19 4	5311.39	27.37	241.16	247.11	82.44	22 47 36	4711.4	26.04	232.75
100.00	9 42 25	2657.22	-29.85	71.32	251.54	88.33	10 26 42	2057.2	-29.76	62.52
100.00	22 38 28	5055.28	28.94	222.09	246.87	82.18	24 2 43	4455.3	27.56	213.56
110.00	10 55 8	2429.63	-34.16	54.18	251.67	88.67	11 35 38	1829.6	-33.97	44.94
110.00	23 42 14	4855.64	33.21	206.22	246.15	81.39	25 3 10	4255.6	31.66	197.33

DIFFERENTIAL CORRECTIONS

TDE	7.2847	TRA	13.1157	TC3	.0884	BAU	.3805
RDE	.8904	RRA	.2258	RC3	.0070	FAU	-.01744
FDE	1.3583	FRA	2.5012	FC3	.0470	BSP	16568
BDE	7.3390	BRA	13.1176	BC3	.0887	FSP	-271

MID-COURSE EXECUTION ACCURACY

SGT	4817.8	SGR	294.9	SG3	80.1		
RRT	.6868	RRF	.6800	RTF	.9931		
SGB	4826.8	R23	-.0048	R13	.9931		
SG1	4822.1	SG2	214.1	THA	2.41		

ORBIT DETERMINATION ACCURACY

ST	2649.2	SR	285.6	SS	1020.7		
CRT	.9130	CRS	-.9091	CST	-.9999		
LSA	2851.0	MSA	116.7	SSA	6.2		
EL1	2662.0	EL2	115.9	ALF	5.63		

LAUNCH DATE OCT 16 1970 FLIGHT TIME 70.00 ARRIVAL DATE DEC 25 1970

HELIOCENTRIC CONIC DISTANCE 212.066

RL	149.13	LAL	-.00	LOL	22.22	VL	29.745	GAL	-16.10	AZL	87.66	HCA	97.36	SMA	148.26	ECC	.27734	INC	2.3430
RP	107.49	LAP	2.32	LOP	119.58	VP	39.676	GAP	-2.14	AZP	90.30	TAL	252.75	TAP	350.11	RCA	107.14	APO	189.38
RC	70.666	GL	8.45	GP	-22.75	ZAL	167.20	ZAP	73.19	ETS	4.08	ZAE	155.23	ETE	263.59	ZAC	76.74	ETC	257.63

V1	29.879	V2	35.254	CLP	-71.72														

PLANETOCENTRIC CONIC

C3	63.279	VHL	7.955	DLA	-4.19	RAL	212.62	RAD	6569.2	VEL	13.588	PTH	2.48	VHP	4.965	DPA	-36.90	RAP	216.88
ECC	2.0414																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 27 26	2370.18	-23.02	51.59	92.47	106.97	1 6 57	1770.2	-20.47	43.83
90.00	11 23 9	5274.44	27.01	238.52	95.91	81.16	12 51 3	4674.4	25.51	230.17
100.00	1 46 49	2114.11	-24.39	32.29	92.00	107.85	2 22 3	1514.1	-21.72	24.51
100.00	12 46 27	5005.74	28.43	218.50	95.65	80.35	14 9 53	4405.7	26.80	210.07
110.00	2 50 34	1914.57	-28.08	15.72	90.57	110.35	3 22 28	1314.6	-25.05	7.85
110.00	13 59 12	4778.05	32.27	200.37	94.80	78.05	15 18 50	4178.1	30.28	191.71

DIFFERENTIAL CORRECTIONS

TDE	.3273	TRA	-.7565	TC3	-.0886	BAU	.2076	RDE	-.3143	RRA	-.3218	RC3	-.2289	FAU	.09028	FDE	1.2964	FRA	-.9347
FC3	-1.2351	BSP	1387	BDE	.4538	BRA	.8221	BC3	.2454	FSP	-558								

MID-COURSE EXECUTION ACCURACY

SGT	611.5	SGR	487.7	SG3	196.8	RRT	.4190	RRF	.5950	RTF	.6217
SGB	782.2	R23	.1367	R13	.7096	SG1	669.5	SG2	404.5	THA	30.71

ORBIT DETERMINATION ACCURACY

ST	287.1	SR	237.2	SS	410.7	CRT	-.6152	CRS	.8662	CST	-.9224
LSA	530.4	MSA	160.1	SSA	19.4	EL1	336.5	EL2	159.5	ALF	143.68

LAUNCH DATE OCT 16 1970 FLIGHT TIME 72.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 218.578

RL	149.13	LAL	-.00	LOL	22.22	VL	29.708	GAL	-15.92	AZL	87.50	HCA	100.60	SMA	147.90	ECC	.27441	INC	2.5029
RP	107.48	LAP	2.46	LOP	122.83	VP	39.650	GAP	-1.50	AZP	90.46	TAL	252.41	TAP	353.02	RCA	107.31	APO	188.48
RC	72.818	GL	9.12	GP	-23.53	ZAL	166.59	ZAP	78.04	ETS	2.14	ZAE	153.89	ETE	255.97	ZAC	75.67	ETC	257.31

V1	29.879	V2	35.256	CLP	-76.94														

PLANETOCENTRIC CONIC

C3	61.980	VHL	7.873	DLA	-3.63	RAL	213.06	RAD	6569.2	VEL	13.540	PTH	2.48	VHP	4.851	DPA	-36.90	RAP	214.41
ECC	2.0200																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 24 59	2382.59	-23.26	52.41	92.73	106.62	1 4 42	1782.6	-20.76	44.63
90.00	11 29 4	5252.00	26.77	236.92	95.70	80.40	12 56 36	4652.0	25.17	228.62
100.00	1 44 38	2125.67	-24.62	33.06	92.27	107.50	2 20 4	1525.7	-22.00	25.25
100.00	12 52 7	4984.15	28.17	216.95	95.42	79.57	14 15 11	4384.2	26.45	208.57
110.00	2 48 59	1924.22	-28.30	16.38	90.88	110.02	3 21 3	1324.2	-25.31	8.48
110.00	14 4 15	4758.36	31.98	198.90	94.52	77.23	15 23 33	4158.4	29.89	190.31

DIFFERENTIAL CORRECTIONS

TDE	.3703	TRA	-.8099	TC3	-.1336	BAU	.2306	RDE	-.2937	RRA	-.3186	RC3	-.2441	FAU	.09358	FDE	1.3725	FRA	-.9476
FC3	-1.3071	BSP	1639	BDE	.4726	BRA	.8703	BC3	.2783	FSP	-594								

MID-COURSE EXECUTION ACCURACY

SGT	682.4	SGR	497.4	SG3	206.5	RRT	.4728	RRF	.6209	RTF	.6808
SGB	844.4	R23	.1380	R13	.7481	SG1	742.0	SG2	403.1	THA	27.89

ORBIT DETERMINATION ACCURACY

ST	322.6	SR	225.1	SS	428.4	CRT	-.6221	CRS	.8621	CST	-.9291
LSA	558.5	MSA	161.2	SSA	19.4	EL1	360.3	EL2	157.8	ALF	150.28

LAUNCH DATE OCT 16 1970 FLIGHT TIME 74.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 225.043

RL	149.13	LAL	-.00	LOL	22.22	VL	29.663	GAL	-15.74	AZL	87.33	HCA	103.85	SMA	147.46	ECC	.27156	INC	2.6662
RP	107.48	LAP	2.59	LOP	126.08	VP	39.618	GAP	-.89	AZP	90.64	TAL	251.97	TAP	355.81	RCA	107.42	APO	187.51
RC	74.992	GL	9.81	GP	-24.26	ZAL	165.91	ZAP	82.81	ETS	.16	ZAE	152.25	ETE	249.07	ZAC	74.66	ETC	257.01

V1	29.879	V2	35.258	CLP	-82.11														

PLANETOCENTRIC CONIC

C3	60.727	VHL	7.793	DLA	-3.07	RAL	213.56	RAD	6569.1	VEL	13.494	PTH	2.47	VHP	4.769	DPA	-36.84	RAP	212.04
ECC	1.9994																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 22 49	2395.05	-23.50	53.25	93.07	106.27	1 2 44	1795.0	-21.04	45.44
90.00	11 35 15	5229.64	26.50	235.34	95.57	79.64	13 2 24	4629.6	24.80	227.08
100.00	1 42 43	2137.28	-24.86	33.84	92.62	107.16	2 18 21	1537.3	-22.28	26.00
100.00	12 58 1	4962.64	27.90	215.41	95.28	78.81	14 20 44	4362.6	26.07	207.08
110.00	2 47 41	1933.93	-28.53	17.04	91.26	109.68	3 19 55	1333.9	-25.58	9.11
110.00	14 9 33	4738.75	31.67	197.45	94.32	76.42	15 28 32	4138.7	29.48	188.93

DIFFERENTIAL CORRECTIONS

TDE	.4182	TRA	-.8659	TC3	-.1824	BAU	.2565	RDE	-.2733	RRA	-.3125	RC3	-.2580	FAU	.09591	FDE	1.4355	FRA	-.9465
FC3	-1.3673	BSP	1915	BDE	.4995	BRA	.9206	BC3	.3160	FSP	-624								

MID-COURSE EXECUTION ACCURACY

SGT	762.8	SGR	505.0	SG3	214.1	RRT	.5173	RRF	.6435	RTF	.7273
SGB	914.8	R23	.1408	R13	.7788	SG1	822.3	SG2	400.9	THA	25.32

ORBIT DETERMINATION ACCURACY

ST	362.2	SR	212.8	SS	444.1	CRT	-.6289	CRS	.8583	CST	-.9351
LSA	589.3	MSA	161.5	SSA	19.5	EL1	391.2	EL2	153.2	ALF	155.77

LAUNCH DATE OCT 16 1970 FLIGHT TIME 76.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 231.462

RL	149.13	LAL	-.00	LOL	22.22	VL	29.613	GAL	-15.57	AZL	87.17	HCA	107.09	SMA	146.97	ECC	.26877	INC	2.8342
RP	107.48	LAP	2.71	LOP	129.33	VP	39.581	GAP	-.32	AZP	90.83	TAL	251.42	TAP	358.51	RCA	107.47	APO	186.47
RC	77.186	GL	10.54	GP	-24.94	ZAL	165.16	ZAP	87.44	ETS	358.14	ZAE	150.36	ETE	242.96	ZAC	73.70	ETC	256.73

V1	29.879	V2	35.259	CLP	-87.18														

PLANETOCENTRIC CONIC

C3	59.515	VHL	7.715	DLA	-2.51	RAL	214.12	RAD	6569.1	VEL	13.449	PTH	2.46	VHP	4.717	DPA	-36.76	RAP	209.80
ECC	1.9795																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 20 51	2407.73	-23.74	54.10	93.48	105.91	1 0 59	1807.7	-21.33	46.26
90.00	11 41 43	5207.14	26.22	233.75	95.52	78.90	13 8 30	4607.1	24.42	225.55
100.00	1 41 1	2149.10	-25.10	34.64	93.05	106.80	2 16 51	1549.1	-22.56	26.77
100.00	13 4 13	4941.00	27.60	213.87	95.20	78.05	14 26 34	4341.0	25.68	205.59
110.00	2 46 35	1943.86	-28.75	17.73	91.71	109.34	3 18 59	1343.9	-25.85	9.76
110.00	14 15 9	4719.01	31.35	196.01	94.19	75.62	15 33 48	4119.0	29.06	187.55

DIFFERENTIAL CORRECTIONS

TDE	.4706	TRA	-.9239	TC3	-.2345	BAU	.2847	RDE	-.2532	RRA	-.3033	RC3	-.2703	FAU	.09723	FDE	1.4841	FRA	-.9318
FC3	-1.4144	BSP	2214	BDE	.5344	BRA	.9724	BC3	.3579	FSP	-648								

MID-COURSE EXECUTION ACCURACY

SGT	851.3	SGR	510.1	SG3	219.6	RRT	.5528	RRF	.6629	RTF	.7630
SGB	992.5	R23	.1452	R13	.8030	SG1	909.1	SG2	398.0	THA	22.97

ORBIT DETERMINATION ACCURACY

ST	405.9	SR	200.2	SS	457.9	CRT	-.6356	CRS	.8552	CST	-.9403
LSA	623.1	MSA	160.8	SSA	19.5	EL1	428.2	EL2	146.5	ALF	160.17

LAUNCH DATE OCT 16 1970 FLIGHT TIME 78.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 237.836

RL	149.13	LAL	-.00	LOL	22.22	VL	29.556	GAL	-15.39	AZL	86.99	HCA	110.34	SMA	146.43	ECC	.26604	INC	3.0081	V1	29.879
RP	107.48	LAP	2.82	LOP	132.58	VP	39.538	GAP	.23	AZP	91.05	TAL	250.78	TAP	1.11	RCA	107.47	APO	185.39	V2	35.259
RC	79.396	GL	11.29	GP	-25.58	ZAL	164.34	ZAP	91.90	ETS	356.09	ZAE	148.32	ETE	237.67	ZAC	72.80	ETC	256.47	CLP	-92.11

PLANETOCENTRIC CONIC

C3	58.339	VHL	7.638	DLA	-1.93	RAL	214.75	RAO	6569.1	VEL	13.405	PTH	2.45	VHP	4.690	DPA	-36.69	RAP	207.75	ECC	1.9601

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 19 2	2420.85	-23.98	54.99	93.97	105.53	0 59 23	1820.9	-21.62	47.11
90.00	11 48 31	5184.28	25.91	232.15	95.52	78.15	13 14 55	4584.3	24.02	223.99
100.00	1 39 29	2161.35	-25.33	35.48	93.55	106.42	2 15 31	1561.3	-22.84	27.57
100.00	13 10 45	4919.01	27.28	212.31	95.19	77.29	14 32 44	4319.0	25.26	204.09
110.00	2 45 41	1954.16	-28.98	18.44	92.24	108.97	3 18 15	1354.2	-26.12	10.43
110.00	14 21 4	4698.97	31.00	194.55	94.13	74.82	15 39 22	4099.0	28.61	186.16

DIFFERENTIAL CORRECTIONS

TDE	.5274	TRA	-.9827	TC3	-.2891	BAU	.3145
RDE	-.2337	RRA	-.2914	RC3	-.2812	FAU	.09760
FDE	1.5177	FRA	-.9050	FC3	-1.4483	BSP	2527
BDE	.5768	BRA	1.0250	BC3	.4033	FSP	-665

MID-COURSE EXECUTION ACCURACY

SGT	946.3	SGR	512.9	SG3	222.8		
RRT	.5803	RRF	.6798	RTF	.7901		
SGB	1076.4	R23	.1515	R13	.8217		
SG1	1001.4	SG2	394.7	THA	20.84		

ORBIT DETERMINATION ACCURACY

ST	453.5	SR	187.6	SS	469.5
CRT	-.6424	CRS	.8527	CST	-.9448
LSA	659.9	MSA	159.3	SSA	19.4
EL1	470.8	EL2	138.5	ALF	163.66

LAUNCH DATE OCT 16 1970 FLIGHT TIME 80.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 244.168

RL	149.13	LAL	-.00	LOL	22.22	VL	29.494	GAL	-15.22	AZL	86.81	HCA	113.58	SMA	145.84	ECC	.26335	INC	3.1895	V1	29.879
RP	107.48	LAP	2.92	LOP	135.83	VP	39.492	GAP	.76	AZP	91.28	TAL	250.05	TAP	3.63	RCA	107.44	APO	184.25	V2	35.258
RC	81.621	GL	12.09	GP	26.20	ZAL	163.46	ZAP	96.15	ETS	354.01	ZAE	146.18	ETE	233.12	ZAC	71.94	ETC	256.25	CLP	-96.85

PLANETOCENTRIC CONIC

C3	57.199	VHL	7.563	DLA	-1.33	RAL	215.44	RAO	6569.0	VEL	13.363	PTH	2.44	VHP	4.688	DPA	-36.66	RAP	205.90	ECC	1.9413

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 17 20	2434.64	-24.23	55.92	94.53	105.12	0 57 55	1834.6	-21.92	48.01
90.00	11 55 43	5160.81	25.57	230.52	95.60	77.40	13 21 44	4560.8	23.58	222.41
100.00	1 38 3	2174.24	-25.58	36.36	94.12	106.02	2 14 18	1574.2	-23.14	28.41
100.00	13 17 41	4896.45	26.94	210.72	95.24	76.52	14 39 17	4296.4	24.81	202.57
110.00	2 44 53	1965.04	-29.22	19.20	92.84	108.58	3 17 38	1365.0	-26.41	11.15
110.00	14 27 20	4678.41	30.63	193.06	94.14	74.02	15 45 19	4078.4	28.13	184.76

DIFFERENTIAL CORRECTIONS

TDE	.5882	TRA	-1.0416	TC3	-.3455	BAU	.3451
RDE	-.2144	RRA	-.2766	RC3	-.2903	FAU	.09700
FDE	1.5387	FRA	-.8666	FC3	-1.4682	BSP	2854
BDE	.6261	BRA	1.0777	BC3	.4513	FSP	-674

MID-COURSE EXECUTION ACCURACY

SGT	1046.3	SGR	512.9	SG3	224.0		
RRT	.6011	RRF	.6944	RTF	.8104		
SGB	1165.3	R23	.1594	R13	.8359		
SG1	1097.8	SG2	390.7	THA	18.90		

ORBIT DETERMINATION ACCURACY

ST	504.9	SR	174.6	SS	479.6
CRT	-.6495	CRS	.8513	CST	-.9487
LSA	700.3	MSA	157.0	SSA	19.4
EL1	518.3	EL2	129.3	ALF	166.48

LAUNCH DATE OCT 16 1970 FLIGHT TIME 82.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 250.460

RL	149.13	LAL	-.00	LOL	22.22	VL	29.428	GAL	-15.04	AZL	86.62	HCA	116.82	SMA	145.22	ECC	.26071	INC	3.3801	V1	29.879
RP	107.48	LAP	3.02	LOP	139.08	VP	39.441	GAP	1.25	AZP	91.53	TAL	249.25	TAP	6.07	RCA	107.36	APO	183.08	V2	35.256
RC	83.861	GL	12.93	GP	-26.80	ZAL	162.51	ZAP	100.16	ETS	351.89	ZAE	144.00	ETE	229.27	ZAC	71.13	ETC	256.05	CLP	-101.40

PLANETOCENTRIC CONIC

C3	56.094	VHL	7.490	DLA	-.70	RAL	216.19	RAO	6569.0	VEL	13.321	PTH	2.43	VHP	4.706	DPA	-36.69	RAP	204.27	ECC	1.9232

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 15 39	2449.37	-24.49	56.92	95.18	104.68	0 56 29	1849.4	-22.23	48.98
90.00	12 3 23	5136.50	25.20	228.83	95.73	76.64	13 29 0	4536.5	23.11	220.79
100.00	1 36 41	2188.03	-25.83	37.30	94.78	105.59	2 13 9	1588.0	-23.45	29.32
100.00	13 25 3	4873.08	26.55	209.09	95.36	75.74	14 46 16	4273.1	24.33	201.00
110.00	2 44 11	1976.73	-29.47	20.02	93.53	108.16	3 17 7	1376.7	-26.71	11.92
110.00	14 34 2	4657.14	30.22	191.54	94.21	73.20	15 51 39	4057.1	27.62	183.31

DIFFERENTIAL CORRECTIONS

TDE	.6531	TRA	-1.0998	TC3	-.4031	BAU	.3759
RDE	-.1952	RRA	-.2593	RC3	-.2979	FAU	.09557
FDE	1.5483	FRA	-.8189	FC3	-1.4751	BSP	3188
BDE	.6816	BRA	1.1300	BC3	.5012	FSP	-677

MID-COURSE EXECUTION ACCURACY

SGT	1149.9	SGR	510.6	SG3	223.3		
RRT	.6161	RRF	.7073	RTF	.8256		
SGB	1258.2	R23	.1692	R13	.8465		
SG1	1197.4	SG2	386.3	THA	17.14		

ORBIT DETERMINATION ACCURACY

ST	560.0	SR	161.3	SS	488.4
CRT	-.6569	CRS	.8506	CST	-.9520
LSA	744.4	MSA	154.0	SSA	19.3
EL1	570.5	EL2	119.4	ALF	168.79

LAUNCH DATE OCT 16 1970 FLIGHT TIME 84.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 256.712

RL	149.13	LAL	-.00	LOL	22.22	VL	29.358	GAL	-14.85	AZL	86.42	HCA	120.06	SMA	144.57	ECC	.25811	INC	3.5819	V1	29.879
RP	107.49	LAP	3.10	LOP	142.33	VP	39.387	GAP	1.73	AZP	91.80	TAL	248.37	TAP	8.43	RCA	107.25	APO	181.88	V2	35.254
RC	86.111	GL	13.83	GP	-27.42	ZAL	161.47	ZAP	103.91	ETS	349.73	ZAE	141.81	ETE	226.01	ZAC	70.34	ETC	255.88	CLP	-105.72

PLANETOCENTRIC CONIC

C3	55.030	VHL	7.418	DLA	-.03	RAL	217.00	RAO	6569.0	VEL	13.281	PTH	2.43	VHP	4.744	DPA	-36.82	RAP	202.86	ECC	1.9057

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 13 57	2465.36	-24.76	58.02	95.91	104.20	0 55 2	1865.4	-22.56	50.03
90.00	12 11 35	5111.08	24.79	227.08	95.93	75.85	13 36 46	4511.1	22.60	219.10
100.00	1 35 17	2203.02	-26.10	38.33	95.52	105.11	2 12 0	1603.0	-23.78	30.31
100.00	13 32 56	4848.66	26.13	207.40	95.54	74.95	14 53 45	4248.7	23.81	199.37
110.00	2 43 30	1989.49	-29.74	20.91	94.31	107.69	3 16 39	1389.5	-27.04	12.77
110.00	14 41 12	4634.95	29.77	189.97	94.34	72.37	15 58 27	4034.9	27.07	181.82

DIFFERENTIAL CORRECTIONS

TDE	.7216	TRA	-1.1570	TC3	-.4616	BAU	.4067
RDE	-.1763	RRA	-.2398	RC3	-.3041	FAU	.09345
FDE	1.5469	FRA	-.7651	FC3	-1.4702	BSP	3534
BDE	.7428	BRA	1.1816	BC3	.5528	FSP	-675

MID-COURSE EXECUTION ACCURACY

SGT	1256.2	SGR	506.4	SG3	220.9		
RRT	.6266	RRF	.7191	RTF	.8370		
SGB	1354.5	R23	.1809	R13	.8545		
SG1	1299.6	SG2	381.5	THA	15.55		

ORBIT DETERMINATION ACCURACY

ST	618.8	SR	147.7	SS	495.8
CRT	-.6644	CRS	.8506	CST	-.9549
LSA	792.2	MSA	150.5	SSA	19.1
EL1	626.8	EL2	109.0	ALF	170.70

LAUNCH DATE OCT 16 1970 FLIGHT TIME 86.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 262.929

RL	149.13	LAL	-.00	LOL	22.22	VL	29.284	GAL	-14.66	AZL	86.20	HCA	123.31	SMA	143.89	ECC	.25556	INC	3.7973
RP	107.50	LAP	3.17	LOP	145.58	VP	39.329	GAP	2.18	AZP	92.09	TAL	247.42	TAP	10.73	RCA	107.12	APO	180.66
RC	88.372	GL	14.79	GP	-28.07	ZAL	160.36	ZAP	107.39	ETS	347.52	ZAE	139.66	ETE	223.28	ZAC	69.55	ETC	255.73

PLANETOCENTRIC CONIC

C3	54.010	VHL	7.349	DLA	.69	RAL	217.88	RAD	6569.0	VEL	13.243	PTH	2.42	VHP	4.800	DPA	-37.06	RAP	201.66

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 12 9	2482.97	-25.05	59.22	96.74	103.66	0 53 31	1883.0	-22.92	51.20
90.00	12 20 24	5084.25	24.33	225.25	96.20	75.04	13 45 8	4484.2	22.04	217.33
100.00	1 33 48	2219.55	-26.39	39.48	96.36	104.57	2 10 48	1619.6	-24.13	31.41
100.00	13 41 25	4822.89	25.67	205.63	95.79	74.13	15 1 48	4222.9	23.24	197.67
110.00	2 42 47	2003.64	-30.03	21.91	95.19	107.16	3 16 11	1403.6	-27.39	13.72
110.00	14 48 56	4611.57	29.28	188.33	94.53	71.51	16 5 47	4011.6	26.47	180.27

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.7970	TRA	-1.2099	TC3	-.5185	BAU	.4350	SGT	1362.6	SGR	495.9	SG3	216.0	ST	683.1	SR	131.0	SS	507.8
RDE	-.1541	RRA	-.2152	RC3	-.3068	FAU	.08996	RRT	.6322	RRF	.7261	RTF	.8440	CRT	-.6718	CRS	.8523	CST	-.9566
FDE	1.5549	FRA	-.6889	FC3	-1.4420	BSP	3804	SGB	1450.0	R23	.1920	R13	.8586	LSA	848.4	MSA	147.0	SSA	18.6
BDE	.8117	BRA	1.2289	BC3	.6024	FSP	-633	SG1	1401.0	SG2	373.7	THA	13.97	EL1	688.9	EL2	96.2	ALF	172.51

LAUNCH DATE OCT 16 1970 FLIGHT TIME 88.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 269.111

RL	149.13	LAL	-.00	LOL	22.22	VL	29.208	GAL	-14.47	AZL	85.97	HCA	126.55	SMA	143.20	ECC	.25306	INC	4.0294
RP	107.51	LAP	3.24	LOP	148.83	VP	39.269	GAP	2.61	AZP	92.40	TAL	246.41	TAP	12.96	RCA	106.96	APO	179.43
RC	90.641	GL	15.83	GP	-28.78	ZAL	159.16	ZAP	110.60	ETS	345.23	ZAE	137.54	ETE	221.00	ZAC	68.75	ETC	255.60

PLANETOCENTRIC CONIC

C3	53.052	VHL	7.284	DLA	1.47	RAL	218.82	RAD	6568.9	VEL	13.207	PTH	2.41	VHP	4.871	DPA	-37.44	RAP	200.65

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 10 9	2502.64	-25.36	60.58	97.68	103.05	0 51 51	1902.6	-23.31	52.51
90.00	12 29 56	5055.71	23.81	223.32	96.54	74.21	13 54 11	4455.7	21.42	215.47
100.00	1 32 10	2238.07	-26.70	40.77	97.32	103.96	2 9 28	1638.1	-24.52	32.65
100.00	13 50 35	4795.52	25.14	203.76	96.11	73.28	15 10 31	4195.5	22.61	195.88
110.00	2 41 59	2019.56	-30.34	23.05	96.19	106.55	3 15 38	1419.6	-27.78	14.79
110.00	14 57 16	4586.79	28.73	186.61	94.80	70.63	16 13 43	3986.8	25.82	178.64

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.8730	TRA	-1.2639	TC3	-.5775	BAU	.4656	SGT	1472.6	SGR	491.2	SG3	211.6	ST	749.2	SR	117.5	SS	511.3
RDE	-.1365	RRA	-.1935	RC3	-.3120	FAU	.08723	RRT	.6361	RRF	.7393	RTF	.8509	CRT	-.6789	CRS	.8516	CST	-.9594
FDE	1.5306	FRA	-.6365	FC3	-1.4235	BSP	4199	SGB	1552.4	R23	.2089	R13	.8639	LSA	903.3	MSA	142.5	SSA	18.4
BDE	.8836	BRA	1.2786	BC3	.6564	FSP	-643	SG1	1507.6	SG2	370.2	THA	12.76	EL1	753.4	EL2	85.7	ALF	173.84

LAUNCH DATE OCT 16 1970 FLIGHT TIME 90.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 275.260

RL	149.13	LAL	-.00	LOL	22.22	VL	29.129	GAL	-14.27	AZL	85.72	HCA	129.79	SMA	142.49	ECC	.25061	INC	4.2817
RP	107.53	LAP	3.29	LOP	152.08	VP	39.206	GAP	3.02	AZP	92.74	TAL	245.35	TAP	15.13	RCA	106.78	APO	178.19
RC	92.917	GL	16.97	GP	-29.57	ZAL	157.85	ZAP	113.51	ETS	342.86	ZAE	135.47	ETE	219.13	ZAC	67.91	ETC	255.47

PLANETOCENTRIC CONIC

C3	52.163	VHL	7.222	DLA	2.32	RAL	219.84	RAD	6568.9	VEL	13.173	PTH	2.41	VHP	4.958	DPA	-37.99	RAP	199.81

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 7 52	2524.91	-25.69	62.13	98.75	102.34	0 49 57	1924.9	-23.73	54.00
90.00	12 40 19	5025.06	23.23	221.26	96.96	73.33	14 4 4	4425.1	20.73	213.49
100.00	1 30 17	2259.05	-27.04	42.23	98.41	103.26	2 7 57	1659.1	-24.95	34.06
100.00	14 0 35	4766.15	24.55	201.78	96.51	72.39	15 20 1	4166.2	21.91	193.98
110.00	2 41 1	2037.69	-30.69	24.35	97.32	105.86	3 14 59	1437.7	-28.21	16.03
110.00	15 6 21	4560.28	28.12	184.79	95.14	69.71	16 22 21	3960.3	25.09	176.92

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.5549	TRA	-1.3147	TC3	-.6355	BAU	.4948	SGT	1583.0	SGR	484.2	SG3	206.0	ST	820.1	SR	102.4	SS	516.3
RDE	-.1174	RRA	-.1690	RC3	-.3155	FAU	.08387	RRT	.6366	RRF	.7508	RTF	.8558	CRT	-.6855	CRS	.8511	CST	-.9616
FDE	1.5074	FRA	-.5764	FC3	-1.3920	BSP	4578	SGB	1655.4	R23	.2269	R13	.8673	LSA	964.5	MSA	137.9	SSA	18.1
BDE	.9620	BRA	1.3255	BC3	.7095	FSP	-638	SG1	1614.4	SG2	366.1	THA	11.62	EL1	823.1	EL2	74.3	ALF	175.07

LAUNCH DATE OCT 16 1970 FLIGHT TIME 92.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 281.378

RL	149.13	LAL	-.00	LOL	22.22	VL	29.047	GAL	-14.07	AZL	85.44	HCA	133.02	SMA	141.77	ECC	.24821	INC	4.5589
RP	107.54	LAP	3.33	LOP	155.33	VP	39.141	GAP	3.41	AZP	93.11	TAL	244.23	TAP	17.25	RCA	106.58	APO	176.95
RC	95.197	GL	18.21	GP	-30.48	ZAL	156.43	ZAP	116.12	ETS	340.36	ZAE	133.44	ETE	217.60	ZAC	66.99	ETC	255.36

PLANETOCENTRIC CONIC

C3	51.363	VHL	7.167	DLA	3.26	RAL	220.94	RAD	6568.9	VEL	13.142	PTH	2.40	VHP	5.061	DPA	-38.72	RAP	199.09

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 5 12	2550.43	-26.05	63.91	99.97	101.52	0 47 43	1950.4	-24.20	55.73
90.00	12 51 43	4991.87	22.56	219.06	97.47	72.42	14 14 55	4391.9	19.95	211.36
100.00	1 28 4	2283.14	-27.40	43.93	99.65	102.43	2 6 7	1683.1	-25.42	35.69
100.00	14 11 32	4734.39	23.88	199.66	97.00	71.47	15 30 27	4134.4	21.13	191.94
110.00	2 39 49	2058.59	-31.07	25.86	98.62	105.03	3 14 7	1458.6	-28.69	17.46
110.00	15 16 17	4531.70	27.43	182.85	95.58	68.75	16 31 49	3931.7	24.29	175.09

DIFFERENTIAL CORRECTIONS								MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.0435	TRA	-1.3620	TC3	-.6919	BAU	.5228	SGT	1693.8	SGR	475.8	SG3	199.3	ST	896.6	SR	85.9	SS	522.5
RDE	-.0971	RRA	-.1422	RC3	-.3177	FAU	.08009	RRT	.6342	RRF	.7615	RTF	.8592	CRT	-.6903	CRS	.8489	CST	-.9636
FDE	1.4849	FRA	-.5130	FC3	-1.3499	BSP	4948	SGB	1759.4	R23	.2462	R13	.8695	LSA	1032.6	MSA	133.5	SSA	17.6
BDE	1.0480	BRA	1.3694	BC3	.7613	FSP	-625	SG1	1721.8	SG2	361.9	THA	10.57	EL1	898.6	EL2	62.0	ALF	176.20

LAUNCH DATE OCT 16 1970 FLIGHT TIME 94.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 287.467

RL	149.13	LAL	-.00	LOL	22.22	VL	28.964	GAL	-13.86	AZL	85.13	HCA	136.26	SMA	141.04	ECC	.24587	INC	4.8669	V1	29.879
RP	107.56	LAP	3.36	LOP	158.58	VP	39.074	GAP	3.78	AZP	93.52	TAL	243.06	TAP	19.32	RCA	106.36	APO	175.72	V2	35.232
RC	97.481	GL	19.58	GP	-31.53	ZAL	154.88	ZAP	118.41	ETS	337.72	ZAE	131.44	ETE	216.37	ZAC	65.97	ETC	255.24	CLP	-123.93

PLANETOCENTRIC CONIC

C3	50.679	VHL	7.119	DLA	4.32	RAL	222.12	RAD	6568.9	VEL	13.116	PTH	2.39	VHP	5.180	DPA	-39.65	RAP	198.48	ECC	1.8340

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 2 0	2580.00	-26.43	65.99	101.37	100.54	0 45 0	1980.0	-24.71	57.75
90.00	13 4 20	4955.62	21.80	216.68	98.10	71.47	14 26 55	4355.6	19.07	209.07
100.00	1 25 22	2311.10	-27.80	45.92	101.07	101.46	2 3 54	1711.1	-25.94	37.61
100.00	14 23 39	4699.75	23.11	197.37	97.61	70.50	15 41 58	4099.8	20.24	189.75
110.00	2 38 16	2082.97	-31.48	27.64	100.11	104.06	3 12 59	1483.0	-29.23	19.15
110.00	15 27 15	4500.65	26.64	180.78	96.12	67.75	16 42 15	3900.7	23.39	173.13

DIFFERENTIAL CORRECTIONS

TDE	1.1408	TRA	-1.4051	TC3	-.7457	BAU	.5494
RDE	-.0757	RRA	-.1130	RC3	-.3185	FAU	.07596
FDE	1.4629	FRA	-.4475	FC3	-1.2977	BSP	5305
BDE	1.1434	BRA	1.4097	BC3	.8109	FSP	-605

MID-COURSE EXECUTION ACCURACY

SGT	1804.6	SGR	466.6	SG3	191.8		
RRT	.6282	RRF	.7713	RTF	.8616		
SGB	1864.0	R23	.2669	R13	.8709		
SG1	1829.2	SG2	358.1	THA	9.60		

ORBIT DETERMINATION ACCURACY

ST	979.7	SR	68.2	SS	529.7
CRT	-.6920	CRS	.8432	CST	-.9655
LSA	1108.2	MSA	129.5	SSA	16.8
EL1	980.9	EL2	49.2	ALF	177.24

LAUNCH DATE OCT 16 1970 FLIGHT TIME 96.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 293.529

RL	149.13	LAL	-.00	LOL	22.22	VL	28.880	GAL	-13.64	AZL	84.79	HCA	139.49	SMA	140.31	ECC	.24358	INC	5.2134	V1	29.879
RP	107.58	LAP	3.38	LOP	161.83	VP	39.006	GAP	4.13	AZP	93.97	TAL	241.85	TAP	21.34	RCA	106.13	APO	174.49	V2	35.226
RC	99.767	GL	21.11	GP	-32.75	ZAL	153.17	ZAP	120.39	ETS	334.89	ZAE	129.44	ETE	215.41	ZAC	64.80	ETC	255.11	CLP	-126.98

PLANETOCENTRIC CONIC

C3	50.145	VHL	7.081	DLA	5.51	RAL	223.39	RAD	6568.8	VEL	13.096	PTH	2.39	VHP	5.317	DPA	-40.81	RAP	197.90	ECC	1.8253

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 54 10	2614.70	-26.84	68.45	102.99	99.38	24 37 45	2014.7	-25.27	60.13
90.00	13 18 25	4915.65	20.91	214.08	98.87	70.46	14 40 20	4315.7	18.06	206.57
100.00	1 22 3	2343.94	-28.22	48.27	102.73	100.29	2 1 7	1743.9	-26.51	39.88
100.00	14 37 9	4661.65	22.22	194.89	98.35	69.48	15 54 51	4061.6	19.23	187.37
110.00	2 36 15	2111.69	-31.94	29.75	101.84	102.88	3 11 27	1511.7	-29.84	21.17
110.00	15 39 26	4466.65	25.75	178.54	96.80	66.70	16 53 53	3866.7	22.37	171.01

DIFFERENTIAL CORRECTIONS

TDE	1.2480	TRA	-1.4443	TC3	-.7966	BAU	.5751
RDE	-.0537	RRA	-.0814	RC3	-.3181	FAU	.07164
FDE	1.4406	FRA	-.3829	FC3	-1.2368	BSP	5673
BDE	1.2491	BRA	1.4466	BC3	.8578	FSP	-584

MID-COURSE EXECUTION ACCURACY

SGT	1916.0	SGR	457.4	SG3	183.8		
RRT	.6186	RRF	.7802	RTF	.8635		
SGB	1969.8	R23	.2889	R13	.8719		
SG1	1937.5	SG2	355.4	THA	8.70		

ORBIT DETERMINATION ACCURACY

ST	1070.0	SR	49.7	SS	537.7
CRT	-.6858	CRS	.8274	CST	-.9675
LSA	1191.8	MSA	126.0	SSA	15.9
EL1	1070.5	EL2	36.1	ALF	178.17

LAUNCH DATE OCT 16 1970 FLIGHT TIME 98.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 299.564

RL	149.13	LAL	-.00	LOL	22.22	VL	28.794	GAL	-13.42	AZL	84.39	HCA	142.73	SMA	139.58	ECC	.24136	INC	5.6089	V1	29.879
RP	107.60	LAP	3.39	LOP	165.07	VP	38.936	GAP	4.47	AZP	94.47	TAL	240.59	TAP	23.31	RCA	105.89	APO	173.27	V2	35.218
RC	102.053	GL	22.82	GP	-34.20	ZAL	151.29	ZAP	122.01	ETS	331.85	ZAE	127.40	ETE	214.69	ZAC	63.45	ETC	254.95	CLP	-129.86

PLANETOCENTRIC CONIC

C3	49.811	VHL	7.058	DLA	6.86	RAL	224.78	RAD	6568.8	VEL	13.083	PTH	2.39	VHP	5.476	DPA	-42.22	RAP	197.30	ECC	1.8198

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 49 21	2655.87	-27.26	71.39	104.90	97.96	24 33 37	2055.9	-25.88	62.99
90.00	13 34 18	4871.15	19.87	211.23	99.81	69.40	14 55 30	4271.1	16.89	203.82
100.00	1 17 54	2382.94	-28.66	51.08	104.66	98.87	1 57 37	1782.9	-27.14	42.61
100.00	14 52 22	4619.31	21.19	192.17	99.27	68.41	16 9 22	4019.3	18.07	184.76
110.00	2 33 38	2145.91	-32.43	32.30	103.88	101.45	3 9 24	1545.9	-30.51	23.61
110.00	15 53 7	4429.10	24.71	176.11	97.65	65.60	17 6 56	3829.1	21.21	168.72

DIFFERENTIAL CORRECTIONS

TDE	1.3736	TRA	-1.4737	TC3	-.8389	BAU	.5964
RDE	-.0282	RRA	-.0438	RC3	-.3136	FAU	.06651
FDE	1.4308	FRA	-.3062	FC3	-1.1559	BSP	5905
BDE	1.3739	BRA	1.4743	BC3	.8956	FSP	-534

MID-COURSE EXECUTION ACCURACY

SGT	2024.3	SGR	444.6	SG3	174.4		
RRT	.6018	RRF	.7850	RTF	.8637		
SGB	2072.5	R23	.3116	R13	.8713		
SG1	2042.4	SG2	352.0	THA	7.76		

ORBIT DETERMINATION ACCURACY

ST	1172.8	SR	28.6	SS	551.2
CRT	-.6326	CRS	.7558	CST	-.9692
LSA	1290.1	MSA	124.5	SSA	14.6
EL1	1172.9	EL2	22.1	ALF	179.12

LAUNCH DATE OCT 16 1970 FLIGHT TIME 100.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 305.575

RL	149.13	LAL	-.00	LOL	22.22	VL	28.708	GAL	-13.19	AZL	83.93	HCA	145.96	SMA	138.86	ECC	.23921	INC	6.0675	V1	29.879
RP	107.63	LAP	3.39	LOP	168.32	VP	38.865	GAP	4.80	AZP	95.03	TAL	239.29	TAP	25.25	RCA	105.64	APO	172.07	V2	35.211
RC	104.339	GL	24.76	GP	-35.92	ZAL	149.18	ZAP	123.25	ETS	328.56	ZAE	125.30	ETE	214.16	ZAC	61.85	ETC	254.76	CLP	-132.61

PLANETOCENTRIC CONIC

C3	49.756	VHL	7.054	DLA	8.42	RAL	226.29	RAD	6568.8	VEL	13.081	PTH	2.39	VHP	5.664	DPA	-43.90	RAP	196.60	ECC	1.8189

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 43 17	2705.35	-27.68	74.95	107.14	96.22	24 28 22	2105.3	-26.53	66.47
90.00	13 52 28	4821.12	18.64	208.07	101.00	68.29	15 12 49	4221.1	15.53	200.78
100.00	1 12 38	2429.83	-29.11	54.49	106.95	97.13	1 53 8	1829.8	-27.81	45.93
100.00	15 9 43	4571.87	19.97	189.17	100.43	67.28	16 25 55	3971.9	16.72	181.89
110.00	2 30 11	2187.13	-32.94	35.41	106.29	99.68	3 6 38	1587.1	-31.26	26.59
110.00	16 8 39	4387.32	23.51	173.46	98.72	64.44	17 21 47	3787.3	19.88	166.21

DIFFERENTIAL CORRECTIONS

TDE	1.5065	TRA	-1.5070	TC3	-.8820	BAU	.6223
RDE	-.0081	RRA	-.0085	RC3	-.3115	FAU	.06231
FDE	1.3982	FRA	-.2563	FC3	-1.0842	BSP	6399
BDE	1.5065	BRA	1.5071	BC3	.9354	FSP	-533

MID-COURSE EXECUTION ACCURACY

SGT	2139.4	SGR	439.6	SG3	165.6		
RRT	.5821	RRF	.7907	RTF	.8666		
SGB	2184.0	R23	.3344	R13	.8735		
SG1	2155.0	SG2	354.8	THA	7.01		

ORBIT DETERMINATION ACCURACY

ST	1279.3	SR	14.9	SS	557.1
CRT	-.3579	CRS	.3993	CST	-.9715
LSA	1390.0	MSA	121.5	SSA	13.5
EL1	1279.3	EL2	13.9	ALF	179.76

LAUNCH DATE OCT 16 1970 FLIGHT TIME 102.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 311.561

RL 149.13 LAL -.00 LOL 22.22 VL 28.620 GAL -12.95 AZL 83.39 HCA 149.18 SMA 138.13 ECC .23713 INC 6.6094 V1 29.879
RP 107.65 LAP 3.38 LOP 171.56 VP 38.793 GAP 5.10 AZP 95.68 TAL 237.96 TAP 27.14 RCA 105.38 APO 170.89 V2 35.202
RC 106.624 GL 26.98 GP -37.96 ZAL 146.81 ZAP 124.06 ETS 324.97 ZAE 123.08 ETE 213.79 ZAC 59.95 ETC 254.51 CLP-135.27

PLANETOCENTRIC CONIC

C3 50.084 VHL 7.077 DLA 10.22 RAL 227.97 RAD 6568.8 VEL 13.094 PTH 2.39 VHP 5.888 DPA -45.90 RAP 195.68 ECC 1.8243

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 35 33	2765.64	-28.05	79.32	109.83	94.06	24 21 38	2165.6	-27.19	70.76
90.00	14 13 32	4764.11	17.17	204.54	102.51	67.13	15 32 56	4164.1	13.92	197.37
100.00	1 5 53	2486.95	-29.52	58.69	109.70	94.96	1 47 20	1886.9	-28.52	50.03
100.00	15 29 48	4518.03	18.52	185.83	101.89	66.11	16 45 6	3918.0	15.14	178.68
110.00	2 25 39	2237.37	-33.45	39.24	109.19	97.47	3 2 56	1637.4	-32.06	30.28
110.00	16 26 32	4340.37	22.10	170.55	100.09	63.23	17 38 53	3740.4	18.33	163.44

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.6677 TRA-1.5293 TC3 -.9118 BAU .6435 SGT 2252.0 SGR 431.1 SG3 155.4 ST 1402.5 SR 19.2 SS 568.4
RDE .0141 RRA .0348 RC3 -.3038 FAU .05731 RRT .5504 RRF .7879 RTF .8685 CRT .4695 CRS -.5981 CST .9738
FDE 1.3779 FRA -.1960 FC3 -.9906 BSP 6773 SGB 2292.9 R23 .3562 R13 .8747 LSA 1508.6 MSA 120.7 SSA 12.0
BDE 1.6678 BRA 1.5297 BC3 .9611 FSP -505 SG1 2264.8 SG2 357.9 THA 6.17 EL1 1402.5 EL2 17.0 ALF .37

LAUNCH DATE OCT 16 1970 FLIGHT TIME 104.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 317.526

RL 149.13 LAL -.00 LOL 22.22 VL 28.533 GAL -12.70 AZL 82.74 HCA 152.40 SMA 137.42 ECC .23511 INC 7.2639 V1 29.879
RP 107.68 LAP 3.36 LOP 174.81 VP 38.720 GAP 5.40 AZP 96.44 TAL 236.59 TAP 28.99 RCA 105.11 APO 169.73 V2 35.193
RC 108.906 GL 29.53 GP -40.42 ZAL 144.11 ZAP 124.37 ETS 321.04 ZAE 120.67 ETE 213.54 ZAC 57.66 ETC 254.17 CLP-137.87

PLANETOCENTRIC CONIC

C3 50.970 VHL 7.139 DLA 12.33 RAL 229.83 RAD 6568.9 VEL 13.128 PTH 2.40 VHP 6.163 DPA -48.24 RAP 194.38 ECC 1.8388

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 25 31	2840.32	-28.29	84.77	113.07	91.34	24 12 51	2240.3	-27.80	76.14
90.00	14 38 28	4698.16	15.38	200.52	104.47	65.93	15 56 46	4098.2	12.00	193.48
100.00	0 57 6	2557.60	-29.82	63.92	113.02	92.22	1 39 44	1957.6	-29.19	55.17
100.00	15 53 29	4456.11	16.77	182.07	103.81	64.89	17 7 45	3856.1	13.25	175.05
110.00	2 19 37	2299.42	-33.90	44.03	112.73	94.67	2 57 56	1699.4	-32.88	34.94
110.00	16 47 28	4287.05	20.43	167.31	101.87	61.98	17 58 55	3687.0	16.52	160.36

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 1.8717 TRA-1.5330 TC3 -.9199 BAU .6567 SGT 2359.6 SGR 418.1 SG3 143.8 ST 1549.4 SR 40.0 SS 587.6
RDE .0385 RRA .0904 RC3 -.2874 FAU .05124 RRT .4985 RRF .7711 RTF .8693 CRT .6203 CRS -.7664 CST -.9760
FDE 1.3736 FRA -.1210 FC3 -.8703 BSP 6895 SGB 2396.3 R23 .3777 R13 .8745 LSA 1652.9 MSA 123.4 SSA 10.2
BDE 1.8721 BRA 1.5357 BC3 .9637 FSP -440 SG1 2369.0 SG2 361.0 THA 5.17 EL1 1549.6 EL2 31.4 ALF .92

LAUNCH DATE OCT 16 1970 FLIGHT TIME 106.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 323.466

RL 149.13 LAL -.00 LOL 22.22 VL 28.445 GAL -12.45 AZL 81.92 HCA 155.62 SMA 136.71 ECC .23317 INC 8.0758 V1 29.879
RP 107.71 LAP 3.32 LOP 178.05 VP 38.647 GAP 5.68 AZP 97.36 TAL 235.19 TAP 30.81 RCA 104.83 APO 168.59 V2 35.184
RC 111.186 GL 32.51 GP -43.37 ZAL 141.01 ZAP 124.11 ETS 316.70 ZAE 117.97 ETE 213.32 ZAC 54.87 ETC 253.67 CLP-140.49

PLANETOCENTRIC CONIC

C3 52.712 VHL 7.260 DLA 14.81 RAL 231.95 RAD 6568.9 VEL 13.194 PTH 2.41 VHP 6.514 DPA -50.96 RAP 192.45 ECC 1.8675

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 12 10	2934.71	-28.24	91.67	117.03	87.88	24 1 4	2334.7	-28.24	83.01
90.00	15 8 40	4620.45	13.17	195.89	107.08	64.70	16 25 40	4020.5	9.65	188.97
100.00	0 45 26	2646.61	-29.87	70.54	117.08	88.74	1 29 32	2046.6	-29.72	61.73
100.00	16 22 1	4383.79	14.63	177.76	106.35	63.64	17 35 5	3783.8	10.97	170.88
110.00	2 11 31	2377.23	-34.17	50.09	117.09	91.09	2 51 9	1777.2	-33.64	40.88
110.00	17 12 25	4225.93	18.43	163.69	104.26	60.69	18 22 51	3625.9	14.39	156.91

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 2.1032 TRA-1.5442 TC3 -.9223 BAU .6776 SGT 2477.4 SGR 414.0 SG3 132.2 ST 1702.8 SR 53.3 SS 595.3
RDE .0477 RRA .1464 RC3 -.2717 FAU .04630 RRT .4292 RRF .7382 RTF .8750 CRT .5440 CRS -.6997 CST -.9790
FDE 1.3393 FRA -.0813 FC3 -.7605 BSP 7491 SGB 2511.7 R23 .3918 R13 .8794 LSA 1800.4 MSA 122.6 SSA 8.8
BDE 2.1037 BRA 1.5511 BC3 .9615 FSP -436 SG1 2483.9 SG2 372.9 THA 4.20 EL1 1703.0 EL2 44.7 ALF .98

LAUNCH DATE OCT 16 1970 FLIGHT TIME 108.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 329.384

RL 149.13 LAL -.00 LOL 22.22 VL 28.357 GAL -12.19 AZL 80.88 HCA 158.83 SMA 136.01 ECC .23130 INC 9.1164 V1 29.879
RP 107.74 LAP 3.28 LOP 181.29 VP 38.573 GAP 5.95 AZP 98.51 TAL 233.76 TAP 32.58 RCA 104.55 APO 167.47 V2 35.174
RC 113.462 GL 36.00 GP -46.95 ZAL 137.40 ZAP 123.15 ETS 311.88 ZAE 114.87 ETE 212.99 ZAC 51.47 ETC 252.92 CLP-143.24

PLANETOCENTRIC CONIC

C3 55.813 VHL 7.471 DLA 17.76 RAL 234.39 RAD 6569.0 VEL 13.311 PTH 2.43 VHP 6.980 DPA -54.05 RAP 189.45 ECC 1.9185

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 53 44	3057.39	-27.61	100.59	121.83	83.45	23 44 42	2457.4	-28.23	91.98
90.00	15 46 36	4526.01	10.36	190.38	110.68	63.50	17 2 2	3926.0	6.72	183.59
100.00	0 29 25	2761.51	-29.39	79.04	122.05	84.29	1 15 27	2161.5	-29.87	70.27
100.00	16 57 32	4297.13	11.95	172.72	109.85	62.40	18 9 9	3697.1	8.16	165.98
110.00	2 0 29	2476.58	-34.03	57.84	122.49	86.50	2 41 46	1876.6	-34.14	48.60
110.00	17 42 57	4154.82	16.02	159.60	107.52	59.39	18 52 12	3554.8	11.84	152.99

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 2.4136 TRA-1.5301 TC3 -.8893 BAU .6878 SGT 2590.5 SGR 405.8 SG3 118.9 ST 1888.0 SR 65.4 SS 610.4
RDE .0461 RRA .2231 RC3 -.2424 FAU .04022 RRT .3095 RRF .6611 RTF .8812 CRT .3727 CRS -.5397 CST -.9820
FDE 1.3192 FRA -.0296 FC3 -.6239 BSP 7840 SGB 2622.1 R23 .4019 R13 .8842 LSA 1981.4 MSA 125.1 SSA 7.2
BDE 2.4140 BRA 1.5463 BC3 .9218 FSP -396 SG1 2593.6 SG2 385.5 THA 2.84 EL1 1888.2 EL2 60.7 ALF .74

LAUNCH DATE OCT 16 1970 FLIGHT TIME 110.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 335.277

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RL  149.13 LAL   -.00 LOL  22.22 VL  28.270 GAL -11.93 AZL  79.49 HCA 162.02 SMA 135.32 ECC .22949 INC10.5077 V1  29.879
RP  107.77 LAP   3.23 LOP 184.52 VP  38.499 GAP   6.21 AZP 100.01 TAL 232.29 TAP  34.32 RCA 104.27 APO 166.38 V2  35.164
RC 115.736 GL   40.13 GP  -51.29 ZAL 133.13 ZAP 121.37 ETS 306.40 ZAE 111.20 ETE 212.28 ZAC  47.27 ETC 251.73 CLP-146.35
PLANETOCENTRIC CONIC
C3  61.257 VHL  7.827 DLA  21.25 RAL 237.30 RAD 6569.1 VEL 13.513 PTH   2.47 VHP  7.631 DPA -57.46 RAP 184.67 ECC 2.0081
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 26 35	3224.09	-25.76	112.43	127.56	77.81	23 20 19	2624.1	-27.18	104.05
90.00	16 36 59	4404.81	6.60	183.45	115.88	62.40	17 50 24	3804.8	2.85	176.78
100.00	0 6 19	2915.18	-27.83	90.19	128.05	78.63	0 54 54	2315.2	-29.12	81.62
100.00	17 43 52	4188.95	8.47	166.58	114.87	61.23	18 53 41	3588.9	4.57	159.97
110.00	1 45 1	2606.37	-33.04	67.84	129.15	80.67	2 28 27	2006.4	-33.97	58.72
110.00	18 21 39	4070.52	13.04	154.88	112.16	58.12	19 29 30	3470.5	8.73	148.44

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 2.8364 TRA-1.4853 TC3 -.8142 BAU  .6862   SGT 2701.2 SGR  403.0 SG3  104.3     ST  2106.1 SR    78.1 SS   629.5
RDE  .0101 RRA  .3277 RC3 -.1981 FAU .03344   RRT  .1013 RRF  .4951 RTF  .8902    CRT -.0685 CRS -.1031 CST -.9852
FDE 1.3037 FRA  .0223 FC3 -.4726 BSP  8046    SGB 2731.1 R23  .4050 R13  .8911    LSA 2195.7 MSA  129.6 SSA    5.6
BDE 2.8364 BRA 1.5210 BC3  .8379 FSP  -339    SG1 2701.5 SG2  400.9 THA   .89     EL1 2106.1 EL2   77.9 ALF 179.85
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LAUNCH DATE OCT 16 1970 FLIGHT TIME 112.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 341.139

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RL  149.13 LAL   -.00 LOL  22.22 VL  28.182 GAL -11.65 AZL  77.53 HCA 165.20 SMA 134.65 ECC .22773 INC12.4745 V1  29.879
RP  107.80 LAP   3.16 LOP 187.76 VP  38.425 GAP   6.45 AZP 102.07 TAL 230.80 TAP  36.01 RCA 103.98 APO 165.31 V2  35.153
RC 118.005 GL   44.98 GP  -56.56 ZAL 128.06 ZAP 118.60 ETS 299.82 ZAE 106.72 ETE 210.60 ZAC  42.07 ETC 249.73 CLP-150.30
PLANETOCENTRIC CONIC
C3  71.136 VHL  8.434 DLA  25.35 RAL 240.89 RAD 6569.4 VEL 13.874 PTH   2.53 VHP  8.604 DPA -60.94 RAP 176.86 ECC 2.1707
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	21 39 39	3475.50	-21.06	129.33	133.75	70.62	22 37 34	2875.5	-23.51	121.52
90.00	17 52 35	4224.95	.84	173.37	124.00	61.69	19 3 0	3624.9	-2.95	166.74
100.00	23 25 6	3135.49	-23.95	105.38	134.82	71.55	24 17 22	2535.5	-26.24	97.34
100.00	18 49 48	4040.19	3.51	158.32	122.52	60.30	19 57 8	3440.2	-.47	151.79
110.00	1 22 14	2781.34	-30.36	80.76	137.09	73.47	2 8 35	2181.3	-32.32	72.09
110.00	19 13 6	3967.10	9.25	149.26	119.00	56.95	20 19 13	3367.1	4.84	142.96

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 3.4182 TRA-1.4071 TC3 -.6960 BAU  .6755   SGT 2808.8 SGR  433.7 SG3   88.9     ST  2343.9 SR   136.3 SS   645.3
RDE -.1265 RRA  .4681 RC3 -.1414 FAU .02684   RRT -.2394 RRF  .1593 RTF  .9065    CRT -.7286 CRS  .6184 CST -.9888
FDE 1.2775 FRA  .0536 FC3 -.3266 BSP  8546    SGB 2842.1 R23 -.3926 R13 -.9043    LSA 2431.4 MSA  132.3 SSA    4.3
BDE 3.4206 BRA 1.4829 BC3  .7103 FSP  -305    SG1 2810.7 SG2  420.8 THA 177.83    EL1 2346.0 EL2   93.3 ALF 177.57
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LAUNCH DATE OCT 16 1970 FLIGHT TIME 114.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 346.962

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RL  149.13 LAL   -.00 LOL  22.22 VL  28.095 GAL -11.36 AZL  74.52 HCA 168.36 SMA 133.98 ECC .22599 INC15.4821 V1  29.879
RP  107.84 LAP   3.09 LOP 190.99 VP  38.351 GAP   6.68 AZP 105.18 TAL 229.27 TAP  37.63 RCA 103.70 APO 164.26 V2  35.141
RC 120.271 GL   50.59 GP  -62.89 ZAL 121.99 ZAP 114.68 ETS 290.98 ZAE 101.09 ETE 206.55 ZAC  35.59 ETC 246.01 CLP-156.42
PLANETOCENTRIC CONIC
C3  90.577 VHL  9.517 DLA  30.02 RAL 245.56 RAD 6569.8 VEL 14.558 PTH   2.64 VHP 10.184 DPA -63.71 RAP 164.19 ECC 2.4907
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
79.60	18 40 26	4177.21	-9.85	175.67	138.10	61.50	19 50 4	3577.2	-13.58	168.86
100.40	21 29 1	3633.67	-9.83	135.67	138.09	61.49	22 29 34	3033.7	-13.56	128.86
79.60	18 40 26	4177.21	-9.85	175.67	138.10	61.50	19 50 4	3577.2	-13.58	168.86
100.40	21 29 1	3633.67	-9.83	135.67	138.09	61.49	22 29 34	3033.7	-13.56	128.86
110.00	0 44 46	3031.70	-24.28	97.67	145.65	65.17	1 35 17	2431.7	-27.42	89.90
110.00	20 27 48	3827.17	3.98	141.85	129.73	56.02	21 31 35	3227.2	-.50	135.65

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 4.2881 TRA-1.2222 TC3 -.5137 BAU  .6274   SGT 2888.3 SGR  589.5 SG3   73.2     ST  2594.3 SR   352.4 SS   674.3
RDE -.5349 RRA  .6854 RC3 -.0680 FAU .01956   RRT -.6517 RRF -.3457 RTF  .9305    CRT -.9492 CRS  .9041 CST -.9926
FDE 1.2725 FRA  .0847 FC3 -.1869 BSP  8908    SGB 2947.9 R23 -.3628 R13 -.9231    LSA 2700.0 MSA  137.6 SSA    3.0
BDE 4.3213 BRA 1.4012 BC3  .5182 FSP  -254    SG1 2914.4 SG2  443.2 THA 172.24    EL1 2615.8 EL2  110.0 ALF 172.64
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LAUNCH DATE OCT 16 1970 FLIGHT TIME 116.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 352.717

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RL  149.13 LAL   -.00 LOL  22.22 VL  28.009 GAL -11.05 AZL  69.35 HCA 171.46 SMA 133.33 ECC .22420 INC20.6535 V1  29.879
RP  107.87 LAP   3.00 LOP 194.22 VP  38.277 GAP   6.88 AZP 110.44 TAL 227.70 TAP  39.16 RCA 103.44 APO 163.22 V2  35.130
RC 122.531 GL   56.55 GP  -70.09 ZAL 114.82 ZAP 109.55 ETS 275.95 ZAE  93.69 ETE 195.92 ZAC  27.50 ETC 238.11 CLP-169.22
PLANETOCENTRIC CONIC
C3 135.048 VHL 11.621 DLA  34.80 RAL 252.02 RAD 6570.5 VEL 16.012 PTH   2.82 VHP 13.067 DPA -63.98 RAP 145.71 ECC 3.2226
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
68.87	17 54 16	4483.74	-8.15	198.00	150.14	56.05	19 9 0	3883.7	-12.56	191.63
111.13	23 6 42	3491.47	-8.14	123.82	150.13	56.05	24 4 54	2891.5	-12.54	117.44
68.87	17 54 16	4483.74	-8.15	198.00	150.14	56.05	19 9 0	3883.7	-12.56	191.63
111.13	23 6 42	3491.47	-8.14	123.82	150.13	56.05	24 4 54	2891.5	-12.54	117.44
68.87	17 54 16	4483.74	-8.15	198.00	150.14	56.05	19 9 0	3883.7	-12.56	191.63
111.13	23 6 42	3491.47	-8.14	123.82	150.13	56.05	24 4 54	2891.5	-12.54	117.44

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 5.5331 TRA -.7404 TC3 -.2710 BAU  .4894   SGT 2834.9 SGR 1106.6 SG3   58.8     ST  2731.3 SR   946.3 SS   738.6
RDE-1.8841 RRA 1.0014 RC3 -.0025 FAU .01171   RRT -.8919 RRF -.7480 RTF  .9651    CRT -.9898 CRS  .9748 CST -.9967
FDE 1.3263 FRA  .1193 FC3 -.0751 BSP  9091    SGB 3043.2 R23 -.3029 R13 -.9496    LSA 2979.9 MSA  145.2 SSA    1.9
BDE 5.8450 BRA 1.2454 BC3  .2711 FSP  -203    SG1 3006.4 SG2  471.9 THA 160.30    EL1 2887.8 EL2  127.7 ALF 161.03
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LAUNCH DATE OCT 16 1970 FLIGHT TIME 118.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 358.315

RL 149.13 LAL -.00 LOL 22.22 VL 27.923 GAL -10.71 AZL 58.59 HCA 174.41 SMA 132.69 ECC .22210 INC31.4080 V1 29.879
RP 107.91 LAP 2.91 LOP 197.44 VP 38.204 GAP 7.03 AZP 121.29 TAL 226.06 TAP 40.47 RCA 103.22 APO 162.16 V2 35.118
RC 124.786 GL 60.82 GP -75.20 ZAL 106.66 ZAP 103.33 ETS 242.68 ZAE 82.95 ETE 166.43 ZAC 17.73 ETC 222.85 CLP 154.48

PLANETOCENTRIC CONIC

C3 268.204 VHL 16.377 DLA 37.78 RAL 261.53 RAD 6571.6 VEL 19.736 PTH 3.12 VHP 19.335 DPA -58.42 RAP 126.05 ECC 5.4140

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.87	18 5 10	4673.29	-4.26	210.38	166.04	52.42	19 23 3	4073.3	-9.10	204.39
116.13	0 15 38	3520.31	-4.24	123.30	166.03	52.42	1 14 19	2920.3	-9.08	117.30
63.87	18 5 10	4673.29	-4.26	210.38	166.04	52.42	19 23 3	4073.3	-9.10	204.39
116.13	0 15 38	3520.31	-4.24	123.30	166.03	52.42	1 14 19	2920.3	-9.08	117.30
63.87	18 5 10	4673.29	-4.26	210.38	166.04	52.42	19 23 3	4073.3	-9.10	204.39
116.13	0 15 38	3520.31	-4.24	123.30	166.03	52.42	1 14 19	2920.3	-9.08	117.30

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 5.8180 TRA .6231 TC3 -.0388 BAU .1854 SGT 2058.0 SGR 2314.4 SG3 48.3 ST 2037.1 SR 2277.8 SS 922.0
RDE-6.5010 RRA .9346 RC3 -.0342 FAU .00131 RRT -.9450 RRF -.9382 RTF .9988 CRT -.9955 CRS .9945 CST-1.0000
FDE 1.5756 FRA .2083 FC3 -.0042 BSP 9276 SGB 3097.1 R23 -.2025 R13 -.9782 LSA 3188.2 MSA 154.6 SSA 1.3
BDE 8.7242 BRA 1.1233 BC3 .0517 FSP -163 SG1 3054.8 SG2 510.0 THA 131.45 EL1 3052.4 EL2 144.5 ALF 131.79

LAUNCH DATE OCT 16 1970 FLIGHT TIME 120.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 363.332

RL 149.13 LAL -.00 LOL 22.22 VL 27.838 GAL -10.23 AZL 28.91 HCA 176.79 SMA 132.06 ECC .21850 INC61.0883 V1 29.879
RP 107.95 LAP 2.81 LOP 200.66 VP 38.130 GAP 7.01 AZP 151.05 TAL 224.18 TAP 40.97 RCA 103.21 APO 160.92 V2 35.105
RC 127.036 GL 54.32 GP -63.35 ZAL 98.68 ZAP 97.00 ETS 198.62 ZAE 63.22 ETE 126.56 ZAC 17.48 ETC 249.70 CLP 105.77

PLANETOCENTRIC CONIC

C3 871.515 VHL 29.521 DLA 31.00 RAL 274.90 RAD 6572.9 VEL 31.509 PTH 3.47 VHP 36.351 DPA -40.64 RAP 114.69 ECC15.3429

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
76.82	20 17 2	4534.96	-.03	196.74	184.88	59.00	21 32 37	3935.0	-4.14	190.29
103.18	23 46 31	3861.57	-.01	147.03	184.87	59.00	24 50 53	3261.6	-4.12	140.58
76.82	20 17 2	4534.96	-.03	196.74	184.88	59.00	21 32 37	3935.0	-4.14	190.29
103.18	23 46 31	3861.57	-.01	147.03	184.87	59.00	24 50 53	3261.6	-4.12	140.58
110.00	2 26 5	3376.50	-12.99	118.00	192.83	58.10	3 22 21	2776.5	-17.11	111.32
110.00	22 40 35	4068.02	12.95	154.75	176.92	58.08	23 48 23	3468.0	8.64	148.30

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE -.5652 TRA 2.0336 TC3 -.0369 BAU 2.0372 SGT 521.1 SGR 2881.9 SG3 44.1 ST 176.5 SR 2650.7 SS 1440.6
RD-13.6313 RRA-2.3704 RC3 -.1709 FAU-.02915 RRT .1750 RRF -.9935 RTF -.0658 CRT .5731 CRS .9993 CST .5412
FDE 2.3515 FRA .6696 FC3 .0290 BSP 8114 SGB 2928.7 R23 -.1156 R13 -.9928 LSA 3018.1 MSA 153.4 SSA 1.5
BDE13.6430 BRA 3.1232 BC3 .1748 FSP -132 SG1 2883.4 SG2 512.8 THA 88.13 EL1 2652.6 EL2 144.5 ALF 87.81

LAUNCH DATE OCT 16 1970 FLIGHT TIME 122.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 372.330

RL 149.13 LAL -.00 LOL 22.22 VL 27.754 GAL -10.60 AZL 148.26 HCA 183.17 SMA 131.45 ECC .22646 INC58.2575 V1 29.879
RP 107.99 LAP 2.70 LOP 203.88 VP 38.057 GAP 8.14 AZP 31.78 TAL 223.70 TAP 46.86 RCA 101.68 APO 161.22 V2 35.093
RC 129.278 GL -55.08 GP 62.26 ZAL 99.38 ZAP 98.03 ETS 169.06 ZAE 70.00 ETE 241.41 ZAC 141.48 ETC 251.52 CLP 107.46

PLANETOCENTRIC CONIC

C3 800.470 VHL 28.293 DLA -78.21 RAL 286.06 RAD 6572.8 VEL 30.360 PTH 3.46 VHP 36.968 DPA 74.89 RAP 191.29 ECC14.1737

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
13.42	5 14 56	2446.00	.34	82.71	195.98	168.21	5 55 42	1846.0	8.17	81.48
166.58	16 21 32	653.41	.34	283.11	196.00	168.21	16 32 26	53.4	8.17	281.88
13.42	5 14 56	2446.00	.34	82.71	195.98	168.21	5 55 42	1846.0	8.17	81.48
166.58	16 21 32	653.41	.34	283.11	196.00	168.21	16 32 26	53.4	8.17	281.88
13.42	5 14 56	2446.00	.34	82.71	195.98	168.21	5 55 42	1846.0	8.17	81.48
166.58	16 21 32	653.41	.34	283.11	196.00	168.21	16 32 26	53.4	8.17	281.88

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE 3.4506 TRA .2911 TC3 -.0540 BAU 1.8866 SGT 815.3 SGR 2871.1 SG3 47.1 ST 704.2 SR 2492.9 SS 1497.5
RD-12.1981 RRA 1.1230 RC3 .1678 FAU-.02489 RRT -.7240 RRF .9969 RTF -.6753 CRT -.9670 CRS -.9998 CST .9612
FDE-2.2868 FRA .2453 FC3 .0269 BSP 9180 SGB 2984.6 R23 -.1073 R13 .9934 LSA 2986.7 MSA 180.7 SSA 1.9
BDE12.6767 BRA 1.1601 BC3 .1763 FSP -150 SG1 2953.4 SG2 550.4 THA 102.05 EL1 2584.6 EL2 173.0 ALF 105.35

LAUNCH DATE OCT 16 1970 FLIGHT TIME 124.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 377.302

RL 149.13 LAL -.00 LOL 22.22 VL 27.670 GAL -10.11 AZL 117.83 HCA 185.52 SMA 130.85 ECC .22292 INC27.8345 V1 29.879
RP 108.03 LAP 2.58 LOP 207.10 VP 37.985 GAP 8.10 AZP 62.28 TAL 221.81 TAP 47.33 RCA 101.68 APO 160.02 V2 35.080
RC 131.513 GL -60.33 GP 73.11 ZAL 107.35 ZAP 105.15 ETS 113.28 ZAE 90.17 ETE 188.29 ZAC 158.71 ETC 228.47 CLP 154.07

PLANETOCENTRIC CONIC

C3 214.306 VHL 14.639 DLA -80.95 RAL 216.44 RAD 6571.2 VEL 18.320 PTH 3.03 VHP 19.612 DPA 62.13 RAP 239.83 ECC 4.5269

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
10.29	0 31 5	2322.04	8.95	83.39	124.99	170.84	1 9 47	1722.0	16.84	82.49
169.71	11 49 56	5809.35	8.95	258.67	125.01	170.84	13 26 45	5209.4	16.85	257.76
10.29	0 31 5	2322.04	8.95	83.39	124.99	170.84	1 9 47	1722.0	16.84	82.49
169.71	11 49 56	5809.35	8.95	258.67	125.01	170.84	13 26 45	5209.4	16.85	257.76
10.29	0 31 5	2322.04	8.95	83.39	124.99	170.84	1 9 47	1722.0	16.84	82.49
169.71	11 49 56	5809.35	8.95	258.67	125.01	170.84	13 26 45	5209.4	16.85	257.76

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE-4.3689 TRA -.7155 TC3 -.0707 BAU .2025 SGT 2476.9 SGR 2305.1 SG3 55.0 ST 1791.4 SR 1236.6 SS 804.4
RDE-2.7458 RRA -.8197 RC3 -.0002 FAU .00716 RRT .9576 RRF .9397 RTF .9978 CRT .9770 CRS -.9717 CST -.9997
FDE-1.1660 FRA -.1751 FC3 -.0289 BSP 10480 SGB 3383.6 R23 -.1891 R13 .9813 LSA 2309.3 MSA 228.9 SSA 1.1
BDE 5.1601 BRA 1.0880 BC3 .0707 FSP -180 SG1 3347.7 SG2 491.2 THA 42.85 EL1 2165.8 EL2 218.1 ALF 34.39

LAUNCH DATE OCT 16 1970 FLIGHT TIME 126.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 382.848

RL 149.13 LAL -.00 LOL 22.22 VL 27.588 GAL -9.73 AZL 106.87 HCA 188.46 SMA 130.27 ECC .22122 INC16.8714 V1 29.879
RP 108.07 LAP 2.45 LOP 210.32 VP 37.913 GAP 8.23 AZP 73.30 TAL 220.10 TAP 48.56 RCA 101.45 APO 159.08 V2 35.067
RC 133.740 GL -54.25 GP 66.96 ZAL 115.41 ZAP 112.97 ETS 78.10 ZAE 100.99 ETE 155.85 ZAC 160.76 ETC 228.18 CLP-175.59

PLANETOCENTRIC CONIC

C3 94.540 VHL 9.723 DLA -72.78 RAL 213.33 RAD 6569.8 VEL 14.693 PTH 2.66 VHP 13.309 DPA 49.75 RAP 245.45 ECC 2.5559

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
19.65	0 37 24	2155.49	18.43	74.91	117.39	161.82	1 13 19	1555.5	26.01	72.56
160.35	11 18 49	5674.17	18.44	259.43	117.41	161.81	12 53 23	5074.2	26.02	257.08
19.65	0 37 24	2155.49	18.43	74.91	117.39	161.82	1 13 19	1555.5	26.01	72.56
160.35	11 18 49	5674.17	18.44	259.43	117.41	161.81	12 53 23	5074.2	26.02	257.08
19.65	0 37 24	2155.49	18.43	74.91	117.39	161.82	1 13 19	1555.5	26.01	72.56
160.35	11 18 49	5674.17	18.44	259.43	117.41	161.81	12 53 23	5074.2	26.02	257.08

DIFFERENTIAL CORRECTIONS
TOE-2.7612 TRA-1.4589 TC3 -.5002 BAU .6323
RDE .2928 RRA -.3247 RC3 .0071 FAU .01843
FDE -.8438 FRA -.2612 FC3 -.1688 BSP 10957
BDE 2.7767 BRA 1.4946 BC3 .5003 FSP -226

MID-COURSE EXECUTION ACCURACY
SGT 3467.7 SGR 669.0 SG3 68.3
RRT .6821 RRF .4643 RTF .9620
SGB 3531.7 R23 -.2802 R13 .9570
SG1 3498.2 SG2 484.9 THA 7.64

ORBIT DETERMINATION ACCURACY
ST 1845.8 SR 259.5 SS 599.3
CRT -.2335 CRS .4108 CST -.9824
LSA 1938.9 MSA 272.7 SSA 2.0
EL1 1846.8 EL2 252.2 ALF 178.08

LAUNCH DATE OCT 16 1970 FLIGHT TIME 128.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 388.531

RL 149.13 LAL -.00 LOL 22.22 VL 27.506 GAL -9.38 AZL 101.63 HCA 191.54 SMA 129.69 ECC .22005 INC11.6280 V1 29.879
RP 108.11 LAP 2.31 LOP 213.53 VP 37.841 GAP 8.39 AZP 78.60 TAL 218.41 TAP 49.96 RCA 101.15 APO 158.23 V2 35.054
RC 135.957 GL -46.58 GP 58.79 ZAL 122.02 ZAP 120.23 ETS 68.11 ZAE 108.22 ETE 149.39 ZAC 156.29 ETC 240.99 CLP-166.31

PLANETOCENTRIC CONIC

C3 56.709 VHL 7.531 DLA -65.13 RAL 219.30 RAD 6569.0 VEL 13.344 PTH 2.44 VHP 10.504 DPA 39.87 RAP 246.78 ECC 1.9333

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
28.54	1 20 35	2010.63	24.72	64.27	116.97	152.42	1 54 6	1410.6	31.74	60.34
151.46	11 23 17	5580.61	24.72	258.28	116.99	152.42	12 56 18	4980.6	31.75	254.35
28.54	1 20 35	2010.63	24.72	64.27	116.97	152.42	1 54 6	1410.6	31.74	60.34
151.46	11 23 17	5580.61	24.72	258.28	116.99	152.42	12 56 18	4980.6	31.75	254.35
28.54	1 20 35	2010.63	24.72	64.27	116.97	152.42	1 54 6	1410.6	31.74	60.34
151.46	11 23 17	5580.61	24.72	258.28	116.99	152.42	12 56 18	4980.6	31.75	254.35

DIFFERENTIAL CORRECTIONS
TOE-2.0552 TRA-1.5746 TC3-1.0387 BAU .7920
RDE .4699 RRA -.1224 RC3 .1115 FAU .02577
FDE -.7733 FRA -.2717 FC3 -.3933 BSP 11271
BDE 2.1082 BRA 1.5793 BC3 1.0447 FSP -276

MID-COURSE EXECUTION ACCURACY
SGT 3606.2 SGR 452.8 SG3 83.7
RRT -.1171 RRF -.4582 RTF .9292
SGB 3634.6 R23 .3501 R13 -.9299
SG1 3606.6 SG2 449.6 THA 179.14

ORBIT DETERMINATION ACCURACY
ST 1782.5 SR 363.7 SS 550.7
CRT -.7752 CRS .9092 CST -.9678
LSA 1883.2 MSA 257.8 SSA 3.0
EL1 1805.1 EL2 226.9 ALF 170.87

LAUNCH DATE OCT 16 1970 FLIGHT TIME 130.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 394.258

RL 149.13 LAL -.00 LOL 22.22 VL 27.426 GAL -9.03 AZL 98.59 HCA 194.68 SMA 129.14 ECC .21917 INC 8.5888 V1 29.879
RP 108.15 LAP 2.17 LOP 216.74 VP 37.770 GAP 8.57 AZP 81.69 TAL 216.73 TAP 51.41 RCA 100.83 APO 157.44 V2 35.041
RC 138.166 GL -39.47 GP 51.48 ZAL 126.85 ZAP 126.59 ETS 63.69 ZAE 113.41 ETE 149.00 ZAC 150.62 ETC 248.40 CLP-163.16

PLANETOCENTRIC CONIC

C3 40.492 VHL 6.363 DLA -58.48 RAL 224.74 RAD 6568.6 VEL 12.722 PTH 2.31 VHP 9.046 DPA 31.75 RAP 247.55 ECC 1.6664

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
36.43	2 1 32	1892.91	27.80	53.38	115.86	143.77	2 33 5	1292.9	34.14	48.10
143.57	11 25 43	5530.03	27.81	256.77	115.87	143.76	12 57 53	4930.0	34.15	251.49
36.43	2 1 32	1892.91	27.80	53.38	115.86	143.77	2 33 5	1292.9	34.14	48.10
143.57	11 25 43	5530.03	27.81	256.77	115.87	143.76	12 57 53	4930.0	34.15	251.49
36.43	2 1 32	1892.91	27.80	53.38	115.86	143.77	2 33 5	1292.9	34.14	48.10
143.57	11 25 43	5530.03	27.81	256.77	115.87	143.76	12 57 53	4930.0	34.15	251.49

DIFFERENTIAL CORRECTIONS
TOE-1.6374 TRA-1.5809 TC3-1.5945 BAU .8701
RDE .4195 RRA -.0591 RC3 .2022 FAU .03118
FDE -.6956 FRA -.2488 FC3 -.6667 BSP 11597
BDE 1.6903 BRA 1.5820 BC3 1.6073 FSP -323

MID-COURSE EXECUTION ACCURACY
SGT 3702.0 SGR 468.3 SG3 98.4
RRT -.4628 RRF -.7718 RTF .9045
SGB 3731.5 R23 .3924 R13 -.9071
SG1 3708.4 SG2 414.4 THA 176.61

ORBIT DETERMINATION ACCURACY
ST 1686.6 SR 379.0 SS 500.1
CRT -.8329 CRS .9601 CST -.9544
LSA 1782.8 MSA 245.4 SSA 4.3
EL1 1716.3 EL2 206.1 ALF 169.24

LAUNCH DATE OCT 16 1970 FLIGHT TIME 132.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 400.001

RL 149.13 LAL -.00 LOL 22.22 VL 27.346 GAL -8.69 AZL 96.61 HCA 197.84 SMA 128.59 ECC .21848 INC 6.6055 V1 29.879
RP 108.19 LAP 2.02 LOP 219.94 VP 37.700 GAP 8.75 AZP 83.71 TAL 215.05 TAP 52.88 RCA 100.50 APO 156.68 V2 35.028
RC 140.364 GL -33.32 GP 45.32 ZAL 130.01 ZAP 132.01 ETS 60.93 ZAE 117.21 ETE 150.40 ZAC 145.35 ETC 252.59 CLP-162.12

PLANETOCENTRIC CONIC

C3 32.045 VHL 5.661 DLA -52.87 RAL 229.33 RAD 6568.3 VEL 12.386 PTH 2.24 VHP 8.215 DPA 25.01 RAP 248.40 ECC 1.5274

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.29	2 38 56	1794.22	28.81	43.28	114.71	136.46	3 8 50	1194.2	34.45	37.02
136.71	11 25 0	5510.59	28.82	255.89	114.73	136.45	12 56 50	4910.6	34.46	249.63
43.29	2 38 56	1794.22	28.81	43.28	114.71	136.46	3 8 50	1194.2	34.45	37.02
136.71	11 25 0	5510.59	28.82	255.89	114.73	136.45	12 56 50	4910.6	34.46	249.63
43.29	2 38 56	1794.22	28.81	43.28	114.71	136.46	3 8 50	1194.2	34.45	37.02
136.71	11 25 0	5510.59	28.82	255.89	114.73	136.45	12 56 50	4910.6	34.46	249.63

DIFFERENTIAL CORRECTIONS
TOE-1.3385 TRA-1.5503 TC3-2.1253 BAU .9175
RDE .3556 RRA -.0378 RC3 .2644 FAU .03497
FDE -.6031 FRA -.2063 FC3 -.9448 BSP 11881
BDE 1.3849 BRA 1.5508 BC3 2.1417 FSP -361

MID-COURSE EXECUTION ACCURACY
SGT 3792.5 SGR 472.4 SG3 110.6
RRT -.5823 RRF -.8577 RTF .8862
SGB 3821.8 R23 .4137 R13 -.8893
SG1 3802.6 SG2 383.1 THA 175.81

ORBIT DETERMINATION ACCURACY
ST 1564.8 SR 360.5 SS 441.5
CRT -.8391 CRS .9754 CST -.9380
LSA 1648.4 MSA 237.0 SSA 5.9
EL1 1594.3 EL2 192.5 ALF 168.89

LAUNCH DATE OCT 16 1970 FLIGHT TIME 134.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 405.748

RL 149.13 LAL -.00 LOL 22.22 VL 27.268 GAL -8.33 AZL 95.20 HCA 201.01 SMA 128.06 ECC .21795 INC 5.2048 V1 29.879
RP 108.23 LAP 1.86 LOP 223.14 VP 37.631 GAP 8.93 AZP 85.14 TAL 213.35 TAP 54.35 RCA 100.15 APO 155.97 V2 35.014
RC 142.552 GL -28.10 GP 40.19 ZAL 131.76 ZAP 136.58 ETS 58.87 ZAE 119.99 ETE 152.35 ZAC 140.82 ETC 255.22 CLP-161.95

PLANETOCENTRIC CONIC

C3 27.007 VHL 5.197 DLA -48.19 RAL 233.36 RAD 6568.1 VEL 12.181 PTH 2.19 VHP 7.716 DPA 19.40 RAP 249.45 ECC 1.4445

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.23	3 13 55	1707.12	28.69	34.20	114.04	130.53	3 42 22	1107.1	33.70	27.31
130.77	11 22 10	5512.08	28.70	255.91	114.05	130.53	12 54 2	4912.1	33.71	249.03
49.23	3 13 55	1707.12	28.69	34.20	114.04	130.53	3 42 22	1107.1	33.70	27.31
130.77	11 22 10	5512.08	28.70	255.91	114.05	130.53	12 54 2	4912.1	33.71	249.03
49.23	3 13 55	1707.12	28.69	34.20	114.04	130.53	3 42 22	1107.1	33.70	27.31
130.77	11 22 10	5512.08	28.70	255.91	114.05	130.53	12 54 2	4912.1	33.71	249.03

DIFFERENTIAL CORRECTIONS
TDE -1.1021 TRA -1.4933 TC3 -2.6062 BAU .9471
RDE .3031 RRA -.0332 RC3 .2987 FAU .03709
FDE -.5052 FRA -.1472 FC3 -1.1888 BSP 11948
BDE 1.1430 BRA 1.4937 BC3 2.6232 FSP -376

MID-COURSE EXECUTION ACCURACY
SGT 3861.6 SGR 459.4 SG3 119.0
RRT -.6264 RRF -.8794 RTF .8697
SGB 3888.8 R23 .4232 R13 -.8727
SG1 3872.4 SG2 357.1 THA 175.70

ORBIT DETERMINATION ACCURACY
ST 1425.4 SR 334.7 SS 375.3
CRT -.8271 CRS .9832 CST -.9145
LSA 1493.8 MSA 231.0 SSA 8.1
EL1 1452.5 EL2 184.6 ALF 168.83

LAUNCH DATE OCT 16 1970 FLIGHT TIME 136.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 411.493

RL 149.13 LAL -.00 LOL 22.22 VL 27.191 GAL -7.97 AZL 94.16 HCA 204.18 SMA 127.54 ECC .21757 INC 4.1583 V1 29.879
RP 108.27 LAP 1.70 LOP 226.34 VP 37.563 GAP 9.11 AZP 86.21 TAL 211.64 TAP 55.82 RCA 99.79 APO 155.29 V2 35.001
RC 144.730 GL -23.65 GP 35.93 ZAL 132.39 ZAP 140.45 ETS 57.20 ZAE 122.05 ETE 154.41 ZAC 137.01 ETC 257.06 CLP-162.21

PLANETOCENTRIC CONIC

C3 23.690 VHL 4.867 DLA -44.26 RAL 237.04 RAD 6568.0 VEL 12.044 PTH 2.15 VHP 7.409 DPA 14.70 RAP 250.69 ECC 1.3899

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
54.45	3 47 33	1626.44	28.01	25.99	113.93	125.78	4 14 39	1026.4	32.48	18.72
125.55	11 17 51	5528.12	28.03	256.82	113.94	125.77	12 49 59	4928.1	32.49	249.54
54.45	3 47 33	1626.44	28.01	25.99	113.93	125.78	4 14 39	1026.4	32.48	18.72
125.55	11 17 51	5528.12	28.03	256.82	113.94	125.77	12 49 59	4928.1	32.49	249.54
54.45	3 47 33	1626.44	28.01	25.99	113.93	125.78	4 14 39	1026.4	32.48	18.72
125.55	11 17 51	5528.12	28.03	256.82	113.94	125.77	12 49 59	4928.1	32.49	249.54

DIFFERENTIAL CORRECTIONS
TDE -.9285 TRA -1.4404 TC3 -3.0742 BAU .9790
RDE .2704 RRA -.0286 RC3 .3246 FAU .03872
FDE -.4216 FRA -.0966 FC3 -1.4149 BSP 12401
BDE .9670 BRA 1.4406 BC3 3.0913 FSP -408

MID-COURSE EXECUTION ACCURACY
SGT 3969.2 SGR 450.9 SG3 127.2
RRT -.6605 RRF -.8820 RTF .8623
SGB 3994.7 R23 .4106 R13 -.8649
SG1 3980.4 SG2 337.6 THA 175.68

ORBIT DETERMINATION ACCURACY
ST 1306.5 SR 318.7 SS 320.2
CRT -.8134 CRS .9889 CST -.8873
LSA 1363.6 MSA 227.2 SSA 10.6
EL1 1332.5 EL2 181.8 ALF 168.56

LAUNCH DATE OCT 16 1970 FLIGHT TIME 138.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 417.234

RL 149.13 LAL -.00 LOL 22.22 VL 27.114 GAL -7.61 AZL 93.34 HCA 207.36 SMA 127.04 ECC .21735 INC 3.3428 V1 29.879
RP 108.31 LAP 1.54 LOP 229.54 VP 37.496 GAP 9.29 AZP 87.03 TAL 209.92 TAP 57.29 RCA 99.42 APO 154.65 V2 34.988
RC 146.899 GL -19.83 GP 32.38 ZAL 132.14 ZAP 143.74 ETS 55.82 ZAE 123.58 ETE 156.37 ZAC 133.82 ETC 258.45 CLP-162.69

PLANETOCENTRIC CONIC

C3 21.334 VHL 4.619 DLA -40.92 RAL 240.51 RAD 6567.9 VEL 11.946 PTH 2.13 VHP 7.219 DPA 10.74 RAP 252.13 ECC 1.3511

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
59.13	4 20 46	1548.47	27.08	18.41	114.35	121.93	4 46 35	948.5	31.09	10.90
120.87	11 12 20	5555.25	27.10	258.51	114.36	121.92	12 44 56	4955.2	31.10	250.99
59.13	4 20 46	1548.47	27.08	18.41	114.35	121.93	4 46 35	948.5	31.09	10.90
120.87	11 12 20	5555.25	27.10	258.51	114.36	121.92	12 44 56	4955.2	31.10	250.99
59.13	4 20 46	1548.47	27.08	18.41	114.35	121.93	4 46 35	948.5	31.09	10.90
120.87	11 12 20	5555.25	27.10	258.51	114.36	121.92	12 44 56	4955.2	31.10	250.99

DIFFERENTIAL CORRECTIONS
TDE -.7837 TRA -1.3732 TC3 -3.5076 BAU 1.0051
RDE .2475 RRA -.0278 RC3 .3389 FAU .03940
FDE -.3423 FRA -.0419 FC3 -1.5988 BSP 12748
BDE .8218 BRA 1.3735 BC3 3.5239 FSP -427

MID-COURSE EXECUTION ACCURACY
SGT 4065.3 SGR 440.9 SG3 132.9
RRT -.6752 RRF -.8694 RTF .8561
SGB 4089.1 R23 .3900 R13 -.8584
SG1 4076.2 SG2 324.3 THA 175.79

ORBIT DETERMINATION ACCURACY
ST 1188.2 SR 307.5 SS 266.6
CRT -.7941 CRS .9930 CST -.8487
LSA 1235.6 MSA 224.8 SSA 13.7
EL1 1213.6 EL2 183.0 ALF 168.11

LAUNCH DATE OCT 16 1970 FLIGHT TIME 140.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 422.969

RL 149.13 LAL -.00 LOL 22.22 VL 27.039 GAL -7.24 AZL 92.69 HCA 210.54 SMA 126.54 ECC .21727 INC 2.6858 V1 29.879
RP 108.35 LAP 1.36 LOP 232.73 VP 37.429 GAP 9.48 AZP 87.69 TAL 208.19 TAP 58.74 RCA 99.05 APO 154.04 V2 34.975
RC 149.057 GL -16.51 GP 29.40 ZAL 131.22 ZAP 146.56 ETS 54.68 ZAE 124.73 ETE 158.16 ZAC 131.13 ETC 259.58 CLP-163.30

PLANETOCENTRIC CONIC

C3 19.564 VHL 4.423 DLA -38.05 RAL 243.88 RAD 6567.8 VEL 11.872 PTH 2.11 VHP 7.105 DPA 7.37 RAP 253.71 ECC 1.3220

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.45	4 54 27	1470.22	26.05	11.16	115.22	118.78	5 18 57	870.2	29.67	3.51
116.55	11 5 31	5592.12	26.06	260.93	115.22	118.76	12 38 43	4992.1	29.69	253.27
63.45	4 54 27	1470.22	26.05	11.16	115.22	118.78	5 18 57	870.2	29.67	3.51
116.55	11 5 31	5592.12	26.06	260.93	115.22	118.76	12 38 43	4992.1	29.69	253.27
63.45	4 54 27	1470.22	26.05	11.16	115.22	118.78	5 18 57	870.2	29.67	3.51
116.55	11 5 31	5592.12	26.06	260.93	115.22	118.76	12 38 43	4992.1	29.69	253.27

DIFFERENTIAL CORRECTIONS
TDE -.6608 TRA -1.2962 TC3 -3.9151 BAU 1.0280
RDE .2322 RRA -.0286 RC3 .3473 FAU .03944
FDE -.2700 FRA .0127 FC3 -1.7454 BSP 13062
BDE .7004 BRA 1.2965 BC3 3.9305 FSP -440

MID-COURSE EXECUTION ACCURACY
SGT 4156.2 SGR 432.5 SG3 136.8
RRT -.6794 RRF -.8478 RTF .8514
SGB 4178.7 R23 .3626 R13 -.8533
SG1 4166.6 SG2 316.6 THA 175.93

ORBIT DETERMINATION ACCURACY
ST 1073.6 SR 301.2 SS 216.6
CRT -.7711 CRS .9945 CST -.7924
LSA 1113.5 MSA 224.0 SSA 17.3
EL1 1099.2 EL2 187.3 ALF 167.42

LAUNCH DATE OCT 16 1970 FLIGHT TIME 142.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 428.697

RL 149.13 LAL -.00 LOL 22.22 VL 26.965 GAL -6.85 AZL 92.14 HCA 213.73 SMA 126.06 ECC .21734 INC 2.1424 V1 29.879
RP 108.39 LAP 1.19 LOP 235.92 VP 37.364 GAP 9.66 AZP 88.22 TAL 206.45 TAP 60.18 RCA 98.66 APO 153.46 V2 34.962
RC 151.205 GL -13.58 GP 26.89 ZAL 129.76 ZAP 149.01 ETS 53.77 ZAE 125.60 ETE 159.76 ZAC 128.87 ETC 260.55 CLP-163.97

PLANETOCENTRIC CONIC

C3 18.180 VHL 4.264 DLA -35.53 RAL 247.20 RAD 6567.7 VEL 11.814 PTH 2.09 VHP 7.044 DPA 4.48 RAP 255.44 ECC 1.2992

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.58	5 29 32	1388.52	24.98	3.95	116.46	116.13	5 52 41	788.5	28.28	356.21
112.42	10 56 56	5639.28	25.00	264.12	116.46	116.12	12 30 55	5039.3	28.29	256.38
67.58	5 29 32	1388.52	24.98	3.95	116.46	116.13	5 52 41	788.5	28.28	356.21
112.42	10 56 56	5639.28	25.00	264.12	116.46	116.12	12 30 55	5039.3	28.29	256.38
67.58	5 29 32	1388.52	24.98	3.95	116.46	116.13	5 52 41	788.5	28.28	356.21
112.42	10 56 56	5639.28	25.00	264.12	116.46	116.12	12 30 55	5039.3	28.29	256.38

DIFFERENTIAL CORRECTIONS
TDE -.5542 TRA-1.2110 TC3-4.3041 BAU 1.0497
RDE .2222 RRA -.0305 RC3 .3531 FAU .03906
FDE -.2052 FRA .0657 FC3-1.8602 BSP 13369
BDE .5971 BRA 1.2114 BC3 4.3186 FSP -448

MID-COURSE EXECUTION ACCURACY
SGT 4245.6 SGR 427.0 SG3 139.4
RRT -.6767 RRF -.8205 RTF .8481
SGB 4267.0 R23 .3307 R13 -.8498
SG1 4255.5 SG2 313.7 THA 176.09

ORBIT DETERMINATION ACCURACY
ST 962.6 SR 299.1 SS 171.4
CRT -.7443 CRS .9881 CST -.7046
LSA 997.2 MSA 224.8 SSA 21.6
EL1 989.0 EL2 194.4 ALF 166.45

LAUNCH DATE OCT 16 1970 FLIGHT TIME 144.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 434.416

RL 149.13 LAL -.00 LOL 22.22 VL 26.892 GAL -6.46 AZL 91.68 HCA 216.91 SMA 125.59 ECC .21756 INC 1.6830 V1 29.879
RP 108.43 LAP 1.01 LOP 239.11 VP 37.299 GAP 9.84 AZP 88.65 TAL 204.70 TAP 61.60 RCA 98.27 APO 152.92 V2 34.949
RC 153.343 GL -10.95 GP 24.75 ZAL 127.88 ZAP 151.15 ETS 53.06 ZAE 126.28 ETE 161.18 ZAC 126.95 ETC 261.42 CLP-164.68

PLANETOCENTRIC CONIC

C3 17.068 VHL 4.131 DLA -33.28 RAL 250.52 RAD 6567.7 VEL 11.767 PTH 2.08 VHP 7.019 DPA 2.00 RAP 257.28 ECC 1.2809

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
71.73	6 7 26	1298.94	23.91	356.39	118.02	113.87	6 29 5	698.9	26.93	348.60
108.27	10 45 32	5699.53	23.92	268.29	118.03	113.86	12 20 31	5099.5	26.94	260.50
71.73	6 7 26	1298.94	23.91	356.39	118.02	113.87	6 29 5	698.9	26.93	348.60
108.27	10 45 32	5699.53	23.92	268.29	118.03	113.86	12 20 31	5099.5	26.94	260.50
110.00	9 56 51	5848.95	18.92	277.20	115.36	119.01	11 34 19	5248.9	22.64	270.04
110.00	11 55 18	5485.57	29.11	253.96	120.29	108.76	13 26 43	4885.6	31.39	245.49

DIFFERENTIAL CORRECTIONS
TDE -.4571 TRA-1.1156 TC3-4.6713 BAU 1.0690
RDE .2155 RRA -.0338 RC3 .3568 FAU .03830
FDE -.1456 FRA .1181 FC3-1.9429 BSP 13623
BDE .5054 BRA 1.1161 BC3 4.6849 FSP -451

MID-COURSE EXECUTION ACCURACY
SGT 4327.2 SGR 423.6 SG3 140.8
RRT -.6677 RRF -.7889 RTF .8453
SGB 4347.9 R23 .2976 R13 -.8467
SG1 4336.5 SG2 314.6 THA 176.24

ORBIT DETERMINATION ACCURACY
ST 850.6 SR 299.5 SS 130.8
CRT -.7111 CRS .9559 CST -.5499
LSA 882.0 MSA 227.5 SSA 26.7
EL1 878.5 EL2 203.9 ALF 165.12

LAUNCH DATE OCT 16 1970 FLIGHT TIME 146.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 440.127

RL 149.13 LAL -.00 LOL 22.22 VL 26.821 GAL -6.06 AZL 91.29 HCA 220.09 SMA 125.14 ECC .21794 INC 1.2870 V1 29.879
RP 108.47 LAP .83 LOP 242.30 VP 37.236 GAP 10.02 AZP 89.02 TAL 202.93 TAP 63.02 RCA 97.87 APO 152.41 V2 34.937
RC 155.470 GL -8.57 GP 22.91 ZAL 125.65 ZAP 153.05 ETS 52.56 ZAE 126.82 ETE 162.44 ZAC 125.29 ETC 262.22 CLP-165.41

PLANETOCENTRIC CONIC

C3 16.160 VHL 4.020 DLA -31.24 RAL 253.87 RAD 6567.6 VEL 11.728 PTH 2.07 VHP 7.022 DPA -.16 RAP 259.22 ECC 1.2659

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
76.23	6 50 44	1193.16	22.84	347.82	119.87	111.91	7 10 37	593.2	25.61	340.01
103.77	10 28 57	5780.26	22.85	273.96	119.87	111.90	12 5 18	5180.3	25.62	266.14
76.23	6 50 44	1193.16	22.84	347.82	119.87	111.91	7 10 37	593.2	25.61	340.01
103.77	10 28 57	5780.26	22.85	273.96	119.87	111.90	12 5 18	5180.3	25.62	266.14
110.00	9 22 46	699.04	14.18	307.19	115.29	121.43	9 34 25	99.0	18.24	300.43
110.00	12 56 6	5322.37	32.11	242.20	123.09	102.40	14 24 48	4722.4	33.48	233.24

DIFFERENTIAL CORRECTIONS
TDE -.3687 TRA-1.0132 TC3-5.0234 BAU 1.0880
RDE .2116 RRA -.0377 RC3 .3608 FAU .03738
FDE -.0928 FRA .1674 FC3-2.0024 BSP 13898
BDE .4251 BRA 1.0139 BC3 5.0363 FSP -453

MID-COURSE EXECUTION ACCURACY
SGT 4409.1 SGR 423.1 SG3 141.6
RRT -.6560 RRF -.7560 RTF .8440
SGB 4429.3 R23 .2642 R13 -.8452
SG1 4417.9 SG2 318.7 THA 176.38

ORBIT DETERMINATION ACCURACY
ST 740.0 SR 302.3 SS 99.4
CRT -.6705 CRS .8459 CST -.2718
LSA 770.5 MSA 232.6 SSA 32.7
EL1 769.8 EL2 216.6 ALF 163.33

LAUNCH DATE OCT 16 1970 FLIGHT TIME 148.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 445.827

RL 149.13 LAL -.00 LOL 22.22 VL 26.750 GAL -5.66 AZL 90.94 HCA 223.27 SMA 124.69 ECC .21849 INC .9404 V1 29.879
RP 108.51 LAP .64 LOP 245.48 VP 37.174 GAP 10.21 AZP 89.32 TAL 201.16 TAP 64.43 RCA 97.45 APO 151.94 V2 34.925
RC 157.587 GL -6.39 GP 21.33 ZAL 123.13 ZAP 154.74 ETS 52.24 ZAE 127.25 ETE 163.54 ZAC 123.86 ETC 262.98 CLP-166.15

PLANETOCENTRIC CONIC

C3 15.415 VHL 3.926 DLA -29.34 RAL 257.27 RAD 6567.6 VEL 11.696 PTH 2.06 VHP 7.046 DPA -2.04 RAP 261.25 ECC 1.2537

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
81.98	7 47 19	1045.50	21.77	336.36	121.98	110.17	8 4 45	445.5	24.32	328.54
98.02	9 59 28	618.50	21.78	305.02	121.98	110.16	10 9 47	18.5	24.33	297.20
100.00	9 26 31	724.10	18.15	311.27	120.41	114.17	9 38 35	124.1	21.26	303.86
100.00	11 2 57	5703.17	25.49	269.19	123.31	106.16	12 38 0	5103.2	27.46	260.95
110.00	9 6 47	786.27	11.03	311.99	116.44	122.56	9 19 53	186.3	15.25	305.42
110.00	13 39 11	5213.76	33.41	233.99	125.23	97.71	15 6 5	4613.8	34.11	224.82

DIFFERENTIAL CORRECTIONS
TDE -.2848 TRA -.9028 TC3-5.3561 BAU 1.1063
RDE .2094 RRA -.0426 RC3 .3644 FAU .03629
FDE -.0447 FRA .2146 FC3-2.0383 BSP 14169
BDE .3535 BRA .9038 BC3 5.3685 FSP -454

MID-COURSE EXECUTION ACCURACY
SGT 4488.3 SGR 424.6 SG3 141.8
RRT -.6416 RRF -.7224 RTF .8436
SGB 4508.4 R23 .2324 R13 -.8446
SG1 4496.6 SG2 325.1 THA 176.51

ORBIT DETERMINATION ACCURACY
ST 627.9 SR 306.4 SS 82.1
CRT -.6153 CRS .5484 CST .1852
LSA 659.8 MSA 240.7 SSA 39.9
EL1 659.7 EL2 229.9 ALF 160.88

LAUNCH DATE OCT 16 1970 FLIGHT TIME 150.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 451.518

RL	149.13	LAL	-.00	LOL	22.22	VL	26.681	GAL	-5.24	AZL	90.63	HCA	226.45	SMA	124.26	ECC	.21920	INC	.6325	V1	29.879		
RP	108.54	LAP	.46	LOP	248.66	VP	37.112	GAP	10.40	AZP	89.56	TAL	199.37	TAP	65.82	RCA	97.02	APO	151.50	V2	34.913		
RC	159.692	GL	-4.37	GP	19.96	ZAL	120.36	ZAP	156.27	ETS	52.11	ZAE	127.61	ETE	164.51	ZAC	122.61	ETC	263.70	CLP	-166.89		

PLANETOCENTRIC CONIC

C3	14.808	VHL	3.848	DLA	-27.55	RAL	260.72	RAD	6567.6	VEL	11.670	PTH	2.05	VHP	7.086	DPA	-3.68	RAP	263.36	ECC	1.2437		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 9 21	1011.34	16.59	331.67	122.67	113.28	8 26 13	411.3	19.60	324.29
90.00	10 5 0	634.66	24.92	307.25	125.67	103.91	10 15 35	34.7	26.59	298.98
100.00	8 49 26	881.79	13.51	320.68	121.18	116.92	9 4 8	281.8	17.01	313.64
100.00	12 7 36	5527.48	28.24	256.87	126.46	100.24	13 39 44	4927.5	29.36	248.25
110.00	8 57 56	855.10	8.49	315.69	118.22	123.24	9 12 11	255.1	12.80	309.26
110.00	14 15 36	5126.93	34.00	227.29	127.29	93.79	15 41 3	4526.9	34.15	218.04

DIFFERENTIAL CORRECTIONS

TDE	-.2036	TRA	-.7848	TC3	-5.6662	BAU	1.1241
RDE	.2083	RRA	-.0484	RC3	.3680	FAU	.03511
FDE	-.0010	FRA	.2595	FC3	-2.0529	BSP	14438
BDE	.2913	BRA	.7863	BC3	5.6781	FSP	-454

MID-COURSE EXECUTION ACCURACY

SGT	4565.7	SGR	427.7	SG3	141.6		
RRT	-.6257	RRF	-.6894	RTF	.8441		
SGB	4585.7	R23	.2031	R13	-.8450		
SG1	4573.6	SG2	333.1	THA	176.63		

ORBIT DETERMINATION ACCURACY

ST	515.1	SR	311.2	SS	85.1
CRT	-.5333	CRS	.0933	CST	.6289
LSA	550.6	MSA	252.7	SSA	48.9
EL1	548.7	EL2	247.1	ALF	157.29

LAUNCH DATE OCT 16 1970 FLIGHT TIME 152.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 457.197

RL	149.13	LAL	-.00	LOL	22.22	VL	26.612	GAL	-4.81	AZL	90.36	HCA	229.62	SMA	123.84	ECC	.22009	INC	.3557	V1	29.879		
RP	108.58	LAP	.27	LOP	251.84	VP	37.052	GAP	10.59	AZP	89.77	TAL	197.58	TAP	67.20	RCA	96.58	APO	151.09	V2	34.901		
RC	161.784	GL	-2.49	GP	18.75	ZAL	117.37	ZAP	157.66	ETS	52.16	ZAE	127.90	ETE	165.37	ZAC	121.50	ETC	264.42	CLP	-167.63		

PLANETOCENTRIC CONIC

C3	14.325	VHL	3.785	DLA	-25.83	RAL	264.24	RAD	6567.6	VEL	11.649	PTH	2.05	VHP	7.141	DPA	-5.11	RAP	265.54	ECC	1.2357		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 37 21	1157.46	12.46	340.42	124.00	115.64	7 56 39	557.5	15.81	333.34
90.00	11 5 5	5761.84	27.07	273.88	128.78	98.65	12 41 7	5161.8	27.99	265.33
100.00	8 32 25	979.68	10.43	326.31	122.95	118.17	8 48 45	379.7	14.11	319.46
100.00	12 52 43	5414.86	29.33	248.68	129.11	96.06	14 22 58	4814.9	29.86	239.91
110.00	8 53 10	914.58	6.25	318.85	120.43	123.67	9 8 24	314.6	10.64	312.50
110.00	14 48 27	5052.72	34.18	221.50	129.43	90.37	16 12 40	4452.7	33.85	212.27

DIFFERENTIAL CORRECTIONS

TDE	-.1219	TRA	-.6581	TC3	-5.9464	BAU	1.1410
RDE	.2078	RRA	-.0552	RC3	.3707	FAU	.03384
FDE	.0400	FRA	.3030	FC3	-2.0451	BSP	14690
BDE	.2409	BRA	.6604	BC3	5.9580	FSP	-452

MID-COURSE EXECUTION ACCURACY

SGT	4639.0	SGR	431.7	SG3	140.9		
RRT	-.6083	RRF	-.6572	RTF	.8450		
SGB	4659.0	R23	.1768	R13	-.8458		
SG1	4646.5	SG2	342.0	THA	176.74		

ORBIT DETERMINATION ACCURACY

ST	403.1	SR	315.9	SS	105.4
CRT	-.3919	CRS	-.2666	CST	.8080
LSA	443.3	MSA	270.8	SSA	60.4
EL1	436.0	EL2	268.7	ALF	151.07

LAUNCH DATE OCT 16 1970 FLIGHT TIME 154.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 462.863

RL	149.13	LAL	-.00	LOL	22.22	VL	26.545	GAL	-4.37	AZL	90.10	HCA	232.80	SMA	123.43	ECC	.22116	INC	.1040	V1	29.879		
RP	108.61	LAP	.08	LOP	255.01	VP	36.994	GAP	10.78	AZP	89.94	TAL	195.78	TAP	68.58	RCA	96.13	APO	150.72	V2	34.890		
RC	163.865	GL	-.74	GP	17.70	ZAL	114.20	ZAP	158.93	ETS	52.40	ZAE	128.15	ETE	166.12	ZAC	120.52	ETC	265.11	CLP	-168.37		

PLANETOCENTRIC CONIC

C3	13.956	VHL	3.736	DLA	-24.17	RAL	267.83	RAD	6567.5	VEL	11.634	PTH	2.04	VHP	7.207	DPA	-6.36	RAP	267.77	ECC	1.2297		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 21 25	1255.54	9.50	346.11	126.11	116.80	7 42 20	655.5	13.03	339.20
90.00	11 49 37	5652.28	27.94	265.98	131.59	94.79	13 23 49	5052.3	28.31	257.34
100.00	8 22 32	1058.24	7.87	330.74	125.23	118.93	8 40 10	458.2	11.67	324.01
100.00	13 31 11	5324.81	29.79	242.03	131.72	92.59	14 59 56	4724.8	29.83	233.22
110.00	8 51 2	968.84	4.20	321.71	122.98	123.96	9 7 11	368.8	8.63	315.42
110.00	15 19 10	4986.98	34.09	216.37	131.72	87.33	16 42 17	4387.0	33.35	207.20

DIFFERENTIAL CORRECTIONS

TDE	-.0394	TRA	-.5240	TC3	-6.1937	BAU	1.1577
RDE	.2080	RRA	-.0629	RC3	.3727	FAU	.03255
FDE	.0777	FRA	.3443	FC3	-2.0189	BSP	14957
BDE	.2117	BRA	.5277	BC3	6.2049	FSP	-451

MID-COURSE EXECUTION ACCURACY

SGT	4711.2	SGR	436.4	SG3	140.0		
RRT	-.5908	RRF	-.6269	RTF	.8469		
SGB	4731.4	R23	.1534	R13	-.8475		
SG1	4718.3	SG2	351.6	THA	176.85		

ORBIT DETERMINATION ACCURACY

ST	304.6	SR	320.7	SS	134.1
CRT	-.1236	CRS	-.4651	CST	.7135
LSA	348.9	MSA	293.7	SSA	74.7
EL1	333.0	EL2	291.1	ALF	123.68

LAUNCH DATE OCT 16 1970 FLIGHT TIME 156.00 ARRIVAL DATE MAR 21 1971

HELIOCENTRIC CONIC DISTANCE 468.517

RL	149.13	LAL	-.00	LOL	22.22	VL	26.479	GAL	-3.92	AZL	89.87	HCA	235.97	SMA	123.02	ECC	.22243	INC	.1265	V1	29.879		
RP	108.65	LAP	-.11	LOP	258.19	VP	36.936	GAP	10.99	AZP	90.07	TAL	193.97	TAP	69.94	RCA	95.66	APO	150.39	V2	34.880		
RC	165.932	GL	.91	GP	16.76	ZAL	110.86	ZAP	160.09	ETS	52.82	ZAE	128.37	ETE	166.79	ZAC	119.63	ETC	265.80	CLP	-169.10		

PLANETOCENTRIC CONIC

C3	13.699	VHL	3.701	DLA	-22.53	RAL	271.47	RAD	6567.5	VEL	11.623	PTH	2.04	VHP	7.284	DPA	-7.45	RAP	270.06	ECC	1.2255		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 11 50	1336.40	6.99	350.72	128.66	117.51	7 34 7	736.4	10.62	343.92
90.00	12 28 14	5563.27	28.28	259.50	134.41	91.56	14 0 58	4963.3	28.19	250.83
100.00	8 16 37	1127.33	5.57	334.58	127.88	119.42	8 35 24	527.3	9.45	327.94
100.00	14 6 9	5247.57	29.89	236.29	134.43	89.57	15 33 37	4647.6	29.51	227.50
110.00	8 50 47	1020.21	2.24	324.39	125.81	124.12	9 7 47	420.2	6.70	318.15
110.00	15 48 28	4927.45	33.81	211.74	134.19	84.61	17 10 36	4327.4	32.69	202.68

DIFFERENTIAL CORRECTIONS

TDE	.0467	TRA	-.3803	TC3	-6.3959	BAU	1.1734
RDE	.2084	RRA	-.0716	RC3	.3729	FAU	.03120
FDE	.1137	FRA	.3849	FC3	-1.9716	BSP	15205
BDE	.2136	BRA	.3870	BC3	6.4068	FSP	-449

MID-COURSE EXECUTION ACCURACY

SGT	4777.8	SGR	441.3	SG3	138.7		
RRT	-.5725	RRF	-.5978	RTF	.8489		
SGB	4798.2	R23	.1330	R13	-.8495		
SG1	4784.6	SG2	361.3	THA	176.96		

ORBIT DETERMINATION ACCURACY

ST	248.9	SR	324.8	SS	166.9
CRT	.3593	CRS	-.5740	CST	.2736
LSA	354.6	MSA	247.4	SSA	91.5
EL1	346.4	EL2	217.8	ALF	63.42

LAUNCH DATE OCT 16 1970 FLIGHT TIME 158.00 ARRIVAL DATE MAR 23 1971

HELIOCENTRIC CONIC DISTANCE 474.158

RL 149.13 LAL -.00 LOL 22.22 VL 26.414 GAL -3.45 AZL 89.66 HCA 239.14 SMA 122.63 ECC .22390 INC .3412 V1 29.879
RP 108.68 LAP -.29 LOP 261.36 VP 36.880 GAP 11.19 AZP 90.18 TAL 192.15 TAP 71.29 RCA 95.17 APO 150.09 V2 34.869
RC 167.985 GL 2.45 GP 15.93 ZAL 107.38 ZAP 161.16 ETS 53.42 ZAE 128.57 ETE 167.39 ZAC 118.81 ETC 266.48 CLP-169.82

PLANETOCENTRIC CONIC

C3 13.552 VHL 3.681 DLA -20.91 RAL 275.16 RAD 6567.5 VEL 11.616 PTH 2.04 VHP 7.372 DPA -8.40 RAP 272.40 ECC 1.2230

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 5 54	1408.60	4.70	354.79	131.54	117.96	7 29 23	808.6	8.41	348.07
90.00	13 3 37	5486.36	28.29	253.87	137.33	88.74	14 35 3	4886.4	27.82	245.24
100.00	8 13 16	1191.21	3.43	338.11	130.84	119.71	8 33 7	591.2	7.36	331.53
100.00	14 38 57	5178.98	29.75	231.19	137.27	86.90	16 5 16	4579.0	29.00	222.47
110.00	8 51 54	1070.12	.33	327.00	128.91	124.18	9 9 44	470.1	4.81	320.78
110.00	16 16 48	4872.83	33.38	207.53	136.86	82.15	17 38 1	4272.8	31.93	198.60

DIFFERENTIAL CORRECTIONS
TDE .1420 TRA -.2236 TC3-6.5345 BAU 1.1858
RDE .2087 RRA -.0817 RC3 .3694 FAU .02969
FDE .1510 FRA .4273 FC3-1.8964 BSP 15320
BDE .2524 BRA .2380 BC3 6.5450 FSP -439

MID-COURSE EXECUTION ACCURACY
SGT 4830.6 SGR 444.9 SG3 136.9
RRT -.5518 RRF -.5677 RTF .8496
SGB 4851.1 R23 .1153 R13 -.8501
SG1 4836.9 SG2 370.6 THA 177.07

ORBIT DETERMINATION ACCURACY
ST 286.6 SR 327.4 SS 204.0
CRT .8008 CRS -.6413 CST -.3716
LSA 431.4 MSA 183.8 SSA 105.6
EL1 413.4 EL2 136.0 ALF 49.73

LAUNCH DATE OCT 16 1970 FLIGHT TIME 160.00 ARRIVAL DATE MAR 25 1971

HELIOCENTRIC CONIC DISTANCE 479.783

RL 149.13 LAL -.00 LOL 22.22 VL 26.350 GAL -2.97 AZL 89.46 HCA 242.31 SMA 122.25 ECC .22559 INC .5418 V1 29.879
RP 108.71 LAP -.48 LOP 264.53 VP 36.825 GAP 11.41 AZP 90.25 TAL 190.32 TAP 72.63 RCA 94.67 APO 149.83 V2 34.859
RC 170.025 GL 3.88 GP 15.19 ZAL 103.78 ZAP 162.16 ETS 54.20 ZAE 128.75 ETE 167.92 ZAC 118.07 ETC 267.16 CLP-170.53

PLANETOCENTRIC CONIC

C3 13.518 VHL 3.677 DLA -19.30 RAL 278.88 RAD 6567.5 VEL 11.615 PTH 2.04 VHP 7.468 DPA -9.22 RAP 274.77 ECC 1.2225

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 2 20	1475.97	2.54	358.56	134.70	118.21	7 26 56	876.0	6.30	351.89
90.00	13 36 54	5417.88	28.09	248.87	140.39	86.24	15 7 11	4817.9	27.27	240.30
100.00	8 11 42	1252.17	1.36	341.46	134.05	119.86	8 32 34	652.2	5.33	334.91
100.00	15 10 13	5116.92	29.43	226.61	140.26	84.50	16 35 30	4516.9	28.36	217.97
110.00	8 54 2	1119.49	-1.56	329.57	132.22	124.15	9 12 41	519.5	2.93	323.37
110.00	16 44 22	4822.36	32.84	203.69	139.72	79.94	18 4 45	4222.4	31.11	194.90

DIFFERENTIAL CORRECTIONS
TDE .2384 TRA -.0622 TC3-6.6287 BAU 1.1998
RDE .2097 RRA -.0920 RC3 .3649 FAU .02830
FDE .1844 FRA .4658 FC3-1.8122 BSP 15527
BDE .3175 BRA .1111 BC3 6.6388 FSP -435

MID-COURSE EXECUTION ACCURACY
SGT 4889.6 SGR 449.3 SG3 135.2
RRT -.5329 RRF -.5411 RTF .8523
SGB 4910.2 R23 .0994 R13 -.8527
SG1 4895.5 SG2 379.7 THA 177.18

ORBIT DETERMINATION ACCURACY
ST 400.5 SR 330.0 SS 239.2
CRT .9203 CRS -.6789 CST -.7107
LSA 539.5 MSA 158.8 SSA 101.1
EL1 508.9 EL2 101.6 ALF 39.03

LAUNCH DATE OCT 16 1970 FLIGHT TIME 162.00 ARRIVAL DATE MAR 27 1971

HELIOCENTRIC CONIC DISTANCE 485.392

RL 149.13 LAL -.00 LOL 22.22 VL 26.287 GAL -2.48 AZL 89.27 HCA 245.48 SMA 121.88 ECC .22751 INC .7308 V1 29.879
RP 108.74 LAP -.66 LOP 267.70 VP 36.771 GAP 11.63 AZP 90.30 TAL 188.49 TAP 73.97 RCA 94.15 APO 149.61 V2 34.850
RC 172.049 GL 5.21 GP 14.53 ZAL 100.10 ZAP 163.08 ETS 55.18 ZAE 128.91 ETE 168.39 ZAC 117.37 ETC 267.84 CLP-171.24

PLANETOCENTRIC CONIC

C3 13.601 VHL 3.688 DLA -17.70 RAL 282.62 RAD 6567.5 VEL 11.618 PTH 2.04 VHP 7.575 DPA -9.91 RAP 277.17 ECC 1.2238

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 0 27	1540.56	.46	2.17	138.10	118.31	7 26 7	940.6	4.24	355.53
90.00	14 8 38	5355.95	27.73	244.38	143.59	84.01	15 37 54	4756.0	26.61	235.89
100.00	8 11 25	1311.52	-.65	344.71	137.48	119.89	8 33 17	711.5	3.33	338.19
100.00	15 40 21	5060.22	28.99	222.45	143.42	82.36	17 4 41	4460.2	27.63	213.91
110.00	8 56 57	1168.90	-3.44	332.16	135.74	124.03	9 16 26	568.9	1.05	325.95
110.00	17 11 19	4775.60	32.23	200.18	142.77	77.94	18 30 54	4175.6	30.24	191.54

DIFFERENTIAL CORRECTIONS
TDE .3406 TRA .1088 TC3-6.6599 BAU 1.2127
RDE .2112 RRA -.1031 RC3 .3574 FAU .02689
FDE .2161 FRA .5039 FC3-1.7118 BSP 15714
BDE .4007 BRA .1499 BC3 6.6695 FSP -430

MID-COURSE EXECUTION ACCURACY
SGT 4943.8 SGR 453.2 SG3 133.4
RRT -.5138 RRF -.5158 RTF .8552
SGB 4964.5 R23 .0859 R13 -.8555
SG1 4949.3 SG2 388.4 THA 177.29

ORBIT DETERMINATION ACCURACY
ST 551.8 SR 332.0 SS 273.7
CRT .9264 CRS -.7015 CST -.8508
LSA 675.8 MSA 162.6 SSA 81.2
EL1 634.8 EL2 108.7 ALF 30.11

LAUNCH DATE OCT 16 1970 FLIGHT TIME 164.00 ARRIVAL DATE MAR 29 1971

HELIOCENTRIC CONIC DISTANCE 490.981

RL 149.13 LAL -.00 LOL 22.22 VL 26.225 GAL -1.97 AZL 89.09 HCA 248.65 SMA 121.52 ECC .22968 INC .9105 V1 29.879
RP 108.77 LAP -.85 LOP 270.86 VP 36.718 GAP 11.86 AZP 90.33 TAL 186.65 TAP 75.30 RCA 93.61 APO 149.43 V2 34.841
RC 174.060 GL 6.44 GP 13.94 ZAL 96.37 ZAP 163.94 ETS 56.35 ZAE 129.06 ETE 168.82 ZAC 116.72 ETC 268.51 CLP-171.94

PLANETOCENTRIC CONIC

C3 13.807 VHL 3.716 DLA -16.11 RAL 286.36 RAD 6567.5 VEL 11.627 PTH 2.04 VHP 7.690 DPA -10.50 RAP 279.61 ECC 1.2272

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 59 47	1603.51	-1.57	5.68	141.71	118.28	7 26 30	1003.5	2.22	359.05
90.00	14 39 9	5299.56	27.26	240.32	146.94	82.03	16 7 28	4699.6	25.88	231.92
100.00	8 12 8	1370.05	-2.63	347.93	141.12	119.79	8 34 58	770.1	1.35	341.41
100.00	16 9 28	5008.26	28.46	218.68	146.74	80.44	17 32 57	4408.3	26.84	210.25
110.00	9 0 27	1218.69	-5.33	334.77	139.44	123.81	9 20 46	618.7	-.86	328.55
110.00	17 37 39	4732.39	31.57	196.99	145.99	76.16	18 56 31	4132.4	29.35	188.49

DIFFERENTIAL CORRECTIONS
TDE .4394 TRA .2786 TC3-6.6561 BAU 1.2303
RDE .2139 RRA -.1137 RC3 .3497 FAU .02578
FDE .2418 FRA .5354 FC3-1.6162 BSP 16136
BDE .4888 BRA .3009 BC3 6.6653 FSP -436

MID-COURSE EXECUTION ACCURACY
SGT 5012.6 SGR 457.9 SG3 131.6
RRT -.4983 RRF -.4961 RTF .8615
SGB 5033.5 R23 .0740 R13 -.8618
SG1 5017.9 SG2 396.6 THA 177.38

ORBIT DETERMINATION ACCURACY
ST 706.5 SR 334.5 SS 302.1
CRT .9099 CRS -.7139 CST -.9106
LSA 818.0 MSA 170.4 SSA 65.3
EL1 771.3 EL2 127.1 ALF 24.00

LAUNCH DATE OCT 16 1970 FLIGHT TIME 166.00 ARRIVAL DATE MAR 31 1971

HELIOCENTRIC CONIC DISTANCE 496.552

RL 149.13 LAL -.00 LOL 22.22 VL 26.164 GAL -1.45 AZL 88.92 HCA 251.82 SMA 121.16 ECC .23211 INC 1.0825 V1 29.879
RP 108.79 LAP -1.03 LOP 274.03 VP 36.667 GAP 12.10 AZP 90.34 TAL 184.80 TAP 76.62 RCA 93.04 APO 149.29 V2 34.833
RC 176.055 GL 7.55 GP 13.41 ZAL 92.60 ZAP 164.74 ETS 57.73 ZAE 129.21 ETE 169.20 ZAC 116.10 ETC 269.18 CLP-172.64

PLANETOCENTRIC CONIC

C3 14.144 VHL 3.761 DLA -14.54 RAL 290.09 RAD 6567.6 VEL 11.642 PTH 2.04 VHP 7.816 DPA -10.98 RAP 282.07 ECC 1.2328

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 0 2	1665.54	-3.57	9.14	145.50	118.11	7 27 48	1065.5	.22	2.51
90.00	15 8 34	5248.14	26.72	236.65	150.44	80.27	16 36 2	4648.1	25.10	228.35
100.00	8 13 35	1428.23	-4.59	351.13	144.93	119.57	8 37 24	828.2	-.62	344.60
100.00	16 37 42	4960.68	27.87	215.27	150.20	78.74	18 0 23	4360.7	26.04	206.95
110.00	9 4 25	1269.05	-7.23	337.43	143.30	123.50	9 25 34	669.0	-2.78	331.17
110.00	18 3 22	4692.63	30.89	194.09	149.38	74.57	19 21 35	4092.6	28.46	185.73

DIFFERENTIAL CORRECTIONS
TDE .5623 TRA .4762 TC3-6.5365 BAU 1.2376
RDE .2157 RRA -.1266 RC3 .3343 FAU .02421
FDE .2761 FRA .5767 FC3-1.4819 BSP 16119
BDE .6022 BRA .4928 BC3 6.5451 FSP -422

MID-COURSE EXECUTION ACCURACY
SGT 5046.5 SGR 459.2 SG3 129.4
RRT -.4764 RRF -.4694 RTF .8627
SGB 5067.4 R23 .0634 R13 -.8629
SG1 5051.3 SG2 403.4 THA 177.50

ORBIT DETERMINATION ACCURACY
ST 897.8 SR 334.1 SS 339.1
CRT .8899 CRS -.7254 CST -.9459
LSA 999.1 MSA 178.4 SSA 52.2
EL1 947.0 EL2 144.4 ALF 18.78

LAUNCH DATE OCT 16 1970 FLIGHT TIME 168.00 ARRIVAL DATE APR 2 1971

HELIOCENTRIC CONIC DISTANCE 502.101

RL 149.13 LAL -.00 LOL 22.22 VL 26.104 GAL -.91 AZL 88.75 HCA 254.98 SMA 120.82 ECC .23483 INC 1.2483 V1 29.879
RP 108.82 LAP -1.21 LOP 277.20 VP 36.617 GAP 12.35 AZP 90.32 TAL 182.96 TAP 77.94 RCA 92.45 APO 149.19 V2 34.825
RC 178.036 GL 8.55 GP 12.92 ZAL 88.83 ZAP 165.48 ETS 59.32 ZAE 129.34 ETE 169.55 ZAC 115.51 ETC 269.84 CLP-173.33

PLANETOCENTRIC CONIC

C3 14.622 VHL 3.824 DLA -12.98 RAL 293.76 RAD 6567.6 VEL 11.662 PTH 2.05 VHP 7.951 DPA -11.37 RAP 284.55 ECC 1.2406

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 1 1	1726.98	-5.53	12.59	149.45	117.82	7 29 48	1127.0	-1.77	5.94
90.00	15 36 57	5201.43	26.14	233.35	154.06	78.71	17 3 38	4601.4	24.32	225.16
100.00	8 15 37	1486.27	-6.53	354.35	148.90	119.23	8 40 23	886.3	-2.59	347.78
100.00	17 5 2	4917.38	27.26	212.19	153.80	77.23	18 26 59	4317.4	25.23	203.98
110.00	9 8 42	1320.01	-9.14	340.15	147.31	123.08	9 30 42	720.0	-4.72	333.84
110.00	18 28 26	4656.40	30.20	191.49	152.91	73.17	19 46 2	4056.4	27.60	183.26

DIFFERENTIAL CORRECTIONS
TDE .6846 TRA .6755 TC3-6.3732 BAU 1.2474
RDE .2189 RRA -.1389 RC3 .3177 FAU .02284
FDE .3052 FRA .6124 FC3-1.3520 BSP 16248
BDE .7187 BRA .6896 BC3 6.3811 FSP -415

MID-COURSE EXECUTION ACCURACY
SGT 5088.0 SGR 460.6 SG3 127.1
RRT -.4564 RRF -.4461 RTF .8665
SGB 5108.8 R23 .0540 R13 -.8667
SG1 5092.4 SG2 409.5 THA 177.62

ORBIT DETERMINATION ACCURACY
ST 1081.9 SR 334.2 SS 369.9
CRT .8721 CRS -.7316 CST -.9641
LSA 1176.1 MSA 184.4 SSA 43.4
EL1 1121.3 EL2 157.8 ALF 15.39

LAUNCH DATE OCT 16 1970 FLIGHT TIME 170.00 ARRIVAL DATE APR 4 1971

HELIOCENTRIC CONIC DISTANCE 507.625

RL 149.13 LAL -.00 LOL 22.22 VL 26.045 GAL -.34 AZL 88.59 HCA 258.15 SMA 120.48 ECC .23784 INC 1.4091 V1 29.879
RP 108.84 LAP -1.38 LOP 280.36 VP 36.568 GAP 12.61 AZP 90.29 TAL 181.10 TAP 79.25 RCA 91.82 APO 149.14 V2 34.818
RC 180.002 GL 9.44 GP 12.49 ZAL 85.09 ZAP 166.17 ETS 61.14 ZAE 129.47 ETE 169.87 ZAC 114.94 ETC 270.50 CLP-174.01

PLANETOCENTRIC CONIC

C3 15.255 VHL 3.906 DLA -11.46 RAL 297.38 RAD 6567.6 VEL 11.689 PTH 2.06 VHP 8.098 DPA -11.67 RAP 287.04 ECC 1.2511

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 2 32	1788.03	-7.46	16.05	153.54	117.40	7 32 20	1188.0	-3.73	9.35
90.00	16 4 18	5159.32	25.55	230.41	157.80	77.35	17 30 17	4559.3	23.55	222.31
100.00	8 18 5	1544.26	-8.45	357.59	153.00	118.78	8 43 50	944.3	-4.54	350.98
100.00	17 31 25	4878.32	26.64	209.46	157.51	75.92	18 52 44	4278.3	24.44	201.35
110.00	9 13 15	1371.54	-11.04	342.92	151.44	122.56	9 36 6	771.5	-6.67	336.56
110.00	18 52 46	4623.80	29.54	189.18	156.57	71.96	20 9 49	4023.8	26.79	181.08

DIFFERENTIAL CORRECTIONS
TDE .8126 TRA .8856 TC3-6.1561 BAU 1.2570
RDE .2229 RRA -.1516 RC3 .2990 FAU .02153
FDE .3331 FRA .6496 FC3-1.2221 BSP 16414
BDE .8426 BRA .8985 BC3 6.1633 FSP -412

MID-COURSE EXECUTION ACCURACY
SGT 5128.6 SGR 461.5 SG3 125.1
RRT -.4370 RRF -.4249 RTF .8704
SGB 5149.3 R23 .0467 R13 -.8706
SG1 5132.6 SG2 414.8 THA 177.73

ORBIT DETERMINATION ACCURACY
ST 1264.9 SR 334.1 SS 398.7
CRT .8560 CRS -.7340 CST -.9749
LSA 1353.9 MSA 189.7 SSA 37.0
EL1 1297.4 EL2 168.4 ALF 12.96

LAUNCH DATE OCT 16 1970 FLIGHT TIME 172.00 ARRIVAL DATE APR 6 1971

HELIOCENTRIC CONIC DISTANCE 513.122

RL 149.13 LAL -.00 LOL 22.22 VL 25.987 GAL .24 AZL 88.43 HCA 261.31 SMA 120.15 ECC .24119 INC 1.5662 V1 29.879
RP 108.86 LAP -1.55 LOP 283.52 VP 36.521 GAP 12.89 AZP 90.24 TAL 179.25 TAP 80.56 RCA 91.17 APO 149.13 V2 34.812
RC 181.954 GL 10.21 GP 12.09 ZAL 81.41 ZAP 166.81 ETS 63.18 ZAE 129.60 ETE 170.15 ZAC 114.39 ETC 271.16 CLP-174.69

PLANETOCENTRIC CONIC

C3 16.056 VHL 4.007 DLA -9.97 RAL 300.92 RAD 6567.6 VEL 11.723 PTH 2.07 VHP 8.256 DPA -11.88 RAP 289.55 ECC 1.2642

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 4 29	1848.72	-9.34	19.51	157.74	116.85	7 35 18	1248.7	-5.66	12.76
90.00	16 30 35	5121.76	24.96	227.82	161.64	76.18	17 55 56	4521.8	22.82	219.80
100.00	8 20 54	1602.18	-10.33	.86	157.22	118.21	8 47 36	1002.2	-6.48	354.19
100.00	17 56 51	4843.52	26.04	207.04	161.33	74.78	19 17 34	4243.5	23.70	199.03
110.00	9 17 57	1423.54	-12.93	345.77	155.68	121.92	9 41 41	823.5	-8.62	339.32
110.00	19 16 17	4594.94	28.91	187.17	160.33	70.91	20 32 52	3994.9	26.04	179.17

DIFFERENTIAL CORRECTIONS
TDE .9473 TRA 1.1080 TC3-5.8827 BAU 1.2641
RDE .2277 RRA -.1648 RC3 .2768 FAU .02008
FDE .3618 FRA .6890 FC3-1.0825 BSP 16500
BDE .9742 BRA 1.1202 BC3 5.8893 FSP -399

MID-COURSE EXECUTION ACCURACY
SGT 5162.2 SGR 460.9 SG3 122.8
RRT -.4159 RRF -.4018 RTF .8721
SGB 5182.7 R23 .0404 R13 -.8722
SG1 5165.7 SG2 418.9 THA 177.86

ORBIT DETERMINATION ACCURACY
ST 1444.8 SR 333.5 SS 427.0
CRT .8415 CRS -.7350 CST -.9818
LSA 1530.5 MSA 194.1 SSA 32.4
EL1 1472.2 EL2 176.8 ALF 11.15

LAUNCH DATE OCT 16 1970 FLIGHT TIME 174.00 ARRIVAL DATE APR 8 1971

HELIOCENTRIC CONIC DISTANCE 518.589

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RL  149.13 LAL   -.00 LOL  22.22 VL  25.930 GAL    .84 AZL  88.28 HCA 264.47 SMA 119.83 ECC .24489 INC 1.7206 V1  29.879
RP  108.87 LAP  -1.71 LOP 286.69 VP  36.475 GAP  13.19 AZP  90.17 TAL 177.40 TAP  81.87 RCA  90.49 APO 149.18 V2  34.806
RC 183.891 GL   10.87 GP   11.73 ZAL  77.80 ZAP 167.40 ETS  65.47 ZAE 129.72 ETE 170.42 ZAC 113.84 ETC 271.80 CLP-175.37
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PLANETOCENTRIC CONIC

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C3  17.043 VHL  4.128 DLA  -8.54 RAL 304.37 RAD 6567.7 VEL 11.765 PTH   2.08 VHP  8.426 DPA -12.01 RAP 292.06 ECC 1.2805
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 6 46	1909.04	-11.18	22.99	162.05	116.19	7 38 35	1309.0	-7.57	16.17
90.00	16 55 46	5088.76	24.41	225.56	165.56	75.18	18 20 35	4488.8	22.13	217.63
100.00	8 23 58	1659.99	-12.17	4.16	161.54	117.51	8 51 38	1060.0	-8.39	357.42
100.00	18 21 15	4813.04	25.48	204.95	165.23	73.82	19 41 28	4213.0	23.02	197.02
110.00	9 22 46	1475.88	-14.79	348.68	160.02	121.17	9 47 22	875.9	-10.56	342.14
110.00	19 38 57	4569.92	28.34	185.45	164.18	70.04	20 55 6	3969.9	25.36	177.54

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.0882 TRA 1.3362 TC3-5.5739 BAU 1.2713   SGT 5194.0 SGR  459.4 SG3  120.4      ST  1617.6 SR   332.9 SS   451.1
 RDE  .2337 RRA -.1769 RC3  .2546 FAU .01884   RRT -.3952 RRF -.3792 RTF  .8774     CRT  .8304 CRS -.7376 CST -.9867
 FDE  .3886 FRA  .7224 FC3 -.9572 BSP  16670   SGB 5214.3 R23  .0328 R13 -.8775     LSA 1700.4 MSA  196.8 SSA   28.6
 BDE 1.1130 BRA 1.3479 BC3 5.5797 FSP   -397   SG1 5197.2 SG2  421.7 THA 177.98     EL1 1641.3 EL2  182.8 ALF   9.82
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LAUNCH DATE OCT 16 1970 FLIGHT TIME 176.00 ARRIVAL DATE APR 10 1971

HELIOCENTRIC CONIC DISTANCE 524.020

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RL  149.13 LAL   -.00 LOL  22.22 VL  25.874 GAL   1.47 AZL  88.13 HCA 267.63 SMA 119.52 ECC .24898 INC 1.8733 V1  29.879
RP  108.89 LAP  -1.87 LOP 289.85 VP  36.430 GAP  13.50 AZP  90.08 TAL 175.55 TAP  83.18 RCA  89.76 APO 149.28 V2  34.801
RC 185.813 GL   11.42 GP   11.41 ZAL  74.30 ZAP 167.94 ETS  68.02 ZAE 129.83 ETE 170.66 ZAC 113.31 ETC 272.44 CLP-176.05
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PLANETOCENTRIC CONIC

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C3  18.236 VHL  4.270 DLA  -7.16 RAL 307.70 RAD 6567.7 VEL 11.816 PTH   2.09 VHP  8.610 DPA -12.06 RAP 294.57 ECC 1.3001
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 9 19	1968.90	-12.95	26.49	166.44	115.40	7 42 8	1368.9	-9.42	19.59
90.00	17 19 49	5060.32	23.90	223.63	169.54	74.34	18 44 10	4460.3	21.52	215.77
100.00	8 27 14	1717.55	-13.96	7.50	165.93	116.70	8 55 51	1117.5	-10.26	.66
100.00	18 44 36	4786.91	24.97	203.18	169.19	73.01	20 4 22	4186.9	22.41	195.32
110.00	9 27 39	1528.39	-16.62	351.65	164.43	120.31	9 53 7	928.4	-12.47	345.00
110.00	20 0 40	4548.83	27.84	184.01	168.10	69.32	21 16 29	3948.8	24.78	176.18

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.2256 TRA 1.5691 TC3-5.2511 BAU 1.2815   SGT 5226.9 SGR  457.6 SG3  118.0      ST  1768.4 SR   333.1 SS   469.1
 RDE  .2416 RRA -.1886 RC3  .2322 FAU .01777   RRT -.3753 RRF -.3596 RTF  .8831     CRT  .8208 CRS -.7378 CST -.9896
 FDE  .4105 FRA  .7549 FC3 -.8435 BSP  16982   SGB 5246.9 R23  .0281 R13 -.8832     LSA 1848.7 MSA  199.7 SSA   25.7
 BDE 1.2492 BRA 1.5804 BC3 5.2563 FSP   -399   SG1 5229.7 SG2  424.0 THA 178.11     EL1 1789.7 EL2  188.0 ALF   8.89
```

LAUNCH DATE OCT 16 1970 FLIGHT TIME 178.00 ARRIVAL DATE APR 12 1971

HELIOCENTRIC CONIC DISTANCE 529.414

```
RL  149.13 LAL   -.00 LOL  22.22 VL  25.819 GAL   2.13 AZL  87.97 HCA 270.79 SMA 119.21 ECC .25349 INC 2.0254 V1  29.879
RP  108.90 LAP  -2.03 LOP 293.01 VP  36.387 GAP  13.84 AZP  89.97 TAL 173.70 TAP  84.49 RCA  88.99 APO 149.43 V2  34.797
RC 187.719 GL   11.87 GP   11.11 ZAL  70.91 ZAP 168.42 ETS  70.83 ZAE 129.94 ETE 170.88 ZAC 112.78 ETC 273.08 CLP-176.73
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PLANETOCENTRIC CONIC

```
C3  19.659 VHL  4.434 DLA  -5.84 RAL 310.92 RAD 6567.8 VEL 11.876 PTH   2.11 VHP  8.808 DPA -12.04 RAP 297.08 ECC 1.3235
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 12 3	2028.25	-14.65	30.02	170.90	114.50	7 45 52	1428.2	-11.23	23.02
90.00	17 42 44	5036.39	23.45	222.02	173.57	73.65	19 6 40	4436.4	20.98	214.22
100.00	8 30 38	1774.77	-15.68	10.88	170.40	115.78	9 0 13	1174.8	-12.08	3.93
100.00	19 6 51	4765.10	24.53	201.71	173.21	72.36	20 26 16	4165.1	21.89	193.91
110.00	9 32 32	1580.94	-18.40	354.68	168.91	119.33	9 58 53	980.9	-14.36	347.91
110.00	20 21 26	4531.69	27.43	182.85	172.07	68.75	21 36 57	3931.7	24.29	175.09

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.3847 TRA 1.8301 TC3-4.8719 BAU 1.2816   SGT 5245.8 SGR  453.9 SG3  115.9      ST  1930.6 SR   332.0 SS   492.1
 RDE  .2496 RRA -.2009 RC3  .2073 FAU .01640   RRT -.3518 RRF -.3358 RTF  .8866     CRT  .8123 CRS -.7388 CST -.9920
 FDE  .4389 FRA  .7951 FC3 -.7224 BSP  16919   SGB 5265.4 R23  .0233 R13 -.8867     LSA 2009.6 MSA  201.5 SSA   23.4
 BDE 1.4070 BRA 1.8411 BC3 4.8763 FSP   -386   SG1 5248.2 SG2  424.6 THA 178.25     EL1 1949.5 EL2  191.7 ALF   8.03
```

LAUNCH DATE OCT 16 1970 FLIGHT TIME 180.00 ARRIVAL DATE APR 14 1971

HELIOCENTRIC CONIC DISTANCE 534.763

```
RL  149.13 LAL   -.00 LOL  22.22 VL  25.765 GAL   2.82 AZL  87.82 HCA 273.95 SMA 118.92 ECC .25846 INC 2.1775 V1  29.879
RP  108.92 LAP  -2.17 LOP 296.17 VP  36.345 GAP  14.20 AZP  89.85 TAL 171.86 TAP  85.81 RCA  88.18 APO 149.65 V2  34.793
RC 189.610 GL   12.22 GP   10.84 ZAL  67.65 ZAP 168.86 ETS  73.91 ZAE 130.04 ETE 171.09 ZAC 112.26 ETC 273.70 CLP-177.40
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PLANETOCENTRIC CONIC

```
C3  21.342 VHL  4.620 DLA  -4.60 RAL 314.00 RAD 6567.9 VEL 11.947 PTH   2.13 VHP  9.023 DPA -11.95 RAP 299.59 ECC 1.3512
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 14 57	2086.95	-16.28	33.56	175.41	113.49	7 49 44	1486.9	-12.97	26.45
90.00	18 4 28	5016.95	23.07	220.72	177.64	73.11	19 28 5	4417.0	20.54	212.96
100.00	8 34 8	1831.52	-17.33	14.29	174.92	114.74	9 4 40	1231.5	-13.85	7.22
100.00	19 27 58	4747.61	24.16	200.54	177.26	71.85	20 47 6	4147.6	21.46	192.79
110.00	9 37 25	1633.38	-20.12	357.78	173.45	118.23	10 4 39	1033.4	-16.19	350.86
110.00	20 41 10	4518.51	27.10	181.97	176.09	68.32	21 56 29	3918.5	23.91	174.25

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 1.5441 TRA 2.0980 TC3-4.4934 BAU 1.2831   SGT 5264.8 SGR  449.4 SG3  113.7      ST  2072.7 SR   331.3 SS   510.8
 RDE  .2594 RRA -.2123 RC3  .1834 FAU .01519   RRT -.3285 RRF -.3128 RTF  .8912     CRT  .8057 CRS -.7401 CST -.9937
 FDE  .4648 FRA  .8334 FC3 -.6163 BSP  16991   SGB 5283.9 R23  .0192 R13 -.8913     LSA 2150.6 MSA  202.8 SSA   21.4
 BDE 1.5657 BRA 2.1087 BC3 4.4971 FSP   -379   SG1 5266.8 SG2  424.3 THA 178.38     EL1 2090.0 EL2  194.6 ALF   7.40
```

LAUNCH DATE OCT 16 1970 FLIGHT TIME 182.00 ARRIVAL DATE APR 16 1971

HELIOCENTRIC CONIC DISTANCE 540.061

```
RL  149.13 LAL   -.00 LOL  22.22 VL  25.712 GAL   3.54 AZL  87.67 HCA 277.11 SMA 118.63 ECC .26393 INC 2.3309 V1  29.879
RP  108.93 LAP  -2.31 LOP 299.33 VP  36.305 GAP  14.58 AZP  89.71 TAL 170.02 TAP  87.13 RCA  87.32 APO 149.94 V2  34.790
RC 191.483 GL   12.48 GP   10.59 ZAL  64.53 ZAP 169.24 ETS  77.26 ZAE 130.13 ETE 171.28 ZAC 111.73 ETC 274.31 CLP-178.09
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PLANETOCENTRIC CONIC

```
C3  23.318 VHL  4.829 DLA  -3.43 RAL 316.96 RAD 6567.9 VEL 12.029 PTH   2.15 VHP  9.255 DPA -11.80 RAP 302.09 ECC 1.3838
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 17 58	2144.93	-17.82	37.12	179.97	112.38	7 53 43	1544.9	-14.63	29.89
90.00	18 25 2	5001.90	22.77	219.72	181.73	72.69	19 48 23	4401.9	20.19	212.00
100.00	8 37 42	1887.70	-18.90	17.72	179.49	113.60	9 9 10	1287.7	-15.54	10.53
100.00	19 47 58	4734.36	23.88	199.65	181.34	71.47	21 6 53	4134.4	21.13	191.94
110.00	9 42 16	1685.58	-21.77	.93	178.04	117.03	10 10 22	1085.6	-17.97	353.86
110.00	20 59 54	4509.25	26.86	181.35	180.12	68.02	22 15 3	3909.2	23.64	173.67

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.7076 TRA 2.3775 TC3-4.1140 BAU 1.2835   SGT 5279.9 SGR  444.0 SG3  111.5     ST  2199.6 SR   330.7 SS   527.1
RDE  .2706 RRA -.2227 RC3  .1604 FAU .01405   RRT -.3042 RRF -.2895 RTF  .8963     CRT  .8008 CRS -.7420 CST -.9950
FDE  .4897 FRA  .8720 FC3 -.5216 BSP  17083   SGB 5298.6 R23  .0158 R13 -.8964     LSA 2276.8 MSA  203.6 SSA   19.8
BDE 1.7289 BRA 2.3879 BC3 4.1171 FSP   -373   SG1 5281.7 SG2  422.8 THA 178.53     EL1 2215.6 EL2  196.7 ALF   6.92
```

LAUNCH DATE OCT 16 1970 FLIGHT TIME 184.00 ARRIVAL DATE APR 18 1971

HELIOCENTRIC CONIC DISTANCE 545.301

```
RL  149.13 LAL   -.00 LOL  22.22 VL  25.660 GAL   4.29 AZL  87.51 HCA 280.27 SMA 118.34 ECC .26997 INC 2.4863 V1  29.879
RP  108.93 LAP  -2.45 LOP 302.50 VP  36.266 GAP  15.00 AZP  89.56 TAL 168.20 TAP  88.47 RCA  86.39 APO 150.29 V2  34.788
RC 193.340 GL   12.67 GP   10.36 ZAL  61.56 ZAP 169.57 ETS  80.87 ZAE 130.21 ETE 171.46 ZAC 111.21 ETC 274.91 CLP-178.77
```

PLANETOCENTRIC CONIC

```
C3  25.627 VHL  5.062 DLA  -2.34 RAL 319.77 RAD 6568.0 VEL 12.125 PTH   2.17 VHP  9.508 DPA -11.58 RAP 304.58 ECC 1.4218
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 21 3	2202.10	-19.26	40.69	184.56	111.16	7 57 45	1602.1	-16.22	33.34
90.00	18 44 24	4991.10	22.55	219.01	185.83	72.40	20 7 36	4391.1	19.93	211.31
100.00	8 41 18	1943.22	-20.37	21.19	184.09	112.36	9 13 42	1343.2	-17.16	13.86
100.00	20 6 50	4725.22	23.68	199.05	185.42	71.21	21 25 36	4125.2	20.90	191.36
110.00	9 47 3	1737.4[illegible]	-23.34	4.14	182.66	115.72	10 16 1	1137.4	-19.69	356.90
110.00	21 17 35	4503.79	26.72	180.98	184.17	67.85	22 32 39	3903.8	23.48	173.32

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.8780 TRA 2.6721 TC3-3.7371 BAU 1.2812   SGT 5291.1 SGR  437.6 SG3  109.4     ST  2314.2 SR   330.1 SS   542.5
RDE  .2832 RRA -.2322 RC3  .1384 FAU .01292   RRT -.2785 RRF -.2650 RTF  .9014     CRT  .7974 CRS -.7446 CST -.9960
FDE  .5150 FRA  .9123 FC3 -.4363 BSP  17146   SGB 5309.2 R23  .0129 R13 -.9014     LSA 2391.0 MSA  203.8 SSA   18.5
BDE 1.8992 BRA 2.6822 BC3 3.7397 FSP   -367   SG1 5292.6 SG2  420.2 THA 178.67     EL1 2329.2 EL2  197.9 ALF   6.54
```

LAUNCH DATE OCT 16 1970 FLIGHT TIME 186.00 ARRIVAL DATE APR 20 1971

HELIOCENTRIC CONIC DISTANCE 550.474

```
RL  149.13 LAL   -.00 LOL  22.22 VL  25.609 GAL   5.09 AZL  87.36 HCA 283.43 SMA 118.07 ECC .27662 INC 2.6449 V1  29.879
RP  108.94 LAP  -2.57 LOP 305.66 VP  36.228 GAP  15.45 AZP  89.39 TAL 166.39 TAP  89.82 RCA  85.41 APO 150.73 V2  34.786
RC 195.178 GL   12.78 GP   10.15 ZAL  58.74 ZAP 169.83 ETS  84.75 ZAE 130.29 ETE 171.63 ZAC 110.69 ETC 275.49 CLP-179.46
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PLANETOCENTRIC CONIC

```
C3  28.318 VHL  5.321 DLA  -1.32 RAL 322.45 RAD 6568.1 VEL 12.235 PTH   2.20 VHP  9.782 DPA -11.31 RAP 307.05 ECC 1.4660
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 24 12	2258.39	-20.61	44.27	189.16	109.86	8 1 50	1658.4	-17.71	36.79
90.00	19 2 38	4984.41	22.41	218.57	189.93	72.22	20 25 42	4384.4	19.77	210.89
100.00	8 44 56	1997.98	-21.75	24.67	188.71	111.03	9 18 14	1398.0	-18.70	17.20
100.00	20 24 35	4720.05	23.57	198.71	189.51	71.06	21 43 15	4120.0	20.77	191.03
110.00	9 51 46	1788.77	-24.82	7.40	187.31	114.30	10 21 34	1188.8	-21.32	359.99
110.00	21 34 14	4502.02	26.68	180.87	188.22	67.79	22 49 16	3902.0	23.43	173.21

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 2.0528 TRA 2.9816 TC3-3.3752 BAU 1.2786   SGT 5301.0 SGR  430.2 SG3  107.3     ST  2413.4 SR   329.3 SS   556.6
RDE  .2972 RRA -.2403 RC3  .1177 FAU .01183   RRT -.2517 RRF -.2394 RTF  .9066     CRT  .7953 CRS -.7481 CST -.9968
FDE  .5404 FRA  .9537 FC3 -.3618 BSP  17259   SGB 5318.4 R23  .0102 R13 -.9066     LSA 2490.2 MSA  203.5 SSA   17.4
BDE 2.0742 BRA 2.9913 BC3 3.3772 FSP   -361   SG1 5302.1 SG2  416.3 THA 178.82     EL1 2427.7 EL2  198.5 ALF   6.24
```

LAUNCH DATE OCT 16 1970 FLIGHT TIME 188.00 ARRIVAL DATE APR 22 1971

HELIOCENTRIC CONIC DISTANCE 555.568

```
RL  149.13 LAL   -.00 LOL  22.22 VL  25.559 GAL   5.93 AZL  87.19 HCA 286.59 SMA 117.80 ECC .28397 INC 2.8076 V1  29.879
RP  108.94 LAP  -2.69 LOP 308.82 VP  36.192 GAP  15.94 AZP  89.20 TAL 164.60 TAP  91.19 RCA  84.35 APO 151.25 V2  34.785
RC 196.997 GL   12.83 GP    9.96 ZAL  56.07 ZAP 170.04 ETS  88.86 ZAE 130.35 ETE 171.79 ZAC 110.17 ETC 276.06 CLP 179.84
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PLANETOCENTRIC CONIC

```
C3  31.448 VHL  5.608 DLA   -.39 RAL 324.99 RAD 6568.3 VEL 12.362 PTH   2.23 VHP 10.081 DPA -10.98 RAP 309.51 ECC 1.5176
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 27 23	2313.71	-21.84	47.86	193.78	108.48	8 5 57	1713.7	-19.12	40.25
90.00	19 19 42	4981.63	22.35	218.38	194.01	72.15	20 42 44	4381.6	19.70	210.71
100.00	8 48 33	2051.90	-23.03	28.17	193.34	109.61	9 22 45	1451.9	-20.14	20.56
100.00	20 41 14	4718.67	23.54	198.62	193.58	71.02	21 59 52	4118.7	20.73	190.94
110.00	9 56 23	1839.57	-26.20	10.70	191.98	112.79	10 27 2	1239.6	-22.88	3.11
110.00	21 49 53	4503.77	26.72	180.98	192.26	67.85	23 4 57	3903.8	23.48	173.32

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 2.2356 TRA 3.3071 TC3-3.0183 BAU 1.2697   SGT 5300.4 SGR  422.1 SG3  105.2     ST  2501.1 SR   328.5 SS   569.8
RDE  .3128 RRA -.2470 RC3  .0988 FAU .01079   RRT -.2226 RRF -.2124 RTF  .9126     CRT  .7948 CRS -.7524 CST -.9973
FDE  .5660 FRA  .9968 FC3 -.2970 BSP  17306   SGB 5317.2 R23  .0082 R13 -.9126     LSA 2578.1 MSA  202.6 SSA   16.3
BDE 2.2574 BRA 3.3163 BC3 3.0199 FSP   -356   SG1 5301.3 SG2  411.4 THA 178.98     EL1 2514.7 EL2  198.3 ALF   6.00
```

LAUNCH DATE OCT 16 1970 FLIGHT TIME 190.00 ARRIVAL DATE APR 24 1971

HELIOCENTRIC CONIC DISTANCE 560.570

```
RL  149.13 LAL   -.00 LOL  22.22 VL  25.518 GAL   6.82 AZL  87.02 HCA 289.74 SMA 117.54 ECC .29208 INC 2.9758 V1  29.879
RP  108.94 LAP  -2.80 LOP 311.98 VP  36.157 GAP  16.47 AZP  88.99 TAL 162.83 TAP  92.58 RCA  83.21 APO 151.87 V2  34.785
RC 198.798 GL   12.83 GP    9.79 ZAL  53.55 ZAP 170.17 ETS  93.17 ZAE 130.39 ETE 171.95 ZAC 109.64 ETC 276.62 CLP 179.12
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PLANETOCENTRIC CONIC

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C3  35.088 VHL  5.924 DLA    .48 RAL 327.39 RAD 6568.4 VEL 12.508 PTH   2.26 VHP 10.408 DPA -10.60 RAP 311.94 ECC 1.5775
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 30 35	2368.00	-22.97	51.44	198.39	107.03	8 10 3	1768.0	-20.42	43.70
90.00	19 35 40	4982.56	22.37	218.44	198.08	72.17	20 58 42	4382.6	19.72	210.77
100.00	8 52 9	2104.90	-24.19	31.67	197.97	108.11	9 27 14	1504.9	-21.49	23.92
100.00	20 56 47	4720.89	23.59	198.76	197.64	71.08	22 15 28	4120.9	20.79	191.08
110.00	10 0 54	1889.70	-27.48	14.03	196.66	111.18	10 32 24	1289.7	-24.35	6.26
110.00	22 4 31	4508.86	26.85	181.32	196.29	68.01	23 19 40	3908.9	23.63	173.64

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 2.4248 TRA 3.6495 TC3-2.6846 BAU 1.2599   SGT 5298.8 SGR  413.1 SG3  103.1      ST  2575.2 SR   327.5 SS   582.3
RDE  .3300 RRA -.2519 RC3  .0816 FAU .00979   RRT -.1915 RRF -.1835 RTF  .9185     CRT  .7956 CRS -.7575 CST -.9978
FDE  .5919 FRA 1.0417 FC3 -.2415 BSP  17399   SGB 5314.9 R23  .0067 R13 -.9185     LSA 2652.8 MSA  201.1 SSA   15.4
BDE 2.4471 BRA 3.6582 BC3 2.6858 FSP   -351   SG1 5299.4 SG2  405.4 THA 179.14     EL1 2588.4 EL2  197.4 ALF   5.81
```

LAUNCH DATE OCT 16 1970 FLIGHT TIME 192.00 ARRIVAL DATE APR 26 1971

HELIOCENTRIC CONIC DISTANCE 565.464

```
RL  149.13 LAL   -.00 LOL  22.22 VL  25.462 GAL   7.77 AZL  86.85 HCA 292.90 SMA 117.28 ECC .30105 INC 3.1508 V1  29.879
RP  108.94 LAP  -2.90 LOP 315.15 VP  36.124 GAP  17.05 AZP  88.77 TAL 161.10 TAP  94.00 RCA  81.97 APO 152.59 V2  34.786
RC 200.578 GL   12.78 GP    9.63 ZAL  51.18 ZAP 170.24 ETS  97.66 ZAE 130.42 ETE 172.10 ZAC 109.12 ETC 277.15 CLP 178.39
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PLANETOCENTRIC CONIC

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C3  39.324 VHL  6.271 DLA   1.26 RAL 329.66 RAD 6568.5 VEL 12.676 PTH   2.30 VHP 10.767 DPA -10.18 RAP 314.34 ECC 1.6472
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 33 48	2421.17	-23.99	55.01	202.98	105.52	8 14 9	1821.2	-21.63	47.13
90.00	19 50 32	4986.99	22.46	218.74	202.12	72.29	21 13 39	4387.0	19.83	211.05
100.00	8 55 44	2156.90	-25.25	35.17	202.58	106.56	9 31 41	1556.9	-22.74	27.28
100.00	21 11 17	4726.49	23.71	199.13	201.67	71.24	22 30 4	4126.5	20.93	191.44
110.00	10 5 19	1939.07	-28.65	17.40	201.34	109.50	10 37 38	1339.1	-25.72	9.44
110.00	22 18 11	4517.08	27.06	181.87	200.30	68.27	23 33 28	3917.1	23.87	174.16

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 2.6204 TRA 4.0106 TC3-2.3706 BAU 1.2468   SGT 5292.1 SGR  403.4 SG3  101.1      ST  2636.1 SR   326.3 SS   594.6
RDE  .3488 RRA -.2548 RC3  .0662 FAU .00882   RRT -.1582 RRF -.1524 RTF  .9245     CRT  .7975 CRS -.7635 CST -.9982
FDE  .6185 FRA 1.0891 FC3 -.1943 BSP  17523   SGB 5307.4 R23  .0054 R13 -.9246     LSA 2714.7 MSA  199.1 SSA   14.6
BDE 2.6435 BRA 4.0187 BC3 2.3715 FSP   -347   SG1 5292.5 SG2  398.3 THA 179.31     EL1 2649.0 EL2  195.9 ALF   5.67
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LAUNCH DATE OCT 16 1970 FLIGHT TIME 194.00 ARRIVAL DATE APR 28 1971

HELIOCENTRIC CONIC DISTANCE 570.230

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RL  149.13 LAL   -.00 LOL  22.22 VL  25.415 GAL   8.78 AZL  86.67 HCA 296.06 SMA 117.03 ECC .31100 INC 3.3342 V1  29.879
RP  108.93 LAP  -3.00 LOP 318.31 VP  36.092 GAP  17.69 AZP  88.53 TAL 159.40 TAP  95.45 RCA  80.64 APO 153.43 V2  34.787
RC 202.339 GL   12.68 GP    9.48 ZAL  48.96 ZAP 170.23 ETS 102.27 ZAE 130.43 ETE 172.24 ZAC 108.59 ETC 277.67 CLP 177.65
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PLANETOCENTRIC CONIC

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C3  44.260 VHL  6.653 DLA   1.98 RAL 331.79 RAD 6568.7 VEL 12.870 PTH   2.34 VHP 11.161 DPA  -9.71 RAP 316.72 ECC 1.7284
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 37 0	2473.13	-24.89	58.55	207.54	103.96	8 18 14	1873.1	-22.72	50.55
90.00	20 4 20	4994.67	22.62	219.24	206.12	72.50	21 27 35	4394.7	20.01	211.54
100.00	8 59 16	2207.79	-26.19	38.66	207.17	104.95	9 36 4	1607.8	-23.88	30.62
100.00	21 24 45	4735.25	23.90	199.71	205.66	71.49	22 43 41	4135.2	21.15	192.00
110.00	10 9 37	1987.58	-29.70	20.78	206.00	107.76	10 42 45	1387.6	-26.99	12.64
110.00	22 30 53	4528.22	27.34	182.62	204.28	68.63	23 46 22	3928.2	24.19	174.87

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 2.8244 TRA 4.3927 TC3-2.0773 BAU 1.2295   SGT 5280.6 SGR  393.0 SG3   99.1      ST  2685.7 SR   324.8 SS   607.1
RDE  .3692 RRA -.2554 RC3  .0527 FAU .00789   RRT -.1221 RRF -.1186 RTF  .9307     CRT  .8006 CRS -.7702 CST -.9985
FDE  .6461 FRA 1.1392 FC3 -.1543 BSP  17656   SGB 5295.2 R23  .0044 R13 -.9307     LSA 2765.6 MSA  196.5 SSA   13.8
BDE 2.8484 BRA 4.4001 BC3 2.0779 FSP   -344   SG1 5280.8 SG2  390.0 THA 179.48     EL1 2698.4 EL2  193.7 ALF   5.56
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LAUNCH DATE OCT 16 1970 FLIGHT TIME 196.00 ARRIVAL DATE APR 30 1971

HELIOCENTRIC CONIC DISTANCE 574.842

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RL  149.13 LAL   -.00 LOL  22.22 VL  25.369 GAL   9.86 AZL  86.47 HCA 299.21 SMA 116.79 ECC .32203 INC 3.5277 V1  29.879
RP  108.93 LAP  -3.08 LOP 321.48 VP  36.061 GAP  18.40 AZP  88.28 TAL 157.74 TAP  96.95 RCA  79.18 APO 154.41 V2  34.789
RC 204.080 GL   12.56 GP    9.35 ZAL  46.88 ZAP 170.15 ETS 106.95 ZAE 130.42 ETE 172.38 ZAC 108.07 ETC 278.17 CLP 176.88
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PLANETOCENTRIC CONIC

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C3  50.025 VHL  7.073 DLA   2.62 RAL 333.79 RAD 6568.8 VEL 13.091 PTH   2.39 VHP 11.596 DPA  -9.21 RAP 319.06 ECC 1.8233
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 40 12	2523.77	-25.67	62.05	212.06	102.38	8 22 16	1923.8	-23.71	53.93
90.00	20 17 6	5005.39	22.84	219.95	210.07	72.79	21 40 31	4405.4	20.27	212.22
100.00	9 2 46	2257.46	-27.01	42.12	211.72	103.31	9 40 24	1657.5	-24.91	33.95
100.00	21 37 13	4746.93	24.15	200.49	209.61	71.83	22 56 20	4146.9	21.44	192.74
110.00	10 13 49	2035.09	-30.64	24.16	210.64	105.96	10 47 44	1435.1	-28.15	15.85
110.00	22 42 40	4542.06	27.68	183.55	208.22	69.09	23 58 22	3942.1	24.58	175.75

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 3.0386 TRA 4.7989 TC3-1.8041 BAU 1.2069   SGT 5264.7 SGR  382.1 SG3   97.1      ST  2725.4 SR   322.9 SS   620.4
RDE  .3913 RRA -.2532 RC3  .0409 FAU .00695   RRT -.0827 RRF -.0817 RTF  .9369     CRT  .8047 CRS -.7777 CST -.9988
FDE  .6753 FRA 1.1930 FC3 -.1203 BSP  17780   SGB 5278.5 R23  .0038 R13 -.9369     LSA 2807.1 MSA  193.3 SSA   13.1
BDE 3.0637 BRA 4.8056 BC3 1.8046 FSP   -340   SG1 5264.7 SG2  380.8 THA 179.65     EL1 2737.8 EL2  190.8 ALF   5.47
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LAUNCH DATE OCT 16 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAY 2 1971

HELIOCENTRIC CONIC DISTANCE 579.271

RL	149.13	LAL	-.00	LOL	22.22	VL	25.324	GAL	11.02	AZL	86.27	HCA	302.37	SMA	116.56	ECC	.33432	INC	3.7336	V1	29.879
RP	108.92	LAP	-3.15	LOP	324.64	VP	36.033	GAP	19.18	AZP	88.00	TAL	156.13	TAP	98.51	RCA	77.59	APO	155.53	V2	34.792
RC	205.802	GL	12.40	GP	9.22	ZAL	44.94	ZAP	169.99	ETS	111.65	ZAE	130.37	ETE	172.52	ZAC	107.54	ETC	278.64	CLP	176.08

PLANETOCENTRIC CONIC

C3	56.781	VHL	7.535	DLA	3.19	RAL	335.66	RAD	6569.0	VEL	13.347	PTH	2.44	VHP	12.077	DPA	-8.67	RAP	321.36	ECC	1.9345

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 43 23	2572.96	-26.34	65.49	216.51	100.78	8 26 16	1973.0	-24.59	57.26
90.00	20 28 50	5018.90	23.11	220.85	213.97	73.16	21 52 28	4418.9	20.58	213.09
100.00	9 6 13	2305.78	-27.73	45.54	216.20	101.65	9 44 39	1705.8	-25.84	37.24
100.00	21 48 41	4761.31	24.45	201.45	213.51	72.25	23 8 2	4161.3	21.79	193.66
110.00	10 17 53	2081.48	-31.46	27.53	215.22	104.12	10 52 35	1481.5	-29.20	19.05
110.00	22 53 30	4558.38	28.07	184.66	212.12	69.64	24 9 29	3958.4	25.04	176.79

DIFFERENTIAL CORRECTIONS

TDE	3.2660	TRA	5.2337	TC3	-1.5503	BAU	1.1771				
RDE	.4152	RRA	-.2480	RC3	.0308	FAU	.00599				
FDE	.7067	FRA	1.2514	FC3	-.0914	BSP	17865				
BDE	3.2923	BRA	5.2396	BC3	1.5506	FSP	-336				

MID-COURSE EXECUTION ACCURACY

SGT	5245.1	SGR	370.8	SG3	95.3		
RRT	-.0397	RRF	-.0409	RTF	.9431		
SGB	5258.2	R23	.0033	R13	-.9431		
SG1	5245.2	SG2	370.5	THA	179.84		

ORBIT DETERMINATION ACCURACY

ST	2757.1	SR	320.7	SS	635.2
CRT	.8098	CRS	-.7859	CST	-.9990
LSA	2841.1	MSA	189.5	SSA	12.4
EL1	2769.4	EL2	187.3	ALF	5.41

LAUNCH DATE OCT 16 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAY 4 1971

HELIOCENTRIC CONIC DISTANCE 583.477

RL	149.13	LAL	-.00	LOL	22.22	VL	25.281	GAL	12.28	AZL	86.05	HCA	305.53	SMA	116.34	ECC	.34802	INC	3.9544	V1	29.879
RP	108.91	LAP	-3.22	LOP	327.81	VP	36.005	GAP	20.05	AZP	87.70	TAL	154.60	TAP	100.12	RCA	75.85	APO	156.82	V2	34.795
RC	207.503	GL	12.22	GP	9.11	ZAL	43.15	ZAP	169.74	ETS	116.33	ZAE	130.30	ETE	172.66	ZAC	107.02	ETC	279.10	CLP	175.25

PLANETOCENTRIC CONIC

C3	64.731	VHL	8.046	DLA	3.70	RAL	337.40	RAD	6569.2	VEL	13.641	PTH	2.49	VHP	12.613	DPA	-8.10	RAP	323.62	ECC	2.0653

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 46 33	2620.54	-26.91	68.86	220.87	99.18	8 30 14	2020.5	-25.36	60.54
90.00	20 39 33	5035.00	23.42	221.93	217.80	73.61	22 3 28	4435.0	20.95	214.13
100.00	9 9 37	2352.59	-28.32	48.89	220.60	99.98	9 48 50	1752.6	-26.65	40.48
100.00	21 59 9	4778.18	24.80	202.59	217.34	72.75	23 18 48	4178.2	22.20	194.75
110.00	10 21 50	2126.58	-32.16	30.86	219.72	102.26	10 57 17	1526.6	-30.14	22.23
110.00	23 3 26	4576.96	28.51	185.93	215.95	70.28	24 19 43	3977.0	25.55	178.00

DIFFERENTIAL CORRECTIONS

TDE	3.5090	TRA	5.7006	TC3	-1.3156	BAU	1.1386				
RDE	.4410	RRA	-.2392	RC3	.0224	FAU	.00499				
FDE	.7410	FRA	1.3153	FC3	-.0668	BSP	17908				
BDE	3.5366	BRA	5.7057	BC3	1.3157	FSP	-330				

MID-COURSE EXECUTION ACCURACY

SGT	5222.6	SGR	359.2	SG3	93.5		
RRT	.0075	RRF	.0041	RTF	.9492		
SGB	5234.9	R23	-.0030	R13	.9492		
SG1	5222.6	SG2	359.2	THA	.03		

ORBIT DETERMINATION ACCURACY

ST	2781.7	SR	318.2	SS	651.8
CRT	.8159	CRS	-.7949	CST	-.9992
LSA	2868.7	MSA	185.0	SSA	11.8
EL1	2793.8	EL2	183.2	ALF	5.35

LAUNCH DATE OCT 16 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAY 6 1971

HELIOCENTRIC CONIC DISTANCE 587.412

RL	149.13	LAL	-.00	LOL	22.22	VL	25.239	GAL	13.65	AZL	85.81	HCA	308.69	SMA	116.12	ECC	.36334	INC	4.1935	V1	29.879
RP	108.90	LAP	-3.27	LOP	330.98	VP	35.980	GAP	21.02	AZP	87.38	TAL	153.14	TAP	101.82	RCA	73.93	APO	158.31	V2	34.799
RC	209.184	GL	12.02	GP	9.00	ZAL	41.50	ZAP	169.40	ETS	120.93	ZAE	130.18	ETE	172.80	ZAC	106.49	ETC	279.53	CLP	174.38

PLANETOCENTRIC CONIC

C3	74.130	VHL	8.610	DLA	4.14	RAL	339.01	RAD	6569.4	VEL	13.981	PTH	2.55	VHP	13.211	DPA	-7.51	RAP	325.83	ECC	2.2200

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 49 41	2666.32	-27.36	72.14	225.12	97.60	8 34 8	2066.3	-26.03	63.72
90.00	20 49 15	5053.46	23.77	223.17	221.55	74.14	22 13 28	4453.5	21.37	215.32
100.00	9 12 58	2397.70	-28.81	52.15	224.89	98.33	9 52 56	1797.7	-27.36	43.65
100.00	22 8 39	4797.31	25.18	203.88	221.10	73.33	23 28 36	4197.3	22.65	195.99
110.00	10 25 40	2170.20	-32.74	34.13	224.13	100.41	11 1 50	1570.2	-30.96	25.36
110.00	23 12 27	4597.58	28.97	187.35	219.73	71.01	24 29 5	3997.6	26.11	179.34

DIFFERENTIAL CORRECTIONS

TDE	3.7706	TRA	6.2048	TC3	-1.0991	BAU	1.0893				
RDE	.4689	RRA	-.2263	RC3	.0155	FAU	.00391				
FDE	.7787	FRA	1.3857	FC3	-.0457	BSP	17864				
BDE	3.7996	BRA	6.2089	BC3	1.0992	FSP	-324				

MID-COURSE EXECUTION ACCURACY

SGT	5197.7	SGR	347.7	SG3	91.8		
RRT	.0594	RRF	.0541	RTF	.9552		
SGB	5209.3	R23	-.0029	R13	.9552		
SG1	5197.7	SG2	347.1	THA	.23		

ORBIT DETERMINATION ACCURACY

ST	2800.3	SR	315.3	SS	670.9
CRT	.8230	CRS	-.8047	CST	-.9994
LSA	2891.1	MSA	180.0	SSA	11.2
EL1	2812.4	EL2	178.4	ALF	5.32

LAUNCH DATE OCT 16 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAY 8 1971

HELIOCENTRIC CONIC DISTANCE 591.011

RL	149.13	LAL	-.00	LOL	22.22	VL	25.198	GAL	15.15	AZL	85.55	HCA	311.84	SMA	115.91	ECC	.38054	INC	4.4546	V1	29.879
RP	108.88	LAP	-3.32	LOP	334.15	VP	35.956	GAP	22.11	AZP	87.03	TAL	151.77	TAP	103.62	RCA	71.80	APO	160.02	V2	34.804
RC	210.844	GL	11.80	GP	8.90	ZAL	39.99	ZAP	168.97	ETS	125.42	ZAE	130.01	ETE	172.95	ZAC	105.98	ETC	279.93	CLP	173.46

PLANETOCENTRIC CONIC

C3	85.306	VHL	9.236	DLA	4.50	RAL	340.49	RAD	6569.7	VEL	14.375	PTH	2.61	VHP	13.882	DPA	-6.91	RAP	327.99	ECC	2.4039

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 52 48	2710.06	-27.71	75.29	229.23	96.05	8 37 58	2110.1	-26.59	66.80
90.00	20 57 55	5074.09	24.15	224.56	225.20	74.74	22 22 29	4474.1	21.82	216.66
100.00	9 16 16	2440.87	-29.20	55.30	229.05	96.71	9 56 57	1840.9	-27.96	46.72
100.00	22 17 9	4818.51	25.58	205.33	224.76	73.99	23 37 27	4218.5	23.14	197.38
110.00	10 29 21	2212.10	-33.21	37.30	228.41	98.59	11 6 14	1612.1	-31.67	28.42
110.00	23 20 32	4620.05	29.46	188.92	223.41	71.82	24 37 32	4020.0	26.69	180.83

DIFFERENTIAL CORRECTIONS

TDE	4.0543	TRA	6.7516	TC3	-.8999	BAU	1.0264				
RDE	.4993	RRA	-.2086	RC3	.0101	FAU	.00272				
FDE	.8206	FRA	1.4637	FC3	-.0276	BSP	17724				
BDE	4.0850	BRA	6.7549	BC3	.9000	FSP	-315				

MID-COURSE EXECUTION ACCURACY

SGT	5171.1	SGR	336.3	SG3	90.3		
RRT	.1165	RRF	.1095	RTF	.9611		
SGB	5182.0	R23	-.0029	R13	.9611		
SG1	5171.2	SG2	334.0	THA	.44		

ORBIT DETERMINATION ACCURACY

ST	2813.7	SR	312.2	SS	692.9
CRT	.8310	CRS	-.8152	CST	-.9995
LSA	2909.3	MSA	174.4	SSA	10.6
EL1	2825.7	EL2	172.9	ALF	5.29

LAUNCH DATE OCT 16 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAY 10 1971

HELIOCENTRIC CONIC DISTANCE 594.194

RL 149.13 LAL -.00 LOL 22.22 VL 25.159 GAL 16.80 AZL 85.26 HCA 315.00 SMA 115.71 ECC .39990 INC 4.7431 V1 29.879
RP 108.86 LAP -3.35 LOP 337.32 VP 35.934 GAP 23.34 AZP 86.64 TAL 150.52 TAP 105.53 RCA 69.44 APO 161.99 V2 34.810
RC 212.484 GL 11.57 GP 8.81 ZAL 38.62 ZAP 168.44 ETS 129.78 ZAE 129.78 ETE 173.10 ZAC 105.47 ETC 280.31 CLP 172.48

PLANETOCENTRIC CONIC

C3 98.682 VHL 9.934 DLA 4.80 RAL 341.83 RAD 6569.9 VEL 14.833 PTH 2.68 VHP 14.638 DPA -6.29 RAP 330.07 ECC 2.6241

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 55 53	2751.48	-27.98	78.29	233.18	94.57	8 41 45	2151.5	-27.05	69.75
90.00	21 5 31	5096.72	24.54	226.10	228.74	75.42	22 30 28	4496.7	22.30	218.15
100.00	9 19 30	2481.83	-29.49	58.31	233.04	95.15	10 0 51	1881.8	-28.46	49.66
100.00	22 24 36	4841.61	26.01	206.91	228.31	74.72	23 45 18	4241.6	23.66	198.90
110.00	10 32 55	2252.03	-33.58	40.36	232.53	96.81	11 10 27	1652.0	-32.27	31.38
110.00	23 27 40	4644.18	29.96	190.62	227.00	72.71	24 45 4	4044.2	27.30	182.44

DIFFERENTIAL CORRECTIONS
TDE 4.3636 TRA 7.3469 TC3 -.7179 BAU .9471
RDE .5325 RRA -.1852 RC3 .0062 FAU .00137
FDE .8673 FRA 1.5507 FC3 -.0121 BSP 17467
BDE 4.3959 BRA 7.3493 BC3 .7179 FSP -305

MID-COURSE EXECUTION ACCURACY
SGT 5143.1 SGR 325.5 SG3 88.8
RRT .1790 RRF .1708 RTF .9667
SGB 5153.4 R23 -.0030 R13 .9667
SG1 5143.4 SG2 320.2 THA .65

ORBIT DETERMINATION ACCURACY
ST 2822.0 SR 308.8 SS 718.5
CRT .8399 CRS -.8264 CST -.9996
LSA 2923.5 MSA 168.2 SSA 10.0
EL1 2833.9 EL2 166.9 ALF 5.27

LAUNCH DATE OCT 16 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAY 12 1971

HELIOCENTRIC CONIC DISTANCE 596.854

RL 149.13 LAL -.00 LOL 22.22 VL 25.122 GAL 18.62 AZL 84.93 HCA 318.16 SMA 115.53 ECC .42176 INC 5.0653 V1 29.879
RP 108.85 LAP -3.38 LOP 340.49 VP 35.914 GAP 24.74 AZP 86.22 TAL 149.42 TAP 107.58 RCA 66.80 APO 164.25 V2 34.816
RC 214.102 GL 11.31 GP 8.72 ZAL 37.41 ZAP 167.80 ETS 133.98 ZAE 129.48 ETE 173.26 ZAC 104.97 ETC 280.66 CLP 171.43

PLANETOCENTRIC CONIC

C3 114.811 VHL 10.715 DLA 5.03 RAL 343.03 RAD 6570.2 VEL 15.367 PTH 2.75 VHP 15.496 DPA -5.68 RAP 332.08 ECC 2.8895

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 58 57	2790.24	-28.15	81.11	236.93	93.17	8 45 27	2190.2	-27.42	72.52
90.00	21 12 1	5121.23	24.95	227.78	232.15	76.16	22 37 22	4521.2	22.81	219.77
100.00	9 22 40	2520.23	-29.69	61.15	236.83	93.67	10 4 40	1920.2	-28.86	52.44
100.00	22 30 59	4866.47	26.44	208.63	231.73	75.53	23 52 6	4266.5	24.19	200.55
110.00	10 36 20	2289.65	-33.84	43.27	236.45	95.11	11 14 30	1689.6	-32.77	34.20
110.00	23 33 48	4669.82	30.46	192.45	230.47	73.69	24 51 38	4069.8	27.93	184.17

DIFFERENTIAL CORRECTIONS
TDE 4.7025 TRA 7.9977 TC3 -.5522 BAU .8476
RDE .5691 RRA -.1551 RC3 .0035 FAU-.00018
FDE .9197 FRA 1.6482 FC3 .0014 BSP 17073
BDE 4.7369 BRA 7.9992 BC3 .5522 FSP -293

MID-COURSE EXECUTION ACCURACY
SGT 5114.1 SGR 315.6 SG3 87.5
RRT .2472 RRF .2381 RTF .9719
SGB 5123.8 R23 -.0032 R13 .9719
SG1 5114.7 SG2 305.8 THA .88

ORBIT DETERMINATION ACCURACY
ST 2825.4 SR 305.4 SS 748.2
CRT .8497 CRS -.8382 CST -.9997
LSA 2934.3 MSA 161.5 SSA 9.5
EL1 2837.4 EL2 160.3 ALF 5.26

LAUNCH DATE OCT 16 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAY 14 1971

HELIOCENTRIC CONIC DISTANCE 598.853

RL 149.13 LAL -.00 LOL 22.22 VL 25.088 GAL 20.65 AZL 84.57 HCA 321.32 SMA 115.35 ECC .44654 INC 5.4299 V1 29.879
RP 108.82 LAP -3.39 LOP 343.66 VP 35.897 GAP 26.34 AZP 85.76 TAL 148.49 TAP 109.81 RCA 63.84 APO 166.86 V2 34.823
RC 215.699 GL 11.05 GP 8.63 ZAL 36.36 ZAP 167.04 ETS 138.01 ZAE 129.10 ETE 173.44 ZAC 104.48 ETC 280.99 CLP 170.29

PLANETOCENTRIC CONIC

C3 134.421 VHL 11.594 DLA 5.18 RAL 344.07 RAD 6570.4 VEL 15.992 PTH 2.82 VHP 16.473 DPA -5.07 RAP 334.00 ECC 3.2122

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 1 59	2825.93	-28.26	83.72	240.45	91.86	8 49 5	2225.9	-27.70	75.10
90.00	21 17 19	5147.51	25.37	229.59	235.40	76.98	22 43 6	4547.5	23.33	221.52
100.00	9 25 46	2555.69	-29.81	63.78	240.38	92.30	10 8 22	1955.7	-29.18	55.03
100.00	22 36 13	4892.99	26.88	210.48	235.00	76.40	23 57 46	4293.0	24.74	202.33
110.00	10 39 37	2324.58	-34.02	45.98	240.13	93.51	11 18 21	1724.6	-33.16	36.85
110.00	23 38 52	4696.86	30.96	194.40	233.80	74.74	24 57 8	4096.9	28.56	186.02

DIFFERENTIAL CORRECTIONS
TDE 5.0751 TRA 8.7109 TC3 -.4025 BAU .7233
RDE .6099 RRA -.1170 RC3 .0020 FAU-.00202
FDE .9788 FRA 1.7577 FC3 .0130 BSP 16545
BDE 5.1116 BRA 8.7117 BC3 .4025 FSP -280

MID-COURSE EXECUTION ACCURACY
SGT 5083.8 SGR 307.0 SG3 86.2
RRT .3208 RRF .3111 RTF .9768
SGB 5093.1 R23 -.0035 R13 .9768
SG1 5084.8 SG2 290.7 THA 1.11

ORBIT DETERMINATION ACCURACY
ST 2823.6 SR 301.9 SS 782.7
CRT .8603 CRS -.8506 CST -.9998
LSA 2941.5 MSA 154.3 SSA 8.9
EL1 2835.5 EL2 153.3 ALF 5.27

LAUNCH DATE OCT 16 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAY 16 1971

HELIOCENTRIC CONIC DISTANCE 600.000

RL 149.13 LAL -.00 LOL 22.22 VL 25.055 GAL 22.93 AZL 84.15 HCA 324.48 SMA 115.19 ECC .47471 INC 5.8488 V1 29.879
RP 108.80 LAP -3.39 LOP 346.84 VP 35.881 GAP 28.18 AZP 85.23 TAL 147.78 TAP 112.26 RCA 60.51 APO 169.87 V2 34.830
RC 217.273 GL 10.77 GP 8.55 ZAL 35.48 ZAP 166.13 ETS 141.88 ZAE 128.60 ETE 173.63 ZAC 104.01 ETC 281.28 CLP 169.04

PLANETOCENTRIC CONIC

C3 158.475 VHL 12.589 DLA 5.25 RAL 344.94 RAD 6570.7 VEL 16.727 PTH 2.90 VHP 17.594 DPA -4.48 RAP 335.81 ECC 3.6081

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 4 59	2858.05	-28.31	86.07	243.68	90.69	8 52 37	2258.1	-27.91	77.42
90.00	21 21 18	5175.55	25.78	231.54	238.47	77.87	22 47 33	4575.6	23.86	223.40
100.00	9 28 48	2587.70	-29.88	66.16	243.66	91.04	10 11 56	1987.7	-29.41	57.38
100.00	22 40 10	4921.13	27.32	212.46	238.09	77.36	24 2 11	4321.1	25.30	204.24
110.00	10 42 43	2356.38	-34.13	48.46	243.52	92.05	11 21 59	1756.4	-33.47	39.28
110.00	23 42 44	4725.23	31.45	196.46	236.96	75.87	25 1 30	4125.2	29.19	187.99

DIFFERENTIAL CORRECTIONS
TDE 5.4380 TRA 9.4464 TC3 -.2804 BAU .5941
RDE .6547 RRA -.0703 RC3 .0014 FAU-.00376
FDE 1.0351 FRA 1.8709 FC3 .0205 BSP 17017
BDE 5.4772 BRA 9.4466 BC3 .2804 FSP -285

MID-COURSE EXECUTION ACCURACY
SGT 5026.4 SGR 299.7 SG3 84.5
RRT .3958 RRF .3860 RTF .9811
SGB 5035.3 R23 -.0038 R13 .9811
SG1 5027.8 SG2 275.2 THA 1.36

ORBIT DETERMINATION ACCURACY
ST 2793.5 SR 298.1 SS 815.5
CRT .8705 CRS -.8623 CST -.9998
LSA 2921.6 MSA 147.0 SSA 8.3
EL1 2805.6 EL2 146.1 ALF 5.32

LAUNCH DATE OCT 16 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAY 18 1971

HELIOCENTRIC CONIC DISTANCE 600.058

RL	149.13	LAL	-.00	LOL	22.22	VL	25.026	GAL	25.50	AZL	83.66	HCA	327.64	SMA	115.05	ECC	.50682	INC	6.3380	V1	29.879
RP	108.78	LAP	-3.39	LOP	350.01	VP	35.869	GAP	30.31	AZP	84.64	TAL	147.34	TAP	114.98	RCA	56.74	APO	173.35	V2	34.838
RC	218.823	GL	10.47	GP	8.46	ZAL	34.81	ZAP	165.07	ETS	145.58	ZAE	127.97	ETE	173.85	ZAC	103.56	ETC	281.54	CLP	167.65

PLANETOCENTRIC CONIC

C3	188.278	VHL	13.721	DLA	5.22	RAL	345.63	RAD	6571.0	VEL	17.595	PTH	2.97	VHP	18.887	DPA	-3.94	RAP	337.49	ECC	4.0986

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 7 57	2886.04	-28.32	88.11	246.59	89.66	8 56 3	2286.0	-28.06	79.46
90.00	21 23 49	5205.39	26.19	233.63	241.31	78.84	22 50 35	4605.4	24.39	225.43
100.00	9 31 45	2615.74	-29.89	68.24	246.60	89.95	10 15 21	2015.7	-29.58	59.45
100.00	22 42 42	4950.93	27.74	214.57	240.96	78.39	24 5 13	4350.9	25.86	206.27
110.00	10 45 38	2384.51	-34.18	50.66	246.57	90.75	11 25 23	1784.5	-33.69	41.44
110.00	23 45 19	4754.92	31.93	198.65	239.91	77.08	25 4 34	4154.9	29.82	190.07

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	5.8611	TRA10.2774	TC3	-.1657	BAU	.4172	SGT	4976.6	SGR	294.8	SG3	83.1	ST	2767.9	SR	294.7	SS	857.8
RDE	.7057	RRA -.0123	RC3	.0018	FAU	-.00619	RRT	.4750	RRF	.4655	RTF	.9850	CRT	.8817	CRS	-.8749	CST	-.9999
FDE	1.1046	FRA 2.0046	FC3	.0285	BSP	16917	SGB	4985.3	R23	-.0042	R13	.9850	LSA	2909.4	MSA	139.3	SSA	7.8
BDE	5.9034	BRA10.2774	BC3	.1657	FSP	-281	SG1	4978.6	SG2	259.3	THA	1.62	EL1	2780.1	EL2	138.4	ALF	5.38

LAUNCH DATE OCT 16 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAY 20 1971

HELIOCENTRIC CONIC DISTANCE 598.700

RL	149.13	LAL	-.00	LOL	22.22	VL	25.001	GAL	28.44	AZL	83.08	HCA	330.80	SMA	114.92	ECC	.54346	INC	6.9209	V1	29.879
RP	108.75	LAP	-3.37	LOP	353.19	VP	35.860	GAP	32.79	AZP	83.95	TAL	147.23	TAP	118.03	RCA	52.47	APO	177.38	V2	34.847
RC	220.349	GL	10.16	GP	8.37	ZAL	34.36	ZAP	163.81	ETS	149.13	ZAE	127.18	ETE	174.09	ZAC	103.13	ETC	281.76	CLP	166.10

PLANETOCENTRIC CONIC

C3	225.585	VHL	15.019	DLA	5.08	RAL	346.11	RAD	6571.3	VEL	18.625	PTH	3.05	VHP	20.388	DPA	-3.44	RAP	339.02	ECC	4.7126

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 10 53	2909.20	-28.29	89.81	249.12	88.81	8 59 23	2309.2	-28.16	81.14
90.00	21 24 41	5237.19	26.59	235.87	243.90	79.90	22 51 58	4637.2	24.93	227.60
100.00	9 34 38	2639.11	-29.88	69.98	249.15	89.03	10 18 37	2039.1	-29.69	61.18
100.00	22 43 38	4982.51	28.15	216.83	243.58	79.51	24 6 40	4382.5	26.42	208.46
110.00	10 48 21	2408.36	-34.18	52.52	249.21	89.65	11 28 30	1808.4	-33.85	43.29
110.00	23 46 23	4786.02	32.38	200.96	242.63	78.38	25 6 9	4186.0	30.44	192.28

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	6.3252	TRA11.1880	TC3	-.0646	BAU	.1951	SGT	4921.3	SGR	292.4	SG3	81.8	ST	2734.0	SR	291.4	SS	907.0
RDE	.7638	RRA .0589	RC3	.0030	FAU	-.00925	RRT	.5545	RRF	.5457	RTF	.9883	CRT	.8932	CRS	-.8876	CST	-.9999
FDE	1.1832	FRA 2.1561	FC3	.0355	BSP	16797	SGB	4930.0	R23	-.0044	R13	.9883	LSA	2892.2	MSA	131.2	SSA	7.2
BDE	6.3711	BRA11.1882	BC3	.0647	FSP	-276	SG1	4924.0	SG2	243.2	THA	1.89	EL1	2746.3	EL2	130.4	ALF	5.45

LAUNCH DATE OCT 16 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAY 22 1971

HELIOCENTRIC CONIC DISTANCE 595.494

RL	149.13	LAL	-.00	LOL	22.22	VL	24.981	GAL	31.83	AZL	82.37	HCA	333.95	SMA	114.82	ECC	.58527	INC	7.6317	V1	29.879
RP	108.72	LAP	-3.34	LOP	356.37	VP	35.855	GAP	35.71	AZP	83.14	TAL	147.53	TAP	121.48	RCA	47.62	APO	182.02	V2	34.856
RC	221.851	GL	9.83	GP	8.27	ZAL	34.17	ZAP	162.33	ETS	152.51	ZAE	126.19	ETE	174.37	ZAC	102.74	ETC	281.95	CLP	164.33

PLANETOCENTRIC CONIC

C3	272.776	VHL	16.516	DLA	4.82	RAL	346.34	RAD	6571.6	VEL	19.852	PTH	3.13	VHP	22.140	DPA	-3.02	RAP	340.36	ECC	5.4892

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 13 47	2926.70	-28.26	91.09	251.20	88.17	9 2 34	2326.7	-28.22	82.42
90.00	21 23 35	5271.24	26.98	238.29	246.19	81.05	22 51 27	4671.2	25.46	229.95
100.00	9 37 24	2657.03	-29.85	71.31	251.25	88.33	10 21 41	2057.0	-29.76	62.51
100.00	22 42 40	5016.15	28.55	219.25	245.91	80.73	24 6 16	4416.1	26.97	210.80
110.00	10 50 50	2427.19	-34.16	53.99	251.38	88.78	11 31 17	1827.2	-33.96	44.75
110.00	23 45 43	4818.75	32.80	203.42	245.06	79.78	25 6 2	4218.8	31.04	194.64

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	6.8334	TRA12.1829	TC3	.0236	BAU	.0879	SGT	4859.5	SGR	293.1	SG3	80.6	ST	2690.5	SR	288.6	SS	964.2
RDE	.8307	RRA .1457	RC3	.0050	FAU	-.01319	RRT	.6316	RRF	.6238	RTF	.9912	CRT	.9048	CRS	-.9001	CST	-.9999
FDE	1.2727	FRA 2.3282	FC3	.0419	BSP	16646	SGB	4868.4	R23	0047	R13	.9911	LSA	2869.9	MSA	123.1	SSA	6.7
BDE	6.8837	BRA12.1838	BC3	.0241	FSP	-273	SG1	4863.1	SG2	227.0	THA	2.19	EL1	2703.2	EL2	122.3	ALF	5.55

LAUNCH DATE OCT 16 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAY 24 1971

HELIOCENTRIC CONIC DISTANCE 589.883

RL	149.13	LAL	-.00	LOL	22.22	VL	24.967	GAL	35.75	AZL	81.48	HCA	337.10	SMA	114.75	ECC	.63278	INC	8.5236	V1	29.879
RP	108.69	LAP	-3.31	LOP	359.55	VP	35.854	GAP	39.16	AZP	82.14	TAL	148.34	TAP	125.45	RCA	42.14	APO	187.36	V2	34.865
RC	223.327	GL	9.47	GP	8.16	ZAL	34.30	ZAP	160.58	ETS	155.75	ZAE	124.94	ETE	174.68	ZAC	102.38	ETC	282.10	CLP	162.31

PLANETOCENTRIC CONIC

C3	333.068	VHL	18.250	DLA	4.40	RAL	346.27	RAD	6571.9	VEL	21.316	PTH	3.21	VHP	24.194	DPA	-2.70	RAP	341.46	ECC	6.4815

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 16 39	2937.56	-28.24	91.88	252.75	87.77	9 5 36	2337.6	-28.25	83.22
90.00	21 20 13	5308.01	27.34	240.92	248.13	82.32	22 48 41	4708.0	25.99	232.51
100.00	9 40 3	2668.53	-29.82	72.16	252.82	87.88	10 24 32	2068.5	-29.80	63.36
100.00	22 39 29	5052.27	28.91	221.87	247.88	82.06	24 3 42	4452.3	27.51	213.35
110.00	10 53 2	2440.11	-34.14	55.00	253.00	88.18	11 33 42	1840.1	-34.02	45.75
110.00	23 43 0	4853.45	33.19	206.05	247.15	81.30	25 3 53	4253.5	31.63	197.17

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	7.3838	TRA13.2595	TC3	.0992	BAU	.4432	SGT	4789.2	SGR	297.2	SG3	79.5	ST	2634.9	SR	286.2	SS	1030.4
RDE	.9084	RRA .2507	RC3	.0075	FAU	-.01831	RRT	.7031	RRF	.6964	RTF	.9934	CRT	.9161	CRS	-.9123	CST	-.9999
FDE	1.3742	FRA 2.5235	FC3	.0476	BSP	16482	SGB	4798.4	R23	-.0048	R13	.9934	LSA	2841.3	MSA	114.9	SSA	6.1
BDE	7.4394	BRA13.2619	BC3	.0995	FSP	-269	SG1	4793.8	SG2	211.1	THA	2.50	EL1	2647.9	EL2	114.2	ALF	5.69

LAUNCH DATE OCT 17 1970 FLIGHT TIME 70.00 ARRIVAL DATE DEC 26 1970

HELIOCENTRIC CONIC DISTANCE 213.285

RL	149.08	LAL	-.00	LOL	23.21	VL	29.863	GAL	-16.37	AZL	87.58	HCA	97.99	SMA	149.36	ECC	.28187	INC	2.4164	V1	29.887
RP	107.49	LAP	2.39	LOP	121.21	VP	39.759	GAP	-1.76	AZP	90.34	TAL	253.98	TAP	351.97	RCA	107.26	APO	191.45	V2	35.255
RC	71.740	GL	8.56	GP	-22.50	ZAL	167.60	ZAP	76.25	ETS	2.68	ZAE	155.14	ETE	257.77	ZAC	76.72	ETC	257.40	CLP	-75.09

PLANETOCENTRIC CONIC

C3	65.894	VHL	8.118	DLA	-4.20	RAL	212.98	RAD	6569.3	VEL	13.684	PTH	2.50	VHP	4.973	DPA	-36.03	RAP	215.16	ECC	2.0844

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 24 59	2379.67	-23.20	52.22	93.51	106.70	1 4 38	1779.7	-20.69	44.44
90.00	11 20 34	5284.41	27.11	239.23	97.00	81.50	12 48 39	4684.4	25.66	230.87
100.00	1 44 21	2123.62	-24.58	32.93	93.04	107.56	2 19 45	1523.6	-21.95	25.12
100.00	12 43 53	5015.69	28.54	219.22	96.75	80.71	14 7 29	4415.7	26.96	210.77
110.00	2 48 5	1924.10	-28.30	16.37	91.63	110.02	3 20 9	1324.1	-25.31	8.47
110.00	13 56 38	4787.98	32.40	201.11	95.93	78.47	15 16 26	4188.0	30.48	192.42

DIFFERENTIAL CORRECTIONS

TDE	.3556	TRA	-.8024	TC3	-.1112	BAU	.2158
RDE	-.3262	RRA	-.3167	RC3	-.2182	FAU	.09082
FDE	1.2955	FRA	-.9168	FC3	-1.1932	BSP	1481
BDE	.4825	BRA	.8627	BC3	.2449	FSP	-549

MID-COURSE EXECUTION ACCURACY

SGT	646.6	SGR	478.3	SG3	193.4
RRT	.4316	RRF	.5803	RTF	.6549
SGB	804.3	R23	.1305	R13	.7216
SG1	697.9	SG2	399.7	THA	27.33

ORBIT DETERMINATION ACCURACY

ST	303.4	SR	240.1	SS	402.5
CRT	-.6352	CRS	.8752	CST	-.9254
LSA	534.3	MSA	160.8	SSA	19.1
EL1	352.4	EL2	159.6	ALF	145.20

LAUNCH DATE OCT 17 1970 FLIGHT TIME 72.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 219.767

RL	149.08	LAL	-.00	LOL	23.21	VL	29.818	GAL	-16.19	AZL	87.43	HCA	101.24	SMA	148.90	ECC	.27880	INC	2.5748	V1	29.887
RP	107.48	LAP	2.53	LOP	124.45	VP	39.727	GAP	-1.13	AZP	90.50	TAL	253.57	TAP	354.80	RCA	107.39	APO	190.41	V2	35.257
RC	73.903	GL	9.22	GP	-23.20	ZAL	166.96	ZAP	81.05	ETS	.78	ZAE	153.60	ETE	250.52	ZAC	75.74	ETC	257.11	CLP	-80.26

PLANETOCENTRIC CONIC

C3	64.498	VHL	8.031	DLA	-3.66	RAL	213.45	RAD	6569.2	VEL	13.633	PTH	2.49	VHP	4.874	DPA	-35.96	RAP	212.81	ECC	2.0615

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 22 52	2391.16	-23.42	52.99	93.79	106.38	1 2 43	1791.2	-20.96	45.18
90.00	11 26 26	5262.65	26.89	237.68	96.83	80.76	12 54 9	4662.6	25.33	229.36
100.00	1 42 29	2134.29	-24.80	33.64	93.34	107.25	2 18 4	1534.3	-22.20	25.81
100.00	12 49 30	4994.75	28.30	217.71	96.56	79.95	14 12 44	4394.8	26.62	209.31
110.00	2 46 48	1932.95	-28.51	16.98	91.95	109.72	3 19 1	1333.0	-25.55	9.04
110.00	14 1 40	4768.85	32.13	199.68	95.68	77.66	15 21 9	4168.9	30.10	191.06

DIFFERENTIAL CORRECTIONS

TDE	.4004	TRA	-.8574	TC3	-.1557	BAU	.2406
RDE	-.3069	RRA	-.3116	RC3	-.2315	FAU	.09360
FDE	1.3613	FRA	-.9221	FC3	-1.2563	BSP	1741
BDE	.5044	BRA	.9122	BC3	.2790	FSP	-582

MID-COURSE EXECUTION ACCURACY

SGT	721.0	SGR	485.7	SG3	201.7
RRT	.4770	RRF	.6039	RTF	.7047
SGB	869.3	R23	.1329	R13	.7562
SG1	772.7	SG2	398.3	THA	24.82

ORBIT DETERMINATION ACCURACY

ST	339.8	SR	229.2	SS	418.2
CRT	-.6442	CRS	.8733	CST	-.9313
LSA	562.4	MSA	161.8	SSA	19.2
EL1	378.4	EL2	157.4	ALF	151.05

LAUNCH DATE OCT 17 1970 FLIGHT TIME 74.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 226.202

RL	149.08	LAL	-.00	LOL	23.21	VL	29.765	GAL	-16.01	AZL	87.26	HCA	104.48	SMA	148.38	ECC	.27580	INC	2.7369	V1	29.887
RP	107.48	LAP	2.65	LOP	127.70	VP	39.689	GAP	-.54	AZP	90.68	TAL	253.04	TAP	357.52	RCA	107.46	APO	189.30	V2	35.258
RC	76.087	GL	9.90	GP	-23.86	ZAL	166.25	ZAP	85.74	ETS	358.85	ZAE	151.79	ETE	244.08	ZAC	74.80	ETC	256.83	CLP	-85.35

PLANETOCENTRIC CONIC

C3	63.149	VHL	7.947	DLA	-3.13	RAL	213.98	RAD	6569.2	VEL	13.583	PTH	2.48	VHP	4.806	DPA	-35.86	RAP	210.58	ECC	2.0393

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 20 59	2402.73	-23.64	53.76	94.15	106.05	1 1 2	1802.7	-21.22	45.93
90.00	11 32 33	5240.90	26.64	236.14	96.73	80.02	12 59 54	4640.9	24.99	227.86
100.00	1 40 52	2145.05	-25.02	34.37	93.70	106.92	2 16 37	1545.0	-22.46	26.50
100.00	12 55 22	4973.81	28.04	216.20	96.44	79.20	14 18 15	4373.8	26.27	207.85
110.00	2 45 45	1941.90	-28.71	17.59	92.34	109.40	3 18 7	1341.9	-25.79	9.63
110.00	14 6 57	4749.73	31.85	198.26	95.51	76.87	15 26 7	4149.7	29.71	189.70

DIFFERENTIAL CORRECTIONS

TDE	.4496	TRA	-.9146	TC3	-.2036	BAU	.2680
RDE	-.2878	RRA	-.3036	RC3	-.2435	FAU	.09542
FDE	1.4138	FRA	-.9141	FC3	-1.3082	BSP	2022
BDE	.5338	BRA	.9637	BC3	.3174	FSP	-608

MID-COURSE EXECUTION ACCURACY

SGT	803.7	SGR	490.9	SG3	208.0
RRT	.5140	RRF	.6244	RTF	.7437
SGB	941.7	R23	.1368	R13	.7836
SG1	854.4	SG2	396.1	THA	22.52

ORBIT DETERMINATION ACCURACY

ST	380.0	SR	218.0	SS	432.0
CRT	-.6533	CRS	.8721	CST	-.9366
LSA	593.3	MSA	161.9	SSA	19.2
EL1	410.6	EL2	152.7	ALF	155.92

LAUNCH DATE OCT 17 1970 FLIGHT TIME 76.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 232.589

RL	149.08	LAL	-.00	LOL	23.21	VL	29.707	GAL	-15.83	AZL	87.10	HCA	107.72	SMA	147.81	ECC	.27285	INC	2.9037	V1	29.887
RP	107.48	LAP	2.77	LOP	130.95	VP	39.645	GAP	.03	AZP	90.88	TAL	252.43	TAP	.15	RCA	107.48	APO	188.14	V2	35.259
RC	78.289	GL	10.61	GP	-24.47	ZAL	165.47	ZAP	90.28	ETS	356.89	ZAE	149.79	ETE	238.48	ZAC	73.92	ETC	256.58	CLP	-90.30

PLANETOCENTRIC CONIC

C3	61.842	VHL	7.864	DLA	-2.59	RAL	214.57	RAD	6569.2	VEL	13.535	PTH	2.47	VHP	4.765	DPA	-35.76	RAP	208.52	ECC	2.0178

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 19 18	2414.58	-23.87	54.56	94.57	105.71	0 59 32	1814.6	-21.48	46.70
90.00	11 38 58	5218.93	26.37	234.58	96.69	79.29	13 5 57	4618.9	24.62	226.35
100.00	1 39 26	2156.07	-25.23	35.12	94.14	106.58	2 15 22	1556.1	-22.72	27.22
100.00	13 1 31	4952.67	27.76	214.70	96.39	78.45	14 24 4	4352.7	25.89	206.39
110.00	2 44 55	1951.09	-28.92	18.23	92.81	109.08	3 17 26	1351.1	-26.04	10.23
110.00	14 12 32	4730.42	31.54	196.84	95.40	76.08	15 31 22	4130.4	29.31	188.35

DIFFERENTIAL CORRECTIONS

TDE	.5030	TRA	-.9732	TC3	-.2542	BAU	.2972
RDE	-.2690	RRA	-.2928	RC3	-.2541	FAU	.09628
FDE	1.4525	FRA	-.8934	FC3	-1.3478	BSP	2322
BDE	.5704	BRA	1.0163	BC3	.3594	FSP	-627

MID-COURSE EXECUTION ACCURACY

SGT	893.2	SGR	493.7	SG3	212.3
RRT	.5431	RRF	.6421	RTF	.7735
SGB	1020.6	R23	.1424	R13	.8049
SG1	941.8	SG2	393.2	THA	20.42

ORBIT DETERMINATION ACCURACY

ST	424.0	SR	206.6	SS	443.9
CRT	-.6628	CRS	.8718	CST	-.9412
LSA	627.0	MSA	161.1	SSA	19.2
EL1	448.4	EL2	146.3	ALF	159.87

LAUNCH DATE OCT 17 1970 FLIGHT TIME 78.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 238.934

RL 149.08 LAL -.00 LOL 23.21 VL 29.643 GAL -15.64 AZL 86.92 HCA 110.97 SMA 147.19 ECC .26996 INC 3.0768 V1 29.887
RP 107.48 LAP 2.87 LOP 134.20 VP 39.597 GAP .57 AZP 91.10 TAL 251.72 TAP 2.69 RCA 107.45 APO 186.92 V2 35.258
RC 80.507 GL 11.35 GP -25.05 ZAL 164.64 ZAP 94.61 ETS 354.90 ZAE 147.68 ETE 233.68 ZAC 73.09 ETC 256.36 CLP -95.09

PLANETOCENTRIC CONIC

C3 60.573 VHL 7.783 DLA -2.03 RAL 215.22 RAD 6569.1 VEL 13.488 PTH 2.47 VHP 4.750 DPA -35.68 RAP 206.65 ECC 1.9969

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 17 44	2426.91	-24.09	55.40	95.07	105.35	0 58 11	1826.9	-21.75	47.51
90.00	11 45 44	5196.54	26.08	233.01	96.72	78.55	13 12 21	4596.5	24.24	224.82
100.00	1 38 8	2167.56	-25.45	35.90	94.64	106.23	2 14 16	1567.6	-22.98	27.97
100.00	13 8 1	4931.12	27.46	213.16	96.39	77.70	14 30 12	4331.1	25.49	204.92
110.00	2 44 13	1960.70	-29.13	18.90	93.34	108.74	3 16 54	1360.7	-26.29	10.86
110.00	14 18 26	4710.74	31.21	195.40	95.36	75.29	15 36 56	4110.7	28.87	186.98

DIFFERENTIAL CORRECTIONS
TDE .5602 TRA-1.0324 TC3 -.3069 BAU .3275
RDE -.2505 RRA -.2794 RC3 -.2633 FAU .09621
FDE 1.4780 FRA -.8621 FC3-1.3751 BSP 2637
BDE .6137 BRA 1.0695 BC3 .4044 FSP -641

MID-COURSE EXECUTION ACCURACY
SGT 988.3 SGR 494.3 SG3 214.6
RRT .5655 RRF .6575 RTF .7962
SGB 1105.0 R23 .1496 R13 .8214
SG1 1034.0 SG2 389.6 THA 18.52

ORBIT DETERMINATION ACCURACY
ST 471.6 SR 194.9 SS 454.1
CRT -.6725 CRS .8724 CST -.9451
LSA 663.9 MSA 159.5 SSA 19.2
EL1 491.1 EL2 138.5 ALF 163.08

LAUNCH DATE OCT 17 1970 FLIGHT TIME 80.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 245.236

RL 149.08 LAL -.00 LOL 23.21 VL 29.575 GAL -15.46 AZL 86.74 HCA 114.21 SMA 146.53 ECC .26712 INC 3.2575 V1 29.887
RP 107.48 LAP 2.97 LOP 137.45 VP 39.545 GAP 1.08 AZP 91.34 TAL 250.93 TAP 5.15 RCA 107.39 APO 185.67 V2 35.257
RC 82.739 GL 12.14 GP -25.61 ZAL 163.74 ZAP 98.73 ETS 352.89 ZAE 145.51 ETE 229.60 ZAC 72.31 ETC 256.16 CLP -99.69

PLANETOCENTRIC CONIC

C3 59.340 VHL 7.703 DLA -1.44 RAL 215.93 RAD 6569.1 VEL 13.442 PTH 2.46 VHP 4.756 DPA -35.66 RAP 205.00 ECC 1.9766

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 16 16	2439.96	-24.32	56.28	95.64	104.96	0 56 56	1840.0	-22.03	48.36
90.00	11 52 54	5173.47	25.75	231.40	96.81	77.80	13 19 7	4573.5	23.82	223.26
100.00	1 36 56	2179.74	-25.68	36.73	95.22	105.85	2 13 16	1579.7	-23.26	28.77
100.00	13 14 54	4908.93	27.13	211.60	96.46	76.94	14 36 43	4308.9	25.06	203.41
110.00	2 43 38	1970.93	-29.35	19.61	93.95	108.37	3 16 29	1370.9	-26.56	11.54
110.00	14 24 42	4690.50	30.85	193.94	95.38	74.49	15 42 52	4090.5	28.41	185.58

DIFFERENTIAL CORRECTIONS
TDE .6212 TRA-1.0914 TC3 -.3611 BAU .3582
RDE -.2322 RRA -.2635 RC3 -.2710 FAU .09527
FDE 1.4918 FRA -.8211 FC3-1.3900 BSP 2962
BDE .6632 BRA 1.1227 BC3 .4515 FSP -648

MID-COURSE EXECUTION ACCURACY
SGT 1087.4 SGR 492.5 SG3 215.0
RRT .5820 RRF .6710 RTF .8133
SGB 1193.7 R23 .1586 R13 .8339
SG1 1129.8 SG2 385.5 THA 16.78

ORBIT DETERMINATION ACCURACY
ST 522.6 SR 182.9 SS 462.9
CRT -.6829 CRS .8740 CST -.9486
LSA 704.1 MSA 157.1 SSA 19.1
EL1 538.3 EL2 129.7 ALF 165.71

LAUNCH DATE OCT 17 1970 FLIGHT TIME 82.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 251.498

RL 149.08 LAL -.00 LOL 23.21 VL 29.503 GAL -15.27 AZL 86.55 HCA 117.45 SMA 145.84 ECC .26432 INC 3.4476 V1 29.887
RP 107.49 LAP 3.06 LOP 140.70 VP 39.489 GAP 1.57 AZP 91.59 TAL 250.07 TAP 7.53 RCA 107.29 APO 184.39 V2 35.255
RC 84.985 GL 12.97 GP -26.18 ZAL 162.77 ZAP 102.60 ETS 350.84 ZAE 143.33 ETE 226.15 ZAC 71.56 ETC 256.00 CLP-104.07

PLANETOCENTRIC CONIC

C3 58.147 VHL 7.625 DLA -.83 RAL 216.71 RAD 6569.1 VEL 13.398 PTH 2.45 VHP 4.782 DPA -35.71 RAP 203.57 ECC 1.9569

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 14 47	2454.00	-24.57	57.24	96.28	104.54	0 55 41	1854.0	-22.33	49.28
90.00	12 0 31	5149.51	25.40	229.73	96.95	77.04	13 26 20	4549.5	23.36	221.65
100.00	1 35 45	2192.86	-25.92	37.63	95.88	105.43	2 12 18	1592.9	-23.55	29.64
100.00	13 22 15	4885.88	26.77	209.98	96.59	76.17	14 43 41	4285.9	24.60	201.85
110.00	2 43 6	1982.01	-29.58	20.39	94.64	107.96	3 16 8	1382.0	-26.85	12.27
110.00	14 31 22	4669.50	30.46	192.42	95.46	73.67	15 49 12	4069.5	27.92	184.15

DIFFERENTIAL CORRECTIONS
TDE .6859 TRA-1.1495 TC3 -.4163 BAU .3889
RDE -.2139 RRA -.2453 RC3 -.2775 FAU .09360
FDE 1.4955 FRA -.7724 FC3-1.3937 BSP 3295
BDE .7185 BRA 1.1754 BC3 .5003 FSP -649

MID-COURSE EXECUTION ACCURACY
SGT 1189.5 SGR 488.7 SG3 213.7
RRT .5936 RRF .6832 RTF .8260
SGB 1286.0 R23 .1694 R13 .8432
SG1 1228.3 SG2 380.9 THA 15.20

ORBIT DETERMINATION ACCURACY
ST 577.2 SR 170.4 SS 470.6
CRT -.6939 CRS .8766 CST -.9515
LSA 748.0 MSA 154.0 SSA 19.1
EL1 589.7 EL2 120.1 ALF 167.91

LAUNCH DATE OCT 17 1970 FLIGHT TIME 84.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 257.722

RL 149.08 LAL -.00 LOL 23.21 VL 29.427 GAL -15.08 AZL 86.35 HCA 120.70 SMA 145.13 ECC .26157 INC 3.6493 V1 29.887
RP 107.50 LAP 3.14 LOP 143.95 VP 39.430 GAP 2.03 AZP 91.86 TAL 249.14 TAP 9.84 RCA 107.17 APO 183.09 V2 35.253
RC 87.241 GL 13.86 GP -26.76 ZAL 161.72 ZAP 106.21 ETS 348.74 ZAE 141.18 ETE 223.26 ZAC 70.83 ETC 255.85 CLP-108.22

PLANETOCENTRIC CONIC

C3 56.996 VHL 7.550 DLA -.18 RAL 217.54 RAD 6569.0 VEL 13.355 PTH 2.44 VHP 4.826 DPA -35.88 RAP 202.35 ECC 1.9380

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 13 16	2469.34	-24.82	58.29	97.02	104.08	0 54 26	1869.3	-22.65	50.29
90.00	12 8 40	5124.37	25.00	228.00	97.16	76.26	13 34 5	4524.4	22.87	219.98
100.00	1 34 32	2207.23	-26.18	38.62	96.63	104.97	2 11 19	1607.2	-23.87	30.59
100.00	13 30 6	4861.72	26.36	208.30	96.78	75.37	14 51 8	4261.7	24.09	200.24
110.00	2 42 35	1994.20	-29.84	21.25	95.42	107.51	3 15 49	1394.2	-27.15	13.09
110.00	14 38 32	4647.51	30.03	190.86	95.59	72.84	15 55 59	4047.5	27.38	182.66

DIFFERENTIAL CORRECTIONS
TDE .7543 TRA-1.2063 TC3 -.4721 BAU .4193
RDE -.1954 RRA -.2252 RC3 -.2828 FAU .09132
FDE 1.4909 FRA -.7185 FC3-1.3871 BSP 3633
BDE .7792 BRA 1.2271 BC3 .5503 FSP -645

MID-COURSE EXECUTION ACCURACY
SGT 1293.8 SGR 483.2 SG3 211.0
RRT .6012 RRF .6945 RTF .8355
SGB 1381.1 R23 .1821 R13 .8501
SG1 1329.0 SG2 375.9 THA 13.78

ORBIT DETERMINATION ACCURACY
ST 635.3 SR 157.4 SS 477.4
CRT -.7053 CRS .8799 CST -.9541
LSA 795.8 MSA 150.4 SSA 18.9
EL1 645.2 EL2 109.9 ALF 169.79

LAUNCH DATE OCT 17 1970 FLIGHT TIME 86.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 263.910

```
RL  149.08 LAL   -.00 LOL  23.21 VL  29.348 GAL -14.89 AZL  86.14 HCA 123.94 SMA 144.39 ECC .25886 INC 3.8650 V1  29.887
RP  107.51 LAP   3.21 LOP 147.21 VP  39.368 GAP   2.48 AZP  92.16 TAL 248.15 TAP  12.08 RCA 107.02 APO 181.77 V2  35.249
RC  89.506 GL   14.82 GP -27.40 ZAL 160.60 ZAP 109.55 ETS 346.58 ZAE 139.07 ETE 220.85 ZAC  70.09 ETC 255.72 CLP-112.14
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PLANETOCENTRIC CONIC

```
C3  55.893 VHL  7.476 DLA    .53 RAL 218.43 RAD 6569.0 VEL 13.314 PTH   2.43 VHP  4.886 DPA -36.17 RAP 201.34 ECC 1.9199
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 11 38	2486.35	-25.10	59.46	97.84	103.56	0 53 4	1886.4	-22.99	51.42
90.00	12 17 28	5097.76	24.56	226.17	97.43	75.45	13 42 25	4497.8	22.32	218.22
100.00	1 33 13	2223.18	-26.45	39.73	97.47	104.45	2 10 16	1623.2	-24.21	31.65
100.00	13 38 34	4836.16	25.91	206.54	97.03	74.55	14 59 10	4236.2	23.54	198.54
110.00	2 42 1	2007.81	-30.11	22.21	96.30	107.00	3 15 29	1407.8	-27.49	14.00
110.00	14 46 15	4624.30	29.55	189.22	95.79	71.97	16 3 19	4024.3	26.80	181.11

DIFFERENTIAL CORRECTIONS

```
TDE  .8302 TRA-1.2580 TC3 -.5258 BAU  .4467
RDE -.1731 RRA -.1994 RC3 -.2845 FAU .08759
FDE 1.4995 FRA -.6402 FC3-1.3567 BSP   3877
BDE  .8480 BRA 1.2737 BC3  .5978 FSP   -596
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1397.3 SGR  471.1 SG3  205.9
RRT  .6037 RRF  .6998 RTF  .8408
SGB 1474.6 R23  .1935 R13  .8530
SG1 1428.0 SG2  367.5 THA  12.34
```

ORBIT DETERMINATION ACCURACY

```
ST   699.3 SR   141.0 SS   489.8
CRT -.7188 CRS  .8863 CST -.9555
LSA  852.5 MSA  146.9 SSA   18.4
EL1  706.7 EL2   97.0 ALF 171.60
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LAUNCH DATE OCT 17 1970 FLIGHT TIME 88.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 270.064

```
RL  149.08 LAL   -.00 LOL  23.21 VL  29.266 GAL -14.69 AZL  85.90 HCA 127.18 SMA 143.65 ECC .25621 INC 4.0977 V1  29.887
RP  107.52 LAP   3.26 LOP 150.46 VP  39.304 GAP   2.90 AZP  92.48 TAL 247.09 TAP  14.27 RCA 106.84 APO 180.45 V2  35.245
RC  91.778 GL   15.85 GP -28.10 ZAL 159.38 ZAP 112.61 ETS 344.34 ZAE 137.01 ETE 218.85 ZAC  69.32 ETC 255.61 CLP-115.84
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PLANETOCENTRIC CONIC

```
C3  54.856 VHL  7.407 DLA   1.29 RAL 219.39 RAD 6569.0 VEL 13.275 PTH   2.43 VHP  4.961 DPA -36.61 RAP 200.50 ECC 1.9028
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 9 47	2505.49	-25.40	60.78	98.78	102.96	0 51 32	1905.5	-23.36	52.70
90.00	12 26 58	5069.39	24.06	224.24	97.76	74.60	13 51 28	4469.4	21.72	216.36
100.00	1 31 43	2241.18	-26.75	40.98	98.42	103.86	2 9 5	1641.2	-24.58	32.85
100.00	13 47 43	4808.94	25.40	204.67	97.34	73.69	15 7 52	4208.9	22.92	196.75
110.00	2 41 21	2023.25	-30.41	23.31	97.30	106.41	3 15 4	1423.2	-27.87	15.04
110.00	14 54 35	4599.63	29.02	187.50	96.05	71.08	16 11 14	3999.6	26.16	179.48

DIFFERENTIAL CORRECTIONS

```
TDE  .9051 TRA-1.3123 TC3 -.5826 BAU  .4771
RDE -.1560 RRA -.1778 RC3 -.2895 FAU .08495
FDE 1.4721 FRA -.5921 FC3-1.3406 BSP   4281
BDE  .9185 BRA 1.3243 BC3  .6506 FSP   -610
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1505.4 SGR  466.2 SG3  201.7
RRT  .6059 RRF  .7140 RTF  .8469
SGB 1575.9 R23  .2121 R13  .8579
SG1 1533.3 SG2  364.1 THA  11.27
```

ORBIT DETERMINATION ACCURACY

```
ST   764.0 SR   128.2 SS   492.3
CRT -.7310 CRS  .8896 CST -.9581
LSA  906.6 MSA  142.2 SSA   18.3
EL1  769.8 EL2   86.8 ALF 172.92
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LAUNCH DATE OCT 17 1970 FLIGHT TIME 90.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 276.186

```
RL  149.08 LAL   -.00 LOL  23.21 VL  29.182 GAL -14.48 AZL  85.65 HCA 130.42 SMA 142.89 ECC .25362 INC 4.3511 V1  29.887
RP  107.53 LAP   3.31 LOP 153.71 VP  39.237 GAP   3.30 AZP  92.82 TAL 245.98 TAP  16.40 RCA 106.65 APO 179.13 V2  35.240
RC  94.056 GL   16.98 GP -28.89 ZAL 158.06 ZAP 115.39 ETS 342.00 ZAE 135.00 ETE 217.22 ZAC  68.51 ETC 255.51 CLP-119.32
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PLANETOCENTRIC CONIC

```
C3  53.894 VHL  7.341 DLA   2.14 RAL 220.42 RAD 6568.9 VEL 13.238 PTH   2.42 VHP  5.051 DPA -37.22 RAP 199.82 ECC 1.8870
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 7 38	2527.28	-25.72	62.29	99.85	102.26	0 49 45	1927.3	-23.78	54.16
90.00	12 37 21	5038.86	23.50	222.19	98.18	73.72	14 1 20	4438.9	21.04	214.38
100.00	1 29 58	2261.70	-27.08	42.42	99.51	103.17	2 7 40	1661.7	-25.00	34.24
100.00	13 57 42	4779.67	24.83	202.69	97.74	72.79	15 17 21	4179.7	22.24	194.85
110.00	2 40 30	2040.95	-30.75	24.58	98.43	105.73	3 14 31	1441.0	-28.29	16.25
110.00	15 3 39	4573.19	28.42	185.67	96.39	70.15	16 19 52	3973.2	25.45	177.75

DIFFERENTIAL CORRECTIONS

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TDE  .9865 TRA-1.3630 TC3 -.6382 BAU  .5059
RDE -.1371 RRA -.1533 RC3 -.2928 FAU .08168
FDE 1.4488 FRA -.5358 FC3-1.3121 BSP   4658
BDE  .9960 BRA 1.3716 BC3  .7022 FSP   -607
```

MID-COURSE EXECUTION ACCURACY

```
SGT 1613.7 SGR  459.0 SG3  196.4
RRT  .6049 RRF  .7262 RTF  .8511
SGB 1677.7 R23  .2314 R13  .8610
SG1 1638.7 SG2  359.9 THA  10.26
```

ORBIT DETERMINATION ACCURACY

```
ST   834.0 SR   113.6 SS   497.1
CRT -.7446 CRS  .8943 CST -.9603
LSA  967.6 MSA  137.6 SSA   17.9
EL1  838.3 EL2   75.4 ALF 174.16
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LAUNCH DATE OCT 17 1970 FLIGHT TIME 92.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 282.278

```
RL  149.08 LAL   -.00 LOL  23.21 VL  29.096 GAL -14.27 AZL  85.37 HCA 133.65 SMA 142.12 ECC .25109 INC 4.6302 V1  29.887
RP  107.55 LAP   3.35 LOP 156.96 VP  39.168 GAP   3.68 AZP  93.20 TAL 244.83 TAP  18.48 RCA 106.44 APO 177.81 V2  35.235
RC  96.339 GL   18.22 GP -29.80 ZAL 156.63 ZAP 117.86 ETS 339.53 ZAE 133.03 ETE 215.90 ZAC  67.61 ETC 255.41 CLP-122.59
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PLANETOCENTRIC CONIC

```
C3  53.025 VHL  7.282 DLA   3.07 RAL 221.53 RAD 6568.9 VEL 13.206 PTH   2.41 VHP  5.155 DPA -38.02 RAP 199.25 ECC 1.8727
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 5 4	2552.39	-26.07	64.05	101.07	101.45	0 47 37	1952.4	-24.23	55.86
90.00	12 48 44	5005.71	22.85	219.97	98.68	72.80	14 12 10	4405.7	20.28	212.24
100.00	1 27 51	2285.39	-27.44	44.09	100.75	102.36	2 5 56	1685.4	-25.46	35.85
100.00	14 8 39	4747.94	24.17	200.56	98.22	71.86	15 27 47	4147.9	21.47	192.81
110.00	2 39 23	2061.49	-31.12	26.07	99.72	104.92	3 13 45	1461.5	-28.76	17.66
110.00	15 13 36	4544.61	27.74	183.72	96.82	69.18	16 29 21	3944.6	24.66	175.91

DIFFERENTIAL CORRECTIONS

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TDE 1.0748 TRA-1.4102 TC3 -.6922 BAU  .5334
RDE -.1169 RRA -.1264 RC3 -.2950 FAU .07800
FDE 1.4270 FRA -.4758 FC3-1.2735 BSP   5026
BDE 1.0811 BRA 1.4158 BC3  .7525 FSP   -595
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MID-COURSE EXECUTION ACCURACY

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SGT 1722.3 SGR  450.5 SG3  190.1
RRT  .6006 RRF  .7374 RTF  .8539
SGB 1780.2 R23  .2521 R13  .8628
SG1 1744.3 SG2  355.6 THA   9.32
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ORBIT DETERMINATION ACCURACY

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ST   909.5 SR    97.6 SS   503.2
CRT -.7600 CRS  .8999 CST -.9622
LSA 1035.3 MSA  133.1 SSA   17.4
EL1  912.5 EL2   63.2 ALF 175.32
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LAUNCH DATE OCT 17 1970 FLIGHT TIME 94.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 288.342

RL 149.08 LAL -.00 LOL 23.21 VL 29.009 GAL -14.06 AZL 85.06 HCA 136.89 SMA 141.35 ECC .24862 INC 4.9410 V1 29.887
RP 107.57 LAP 3.37 LOP 160.20 VP 39.098 GAP 4.04 AZP 93.61 TAL 243.62 TAP 20.51 RCA 106.21 APO 176.50 V2 35.229
RC 98.624 GL 19.59 GP -30.87 ZAL 155.07 ZAP 120.04 ETS 336.90 ZAE 131.08 ETE 214.86 ZAC 66.59 ETC 255.30 CLP-125.67

PLANETOCENTRIC CONIC

C3 52.279 VHL 7.230 DLA 4.13 RAL 222.72 RAD 6568.9 VEL 13.177 PTH 2.41 VHP 5.275 DPA -39.02 RAP 198.77 ECC 1.8604

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 1 57	2581.65	-26.45	66.11	102.47	100.49	0 44 59	1981.7	-24.74	57.86
90.00	13 1 22	4969.42	22.09	217.58	99.30	71.83	14 24 11	4369.4	19.41	209.94
100.00	1 25 14	2313.05	-27.82	46.06	102.17	101.39	2 3 47	1713.0	-25.97	37.74
100.00	14 20 46	4713.26	23.42	198.26	98.82	70.87	15 39 19	4113.3	20.59	190.60
110.00	2 37 55	2085.58	-31.53	27.83	101.21	103.95	3 12 40	1485.6	-29.29	19.34
110.00	15 24 35	4513.49	26.97	181.63	97.35	68.16	16 39 48	3913.5	23.76	173.93

DIFFERENTIAL CORRECTIONS
TDE 1.1717 TRA-1.4533 TC3 -.7440 BAU .5596
RDE -.0956 RRA -.0971 RC3 -.2960 FAU .07402
FDE 1.4066 FRA -.4144 FC3-1.2258 BSP 5384
BDE 1.1756 BRA 1.4566 BC3 .8007 FSP -578

MID-COURSE EXECUTION ACCURACY
SGT 1831.1 SGR 441.5 SG3 183.1
RRT .5929 RRF .7477 RTF .8560
SGB 1883.5 R23 .2740 R13 .8640
SG1 1850.4 SG2 351.8 THA 8.44

ORBIT DETERMINATION ACCURACY
ST 991.5 SR 80.3 SS 510.5
CRT -.7781 CRS .9063 CST -.9641
LSA 1110.5 MSA 129.0 SSA 16.7
EL1 993.5 EL2 50.3 ALF 176.39

LAUNCH DATE OCT 17 1970 FLIGHT TIME 96.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 294.379

RL 149.08 LAL -.00 LOL 23.21 VL 28.920 GAL -13.83 AZL 84.71 HCA 140.12 SMA 140.59 ECC .24621 INC 5.2917 V1 29.887
RP 107.59 LAP 3.39 LOP 163.45 VP 39.026 GAP 4.39 AZP 94.07 TAL 242.37 TAP 22.50 RCA 105.97 APO 175.20 V2 35.222
RC 100.910 GL 21.11 GP -32.12 ZAL 153.35 ZAP 121.89 ETS 334.08 ZAE 129.13 ETE 214.07 ZAC 65.42 ETC 255.19 CLP-128.59

PLANETOCENTRIC CONIC

C3 51.692 VHL 7.190 DLA 5.32 RAL 224.01 RAD 6568.9 VEL 13.155 PTH 2.40 VHP 5.413 DPA -40.26 RAP 198.31 ECC 1.8507

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 54 11	2616.14	-26.86	68.55	104.09	99.33	24 37 47	2016.1	-25.29	60.23
90.00	13 15 28	4929.33	21.22	214.96	100.06	70.80	14 37 38	4329.3	18.41	207.42
100.00	1 21 58	2345.69	-28.24	48.39	103.82	100.23	2 1 4	1745.7	-26.54	40.00
100.00	14 34 19	4675.01	22.54	195.76	99.55	69.83	15 52 14	4075.0	19.59	188.20
110.00	2 35 58	2114.12	-31.98	29.93	102.95	102.78	3 11 12	1514.1	-29.89	21.34
110.00	15 36 48	4479.35	26.09	179.37	98.01	67.08	16 51 28	3879.3	22.75	171.80

DIFFERENTIAL CORRECTIONS
TDE 1.2792 TRA-1.4921 TC3 -.7925 BAU .5846
RDE -.0736 RRA -.0653 RC3 -.2957 FAU .06982
FDE 1.3869 FRA -.3530 FC3-1.1693 BSP 5741
BDE 1.2813 BRA 1.4935 BC3 .8459 FSP -557

MID-COURSE EXECUTION ACCURACY
SGT 1940.1 SGR 432.5 SG3 175.6
RRT .5808 RRF .7568 RTF .8575
SGB 1987.7 R23 .2973 R13 .8648
SG1 1956.8 SG2 349.0 THA 7.62

ORBIT DETERMINATION ACCURACY
ST 1081.1 SR 62.0 SS 519.0
CRT -.8012 CRS .9130 CST -.9660
LSA 1194.1 MSA 125.6 SSA 15.8
EL1 1082.2 EL2 37.1 ALF 177.36

LAUNCH DATE OCT 17 1970 FLIGHT TIME 98.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 300.391

RL 149.08 LAL -.00 LOL 23.21 VL 28.831 GAL -13.60 AZL 84.31 HCA 143.35 SMA 139.82 ECC .24387 INC 5.6930 V1 29.887
RP 107.61 LAP 3.39 LOP 166.70 VP 38.953 GAP 4.72 AZP 94.57 TAL 241.08 TAP 24.44 RCA 105.72 APO 173.92 V2 35.215
RC 103.196 GL 22.83 GP -33.60 ZAL 151.44 ZAP 123.39 ETS 331.03 ZAE 127.15 ETE 213.50 ZAC 64.05 ETC 255.05 CLP-131.36

PLANETOCENTRIC CONIC

C3 51.316 VHL 7.164 DLA 6.68 RAL 225.41 RAD 6568.9 VEL 13.141 PTH 2.40 VHP 5.573 DPA -41.75 RAP 197.81 ECC 1.8445

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 49 23	2657.27	-27.28	71.49	106.00	97.91	24 33 40	2057.3	-25.90	63.09
90.00	13 31 26	4884.57	20.19	212.09	100.99	69.71	14 52 51	4284.6	17.25	204.65
100.00	1 17 50	2384.64	-28.68	51.20	105.76	98.81	1 57 35	1784.6	-27.16	42.73
100.00	14 49 36	4632.43	21.52	193.01	100.45	68.73	16 6 48	4032.4	18.43	185.57
110.00	2 33 22	2148.30	-32.46	32.48	104.98	101.35	3 9 10	1548.3	-30.56	23.78
110.00	15 50 34	4441.54	25.06	176.91	98.84	65.95	17 4 35	3841.5	21.60	169.47

DIFFERENTIAL CORRECTIONS
TDE 1.4063 TRA-1.5203 TC3 -.8321 BAU .6048
RDE -.0478 RRA -.0270 RC3 -.2913 FAU .06474
FDE 1.3821 FRA -.2779 FC3-1.0921 BSP 5945
BDE 1.4071 BRA 1.5206 BC3 .8816 FSP -505

MID-COURSE EXECUTION ACCURACY
SGT 2045.8 SGR 419.6 SG3 166.6
RRT .5604 RRF .7606 RTF .8572
SGB 2088.4 R23 .3212 R13 .8638
SG1 2059.6 SG2 345.2 THA 6.75

ORBIT DETERMINATION ACCURACY
ST 1183.8 SR 40.7 SS 533.7
CRT -.8325 CRS .9128 CST -.9676
LSA 1293.1 MSA 124.4 SSA 14.3
EL1 1184.3 EL2 22.6 ALF 178.36

LAUNCH DATE OCT 17 1970 FLIGHT TIME 100.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 306.378

RL 149.08 LAL -.00 LOL 23.21 VL 28.741 GAL -13.37 AZL 83.84 HCA 146.58 SMA 139.06 ECC .24161 INC 6.1599 V1 29.887
RP 107.64 LAP 3.39 LOP 169.94 VP 38.879 GAP 5.04 AZP 95.15 TAL 239.76 TAP 26.34 RCA 105.46 APO 172.66 V2 35.207
RC 105.482 GL 24.78 GP -35.37 ZAL 149.32 ZAP 124.51 ETS 327.71 ZAE 125.09 ETE 213.11 ZAC 62.43 ETC 254.87 CLP-134.01

PLANETOCENTRIC CONIC

C3 51.235 VHL 7.158 DLA 8.24 RAL 226.94 RAD 6568.9 VEL 13.138 PTH 2.40 VHP 5.761 DPA -43.52 RAP 197.20 ECC 1.8432

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 43 18	2706.91	-27.69	75.06	108.26	96.17	24 28 25	2106.9	-26.55	66.58
90.00	13 49 42	4834.14	18.97	208.89	102.16	68.57	15 10 16	4234.1	15.89	201.57
100.00	1 12 34	2431.70	-29.12	54.63	108.07	97.06	1 53 6	1831.7	-27.84	46.06
100.00	15 7 3	4584.59	20.30	189.97	101.59	67.58	16 23 27	3984.6	17.09	182.65
110.00	2 29 55	2189.66	-32.97	35.60	107.41	99.57	3 6 24	1589.7	-31.30	26.77
110.00	16 6 12	4399.39	23.86	174.22	99.90	64.77	17 19 31	3799.4	20.27	166.93

DIFFERENTIAL CORRECTIONS
TDE 1.5395 TRA-1.5543 TC3 -.8737 BAU .6305
RDE -.0283 RRA .0083 RC3 -.2900 FAU .06078
FDE 1.3509 FRA -.2335 FC3-1.0270 BSP 6454
BDE 1.5398 BRA 1.5544 BC3 .9205 FSP -510

MID-COURSE EXECUTION ACCURACY
SGT 2159.5 SGR 415.8 SG3 158.5
RRT .5378 RRF .7662 RTF .8603
SGB 2199.2 R23 .3453 R13 .8663
SG1 2171.3 SG2 348.6 THA 6.07

ORBIT DETERMINATION ACCURACY
ST 1289.3 SR 25.9 SS 539.5
CRT -.8439 CRS .8565 CST -.9702
LSA 1392.5 MSA 121.1 SSA 13.3
EL1 1289.5 EL2 13.9 ALF 179.03

LAUNCH DATE OCT 17 1970 FLIGHT TIME 102.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 312.343

RL	149.08	LAL	-.00	LOL	23.21	VL	28.650	GAL	-13.13	AZL	83.29	HCA	149.81	SMA	138.31	ECC	.23942	INC	6.7138	V1	29.887
RP	107.66	LAP	3.37	LOP	173.19	VP	38.805	GAP	5.34	AZP	95.81	TAL	238.40	TAP	28.20	RCA	105.19	APO	171.42	V2	35.198
RC	107.765	GL	27.02	GP	-37.47	ZAL	146.92	ZAP	125.20	ETS	324.08	ZAE	122.89	ETE	212.88	ZAC	60.48	ETC	254.63	CLP	-136.57

PLANETOCENTRIC CONIC

C3	51.561	VHL	7.181	DLA	10.07	RAL	228.62	RAD	6568.9	VEL	13.150	PTH	2.40	VHP	5.988	DPA	-45.61	RAP	196.35	ECC	1.8486

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 35 31	2767.69	-28.06	79.47	110.96	93.98	24 21 38	2167.7	-27.21	70.91
90.00	14 10 56	4776.52	17.50	205.30	103.66	67.37	15 30 33	4176.5	14.28	198.10
100.00	1 5 46	2489.28	-29.53	58.86	110.83	94.87	1 47 15	1889.3	-28.54	50.20
100.00	15 27 18	4530.16	18.85	186.58	103.05	66.36	16 42 48	3930.2	15.50	179.39
110.00	2 25 19	2240.33	-33.48	39.46	110.34	97.33	3 2 40	1640.3	-32.10	30.50
110.00	16 24 14	4351.87	22.45	171.25	101.25	63.52	17 36 46	3751.9	18.71	164.11

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.7030	TRA	-1.5761	TC3	-.9013	BAU	.6512	SGT	2270.1	SGR	408.5	SG3	149.0	ST	1412.4	SR	18.4
RDE	-.0067	RRA	.0522	RC3	-.2829	FAU	.05593	RRT	.5010	RRF	.7613	RTF	.8623	CRT	-.4478	CRS	.2920
FDE	1.3340	FRA	-.1767	FC3	-.9391	BSP	6818	SGB	2306.6	R23	.3681	R13	.8677	LSA	1511.5	MSA	120.4
BDE	1.7030	BRA	1.5769	BC3	.9447	FSP	-483	SG1	2279.5	SG2	352.1	THA	5.28	EL1	1412.4	EL2	16.4

SS	551.5	CST	-.9726	ALF	179.67

LAUNCH DATE OCT 17 1970 FLIGHT TIME 104.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 318.286

RL	149.08	LAL	-.00	LOL	23.21	VL	28.560	GAL	-12.87	AZL	82.61	HCA	153.03	SMA	137.56	ECC	.23730	INC	7.3861	V1	29.887
RP	107.69	LAP	3.34	LOP	176.43	VP	38.729	GAP	5.63	AZP	96.59	TAL	237.00	TAP	30.03	RCA	104.92	APO	170.21	V2	35.189
RC	110.046	GL	29.61	GP	-40.01	ZAL	144.18	ZAP	125.37	ETS	320.09	ZAE	120.49	ETE	212.74	ZAC	58.12	ETC	254.29	CLP	-139.10

PLANETOCENTRIC CONIC

C3	52.482	VHL	7.244	DLA	12.21	RAL	230.51	RAD	6568.9	VEL	13.185	PTH	2.41	VHP	6.267	DPA	-48.06	RAP	195.09	ECC	1.8637

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 25 20	2843.33	-28.29	84.99	114.25	91.23	24 12 43	2243.3	-27.82	76.36
90.00	14 36 9	4709.67	15.70	201.22	105.62	66.13	15 54 39	4109.7	12.34	194.15
100.00	0 56 51	2560.86	-29.83	64.16	114.20	92.09	1 39 32	1960.9	-29.22	55.41
100.00	15 51 15	4467.37	17.10	182.75	104.96	65.10	17 5 43	3867.4	13.60	175.70
110.00	2 19 11	2303.22	-33.92	44.32	113.92	94.49	2 57 34	1703.2	-32.93	35.22
110.00	16 45 24	4297.77	20.77	167.95	103.03	62.22	17 57 2	3697.8	16.89	160.98

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.9085	TRA	-1.5815	TC3	-.9088	BAU	.6648	SGT	2377.0	SGR	398.3	SG3	138.0	ST	1558.0	SR	31.2
RDE	.0157	RRA	.1076	RC3	-.2681	FAU	.05016	RRT	.4424	RRF	.7405	RTF	.8637	CRT	.1895	CRS	-.3902
FDE	1.3301	FRA	-.1089	FC3	-.8274	BSP	6983	SGB	2410.2	R23	.3898	R13	.8681	LSA	1654.8	MSA	122.7
BDE	1.9086	BRA	1.5852	BC3	.9476	FSP	-427	SG1	2383.7	SG2	356.2	THA	4.34	EL1	1558.0	EL2	30.6

SS	570.2	CST	-.9750	ALF	.22

LAUNCH DATE OCT 17 1970 FLIGHT TIME 106.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 324.206

RL	149.08	LAL	-.00	LOL	23.21	VL	28.469	GAL	-12.62	AZL	81.78	HCA	156.24	SMA	136.83	ECC	.23526	INC	8.2248	V1	29.887
RP	107.72	LAP	3.30	LOP	179.67	VP	38.654	GAP	5.90	AZP	97.54	TAL	235.58	TAP	31.82	RCA	104.64	APO	169.02	V2	35.179
RC	112.324	GL	32.63	GP	-43.07	ZAL	141.02	ZAP	124.96	ETS	315.68	ZAE	117.78	ETE	212.62	ZAC	55.24	ETC	253.79	CLP	-141.66

PLANETOCENTRIC CONIC

C3	54.320	VHL	7.370	DLA	14.74	RAL	232.65	RAD	6569.0	VEL	13.254	PTH	2.42	VHP	6.626	DPA	-50.89	RAP	193.14	ECC	1.8940

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 11 43	2939.44	-28.23	92.02	118.26	87.71	24 0 43	2339.4	-28.25	83.35
90.00	15 6 50	4630.60	13.46	196.49	108.25	64.85	16 24 1	4030.6	9.97	189.56
100.00	0 44 56	2651.51	-29.86	70.90	118.33	88.55	1 29 7	2051.5	-29.74	62.10
100.00	16 20 14	4393.76	14.93	178.35	107.52	63.80	17 33 28	3793.8	11.29	171.45
110.00	2 10 54	2382.50	-34.17	50.50	118.35	90.85	2 50 37	1782.5	-33.68	41.29
110.00	17 10 45	4235.54	18.75	164.26	105.43	60.88	18 21 21	3635.5	14.73	157.45

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.1476	TRA	-1.5909	TC3	-.9074	BAU	.6840	SGT	2492.4	SGR	395.9	SG3	126.9	ST	1713.5	SR	45.6
RDE	.0239	RRA	.1662	RC3	-.2525	FAU	.04519	RRT	.3627	RRF	.6992	RTF	.8697	CRT	.2054	CRS	-.3999
FDE	1.3025	FRA	-.0699	FC3	-.7203	BSP	7540	SGB	2523.6	R23	.4043	R13	.8732	LSA	1805.5	MSA	122.4
BDE	2.1477	BRA	1.5996	BC3	.9419	FSP	-419	SG1	2496.6	SG2	368.3	THA	3.37	EL1	1713.5	EL2	44.6

SS	580.1	CST	-.9782	ALF	.31

LAUNCH DATE OCT 17 1970 FLIGHT TIME 108.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 330.103

RL	149.08	LAL	-.00	LOL	23.21	VL	28.378	GAL	-12.35	AZL	80.69	HCA	159.45	SMA	136.11	ECC	.23330	INC	9.3078	V1	29.887
RP	107.75	LAP	3.26	LOP	182.90	VP	38.578	GAP	6.16	AZP	98.72	TAL	234.12	TAP	33.57	RCA	104.35	APO	167.86	V2	35.169
RC	114.599	GL	36.20	GP	-46.79	ZAL	137.32	ZAP	123.82	ETS	310.75	ZAE	114.63	ETE	212.37	ZAC	51.70	ETC	253.03	CLP	-144.37

PLANETOCENTRIC CONIC

C3	57.635	VHL	7.592	DLA	17.75	RAL	235.13	RAD	6569.0	VEL	13.379	PTH	2.45	VHP	7.108	DPA	-54.12	RAP	190.06	ECC	1.9485

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 52 48	3065.11	-27.55	101.14	123.17	83.18	23 43 53	2465.1	-28.21	92.54
90.00	15 45 35	4534.07	10.60	190.84	111.91	63.59	17 1 9	3934.1	6.97	184.05
100.00	0 28 29	2769.23	-29.34	79.61	123.40	84.00	1 14 38	2169.2	-29.86	70.84
100.00	16 56 31	4305.18	12.21	173.19	111.08	62.50	18 8 16	3705.2	8.43	166.43
110.00	1 59 33	2484.34	-33.99	58.44	123.87	86.15	2 40 57	1884.3	-34.15	49.20
110.00	17 41 57	4162.84	16.29	160.06	108.75	59.53	18 51 19	3562.8	12.13	153.43

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.4686	TRA	-1.5752	TC3	-.8709	BAU	.6928	SGT	2603.4	SGR	392.2	SG3	114.0	ST	1900.8	SR	61.0
RDE	.0185	RRA	.2460	RC3	-.2239	FAU	.03918	RRT	.2274	RRF	.6068	RTF	.8766	CRT	.0386	CRS	-.2282
FDE	1.2869	FRA	-.0212	FC3	-.5885	BSP	7871	SGB	2632.8	R23	.4139	R13	.8787	LSA	1989.2	MSA	125.1
BDE	2.4687	BRA	1.5943	BC3	.8992	FSP	-379	SG1	2605.0	SG2	381.7	THA	2.01	EL1	1900.8	EL2	60.9

SS	596.7	CST	-.9814	ALF	.07

LAUNCH DATE OCT 17 1970 FLIGHT TIME 110.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 335.976

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RL  149.08 LAL   -.00 LOL  23.21 VL  28.288 GAL -12.08 AZL  79.23 HCA 162.64 SMA 135.40 ECC .23140 INC10.7697 V1  29.887
RP  107.79 LAP   3.20 LOP 186.14 VP  38.502 GAP   6.41 AZP 100.29 TAL 232.63 TAP  35.28 RCA 104.07 APO 166.73 V2  35.158
RC 116.871 GL   40.43 GP  -51.32 ZAL 132.93 ZAP 121.81 ETS 305.12 ZAE 110.87 ETE 211.68 ZAC  47.32 ETC 251.80 CLP-147.49
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PLANETOCENTRIC CONIC

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C3  63.531 VHL  7.971 DLA  21.34 RAL 238.11 RAD 6569.2 VEL 13.597 PTH   2.49 VHP  7.790 DPA -57.68 RAP 185.05 ECC 2.0456
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 24 40	3237.24	-25.56	113.34	129.04	77.39	23 18 37	2637.2	-27.05	104.99
90.00	16 37 27	4409.29	6.74	183.71	117.26	62.43	17 50 57	3809.3	3.00	177.03
100.00	0 4 32	2927.88	-27.66	91.09	129.55	78.18	0 53 20	2327.9	-29.01	82.55
100.00	17 44 12	4193.89	8.63	166.86	116.24	61.27	18 54 6	3593.9	4.73	160.24
110.00	1 43 30	2618.28	-32.90	68.74	130.71	80.15	2 27 8	2018.3	-33.91	59.65
110.00	18 21 44	4076.25	13.24	155.20	113.50	58.19	19 29 40	3476.3	8.94	148.74

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 2.9074 TRA-1.5293 TC3 -.7923 BAU  .6902   SGT 2712.2 SGR  398.3 SG3  100.0     ST  2120.1 SR    85.0 SS   616.8
 RDE -.0271 RRA  .3553 RC3 -.1808 FAU .03251   RRT -.0003 RRF  .4148 RTF  .8870     CRT -.3856 CRS  .2204 CST -.9848
 FDE 1.2744 FRA  .0256 FC3 -.4430 BSP   8110   SGB 2741.3 R23 -.4151 R13 -.8870     LSA 2205.8 MSA  129.5 SSA    5.4
 BDE 2.9076 BRA 1.5701 BC3  .8127 FSP   -327   SG1 2712.2 SG2  398.3 THA 180.00     EL1 2120.5 EL2   78.4 ALF 179.11
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LAUNCH DATE OCT 17 1970 FLIGHT TIME 112.00 ARRIVAL DATE FEB 6 1971

HELIOCENTRIC CONIC DISTANCE 341.818

```
RL  149.08 LAL   -.00 LOL  23.21 VL  28.198 GAL -11.79 AZL  77.14 HCA 165.82 SMA 134.70 ECC .22955 INC12.8638 V1  29.887
RP  107.82 LAP   3.13 LOP 189.37 VP  38.426 GAP   6.65 AZP 102.48 TAL 231.12 TAP  36.94 RCA 103.78 APO 165.62 V2  35.147
RC 119.138 GL   45.43 GP  -56.83 ZAL 127.69 ZAP 118.76 ETS 298.31 ZAE 106.23 ETE 209.91 ZAC  41.86 ETC 249.68 CLP-151.58
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PLANETOCENTRIC CONIC

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C3  74.417 VHL  8.627 DLA  25.58 RAL 241.81 RAD 6569.4 VEL 13.992 PTH   2.55 VHP  8.827 DPA -61.25 RAP 176.72 ECC 2.2247
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	21 34 55	3501.26	-20.47	130.99	135.32	69.99	22 33 17	2901.3	-23.01	123.24
90.00	17 56 46	4220.32	.69	173.11	125.76	61.69	19 7 7	3620.3	-3.09	166.48
100.00	23 21 21	3158.14	-23.45	106.88	136.46	70.91	24 13 59	2558.1	-25.84	98.90
100.00	18 53 2	4038.68	3.46	158.23	124.22	60.29	20 0 20	3438.7	-.52	151.71
110.00	1 19 39	2800.33	-29.98	82.11	138.86	72.75	2 6 19	2200.3	-32.05	73.50
110.00	19 15 9	3969.25	9.33	149.38	120.63	56.97	20 21 19	3369.2	4.92	143.07

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 3.5217 TRA-1.4435 TC3 -.6674 BAU  .6755   SGT 2815.5 SGR  448.1 SG3   84.9     ST  2360.9 SR   167.4 SS   635.7
 RDE -.1871 RRA  .5065 RC3 -.1246 FAU .02587   RRT -.3484 RRF  .0521 RTF  .9053     CRT -.8255 CRS  .7322 CST -.9888
 FDE 1.2547 FRA  .0542 FC3 -.3010 BSP   8595   SGB 2850.9 R23 -.3997 R13 -.9020     LSA 2447.2 MSA  132.5 SSA    4.0
 BDE 3.5267 BRA 1.5298 BC3  .6790 FSP   -292   SG1 2819.9 SG2  419.3 THA 176.75     EL1 2365.0 EL2   94.3 ALF 176.65
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LAUNCH DATE OCT 17 1970 FLIGHT TIME 114.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 347.619

```
RL  149.08 LAL   -.00 LOL  23.21 VL  28.109 GAL -11.50 AZL  73.87 HCA 168.97 SMA 134.02 ECC .22772 INC16.1279 V1  29.887
RP  107.86 LAP   3.05 LOP 192.60 VP  38.350 GAP   6.87 AZP 105.85 TAL 229.57 TAP  38.54 RCA 103.50 APO 164.54 V2  35.136
RC 121.402 GL   51.20 GP  -63.45 ZAL 121.38 ZAP 114.52 ETS 288.89 ZAE 100.32 ETE 205.38 ZAC  35.04 ETC 245.63 CLP-158.19
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PLANETOCENTRIC CONIC

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C3  96.400 VHL  9.818 DLA  30.39 RAL 246.70 RAD 6569.9 VEL 14.756 PTH   2.67 VHP 10.548 DPA -63.96 RAP 163.05 ECC 2.5865
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
78.48	18 32 38	4217.59	-9.51	178.50	140.12	61.00	19 42 56	3617.6	-13.31	171.73
101.52	21 38 1	3620.53	-9.49	134.51	140.11	60.99	22 38 21	3020.5	-13.29	127.74
78.48	18 32 38	4217.59	-9.51	178.50	140.12	61.00	19 42 56	3617.6	-13.31	171.73
101.52	21 38 1	3620.53	-9.49	134.51	140.11	60.99	22 38 21	3020.5	-13.29	127.74
110.00	0 39 39	3064.29	-23.33	99.72	147.55	64.28	1 30 44	2464.3	-26.60	92.08
110.00	20 34 6	3821.83	3.78	141.57	132.00	56.00	21 37 48	3221.8	-.71	135.37

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 4.4492 TRA-1.2344 TC3 -.4764 BAU  .6178   SGT 2883.3 SGR  646.5 SG3   69.7     ST  2608.6 SR   420.6 SS   670.0
 RDE -.6727 RRA  .7433 RC3 -.0534 FAU .01853   RRT -.7194 RRF -.4340 RTF  .9323     CRT -.9634 CRS  .9249 CST -.9929
 FDE 1.2594 FRA  .0823 FC3 -.1664 BSP   8912   SGB 2954.9 R23 -.3640 R13 -.9235     LSA 2722.4 MSA  137.9 SSA    2.8
 BDE 4.4997 BRA 1.4409 BC3  .4793 FSP   -242   SG1 2921.5 SG2  443.2 THA 170.62     EL1 2639.9 EL2  111.4 ALF 171.15
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LAUNCH DATE OCT 17 1970 FLIGHT TIME 116.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 353.344

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RL  149.08 LAL   -.00 LOL  23.21 VL  28.020 GAL -11.18 AZL  68.09 HCA 172.05 SMA 133.35 ECC .22582 INC21.9139 V1  29.887
RP  107.89 LAP   2.96 LOP 195.83 VP  38.274 GAP   7.06 AZP 111.72 TAL 227.98 TAP  40.03 RCA 103.24 APO 163.46 V2  35.124
RC 123.660 GL   57.23 GP  -70.85 ZAL 113.90 ZAP 109.00 ETS 272.09 ZAE  92.42 ETE 193.01 ZAC  26.50 ETC 236.77 CLP-172.93
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PLANETOCENTRIC CONIC

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C3 148.878 VHL 12.202 DLA  35.21 RAL 253.59 RAD 6570.8 VEL 16.438 PTH   2.87 VHP 13.790 DPA -63.68 RAP 143.45 ECC 3.4502
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
68.14	17 52 25	4514.36	-7.55	200.00	152.79	55.50	19 7 40	3914.4	-12.02	193.69
111.86	23 13 12	3496.97	-7.53	123.83	152.77	55.50	24 11 29	2897.0	-12.00	117.51
68.14	17 52 25	4514.36	-7.55	200.00	152.79	55.50	19 7 40	3914.4	-12.02	193.69
111.86	23 13 12	3496.97	-7.53	123.83	152.77	55.50	24 11 29	2897.0	-12.00	117.51
68.14	17 52 25	4514.36	-7.55	200.00	152.79	55.50	19 7 40	3914.4	-12.02	193.69
111.86	23 13 12	3496.97	-7.53	123.83	152.77	55.50	24 11 29	2897.0	-12.00	117.51

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 5.7292 TRA -.6715 TC3 -.2293 BAU  .4564   SGT 2774.8 SGR 1254.3 SG3   56.0     ST  2692.8 SR  1104.6 SS   747.6
 RDE-2.3183 RRA 1.0840 RC3  .0036 FAU .01054   RRT -.9120 RRF -.7903 RTF  .9703     CRT -.9919 CRS  .9797 CST -.9972
 FDE 1.3355 FRA  .1159 FC3 -.0613 BSP   9215   SGB 3045.2 R23 -.2949 R13 -.9527     LSA 3001.5 MSA  146.1 SSA    1.7
 BDE 6.1805 BRA 1.2752 BC3  .2293 FSP   -195   SG1 3007.9 SG2  474.8 THA 156.99     EL1 2907.7 EL2  129.7 ALF 157.81
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LAUNCH DATE OCT 17 1970 FLIGHT TIME 118.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 358.879

RL 149.08 LAL -.00 LOL 23.21 VL 27.933 GAL -10.82 AZL 55.42 HCA 174.96 SMA 132.69 ECC .22351 INC34.5833 V1 29.887
RP 107.93 LAP 2.86 LOP 199.05 VP 38.198 GAP 7.19 AZP 124.48 TAL 226.30 TAP 41.26 RCA 103.03 APO 162.35 V2 35.112
RC 125.912 GL 60.79 GP -74.75 ZAL 105.45 ZAP 102.43 ETS 234.43 ZAE 80.59 ETE 159.15 ZAC 16.52 ETC 222.28 CLP 144.94

PLANETOCENTRIC CONIC

C3 318.334 VHL 17.842 DLA 37.55 RAL 263.94 RAD 6571.8 VEL 20.968 PTH 3.19 VHP 21.192 DPA -56.63 RAP 124.03 ECC 6.2390

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
64.23	18 12 38	4688.90	-3.37	210.98	169.56	52.58	19 30 47	4088.9	-8.20	204.98
115.77	0 19 29	3546.45	-3.36	124.76	169.55	52.57	1 18 36	2946.5	-8.19	118.77
64.23	18 12 38	4688.90	-3.37	210.98	169.56	52.58	19 30 47	4088.9	-8.20	204.98
115.77	0 19 29	3546.45	-3.36	124.76	169.55	52.57	1 18 36	2946.5	-8.19	118.77
64.23	18 12 38	4688.90	-3.37	210.98	169.56	52.58	19 30 47	4088.9	-8.20	204.98
115.77	0 19 29	3546.45	-3.36	124.76	169.55	52.57	1 18 36	2946.5	-8.19	118.77

DIFFERENTIAL CORRECTIONS
TDE 5.3339 TRA .9190 TC3 -.0178 BAU .2628
RDE-7.8147 RRA .7701 RC3 -.0591 FAU-.00130
FDE 1.6568 FRA .2293 FC3 .0035 BSP 9142
BDE 9.4615 BRA 1.1991 BC3 .0618 FSP -156

MID-COURSE EXECUTION ACCURACY
SGT 1754.0 SGR 2537.6 SG3 46.7
RRT -.9366 RRF -.9547 RTF .9974
SGB 3084.8 R23 -.1847 R13 -.9819
SG1 3041.9 SG2 512.6 THA 124.02

ORBIT DETERMINATION ACCURACY
ST 1716.5 SR 2511.3 SS 975.5
CRT -.9948 CRS .9960 CST -.9999
LSA 3190.7 MSA 154.5 SSA 1.3
EL1 3038.4 EL2 145.1 ALF 124.30

LAUNCH DATE OCT 17 1970 FLIGHT TIME 120.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 363.636

RL 149.08 LAL -.00 LOL 23.21 VL 27.846 GAL -10.29 AZL 18.71 HCA 177.09 SMA 132.05 ECC .21913 INC71.2932 V1 29.887
RP 107.97 LAP 2.75 LOP 202.27 VP 38.123 GAP 7.10 AZP 161.27 TAL 224.32 TAP 41.41 RCA 103.12 APO 160.99 V2 35.099
RC 128.158 GL 50.27 GP -57.93 ZAL 97.64 ZAP 96.17 ETS 193.96 ZAE 57.66 ETE 123.70 ZAC 22.09 ETC 255.80 CLP 101.67

PLANETOCENTRIC CONIC

C31138.593 VHL 33.743 DLA 27.14 RAL 278.02 RAD 6573.0 VEL 35.495 PTH 3.52 VHP 41.759 DPA -35.09 RAP 114.88 ECC19.7384

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 21 56	3976.53	-7.11	159.45	192.59	62.52	24 28 13	3376.5	-10.74	152.65
90.00	20 58 38	4444.46	7.85	185.70	184.88	62.70	22 12 43	3844.5	4.13	179.00
100.00	1 22 57	3599.13	-11.21	133.86	194.77	62.11	2 22 56	2999.1	-14.86	126.97
100.00	21 44 15	4297.10	11.95	172.72	182.71	62.40	22 55 52	3697.1	8.16	165.98
110.00	3 27 22	3209.78	-18.76	108.53	199.01	60.89	4 20 52	2609.8	-22.50	101.39
110.00	21 56 19	4259.21	19.53	165.65	178.51	61.37	23 7 18	3659.2	15.56	158.78

DIFFERENTIAL CORRECTIONS
TDE-2.0790 TRA 2.0561 TC3 -.0520 BAU 2.7781
RD-13.9548 RRA-3.3033 RC3 -.1749 FAU-.04137
FDE 2.5224 FRA .8469 FC3 .0315 BSP 8203
BDE14.1088 BRA 3.8909 BC3 .1825 FSP -137

MID-COURSE EXECUTION ACCURACY
SGT 633.9 SGR 2721.3 SG3 43.6
RRT .5819 RRF -.9957 RTF -.5075
SGB 2794.2 R23 -.1143 R13 -.9931
SG1 2747.1 SG2 510.7 THA 82.00

ORBIT DETERMINATION ACCURACY
ST 372.3 SR 2377.3 SS 1555.3
CRT .9205 CRS .9995 CST .9070
LSA 2861.0 MSA 154.0 SSA 1.4
EL1 2402.0 EL2 144.0 ALF 81.77

LAUNCH DATE OCT 17 1970 FLIGHT TIME 122.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 372.637

RL 149.08 LAL -.00 LOL 23.21 VL 27.760 GAL -10.65 AZL 139.09 HCA 183.49 SMA 131.43 ECC .22714 INC49.0931 V1 29.887
RP 108.01 LAP 2.64 LOP 205.49 VP 38.049 GAP 8.23 AZP 40.96 TAL 223.81 TAP 47.29 RCA 101.57 APO 161.28 V2 35.086
RC 130.397 GL -58.00 GP 66.74 ZAL 101.00 ZAP 99.40 ETS 161.71 ZAE 75.50 ETE 234.45 ZAC 146.78 ETC 256.82 CLP 114.45

PLANETOCENTRIC CONIC

C3 591.114 VHL 24.313 DLA -81.39 RAL 277.43 RAD 6572.5 VEL 26.691 PTH 3.38 VHP 31.934 DPA 73.08 RAP 211.39 ECC10.7282

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
9.79	4 29 29	2431.48	1.63	84.37	187.17	171.39	5 10 0	1831.5	9.54	83.58
170.21	15 50 16	629.66	1.63	281.26	187.19	171.39	16 0 46	29.7	9.54	280.47
9.79	4 29 29	2431.48	1.63	84.37	187.17	171.39	5 10 0	1831.5	9.54	83.58
170.21	15 50 16	629.66	1.63	281.26	187.19	171.39	16 0 46	29.7	9.54	280.47
9.79	4 29 29	2431.48	1.63	84.37	187.17	171.39	5 10 0	1831.5	9.54	83.58
170.21	15 50 16	629.66	1.63	281.26	187.19	171.39	16 0 46	29.7	9.54	280.47

DIFFERENTIAL CORRECTIONS
TDE 1.4178 TRA .3010 TC3 -.0332 BAU 1.2011
RD-12.2684 RRA .3647 RC3 .1483 FAU-.01395
FDE-2.2325 FRA .1015 FC3 .0204 BSP 9766
BDE12.3500 BRA .4728 BC3 .1520 FSP -156

MID-COURSE EXECUTION ACCURACY
SGT 601.8 SGR 3034.5 SG3 48.3
RRT -.4439 RRF .9935 RTF -.3454
SGB 3093.6 R23 -.1226 R13 .9916
SG1 3046.7 SG2 537.1 THA 95.19

ORBIT DETERMINATION ACCURACY
ST 363.1 SR 2896.4 SS 1457.6
CRT -.8953 CRS -.9995 CST .8809
LSA 3258.4 MSA 168.0 SSA 1.8
EL1 2914.6 EL2 160.7 ALF 96.42

LAUNCH DATE OCT 17 1970 FLIGHT TIME 124.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 377.801

RL 149.08 LAL -.00 LOL 23.21 VL 27.675 GAL -10.20 AZL 114.59 HCA 186.05 SMA 130.82 ECC .22413 INC24.5863 V1 29.887
RP 108.05 LAP 2.51 LOP 208.71 VP 37.975 GAP 8.25 AZP 65.53 TAL 221.98 TAP 48.02 RCA 101.50 APO 160.14 V2 35.074
RC 132.627 GL -59.20 GP 72.21 ZAL 109.53 ZAP 107.07 ETS 101.10 ZAE 93.07 ETE 176.37 ZAC 160.15 ETC 223.96 CLP 163.83

PLANETOCENTRIC CONIC

C3 174.045 VHL 13.193 DLA -79.20 RAL 214.48 RAD 6570.9 VEL 17.186 PTH 2.94 VHP 17.765 DPA 58.80 RAP 242.01 ECC 3.8643

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
12.29	0 23 16	2286.73	11.09	81.86	122.33	168.99	1 1 22	1686.7	18.94	80.67
167.71	11 34 19	5778.98	11.10	259.07	122.35	168.99	13 10 38	5179.0	18.94	257.87
12.29	0 23 16	2286.73	11.09	81.86	122.33	168.99	1 1 22	1686.7	18.94	80.67
167.71	11 34 19	5778.98	11.10	259.07	122.35	168.99	13 10 38	5179.0	18.94	257.87
12.29	0 23 16	2286.73	11.09	81.86	122.33	168.99	1 1 22	1686.7	18.94	80.67
167.71	11 34 19	5778.98	11.10	259.07	122.35	168.99	13 10 38	5179.0	18.94	257.87

DIFFERENTIAL CORRECTIONS
TDE-4.0238 TRA -.9900 TC3 -.1428 BAU .3359
RDE-1.3049 RRA -.7162 RC3 -.0213 FAU .01031
FDE-1.0220 FRA -.2001 FC3 -.0513 BSP 10440
BDE 4.2301 BRA 1.2219 BC3 .1443 FSP -185

MID-COURSE EXECUTION ACCURACY
SGT 2908.8 SGR 1755.1 SG3 56.7
RRT .9443 RRF .8938 RTF .9908
SGB 3397.3 R23 -.2130 R13 .9760
SG1 3360.3 SG2 499.9 THA 30.42

ORBIT DETERMINATION ACCURACY
ST 1878.3 SR 754.5 SS 714.0
CRT .9408 CRS -.9142 CST -.9974
LSA 2131.6 MSA 251.5 SSA 1.3
EL1 2010.0 EL2 238.9 ALF 21.01

LAUNCH DATE OCT 17 1970 FLIGHT TIME 126.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 383.383
RL 149.08 LAL -.00 LOL 23.21 VL 27.590 GAL -9.83 AZL 105.34 HCA 189.03 SMA 130.22 ECC .22251 INC15.3399 V1 29.887
RP 108.09 LAP 2.38 LOP 211.92 VP 37.902 GAP 8.38 AZP 74.84 TAL 220.27 TAP 49.30 RCA 101.24 APO 159.19 V2 35.061
RC 134.850 GL -52.14 GP 64.78 ZAL 117.60 ZAP 115.00 ETS 74.99 ZAE 103.00 ETE 153.30 ZAC 159.95 ETC 231.97 CLP-172.61
PLANETOCENTRIC CONIC
C3 82.975 VHL 9.109 DLA -70.76 RAL 215.81 RAD 6569.6 VEL 14.294 PTH 2.60 VHP 12.518 DPA 46.90 RAP 246.05 ECC 2.3656

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
21.98	0 48 16	2120.86	20.06	72.44	118.48	159.47	1 23 37	1520.9	27.52	69.70
158.02	11 19 55	5650.79	20.07	259.36	118.50	159.46	12 54 6	5050.8	27.53	256.62
21.98	0 48 16	2120.86	20.06	72.44	118.48	159.47	1 23 37	1520.9	27.52	69.70
158.02	11 19 55	5650.79	20.07	259.36	118.50	159.46	12 54 6	5050.8	27.53	256.62
21.98	0 48 16	2120.86	20.06	72.44	118.48	159.47	1 23 37	1520.9	27.52	69.70
158.02	11 19 55	5650.79	20.07	259.36	118.50	159.46	12 54 6	5050.8	27.53	256.62

DIFFERENTIAL CORRECTIONS
TDE-2.5556 TRA-1.5110 TC3 -.6170 BAU .6852
RDE .3742 RRA -.2641 RC3 .0286 FAU .02031
FDE -.8192 FRA -.2638 FC3 -.2120 BSP 10901
BDE 2.5829 BRA 1.5339 BC3 .6177 FSP -232

MID-COURSE EXECUTION ACCURACY
SGT 3488.3 SGR 558.9 SG3 70.6
RRT .5219 RRF .2463 RTF .9521
SGB 3532.8 R23 -.3048 R13 .9487
SG1 3500.7 SG2 475.1 THA 4.87

ORBIT DETERMINATION ACCURACY
ST 1825.9 SR 279.8 SS 580.9
CRT -.4845 CRS .6551 CST -.9783
LSA 1917.8 MSA 267.4 SSA 2.2
EL1 1831.0 EL2 244.1 ALF 175.68

LAUNCH DATE OCT 17 1970 FLIGHT TIME 128.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 389.069
RL 149.08 LAL -.00 LOL 23.21 VL 27.507 GAL -9.48 AZL 100.72 HCA 192.13 SMA 129.64 ECC .22135 INC10.7234 V1 29.887
RP 108.13 LAP 2.24 LOP 215.13 VP 37.829 GAP 8.54 AZP 79.51 TAL 218.58 TAP 50.71 RCA 100.94 APO 158.33 V2 35.047
RC 137.063 GL -44.32 GP 56.61 ZAL 123.99 ZAP 122.19 ETS 67.00 ZAE 109.76 ETE 149.11 ZAC 154.76 ETC 243.63 CLP-165.44
PLANETOCENTRIC CONIC
C3 52.204 VHL 7.225 DLA -63.11 RAL 221.65 RAD 6568.9 VEL 13.174 PTH 2.41 VHP 10.108 DPA 37.35 RAP 247.21 ECC 1.8591

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
30.91	1 31 33	1981.31	25.48	61.34	117.66	149.94	2 4 34	1381.3	32.32	57.03
149.09	11 23 12	5569.05	25.49	258.06	117.68	149.94	12 56 1	4969.1	32.33	253.74
30.91	1 31 33	1981.31	25.48	61.34	117.66	149.94	2 4 34	1381.3	32.32	57.03
149.09	11 23 12	5569.05	25.49	258.06	117.68	149.94	12 56 1	4969.1	32.33	253.74
30.91	1 31 33	1981.31	25.48	61.34	117.66	149.94	2 4 34	1381.3	32.32	57.03
149.09	11 23 12	5569.05	25.49	258.06	117.68	149.94	12 56 1	4969.1	32.33	253.74

DIFFERENTIAL CORRECTIONS
TDE-1.9263 TRA-1.6001 TC3-1.1668 BAU .8195
RDE .4503 RRA -.1094 RC3 .1316 FAU .02717
FDE -.7439 FRA -.2650 FC3 -.4506 BSP 11291
BDE 1.9782 BRA 1.6039 BC3 1.1742 FSP -283

MID-COURSE EXECUTION ACCURACY
SGT 3612.4 SGR 447.7 SG3 85.9
RRT -.2027 RRF -.5513 RTF .9199
SGB 3640.1 R23 .3697 R13 -.9210
SG1 3613.6 SG2 438.3 THA 178.54

ORBIT DETERMINATION ACCURACY
ST 1744.9 SR 361.7 SS 529.7
CRT -.7879 CRS .9241 CST -.9634
LSA 1841.7 MSA 253.4 SSA 3.3
EL1 1768.4 EL2 219.8 ALF 170.58

LAUNCH DATE OCT 17 1970 FLIGHT TIME 130.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 394.792
RL 149.08 LAL -.00 LOL 23.21 VL 27.426 GAL -9.13 AZL 97.98 HCA 195.27 SMA 129.07 ECC .22044 INC 7.9762 V1 29.887
RP 108.17 LAP 2.09 LOP 218.34 VP 37.757 GAP 8.72 AZP 82.30 TAL 216.88 TAP 52.16 RCA 100.62 APO 157.52 V2 35.034
RC 139.266 GL -37.31 GP 49.50 ZAL 128.52 ZAP 128.39 ETS 63.09 ZAE 114.62 ETE 149.40 ZAC 149.02 ETC 249.99 CLP-162.99
PLANETOCENTRIC CONIC
C3 38.428 VHL 6.199 DLA -56.58 RAL 226.75 RAD 6568.5 VEL 12.641 PTH 2.29 VHP 8.834 DPA 29.50 RAP 248.03 ECC 1.6324

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
38.73	2 11 44	1867.63	27.88	50.40	116.31	141.46	2 42 52	1267.6	34.00	44.81
141.27	11 23 43	5528.88	27.89	256.75	116.33	141.45	12 55 52	4928.9	34.01	251.16
38.73	2 11 44	1867.63	27.88	50.40	116.31	141.46	2 42 52	1267.6	34.00	44.81
141.27	11 23 43	5528.88	27.89	256.75	116.33	141.45	12 55 52	4928.9	34.01	251.16
38.73	2 11 44	1867.63	27.88	50.40	116.31	141.46	2 42 52	1267.6	34.00	44.81
141.27	11 23 43	5528.88	27.89	256.75	116.33	141.45	12 55 52	4928.9	34.01	251.16

DIFFERENTIAL CORRECTIONS
TDE-1.5327 TRA-1.6010 TC3-1.7148 BAU .8877
RDE .3918 RRA -.0588 RC3 .2132 FAU .03213
FDE -.6580 FRA -.2357 FC3 -.7238 BSP 11608
BDE 1.5820 BRA 1.6021 BC3 1.7280 FSP -326

MID-COURSE EXECUTION ACCURACY
SGT 3707.4 SGR 459.1 SG3 99.7
RRT -.4758 RRF -.7898 RTF .8957
SGB 3735.7 R23 .4076 R13 -.8984
SG1 3713.9 SG2 403.1 THA 176.59

ORBIT DETERMINATION ACCURACY
ST 1631.1 SR 363.5 SS 473.3
CRT -.8260 CRS .9624 CST -.9479
LSA 1719.8 MSA 242.8 SSA 4.7
EL1 1658.9 EL2 201.4 ALF 169.41

LAUNCH DATE OCT 17 1970 FLIGHT TIME 132.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 400.527
RL 149.08 LAL -.00 LOL 23.21 VL 27.345 GAL -8.77 AZL 96.15 HCA 198.43 SMA 128.52 ECC .21972 INC 6.1522 V1 29.887
RP 108.21 LAP 1.94 LOP 221.54 VP 37.686 GAP 8.89 AZP 84.16 TAL 215.19 TAP 53.62 RCA 100.28 APO 156.76 V2 35.021
RC 141.459 GL -31.33 GP 43.56 ZAL 131.37 ZAP 133.63 ETS 60.50 ZAE 118.15 ETE 151.04 ZAC 143.87 ETC 253.65 CLP-162.22
PLANETOCENTRIC CONIC
C3 31.026 VHL 5.570 DLA -51.13 RAL 231.09 RAD 6568.2 VEL 12.345 PTH 2.23 VHP 8.100 DPA 23.02 RAP 248.97 ECC 1.5106

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
45.47	2 48 41	1770.99	28.46	40.40	115.17	134.45	3 18 12	1171.0	33.89	33.94
134.53	11 21 25	5517.57	28.47	256.23	115.18	134.44	12 53 22	4917.6	33.90	249.77
45.47	2 48 41	1770.99	28.46	40.40	115.17	134.45	3 18 12	1171.0	33.89	33.94
134.53	11 21 25	5517.57	28.47	256.23	115.18	134.44	12 53 22	4917.6	33.90	249.77
45.47	2 48 41	1770.99	28.46	40.40	115.17	134.45	3 18 12	1171.0	33.89	33.94
134.53	11 21 25	5517.57	28.47	256.23	115.18	134.44	12 53 22	4917.6	33.90	249.77

DIFFERENTIAL CORRECTIONS
TDE-1.2473 TRA-1.5688 TC3-2.2276 BAU .9306
RDE .3325 RRA -.0404 RC3 .2669 FAU .03550
FDE -.5636 FRA -.1901 FC3 -.9906 BSP 11875
BDE 1.2909 BRA 1.5694 BC3 2.2435 FSP -361

MID-COURSE EXECUTION ACCURACY
SGT 3796.8 SGR 458.1 SG3 111.0
RRT -.5787 RRF -.8595 RTF .8780
SGB 3824.4 R23 .4247 R13 -.8810
SG1 3806.2 SG2 372.6 THA 175.97

ORBIT DETERMINATION ACCURACY
ST 1498.9 SR 342.8 SS 411.7
CRT -.8257 CRS .9760 CST -.9283
LSA 1574.2 MSA 235.5 SSA 6.5
EL1 1525.8 EL2 189.9 ALF 169.14

LAUNCH DATE OCT 17 1970 FLIGHT TIME 134.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 406.266

RL 149.08 LAL -.00 LOL 23.21 VL 27.265 GAL -8.41 AZL 94.85 HCA 201.61 SMA 127.98 ECC .21917 INC 4.8486 V1 29.887
RP 108.25 LAP 1.78 LOP 224.74 VP 37.616 GAP 9.07 AZP 85.49 TAL 213.48 TAP 55.08 RCA 99.93 APO 156.03 V2 35.008
RC 143.643 GL -26.28 GP 38.65 ZAL 132.84 ZAP 138.04 ETS 58.51 ZAE 120.73 ETE 153.08 ZAC 139.49 ETC 256.00 CLP-162.19

PLANETOCENTRIC CONIC

C3 26.503 VHL 5.148 DLA -46.60 RAL 234.94 RAD 6568.1 VEL 12.161 PTH 2.18 VHP 7.658 DPA 17.64 RAP 250.11 ECC 1.4362

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
51.31	3 23 32	1684.35	28.11	31.45	114.59	128.83	3 51 36	1084.4	32.92	24.45
128.69	11 17 16	5525.49	28.12	256.65	114.60	128.83	12 49 21	4925.5	32.93	249.65
51.31	3 23 32	1684.35	28.11	31.45	114.59	128.83	3 51 36	1084.4	32.92	24.45
128.69	11 17 16	5525.49	28.12	256.65	114.60	128.83	12 49 21	4925.5	32.93	249.65
51.31	3 23 32	1684.35	28.11	31.45	114.59	128.83	3 51 36	1084.4	32.92	24.45
128.69	11 17 16	5525.49	28.12	256.65	114.60	128.83	12 49 21	4925.5	32.93	249.65

DIFFERENTIAL CORRECTIONS
TDE-1.0214 TRA-1.5119 TC3-2.6886 BAU .9584
RDE .2859 RRA -.0358 RC3 .2953 FAU .03729
FDE -.4638 FRA -.1302 FC3-1.2182 BSP 11953
BDE 1.0607 BRA 1.5123 BC3 2.7048 FSP -373

MID-COURSE EXECUTION ACCURACY
SGT 3866.9 SGR 443.9 SG3 118.6
RRT -.6184 RRF -.8754 RTF .8620
SGB 3892.3 R23 .4300 R13 -.8648
SG1 3876.7 SG2 348.0 THA 175.91

ORBIT DETERMINATION ACCURACY
ST 1356.1 SR 318.8 SS 345.0
CRT -.8089 CRS .9836 CST -.9001
LSA 1416.5 MSA 230.3 SSA 8.8
EL1 1380.9 EL2 184.1 ALF 169.03

LAUNCH DATE OCT 17 1970 FLIGHT TIME 136.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 412.002

RL 149.08 LAL -.00 LOL 23.21 VL 27.187 GAL -8.05 AZL 93.87 HCA 204.78 SMA 127.45 ECC .21877 INC 3.8660 V1 29.887
RP 108.29 LAP 1.62 LOP 227.94 VP 37.547 GAP 9.25 AZP 86.49 TAL 211.76 TAP 56.54 RCA 99.57 APO 155.33 V2 34.995
RC 145.816 GL -22.01 GP 34.58 ZAL 133.24 ZAP 141.75 ETS 56.89 ZAE 122.63 ETE 155.14 ZAC 135.83 ETC 257.67 CLP-162.51

PLANETOCENTRIC CONIC

C3 23.463 VHL 4.844 DLA -42.81 RAL 238.49 RAD 6568.0 VEL 12.035 PTH 2.15 VHP 7.385 DPA 13.14 RAP 251.44 ECC 1.3861

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
56.44	3 57 20	1602.88	27.31	23.32	114.60	124.35	4 24 3	1002.9	31.61	15.99
123.56	11 11 45	5546.98	27.32	257.95	114.61	124.34	12 44 12	4947.0	31.62	250.61
56.44	3 57 20	1602.88	27.31	23.32	114.60	124.35	4 24 3	1002.9	31.61	15.99
123.56	11 11 45	5546.98	27.32	257.95	114.61	124.34	12 44 12	4947.0	31.62	250.61
56.44	3 57 20	1602.88	27.31	23.32	114.60	124.35	4 24 3	1002.9	31.61	15.99
123.56	11 11 45	5546.98	27.32	257.95	114.61	124.34	12 44 12	4947.0	31.62	250.61

DIFFERENTIAL CORRECTIONS
TDE -.8559 TRA-1.4587 TC3-3.1372 BAU .9891
RDE .2578 RRA -.0309 RC3 .3171 FAU .03865
FDE -.3820 FRA -.0796 FC3-1.4261 BSP 12404
BDE .8938 BRA 1.4590 BC3 3.1532 FSP -402

MID-COURSE EXECUTION ACCURACY
SGT 3974.2 SGR 435.7 SG3 126.1
RRT -.6499 RRF -.8742 RTF .8550
SGB 3998.0 R23 .4141 R13 -.8574
SG1 3984.3 SG2 330.3 THA 175.90

ORBIT DETERMINATION ACCURACY
ST 1237.4 SR 305.4 SS 290.6
CRT -.7912 CRS .9892 CST -.8667
LSA 1287.3 MSA 227.2 SSA 11.5
EL1 1261.2 EL2 183.3 ALF 168.71

LAUNCH DATE OCT 17 1970 FLIGHT TIME 138.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 417.733

RL 149.08 LAL -.00 LOL 23.21 VL 27.109 GAL -7.68 AZL 93.09 HCA 207.96 SMA 126.94 ECC .21851 INC 3.0950 V1 29.887
RP 108.33 LAP 1.45 LOP 231.14 VP 37.479 GAP 9.43 AZP 87.27 TAL 210.03 TAP 57.99 RCA 99.20 APO 154.68 V2 34.982
RC 147.979 GL -18.33 GP 31.19 ZAL 132.81 ZAP 144.90 ETS 55.54 ZAE 124.04 ETE 157.06 ZAC 132.78 ETC 258.97 CLP-163.03

PLANETOCENTRIC CONIC

C3 21.267 VHL 4.612 DLA -39.60 RAL 241.86 RAD 6567.9 VEL 11.943 PTH 2.13 VHP 7.218 DPA 9.35 RAP 252.94 ECC 1.3500

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
61.07	4 31 2	1522.98	26.32	15.73	115.12	120.72	4 56 25	923.0	30.19	8.19
118.93	11 4 59	5579.23	26.34	260.03	115.13	120.71	12 37 58	4979.2	30.20	252.49
61.07	4 31 2	1522.98	26.32	15.73	115.12	120.72	4 56 25	923.0	30.19	8.19
118.93	11 4 59	5579.23	26.34	260.03	115.13	120.71	12 37 58	4979.2	30.20	252.49
61.07	4 31 2	1522.98	26.32	15.73	115.12	120.72	4 56 25	923.0	30.19	8.19
118.93	11 4 59	5579.23	26.34	260.03	115.13	120.71	12 37 58	4979.2	30.20	252.49

DIFFERENTIAL CORRECTIONS
TDE -.7175 TRA-1.3921 TC3-3.5533 BAU 1.0146
RDE .2385 RRA -.0292 RC3 .3295 FAU .03916
FDE -.3058 FRA -.0265 FC3-1.5940 BSP 12772
BDE .7561 BRA 1.3924 BC3 3.5685 FSP -421

MID-COURSE EXECUTION ACCURACY
SGT 4071.1 SGR 427.1 SG3 131.2
RRT -.6639 RRF -.8591 RTF .8494
SGB 4093.5 R23 .3900 R13 -.8515
SG1 4081.1 SG2 318.6 THA 175.99

ORBIT DETERMINATION ACCURACY
ST 1121.5 SR 296.8 SS 238.6
CRT -.7677 CRS .9931 CST -.8193
LSA 1162.6 MSA 225.6 SSA 14.8
EL1 1145.1 EL2 186.3 ALF 168.20

LAUNCH DATE OCT 17 1970 FLIGHT TIME 140.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 423.461

RL 149.08 LAL -.00 LOL 23.21 VL 27.033 GAL -7.30 AZL 92.47 HCA 211.14 SMA 126.44 ECC .21841 INC 2.4704 V1 29.887
RP 108.37 LAP 1.28 LOP 234.33 VP 37.412 GAP 9.61 AZP 87.89 TAL 208.28 TAP 59.43 RCA 98.83 APO 154.06 V2 34.969
RC 150.132 GL -15.14 GP 28.36 ZAL 131.73 ZAP 147.61 ETS 54.44 ZAE 125.10 ETE 158.81 ZAC 130.22 ETC 260.04 CLP-163.64

PLANETOCENTRIC CONIC

C3 19.592 VHL 4.426 DLA -36.84 RAL 245.16 RAD 6567.8 VEL 11.873 PTH 2.11 VHP 7.119 DPA 6.13 RAP 254.60 ECC 1.3224

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.39	5 5 31	1441.56	25.28	8.36	116.06	117.74	5 29 33	841.6	28.78	.70
114.61	10 56 46	5621.45	25.29	262.86	116.07	117.73	12 30 27	5021.5	28.79	255.20
65.39	5 5 31	1441.56	25.28	8.36	116.06	117.74	5 29 33	841.6	28.78	-.70
114.61	10 56 46	5621.45	25.29	262.86	116.07	117.73	12 30 27	5021.5	28.79	255.20
65.39	5 5 31	1441.56	25.28	8.36	116.06	117.74	5 29 33	841.6	28.78	.70
114.61	10 56 46	5621.45	25.29	262.86	116.07	117.73	12 30 27	5021.5	28.79	255.20

DIFFERENTIAL CORRECTIONS
TDE -.5794 TRA-1.2947 TC3-3.9047 BAU 1.0264
RDE .2216 RRA -.0338 RC3 .3280 FAU .03833
FDE -.2210 FRA .0425 FC3-1.6935 BSP 12596
BDE .6203 BRA 1.2951 BC3 3.9185 FSP -400

MID-COURSE EXECUTION ACCURACY
SGT 4110.4 SGR 411.8 SG3 132.0
RRT -.6524 RRF -.8283 RTF .8365
SGB 4131.0 R23 .3687 R13 -.8383
SG1 4119.3 SG2 311.4 THA 176.24

ORBIT DETERMINATION ACCURACY
ST 983.8 SR 287.4 SS 178.6
CRT -.7275 CRS .9921 CST -.7222
LSA 1015.6 MSA 224.6 SSA 19.1
EL1 1006.6 EL2 192.7 ALF 167.54

LAUNCH DATE OCT 17 1970 FLIGHT TIME 142.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 429.177

RL	149.08	LAL	-.00	LOL	23.21	VL	26.958	GAL	-6.92	AZL	91.95	HCA	214.33	SMA	125.96	ECC	.21846	INC	1.9515
RP	108.41	LAP	1.10	LOP	237.52	VP	37.346	GAP	9.78	AZP	88.39	TAL	206.53	TAP	60.86	RCA	98.44	APO	153.47
RC	152.275	GL	-12.31	GP	25.96	ZAL	130.16	ZAP	149.96	ETS	53.56	ZAE	125.91	ETE	160.36	ZAC	128.05	ETC	260.97

PLANETOCENTRIC CONIC

C3	18.270	VHL	4.274	DLA	-34.41	RAL	248.41	RAD	6567.7	VEL	11.817	PTH	2.09	VHP	7.068	DPA	3.38	RAP	256.38

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.58	5 42 0	1354.80	24.21	.88	117.36	115.23	6 4 35	754.8	27.40	353.15
110.42	10 46 17	5675.29	24.23	266.56	117.37	115.22	12 20 52	5075.3	27.41	258.82
69.58	5 42 0	1354.80	24.21	.88	117.36	115.23	6 4 35	754.8	27.40	353.15
110.42	10 46 17	5675.29	24.23	266.56	117.37	115.22	12 20 52	5075.3	27.41	258.82
69.58	5 42 0	1354.80	24.21	.88	117.36	115.23	6 4 35	754.8	27.40	353.15
110.42	10 46 17	5675.29	24.23	266.56	117.37	115.22	12 20 52	5075.3	27.41	258.82

DIFFERENTIAL CORRECTIONS

TDE	-.4973	TRA	-1.2299	TC3	-4.3212	BAU	1.0588
RDE	.2180	RRA	-.0307	RC3	.3429	FAU	.03863
FDE	-.1757	FRA	.0770	FC3	-1.8304	BSP	13407
BDE	.5430	BRA	1.2303	BC3	4.3348	FSP	-441

MID-COURSE EXECUTION ACCURACY

SGT	4252.4	SGR	416.9	SG3	137.1		
RRT	-.6644	RRF	-.8066	RTF	.8426		
SGB	4272.8	R23	.3262	R13	-.8441		
SG1	4261.5	SG2	310.9	THA	176.25		

ORBIT DETERMINATION ACCURACY

ST	903.3	SR	292.7	SS	148.5
CRT	-.7063	CRS	.9810	CST	-.6363
LSA	933.4	MSA	228.1	SSA	23.1
EL1	927.9	EL2	201.7	ALF	166.46

LAUNCH DATE OCT 17 1970 FLIGHT TIME 144.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 434.888

RL	149.08	LAL	-.00	LOL	23.21	VL	26.884	GAL	-6.52	AZL	91.51	HCA	217.51	SMA	125.48	ECC	.21866	INC	1.5111
RP	108.45	LAP	.92	LOP	240.70	VP	37.281	GAP	9.96	AZP	88.80	TAL	204.77	TAP	62.27	RCA	98.04	APO	152.92
RC	154.408	GL	-9.78	GP	23.92	ZAL	128.19	ZAP	152.02	ETS	52.89	ZAE	126.55	ETE	161.73	ZAC	126.21	ETC	261.81

PLANETOCENTRIC CONIC

C3	17.195	VHL	4.147	DLA	-32.23	RAL	251.69	RAD	6567.7	VEL	11.772	PTH	2.08	VHP	7.051	DPA	1.00	RAP	258.27

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.92	6 22 18	1256.85	23.15	352.80	118.97	113.08	6 43 15	656.9	26.07	345.02
106.08	10 32 6	5745.04	23.17	271.43	118.97	113.06	12 7 51	5145.0	26.08	263.65
73.92	6 22 18	1256.85	23.15	352.80	118.97	113.08	6 43 15	656.9	26.07	345.02
106.08	10 32 6	5745.04	23.17	271.43	118.97	113.06	12 7 51	5145.0	26.08	263.65
110.00	9 29 47	649.97	15.90	304.44	115.07	120.66	9 40 37	50.0	19.85	297.54
110.00	12 23 47	5399.92	30.83	247.88	121.98	105.54	13 53 47	4799.9	32.66	239.14

DIFFERENTIAL CORRECTIONS

TDE	-.4016	TRA	-1.1320	TC3	-4.6717	BAU	1.0768
RDE	.2125	RRA	-.0340	RC3	.3461	FAU	.03774
FDE	-.1178	FRA	.1292	FC3	-1.9002	BSP	13619
BDE	.4543	BRA	1.1325	BC3	4.6845	FSP	-440

MID-COURSE EXECUTION ACCURACY

SGT	4328.7	SGR	414.3	SG3	138.1		
RRT	-.6536	RRF	-.7730	RTF	.8391		
SGB	4348.5	R23	.2928	R13	-.8405		
SG1	4337.2	SG2	313.0	THA	176.40		

ORBIT DETERMINATION ACCURACY

ST	793.2	SR	294.2	SS	110.2
CRT	-.6628	CRS	.9253	CST	-.4229
LSA	820.3	MSA	232.5	SSA	28.4
EL1	818.6	EL2	213.4	ALF	165.16

LAUNCH DATE OCT 17 1970 FLIGHT TIME 146.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 440.589

RL	149.08	LAL	-.00	LOL	23.21	VL	26.812	GAL	-6.12	AZL	91.13	HCA	220.69	SMA	125.02	ECC	.21903	INC	1.1304
RP	108.49	LAP	.74	LOP	243.89	VP	37.217	GAP	10.14	AZP	89.14	TAL	202.99	TAP	63.68	RCA	97.64	APO	152.41
RC	156.530	GL	-7.48	GP	22.17	ZAL	125.89	ZAP	153.84	ETS	52.42	ZAE	127.05	ETE	162.94	ZAC	124.63	ETC	262.60

PLANETOCENTRIC CONIC

C3	16.310	VHL	4.039	DLA	-30.25	RAL	255.00	RAD	6567.7	VEL	11.734	PTH	2.07	VHP	7.059	DPA	-1.05	RAP	260.26

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
78.89	7 10 37	1134.11	22.10	343.08	120.85	111.20	7 29 31	534.1	24.78	335.28
101.11	10 10 11	5843.54	22.11	278.39	120.85	111.18	11 47 35	5243.5	24.79	270.59
78.89	7 10 37	1134.11	22.10	343.08	120.85	111.20	7 29 31	534.1	24.78	335.28
101.11	10 10 11	5843.54	22.11	278.39	120.85	111.18	11 47 35	5243.5	24.79	270.59
110.00	9 6 59	754.85	12.18	310.28	115.63	122.19	9 19 34	154.9	16.34	303.64
110.00	13 13 0	5270.79	32.80	238.33	124.23	100.21	14 40 50	4670.8	33.86	229.26

DIFFERENTIAL CORRECTIONS

TDE	-.3158	TRA	-1.0291	TC3	-5.0126	BAU	1.0957
RDE	.2096	RRA	-.0377	RC3	.3505	FAU	.03677
FDE	-.0678	FRA	.1766	FC3	-1.9518	BSP	13896
BDE	.3790	BRA	1.0298	BC3	5.0248	FSP	-442

MID-COURSE EXECUTION ACCURACY

SGT	4410.2	SGR	415.2	SG3	138.7		
RRT	-.6414	RRF	-.7391	RTF	.8381		
SGB	4429.7	R23	.2590	R13	-.8393		
SG1	4418.3	SG2	318.0	THA	176.53		

ORBIT DETERMINATION ACCURACY

ST	687.4	SR	298.1	SS	84.2
CRT	-.6092	CRS	.7442	CST	-.0498
LSA	714.0	MSA	240.0	SSA	34.6
EL1	713.9	EL2	227.7	ALF	163.47

LAUNCH DATE OCT 17 1970 FLIGHT TIME 148.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 446.281

RL	149.08	LAL	-.00	LOL	23.21	VL	26.740	GAL	-5.70	AZL	90.80	HCA	223.86	SMA	124.57	ECC	.21955	INC	.7961
RP	108.53	LAP	.55	LOP	247.07	VP	37.154	GAP	10.33	AZP	89.43	TAL	201.21	TAP	65.07	RCA	97.22	APO	151.92
RC	158.641	GL	-5.37	GP	20.66	ZAL	123.31	ZAP	155.48	ETS	52.15	ZAE	127.45	ETE	163.99	ZAC	123.26	ETC	263.35

PLANETOCENTRIC CONIC

C3	15.581	VHL	3.947	DLA	-28.40	RAL	258.36	RAD	6567.6	VEL	11.703	PTH	2.06	VHP	7.087	DPA	-2.84	RAP	262.33

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
87.69	8 34 20	897.54	21.05	325.21	122.98	109.53	8 49 18	297.5	23.52	317.40
92.31	9 13 18	771.29	21.06	315.97	122.98	109.51	9 26 9	171.3	23.53	308.17
100.00	8 56 4	827.01	15.17	317.46	120.38	116.07	9 9 51	227.0	18.56	310.30
100.00	11 34 15	5605.09	27.17	262.39	124.93	102.96	13 7 40	5005.1	28.69	253.92
110.00	8 54 54	830.70	9.39	314.39	117.03	123.02	9 8 44	230.7	13.68	307.91
110.00	13 51 55	5174.17	33.73	230.95	126.20	95.94	15 18 9	4574.2	34.18	221.73

DIFFERENTIAL CORRECTIONS

TDE	-.2345	TRA	-.9182	TC3	-5.3365	BAU	1.1141
RDE	.2083	RRA	-.0425	RC3	.3550	FAU	.03569
FDE	-.0226	FRA	.2220	FC3	-1.9829	BSP	14173
BDE	.3136	BRA	.9192	BC3	5.3483	FSP	-443

MID-COURSE EXECUTION ACCURACY

SGT	4490.0	SGR	418.1	SG3	138.9		
RRT	-.6271	RRF	-.7054	RTF	.8381		
SGB	4509.5	R23	.2273	R13	-.8391		
SG1	4497.7	SG2	325.1	THA	176.64		

ORBIT DETERMINATION ACCURACY

ST	581.7	SR	303.1	SS	75.9
CRT	-.5352	CRS	.3362	CST	.4555
LSA	609.2	MSA	251.3	SSA	41.8
EL1	608.6	EL2	244.8	ALF	161.28

LAUNCH DATE OCT 17 1970 FLIGHT TIME 150.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 451.962

RL	149.08	LAL	-.00	LOL	23.21	VL	26.670	GAL	-5.28	AZL	90.50	HCA	227.04	SMA	124.14	ECC	.22026	INC	.4985	V1	29.887
RP	108.56	LAP	.37	LOP	250.25	VP	37.093	GAP	10.51	AZP	89.66	TAL	199.41	TAP	66.45	RCA	96.79	APO	151.48	V2	34.907
RC	160.740	GL	-3.42	GP	19.35	ZAL	120.49	ZAP	156.95	ETS	52.07	ZAE	127.79	ETE	164.92	ZAC	122.06	ETC	264.07	CLP	-167.23

PLANETOCENTRIC CONIC

C3	14.984	VHL	3.871	DLA	-26.66	RAL	261.79	RAD	6567.6	VEL	11.678	PTH	2.05	VHP	7.130	DPA	-4.40	RAP	264.48	ECC	1.2466

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 42 29	1104.02	14.01	337.26	122.89	114.86	8 0 53	504.0	17.25	330.08
90.00	10 32 29	5835.30	26.21	279.08	127.10	101.13	12 9 45	5235.3	27.48	270.65
100.00	8 32 30	942.46	11.61	324.18	121.68	117.74	8 48 13	342.5	15.24	317.26
100.00	12 25 9	5472.09	28.84	252.86	127.61	98.22	13 56 21	4872.1	29.68	244.16
110.00	8 48 10	893.30	7.05	317.73	118.95	123.53	9 3 3	293.3	11.42	311.35
110.00	14 25 59	5094.01	34.12	224.72	128.18	92.27	15 50 53	4494.0	34.06	215.48

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.1544	TRA	-.7989	TC3	-5.6365	BAU	1.1314	SGT	4565.6	SGR	422.1	SG3	138.6	ST	476.3	SR	308.5	SS	87.9
RDE	.2077	RRA	-.0482	RC3	.3590	FAU	.03448	RRT	-.6109	RRF	-.6722	RTF	.8387	CRT	-.4207	CRS	-.1175	CST	.7769
FDE	.0192	FRA	.2655	FC3	-1.9924	BSP	14435	SGB	4585.1	R23	.1984	R13	-.8395	LSA	505.3	MSA	268.1	SSA	50.7
BDE	.2588	BRA	.8004	BC3	5.6479	FSP	-443	SG1	4572.9	SG2	333.6	THA	176.75	EL1	501.4	EL2	265.9	ALF	158.41

LAUNCH DATE OCT 17 1970 FLIGHT TIME 152.00 ARRIVAL DATE MAR 18 1971

HELIOCENTRIC CONIC DISTANCE 457.633

RL	149.08	LAL	-.00	LOL	23.21	VL	26.601	GAL	-4.84	AZL	90.23	HCA	230.22	SMA	123.71	ECC	.22114	INC	.2302	V1	29.887
RP	108.60	LAP	.18	LOP	253.43	VP	37.032	GAP	10.70	AZP	89.85	TAL	197.61	TAP	67.82	RCA	96.35	APO	151.07	V2	34.896
RC	162.826	GL	-1.60	GP	18.20	ZAL	117.47	ZAP	158.29	ETS	52.17	ZAE	128.07	ETE	165.74	ZAC	120.99	ETC	264.78	CLP	-167.96

PLANETOCENTRIC CONIC

C3	14.508	VHL	3.809	DLA	-24.98	RAL	265.28	RAD	6567.6	VEL	11.657	PTH	2.05	VHP	7.186	DPA	-5.76	RAP	266.69	ECC	1.2388

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 21 4	1216.60	10.69	343.86	124.60	116.38	7 41 20	616.6	14.15	336.89
90.00	11 21 48	5708.33	27.56	270.04	129.89	96.79	12 56 56	5108.3	28.21	261.43
100.00	8 19 41	1027.36	8.88	329.00	123.64	118.66	8 36 48	427.4	12.64	322.23
100.00	13 5 52	5372.80	29.59	245.58	130.12	94.45	14 35 25	4772.8	29.89	236.79
110.00	8 44 44	948.73	4.96	320.65	121.24	123.86	9 0 33	348.7	9.37	314.34
110.00	14 57 18	5024.19	34.17	219.27	130.28	89.05	16 21 2	4424.2	33.66	210.06

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	-.0744	TRA	-.6715	TC3	-5.9090	BAU	1.1482	SGT	4638.6	SGR	426.9	SG3	137.9	ST	377.5	SR	313.9	SS	112.8
RDE	.2078	RRA	-.0550	RC3	.3624	FAU	.03322	RRT	-.5938	RRF	-.6403	RTF	.8400	CRT	-.2274	CRS	-.3954	CST	.7984
FDE	.0577	FRA	.3073	FC3	-1.9825	BSP	14691	SGB	4658.2	R23	.1725	R13	-.8407	LSA	405.2	MSA	292.9	SSA	61.5
BDE	.2207	BRA	.6738	BC3	5.9201	FSP	-442	SG1	4645.6	SG2	343.0	THA	176.85	EL1	394.1	EL2	292.8	ALF	154.62

LAUNCH DATE OCT 17 1970 FLIGHT TIME 154.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 463.291

RL	149.08	LAL	-.00	LOL	23.21	VL	26.533	GAL	-4.40	AZL	89.99	HCA	233.39	SMA	123.30	ECC	.22220	INC	.0000	V1	29.887
RP	108.63	LAP	-.01	LOP	256.60	VP	36.973	GAP	10.90	AZP	90.01	TAL	195.79	TAP	69.19	RCA	95.90	APO	150.69	V2	34.885
RC	164.900	GL	.10	GP	17.19	ZAL	114.27	ZAP	159.52	ETS	52.45	ZAE	128.31	ETE	166.47	ZAC	120.04	ETC	265.47	CLP	-168.69

PLANETOCENTRIC CONIC

C3	14.145	VHL	3.761	DLA	-23.34	RAL	268.85	RAD	6567.6	VEL	11.642	PTH	2.04	VHP	7.254	DPA	-6.95	RAP	268.95	ECC	1.2328

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 8 53	1302.82	8.04	348.81	126.85	117.24	7 30 36	702.8	11.63	341.97
90.00	12 2 24	5610.89	28.14	262.97	132.59	93.29	13 35 55	5010.9	28.30	254.31
100.00	8 12 2	1099.01	6.52	333.01	126.03	119.24	8 30 21	499.0	10.37	326.34
100.00	13 41 56	5289.93	29.87	239.44	132.67	91.23	15 10 6	4689.9	29.72	230.64
110.00	8 43 34	1000.11	3.01	323.34	123.86	124.07	9 0 14	400.1	7.46	317.09
110.00	15 26 53	4961.59	33.99	214.39	132.56	86.16	16 49 35	4361.6	33.09	205.27

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0074	TRA	-.5360	TC3	-6.1481	BAU	1.1646	SGT	4709.3	SGR	432.2	SG3	137.0	ST	301.0	SR	318.9	SS	143.3
RDE	.2082	RRA	-.0628	RC3	.3649	FAU	.03193	RRT	-.5763	RRF	-.6102	RTF	.8420	CRT	.1124	CRS	-.5428	CST	.5582
FDE	.0938	FRA	.3475	FC3	-1.9544	BSP	14954	SGB	4729.1	R23	.1496	R13	-.8426	LSA	331.5	MSA	312.1	SSA	74.4
BDE	.2084	BRA	.5397	BC3	6.1589	FSP	-441	SG1	4715.9	SG2	352.7	THA	176.96	EL1	329.0	EL2	289.8	ALF	58.63

LAUNCH DATE OCT 17 1970 FLIGHT TIME 156.00 ARRIVAL DATE MAR 22 1971

HELIOCENTRIC CONIC DISTANCE 468.937

RL	149.08	LAL	-.00	LOL	23.21	VL	26.466	GAL	-3.94	AZL	89.76	HCA	236.57	SMA	122.89	ECC	.22347	INC	.2385	V1	29.887
RP	108.66	LAP	-.20	LOP	259.77	VP	36.915	GAP	11.09	AZP	90.13	TAL	193.97	TAP	70.54	RCA	95.43	APO	150.35	V2	34.874
RC	166.961	GL	1.69	GP	16.30	ZAL	110.90	ZAP	160.64	ETS	52.92	ZAE	128.52	ETE	167.11	ZAC	119.18	ETC	266.16	CLP	-169.41

PLANETOCENTRIC CONIC

C3	13.891	VHL	3.727	DLA	-21.73	RAL	272.47	RAD	6567.5	VEL	11.631	PTH	2.04	VHP	7.333	DPA	-7.98	RAP	271.27	ECC	1.2286

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 1 24	1377.13	5.70	353.02	129.50	117.78	7 24 21	777.1	9.38	346.27
90.00	12 38 48	5528.63	28.32	256.96	135.36	90.29	14 10 56	4928.6	28.06	248.31
100.00	8 7 32	1163.66	4.36	336.59	128.75	119.60	8 26 56	563.7	8.26	329.99
100.00	14 15 20	5217.33	29.85	234.04	135.34	88.39	15 42 18	4617.3	29.31	225.28
110.00	8 44 1	1049.31	1.13	325.91	126.74	124.17	9 1 30	449.3	5.60	319.69
110.00	15 55 21	4904.45	33.64	209.96	135.03	83.57	17 17 5	4304.5	32.39	200.96

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.0923	TRA	-.3920	TC3	-6.3459	BAU	1.1805	SGT	4776.8	SGR	437.6	SG3	135.8	ST	279.5	SR	323.3	SS	176.3
RDE	.2090	RRA	-.0715	RC3	.3657	FAU	.03061	RRT	-.5584	RRF	-.5817	RTF	.8445	CRT	.5680	CRS	-.6235	CST	.0431
FDE	.1281	FRA	.3865	FC3	-1.9076	BSP	15198	SGB	4796.8	R23	.1295	R13	-.8450	LSA	388.1	MSA	235.3	SSA	88.3
BDE	.2285	BRA	.3984	BC3	6.3565	FSP	-438	SG1	4783.1	SG2	362.6	THA	177.05	EL1	379.9	EL2	195.8	ALF	52.21

LAUNCH DATE OCT 17 1970 FLIGHT TIME 158.00 ARRIVAL DATE MAR 24 1971

HELIOCENTRIC CONIC DISTANCE 474.569

RL	149.08	LAL	-.00	LOL	23.21	VL	26.401	GAL	-3.47	AZL	89.55	HCA	239.74	SMA	122.50	ECC	.22495	INC	.4474	V1	29.887		
RP	108.69	LAP	-.39	LOP	262.94	VP	36.859	GAP	11.30	AZP	90.23	TAL	192.14	TAP	71.88	RCA	94.94	APO	150.05	V2	34.864		
RC	169.007	GL	3.18	GP	15.51	ZAL	107.40	ZAP	161.68	ETS	53.58	ZAE	128.72	ETE	167.68	ZAC	118.39	ETC	266.84	CLP	-170.13		

PLANETOCENTRIC CONIC

C3	13.749	VHL	3.708	DLA	-20.14	RAL	276.14	RAD	6567.5	VEL	11.625	PTH	2.04	VHP	7.421	DPA	-8.87	RAP	273.62	ECC	1.2263		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 56 49	1445.07	3.54	356.84	132.45	118.11	7 20 54	845.1	7.27	350.14
90.00	13 12 42	5456.17	28.23	251.66	138.26	87.63	14 43 38	4856.2	27.60	243.05
100.00	8 5 11	1224.41	2.30	339.94	131.76	119.81	8 25 36	624.4	6.26	333.38
100.00	14 47 1	5152.05	29.63	229.20	138.17	85.86	16 12 53	4552.1	28.74	220.51
110.00	8 45 41	1097.51	-.72	328.43	129.88	124.18	9 3 58	497.5	3.77	322.22
110.00	16 23 0	4851.72	33.17	205.92	137.70	81.22	17 43 52	4251.7	31.60	197.05

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.1873	TRA	-.2334	TC3	-6.4775	BAU	1.1925	SGT	4827.6	SGR	441.7	SG3	134.0	ST	343.2	SR	326.2
RDE	.2094	RRA	-.0816	RC3	.3626	FAU	.02910	RRT	-.5376	RRF	-.5518	RTF	.8452	CRT	.8676	CRS	-.6743
FDE	.1639	FRA	.4279	FC3	-1.8326	BSP	15305	SGB	4847.8	R23	.1123	R13	-.8457	LSA	477.2	MSA	179.7
BDE	.2810	BRA	.2473	BC3	6.4876	FSP	-429	SG1	4833.5	SG2	372.0	THA	177.17	EL1	457.6	EL2	121.7

SS	213.1	CST	-.4806
SSA	97.9	ALF	43.32

LAUNCH DATE OCT 17 1970 FLIGHT TIME 160.00 ARRIVAL DATE MAR 26 1971

HELIOCENTRIC CONIC DISTANCE 480.186

RL	149.08	LAL	-.00	LOL	23.21	VL	26.336	GAL	-2.99	AZL	89.36	HCA	242.91	SMA	122.11	ECC	.22664	INC	.6431	V1	29.887		
RP	108.72	LAP	-.57	LOP	266.11	VP	36.803	GAP	11.51	AZP	90.29	TAL	190.31	TAP	73.21	RCA	94.44	APO	149.79	V2	34.855		
RC	171.039	GL	4.57	GP	14.80	ZAL	103.79	ZAP	162.65	ETS	54.42	ZAE	128.89	ETE	168.19	ZAC	117.66	ETC	267.51	CLP	-170.84		

PLANETOCENTRIC CONIC

C3	13.719	VHL	3.704	DLA	-18.55	RAL	279.86	RAD	6567.5	VEL	11.623	PTH	2.04	VHP	7.519	DPA	-9.64	RAP	276.02	ECC	1.2258		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 54 13	1509.41	1.46	.43	135.66	118.28	7 19 22	909.4	5.23	353.78
90.00	13 44 55	5390.89	27.95	246.91	141.31	85.26	15 14 46	4790.9	27.00	238.37
100.00	8 4 22	1283.03	.32	343.15	135.02	119.89	8 25 45	683.0	4.29	336.62
100.00	15 17 27	5092.50	29.26	224.81	141.16	83.58	16 42 19	4492.5	28.06	216.22
110.00	8 48 15	1145.51	-2.55	330.93	133.23	124.10	9 7 21	545.5	1.94	324.73
110.00	16 50 3	4802.78	32.60	202.22	140.57	79.10	18 10 5	4202.8	30.75	193.48

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.2830	TRA	-.0708	TC3	-6.5678	BAU	1.2064	SGT	4886.3	SGR	446.4	SG3	132.4	ST	462.7	SR	329.0
RDE	.2106	RRA	-.0920	RC3	.3585	FAU	.02774	RRT	-.5190	RRF	-.5258	RTF	.8482	CRT	.9394	CRS	-.7026
FDE	.1957	FRA	.4655	FC3	-1.7503	BSP	15515	SGB	4906.7	R23	.0970	R13	-.8486	LSA	591.5	MSA	158.7
BDE	.3528	BRA	.1161	BC3	6.5776	FSP	-425	SG1	4891.9	SG2	381.1	THA	177.27	EL1	560.1	EL2	93.2

SS	247.4	CST	-.7392
SSA	92.6	ALF	34.85

LAUNCH DATE OCT 17 1970 FLIGHT TIME 162.00 ARRIVAL DATE MAR 28 1971

HELIOCENTRIC CONIC DISTANCE 485.786

RL	149.08	LAL	-.00	LOL	23.21	VL	26.272	GAL	-2.49	AZL	89.17	HCA	246.08	SMA	121.74	ECC	.22857	INC	.8279	V1	29.887		
RP	108.75	LAP	-.76	LOP	269.28	VP	36.750	GAP	11.73	AZP	90.34	TAL	188.46	TAP	74.54	RCA	93.91	APO	149.57	V2	34.846		
RC	173.056	GL	5.86	GP	14.17	ZAL	100.10	ZAP	163.54	ETS	55.46	ZAE	129.05	ETE	168.64	ZAC	116.98	ETC	268.19	CLP	-171.54		

PLANETOCENTRIC CONIC

C3	13.807	VHL	3.716	DLA	-16.97	RAL	283.59	RAD	6567.5	VEL	11.627	PTH	2.04	VHP	7.626	DPA	-10.28	RAP	278.45	ECC	1.2272		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 53 3	1571.71	-.55	3.90	139.10	118.31	7 19 14	971.7	3.24	357.27
90.00	14 15 51	5331.39	27.54	242.60	144.51	83.14	15 44 43	4731.4	26.31	234.16
100.00	8 4 41	1340.55	-1.63	346.31	138.49	119.85	8 27 1	740.6	2.35	339.79
100.00	15 46 54	5037.78	28.77	220.82	144.32	81.53	17 10 52	4437.8	27.30	212.33
110.00	8 51 32	1193.78	-4.39	333.46	136.78	123.93	9 11 26	593.8	.10	327.25
110.00	17 16 33	4757.32	31.96	198.82	143.68	77.18	18 35 50	4157.3	29.87	190.24

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.3847	TRA	.1007	TC3	-6.5958	BAU	1.2193	SGT	4940.2	SGR	450.4	SG3	130.6	ST	613.1	SR	331.1
RDE	.2122	RRA	-.1031	RC3	.3514	FAU	.02636	RRT	-.5001	RRF	-.5008	RTF	.8515	CRT	.9386	CRS	-.7205
FDE	.2263	FRA	.5021	FC3	-1.6530	BSP	15706	SGB	4960.7	R23	.0835	R13	-.8518	LSA	730.1	MSA	160.3
BDE	.4394	BRA	.1441	BC3	6.6051	FSP	-421	SG1	4945.3	SG2	389.6	THA	177.37	EL1	689.3	EL2	101.6

SS	281.1	CST	-.8572
SSA	76.3	ALF	27.53

LAUNCH DATE OCT 17 1970 FLIGHT TIME 164.00 ARRIVAL DATE MAR 30 1971

HELIOCENTRIC CONIC DISTANCE 491.368

RL	149.08	LAL	-.00	LOL	23.21	VL	26.210	GAL	-1.98	AZL	89.00	HCA	249.24	SMA	121.37	ECC	.23076	INC	1.0038	V1	29.887		
RP	108.78	LAP	-.94	LOP	272.45	VP	36.697	GAP	11.96	AZP	90.36	TAL	186.62	TAP	75.86	RCA	93.37	APO	149.38	V2	34.837		
RC	175.059	GL	7.04	GP	13.60	ZAL	96.35	ZAP	164.37	ETS	56.70	ZAE	129.20	ETE	169.05	ZAC	116.34	ETC	268.86	CLP	-172.23		

PLANETOCENTRIC CONIC

C3	14.021	VHL	3.744	DLA	-15.40	RAL	287.32	RAD	6567.6	VEL	11.636	PTH	2.04	VHP	7.742	DPA	-10.82	RAP	280.90	ECC	1.2307		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 52 57	1632.89	-2.52	7.32	142.74	118.21	7.20 9	1032.9	1.27	.69
90.00	14 45 44	5276.94	27.04	238.70	147.87	81.25	16 13 41	4676.9	25.55	230.35
100.00	8 5 52	1397.62	-3.56	349.44	142.16	119.70	8 29 9	797.6	.42	342.92
100.00	16 15 30	4987.44	28.21	217.18	147.65	79.69	17 38 38	4387.4	26.50	208.80
110.00	8 55 20	1242.62	-6.24	336.03	140.51	123.68	9 16 3	642.6	-1.77	329.79
110.00	17 42 31	4715.20	31.29	195.73	146.87	75.47	19 1 6	4115.2	28.97	187.29

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.4845	TRA	.2738	TC3	-6.5834	BAU	1.2357	SGT	5004.5	SGR	455.0	SG3	128.9	ST	767.1	SR	333.5
RDE	.2150	RRA	.1140	RC3	.3433	FAU	.02520	RRT	-.4840	RRF	-.4807	RTF	.8573	CRT	.9212	CRS	-.7295
FDE	.2516	FRA	.5340	FC3	-1.5561	BSP	16087	SGB	5025.2	R23	.0722	R13	-.8576	LSA	873.9	MSA	167.0
BDE	.5301	BRA	.2966	BC3	6.5923	FSP	-425	SG1	5009.4	SG2	397.8	THA	177.46	EL1	827.8	EL2	120.3

SS	309.5	CST	-.9120
SSA	62.5	ALF	22.32

LAUNCH DATE OCT 17 1970 FLIGHT TIME 166.00 ARRIVAL DATE APR 1 1971

HELIOCENTRIC CONIC DISTANCE 496.930

RL	149.08	LAL	-.00	LOL	23.21	VL	26.149	GAL	-1.44	AZL	88.83	HCA	252.41	SMA	121.02	ECC	.23320	INC	1.1722
RP	108.80	LAP	-1.12	LOP	275.61	VP	36.645	GAP	12.20	AZP	90.35	TAL	184.76	TAP	77.17	RCA	92.80	APO	149.24
RC	177.047	GL	8.11	GP	13.09	ZAL	92.57	ZAP	165.15	ETS	58.15	ZAE	129.35	ETE	169.42	ZAC	115.73	ETC	269.53

PLANETOCENTRIC CONIC

C3	14.367	VHL	3.790	DLA	-13.84	RAL	291.04	RAD	6567.6	VEL	11.651	PTH	2.05	VHP	7.868	DPA	-11.26	RAP	283.37

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 53 40	1693.48	-4.46	10.71	146.57	117.99	7 21 53	1093.5	-.68	4.07
90.00	15 14 39	5227.11	26.47	235.16	151.37	79.56	16 41 46	4627.1	24.76	226.91
100.00	8 7 42	1454.60	-5.48	352.59	146.01	119.43	8 31 57	854.6	-1.52	346.04
100.00	16 43 18	4941.22	27.61	213.88	151.12	78.05	18 5 39	4341.2	25.68	205.61
110.00	8 59 34	1292.17	-8.10	338.66	144.40	123.32	9 21 6	692.2	-3.66	332.38
110.00	18 7 56	4676.42	30.59	192.92	150.27	73.94	19 25 52	4076.4	28.08	184.62

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.6060	TRA	.4713	TC3	-6.4652	BAU	1.2434	SGT	5039.7	SGR	456.7	SG3	126.8	ST	953.5	SR	333.5	SS	344.5
RDE	.2171	RRA	-.1266	RC3	.3284	FAU	.02369	RRT	-.4625	RRF	-.4548	RTF	.8592	CRT	.9008	CRS	-.7377	CST	-.9451
FDE	.2838	FRA	.5734	FC3	-1.4277	BSP	16085	SGB	5060.3	R23	.0619	R13	-.8594	LSA	1051.7	MSA	174.5	SSA	50.7
BDE	.6437	BRA	.4881	BC3	6.4736	FSP	-412	SG1	5044.1	SG2	404.5	THA	177.58	EL1	1000.7	EL2	138.0	ALF	17.84

LAUNCH DATE OCT 17 1970 FLIGHT TIME 168.00 ARRIVAL DATE APR 3 1971

HELIOCENTRIC CONIC DISTANCE 502.471

RL	149.08	LAL	-.00	LOL	23.21	VL	26.088	GAL	-.90	AZL	88.67	HCA	255.57	SMA	120.67	ECC	.23594	INC	1.3349
RP	108.83	LAP	-1.29	LOP	278.78	VP	36.595	GAP	12.45	AZP	90.33	TAL	182.90	TAP	78.48	RCA	92.20	APO	149.14
RC	179.021	GL	9.07	GP	12.62	ZAL	88.79	ZAP	165.87	ETS	59.81	ZAE	129.48	ETE	169.75	ZAC	115.14	ETC	270.19

PLANETOCENTRIC CONIC

C3	14.857	VHL	3.854	DLA	-12.30	RAL	294.71	RAD	6567.6	VEL	11.672	PTH	2.05	VHP	8.005	DPA	-11.60	RAP	285.87

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 55 1	1753.76	-6.38	14.10	150.55	117.65	7 24 15	1153.8	-2.63	7.43
90.00	15 42 38	5181.75	25.87	231.97	155.01	78.07	17 8 59	4581.7	23.97	223.82
100.00	8 10 4	1511.64	-7.38	355.76	150.01	119.05	8 35 15	911.6	-3.45	349.18
100.00	17 10 16	4899.09	26.98	210.91	154.73	76.61	18 31 55	4299.1	24.87	202.74
110.00	9 4 5	1342.44	-9.97	341.35	148.44	122.87	9 26 28	742.4	-5.57	335.02
110.00	18 32 44	4641.06	29.90	190.40	153.82	72.60	19 50 5	4041.1	27.22	182.23

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.7283	TRA	.6728	TC3	-6.3013	BAU	1.2531	SGT	5081.0	SGR	458.2	SG3	124.7	ST	1134.7	SR	333.7	SS	374.8
RDE	.2203	RRA	-.1391	RC3	.3121	FAU	.02234	RRT	-.4427	RRF	-.4319	RTF	.8629	CRT	.8822	CRS	-.7419	CST	-.9632
FDE	.3123	FRA	.6093	FC3	-1.3018	BSP	16229	SGB	5101.6	R23	.0528	R13	-.8631	LSA	1226.8	MSA	180.7	SSA	42.5
BDE	.7609	BRA	.6870	BC3	6.3091	FSP	-407	SG1	5085.1	SG2	410.5	THA	177.70	EL1	1173.0	EL2	152.0	ALF	14.80

LAUNCH DATE OCT 17 1970 FLIGHT TIME 170.00 ARRIVAL DATE APR 5 1971

HELIOCENTRIC CONIC DISTANCE 507.986

RL	149.08	LAL	-.00	LOL	23.21	VL	26.029	GAL	-.33	AZL	88.51	HCA	258.74	SMA	120.33	ECC	.23898	INC	1.4930
RP	108.85	LAP	-1.46	LOP	281.94	VP	36.547	GAP	12.71	AZP	90.29	TAL	181.04	TAP	79.78	RCA	91.58	APO	149.09
RC	180.980	GL	9.92	GP	12.21	ZAL	85.04	ZAP	166.54	ETS	61.71	ZAE	129.62	ETE	170.06	ZAC	114.58	ETC	270.85

PLANETOCENTRIC CONIC

C3	15.503	VHL	3.937	DLA	-10.79	RAL	298.33	RAD	6567.6	VEL	11.700	PTH	2.06	VHP	8.152	DPA	-11.86	RAP	288.37

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 56 52	1813.83	-8.26	17.51	154.68	117.18	7 27 6	1213.8	-4.55	10.80
90.00	16 9 38	5140.79	25.27	229.13	158.76	76.77	17 35 19	4540.8	23.19	221.07
100.00	8 12 49	1568.80	-9.25	358.97	154.15	118.55	8 38 58	968.8	-5.37	352.33
100.00	17 36 22	4861.06	26.35	208.26	158.46	75.35	18 57 23	4261.1	24.08	200.19
110.00	9 8 50	1393.38	-11.84	344.11	152.60	122.30	9 32 3	793.4	-7.49	337.72
110.00	18 56 50	4609.24	29.23	188.16	157.49	71.43	20 13 40	4009.2	26.41	180.11

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.8563	TRA	.8832	TC3	-6.0807	BAU	1.2618	SGT	5118.0	SGR	458.5	SG3	122.3	ST	1314.3	SR	333.5	SS	403.1
RDE	.2244	RRA	-.1516	RC3	.2927	FAU	.02096	RRT	-.4221	RRF	-.4084	RTF	.8663	CRT	.8658	CRS	-.7444	CST	-.9743
FDE	.3400	FRA	.6444	FC3	-1.1703	BSP	16380	SGB	5138.5	R23	.0445	R13	-.8664	LSA	1401.8	MSA	185.7	SSA	36.5
BDE	.8852	BRA	.8961	BC3	6.0877	FSP	-402	SG1	5121.6	SG2	415.3	THA	177.82	EL1	1346.1	EL2	163.0	ALF	12.58

LAUNCH DATE OCT 17 1970 FLIGHT TIME 172.00 ARRIVAL DATE APR 7 1971

HELIOCENTRIC CONIC DISTANCE 513.474

RL	149.08	LAL	-.00	LOL	23.21	VL	25.971	GAL	.26	AZL	88.35	HCA	261.90	SMA	120.00	ECC	.24236	INC	1.6475
RP	108.87	LAP	-1.63	LOP	285.10	VP	36.500	GAP	12.99	AZP	90.23	TAL	179.18	TAP	81.08	RCA	90.92	APO	149.09
RC	182.925	GL	10.65	GP	11.83	ZAL	81.35	ZAP	167.16	ETS	63.84	ZAE	129.74	ETE	170.34	ZAC	114.03	ETC	271.50

PLANETOCENTRIC CONIC

C3	16.322	VHL	4.040	DLA	-9.32	RAL	301.87	RAD	6567.7	VEL	11.735	PTH	2.07	VHP	8.311	DPA	-12.03	RAP	290.89

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 59 6	1873.71	-10.11	20.95	158.92	116.59	7 30 19	1273.7	-6.46	14.17
90.00	16 35 38	5104.26	24.67	226.62	162.62	75.64	18 0 43	4504.3	22.46	218.65
100.00	8 15 52	1626.02	-11.09	2.22	158.40	117.94	8 42 58	1026.0	-7.27	355.51
100.00	18 1 33	4827.18	25.74	205.92	162.30	74.26	19 22 0	4227.2	23.34	197.95
110.00	9 13 43	1444.86	-13.69	346.95	156.88	121.63	9 37 48	844.9	-9.41	340.47
110.00	19 20 11	4581.10	28.60	186.21	161.28	70.43	20 36 32	3981.1	25.66	178.27

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.9928	TRA	1.1066	TC3	-5.8109	BAU	1.2694	SGT	5153.3	SGR	458.2	SG3	120.4	ST	1493.3	SR	333.0	SS	430.7
RDE	.2294	RRA	-.1645	RC3	.2716	FAU	.01964	RRT	-.4018	RRF	-.3865	RTF	.8697	CRT	.8511	CRS	-.7449	CST	-.9814
FDE	.3681	FRA	.6824	FC3	-1.0418	BSP	16482	SGB	5173.7	R23	.0380	R13	-.8698	LSA	1577.7	MSA	190.1	SSA	31.9
BDE	1.0189	BRA	1.1188	BC3	5.8173	FSP	-393	SG1	5156.6	SG2	419.3	THA	177.94	EL1	1520.3	EL2	171.7	ALF	10.89

LAUNCH DATE OCT 17 1970 FLIGHT TIME 174.00 ARRIVAL DATE APR 9 1971

HELIOCENTRIC CONIC DISTANCE 518.931

RL	149.08	LAL	-.00	LOL	23.21	VL	25.914	GAL	.87	AZL	88.20	HCA	265.06	SMA	119.68	ECC	.24610	INC	1.7996
RP	108.88	LAP	-1.79	LOP	288.27	VP	36.454	GAP	13.29	AZP	90.16	TAL	177.32	TAP	82.38	RCA	90.23	APO	149.14
RC	184.854	GL	11.27	GP	11.48	ZAL	77.73	ZAP	167.72	ETS	66.22	ZAE	129.86	ETE	70.59	ZAC	113.48	ETC	272.14

V1	29.887	V2	34.804	CLP	-175.63														

PLANETOCENTRIC CONIC

C3	17.330	VHL	4.163	DLA	-7.90	RAL	305.31	RAD	6567.7	VEL	11.778	PTH	2.08	VHP	8.482	DPA	-12.12	RAP	293.41
ECC	1.2852																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 1 37	1933.33	-11.90	24.41	163.26	115.88	7 33 51	1333.3	-8.32	17.55
90.00	17 0 36	5072.18	24.11	224.43	166.56	74.69	18 25 8	4472.2	21.78	216.54
100.00	8 19 9	1683.21	-12.90	5.51	162.75	117.20	8 47 13	1083.2	-9.15	358.72
100.00	18 25 45	4797.54	25.18	203.90	166.22	73.34	19 45 42	4197.5	22.66	196.01
110.00	9 18 42	1496.74	-15.53	349.85	161.25	120.84	9 43 39	896.7	-11.32	343.27
110.00	19 42 41	4556.76	28.03	184.55	165.15	69.59	20 58 38	3956.8	25.00	176.69

DIFFERENTIAL CORRECTIONS

TDE	1.1312	TRA	1.3374	TC3	-5.5044	BAU	1.2766
RDE	.2359	RRA	-.1767	RC3	.2496	FAU	.01843
FDE	.3925	FRA	.7166	FC3	-.9208	BSP	16622
BDE	1.1555	BRA	1.3491	BC3	5.5100	FSP	-388

MID-COURSE EXECUTION ACCURACY

SGT	5184.6	SGR	457.0	SG3	118.2		
RRT	-.3813	RRF	-.3655	RTF	.8750		
SGB	5204.7	R23	.0321	R13	-.8750		
SG1	5187.5	SG2	422.3	THA	178.06		

ORBIT DETERMINATION ACCURACY

ST	1659.4	SR	332.9	SS	452.7		
CRT	.8389	CRS	-.7450	CST	-.9860		
LSA	1741.0	MSA	193.7	SSA	28.3		
EL1	1683.0	EL2	178.7	ALF	9.66		

LAUNCH DATE OCT 17 1970 FLIGHT TIME 176.00 ARRIVAL DATE APR 11 1971

HELIOCENTRIC CONIC DISTANCE 524.352

RL	149.08	LAL	-.00	LOL	23.21	VL	25.857	GAL	1.51	AZL	88.05	HCA	268.22	SMA	119.37	ECC	.25024	INC	1.9501
RP	108.90	LAP	-1.95	LOP	291.43	VP	36.409	GAP	13.61	AZP	90.06	TAL	175.46	TAP	83.69	RCA	89.50	APO	149.24
RC	186.768	GL	11.79	GP	11.17	ZAL	74.22	ZAP	168.24	ETS	68.86	ZAE	129.98	ETE	170.82	ZAC	112.95	ETC	272.78

V1	29.887	V2	34.799	CLP	-176.30														

PLANETOCENTRIC CONIC

C3	18.548	VHL	4.307	DLA	-6.54	RAL	308.65	RAD	6567.8	VEL	11.829	PTH	2.10	VHP	8.668	DPA	-12.13	RAP	295.93
ECC	1.3053																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 4 23	1992.60	-13.64	27.89	167.69	115.06	7 37 36	1392.6	-10.15	20.95
90.00	17 24 27	5044.58	23.60	222.57	170.56	73.89	18 48 32	4444.6	21.17	214.74
100.00	8 22 37	1740.24	-14.65	8.84	167.19	116.35	8 51 37	1140.2	-10.99	1.96
100.00	18 48 55	4772.18	24.68	202.18	170.21	72.57	20 8 27	4172.2	22.06	194.36
110.00	9 23 44	1548.86	-17.32	352.82	165.70	119.94	9 49 33	948.9	-13.21	346.13
110.00	20 4 17	4536.32	27.54	183.16	169.09	68.90	21 19 53	3936.3	24.42	175.38

DIFFERENTIAL CORRECTIONS

TDE	1.2705	TRA	1.5741	TC3	-5.1805	BAU	1.2859
RDE	.2438	RRA	-.1885	RC3	.2273	FAU	.01736
FDE	.4146	FRA	.7499	FC3	-.8101	BSP	16925
BDE	1.2937	BRA	1.5853	BC3	5.1854	FSP	-391

MID-COURSE EXECUTION ACCURACY

SGT	5216.4	SGR	455.2	SG3	115.9		
RRT	-.3611	RRF	-.3459	RTF	.8807		
SGB	5236.3	R23	.0276	R13	-.8807		
SG1	5219.0	SG2	424.3	THA	178.18		

ORBIT DETERMINATION ACCURACY

ST	1809.6	SR	333.1	SS	470.9		
CRT	.8287	CRS	-.7445	CST	-.9891		
LSA	1888.9	MSA	196.8	SSA	25.5		
EL1	1830.8	EL2	184.3	ALF	8.76		

LAUNCH DATE OCT 17 1970 FLIGHT TIME 178.00 ARRIVAL DATE APR 13 1971

HELIOCENTRIC CONIC DISTANCE 529.735

RL	149.08	LAL	-.00	LOL	23.21	VL	25.802	GAL	2.18	AZL	87.90	HCA	271.38	SMA	119.06	ECC	.25480	INC	2.1002
RP	108.91	LAP	-2.10	LOP	294.59	VP	36.366	GAP	13.94	AZP	89.95	TAL	173.61	TAP	84.99	RCA	88.73	APO	149.40
RC	188.667	GL	12.20	GP	10.88	ZAL	70.83	ZAP	168.71	ETS	71.77	ZAE	130.09	ETE	171.04	ZAC	112.42	ETC	273.41

V1	29.887	V2	34.795	CLP	-176.97														

PLANETOCENTRIC CONIC

C3	20.002	VHL	4.472	DLA	-5.24	RAL	311.87	RAD	6567.8	VEL	11.890	PTH	2.11	VHP	8.868	DPA	-12.08	RAP	298.44
ECC	1.3292																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 7 19	2051.43	-15.30	31.41	172.19	114.12	7 41 31	1451.4	-11.92	24.37
90.00	17 47 12	5021.43	23.16	221.02	174.62	73.23	19 10 54	4421.4	20.64	213.25
100.00	8 26 12	1796.99	-16.33	12.21	171.69	115.39	8 56 9	1197.0	-12.78	5.22
100.00	19 11 1	4751.10	24.24	200.77	174.25	71.95	20 30 12	4151.1	21.54	193.01
110.00	9 28 47	1601.06	-19.07	355.86	170.22	118.92	9 55 28	1001.1	-15.06	349.03
110.00	20 24 55	4519.80	27.13	182.05	173.09	68.36	21 40 15	3919.8	23.95	174.33

DIFFERENTIAL CORRECTIONS

TDE	1.4291	TRA	1.8361	TC3	-4.8053	BAU	1.2862
RDE	.2521	RRA	-.2006	RC3	.2027	FAU	.01603
FDE	.4423	FRA	.7892	FC3	-.6938	BSP	16881
BDE	1.4511	BRA	1.8470	BC3	4.8096	FSP	-379

MID-COURSE EXECUTION ACCURACY

SGT	5235.1	SGR	451.4	SG3	113.9		
RRT	-.3374	RRF	-.3218	RTF	.8845		
SGB	5254.5	R23	.0227	R13	-.8846		
SG1	5237.3	SG2	424.7	THA	178.32		

ORBIT DETERMINATION ACCURACY

ST	1967.4	SR	332.2	SS	493.1		
CRT	.8198	CRS	-.7453	CST	-.9917		
LSA	2045.5	MSA	198.8	SSA	23.2		
EL1	1986.3	EL2	188.4	ALF	7.95		

LAUNCH DATE OCT 17 1970 FLIGHT TIME 180.00 ARRIVAL DATE APR 15 1971

HELIOCENTRIC CONIC DISTANCE 535.072

RL	149.08	LAL	-.00	LOL	23.21	VL	25.748	GAL	2.87	AZL	87.75	HCA	274.54	SMA	118.77	ECC	.25983	INC	2.2506
RP	108.92	LAP	-2.24	LOP	297.75	VP	36.324	GAP	14.31	AZP	89.82	TAL	171.76	TAP	86.30	RCA	87.91	APO	149.63
RC	190.549	GL	12.51	GP	10.62	ZAL	67.56	ZAP	169.12	ETS	74.95	ZAE	130.19	ETE	171.24	ZAC	111.90	ETC	274.03

V1	29.887	V2	34.791	CLP	-177.65														

PLANETOCENTRIC CONIC

C3	21.722	VHL	4.661	DLA	-4.01	RAL	314.96	RAD	6567.9	VEL	11.962	PTH	2.13	VHP	9.084	DPA	-11.95	RAP	300.95
ECC	1.3575																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 10 24	2109.68	-16.89	34.95	176.74	113.07	7 45 33	1509.7	-13.63	27.79
90.00	18 8 48	5002.72	22.78	219.78	178.71	72.72	19 32 10	4402.7	20.21	212.05
100.00	8 29 51	1853.34	-17.95	15.61	178.25	114.31	9 0 45	1253.3	-14.51	8.50
100.00	19 32 1	4734.29	23.88	199.65	178.32	71.46	20 50 55	4134.3	21.13	191.94
110.00	9 33 48	1653.18	-20.75	358.97	174.80	117.79	10 1 21	1053.2	-16.87	351.99
110.00	20 44 34	4507.22	26.81	181.21	177.12	67.96	21 59 41	3907.2	23.58	173.54

DIFFERENTIAL CORRECTIONS

TDE	1.5883	TRA	2.1056	TC3	-4.4297	BAU	1.2874
RDE	.2621	RRA	-.2116	RC3	.1790	FAU	.01484
FDE	.4675	FRA	.8271	FC3	-.5916	BSP	16950
BDE	1.6098	BRA	2.1162	BC3	4.4333	FSP	-372

MID-COURSE EXECUTION ACCURACY

SGT	5253.1	SGR	446.9	SG3	111.8		
RRT	-.3138	RRF	-.2986	RTF	.8894		
SGB	5272.1	R23	.0187	R13	-.8895		
SG1	5255.0	SG2	424.2	THA	178.46		

ORBIT DETERMINATION ACCURACY

ST	2105.6	SR	331.6	SS	511.1		
CRT	.8129	CRS	-.7464	CST	-.9935		
LSA	2182.8	MSA	200.3	SSA	21.3		
EL1	2123.0	EL2	191.6	ALF	7.36		

LAUNCH DATE OCT 17 1970 FLIGHT TIME 182.00 ARRIVAL DATE APR 17 1971

HELIOCENTRIC CONIC DISTANCE 540.357

RL	149.08	LAL	-.00	LOL	23.21	VL	25.695	GAL	3.60	AZL	87.60	HCA	277.70	SMA	118.48	ECC	.26538	INC	2.4023	V1	29.887
RP	108.93	LAP	-2.38	LOP	300.91	VP	36.284	GAP	14.70	AZP	89.68	TAL	169.92	TAP	87.62	RCA	87.03	APO	149.92	V2	34.789
RC	192.414	GL	12.74	GP	10.38	ZAL	64.44	ZAP	169.48	ETS	78.41	ZAE	130.28	ETE	171.43	ZAC	111.37	ETC	274.63	CLP	-178.32

PLANETOCENTRIC CONIC

C3	23.741	VHL	4.872	DLA	-2.86	RAL	317.92	RAD	6568.0	VEL	12.047	PTH	2.15	VHP	9.319	DPA	-11.77	RAP	303.46	ECC	1.3907

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 13 34	2167.25	-18.39	38.51	181.33	111.92	7 49 41	1567.3	-15.26	31.23
90.00	18 29 13	4988.36	22.49	218.83	182.82	72.33	19 52 22	4388.4	19.86	211.14
100.00	8 33 34	1909.15	-19.47	19.05	180.86	113.14	9 5 24	1309.2	-16.18	11.81
100.00	19 51 54	4721.69	23.60	198.82	182.42	71.11	21 10 36	4121.7	20.81	191.14
110.00	9 38 46	1705.08	-22.37	2.13	179.42	116.55	10 7 11	1105.1	-18.62	355.00
110.00	21 3 12	4498.53	26.59	180.64	181.18	67.68	22 18 10	3898.5	23.33	172.99

DIFFERENTIAL CORRECTIONS

TDE	1.7475	TRA	2.3832	TC3	-4.0607	BAU	1.2898
RDE	.2738	RRA	-.2216	RC3	.1566	FAU	.01379
FDE	.4905	FRA	.8641	FC3	-.5029	BSP	17146
BDE	1.7688	BRA	2.3935	BC3	4.0637	FSP	-370

MID-COURSE EXECUTION ACCURACY

SGT	5268.3	SGR	441.6	SG3	109.6		
RRT	-.2898	RRF	-.2759	RTF	.8951		
SGB	5286.8	R23	.0155	R13	-.8951		
SG1	5269.9	SG2	422.6	THA	178.60		

ORBIT DETERMINATION ACCURACY

ST	2223.8	SR	331.4	SS	525.5		
CRT	.8077	CRS	-.7478	CST	-.9947		
LSA	2300.1	MSA	201.3	SSA	19.7		
EL1	2240.0	EL2	194.0	ALF	6.92		

LAUNCH DATE OCT 17 1970 FLIGHT TIME 184.00 ARRIVAL DATE APR 19 1971

HELIOCENTRIC CONIC DISTANCE 545.584

RL	149.08	LAL	-.00	LOL	23.21	VL	25.642	GAL	4.36	AZL	87.44	HCA	280.86	SMA	118.19	ECC	.27150	INC	2.5562	V1	29.887
RP	108.94	LAP	-2.51	LOP	304.08	VP	36.245	GAP	15.12	AZP	89.52	TAL	168.09	TAP	88.95	RCA	86.10	APO	150.28	V2	34.787
RC	194.261	GL	12.90	GP	10.16	ZAL	61.46	ZAP	169.79	ETS	82.12	ZAE	130.37	ETE	171.60	ZAC	110.85	ETC	275.22	CLP	-179.01

PLANETOCENTRIC CONIC

C3	26.102	VHL	5.109	DLA	-1.78	RAL	320.74	RAD	6568.1	VEL	12.144	PTH	2.18	VHP	9.574	DPA	-11.52	RAP	305.94	ECC	1.4296

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 16 48	2224.06	-19.80	42.08	185.96	110.67	7 53 52	1624.1	-16.81	34.68
90.00	18 48 30	4978.22	22.28	218.16	186.94	72.06	20 11 28	4378.2	19.62	210.49
100.00	8 37 19	1964.34	-20.91	22.52	185.50	111.86	9 10 3	1364.3	-17.76	15.14
100.00	20 10 40	4713.18	23.42	198.25	186.52	70.87	21 29 13	4113.2	20.59	190.60
110.00	9 43 40	1756.65	-23.90	5.35	184.09	115.20	10 12 57	1156.6	-20.31	358.05
110.00	21 20 48	4493.63	26.46	180.31	185.25	67.53	22 35 42	3893.6	23.18	172.69

DIFFERENTIAL CORRECTIONS

TDE	1.9226	TRA	2.6844	TC3	-3.6799	BAU	1.2850
RDE	.2865	RRA	-.2309	RC3	.1345	FAU	.01261
FDE	.5171	FRA	.9058	FC3	-.4182	BSP	17115
BDE	1.9439	BRA	2.6944	BC3	3.6823	FSP	-361

MID-COURSE EXECUTION ACCURACY

SGT	5278.2	SGR	435.0	SG3	107.6		
RRT	-.2631	RRF	-.2503	RTF	.9001		
SGB	5296.1	R23	.0124	R13	-.9001		
SG1	5279.4	SG2	419.6	THA	178.75		

ORBIT DETERMINATION ACCURACY

ST	2340.6	SR	330.6	SS	542.1		
CRT	.8040	CRS	-.7505	CST	-.9958		
LSA	2416.7	MSA	201.6	SSA	18.4		
EL1	2355.7	EL2	195.4	ALF	6.52		

LAUNCH DATE OCT 17 1970 FLIGHT TIME 186.00 ARRIVAL DATE APR 21 1971

HELIOCENTRIC CONIC DISTANCE 550.741

RL	149.08	LAL	-.00	LOL	23.21	VL	25.591	GAL	5.17	AZL	87.29	HCA	284.02	SMA	117.92	ECC	.27825	INC	2.7135	V1	29.887
RP	108.94	LAP	-2.63	LOP	307.24	VP	36.208	GAP	15.57	AZP	89.34	TAL	166.27	TAP	90.29	RCA	85.11	APO	150.73	V2	34.786
RC	196.090	GL	12.98	GP	9.97	ZAL	58.64	ZAP	170.03	ETS	86.09	ZAE	130.44	ETE	171.77	ZAC	110.32	ETC	275.80	CLP	-179.69

PLANETOCENTRIC CONIC

C3	28.854	VHL	5.372	DLA	-.78	RAL	323.42	RAD	6568.2	VEL	12.257	PTH	2.21	VHP	9.851	DPA	-11.22	RAP	308.42	ECC	1.4749

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 20 5	2280.02	-21.10	45.67	190.60	109.33	7 58 5	1680.0	-18.27	38.14
90.00	19 6 37	4972.16	22.15	217.76	191.06	71.90	20 29 29	4372.2	19.47	210.11
100.00	8 41 4	2018.79	-22.25	26.01	190.15	110.49	9 14 43	1418.8	-19.26	18.49
100.00	20 28 19	4708.61	23.31	197.95	190.63	70.74	21 46 48	4108.6	20.47	190.31
110.00	9 48 29	1807.76	-25.34	8.62	188.78	113.75	10 18 37	1207.8	-21.91	1.15
110.00	21 37 23	4492.41	26.43	180.23	189.32	67.49	22 52 16	3892.4	23.14	172.61

DIFFERENTIAL CORRECTIONS

TDE	2.1103	TRA	2.9973	TC3	-3.3165	BAU	1.2801
RDE	.3011	RRA	-.2387	RC3	.1142	FAU	.01155
FDE	.5425	FRA	.9473	FC3	-.3465	BSP	17180
BDE	2.1316	BRA	3.0068	BC3	3.3184	FSP	-355

MID-COURSE EXECUTION ACCURACY

SGT	5290.0	SGR	427.8	SG3	105.6		
RRT	-.2335	RRF	-.2240	RTF	.9061		
SGB	5307.3	R23	.0114	R13	-.9061		
SG1	5291.0	SG2	415.9	THA	178.91		

ORBIT DETERMINATION ACCURACY

ST	2449.1	SR	330.1	SS	556.1		
CRT	.8029	CRS	-.7540	CST	-.9965		
LSA	2525.0	MSA	201.1	SSA	17.2		
EL1	2463.5	EL2	195.6	ALF	6.22		

LAUNCH DATE OCT 17 1970 FLIGHT TIME 188.00 ARRIVAL DATE APR 23 1971

HELIOCENTRIC CONIC DISTANCE 555.817

RL	149.08	LAL	-.00	LOL	23.21	VL	25.541	GAL	6.02	AZL	87.12	HCA	287.17	SMA	117.65	ECC	.28571	INC	2.8751	V1	29.887
RP	108.94	LAP	-2.75	LOP	310.40	VP	36.172	GAP	16.06	AZP	89.15	TAL	164.48	TAP	91.65	RCA	84.03	APO	151.26	V2	34.785
RC	197.900	GL	13.00	GP	9.78	ZAL	55.97	ZAP	170.21	ETS	90.28	ZAE	130.50	ETE	171.92	ZAC	109.80	ETC	276.37	CLP	179.61

PLANETOCENTRIC CONIC

C3	32.058	VHL	5.662	DLA	.15	RAL	325.97	RAD	6568.3	VEL	12.387	PTH	2.24	VHP	10.154	DPA	-10.86	RAP	310.87	ECC	1.5276

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 23 24	2335.03	-22.30	49.26	195.25	107.92	8 2 19	1735.0	-19.64	41.59
90.00	19 23 36	4969.98	22.11	217.62	195.16	71.84	20 46 26	4370.0	19.42	209.97
100.00	8 44 49	2072.43	-23.49	29.52	194.82	109.04	9 19 21	1472.4	-20.67	21.85
100.00	20 44 53	4707.82	23.30	197.90	194.72	70.72	22 3 20	4107.8	20.45	190.26
110.00	9 53 13	1858.32	-26.69	11.93	193.49	112.20	10 24 11	1258.3	-23.44	4.28
110.00	21 52 58	4494.69	26.49	180.38	193.38	67.56	23 7 53	3894.7	23.21	172.75

DIFFERENTIAL CORRECTIONS

TDE	2.2819	TRA	3.3246	TC3	-2.9674	BAU	1.2724
RDE	.3170	RRA	-.2450	RC3	.0955	FAU	.01052
FDE	.5676	FRA	.9904	FC3	-.2842	BSP	17270
BDE	2.3038	BRA	3.3336	BC3	2.9689	FSP	-350

MID-COURSE EXECUTION ACCURACY

SGT	5286.0	SGR	419.5	SG3	103.6		
RRT	-.2059	RRF	-.1968	RTF	.9118		
SGB	5302.7	R23	.0081	R13	-.9118		
SG1	5286.8	SG2	410.5	THA	179.06		

ORBIT DETERMINATION ACCURACY

ST	2522.1	SR	329.3	SS	568.8		
CRT	.8011	CRS	-.7580	CST	-.9972		
LSA	2598.6	MSA	200.6	SSA	16.2		
EL1	2536.0	EL2	196.0	ALF	6.01		

LAUNCH DATE OCT 17 1970 FLIGHT TIME 190.00 ARRIVAL DATE APR 25 1971

HELIOCENTRIC CONIC DISTANCE 560.799

RL 149.08 LAL -.00 LOL 23.21 VL 25.491 GAL 6.93 AZL 86.96 HCA 290.33 SMA 117.39 ECC .29394 INC 3.0423 V1 29.887
RP 108.94 LAP -2.85 LOP 313.56 VP 36.137 GAP 16.60 AZP 88.94 TAL 162.71 TAP 93.04 RCA 82.88 APO 151.89 V2 34.785
RC 199.690 GL 12.97 GP 9.62 ZAL 53.44 ZAP 170.32 ETS 94.68 ZAE 130.55 ETE 172.07 ZAC 109.27 ETC 276.91 CLP 178.90

PLANETOCENTRIC CONIC

C3 35.787 VHL 5.982 DLA .99 RAL 328.37 RAD 6568.4 VEL 12.536 PTH 2.27 VHP 10.485 DPA -10.45 RAP 313.30 ECC 1.5890

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 26 43	2389.02	-23.38	52.84	199.90	106.44	8 6 32	1789.0	-20.91	45.05
90.00	19 39 28	4971.50	22.14	217.72	199.25	71.88	21 2 20	4371.5	19.46	210.07
100.00	8 48 32	2125.15	-24.61	33.03	199.48	107.52	9 23 57	1525.2	-21.99	25.22
100.00	21 0 21	4710.60	23.36	198.08	198.80	70.80	22 18 52	4110.6	20.52	190.43
110.00	9 57 50	1908.22	-27.93	15.29	198.21	110.57	10 29 38	1308.2	-24.87	7.45
110.00	22 7 32	4500.29	26.63	180.75	197.43	67.74	23 22 33	3900.3	23.38	173.10

DIFFERENTIAL CORRECTIONS
TDE 2.4706 TRA 3.6698 TC3-2.6372 BAU 1.2623
RDE .3345 RRA -.2494 RC3 .0786 FAU .00954
FDE .5935 FRA 1.0356 FC3 -.2309 BSP 17368
BDE 2.4931 BRA 3.6783 BC3 2.6384 FSP -346

MID-COURSE EXECUTION ACCURACY
SGT 5283.3 SGR 410.6 SG3 101.6
RRT -.1744 RRF -.1674 RTF .9179
SGB 5299.2 R23 .0064 R13 -.9179
SG1 5283.8 SG2 404.2 THA 179.22

ORBIT DETERMINATION ACCURACY
ST 2592.4 SR 328.3 SS 581.3
CRT .8016 CRS -.7631 CST -.9977
LSA 2669.5 MSA 199.2 SSA 15.3
EL1 2605.8 EL2 195.3 ALF 5.83

LAUNCH DATE OCT 17 1970 FLIGHT TIME 192.00 ARRIVAL DATE APR 27 1971

HELIOCENTRIC CONIC DISTANCE 565.670

RL 149.08 LAL -.00 LOL 23.21 VL 25.443 GAL 7.89 AZL 86.78 HCA 293.49 SMA 117.13 ECC .30306 INC 3.2165 V1 29.887
RP 108.94 LAP -2.95 LOP 316.73 VP 36.104 GAP 17.19 AZP 88.72 TAL 160.97 TAP 94.46 RCA 81.63 APO 152.63 V2 34.786
RC 201.461 GL 12.90 GP 9.46 ZAL 51.07 ZAP 170.36 ETS 99.22 ZAE 130.58 ETE 172.22 ZAC 108.74 ETC 277.44 CLP 178.17

PLANETOCENTRIC CONIC

C3 40.128 VHL 6.335 DLA 1.77 RAL 330.64 RAD 6568.5 VEL 12.708 PTH 2.31 VHP 10.849 DPA -10.00 RAP 315.70 ECC 1.6604

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 30 3	2441.89	-24.36	56.41	204.52	104.91	8 10 45	1841.9	-22.07	48.49
90.00	19 54 15	4976.48	22.24	218.04	203.30	72.01	21 17 12	4376.5	19.58	210.38
100.00	8 52 13	2176.87	-25.63	36.54	204.13	105.94	9 28 30	1576.9	-23.19	28.58
100.00	21 14 47	4716.74	23.49	198.49	202.85	70.97	22 33 23	4116.7	20.68	190.82
110.00	10 2 21	1957.36	-29.05	18.66	202.92	108.86	10 34 58	1357.4	-26.21	10.64
110.00	22 21 8	4509.01	26.86	181.33	201.46	68.01	23 36 17	3909.0	23.63	173.65

DIFFERENTIAL CORRECTIONS
TDE 2.6669 TRA 4.0339 TC3-2.3263 BAU 1.2485
RDE .3537 RRA -.2517 RC3 .0635 FAU .00860
FDE .6201 FRA 1.0831 FC3 -.1855 BSP 17486
BDE 2.6903 BRA 4.0418 BC3 2.3272 FSP -342

MID-COURSE EXECUTION ACCURACY
SGT 5275.5 SGR 400.9 SG3 99.7
RRT -.1403 RRF -.1356 RTF .9242
SGB 5290.7 R23 .0052 R13 -.9242
SG1 5275.8 SG2 396.9 THA 179.39

ORBIT DETERMINATION ACCURACY
ST 2650.6 SR 327.2 SS 593.6
CRT .8034 CRS -.7690 CST -.9981
LSA 2728.8 MSA 197.2 SSA 14.5
EL1 2663.7 EL2 193.8 ALF 5.69

LAUNCH DATE OCT 17 1970 FLIGHT TIME 194.00 ARRIVAL DATE APR 29 1971

HELIOCENTRIC CONIC DISTANCE 570.409

RL 149.08 LAL -.00 LOL 23.21 VL 25.396 GAL 8.91 AZL 86.60 HCA 296.65 SMA 116.88 ECC .31318 INC 3.3993 V1 29.887
RP 108.93 LAP -3.04 LOP 319.89 VP 36.072 GAP 17.84 AZP 88.47 TAL 159.26 TAP 95.91 RCA 80.28 APO 153.49 V2 34.788
RC 203.212 GL 12.79 GP 9.32 ZAL 48.85 ZAP 170.33 ETS 103.87 ZAE 130.59 ETE 172.36 ZAC 108.21 ETC 277.95 CLP 177.42

PLANETOCENTRIC CONIC

C3 45.191 VHL 6.722 DLA 2.47 RAL 332.78 RAD 6568.7 VEL 12.906 PTH 2.35 VHP 11.249 DPA -9.51 RAP 318.07 ECC 1.7437

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 33 22	2493.56	-25.21	59.95	209.11	103.33	8 14 56	1893.6	-23.13	51.90
90.00	20 7 58	4984.71	22.42	218.59	207.32	72.23	21 31 3	4384.7	19.78	210.91
100.00	8 55 52	2227.48	-26.53	40.03	208.75	104.31	9 32 59	1627.5	-24.30	31.94
100.00	21 28 10	4726.02	23.70	199.10	206.85	71.23	22 46 56	4126.0	20.92	191.41
110.00	10 6 44	2005.63	-30.07	22.06	207.62	107.08	10 40 10	1405.6	-27.44	13.85
110.00	22 33 47	4520.64	27.15	182.11	205.45	68.39	23 49 7	3920.6	23.97	174.38

DIFFERENTIAL CORRECTIONS
TDE 2.8718 TRA 4.4199 TC3-2.0360 BAU 1.2304
RDE .3746 RRA -.2516 RC3 .0503 FAU .00768
FDE .6477 FRA 1.1338 FC3 -.1471 BSP 17617
BDE 2.8961 BRA 4.4271 BC3 2.0366 FSP -339

MID-COURSE EXECUTION ACCURACY
SGT 5263.3 SGR 390.6 SG3 97.7
RRT -.1035 RRF -.1011 RTF .9305
SGB 5277.7 R23 .0043 R13 -.9305
SG1 5263.4 SG2 388.5 THA 179.56

ORBIT DETERMINATION ACCURACY
ST 2697.7 SR 325.7 SS 606.2
CRT .8063 CRS -.7756 CST -.9985
LSA 2777.2 MSA 194.7 SSA 13.7
EL1 2710.5 EL2 191.7 ALF 5.59

LAUNCH DATE OCT 17 1970 FLIGHT TIME 196.00 ARRIVAL DATE MAY 1 1971

HELIOCENTRIC CONIC DISTANCE 574.989

RL 149.08 LAL -.00 LOL 23.21 VL 25.350 GAL 10.01 AZL 86.41 HCA 299.80 SMA 116.64 ECC .32441 INC 3.5925 V1 29.887
RP 108.92 LAP -3.12 LOP 323.06 VP 36.042 GAP 18.56 AZP 88.21 TAL 157.61 TAP 97.41 RCA 78.80 APO 154.48 V2 34.790
RC 204.943 GL 12.64 GP 9.19 ZAL 46.77 ZAP 170.22 ETS 108.57 ZAE 130.57 ETE 172.49 ZAC 107.68 ETC 278.44 CLP 176.65

PLANETOCENTRIC CONIC

C3 51.110 VHL 7.149 DLA 3.09 RAL 334.78 RAD 6568.9 VEL 13.133 PTH 2.40 VHP 11.691 DPA -8.98 RAP 320.41 ECC 1.8411

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 36 40	2543.89	-25.96	63.45	213.65	101.73	8 19 4	1943.9	-24.08	55.29
90.00	20 20 39	4995.95	22.65	219.33	211.28	72.53	21 43 55	4395.9	20.04	211.62
100.00	8 59 28	2276.86	-27.31	43.49	213.32	102.65	9 37 24	1676.9	-25.30	35.27
100.00	21 40 33	4738.21	23.96	199.91	210.82	71.58	22 59 31	4138.2	21.22	192.19
110.00	10 11 1	2052.89	-30.97	25.45	212.28	105.26	10 45 14	1452.9	-28.56	17.07
110.00	22 45 28	4534.95	27.51	183.07	209.40	68.86	24 1 3	3934.9	24.38	175.29

DIFFERENTIAL CORRECTIONS
TDE 3.0874 TRA 4.8306 TC3-1.7655 BAU 1.2066
RDE .3971 RRA -.2487 RC3 .0388 FAU .00676
FDE .6771 FRA 1.1882 FC3 -.1144 BSP 17738
BDE 3.1128 BRA 4.8370 BC3 1.7659 FSP -336

MID-COURSE EXECUTION ACCURACY
SGT 5246.6 SGR 379.8 SG3 95.9
RRT -.0634 RRF -.0634 RTF .9369
SGB 5260.3 R23 .0037 R13 -.9369
SG1 5246.6 SG2 379.0 THA 179.74

ORBIT DETERMINATION ACCURACY
ST 2735.1 SR 323.9 SS 619.7
CRT .8103 CRS -.7830 CST -.9988
LSA 2816.6 MSA 191.5 SSA 13.0
EL1 2747.8 EL2 188.9 ALF 5.51

LAUNCH DATE OCT 17 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAY 3 1971

HELIOCENTRIC CONIC DISTANCE 579.380

RL 149.08 LAL -.00 LOL 23.21 VL 25.305 GAL 11.20 AZL 86.20 HCA 302.96 SMA 116.41 ECC .33692 INC 3.7983 V1 29.887
RP 108.91 LAP -3.19 LOP 326.23 VP 36.014 GAP 19.35 AZP 87.93 TAL 156.00 TAP 98.97 RCA 77.19 APO 155.63 V2 34.793
RC 206.655 GL 12.46 GP 9.07 ZAL 44.84 ZAP 170.03 ETS 113.27 ZAE 130.53 ETE 172.63 ZAC 107.16 ETC 278.90 CLP 175.86

PLANETOCENTRIC CONIC

C3 58.054 VHL 7.619 DLA 3.65 RAL 336.65 RAD 6569.1 VEL 13.394 PTH 2.45 VHP 12.180 DPA -8.42 RAP 322.70 ECC 1.9554

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 39 57	2592.76	-26.59	66.89	218.11	100.12	8 23 10	1992.8	-24.92	58.62
90.00	20 32 17	5009.97	22.93	220.26	215.19	72.92	21 55 47	4410.0	20.38	212.52
100.00	9 3 1	2324.87	-27.98	46.90	217.82	100.97	9 41 45	1724.9	-26.18	38.56
100.00	21 51 55	4753.09	24.28	200.90	214.72	72.01	23 11 8	4153.1	21.59	193.14
110.00	10 15 10	2099.01	-31.74	28.82	216.88	103.41	10 50 9	1499.0	-29.57	20.28
110.00	22 56 15	4551.71	27.91	184.20	213.31	69.42	24 12 7	3951.7	24.86	176.37

DIFFERENTIAL CORRECTIONS
TDE 3.3164 TRA 5.2701 TC3-1.5145 BAU 1.1756
RDE .4215 RRA -.2427 RC3 .0290 FAU .00580
FDE .7090 FRA 1.2474 FC3 -.0865 BSP 17820
BDE 3.3431 BRA 5.2757 BC3 1.5147 FSP -331

MID-COURSE EXECUTION ACCURACY
SGT 5226.4 SGR 368.6 SG3 94.1
RRT -.0195 RRF -.0217 RTF .9432
SGB 5239.4 R23 .0032 R13 -.9432
SG1 5226.4 SG2 368.5 THA 179.92

ORBIT DETERMINATION ACCURACY
ST 2764.7 SR 321.7 SS 634.7
CRT .8152 CRS -.7912 CST -.9990
LSA 2848.6 MSA 187.7 SSA 12.3
EL1 2777.2 EL2 185.5 ALF 5.44

LAUNCH DATE OCT 17 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAY 5 1971

HELIOCENTRIC CONIC DISTANCE 583.541

RL 149.08 LAL -.00 LOL 23.21 VL 25.261 GAL 12.48 AZL 85.98 HCA 306.12 SMA 116.19 ECC .35088 INC 4.0195 V1 29.887
RP 108.90 LAP -3.25 LOP 329.39 VP 35.987 GAP 20.24 AZP 87.63 TAL 154.47 TAP 100.59 RCA 75.42 APO 156.95 V2 34.797
RC 208.346 GL 12.27 GP 8.96 ZAL 43.05 ZAP 169.76 ETS 117.92 ZAE 130.45 ETE 172.77 ZAC 106.63 ETC 279.35 CLP 175.02

PLANETOCENTRIC CONIC

C3 66.233 VHL 8.138 DLA 4.14 RAL 338.39 RAD 6569.3 VEL 13.696 PTH 2.50 VHP 12.725 DPA -7.83 RAP 324.95 ECC 2.0900

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 43 13	2639.98	-27.11	70.25	222.49	98.51	8 27 13	2040.0	-25.65	61.88
90.00	20 42 55	5026.56	23.26	221.36	219.03	73.38	22 6 41	4426.6	20.76	213.58
100.00	9 6 30	2371.35	-28.54	50.24	222.23	99.30	9 46 2	1771.3	-26.96	41.80
100.00	22 2 19	4770.42	24.64	202.07	218.56	72.52	23 21 49	4170.4	22.02	194.25
110.00	10 19 12	2143.81	-32.40	32.14	221.41	101.54	10 54 56	1543.8	-30.47	23.46
110.00	23 6 6	4570.72	28.36	185.50	217.15	70.07	24 22 17	3970.7	25.38	177.59

DIFFERENTIAL CORRECTIONS
TDE 3.5612 TRA 5.7426 TC3-1.2823 BAU 1.1356
RDE .4479 RRA -.2330 RC3 .0208 FAU .00481
FDE .7437 FRA 1.3123 FC3 -.0628 BSP 17846
BDE 3.5893 BRA 5.7474 BC3 1.2825 FSP -326

MID-COURSE EXECUTION ACCURACY
SGT 5203.2 SGR 357.2 SG3 92.4
RRT .0285 RRF .0242 RTF .9495
SGB 5215.5 R23 -.0030 R13 .9495
SG1 5203.2 SG2 357.1 THA .11

ORBIT DETERMINATION ACCURACY
ST 2787.2 SR 319.1 SS 651.7
CRT .8212 CRS -.8001 CST -.9992
LSA 2874.3 MSA 183.3 SSA 11.7
EL1 2799.6 EL2 181.3 ALF 5.39

LAUNCH DATE OCT 17 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAY 7 1971

HELIOCENTRIC CONIC DISTANCE 587.419

RL 149.08 LAL -.00 LOL 23.21 VL 25.219 GAL 13.87 AZL 85.74 HCA 309.28 SMA 115.97 ECC .36651 INC 4.2592 V1 29.887
RP 108.89 LAP -3.30 LOP 332.56 VP 35.962 GAP 21.23 AZP 87.30 TAL 153.02 TAP 102.29 RCA 73.47 APO 158.47 V2 34.802
RC 210.017 GL 12.05 GP 8.86 ZAL 41.40 ZAP 169.40 ETS 122.48 ZAE 130.33 ETE 172.91 ZAC 106.11 ETC 279.77 CLP 174.15

PLANETOCENTRIC CONIC

C3 75.915 VHL 8.713 DLA 4.57 RAL 340.00 RAD 6569.5 VEL 14.045 PTH 2.56 VHP 13.335 DPA -7.23 RAP 327.15 ECC 2.2494

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 46 27	2685.37	-27.52	73.51	226.74	96.93	8 31 13	2085.4	-26.28	65.06
90.00	20 52 30	5045.49	23.62	222.63	222.78	73.91	22 16 36	4445.5	21.19	214.80
100.00	9 9 57	2416.08	-28.99	53.49	226.53	97.64	9 50 13	1816.1	-27.63	44.95
100.00	22 11 42	4790.01	25.03	203.39	222.32	73.11	23 31 32	4190.0	22.48	195.52
110.00	10 23 6	2187.10	-32.94	35.40	225.83	99.68	10 59 33	1587.1	-31.26	26.59
110.00	23 15 2	4591.76	28.84	186.95	220.93	70.80	24 31 33	3991.8	25.95	178.96

DIFFERENTIAL CORRECTIONS
TDE 3.8252 TRA 6.2531 TC3-1.0682 BAU 1.0842
RDE .4764 RRA -.2191 RC3 .0143 FAU .00373
FDE .7820 FRA 1.3839 FC3 -.0425 BSP 17795
BDE 3.8548 BRA 6.2570 BC3 1.0683 FSP -320

MID-COURSE EXECUTION ACCURACY
SGT 5177.7 SGR 345.9 SG3 90.8
RRT .0812 RRF .0751 RTF .9556
SGB 5189.3 R23 -.0029 R13 .9556
SG1 5177.8 SG2 344.8 THA .31

ORBIT DETERMINATION ACCURACY
ST 2803.9 SR 316.3 SS 671.2
CRT .8281 CRS -.8098 CST -.9994
LSA 2894.9 MSA 178.2 SSA 11.1
EL1 2816.2 EL2 176.5 ALF 5.36

LAUNCH DATE OCT 17 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAY 9 1971

HELIOCENTRIC CONIC DISTANCE 590.949

RL 149.08 LAL -.00 LOL 23.21 VL 25.179 GAL 15.40 AZL 85.48 HCA 312.44 SMA 115.76 ECC .38407 INC 4.5218 V1 29.887
RP 108.87 LAP -3.34 LOP 335.73 VP 35.938 GAP 22.34 AZP 86.95 TAL 151.66 TAP 104.10 RCA 71.30 APO 160.22 V2 34.807
RC 211.667 GL 11.81 GP 8.76 ZAL 39.89 ZAP 168.94 ETS 126.92 ZAE 130.15 ETE 173.05 ZAC 105.59 ETC 280.16 CLP 173.22

PLANETOCENTRIC CONIC

C3 87.444 VHL 9.351 DLA 4.92 RAL 341.47 RAD 6569.7 VEL 14.450 PTH 2.62 VHP 14.019 DPA -6.61 RAP 329.29 ECC 2.4391

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 49 40	2728.66	-27.84	76.63	230.86	95.39	8 35 8	2128.7	-26.80	68.12
90.00	21 1 3	5066.58	24.01	224.05	226.43	74.52	22 25 30	4466.6	21.66	216.17
100.00	9 13 19	2458.82	-29.33	56.62	230.69	96.03	9 54 18	1858.8	-28.19	48.00
100.00	22 20 5	4811.65	25.45	204.86	225.98	73.77	23 40 17	4211.7	22.98	196.93
110.00	10 26 52	2228.62	-33.38	38.57	230.11	97.86	11 4 1	1628.6	-31.93	29.64
110.00	23 23 1	4614.62	29.34	188.54	224.62	71.62	24 39 56	4014.6	26.55	180.47

DIFFERENTIAL CORRECTIONS
TDE 4.1117 TRA 6.8072 TC3 -.8717 BAU 1.0191
RDE .5074 RRA -.2002 RC3 .0092 FAU .00253
FDE .8245 FRA 1.4634 FC3 -.0250 BSP 17645
BDE 4.1429 BRA 6.8102 BC3 .8717 FSP -311

MID-COURSE EXECUTION ACCURACY
SGT 5150.7 SGR 334.8 SG3 89.3
RRT .1390 RRF .1314 RTF .9615
SGB 5161.6 R23 -.0029 R13 .9615
SG1 5150.9 SG2 331.6 THA .52

ORBIT DETERMINATION ACCURACY
ST 2815.4 SR 313.1 SS 693.8
CRT .8359 CRS -.8202 CST -.9995
LSA 2911.3 MSA 172.6 SSA 10.5
EL1 2827.6 EL2 171.1 ALF 5.33

LAUNCH DATE OCT 17 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAY 11 1971

HELIOCENTRIC CONIC DISTANCE 594.047

RL 149.08 LAL -.00 LOL 23.21 VL 25.140 GAL 17.08 AZL 85.19 HCA 315.59 SMA 115.57 ECC .40384 INC 4.8123 V1 29.887
RP 108.86 LAP -3.37 LOP 338.90 VP 35.917 GAP 23.60 AZP 86.56 TAL 150.43 TAP 106.03 RCA 68.90 APO 162.24 V2 34.813
RC 213.296 GL 11.56 GP 8.67 ZAL 38.54 ZAP 168.38 ETS 131.22 ZAE 129.92 ETE 173.21 ZAC 105.08 ETC 280.53 CLP 172.24

PLANETOCENTRIC CONIC

C3 101.264 VHL 10.063 DLA 5.21 RAL 342.81 RAD 6570.0 VEL 14.920 PTH 2.69 VHP 14.792 DPA -5.98 RAP 331.37 ECC 2.6666

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 52 50	2769.58	-28.07	79.61	234.80	93.92	8 39 0	2169.6	-27.23	71.04
90.00	21 8 32	5089.67	24.42	225.62	229.97	75.21	22 33 21	4489.7	22.15	217.69
100.00	9 16 38	2499.29	-29.59	59.60	234.67	94.48	9 58 18	1899.3	-28.65	50.92
100.00	22 27 25	4835.19	25.89	206.47	229.53	74.51	23 48 0	4235.2	23.52	198.48
110.00	10 30 30	2268.11	-33.70	41.60	234.22	96.09	11 8 18	1668.1	-32.49	32.58
110.00	23 30 2	4639.14	29.86	190.26	228.21	72.52	24 47 21	4039.1	27.18	182.10

DIFFERENTIAL CORRECTIONS
TDE 4.4249 TRA 7.4113 TC3 -.6918 BAU .9366
RDE .5414 RRA -.1755 RC3 .0055 FAU .00116
FDE .8722 FRA 1.5522 FC3 -.0099 BSP 17361
BDE 4.4579 BRA 7.4134 BC3 -.6918 FSP -301

MID-COURSE EXECUTION ACCURACY
SGT 5122.5 SGR 324.4 SG3 87.9
RRT .2023 RRF .1934 RTF .9672
SGB 5132.8 R23 -.0030 R13 .9672
SG1 5123.0 SG2 317.6 THA .74

ORBIT DETERMINATION ACCURACY
ST 2822.2 SR 309.7 SS 720.1
CRT .8447 CRS -.8312 CST -.9996
LSA 2924.3 MSA 166.4 SSA 9.9
EL1 2834.4 EL2 165.1 ALF 5.31

LAUNCH DATE OCT 17 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAY 13 1971

HELIOCENTRIC CONIC DISTANCE 596.599

RL 149.08 LAL -.00 LOL 23.21 VL 25.103 GAL 18.94 AZL 84.86 HCA 318.75 SMA 115.38 ECC .42620 INC 5.1376 V1 29.887
RP 108.83 LAP -3.38 LOP 342.08 VP 35.897 GAP 25.03 AZP 86.13 TAL 149.35 TAP 108.10 RCA 66.21 APO 164.56 V2 34.819
RC 214.903 GL 11.29 GP 8.59 ZAL 37.34 ZAP 167.71 ETS 135.34 ZAE 129.61 ETE 173.37 ZAC 104.58 ETC 280.87 CLP 171.17

PLANETOCENTRIC CONIC

C3 117.956 VHL 10.861 DLA 5.42 RAL 344.00 RAD 6570.2 VEL 15.469 PTH 2.76 VHP 15.669 DPA -5.35 RAP 333.36 ECC 2.9412

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 55 59	2807.75	-28.21	82.39	238.53	92.53	8 42 47	2207.8	-27.56	73.78
90.00	21 14 52	5114.63	24.85	227.35	233.37	75.96	22 40 7	4514.6	22.67	219.33
100.00	9 19 53	2537.14	-29.75	62.40	238.44	93.02	10 2 11	1937.1	-29.02	53.68
100.00	22 33 39	4860.48	26.34	208.22	232.95	75.33	23 54 40	4260.5	24.07	200.15
110.00	10 34 0	2305.22	-33.93	44.48	238.12	94.40	11 12 25	1705.2	-32.95	35.38
110.00	23 36 2	4665.16	30.37	192.11	231.67	73.51	24 53 48	4065.2	27.82	183.85

DIFFERENTIAL CORRECTIONS
TDE 4.7682 TRA 8.0719 TC3 -.5284 BAU .8333
RDE .5789 RRA -.1439 RC3 .0031 FAU-.00042
FDE .9257 FRA 1.6517 FC3 .0031 BSP 16949
BDE 4.8032 BRA 8.0732 BC3 .5284 FSP -289

MID-COURSE EXECUTION ACCURACY
SGT 5093.3 SGR 314.8 SG3 86.6
RRT .2709 RRF .2612 RTF .9725
SGB 5103.0 R23 -.0032 R13 .9725
SG1 5094.0 SG2 303.0 THA .96

ORBIT DETERMINATION ACCURACY
ST 2824.1 SR 306.2 SS 750.6
CRT .8543 CRS -.8429 CST -.9997
LSA 2933.8 MSA 159.7 SSA 9.4
EL1 2836.2 EL2 158.5 ALF 5.31

LAUNCH DATE OCT 17 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAY 15 1971

HELIOCENTRIC CONIC DISTANCE 598.460

RL 149.08 LAL -.00 LOL 23.21 VL 25.069 GAL 21.01 AZL 84.49 HCA 321.91 SMA 115.21 ECC .45155 INC 5.5067 V1 29.887
RP 108.81 LAP -3.39 LOP 345.25 VP 35.880 GAP 26.67 AZP 85.66 TAL 148.45 TAP 110.36 RCA 63.19 APO 167.23 V2 34.826
RC 216.489 GL 11.01 GP 8.50 ZAL 36.30 ZAP 166.91 ETS 139.31 ZAE 129.21 ETE 173.55 ZAC 104.09 ETC 281.18 CLP 170.02

PLANETOCENTRIC CONIC

C3 138.285 VHL 11.759 DLA 5.55 RAL 345.03 RAD 6570.5 VEL 16.113 PTH 2.83 VHP 16.670 DPA -4.74 RAP 335.26 ECC 3.2758

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 59 7	2842.77	-28.29	84.95	242.02	91.25	8 46 29	2242.8	-27.82	76.31
90.00	21 19 59	5141.37	25.27	229.17	236.61	76.79	22 45 40	4541.4	23.21	221.11
100.00	9 23 5	2571.95	-29.85	64.99	241.97	91.66	10 5 56	1971.9	-29.30	56.22
100.00	22 38 42	4887.42	26.79	210.09	236.20	76.22	24 0 10	4287.4	24.63	201.96
110.00	10 37 19	2339.57	-34.08	47.15	241.77	92.83	11 16 19	1739.6	-33.31	37.99
110.00	23 40 57	4692.56	30.89	194.08	234.98	74.57	24 59 9	4092.6	28.46	185.72

DIFFERENTIAL CORRECTIONS
TDE 5.1457 TRA 8.7957 TC3 -.3811 BAU .7046
RDE .6206 RRA -.1041 RC3 .0018 FAU-.00229
FDE .9859 FRA 1.7636 FC3 .0144 BSP 16406
BDE 5.1830 BRA 8.7963 BC3 .3811 FSP -276

MID-COURSE EXECUTION ACCURACY
SGT 5062.4 SGR 306.7 SG3 85.4
RRT .3444 RRF .3345 RTF .9774
SGB 5071.7 R23 -.0035 R13 .9774
SG1 5063.5 SG2 287.8 THA 1.20

ORBIT DETERMINATION ACCURACY
ST 2820.5 SR 302.8 SS 786.0
CRT .8646 CRS -.8551 CST -.9998
LSA 2939.6 MSA 152.5 SSA 8.8
EL1 2832.6 EL2 151.4 ALF 5.32

LAUNCH DATE OCT 17 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAY 17 1971

HELIOCENTRIC CONIC DISTANCE 599.429

RL 149.08 LAL -.00 LOL 23.21 VL 25.037 GAL 23.34 AZL 84.07 HCA 325.07 SMA 115.05 ECC .48040 INC 5.9320 V1 29.887
RP 108.79 LAP -3.39 LOP 348.42 VP 35.865 GAP 28.56 AZP 85.13 TAL 147.77 TAP 112.85 RCA 59.78 APO 170.32 V2 34.834
RC 218.051 GL 10.71 GP 8.42 ZAL 35.45 ZAP 165.98 ETS 143.10 ZAE 128.69 ETE 173.74 ZAC 103.62 ETC 281.46 CLP 168.75

PLANETOCENTRIC CONIC

C3 163.272 VHL 12.778 DLA 5.59 RAL 345.89 RAD 6570.8 VEL 16.870 PTH 2.91 VHP 17.819 DPA -4.15 RAP 337.06 ECC 3.6870

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 2 12	2874.10	-28.32	87.24	245.21	90.10	8 50 6	2274.1	-28.00	78.59
90.00	21 23 45	5169.89	25.70	231.15	239.65	77.69	22 49 55	4569.9	23.75	223.02
100.00	9 26 11	2603.21	-29.89	67.31	245.20	90.44	10 9 34	2003.2	-29.51	58.53
100.00	22 42 27	4916.01	27.24	212.10	239.27	77.18	24 4 23	4316.0	25.20	203.89
110.00	10 40 29	2370.68	-34.16	49.58	245.12	91.39	11 20 0	1770.7	-33.59	40.38
110.00	23 44 39	4721.31	31.39	196.17	238.12	75.71	25 3 20	4121.3	29.11	187.71

DIFFERENTIAL CORRECTIONS
TDE 5.5105 TRA 9.5393 TC3 -.2619 BAU .5716
RDE .6664 RRA -.0556 RC3 .0014 FAU-.00407
FDE 1.0431 FRA 1.8788 FC3 .0216 BSP 16946
BDE 5.5506 BRA 9.5394 BC3 .2619 FSP -283

MID-COURSE EXECUTION ACCURACY
SGT 5002.5 SGR 299.9 SG3 83.7
RRT .4188 RRF .4088 RTF .9817
SGB 5011.5 R23 -.0039 R13 .9817
SG1 5004.1 SG2 272.2 THA 1.44

ORBIT DETERMINATION ACCURACY
ST 2787.2 SR 298.9 SS 819.4
CRT .8746 CRS -.8665 CST -.9998
LSA 2916.8 MSA 145.2 SSA 8.2
EL1 2799.4 EL2 144.3 ALF 5.37

LAUNCH DATE OCT 17 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAY 19 1971

HELIOCENTRIC CONIC DISTANCE 599.257

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RL  149.08 LAL   -.00 LOL  23.21 VL  25.008 GAL  25.99 AZL  83.57 HCA 328.23 SMA 114.91 ECC .51329 INC 6.4305 V1  29.887
RP  108.76 LAP  -3.38 LOP 351.60 VP  35.853 GAP  30.75 AZP  84.53 TAL 147.38 TAP 115.61 RCA  55.93 APO 173.89 V2  34.842
RC 219.589 GL   10.41 GP    8.33 ZAL  34.79 ZAP 164.88 ETS 146.73 ZAE 128.04 ETE 173.96 ZAC 103.17 ETC 281.71 CLP 167.34
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PLANETOCENTRIC CONIC

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C3 194.294 VHL 13.939 DLA   5.54 RAL 346.56 RAD 6571.1 VEL 17.766 PTH   2.99 VHP 19.146 DPA  -3.60 RAP 338.71 ECC 4.1976
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 5 16	2901.18	-28.30	89.22	248.07	89.11	8 53 37	2301.2	-28.13	80.56
90.00	21 26 1	5200.24	26.13	233.27	242.47	78.67	22 52 42	4600.2	24.30	225.08
100.00	9 29 13	2630.37	-29.89	69.33	248.10	89.38	10 13 4	2030.4	-29.65	60.53
100.00	22 44 45	4946.28	27.68	214.24	242.11	78.23	24 7 11	4346.3	25.77	205.96
110.00	10 43 28	2398.02	-34.18	51.71	248.12	90.13	11 23 26	1798.0	-33.79	42.49
110.00	23 47 0	4751.39	31.87	198.39	241.05	76.94	25 6 11	4151.4	29.75	189.82

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 5.9395 TRA10.3833 TC3 -.1492 BAU  .3876   SGT 4951.9 SGR  295.4 SG3   82.4     ST  2759.6 SR   295.4 SS   862.9
RDE  .7186 RRA  .0046 RC3  .0020 FAU-.00658   RRT  .4969 RRF  .4873 RTF  .9855     CRT  .8856 CRS -.8789 CST -.9999
FDE 1.1141 FRA 2.0156 FC3  .0293 BSP  16841   SGB 4960.7 R23 -.0042 R13  .9855     LSA 2903.2 MSA  137.5 SSA    7.7
BDE 5.9828 BRA10.3833 BC3  .1492 FSP   -278   SG1 4954.0 SG2  256.3 THA   1.70     EL1 2772.0 EL2  136.6 ALF   5.43
```

LAUNCH DATE OCT 17 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAY 21 1971

HELIOCENTRIC CONIC DISTANCE 597.598

```
RL  149.08 LAL   -.00 LOL  23.21 VL  24.984 GAL  29.01 AZL  82.97 HCA 331.39 SMA 114.78 ECC .55085 INC 7.0268 V1  29.887
RP  108.74 LAP  -3.36 LOP 354.78 VP  35.845 GAP  33.30 AZP  83.82 TAL 147.33 TAP 118.72 RCA  51.56 APO 178.01 V2  34.851
RC 221.103 GL   10.08 GP    8.24 ZAL  34.38 ZAP 163.58 ETS 150.20 ZAE 127.22 ETE 174.20 ZAC 102.75 ETC 281.93 CLP 165.75
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PLANETOCENTRIC CONIC

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C3 233.210 VHL 15.271 DLA   5.38 RAL 347.00 RAD 6571.4 VEL 18.829 PTH   3.07 VHP 20.689 DPA  -3.10 RAP 340.21 ECC 4.8380
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 8 17	2923.27	-28.27	90.84	250.54	88.30	8 57 0	2323.3	-28.21	82.17
90.00	21 26 34	5232.60	26.54	235.55	245.02	79.74	22 53 47	4632.6	24.85	227.29
100.00	9 32 10	2652.72	-29.86	70.99	250.59	88.50	10 16 23	2052.7	-29.75	62.19
100.00	22 45 22	4978.38	28.10	216.53	244.69	79.37	24 8 21	4378.4	26.35	208.17
110.00	10 46 13	2420.94	-34.17	53.50	250.70	89.07	11 26 34	1820.9	-33.92	44.26
110.00	23 47 48	4782.93	32.33	200.73	243.72	78.25	25 7 31	4182.9	30.38	192.06

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 6.4102 TRA11.3075 TC3 -.0501 BAU  .1567   SGT 4895.4 SGR  293.6 SG3   81.2     ST  2723.7 SR   292.1 SS   913.4
RDE  .7782 RRA  .0782 RC3  .0034 FAU-.00976   RRT  .5748 RRF  .5660 RTF  .9888     CRT  .8968 CRS -.8913 CST -.9999
FDE 1.1946 FRA 2.1707 FC3  .0362 BSP  16715   SGB 4904.2 R23 -.0045 R13  .9888     LSA 2884.7 MSA  129.5 SSA    7.1
BDE 6.4572 BRA11.3078 BC3  .0502 FSP   -274   SG1 4898.4 SG2  240.1 THA   1.98     EL1 2736.3 EL2  128.6 ALF   5.51
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LAUNCH DATE OCT 17 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAY 23 1971

HELIOCENTRIC CONIC DISTANCE 593.998

```
RL  149.08 LAL   -.00 LOL  23.21 VL  24.964 GAL  32.49 AZL  82.24 HCA 334.55 SMA 114.69 ECC .59368 INC 7.7577 V1  29.887
RP  108.71 LAP  -3.33 LOP 357.96 VP  35.840 GAP  36.31 AZP  82.99 TAL 147.71 TAP 122.25 RCA  46.60 APO 182.78 V2  34.860
RC 222.592 GL    9.74 GP    8.14 ZAL  34.23 ZAP 162.05 ETS 153.51 ZAE 126.18 ETE 174.48 ZAC 102.36 ETC 282.10 CLP 163.95
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PLANETOCENTRIC CONIC

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C3 282.542 VHL 16.809 DLA   5.08 RAL 347.20 RAD 6571.6 VEL 20.096 PTH   3.14 VHP 22.492 DPA  -2.69 RAP 341.51 ECC 5.6499
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 11 16	2939.51	-28.23	92.02	252.54	87.70	9 0 16	2339.5	-28.25	83.36
90.00	21 25 6	5267.30	26.94	238.01	247.26	80.92	22 52 54	4667.3	25.40	229.68
100.00	9 35 0	2669.42	-29.82	72.23	252.61	87.85	10 19 30	2069.4	-29.80	63.43
100.00	22 44 3	5012.62	28.51	219.00	246.97	80.60	24 7 36	4412.6	26.91	210.56
110.00	10 48 44	2438.66	-34.14	54.88	252.79	88.25	11 29 23	1838.7	-34.01	45.64
110.00	23 46 49	4816.15	32.77	203.22	246.11	79.67	25 7 5	4216.1	31.00	194.45

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 6.9246 TRA12.3157 TC3  .0360 BAU  .1375   SGT 4832.0 SGR  294.9 SG3   80.0     ST  2677.7 SR   289.2 SS   972.2
RDE  .8468 RRA  .1677 RC3  .0055 FAU-.01386   RRT  .6495 RRF  .6418 RTF  .9915     CRT  .9081 CRS -.9035 CST -.9999
FDE 1.2862 FRA 2.3468 FC3  .0425 BSP  16579   SGB 4841.0 R23 -.0047 R13  .9915     LSA 2860.8 MSA  121.3 SSA    6.6
BDE 6.9762 BRA12.3169 BC3  .0364 FSP   -271   SG1 4835.8 SG2  224.0 THA   2.27     EL1 2690.5 EL2  120.5 ALF   5.61
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LAUNCH DATE OCT 17 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAY 25 1971

HELIOCENTRIC CONIC DISTANCE 587.873

```
RL  149.08 LAL   -.00 LOL  23.21 VL  24.951 GAL  36.52 AZL  81.32 HCA 337.70 SMA 114.62 ECC .64232 INC 8.6805 V1  29.887
RP  108.68 LAP  -3.28 LOP   1.14 VP  35.841 GAP  39.87 AZP  81.96 TAL 148.62 TAP 126.32 RCA  41.00 APO 188.25 V2  34.870
RC 224.055 GL    9.37 GP    8.03 ZAL  34.41 ZAP 160.24 ETS 156.68 ZAE 124.89 ETE 174.80 ZAC 102.02 ETC 282.24 CLP 161.88
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PLANETOCENTRIC CONIC

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C3 345.692 VHL 18.593 DLA   4.63 RAL 347.08 RAD 6571.9 VEL 21.610 PTH   3.22 VHP 24.609 DPA  -2.38 RAP 342.57 ECC 6.6892
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 14 13	2948.90	-28.20	92.71	254.00	87.36	9 3 22	2348.9	-28.27	84.04
90.00	21 21 16	5304.83	27.31	240.69	249.14	82.21	22 49 41	4704.8	25.95	232.29
100.00	9 37 44	2679.50	-29.79	72.98	254.09	87.46	10 22 23	2079.5	-29.83	64.17
100.00	22 40 26	5049.46	28.89	221.67	248.89	81.96	24 4 35	4449.5	27.47	213.15
110.00	10 50 58	2450.29	-34.12	55.79	254.30	87.71	11 31 48	1850.3	-34.06	46.55
110.00	23 43 41	4851.43	33.17	205.90	248.15	81.21	25 4 33	4251.4	31.60	197.03

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 7.4821 TRA13.4056 TC3  .1098 BAU  .5088   SGT 4760.4 SGR  299.5 SG3   79.0     ST  2619.6 SR   286.7 SS  1040.3
RDE  .9265 RRA  .2759 RC3  .0081 FAU-.01924   RRT  .7183 RRF  .7119 RTF  .9938     CRT  .9190 CRS -.9153 CST -.9999
FDE 1.3903 FRA 2.5467 FC3  .0482 BSP  16386   SGB 4769.8 R23 -.0048 R13  .9938     LSA 2830.9 MSA  113.2 SSA    6.0
BDE 7.5393 BRA13.4085 BC3  .1101 FSP   -267   SG1 4765.2 SG2  208.2 THA   2.59     EL1 2632.9 EL2  112.4 ALF   5.75
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LAUNCH DATE OCT 18 1970 FLIGHT TIME 70.00 ARRIVAL DATE DEC 27 1970

HELIOCENTRIC CONIC DISTANCE 214.513

RL	149.04	LAL	-.00	LOL	24.20	VL	29.981	GAL	-16.64	AZL	87.51	HCA	98.62	SMA	150.46	ECC	.28656	INC	2.4883	V1	29.896
RP	107.48	LAP	2.46	LOP	122.83	VP	39.842	GAP	-1.38	AZP	90.37	TAL	255.16	TAP	353.78	RCA	107.34	APO	193.57	V2	35.256
RC	72.818	GL	8.66	GP	-22.18	ZAL	167.96	ZAP	79.29	ETS	1.35	ZAE	154.90	ETE	252.07	ZAC	76.77	ETC	257.20	CLP	-78.42

PLANETOCENTRIC CONIC

C3	68.580	VHL	8.281	DLA	-4.22	RAL	213.36	RAD	6569.3	VEL	13.782	PTH	2.52	VHP	4.993	DPA	-35.11	RAP	213.54	ECC	2.1287

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 22 48	2388.32	-23.37	52.80	94.56	106.46	1 2 36	1788.3	-20.89	45.00
90.00	11 17 58	5294.82	27.22	239.98	98.12	81.86	12 46 13	4694.8	25.81	231.59
100.00	1 42 10	2132.31	-24.76	33.51	94.10	107.31	2 17 42	1532.3	-22.16	25.68
100.00	12 41 17	5026.06	28.65	219.97	97.88	81.09	14 5 3	4426.1	27.12	211.50
110.00	2 45 52	1932.88	-28.50	16.97	92.70	109.72	3 18 4	1332.9	-25.55	9.04
110.00	13 54 5	4798.25	32.54	201.88	97.08	78.90	15 14 3	4198.3	30.67	193.16

DIFFERENTIAL CORRECTIONS

TDE	.3842	TRA	-.8489	TC3	-.1320	BAU	.2253		
RDE	-.3392	RRA	-.3102	RC3	-.2072	FAU	.09098		
FDE	1.2866	FRA	-.8916	FC3	-1.1485	BSP	1577		
BDE	.5125	BRA	.9038	BC3	.2457	FSP	-538		

MID-COURSE EXECUTION ACCURACY

SGT	682.1	SGR	468.2	SG3	189.2
RRT	.4365	RRF	.5630	RTF	.6808
SGB	827.3	R23	.1246	R13	.7316
SG1	726.8	SG2	395.3	THA	24.28

ORBIT DETERMINATION ACCURACY

ST	319.2	SR	243.6	SS	393.1
CRT	-.6545	CRS	.8846	CST	-.9275
LSA	537.9	MSA	161.4	SSA	18.9
EL1	368.5	EL2	159.6	ALF	146.34

LAUNCH DATE OCT 18 1970 FLIGHT TIME 72.00 ARRIVAL DATE DEC 29 1970

HELIOCENTRIC CONIC DISTANCE 220.964

RL	149.04	LAL	-.00	LOL	24.20	VL	29.927	GAL	-16.46	AZL	87.35	HCA	101.87	SMA	149.91	ECC	.28332	INC	2.6452	V1	29.896
RP	107.48	LAP	2.59	LOP	126.08	VP	39.803	GAP	-.77	AZP	90.54	TAL	254.67	TAP	356.53	RCA	107.44	APO	192.38	V2	35.258
RC	74.992	GL	9.31	GP	-22.81	ZAL	167.29	ZAP	84.03	ETS	359.50	ZAE	153.17	ETE	245.28	ZAC	75.86	ETC	256.93	CLP	-83.52

PLANETOCENTRIC CONIC

C3	67.081	VHL	8.190	DLA	-3.72	RAL	213.86	RAD	6569.3	VEL	13.727	PTH	2.51	VHP	4.909	DPA	-34.99	RAP	211.32	ECC	2.1040

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 20 59	2398.91	-23.57	53.51	94.86	106.16	1 0 58	1798.9	-21.13	45.69
90.00	11 23 46	5273.70	27.00	238.47	97.98	81.14	12 51 40	4673.7	25.50	230.12
100.00	1 40 35	2142.12	-24.96	34.17	94.41	107.01	2 16 18	1542.1	-22.39	26.31
100.00	12 46 51	5005.72	28.43	218.50	97.72	80.35	14 10 17	4405.7	26.80	210.07
110.00	2 44 51	1940.97	-28.69	17.53	93.03	109.44	3 17 12	1341.0	-25.77	9.57
110.00	13 59 5	4779.65	32.29	200.48	96.87	78.11	15 18 45	4179.6	30.32	191.82

DIFFERENTIAL CORRECTIONS

TDE	.4304	TRA	-.9052	TC3	-.1758	BAU	.2517		
RDE	-.3212	RRA	-.3033	RC3	-.2187	FAU	.09324		
FDE	1.3424	FRA	-.8896	FC3	-1.2034	BSP	1843		
BDE	.5370	BRA	.9547	BC3	.2806	FSP	-566		

MID-COURSE EXECUTION ACCURACY

SGT	759.1	SGR	473.4	SG3	196.2
RRT	.4744	RRF	.5842	RTF	.7229
SGB	894.6	R23	.1281	R13	.7624
SG1	803.3	SG2	393.8	THA	22.03

ORBIT DETERMINATION ACCURACY

ST	356.3	SR	233.8	SS	406.9
CRT	-.6651	CRS	.8846	CST	-.9328
LSA	566.1	MSA	162.3	SSA	18.9
EL1	396.2	EL2	157.0	ALF	151.56

LAUNCH DATE OCT 18 1970 FLIGHT TIME 74.00 ARRIVAL DATE DEC 31 1970

HELIOCENTRIC CONIC DISTANCE 227.367

RL	149.04	LAL	-.00	LOL	24.20	VL	29.866	GAL	-16.27	AZL	87.19	HCA	105.11	SMA	149.30	ECC	.28015	INC	2.8060	V1	29.896
RP	107.48	LAP	2.71	LOP	129.33	VP	39.758	GAP	-.18	AZP	90.73	TAL	254.07	TAP	359.18	RCA	107.48	APO	191.13	V2	35.259
RC	77.186	GL	9.98	GP	-23.40	ZAL	166.56	ZAP	88.62	ETS	357.63	ZAE	151.23	ETE	239.37	ZAC	75.00	ETC	256.68	CLP	-88.50

PLANETOCENTRIC CONIC

C3	65.630	VHL	8.101	DLA	-3.20	RAL	214.42	RAD	6569.2	VEL	13.674	PTH	2.50	VHP	4.854	DPA	-34.86	RAP	209.26	ECC	2.0801

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 19 24	2409.64	-23.77	54.23	95.23	105.85	0 59 33	1809.6	-21.37	46.38
90.00	11 29 50	5252.52	26.77	236.96	97.91	80.41	12 57 23	4652.5	25.17	228.66
100.00	1 39 15	2152.07	-25.15	34.85	94.79	106.71	2 15 7	1552.1	-22.62	26.96
100.00	12 52 41	4985.32	28.19	217.03	97.63	79.61	14 15 46	4385.3	26.46	208.65
110.00	2 44 3	1949.18	-28.87	18.10	93.44	109.15	3 16 32	1349.2	-25.99	10.10
110.00	14 4 21	4760.98	32.02	199.10	96.72	77.33	15 23 42	4161.0	29.94	190.50

DIFFERENTIAL CORRECTIONS

TDE	.4806	TRA	-.9632	TC3	-.2225	BAU	.2802		
RDE	-.3033	RRA	-.2936	RC3	-.2290	FAU	.09457		
FDE	1.3852	FRA	-.8754	FC3	-1.2475	BSP	2127		
BDE	.5683	BRA	1.0070	BC3	.3193	FSP	-588		

MID-COURSE EXECUTION ACCURACY

SGT	843.3	SGR	476.4	SG3	201.3
RRT	.5048	RRF	.6025	RTF	.7557
SGB	968.5	R23	.1330	R13	.7867
SG1	885.9	SG2	391.5	THA	19.98

ORBIT DETERMINATION ACCURACY

ST	397.0	SR	223.7	SS	418.9
CRT	-.6760	CRS	.8855	CST	-.9374
LSA	597.0	MSA	162.3	SSA	19.0
EL1	429.4	EL2	152.4	ALF	155.93

LAUNCH DATE OCT 18 1970 FLIGHT TIME 76.00 ARRIVAL DATE JAN 2 1971

HELIOCENTRIC CONIC DISTANCE 233.723

RL	149.04	LAL	-.00	LOL	24.20	VL	29.801	GAL	-16.08	AZL	87.03	HCA	108.35	SMA	148.65	ECC	.27703	INC	2.9718	V1	29.896
RP	107.48	LAP	2.82	LOP	132.58	VP	39.709	GAP	.38	AZP	90.94	TAL	253.39	TAP	1.74	RCA	107.47	APO	189.83	V2	35.259
RC	79.396	GL	10.68	GP	-23.95	ZAL	165.76	ZAP	93.04	ETS	355.73	ZAE	149.15	ETE	234.28	ZAC	74.20	ETC	256.46	CLP	-93.33

PLANETOCENTRIC CONIC

C3	64.222	VHL	8.014	DLA	-2.68	RAL	215.04	RAD	6569.2	VEL	13.623	PTH	2.49	VHP	4.824	DPA	-34.74	RAP	207.38	ECC	2.0569

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 17 58	2420.70	-23.98	54.98	95.66	105.53	0 58 19	1820.7	-21.62	47.10
90.00	11 36 13	5231.05	26.52	235.44	97.89	79.69	13 3 24	4631.0	24.83	227.18
100.00	1 38 4	2162.33	-25.35	35.54	95.23	106.39	2 14 6	1562.3	-22.86	27.63
100.00	12 58 48	4964.64	27.93	215.55	97.59	78.88	14 21 33	4364.6	26.11	207.22
110.00	2 43 26	1957.68	-29.06	18.69	93.91	108.84	3 16 4	1357.7	-26.21	10.66
110.00	14 9 55	4742.06	31.73	197.70	96.64	76.55	15 28 57	4142.1	29.55	189.16

DIFFERENTIAL CORRECTIONS

TDE	.5347	TRA	-1.0223	TC3	-.2715	BAU	.3100		
RDE	-.2857	RRA	-.2815	RC3	-.2381	FAU	.09500		
FDE	1.4147	FRA	-.8508	FC3	-1.2807	BSP	2428		
BDE	.6062	BRA	1.0604	BC3	.3611	FSP	-605		

MID-COURSE EXECUTION ACCURACY

SGT	933.2	SGR	477.4	SG3	204.6
RRT	.5284	RRF	.6187	RTF	.7808
SGB	1048.3	R23	.1397	R13	.8056
SG1	973.6	SG2	388.5	THA	18.11

ORBIT DETERMINATION ACCURACY

ST	441.0	SR	213.3	SS	429.1
CRT	-.6873	CRS	.8871	CST	-.9416
LSA	630.7	MSA	161.4	SSA	19.0
EL1	467.6	EL2	146.1	ALF	159.52

LAUNCH DATE OCT 18 1970 FLIGHT TIME 78.00 ARRIVAL DATE JAN 4 1971

HELIOCENTRIC CONIC DISTANCE 240.036

RL 149.04 LAL -.00 LOL 24.20 VL 29.730 GAL -15.90 AZL 86.86 HCA 111.60 SMA 147.95 ECC .27397 INC 3.1439 V1 29.896
RP 107.48 LAP 2.92 LOP 135.83 VP 39.656 GAP .91 AZP 91.16 TAL 252.62 TAP 4.22 RCA 107.42 APO 188.49 V2 35.258
RC 81.621 GL 11.41 GP -24.47 ZAL 164.91 ZAP 97.25 ETS 353.81 ZAE 146.99 ETE 229.96 ZAC 73.44 ETC 256.27 CLP -97.97

PLANETOCENTRIC CONIC

C3 62.854 VHL 7.928 DLA -2.14 RAL 215.72 RAD 6569.2 VEL 13.572 PTH 2.48 VHP 4.818 DPA -34.67 RAP 205.70 ECC 2.0344

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 16 39	2432.28	-24.19	55.76	96.17	105.19	0 57 11	1832.3	-21.87	47.86
90.00	11 42 55	5209.09	26.24	233.89	97.94	78.96	13 9 45	4609.1	24.46	225.68
100.00	1 37 0	2173.10	-25.56	36.28	95.74	106.06	2 13 13	1573.1	-23.11	28.33
100.00	13 5 16	4943.50	27.64	214.04	97.62	78.13	14 27 39	4343.5	25.72	205.76
110.00	2 42 57	1966.63	-29.26	19.31	94.45	108.52	3 15 44	1366.6	-26.45	11.25
110.00	14 15 48	4722.73	31.41	196.28	96.61	75.77	15 34 31	4122.7	29.14	187.81

DIFFERENTIAL CORRECTIONS
TDE .5921 TRA-1.0818 TC3 -.3223 BAU .3406
RDE -.2681 RRA -.2668 RC3 -.2459 FAU .09457
FDE 1.4329 FRA -.8159 FC3-1.3026 BSP 2745
BDE .6500 BRA 1.1142 BC3 .4054 FSP -616

MID-COURSE EXECUTION ACCURACY
SGT 1027.8 SGR 476.2 SG3 206.0
RRT .5462 RRF .6327 RTF .7998
SGB 1132.8 R23 .1480 R13 .8201
SG1 1065.4 SG2 384.8 THA 16.40

ORBIT DETERMINATION ACCURACY
ST 488.3 SR 202.5 SS 438.0
CRT -.6991 CRS .8897 CST -.9450
LSA 667.4 MSA 159.7 SSA 19.0
EL1 510.1 EL2 138.6 ALF 162.50

LAUNCH DATE OCT 18 1970 FLIGHT TIME 80.00 ARRIVAL DATE JAN 6 1971

HELIOCENTRIC CONIC DISTANCE 246.307

RL 149.04 LAL -.00 LOL 24.20 VL 29.655 GAL -15.71 AZL 86.68 HCA 114.84 SMA 147.22 ECC .27095 INC 3.3239 V1 29.896
RP 107.48 LAP 3.02 LOP 139.08 VP 39.598 GAP 1.41 AZP 91.40 TAL 251.78 TAP 6.62 RCA 107.33 APO 187.11 V2 35.256
RC 83.861 GL 12.18 GP -24.99 ZAL 164.00 ZAP 101.23 ETS 351.86 ZAE 144.82 ETE 226.32 ZAC 72.73 ETC 256.10 CLP-102.41

PLANETOCENTRIC CONIC

C3 61.525 VHL 7.844 DLA -1.58 RAL 216.45 RAD 6569.1 VEL 13.523 PTH 2.47 VHP 4.832 DPA -34.67 RAP 204.25 ECC 2.0125

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 15 23	2444.62	-24.40	56.60	96.74	104.83	0 56 8	1844.6	-22.13	48.67
90.00	11 50 3	5186.40	25.94	232.30	98.03	78.22	13 16 29	4586.4	24.05	224.14
100.00	1 36 0	2184.60	-25.77	37.07	96.33	105.69	2 12 24	1584.6	-23.37	29.09
100.00	13 12 7	4921.66	27.32	212.50	97.70	77.38	14 34 9	4321.7	25.31	204.27
110.00	2 42 33	1976.24	-29.46	19.98	95.06	108.17	3 15 30	1376.2	-26.70	11.89
110.00	14 22 3	4702.78	31.07	194.82	96.64	74.97	15 40 26	4102.8	28.69	186.43

DIFFERENTIAL CORRECTIONS
TDE .6532 TRA-1.1407 TC3 -.3743 BAU .3713
RDE -.2504 RRA -.2499 RC3 -.2524 FAU .09335
FDE 1.4410 FRA -.7730 FC3-1.3136 BSP 3065
BDE .6995 BRA 1.1678 BC3 .4515 FSP -620

MID-COURSE EXECUTION ACCURACY
SGT 1125.7 SGR 472.9 SG3 205.8
RRT .5588 RRF .6451 RTF .8141
SGB 1221.0 R23 .1580 R13 .8309
SG1 1160.2 SG2 380.5 THA 14.84

ORBIT DETERMINATION ACCURACY
ST 539.0 SR 191.3 SS 445.8
CRT -.7115 CRS .8933 CST -.9480
LSA 707.7 MSA 157.2 SSA 18.9
EL1 556.9 EL2 130.1 ALF 164.99

LAUNCH DATE OCT 18 1970 FLIGHT TIME 82.00 ARRIVAL DATE JAN 8 1971

HELIOCENTRIC CONIC DISTANCE 252.538

RL 149.04 LAL -.00 LOL 24.20 VL 29.577 GAL -15.51 AZL 86.49 HCA 118.08 SMA 146.47 ECC .26799 INC 3.5136 V1 29.896
RP 107.49 LAP 3.10 LOP 142.33 VP 39.537 GAP 1.89 AZP 91.66 TAL 250.86 TAP 8.95 RCA 107.22 APO 185.72 V2 35.254
RC 86.111 GL 13.01 GP -25.53 ZAL 163.01 ZAP 104.96 ETS 349.87 ZAE 142.66 ETE 223.26 ZAC 72.04 ETC 255.96 CLP-106.62

PLANETOCENTRIC CONIC

C3 60.238 VHL 7.761 DLA -.98 RAL 217.24 RAD 6569.1 VEL 13.476 PTH 2.46 VHP 4.864 DPA -34.76 RAP 203.01 ECC 1.9914

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 14 7	2458.00	-24.63	57.51	97.39	104.42	0 55 5	1858.0	-22.41	49.55
90.00	11 57 38	5162.75	25.60	230.65	98.19	77.46	13 23 40	4562.7	23.62	222.54
100.00	1 35 0	2197.08	-26.00	37.92	96.99	105.30	2 11 37	1597.1	-23.65	29.91
100.00	13 19 25	4898.90	26.97	210.89	97.84	76.60	14 41 4	4298.9	24.86	202.73
110.00	2 42 12	1986.73	-29.68	20.72	95.75	107.79	3 15 19	1386.7	-26.97	12.59
110.00	14 28 43	4682.02	30.69	193.32	96.73	74.16	15 46 45	4082.0	28.22	185.00

DIFFERENTIAL CORRECTIONS
TDE .7176 TRA-1.1986 TC3 -.4271 BAU .4018
RDE -.2326 RRA -.2310 RC3 -.2579 FAU .09148
FDE 1.4405 FRA -.7236 FC3-1.3147 BSP 3391
BDE .7544 BRA 1.2206 BC3 .4989 FSP -619

MID-COURSE EXECUTION ACCURACY
SGT 1226.1 SGR 467.8 SG3 204.1
RRT .5672 RRF .6565 RTF .8248
SGB 1312.3 R23 .1698 R13 .8390
SG1 1257.4 SG2 375.7 THA 13.43

ORBIT DETERMINATION ACCURACY
ST 592.9 SR 179.6 SS 452.7
CRT -.7246 CRS .8978 CST -.9506
LSA 751.4 MSA 154.0 SSA 18.9
EL1 607.6 EL2 120.8 ALF 167.10

LAUNCH DATE OCT 18 1970 FLIGHT TIME 84.00 ARRIVAL DATE JAN 10 1971

HELIOCENTRIC CONIC DISTANCE 258.732

RL 149.04 LAL -.00 LOL 24.20 VL 29.495 GAL -15.32 AZL 86.28 HCA 121.33 SMA 145.69 ECC .26507 INC 3.7151 V1 29.896
RP 107.50 LAP 3.17 LOP 145.58 VP 39.474 GAP 2.34 AZP 91.93 TAL 249.88 TAP 11.21 RCA 107.07 APO 184.31 V2 35.251
RC 88.372 GL 13.89 GP -26.09 ZAL 161.96 ZAP 108.43 ETS 347.83 ZAE 140.55 ETE 220.71 ZAC 71.35 ETC 255.83 CLP-110.61

PLANETOCENTRIC CONIC

C3 58.998 VHL 7.681 DLA -.34 RAL 218.09 RAD 6569.1 VEL 13.430 PTH 2.45 VHP 4.913 DPA -34.97 RAP 201.97 ECC 1.9710

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 12 46	2472.74	-24.88	58.52	98.12	103.98	0 53 59	1872.7	-22.71	50.52
90.00	12 5 45	5137.88	25.22	228.93	98.40	76.68	13 31 23	4537.9	23.14	220.88
100.00	1 33 57	2210.86	-26.24	38.88	97.73	104.85	2 10 48	1610.9	-23.95	30.83
100.00	13 27 15	4874.98	26.59	209.22	98.03	75.81	14 48 30	4275.0	24.37	201.12
110.00	2 41 50	1998.38	-29.92	21.54	96.53	107.35	3 15 8	1398.4	-27.26	13.37
110.00	14 35 52	4660.23	30.28	191.76	96.87	73.32	15 53 32	4060.2	27.70	183.52

DIFFERENTIAL CORRECTIONS
TDE .7855 TRA-1.2553 TC3 -.4806 BAU .4319
RDE -.2145 RRA -.2104 RC3 -.2626 FAU .08911
FDE 1.4327 FRA -.6711 FC3-1.3076 BSP 3731
BDE .8142 BRA 1.2728 BC3 .5476 FSP -616

MID-COURSE EXECUTION ACCURACY
SGT 1328.6 SGR 461.5 SG3 201.3
RRT .5725 RRF .6677 RTF .8328
SGB 1406.5 R23 .1835 R13 .8451
SG1 1356.8 SG2 370.5 THA 12.17

ORBIT DETERMINATION ACCURACY
ST 650.2 SR 167.2 SS 458.9
CRT -.7382 CRS .9029 CST -.9530
LSA 798.9 MSA 150.3 SSA 18.7
EL1 662.1 EL2 110.8 ALF 168.93

LAUNCH DATE OCT 18 1970 FLIGHT TIME 86.00 ARRIVAL DATE JAN 12 1971

HELIOCENTRIC CONIC DISTANCE 264.891

RL	149.04	LAL	-.00	LOL	24.20	VL	29.410	GAL	-15.11	AZL	86.07	HCA	124.57	SMA	144.90	ECC	.26221	INC	3.9309	V1	29.896
RP	107.51	LAP	3.24	LOP	148.83	VP	39.407	GAP	2.77	AZP	92.23	TAL	248.84	TAP	13.41	RCA	106.90	APO	182.89	V2	35.247
RC	90.641	GL	14.83	GP	-26.71	ZAL	160.82	ZAP	111.63	ETS	345.72	ZAE	138.49	ETE	218.60	ZAC	70.65	ETC	255.73	CLP-	114.37

PLANETOCENTRIC CONIC

C3	57.808	VHL	7.603	DLA	.35	RAL	219.01	RAD	6569.1	VEL	13.385	PTH	2.45	VHP	4.977	DPA	-35.32	RAP	201.13	ECC	1.9514

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 11 17	2489.18	-25.15	59.65	98.95	103.47	0 52 46	1889.2	-23.04	51.61
90.00	12 14 31	5111.47	24.79	227.11	98.67	75.86	13 39 42	4511.5	22.61	219.12
100.00	1 32 47	2226.27	-26.51	39.94	98.57	104.35	2 9 53	1626.3	-24.27	31.86
100.00	13 35 41	4849.61	26.15	207.46	98.28	74.98	14 56 31	4249.6	23.83	199.43
110.00	2 41 24	2011.49	-30.19	22.47	97.41	106.86	3 14 56	1411.5	-27.58	14.25
110.00	14 43 34	4637.16	29.82	190.12	97.06	72.45	16 0 51	4037.2	27.13	181.97

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.8621	TRA	-1.3057	TC3	-.5310	BAU	.4582	SGT	1429.1	SGR	448.0	SG3	196.0	ST	714.0	SR	151.0	SS	471.8
RDE	-.1919	RRA	-.1838	RC3	-.2636	FAU	.08518	RRT	.5715	RRF	.6710	RTF	.8365	CRT	-.7553	CRS	.9118	CST	-.9540
FDE	1.4431	FRA	-.5912	FC3	-1.2757	BSP	3942	SGB	1497.7	R23	.1951	R13	.8468	LSA	856.3	MSA	146.8	SSA	18.2
BDE	.8832	BRA	1.3185	BC3	.5929	FSP	-560	SG1	1453.4	SG2	361.5	THA	10.84	EL1	723.2	EL2	97.7	ALF	170.76

LAUNCH DATE OCT 18 1970 FLIGHT TIME 88.00 ARRIVAL DATE JAN 14 1971

HELIOCENTRIC CONIC DISTANCE 271.017

RL	149.04	LAL	-.00	LOL	24.20	VL	29.324	GAL	-14.91	AZL	85.84	HCA	127.81	SMA	144.09	ECC	.25941	INC	4.1642	V1	29.896
RP	107.53	LAP	3.29	LOP	152.08	VP	39.338	GAP	3.18	AZP	92.56	TAL	247.74	TAP	15.55	RCA	106.72	APO	181.47	V2	35.243
RC	92.917	GL	15.86	GP	-27.41	ZAL	159.59	ZAP	114.55	ETS	343.52	ZAE	136.48	ETE	216.85	ZAC	69.92	ETC	255.63	CLP-	117.91

PLANETOCENTRIC CONIC

C3	56.689	VHL	7.529	DLA	1.11	RAL	219.98	RAD	6569.0	VEL	13.343	PTH	2.44	VHP	5.055	DPA	-35.82	RAP	200.46	ECC	1.9330

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 9 34	2507.81	-25.43	60.94	99.89	102.88	0 51 22	1907.8	-23.41	52.86
90.00	12 24 0	5083.25	24.31	225.18	99.00	75.01	13 48 43	4483.3	22.02	217.26
100.00	1 31 25	2243.77	-26.80	41.16	99.53	103.77	2 8 49	1643.8	-24.64	33.03
100.00	13 44 50	4822.52	25.66	205.60	98.59	74.11	15 5 12	4222.5	23.23	197.64
110.00	2 40 51	2026.47	-30.48	23.54	98.40	106.29	3 14 37	1426.5	-27.94	15.26
110.00	14 51 53	4612.59	29.30	188.40	97.32	71.55	16 8 46	4012.6	26.50	180.33

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	.9362	TRA	-1.3601	TC3	-.5857	BAU	.4883	SGT	1535.3	SGR	442.9	SG3	192.1	ST	777.7	SR	138.8	SS	473.9
RDE	-.1750	RRA	-.1621	RC3	-.2683	FAU	.08264	RRT	.5723	RRF	.6863	RTF	.8420	CRT	-.7698	CRS	.9168	CST	-.9566
FDE	1.4143	FRA	-.5471	FC3	-1.2620	BSP	4350	SGB	1597.9	R23	.2153	R13	.8513	LSA	910.0	MSA	142.0	SSA	18.0
BDE	.9525	BRA	1.3697	BC3	.6442	FSP	-577	SG1	1557.3	SG2	358.1	THA	9.90	EL1	785.0	EL2	87.7	ALF	172.08

LAUNCH DATE OCT 18 1970 FLIGHT TIME 90.00 ARRIVAL DATE JAN 16 1971

HELIOCENTRIC CONIC DISTANCE 277.111

RL	149.04	LAL	-.00	LOL	24.20	VL	29.235	GAL	-14.70	AZL	85.58	HCA	131.05	SMA	143.29	ECC	.25667	INC	4.4189	V1	29.896
RP	107.54	LAP	3.33	LOP	155.33	VP	39.268	GAP	3.58	AZP	92.90	TAL	246.59	TAP	17.64	RCA	106.51	APO	180.06	V2	35.238
RC	95.197	GL	16.98	GP	-28.20	ZAL	158.27	ZAP	117.20	ETS	341.22	ZAE	134.54	ETE	215.44	ZAC	69.12	ETC	255.55	CLP-	121.24

PLANETOCENTRIC CONIC

C3	55.649	VHL	7.460	DLA	1.94	RAL	221.02	RAD	6569.0	VEL	13.304	PTH	2.43	VHP	5.146	DPA	-36.49	RAP	199.92	ECC	1.9158

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 7 32	2529.15	-25.75	62.42	100.95	102.20	0 49 41	1929.2	-23.81	54.29
90.00	12 34 21	5052.81	23.76	223.12	99.41	74.12	13 58 34	4452.8	21.35	215.28
100.00	1 29 47	2263.86	-27.11	42.57	100.61	103.09	2 7 31	1663.9	-25.04	34.39
100.00	13 54 48	4793.33	25.10	203.61	98.98	73.21	15 14 41	4193.3	22.56	195.73
110.00	2 40 6	2043.77	-30.80	24.79	99.53	105.62	3 14 10	1443.8	-28.35	16.44
110.00	15 0 58	4586.19	28.72	186.56	97.65	70.61	16 17 24	3986.2	25.80	178.60

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.0166	TRA	-1.4111	TC3	-.6394	BAU	.5168	SGT	1641.9	SGR	435.7	SG3	187.1	ST	846.4	SR	124.7	SS	478.3
RDE	-.1562	RRA	-.1376	RC3	-.2716	FAU	.07950	RRT	.5698	RRF	.6993	RTF	.8456	CRT	-.7866	CRS	.9235	CST	-.9586
FDE	1.3907	FRA	-.4951	FC3	-1.2368	BSP	4736	SGB	1698.7	R23	.2360	R13	.8540	LSA	970.3	MSA	137.3	SSA	17.7
BDE	1.0285	BRA	1.4178	BC3	.6947	FSP	-577	SG1	1661.4	SG2	353.8	THA	9.01	EL1	852.1	EL2	76.5	ALF	173.33

LAUNCH DATE OCT 18 1970 FLIGHT TIME 92.00 ARRIVAL DATE JAN 18 1971

HELIOCENTRIC CONIC DISTANCE 283.176

RL	149.04	LAL	-.00	LOL	24.20	VL	29.144	GAL	-14.48	AZL	85.30	HCA	134.28	SMA	142.47	ECC	.25400	INC	4.6998	V1	29.896
RP	107.58	LAP	3.36	LOP	158.58	VP	39.195	GAP	3.95	AZP	93.29	TAL	245.40	TAP	19.68	RCA	106.29	APO	178.66	V2	35.232
RC	97.481	GL	18.22	GP	-29.13	ZAL	156.83	ZAP	119.55	ETS	338.77	ZAE	132.63	ETE	214.32	ZAC	68.24	ETC	255.46	CLP-	124.37

PLANETOCENTRIC CONIC

C3	54.710	VHL	7.397	DLA	2.87	RAL	222.14	RAD	6569.0	VEL	13.269	PTH	2.42	VHP	5.252	DPA	-37.36	RAP	199.49	ECC	1.9004

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 5 4	2553.88	-26.10	64.15	102.16	101.40	0 47 38	1953.9	-24.26	55.96
90.00	12 45 45	5019.69	23.12	220.90	99.91	73.18	14 9 25	4419.7	20.60	213.14
100.00	1 27 45	2287.19	-27.46	44.22	101.84	102.29	2 5 52	1687.2	-25.49	35.97
100.00	14 5 45	4761.61	24.46	201.47	99.45	72.26	15 25 7	4161.6	21.80	193.68
110.00	2 39 4	2063.96	-31.16	26.25	100.82	104.82	3 13 28	1464.0	-28.81	17.83
110.00	15 10 55	4557.60	28.05	184.60	98.07	69.62	16 26 53	3957.6	25.02	176.74

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	1.1047	TRA	-1.4580	TC3	-.6911	BAU	.5437	SGT	1748.2	SGR	427.1	SG3	181.3	ST	921.0	SR	109.1	SS	484.5
RDE	-.1360	RRA	-.1105	RC3	-.2737	FAU	.07593	RRT	.5635	RRF	.7109	RTF	.8480	CRT	-.8065	CRS	.9317	CST	-.9605
FDE	1.3704	FRA	-.4384	FC3	-1.2015	BSP	5096	SGB	1799.6	R23	.2580	R13	.8556	LSA	1037.8	MSA	132.8	SSA	17.2
BDE	1.1131	BRA	1.4621	BC3	.7434	FSP	-566	SG1	1765.4	SG2	349.4	THA	8.16	EL1	925.3	EL2	64.2	ALF	174.52

LAUNCH DATE OCT 18 1970 FLIGHT TIME 94.00 ARRIVAL DATE JAN 20 1971

HELIOCENTRIC CONIC DISTANCE 289.214

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RL  149.04 LAL   -.00 LOL  24.20 VL  29.053 GAL -14.26 AZL  84.99 HCA 137.52 SMA 141.66 ECC .25139 INC 5.0135 V1  29.896
RP  107.58 LAP   3.38 LOP 161.83 VP  39.121 GAP   4.30 AZP  93.70 TAL 244.16 TAP  21.68 RCA 106.05 APO 177.28 V2  35.226
RC  99.767 GL   19.58 GP  -30.21 ZAL 155.25 ZAP 121.60 ETS 336.15 ZAE 130.74 ETE 213.46 ZAC  67.23 ETC 255.37 CLP-127.33
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PLANETOCENTRIC CONIC

```
C3  53.900 VHL  7.342 DLA   3.92 RAL 223.35 RAD 6568.9 VEL 13.239 PTH   2.42 VHP  5.373 DPA -38.43 RAP 199.13 ECC 1.8871
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 2 2	2582.86	-26.47	66.19	103.56	100.45	0 45 5	1982.9	-24.76	57.94
90.00	12 58 23	4983.34	22.39	218.49	100.51	72.19	14 21 26	4383.3	19.74	210.82
100.00	1 25 13	2314.56	-27.84	46.16	103.26	101.34	2 3 47	1714.6	-26.00	37.85
100.00	14 17 53	4726.86	23.72	199.16	100.04	71.25	15 36 40	4126.9	20.94	191.46
110.00	2 37 40	2087.79	-31.56	27.99	102.31	103.86	3 12 28	1487.8	-29.34	19.49
110.00	15 21 55	4526.40	27.30	182.49	98.59	68.58	16 37 22	3926.4	24.14	174.75

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.2015 TRA-1.5010 TC3 -.7408 BAU  .5694   SGT 1855.1 SGR  418.3 SG3  174.8     ST  1002.2 SR    92.4 SS   492.1
RDE -.1147 RRA -.0812 RC3 -.2749 FAU .07209   RRT  .5537 RRF  .7217 RTF  .8497    CRT -.8305 CRS  .9414 CST -.9624
FDE 1.3519 FRA -.3809 FC3-1.1580 BSP   5451   SGB 1901.6 R23  .2813 R13  .8566    LSA 1112.7 MSA  128.6 SSA   16.5
BDE 1.2069 BRA 1.5032 BC3  .7902 FSP   -551   SG1 1870.0 SG2  345.5 THA   7.37    EL1 1005.1 EL2   51.3 ALF 175.61
```

LAUNCH DATE OCT 18 1970 FLIGHT TIME 96.00 ARRIVAL DATE JAN 22 1971

HELIOCENTRIC CONIC DISTANCE 295.226

```
RL  149.04 LAL   -.00 LOL  24.20 VL  28.960 GAL -14.03 AZL  84.63 HCA 140.75 SMA 140.86 ECC .24886 INC 5.3683 V1  29.896
RP  107.60 LAP   3.39 LOP 165.07 VP  39.046 GAP   4.64 AZP  94.16 TAL 242.88 TAP  23.63 RCA 105.80 APO 175.91 V2  35.218
RC 102.053 GL   21.11 GP  -31.49 ZAL 153.52 ZAP 123.34 ETS 333.32 ZAE 128.84 ETE 212.82 ZAC  66.05 ETC 255.27 CLP-130.13
```

PLANETOCENTRIC CONIC

```
C3  53.258 VHL  7.298 DLA   5.11 RAL 224.64 RAD 6568.9 VEL 13.214 PTH   2.41 VHP  5.511 DPA -39.74 RAP 198.78 ECC 1.8765
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 54 19	2617.17	-26.87	68.62	105.19	99.29	24 37 56	2017.2	-25.31	60.30
90.00	13 12 32	4943.09	21.53	215.86	101.26	71.14	14 34 55	4343.1	18.75	208.28
100.00	1 22 0	2347.04	-28.26	48.49	104.92	100.18	2 1 7	1747.0	-26.56	40.10
100.00	14 31 28	4688.46	22.85	196.63	100.75	70.19	15 49 36	4088.5	19.95	189.04
110.00	2 35 46	2116.17	-32.01	30.08	104.04	102.70	3 11 2	1516.2	-29.93	21.49
110.00	15 34 11	4492.09	26.42	180.21	99.23	67.48	16 49 3	3892.1	23.14	172.59

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.3089 TRA-1.5398 TC3 -.7875 BAU  .5939   SGT 1962.3 SGR  409.7 SG3  167.7     ST  1090.8 SR    74.7 SS   500.7
RDE -.0928 RRA -.0493 RC3 -.2749 FAU .06805   RRT  .5393 RRF  .7310 RTF  .8510    CRT -.8610 CRS  .9522 CST -.9643
FDE 1.3345 FRA -.3235 FC3-1.1062 BSP   5805   SGB 2004.6 R23  .3059 R13  .8573    LSA 1195.9 MSA  125.1 SSA   15.6
BDE 1.3122 BRA 1.5406 BC3  .8341 FSP   -532   SG1 1975.1 SG2  342.8 THA   6.62    EL1 1092.7 EL2   37.9 ALF 176.62
```

LAUNCH DATE OCT 18 1970 FLIGHT TIME 98.00 ARRIVAL DATE JAN 24 1971

HELIOCENTRIC CONIC DISTANCE 301.214

```
RL  149.04 LAL   -.00 LOL  24.20 VL  28.867 GAL -13.79 AZL  84.22 HCA 143.98 SMA 140.06 ECC .24640 INC 5.7755 V1  29.896
RP  107.63 LAP   3.39 LOP 168.32 VP  38.970 GAP   4.97 AZP  94.68 TAL 241.56 TAP  25.54 RCA 105.55 APO 174.56 V2  35.211
RC 104.339 GL   22.84 GP  -33.01 ZAL 151.60 ZAP 124.72 ETS 330.25 ZAE 126.91 ETE 212.39 ZAC  64.66 ETC 255.14 CLP-132.79
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PLANETOCENTRIC CONIC

```
C3  52.837 VHL  7.269 DLA   6.48 RAL 226.05 RAD 6568.9 VEL 13.198 PTH   2.41 VHP  5.671 DPA -41.31 RAP 198.38 ECC 1.8696
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 49 32	2658.28	-27.29	71.56	107.10	97.88	24 33 50	2058.3	-25.92	63.16
90.00	13 28 33	4898.06	20.51	212.95	102.17	70.03	14 50 11	4298.1	17.60	205.48
100.00	1 17 53	2385.98	-28.69	51.30	106.86	98.76	1 57 39	1786.0	-27.18	42.82
100.00	14 46 49	4645.60	21.84	193.85	101.64	69.07	16 4 14	4045.6	18.80	186.38
110.00	2 33 11	2150.33	-32.49	32.63	106.09	101.26	3 9 1	1550.3	-30.60	23.92
110.00	15 48 0	4454.01	25.40	177.72	100.05	66.32	17 2 14	3854.0	21.98	170.23

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.4391 TRA-1.5657 TC3 -.8236 BAU  .6123   SGT 2064.7 SGR  396.3 SG3  159.2     ST  1194.5 SR    53.6 SS   517.5
RDE -.0663 RRA -.0098 RC3 -.2702 FAU .06293   RRT  .5141 RRF  .7330 RTF  .8500    CRT -.9053 CRS  .9604 CST -.9660
FDE 1.3365 FRA -.2479 FC3-1.0311 BSP   5950   SGB 2102.4 R23  .3310 R13  .8556    LSA 1296.8 MSA  124.4 SSA   14.1
BDE 1.4406 BRA 1.5657 BC3  .8667 FSP   -473   SG1 2075.0 SG2  338.2 THA   5.79    EL1 1195.5 EL2   22.7 ALF 177.67
```

LAUNCH DATE OCT 18 1970 FLIGHT TIME 100.00 ARRIVAL DATE JAN 26 1971

HELIOCENTRIC CONIC DISTANCE 307.178

```
RL  149.04 LAL   -.00 LOL  24.20 VL  28.774 GAL -13.55 AZL  83.75 HCA 147.21 SMA 139.26 ECC .24402 INC 6.2510 V1  29.896
RP  107.65 LAP   3.38 LOP 171.56 VP  38.893 GAP   5.28 AZP  95.26 TAL 240.20 TAP  27.41 RCA 105.28 APO 173.25 V2  35.202
RC 106.624 GL   24.80 GP  -34.82 ZAL 149.45 ZAP 125.73 ETS 326.90 ZAE 124.88 ETE 212.13 ZAC  63.01 ETC 254.98 CLP-135.34
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PLANETOCENTRIC CONIC

```
C3  52.730 VHL  7.262 DLA   8.06 RAL 227.59 RAD 6568.9 VEL 13.194 PTH   2.41 VHP  5.861 DPA -43.16 RAP 197.85 ECC 1.8678
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 43 26	2708.14	-27.70	75.15	109.37	96.12	24 28 34	2108.1	-26.56	66.67
90.00	13 46 56	4847.20	19.29	209.71	103.33	68.86	15 7 43	4247.2	16.25	202.36
100.00	1 12 36	2433.23	-29.14	54.74	109.18	97.00	1 53 9	1833.2	-27.86	46.17
100.00	15 4 23	4597.34	20.63	190.78	102.77	67.88	16 21 0	3997.3	17.45	183.43
110.00	2 29 43	2191.88	-33.00	35.77	108.53	99.47	3 6 15	1591.9	-31.34	26.93
110.00	16 3 45	4411.46	24.21	174.99	101.08	65.10	17 17 16	3811.5	20.65	167.65

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.5713 TRA-1.6017 TC3 -.8648 BAU  .6387   SGT 2178.0 SGR  394.3 SG3  151.8     ST  1298.2 SR    40.0 SS   522.4
RDE -.0478 RRA  .0250 RC3 -.2699 FAU .05931   RRT  .4891 RRF  .7391 RTF  .8537    CRT -.9372 CRS  .9373 CST -.9687
FDE 1.3048 FRA -.2111 FC3 -.9738 BSP   6504   SGB 2213.5 R23  .3565 R13  .8588    LSA 1394.6 MSA  120.7 SSA   13.1
BDE 1.5721 BRA 1.6019 BC3  .9060 FSP   -487   SG1 2186.8 SG2  342.6 THA   5.19    EL1 1298.7 EL2   13.9 ALF 178.35
```

LAUNCH DATE OCT 18 1970 FLIGHT TIME 102.00 ARRIVAL DATE JAN 28 1971

HELIOCENTRIC CONIC DISTANCE 313.121

```
RL  149.04 LAL   -.00 LOL  24.20 VL  28.680 GAL -13.30 AZL  83.18 HCA 150.43 SMA 138.48 ECC .24172 INC 6.8175 V1  29.896
RP  107.68 LAP   3.36 LOP 174.81 VP  38.816 GAP   5.57 AZP  95.94 TAL 238.81 TAP  29.25 RCA 105.01 APO 171.95 V2  35.193
RC 108.906 GL   27.06 GP  -36.99 ZAL 147.02 ZAP 126.29 ETS 323.22 ZAE 122.71 ETE 212.02 ZAC  61.01 ETC 254.75 CLP-137.82
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PLANETOCENTRIC CONIC

```
C3  53.055 VHL  7.284 DLA   9.90 RAL 229.29 RAD 6568.9 VEL 13.207 PTH   2.41 VHP  6.089 DPA -45.35 RAP 197.06 ECC 1.8731
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 35 33	2769.44	-28.07	79.60	112.10	93.92	24 21 43	2169.4	-27.23	71.03
90.00	14 8 22	4788.93	17.82	206.07	104.82	67.62	15 28 11	4188.9	14.63	198.85
100.00	1 5 43	2491.33	-29.54	59.01	111.97	94.79	1 47 15	1891.3	-28.56	50.35
100.00	15 24 49	4542.28	19.18	187.33	104.21	66.62	16 40 31	3942.3	15.86	180.12
110.00	2 25 4	2243.01	-33.50	39.67	111.48	97.21	3 2 27	1643.0	-32.14	30.70
110.00	16 21 57	4363.36	22.80	171.97	102.42	63.81	17 34 40	3763.4	19.09	164.79

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.7375 TRA-1.6229 TC3 -.8902 BAU  .6585   SGT 2286.7 SGR  388.2 SG3  142.8     ST  1421.5 SR    29.1 SS   535.4
RDE -.0266 RRA  .0697 RC3 -.2633 FAU .05458   RRT  .4469 RRF  .7316 RTF  .8558    CRT -.8365 CRS  .7233 CST -.9713
FDE 1.2919 FRA -.1574 FC3 -.8905 BSP   6853   SGB 2319.5 R23  .3802 R13  .8603    LSA 1514.4 MSA  120.1 SSA   11.6
BDE 1.7377 BRA 1.6244 BC3  .9284 FSP   -461   SG1 2293.5 SG2  346.2 THA   4.44    EL1 1421.7 EL2   16.0 ALF 179.02
```

LAUNCH DATE OCT 18 1970 FLIGHT TIME 104.00 ARRIVAL DATE JAN 30 1971

HELIOCENTRIC CONIC DISTANCE 319.042

```
RL  149.04 LAL   -.00 LOL  24.20 VL  28.586 GAL -13.04 AZL  82.49 HCA 153.65 SMA 137.71 ECC .23950 INC 7.5083 V1  29.896
RP  107.71 LAP   3.32 LOP 178.05 VP  38.738 GAP   5.85 AZP  96.74 TAL 237.39 TAP  31.05 RCA 104.73 APO 170.69 V2  35.184
RC 111.186 GL   29.68 GP  -39.61 ZAL 144.24 ZAP 126.34 ETS 319.16 ZAE 120.32 ETE 211.99 ZAC  58.58 ETC 254.42 CLP-140.27
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PLANETOCENTRIC CONIC

```
C3  54.014 VHL  7.349 DLA  12.08 RAL 231.19 RAD 6569.0 VEL 13.243 PTH   2.42 VHP  6.373 DPA -47.90 RAP 195.83 ECC 1.8889
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 25 13	2846.12	-28.30	85.19	115.42	91.12	24 12 39	2246.1	-27.84	76.56
90.00	14 33 53	4721.12	16.01	201.91	106.77	66.33	15 52 34	4121.1	12.68	194.82
100.00	0 56 39	2563.91	-29.83	64.39	115.37	91.97	1 39 23	1963.9	-29.24	55.64
100.00	15 49 3	4478.56	17.41	183.42	106.12	65.31	17 3 42	3878.6	13.94	176.35
110.00	2 18 49	2306.81	-33.94	44.60	115.11	94.33	2 57 16	1706.8	-32.97	35.50
110.00	16 43 23	4308.43	21.11	168.60	104.20	62.47	17 55 11	3708.4	17.26	161.59

```
DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.9459 TRA-1.6291 TC3 -.8966 BAU  .6721   SGT 2392.7 SGR  380.7 SG3  132.5     ST  1566.7 SR    32.3 SS   554.1
RDE -.0059 RRA  .1256 RC3 -.2498 FAU .04904   RRT  .3809 RRF  .7058 RTF  .8576    CRT -.3606 CRS  .1518 CST -.9739
FDE 1.2897 FRA -.0953 FC3 -.7860 BSP   7041   SGB 2422.8 R23  .4023 R13  .8613    LSA 1657.6 MSA  122.2 SSA    9.8
BDE 1.9459 BRA 1.6339 BC3  .9308 FSP   -411   SG1 2397.2 SG2  351.3 THA   3.54    EL1 1566.8 EL2   30.2 ALF 179.57
```

LAUNCH DATE OCT 18 1970 FLIGHT TIME 106.00 ARRIVAL DATE FEB 1 1971

HELIOCENTRIC CONIC DISTANCE 324.941

```
RL  149.04 LAL   -.00 LOL  24.20 VL  28.492 GAL -12.78 AZL  81.62 HCA 156.86 SMA 136.95 ECC .23737 INC 8.3754 V1  29.896
RP  107.74 LAP   3.28 LOP 181.29 VP  38.660 GAP   6.12 AZP  97.71 TAL 235.94 TAP  32.81 RCA 104.44 APO 169.45 V2  35.174
RC 113.462 GL   32.76 GP  -42.78 ZAL 141.01 ZAP 125.76 ETS 314.67 ZAE 117.60 ETE 211.97 ZAC  55.60 ETC 253.92 CLP-142.78
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PLANETOCENTRIC CONIC

```
C3  55.958 VHL  7.481 DLA  14.66 RAL 233.36 RAD 6569.0 VEL 13.316 PTH   2.43 VHP  6.740 DPA -50.86 RAP 193.88 ECC 1.9209
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 11 19	2944.07	-28.22	92.36	119.51	87.54	24 0 23	2344.1	-28.26	83.69
90.00	15 5 3	4640.61	13.75	197.08	109.42	65.00	16 22 24	4040.6	10.27	190.14
100.00	0 44 28	2656.33	-29.85	71.26	119.57	88.36	1 28 44	2056.3	-29.76	62.45
100.00	16 18 31	4403.59	15.23	178.93	108.70	63.96	17 31 55	3803.6	11.60	172.01
110.00	2 10 20	2387.68	-34.18	50.90	119.62	90.61	2 50 7	1787.7	-33.72	41.69
110.00	17 9 9	4245.00	19.07	164.81	106.61	61.08	18 19 54	3645.0	15.06	157.98

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 2.1916 TRA-1.6375 TC3 -.8923 BAU  .6902   SGT 2506.1 SGR  380.7 SG3  121.8     ST  1723.5 SR    45.5 SS   565.5
RDE  .0006 RRA  .1866 RC3 -.2345 FAU .04412   RRT  .2910 RRF  .6558 RTF  .8640    CRT -.2050 CRS -.0028 CST -.9773
FDE 1.2671 FRA -.0583 FC3 -.6826 BSP   7578   SGB 2534.9 R23  .4170 R13  .8668    LSA 1810.4 MSA  122.3 SSA    8.4
BDE 2.1916 BRA 1.6480 BC3  .9226 FSP   -402   SG1 2508.6 SG2  363.9 THA   2.59    EL1 1723.6 EL2   44.6 ALF 179.69
```

LAUNCH DATE OCT 18 1970 FLIGHT TIME 108.00 ARRIVAL DATE FEB 3 1971

HELIOCENTRIC CONIC DISTANCE 330.818

```
RL  149.04 LAL   -.00 LOL  24.20 VL  28.399 GAL -12.51 AZL  80.50 HCA 160.07 SMA 136.20 ECC .23531 INC 9.5038 V1  29.896
RP  107.77 LAP   3.23 LOP 184.52 VP  38.582 GAP   6.38 AZP  98.94 TAL 234.47 TAP  34.54 RCA 104.15 APO 168.25 V2  35.164
RC 115.736 GL   36.40 GP  -46.65 ZAL 137.22 ZAP 124.44 ETS 309.64 ZAE 114.40 ETE 211.79 ZAC  51.92 ETC 253.14 CLP-145.47
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PLANETOCENTRIC CONIC

```
C3  59.508 VHL  7.714 DLA  17.75 RAL 235.88 RAD 6569.1 VEL 13.449 PTH   2.46 VHP  7.239 DPA -54.22 RAP 190.69 ECC 1.9793
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 51 52	3072.97	-27.49	101.71	124.52	82.91	23 43 5	2473.0	-28.18	93.11
90.00	15 44 40	4541.84	10.84	191.29	113.15	63.68	17 0 22	3941.8	7.22	184.49
100.00	0 27 33	2777.09	-29.28	80.19	124.76	83.70	1 13 50	2177.1	-29.85	71.43
100.00	16 55 36	4312.95	12.45	173.63	112.32	62.60	18 7 29	3713.0	8.68	166.87
110.00	1 58 36	2492.19	-33.95	59.05	125.27	85.79	2 40 9	1892.2	-34.16	49.81
110.00	17 41 1	4170.62	16.56	160.50	109.98	59.66	18 50 32	3570.6	12.41	153.85

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 2.5230 TRA-1.6211 TC3 -.8527 BAU  .6980   SGT 2615.4 SGR  382.1 SG3  109.4     ST  1912.3 SR    64.2 SS   583.4
RDE -.0092 RRA  .2696 RC3 -.2068 FAU .03819   RRT  .1411 RRF  .5472 RTF  .8719    CRT -.2961 CRS  .1055 CST -.9808
FDE 1.2554 FRA -.0136 FC3 -.5556 BSP   7917   SGB 2643.2 R23  .4258 R13  .8732    LSA 1996.4 MSA  125.0 SSA    6.7
BDE 2.5230 BRA 1.6434 BC3  .8774 FSP   -364   SG1 2616.0 SG2  378.2 THA   1.21    EL1 1912.4 EL2   61.3 ALF 179.43
```

LAUNCH DATE OCT 18 1970 FLIGHT TIME 110.00 ARRIVAL DATE FEB 5 1971

HELIOCENTRIC CONIC DISTANCE 336.671

```
RL  149.04 LAL   -.00 LOL  24.20 VL  28.306 GAL -12.23 AZL  78.96 HCA 163.26 SMA 135.47 ECC .23331 INC11.0425 V1  29.896
RP  107.80 LAP   3.16 LOP 187.76 VP  38.503 GAP   6.62 AZP 100.59 TAL 232.96 TAP  36.22 RCA 103.86 APO 167.08 V2  35.153
RC 118.005 GL   40.74 GP  -51.37 ZAL 132.71 ZAP 122.20 ETS 303.85 ZAE 110.53 ETE 211.12 ZAC  47.34 ETC 251.87 CLP-148.61
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PLANETOCENTRIC CONIC

```
C3  65.908 VHL  8.118 DLA  21.45 RAL 238.93 RAD 6569.3 VEL 13.684 PTH   2.50 VHP  7.955 DPA -57.92 RAP 185.41 ECC 2.0847
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 22 39	3251.02	-25.35	114.30	130.53	76.95	23 16 50	2651.0	-26.90	105.97
90.00	16 38 10	4413.16	6.86	183.93	118.66	62.46	17 51 43	3813.2	3.12	177.25
100.00	0 2 41	2941.12	-27.47	92.03	131.06	77.72	0 51 42	2341.1	-28.89	83.51
100.00	17 44 45	4198.29	8.78	167.10	117.63	61.31	18 54 43	3598.3	4.88	160.48
110.00	1 41 56	2630.62	-32.75	69.67	132.28	79.62	2 25 47	2030.6	-33.84	60.60
110.00	18 21 59	4081.56	13.43	155.49	114.87	58.27	19 30 1	3481.6	9.14	149.03

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 2.9820 TRA-1.5713 TC3 -.7688 BAU  .6928   SGT 2721.6 SGR  398.1 SG3   95.8     ST  2135.0 SR    99.1 SS   605.3
RDE -.0650 RRA  .3848 RC3 -.1644 FAU .03155   RRT -.1023 RRF  .3305 RTF  .8838    CRT -.6025 CRS  .4539 CST -.9846
FDE 1.2476 FRA  .0298 FC3 -.4144 BSP   8127   SGB 2750.5 R23 -.4251 R13 -.8829    LSA 2217.6 MSA  129.5 SSA    5.1
BDE 2.9827 BRA 1.6177 BC3  .7862 FSP   -313   SG1 2721.9 SG2  396.0 THA 179.12    EL1 2135.8 EL2   79.1 ALF 178.40
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LAUNCH DATE OCT 18 1970 FLIGHT TIME 112.00 ARRIVAL DATE FEB 7 1971

HELIOCENTRIC CONIC DISTANCE 342.493

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RL  149.04 LAL   -.00 LOL  24.20 VL  28.214 GAL -11.94 AZL  76.72 HCA 166.44 SMA 134.75 ECC .23138 INC13.2779 V1  29.896
RP  107.84 LAP   3.09 LOP 190.99 VP  38.425 GAP   6.85 AZP 102.92 TAL 231.42 TAP  37.86 RCA 103.57 APO 165.93 V2  35.141
RC 120.271 GL   45.90 GP  -57.14 ZAL 127.28 ZAP 118.87 ETS 296.76 ZAE 105.70 ETE 209.22 ZAC  41.61 ETC 249.61 CLP-152.86
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PLANETOCENTRIC CONIC

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C3  77.944 VHL  8.829 DLA  25.83 RAL 242.76 RAD 6569.5 VEL 14.117 PTH   2.57 VHP  9.062 DPA -61.60 RAP 176.48 ECC 2.2828
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	21 29 40	3529.36	-19.80	132.78	136.89	69.34	22 28 29	2929.4	-22.44	125.10
90.00	18 1 44	4213.69	.48	172.74	127.59	61.69	19 11 58	3613.7	-3.31	166.11
100.00	23 17 16	3182.46	-22.90	108.48	138.12	70.24	24 10 18	2582.5	-25.38	100.56
100.00	18 56 49	4035.83	3.37	158.08	125.99	60.28	20 4 5	3435.8	-.61	151.55
110.00	1 16 55	2820.40	-29.57	83.53	140.66	72.01	2 3 55	2220.4	-31.74	74.99
110.00	19 17 35	3970.65	9.39	149.45	122.30	56.98	20 23 46	3370.6	4.97	143.14

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 3.6312 TRA-1.4773 TC3 -.6375 BAU  .6739   SGT 2820.4 SGR  468.8 SG3   81.1     ST  2378.3 SR   202.3 SS   627.4
RDE -.2525 RRA  .5478 RC3 -.1088 FAU .02488   RRT -.4468 RRF -.0497 RTF  .9044    CRT -.8809 CRS  .8006 CST -.9888
FDE 1.2342 FRA  .0550 FC3 -.2764 BSP   8606   SGB 2859.1 R23 -.4062 R13 -.8999    LSA 2464.4 MSA  132.8 SSA    3.8
BDE 3.6399 BRA 1.5756 BC3  .6467 FSP   -278   SG1 2828.4 SG2  418.2 THA 175.66    EL1 2385.0 EL2   95.5 ALF 175.71
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LAUNCH DATE OCT 18 1970 FLIGHT TIME 114.00 ARRIVAL DATE FEB 9 1971

HELIOCENTRIC CONIC DISTANCE 348.270

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RL  149.04 LAL   -.00 LOL  24.20 VL  28.122 GAL -11.63 AZL  73.16 HCA 169.58 SMA 134.05 ECC .22946 INC16.8356 V1  29.896
RP  107.87 LAP   3.00 LOP 194.22 VP  38.347 GAP   7.06 AZP 106.57 TAL 229.85 TAP  39.43 RCA 103.29 APO 164.81 V2  35.130
RC 122.531 GL   51.84 GP  -64.07 ZAL 120.72 ZAP 114.27 ETS 286.68 ZAE  99.48 ETE 204.12 ZAC  34.42 ETC 245.18 CLP-160.06
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PLANETOCENTRIC CONIC

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C3 102.945 VHL 10.146 DLA  30.79 RAL 247.89 RAD 6570.0 VEL 14.976 PTH   2.70 VHP 10.946 DPA -64.20 RAP 161.71 ECC 2.6942
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
77.37	18 25 22	4257.29	-9.15	181.27	142.22	60.47	19 36 19	3657.3	-13.02	174.54
102.63	21 46 56	3608.94	-9.14	133.44	142.21	60.47	22 47 5	3008.9	-13.00	126.72
77.37	18 25 22	4257.29	-9.15	181.27	142.22	60.47	19 36 19	3657.3	-13.02	174.54
102.63	21 46 56	3608.94	-9.14	133.44	142.21	60.47	22 47 5	3008.9	-13.00	126.72
110.00	0 34 1	3099.63	-22.27	101.92	149.47	63.37	1 25 41	2499.6	-25.66	94.40
110.00	20 41 22	3814.60	3.51	141.20	134.40	55.98	21 44 57	3214.6	-.98	134.99

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 4.6192 TRA-1.2414 TC3 -.4384 BAU  .6059   SGT 2874.3 SGR  713.1 SG3   66.3     ST  2620.1 SR   495.6 SS   667.4
RDE -.8312 RRA  .8072 RC3 -.0400 FAU .01750   RRT -.7734 RRF -.5100 RTF  .9349    CRT -.9728 CRS  .9395 CST -.9933
FDE 1.2493 FRA  .0794 FC3 -.1471 BSP   8926   SGB 2961.4 R23 -.3639 R13 -.9245    LSA 2745.3 MSA  138.3 SSA    2.6
BDE 4.6934 BRA 1.4807 BC3  .4402 FSP   -231   SG1 2928.0 SG2  443.7 THA 168.88    EL1 2664.2 EL2  113.0 ALF 169.55
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LAUNCH DATE OCT 18 1970 FLIGHT TIME 116.00 ARRIVAL DATE FEB 11 1971

HELIOCENTRIC CONIC DISTANCE 353.962

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RL  149.04 LAL   -.00 LOL  24.20 VL  28.032 GAL -11.31 AZL  66.64 HCA 172.64 SMA 133.36 ECC .22743 INC23.3582 V1  29.896
RP  107.91 LAP   2.91 LOP 197.44 VP  38.270 GAP   7.24 AZP 113.19 TAL 228.24 TAP  40.88 RCA 103.03 APO 163.70 V2  35.118
RC 124.786 GL   57.89 GP  -71.62 ZAL 112.91 ZAP 108.36 ETS 267.70 ZAE  91.02 ETE 189.60 ZAC  25.41 ETC 235.21 CLP-177.25
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PLANETOCENTRIC CONIC

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C3 165.537 VHL 12.866 DLA  35.61 RAL 255.27 RAD 6570.8 VEL 16.937 PTH   2.92 VHP 14.622 DPA -63.24 RAP 141.05 ECC 3.7243
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.44	17 51 17	4544.91	-6.89	201.97	155.58	54.97	19 7 2	3944.9	-11.43	195.71
112.56	23 19 56	3503.83	-6.87	123.92	155.57	54.97	24 18 20	2903.8	-11.41	117.66
67.44	17 51 17	4544.91	-6.89	201.97	155.58	54.97	19 7 2	3944.9	-11.43	195.71
112.56	23 19 56	3503.83	-6.87	123.92	155.57	54.97	24 18 20	2903.8	-11.41	117.66
67.44	17 51 17	4544.91	-6.89	201.97	155.58	54.97	19 7 2	3944.9	-11.43	195.71
112.56	23 19 56	3503.83	-6.87	123.92	155.57	54.97	24 18 20	2903.8	-11.41	117.66

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 5.9135 TRA -.5684 TC3 -.1863 BAU  .4125   SGT 2694.8 SGR 1422.1 SG3   53.4     ST  2635.1 SR  1284.7 SS   761.8
RDE-2.8525 RRA 1.1670 RC3  .0058 FAU .00921   RRT -.9267 RRF -.8269 RTF  .9762    CRT -.9935 CRS  .9836 CST -.9978
FDE 1.3535 FRA  .1146 FC3 -.0482 BSP   9209   SGB 3047.0 R23 -.2843 R13 -.9565    LSA 3025.4 MSA  147.3 SSA    1.5
BDE 6.5656 BRA 1.2980 BC3  .1864 FSP   -186   SG1 3009.2 SG2  478.7 THA 153.21    EL1 2928.6 EL2  132.1 ALF 154.10
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LAUNCH DATE OCT 18 1970 FLIGHT TIME 118.00 ARRIVAL DATE FEB 13 1971

HELIOCENTRIC CONIC DISTANCE 359.422

RL 149.04 LAL -.00 LOL 24.20 VL 27.942 GAL -10.93 AZL 51.51 HCA 175.49 SMA 132.69 ECC .22487 INC38.4861 V1 29.896
RP 107.95 LAP 2.81 LOP 200.66 VP 38.193 GAP 7.15 AZP 128.40 TAL 226.53 TAP 42.01 RCA 102.86 APO 162.53 V2 35.105
RC 127.036 GL 60.41 GP -73.70 ZAL 104.18 ZAP 101.46 ETS 225.77 ZAE 77.84 ETE 151.51 ZAC 15.54 ETC 223.67 CLP 135.07

PLANETOCENTRIC CONIC

C3 385.475 VHL 19.634 DLA 37.04 RAL 266.58 RAD 6572.1 VEL 22.512 PTH 3.26 VHP 23.469 DPA -54.37 RAP 122.21 ECC 7.3439

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.06	18 23 31	4696.84	-2.49	210.96	173.29	53.03	19 41 48	4096.8	-7.28	204.94
114.94	0 21 48	3579.56	-2.48	126.79	173.27	53.03	1 21 27	2979.6	-7.26	120.77
65.06	18 23 31	4696.84	-2.49	210.96	173.29	53.03	19 41 48	4096.8	-7.28	204.94
114.94	0 21 48	3579.56	-2.48	126.79	173.27	53.03	1 21 27	2979.6	-7.26	120.77
65.06	18 23 31	4696.84	-2.49	210.96	173.29	53.03	19 41 48	4096.8	-7.28	204.94
114.94	0 21 48	3579.56	-2.48	126.79	173.27	53.03	1 21 27	2979.6	-7.26	120.77

DIFFERENTIAL CORRECTIONS
TDE 4.5522 TRA 1.2323 TC3 -.0069 BAU .4504
RDE-9.2399 RRA .4916 RC3 -.0871 FAU-.00461
FDE 1.7617 FRA .2614 FC3 .0104 BSP 9044
BDE10.3004 BRA 1.3267 BC3 .0874 FSP -149

MID-COURSE EXECUTION ACCURACY
SGT 1403.0 SGR 2724.0 SG3 45.3
RRT -.9137 RRF -.9680 RTF .9851
SGB 3064.1 R23 -.1667 R13 -.9852
SG1 3020.6 SG2 514.3 THA 116.01

ORBIT DETERMINATION ACCURACY
ST 1335.3 SR 2697.0 SS 1044.1
CRT -.9926 CRS .9971 CST -.9990
LSA 3181.7 MSA 153.9 SSA 1.3
EL1 3006.0 EL2 145.2 ALF 116.24

LAUNCH DATE OCT 18 1970 FLIGHT TIME 120.00 ARRIVAL DATE FEB 15 1971

HELIOCENTRIC CONIC DISTANCE 363.828

RL 149.04 LAL -.00 LOL 24.20 VL 27.853 GAL -10.32 AZL 6.66 HCA 177.29 SMA 132.04 ECC .21945 INC83.3382 V1 29.896
RP 107.99 LAP 2.70 LOP 203.88 VP 38.116 GAP 7.15 AZP 173.33 TAL 224.41 TAP 41.70 RCA 103.06 APO 161.01 V2 35.093
RC 129.278 GL 45.13 GP -51.54 ZAL 96.73 ZAP 95.43 ETS 190.46 ZAE 51.41 ETE 122.61 ZAC 28.03 ETC 259.63 CLP 98.75

PLANETOCENTRIC CONIC

C31474.629 VHL 38.401 DLA 22.25 RAL 281.10 RAD 6573.2 VEL 39.949 PTH 3.56 VHP 47.741 DPA -28.68 RAP 115.62 ECC25.2687

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	1 4 29	3675.97	-16.03	141.88	199.47	66.34	2 5 45	3076.0	-19.09	134.55
90.00	19 36 43	4763.71	17.16	204.51	185.47	67.12	20 56 7	4163.7	13.91	197.34
100.00	2 41 54	3361.87	-18.33	119.84	200.54	65.96	3 37 55	2761.9	-21.42	112.41
100.00	20 41 59	4553.04	19.47	188.00	184.44	66.86	21 57 53	3953.0	16.17	180.76
110.00	4 23 23	3044.35	-23.92	98.47	203.28	64.82	5 14 7	2444.3	-27.10	90.75
110.00	21 16 59	4443.33	25.11	177.03	181.78	66.01	22 31 3	3843.3	21.65	169.58

DIFFERENTIAL CORRECTIONS
TDE-3.3690 TRA 1.9832 TC3 -.0656 BAU 3.6025
RD-13.5031 RRA-4.2467 RC3 -.1705 FAU-.05686
FDE 2.6423 FRA 1.0742 FC3 .0334 BSP 7834
BDE13.9171 BRA 4.6869 BC3 .1827 FSP -139

MID-COURSE EXECUTION ACCURACY
SGT 780.3 SGR 2498.7 SG3 43.3
RRT .7457 RRF -.9972 RTF -.6956
SGB 2617.7 R23 -.1196 R13 -.9926
SG1 2568.4 SG2 505.7 THA 76.35

ORBIT DETERMINATION ACCURACY
ST 512.0 SR 2025.5 SS 1640.6
CRT .9582 CRS .9996 CST .9494
LSA 2651.9 MSA 154.2 SSA 1.3
EL1 2084.4 EL2 142.4 ALF 76.32

LAUNCH DATE OCT 18 1970 FLIGHT TIME 122.00 ARRIVAL DATE FEB 17 1971

HELIOCENTRIC CONIC DISTANCE 373.011

RL 149.04 LAL -.00 LOL 24.20 VL 27.765 GAL -10.72 AZL 131.61 HCA 183.88 SMA 131.40 ECC .22801 INC41.6114 V1 29.896
RP 108.03 LAP 2.58 LOP 207.10 VP 38.040 GAP 8.34 AZP 48.45 TAL 223.93 TAP 47.81 RCA 101.44 APO 161.36 V2 35.080
RC 131.513 GL -59.71 GP 69.95 ZAL 102.88 ZAP 100.99 ETS 150.99 ZAE 80.31 ETE 224.01 ZAC 151.19 ETC 249.84 CLP 123.80

PLANETOCENTRIC CONIC

C3 440.228 VHL 20.982 DLA -83.09 RAL 261.50 RAD 6572.2 VEL 23.697 PTH 3.30 VHP 27.710 DPA 69.96 RAP 224.41 ECC 8.2450

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
7.86	3 18 18	2409.56	3.24	85.25	171.10	173.08	3 58 28	1809.6	11.18	84.69
172.14	14 46 33	604.05	3.24	280.28	171.12	173.08	14 56 37	4.0	11.18	279.72
7.86	3 18 18	2409.56	3.24	85.25	171.10	173.08	3 58 28	1809.6	11.18	84.69
172.14	14 46 33	604.05	3.24	280.28	171.12	173.08	14 56 37	4.0	11.18	279.72
7.86	3 18 18	2409.56	3.24	85.25	171.10	173.08	3 58 28	1809.6	11.18	84.69
172.14	14 46 33	604.05	3.24	280.28	171.12	173.08	14 56 37	4.0	11.18	279.72

DIFFERENTIAL CORRECTIONS
TDE-1.3749 TRA .1852 TC3 -.0152 BAU .6897
RD-11.1752 RRA -.1952 RC3 .1162 FAU-.00591
FDE-2.0935 FRA .0015 FC3 .0116 BSP 9669
BDE11.2594 BRA .2691 BC3 .1172 FSP -155

MID-COURSE EXECUTION ACCURACY
SGT 567.1 SGR 3122.0 SG3 49.6
RRT .5245 RRF .9864 RTF .6545
SGB 3173.1 R23 -.1464 R13 .9887
SG1 3136.5 SG2 480.6 THA 84.43

ORBIT DETERMINATION ACCURACY
ST 396.1 SR 3054.6 SS 1368.7
CRT .9332 CRS -.9990 CST -.9485
LSA 3367.2 MSA 149.8 SSA 1.3
EL1 3076.9 EL2 141.3 ALF 83.09

LAUNCH DATE OCT 18 1970 FLIGHT TIME 124.00 ARRIVAL DATE FEB 19 1971

HELIOCENTRIC CONIC DISTANCE 378.312

RL 149.04 LAL -.00 LOL 24.20 VL 27.678 GAL -10.29 AZL 111.85 HCA 186.59 SMA 130.78 ECC .22539 INC21.8534 V1 29.896
RP 108.07 LAP 2.45 LOP 210.32 VP 37.965 GAP 8.39 AZP 68.28 TAL 222.14 TAP 48.73 RCA 101.30 APO 160.25 V2 35.067
RC 133.740 GL -57.67 GP 70.71 ZAL 111.81 ZAP 109.08 ETS 91.89 ZAE 95.76 ETE 167.51 ZAC 160.95 ETC 223.16 CLP 171.69

PLANETOCENTRIC CONIC

C3 143.933 VHL 11.997 DLA -77.27 RAL 214.72 RAD 6570.6 VEL 16.287 PTH 2.85 VHP 16.233 DPA 55.55 RAP 243.59 ECC 3.3688

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
14.50	0 24 38	2250.11	13.23	80.02	121.66	166.91	1 2 8	1650.1	21.01	78.50
165.50	11 26 58	5748.90	13.23	259.39	121.69	166.91	13 2 47	5148.9	21.01	257.87
14.50	0 24 38	2250.11	13.23	80.02	121.66	166.91	1 2 8	1650.1	21.01	78.50
165.50	11 26 58	5748.90	13.23	259.39	121.69	166.91	13 2 47	5148.9	21.01	257.87
14.50	0 24 38	2250.11	13.23	80.02	121.66	166.91	1 2 8	1650.1	21.01	78.50
165.50	11 26 58	5748.90	13.23	259.39	121.69	166.91	13 2 47	5148.9	21.01	257.87

DIFFERENTIAL CORRECTIONS
TDE-3.6136 TRA-1.1929 TC3 -.2346 BAU .4542
RDE -.5088 RRA -.5921 RC3 -.0258 FAU .01308
FDE -.9385 FRA -.2196 FC3 -.0787 BSP 10530
BDE 3.6492 BRA 1.3318 BC3 .2360 FSP -193

MID-COURSE EXECUTION ACCURACY
SGT 3158.6 SGR 1307.3 SG3 58.8
RRT .9132 RRF .8220 RTF .9817
SGB 3418.4 R23 -.2383 R13 .9697
SG1 3382.0 SG2 497.6 THA 21.19

ORBIT DETERMINATION ACCURACY
ST 1892.1 SR 455.2 SS 659.8
CRT .8335 CRS -.7653 CST -.9935
LSA 2038.1 MSA 261.5 SSA 1.5
EL1 1930.4 EL2 246.5 ALF 11.53

LAUNCH DATE OCT 18 1970 FLIGHT TIME 126.00 ARRIVAL DATE FEB 21 1971

HELIOCENTRIC CONIC DISTANCE 383.917

RL 149.04 LAL -.00 LOL 24.20 VL 27.593 GAL -9.92 AZL 103.98 HCA 189.61 SMA 130.17 ECC .22383 INC13.9833 V1 29.896
RP 108.11 LAP 2.31 LOP 213.53 VP 37.891 GAP 8.53 AZP 76.21 TAL 220.43 TAP 50.04 RCA 101.03 APO 159.31 V2 35.054
RC 135.957 GL -49.90 GP 62.53 ZAL 119.81 ZAP 117.05 ETS 72.61 ZAE 104.92 ETE 151.58 ZAC 158.83 ETC 235.74 CLP-170.35

PLANETOCENTRIC CONIC

C3 73.723 VHL 8.586 DLA -68.67 RAL 218.30 RAD 6569.4 VEL 13.967 PTH 2.55 VHP 11.840 DPA 44.10 RAP 246.60 ECC 2.2133

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
24.41	0 59 29	2086.98	21.49	69.75	119.45	156.99	1 34 16	1487.0	28.81	66.61
155.59	11 20 42	5630.23	21.49	259.23	119.47	156.99	12 54 32	5030.2	28.82	256.09
24.41	0 59 29	2086.98	21.49	69.75	119.45	156.99	1 34 16	1487.0	28.81	66.61
155.59	11 20 42	5630.23	21.49	259.23	119.47	156.99	12 54 32	5030.2	28.82	256.09
24.41	0 59 29	2086.98	21.49	69.75	119.45	156.99	1 34 16	1487.0	28.81	66.61
155.59	11 20 42	5630.23	21.49	259.23	119.47	156.99	12 54 32	5030.2	28.82	256.09

DIFFERENTIAL CORRECTIONS
TDE-2.3748 TRA-1.5594 TC3 -.7408 BAU .7319
RDE .4109 RRA -.2206 RC3 .0510 FAU .02212
FDE -.7941 FRA -.2647 FC3 -.2597 BSP 10965
BDE 2.4101 BRA 1.5749 BC3 .7426 FSP -241

MID-COURSE EXECUTION ACCURACY
SGT 3509.0 SGR 496.6 SG3 73.1
RRT .3510 RRF .0290 RTF .9421
SGB 3544.0 R23 -.3285 R13 .9399
SG1 3513.4 SG2 464.4 THA 2.89

ORBIT DETERMINATION ACCURACY
ST 1802.6 SR 299.9 SS 562.4
CRT -.6113 CRS .7743 CST -.9741
LSA 1893.8 MSA 262.4 SSA 2.4
EL1 1812.0 EL2 236.1 ALF 174.09

LAUNCH DATE OCT 18 1970 FLIGHT TIME 128.00 ARRIVAL DATE FEB 23 1971

HELIOCENTRIC CONIC DISTANCE 389.606

RL 149.04 LAL -.00 LOL 24.20 VL 27.508 GAL -9.57 AZL 99.90 HCA 192.72 SMA 129.58 ECC .22266 INC 9.8960 V1 29.896
RP 108.15 LAP 2.17 LOP 216.74 VP 37.817 GAP 8.69 AZP 80.34 TAL 218.73 TAP 51.45 RCA 100.73 APO 158.43 V2 35.041
RC 138.166 GL -42.03 GP 54.44 ZAL 125.93 ZAP 124.14 ETS 66.05 ZAE 111.24 ETE 149.06 ZAC 153.15 ETC 245.96 CLP-164.80

PLANETOCENTRIC CONIC

C3 48.473 VHL 6.962 DLA -61.07 RAL 223.89 RAD 6568.8 VEL 13.032 PTH 2.38 VHP 9.765 DPA 34.87 RAP 247.67 ECC 1.7977

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
33.33	1 42 26	1952.71	26.03	58.32	118.22	147.43	2 14 59	1352.7	32.68	53.63
146.67	11 22 20	5560.71	26.04	257.88	118.24	147.43	12 55 0	4960.7	32.69	253.19
33.33	1 42 26	1952.71	26.03	58.32	118.22	147.43	2 14 59	1352.7	32.68	53.63
146.67	11 22 20	5560.71	26.04	257.88	118.24	147.43	12 55 0	4960.7	32.69	253.19
33.33	1 42 26	1952.71	26.03	58.32	118.22	147.43	2 14 59	1352.7	32.68	53.63
146.67	11 22 20	5560.71	26.04	257.88	118.24	147.43	12 55 0	4960.7	32.69	253.19

DIFFERENTIAL CORRECTIONS
TDE-1.8008 TRA-1.6256 TC3-1.2932 BAU .8436
RDE .4265 RRA -.1007 RC3 .1492 FAU .02844
FDE -.7109 FRA -.2560 FC3 -.5080 BSP 11301
BDE 1.8506 BRA 1.6287 BC3 1.3017 FSP -288

MID-COURSE EXECUTION ACCURACY
SGT 3617.7 SGR 442.4 SG3 87.8
RRT -.2626 RRF -.6177 RTF .9101
SGB 3644.6 R23 .3890 R13 -.9116
SG1 3619.6 SG2 426.6 THA 178.14

ORBIT DETERMINATION ACCURACY
ST 1699.3 SR 354.8 SS 506.1
CRT -.7926 CRS .9340 CST -.9581
LSA 1790.9 MSA 249.7 SSA 3.5
EL1 1722.8 EL2 213.4 ALF 170.46

LAUNCH DATE OCT 18 1970 FLIGHT TIME 130.00 ARRIVAL DATE FEB 25 1971

HELIOCENTRIC CONIC DISTANCE 395.323

RL 149.04 LAL -.00 LOL 24.20 VL 27.425 GAL -9.22 AZL 97.40 HCA 195.87 SMA 129.00 ECC .22173 INC 7.4041 V1 29.896
RP 108.19 LAP 2.02 LOP 219.94 VP 37.744 GAP 8.87 AZP 82.88 TAL 217.03 TAP 52.90 RCA 100.40 APO 157.61 V2 35.028
RC 140.364 GL -35.16 GP 47.55 ZAL 130.13 ZAP 130.17 ETS 62.53 ZAE 115.77 ETE 149.89 ZAC 147.41 ETC 251.41 CLP-162.90

PLANETOCENTRIC CONIC

C3 36.698 VHL 6.058 DLA -54.68 RAL 228.68 RAD 6568.4 VEL 12.572 PTH 2.28 VHP 8.649 DPA 27.30 RAP 248.56 ECC 1.6039

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
41.05	2 21 56	1842.59	27.80	47.38	116.73	139.19	2 52 39	1242.6	33.71	41.52
138.95	11 21 1	5530.63	27.81	256.85	116.74	139.18	12 53 12	4930.6	33.72	250.98
41.05	2 21 56	1842.59	27.80	47.38	116.73	139.19	2 52 39	1242.6	33.71	41.52
138.95	11 21 1	5530.63	27.81	256.85	116.74	139.18	12 53 12	4930.6	33.72	250.98
41.05	2 21 56	1842.59	27.80	47.38	116.73	139.19	2 52 39	1242.6	33.71	41.52
138.95	11 21 1	5530.63	27.81	256.85	116.74	139.18	12 53 12	4930.6	33.72	250.98

DIFFERENTIAL CORRECTIONS
TDE-1.4291 TRA-1.6217 TC3-1.8284 BAU .9036
RDE .3657 RRA -.0591 RC3 .2218 FAU .03296
FDE -.6185 FRA -.2214 FC3 -.7775 BSP 11605
BDE 1.4752 BRA 1.6228 BC3 1.8418 FSP -329

MID-COURSE EXECUTION ACCURACY
SGT 3711.3 SGR 448.5 SG3 100.8
RRT -.4842 RRF -.8034 RTF .8867
SGB 3738.3 R23 .4220 R13 -.8893
SG1 3717.7 SG2 391.8 THA 176.61

ORBIT DETERMINATION ACCURACY
ST 1570.0 SR 347.2 SS 445.1
CRT -.8163 CRS .9642 CST -.9400
LSA 1651.0 MSA 240.5 SSA 5.1
EL1 1595.8 EL2 197.3 ALF 169.61

LAUNCH DATE OCT 18 1970 FLIGHT TIME 132.00 ARRIVAL DATE FEB 27 1971

HELIOCENTRIC CONIC DISTANCE 401.050

RL 149.04 LAL -.00 LOL 24.20 VL 27.343 GAL -8.86 AZL 95.72 HCA 199.03 SMA 128.44 ECC .22098 INC 5.7231 V1 29.896
RP 108.23 LAP 1.86 LOP 223.14 VP 37.672 GAP 9.04 AZP 84.59 TAL 215.32 TAP 54.35 RCA 100.06 APO 156.82 V2 35.014
RC 142.552 GL -29.37 GP 41.84 ZAL 132.66 ZAP 135.23 ETS 60.08 ZAE 119.04 ETE 151.73 ZAC 142.39 ETC 254.61 CLP-162.37

PLANETOCENTRIC CONIC

C3 30.179 VHL 5.494 DLA -49.40 RAL 232.79 RAD 6568.2 VEL 12.311 PTH 2.22 VHP 8.002 DPA 21.08 RAP 249.59 ECC 1.4967

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
47.66	2 58 31	1747.55	28.01	37.52	115.64	132.51	3 27 38	1147.6	33.24	30.90
132.34	11 17 15	5527.09	28.03	256.72	115.66	132.50	12 49 22	4927.1	33.25	250.09
47.66	2 58 31	1747.55	28.01	37.52	115.64	132.51	3 27 38	1147.6	33.24	30.90
132.34	11 17 15	5527.09	28.03	256.72	115.66	132.50	12 49 22	4927.1	33.25	250.09
47.66	2 58 31	1747.55	28.01	37.52	115.64	132.51	3 27 38	1147.6	33.24	30.90
132.34	11 17 15	5527.09	28.03	256.72	115.66	132.50	12 49 22	4927.1	33.25	250.09

DIFFERENTIAL CORRECTIONS
TDE-1.1588 TRA-1.5891 TC3-2.3228 BAU .9434
RDE .3119 RRA -.0426 RC3 .2678 FAU .03596
FDE -.5225 FRA -.1737 FC3-1.0316 BSP 11894
BDE 1.2000 BRA 1.5897 BC3 2.3382 FSP -361

MID-COURSE EXECUTION ACCURACY
SGT 3802.7 SGR 443.9 SG3 111.3
RRT -.5746 RRF -.8600 RTF .8698
SGB 3828.5 R23 .4345 R13 -.8726
SG1 3811.3 SG2 362.5 THA 176.13

ORBIT DETERMINATION ACCURACY
ST 1431.9 SR 326.1 SS 381.9
CRT -.8100 CRS .9764 CST -.9167
LSA 1499.2 MSA 234.3 SSA 7.0
EL1 1456.5 EL2 188.0 ALF 169.37

LAUNCH DATE OCT 18 1970 FLIGHT TIME 134.00 ARRIVAL DATE MAR 1 1971

HELIOCENTRIC CONIC DISTANCE 406.780
RL 149.04 LAL -.00 LOL 24.20 VL 27.262 GAL -8.50 AZL 94.51 HCA 202.21 SMA 127.89 ECC .22039 INC 4.5080 V1 29.896
RP 108.27 LAP 1.70 LOP 226.34 VP 37.601 GAP 9.21 AZP 85.83 TAL 213.60 TAP 55.80 RCA 99.71 APO 156.08 V2 35.001
RC 144.730 GL -24.51 GP 37.14 ZAL 133.86 ZAP 139.46 ETS 58.15 ZAE 121.43 ETE 153.82 ZAC 138.18 ETC 256.72 CLP-162.44
PLANETOCENTRIC CONIC
C3 26.097 VHL 5.109 DLA -45.04 RAL 236.47 RAD 6568.1 VEL 12.144 PTH 2.18 VHP 7.610 DPA 15.92 RAP 250.81 ECC 1.4295

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
53.39	3 33 20	1660.93	27.47	28.69	115.18	127.21	4 1 1	1060.9	32.10	21.59
126.61	11 11 48	5541.27	27.48	257.57	115.20	127.20	12 44 9	4941.3	32.11	250.46
53.39	3 33 20	1660.93	27.47	28.69	115.18	127.21	4 1 1	1060.9	32.10	21.59
126.61	11 11 48	5541.27	27.48	257.57	115.20	127.20	12 44 9	4941.3	32.11	250.46
53.39	3 33 20	1660.93	27.47	28.69	115.18	127.21	4 1 1	1060.9	32.10	21.59
126.61	11 11 48	5541.27	27.48	257.57	115.20	127.20	12 44 9	4941.3	32.11	250.46

DIFFERENTIAL CORRECTIONS
TDE -.9432 TRA-1.5319 TC3-2.7631 BAU .9694
RDE .2709 RRA -.0379 RC3 .2909 FAU .03743
FDE -.4236 FRA -.1132 FC3-1.2417 BSP 11972
BDE .9814 BRA 1.5324 BC3 2.7783 FSP -370

MID-COURSE EXECUTION ACCURACY
SGT 3873.1 SGR 429.2 SG3 118.1
RRT -.6101 RRF -.8704 RTF .8542
SGB 3896.8 R23 .4357 R13 -.8568
SG1 3882.0 SG2 339.3 THA 176.10

ORBIT DETERMINATION ACCURACY
ST 1287.8 SR 304.5 SS 315.4
CRT -.7881 CRS .9840 CST -.8826
LSA 1340.8 MSA 229.7 SSA 9.5
EL1 1310.4 EL2 184.2 ALF 169.23

LAUNCH DATE OCT 18 1970 FLIGHT TIME 136.00 ARRIVAL DATE MAR 3 1971

HELIOCENTRIC CONIC DISTANCE 412.507
RL 149.04 LAL -.00 LOL 24.20 VL 27.182 GAL -8.13 AZL 93.58 HCA 205.38 SMA 127.36 ECC .21996 INC 3.5845 V1 29.896
RP 108.31 LAP 1.54 LOP 229.54 VP 37.531 GAP 9.39 AZP 86.76 TAL 211.87 TAP 57.25 RCA 99.35 APO 155.38 V2 34.988
RC 146.899 GL -20.40 GP 33.26 ZAL 134.03 ZAP 143.02 ETS 56.56 ZAE 123.18 ETE 155.87 ZAC 134.68 ETC 258.26 CLP-162.82
PLANETOCENTRIC CONIC
C3 23.299 VHL 4.827 DLA -41.40 RAL 239.90 RAD 6567.9 VEL 12.028 PTH 2.15 VHP 7.369 DPA 11.62 RAP 252.21 ECC 1.3834

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
58.44	4 7 28	1578.14	26.58	20.61	115.31	122.99	4 33 46	978.1	30.72	13.22
121.56	11 5 1	5568.30	26.59	259.27	115.32	122.98	12 37 49	4968.3	30.73	251.88
58.44	4 7 28	1578.14	26.58	20.61	115.31	122.99	4 33 46	978.1	30.72	13.22
121.56	11 5 1	5568.30	26.59	259.27	115.32	122.98	12 37 49	4968.3	30.73	251.88
58.44	4 7 28	1578.14	26.58	20.61	115.31	122.99	4 33 46	978.1	30.72	13.22
121.56	11 5 1	5568.30	26.59	259.27	115.32	122.98	12 37 49	4968.3	30.73	251.88

DIFFERENTIAL CORRECTIONS
TDE -.7854 TRA-1.4787 TC3-3.1929 BAU .9992
RDE .2469 RRA -.0325 RC3 .3094 FAU .03855
FDE -.3442 FRA -.0633 FC3-1.4325 BSP 12433
BDE .8233 BRA 1.4790 BC3 3.2078 FSP -398

MID-COURSE EXECUTION ACCURACY
SGT 3980.6 SGR 421.6 SG3 124.9
RRT -.6398 RRF -.8658 RTF .8478
SGB 4002.9 R23 .4161 R13 -.8501
SG1 3989.8 SG2 323.3 THA 176.10

ORBIT DETERMINATION ACCURACY
ST 1170.7 SR 293.6 SS 262.2
CRT -.7659 CRS .9896 CST -.8419
LSA 1213.9 MSA 227.3 SSA 12.5
EL1 1192.6 EL2 185.3 ALF 168.85

LAUNCH DATE OCT 18 1970 FLIGHT TIME 138.00 ARRIVAL DATE MAR 5 1971

HELIOCENTRIC CONIC DISTANCE 418.229
RL 149.04 LAL -.00 LOL 24.20 VL 27.104 GAL -7.75 AZL 92.85 HCA 208.56 SMA 126.84 ECC .21968 INC 2.8548 V1 29.896
RP 108.35 LAP 1.36 LOP 232.73 VP 37.462 GAP 9.56 AZP 87.49 TAL 210.12 TAP 58.69 RCA 98.98 APO 154.71 V2 34.975
RC 149.057 GL -16.87 GP 30.04 ZAL 133.42 ZAP 146.04 ETS 55.25 ZAE 124.48 ETE 157.76 ZAC 131.76 ETC 259.47 CLP-163.36
PLANETOCENTRIC CONIC
C3 21.243 VHL 4.609 DLA -38.31 RAL 243.18 RAD 6567.9 VEL 11.942 PTH 2.13 VHP 7.222 DPA 8.00 RAP 253.79 ECC 1.3496

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
63.03	4 41 46	1495.80	25.56	12.97	115.92	119.57	5 6 42	895.8	29.29	5.41
116.97	10 56 56	5605.86	25.57	261.76	115.93	119.56	12 30 22	5005.9	29.30	254.19
63.03	4 41 46	1495.80	25.56	12.97	115.92	119.57	5 6 42	895.8	29.29	5.41
116.97	10 56 56	5605.86	25.57	261.76	115.93	119.56	12 30 22	5005.9	29.30	254.19
63.03	4 41 46	1495.80	25.56	12.97	115.92	119.57	5 6 42	895.8	29.29	5.41
116.97	10 56 56	5605.86	25.57	261.76	115.93	119.56	12 30 22	5005.9	29.30	254.19

DIFFERENTIAL CORRECTIONS
TDE -.6514 TRA-1.4103 TC3-3.5886 BAU 1.0232
RDE .2306 RRA -.0305 RC3 .3195 FAU .03884
FDE -.2702 FRA -.0106 FC3-1.5827 BSP 12755
BDE .6911 BRA 1.4106 BC3 3.6028 FSP -412

MID-COURSE EXECUTION ACCURACY
SGT 4073.2 SGR 413.8 SG3 129.4
RRT -.6516 RRF -.8476 RTF .8421
SGB 4094.2 R23 .3897 R13 -.8441
SG1 4082.2 SG2 313.2 THA 176.19

ORBIT DETERMINATION ACCURACY
ST 1055.9 SR 287.2 SS 211.4
CRT -.7364 CRS .9930 CST -.7820
LSA 1091.1 MSA 226.7 SSA 16.0
EL1 1077.6 EL2 190.4 ALF 168.30

LAUNCH DATE OCT 18 1970 FLIGHT TIME 140.00 ARRIVAL DATE MAR 7 1971

HELIOCENTRIC CONIC DISTANCE 423.946
RL 149.04 LAL -.00 LOL 24.20 VL 27.027 GAL -7.37 AZL 92.26 HCA 211.74 SMA 126.34 ECC .21955 INC 2.2609 V1 29.896
RP 108.39 LAP 1.19 LOP 235.92 VP 37.395 GAP 9.74 AZP 88.08 TAL 208.37 TAP 60.11 RCA 98.60 APO 154.08 V2 34.962
RC 151.205 GL -13.80 GP 27.34 ZAL 132.20 ZAP 148.63 ETS 54.19 ZAE 125.46 ETE 159.45 ZAC 129.32 ETC 260.49 CLP-163.99
PLANETOCENTRIC CONIC
C3 19.653 VHL 4.433 DLA -35.65 RAL 246.41 RAD 6567.8 VEL 11.876 PTH 2.11 VHP 7.137 DPA 4.93 RAP 255.50 ECC 1.3234

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
67.37	5 17 20	1410.36	24.50	5.42	116.94	116.75	5 40 51	810.4	27.89	357.76
112.63	10 47 4	5654.12	24.52	265.04	116.94	116.74	12 21 19	5054.1	27.90	257.37
67.37	5 17 20	1410.36	24.50	5.42	116.94	116.75	5 40 51	810.4	27.89	357.76
112.63	10 47 4	5654.12	24.52	265.04	116.94	116.74	12 21 19	5054.1	27.90	257.37
67.37	5 17 20	1410.36	24.50	5.42	116.94	116.75	5 40 51	810.4	27.89	357.76
112.63	10 47 4	5654.12	24.52	265.04	116.94	116.74	12 21 19	5054.1	27.90	257.37

DIFFERENTIAL CORRECTIONS
TDE -.5240 TRA-1.3184 TC3-3.9366 BAU 1.0377
RDE .2174 RRA -.0333 RC3 .3202 FAU .03810
FDE -.1932 FRA .0522 FC3-1.6782 BSP 12729
BDE .5673 BRA 1.3188 BC3 3.9496 FSP -400

MID-COURSE EXECUTION ACCURACY
SGT 4127.8 SGR 402.9 SG3 130.6
RRT -.6435 RRF -.8163 RTF .8318
SGB 4147.4 R23 .3632 R13 -.8336
SG1 4135.9 SG2 307.8 THA 176.39

ORBIT DETERMINATION ACCURACY
ST 930.2 SR 281.5 SS 157.1
CRT -.6917 CRS .9885 CST -.6668
LSA 957.8 MSA 227.0 SSA 20.4
EL1 951.4 EL2 198.8 ALF 167.63

LAUNCH DATE OCT 18 1970 FLIGHT TIME 142.00 ARRIVAL DATE MAR 9 1971

HELIOCENTRIC CONIC DISTANCE 429.654

RL 149.04 LAL -.00 LOL 24.20 VL 26.951 GAL -6.98 AZL 91.77 HCA 214.92 SMA 125.85 ECC .21958 INC 1.7653 V1 29.896
RP 108.43 LAP 1.01 LOP 239.11 VP 37.328 GAP 9.91 AZP 88.55 TAL 206.60 TAP 61.53 RCA 98.22 APO 153.48 V2 34.949
RC 153.343 GL -11.08 GP 25.06 ZAL 130.52 ZAP 150.89 ETS 53.35 ZAE 126.21 ETE 160.95 ZAC 127.25 ETC 261.39 CLP-164.67

PLANETOCENTRIC CONIC

C3 18.382 VHL 4.287 DLA -33.31 RAL 249.61 RAD 6567.7 VEL 11.822 PTH 2.09 VHP 7.095 DPA 2.30 RAP 257.34 ECC 1.3025

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
71.68	5 55 37	1317.22	23.45	357.57	118.29	114.37	6 17 34	717.2	26.54	349.84
108.32	10 34 23	5715.74	23.46	269.32	118.30	114.35	12 9 38	5115.7	26.55	261.59
71.68	5 55 37	1317.22	23.45	357.57	118.29	114.37	6 17 34	717.2	26.54	349.84
108.32	10 34 23	5715.74	23.46	269.32	118.30	114.35	12 9 38	5115.7	26.55	261.59
110.00	9 46 15	5863.42	18.44	278.05	115.58	119.30	11 23 58	5263.4	22.20	270.94
110.00	11 42 55	5505.57	28.67	255.34	120.63	109.47	13 14 41	4905.6	31.05	246.95

DIFFERENTIAL CORRECTIONS
TDE -.4383 TRA-1.2456 TC3-4.3243 BAU 1.0658
RDE .2139 RRA -.0315 RC3 .3315 FAU .03804
FDE -.1451 FRA .0911 FC3-1.7914 BSP 13361
BDE .4877 BRA 1.2460 BC3 4.3370 FSP -428

MID-COURSE EXECUTION ACCURACY
SGT 4249.7 SGR 406.2 SG3 134.4
RRT -.6493 RRF -.7905 RTF .8351
SGB 4269.0 R23 .3227 R13 -.8366
SG1 4257.9 SG2 308.4 THA 176.43

ORBIT DETERMINATION ACCURACY
ST 844.1 SR 286.3 SS 125.1
CRT -.6591 CRS .9666 CST -.5376
LSA 869.4 MSA 231.6 SSA 24.8
EL1 866.3 EL2 209.8 ALF 166.60

LAUNCH DATE OCT 18 1970 FLIGHT TIME 144.00 ARRIVAL DATE MAR 11 1971

HELIOCENTRIC CONIC DISTANCE 435.355

RL 149.04 LAL -.00 LOL 24.20 VL 26.876 GAL -6.58 AZL 91.34 HCA 218.10 SMA 125.37 ECC .21976 INC 1.3430 V1 29.896
RP 108.47 LAP .83 LOP 242.30 VP 37.262 GAP 10.09 AZP 88.94 TAL 204.83 TAP 62.93 RCA 97.82 APO 152.92 V2 34.937
RC 155.470 GL -8.64 GP 23.12 ZAL 128.46 ZAP 152.86 ETS 52.72 ZAE 126.80 ETE 162.27 ZAC 125.50 ETC 262.21 CLP-165.38

PLANETOCENTRIC CONIC

C3 17.340 VHL 4.164 DLA -31.21 RAL 252.84 RAD 6567.7 VEL 11.778 PTH 2.08 VHP 7.085 DPA .04 RAP 259.28 ECC 1.2854

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
76.30	6 39 16	1207.72	22.41	348.73	119.94	112.31	6 59 24	607.7	25.23	340.96
103.70	10 16 28	5798.05	22.42	275.11	119.94	112.30	11 53 6	5198.1	25.25	267.34
76.30	6 39 16	1207.72	22.41	348.73	119.94	112.31	6 59 24	607.7	25.23	340.96
103.70	10 16 28	5798.05	22.42	275.11	119.94	112.30	11 53 6	5198.1	25.25	267.34
110.00	9 10 16	716.88	13.55	308.19	115.20	121.69	9 22 13	116.9	17.64	301.47
110.00	12 44 38	5336.89	31.89	243.27	123.32	103.01	14 13 35	4736.9	33.35	234.35

DIFFERENTIAL CORRECTIONS
TDE -.3477 TRA-1.1495 TC3-4.6675 BAU 1.0848
RDE .2101 RRA -.0341 RC3 .3361 FAU .03718
FDE -.0919 FRA .1395 FC3-1.8565 BSP 13622
BDE .4062 BRA 1.1500 BC3 4.6796 FSP -430

MID-COURSE EXECUTION ACCURACY
SGT 4331.1 SGR 406.1 SG3 135.4
RRT -.6396 RRF -.7566 RTF .8331
SGB 4350.1 R23 .2875 R13 -.8343
SG1 4338.9 SG2 311.6 THA 176.55

ORBIT DETERMINATION ACCURACY
ST 741.8 SR 289.7 SS 92.2
CRT -.6057 CRS .8724 CST -.2557
LSA 764.9 MSA 238.2 SSA 30.1
EL1 764.3 EL2 223.7 ALF 165.41

LAUNCH DATE OCT 18 1970 FLIGHT TIME 146.00 ARRIVAL DATE MAR 13 1971

HELIOCENTRIC CONIC DISTANCE 441.048

RL 149.04 LAL -.00 LOL 24.20 VL 26.803 GAL -6.17 AZL 90.98 HCA 221.28 SMA 124.91 ECC .22011 INC .9767 V1 29.896
RP 108.51 LAP .64 LOP 245.48 VP 37.198 GAP 10.27 AZP 89.27 TAL 203.04 TAP 64.33 RCA 97.41 APO 152.40 V2 34.925
RC 157.587 GL -6.43 GP 21.45 ZAL 126.10 ZAP 154.62 ETS 52.29 ZAE 127.27 ETE 163.43 ZAC 123.98 ETC 262.98 CLP-166.11

PLANETOCENTRIC CONIC

C3 16.476 VHL 4.059 DLA -29.28 RAL 256.11 RAD 6567.7 VEL 11.741 PTH 2.07 VHP 7.098 DPA -1.92 RAP 261.31 ECC 1.2711

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
82.20	7 36 37	1054.95	21.37	336.90	121.84	110.51	7 54 12	454.9	23.97	329.12
97.80	9 45 14	639.27	21.38	306.40	121.85	110.50	9 55 53	39.3	23.98	298.62
100.00	9 11 41	746.87	17.51	312.66	120.14	114.62	9 24 7	146.9	20.69	305.30
100.00	10 52 51	5710.62	25.35	269.70	123.29	106.39	12 28 2	5110.6	27.35	261.47
110.00	8 53 33	803.97	10.38	312.95	116.13	122.75	9 6 57	204.0	14.63	306.42
110.00	13 27 28	5226.29	33.29	234.95	125.28	98.27	14 54 35	4626.3	34.07	225.80

DIFFERENTIAL CORRECTIONS
TDE -.2643 TRA-1.0456 TC3-4.9977 BAU 1.1034
RDE .2082 RRA -.0376 RC3 .3410 FAU .03618
FDE -.0446 FRA .1853 FC3-1.9014 BSP 13891
BDE .3364 BRA 1.0462 BC3 5.0093 FSP -432

MID-COURSE EXECUTION ACCURACY
SGT 4411.7 SGR 408.3 SG3 136.0
RRT -.6271 RRF -.7222 RTF .8323
SGB 4430.6 R23 .2535 R13 -.8334
SG1 4419.2 SG2 317.5 THA 176.66

ORBIT DETERMINATION ACCURACY
ST 641.6 SR 294.6 SS 73.1
CRT -.5363 CRS .5851 CST .2162
LSA 663.9 MSA 248.4 SSA 36.3
EL1 663.9 EL2 240.3 ALF 164.01

LAUNCH DATE OCT 18 1970 FLIGHT TIME 148.00 ARRIVAL DATE MAR 15 1971

HELIOCENTRIC CONIC DISTANCE 446.731

RL 149.04 LAL -.00 LOL 24.20 VL 26.730 GAL -5.75 AZL 90.65 HCA 224.46 SMA 124.45 ECC .22063 INC .6545 V1 29.896
RP 108.54 LAP .46 LOP 248.66 VP 37.135 GAP 10.45 AZP 89.53 TAL 201.25 TAP 65.71 RCA 97.00 APO 151.91 V2 34.913
RC 159.692 GL -4.39 GP 20.01 ZAL 123.47 ZAP 156.19 ETS 52.06 ZAE 127.65 ETE 164.44 ZAC 122.67 ETC 263.72 CLP-166.84

PLANETOCENTRIC CONIC

C3 15.759 VHL 3.970 DLA -27.49 RAL 259.44 RAD 6567.6 VEL 11.711 PTH 2.06 VHP 7.128 DPA -3.63 RAP 263.42 ECC 1.2594

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 54 8	1032.72	16.01	332.98	122.22	113.67	8 11 21	432.7	19.07	325.64
90.00	9 54 17	641.26	24.81	307.70	125.43	104.11	10 4 58	41.3	26.51	299.45
100.00	8 35 12	900.03	12.95	321.74	120.72	117.18	8 50 12	300.0	16.49	314.73
100.00	11 55 54	5537.22	28.12	257.57	126.24	100.59	13 28 12	4937.2	29.29	248.96
110.00	8 44 16	871.57	7.87	316.57	117.71	123.37	8 58 47	271.6	12.21	310.16
110.00	14 3 20	5138.44	33.94	228.18	127.13	94.31	15 28 58	4538.4	34.17	218.94

DIFFERENTIAL CORRECTIONS
TDE -.1849 TRA -.9341 TC3-5.3118 BAU 1.1215
RDE .2075 RRA -.0422 RC3 .3459 FAU .03507
FDE -.0018 FRA .2290 FC3-1.9268 BSP 14176
BDE .2780 BRA .9350 BC3 5.3230 FSP -433

MID-COURSE EXECUTION ACCURACY
SGT 4490.7 SGR 412.2 SG3 136.0
RRT -.6126 RRF -.6881 RTF .8325
SGB 4509.6 R23 .2220 R13 -.8334
SG1 4497.9 SG2 325.3 THA 176.77

ORBIT DETERMINATION ACCURACY
ST 543.2 SR 300.4 SS 74.4
CRT -.4388 CRS .0952 CST .6772
LSA 565.4 MSA 263.2 SSA 43.4
EL1 563.6 EL2 260.2 ALF 162.53

LAUNCH DATE OCT 18 1970 FLIGHT TIME 150.00 ARRIVAL DATE MAR 17 1971

HELIOCENTRIC CONIC DISTANCE 452.404

RL 149.04 LAL -.00 LOL 24.20 VL 26.659 GAL -5.32 AZL 90.37 HCA 227.64 SMA 124.01 ECC .22132 INC .3666 V1 29.896
RP 108.58 LAP .27 LOP 251.84 VP 37.073 GAP 10.63 AZP 89.75 TAL 199.44 TAP 67.08 RCA 96.57 APO 151.46 V2 34.901
RC 161.784 GL -2.50 GP 18.76 ZAL 120.61 ZAP 157.62 ETS 52.02 ZAE 127.96 ETE 165.33 ZAC 121.51 ETC 264.43 CLP-167.56

PLANETOCENTRIC CONIC

C3 15.171 VHL 3.895 DLA -25.78 RAL 262.84 RAD 6567.6 VEL 11.686 PTH 2.06 VHP 7.174 DPA -5.11 RAP 265.60 ECC 1.2497

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 22 53	1173.73	11.98	341.37	123.37	115.85	7 42 27	573.7	15.36	334.32
90.00	10 52 40	5771.13	26.97	274.54	128.34	98.97	12 28 51	5171.1	27.93	266.01
100.00	8 18 11	995.17	9.93	327.18	122.30	118.34	8 34 46	395.2	13.64	320.36
100.00	12 40 3	5424.93	29.25	249.42	128.69	96.45	14 10 28	4824.9	29.84	240.66
110.00	8 39 12	929.21	5.70	319.62	119.73	123.76	8 54 41	329.2	10.10	313.29
110.00	14 35 31	5063.65	34.17	222.35	129.06	90.87	15 59 55	4463.7	33.92	213.12

DIFFERENTIAL CORRECTIONS
TDE -.1065 TRA -.8140 TC3-5.6039 BAU 1.1388
RDE .2075 RRA -.0480 RC3 .3506 FAU .03387
FDE .0379 FRA .2710 FC3-1.9331 BSP 14436
BDE .2333 BRA .8154 BC3 5.6149 FSP -433

MID-COURSE EXECUTION ACCURACY
SGT 4566.2 SGR 417.0 SG3 135.7
RRT -.5965 RRF -.6549 RTF .8333
SGB 4585.2 R23 .1934 R13 -.8341
SG1 4573.0 SG2 334.2 THA 176.87

ORBIT DETERMINATION ACCURACY
ST 448.2 SR 306.3 SS 93.5
CRT -.2879 CRS -.2922 CST .8248
LSA 468.9 MSA 284.4 SSA 51.9
EL1 462.5 EL2 284.2 ALF 161.78

LAUNCH DATE OCT 18 1970 FLIGHT TIME 152.00 ARRIVAL DATE MAR 19 1971

HELIOCENTRIC CONIC DISTANCE 458.066

RL 149.04 LAL -.00 LOL 24.20 VL 26.590 GAL -4.88 AZL 90.11 HCA 230.81 SMA 123.58 ECC .22219 INC .1058 V1 29.896
RP 108.61 LAP .08 LOP 255.01 VP 37.012 GAP 10.82 AZP 89.93 TAL 197.63 TAP 68.44 RCA 96.12 APO 151.04 V2 34.890
RC 163.865 GL -.74 GP 17.66 ZAL 117.56 ZAP 158.91 ETS 52.17 ZAE 128.23 ETE 166.11 ZAC 120.48 ETC 265.13 CLP-168.29

PLANETOCENTRIC CONIC

C3 14.700 VHL 3.834 DLA -24.14 RAL 266.32 RAD 6567.6 VEL 11.666 PTH 2.05 VHP 7.233 DPA -6.40 RAP 267.85 ECC 1.2419

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 7 6	1268.50	9.11	346.85	125.29	116.93	7 28 14	668.5	12.65	339.96
90.00	11 36 9	5662.27	27.88	266.71	130.95	95.15	13 10 31	5062.3	28.30	258.07
100.00	8 8 17	1070.97	7.45	331.45	124.40	119.03	8 26 8	471.0	11.26	324.74
100.00	13 17 39	5335.03	29.76	242.79	131.10	92.99	14 46 34	4735.0	29.85	233.98
110.00	8 36 54	981.23	3.73	322.36	122.10	124.00	8 53 15	381.2	8.16	316.08
110.00	15 5 31	4997.53	34.12	217.19	131.14	87.82	16 28 49	4397.5	33.44	208.01

DIFFERENTIAL CORRECTIONS
TDE -.0279 TRA -.6856 TC3-5.8697 BAU 1.1556
RDE .2080 RRA -.0548 RC3 .3547 FAU .03263
FDE .0744 FRA .3114 FC3-1.9216 BSP 14695
BDE .2099 BRA .6877 BC3 5.8804 FSP -432

MID-COURSE EXECUTION ACCURACY
SGT 4639.0 SGR 422.7 SG3 135.1
RRT -.5796 RRF -.6235 RTF .8350
SGB 4658.2 R23 .1681 R13 -.8356
SG1 4645.5 SG2 344.0 THA 176.96

ORBIT DETERMINATION ACCURACY
ST 365.2 SR 312.1 SS 121.4
CRT -.0438 CRS -.4965 CST .7075
LSA 378.4 MSA 313.9 SSA 61.9
EL1 366.2 EL2 311.0 ALF 172.26

LAUNCH DATE OCT 18 1970 FLIGHT TIME 154.00 ARRIVAL DATE MAR 21 1971

HELIOCENTRIC CONIC DISTANCE 463.716

RL 149.04 LAL -.00 LOL 24.20 VL 26.521 GAL -4.43 AZL 89.87 HCA 233.99 SMA 123.17 ECC .22325 INC .1297 V1 29.896
RP 108.65 LAP -.11 LOP 258.19 VP 36.953 GAP 11.01 AZP 90.08 TAL 195.80 TAP 69.79 RCA 95.67 APO 150.66 V2 34.880
RC 165.932 GL .91 GP 16.70 ZAL 114.33 ZAP 160.10 ETS 52.51 ZAE 128.47 ETE 166.81 ZAC 119.56 ETC 265.83 CLP-169.01

PLANETOCENTRIC CONIC

C3 14.340 VHL 3.787 DLA -22.53 RAL 269.86 RAD 6567.6 VEL 11.650 PTH 2.05 VHP 7.302 DPA -7.52 RAP 270.14 ECC 1.2360

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 57 37	1346.24	6.68	351.28	127.66	117.58	7 20 13	746.2	10.32	344.49
90.00	12 13 54	5573.55	28.26	260.25	133.58	91.93	13 46 47	4973.5	28.23	251.58
100.00	8 2 23	1137.20	5.24	335.13	126.87	119.47	8 21 20	537.2	9.13	328.50
100.00	13 51 49	5257.82	29.89	237.05	133.61	89.98	15 19 26	4657.8	29.57	228.26
110.00	8 36 33	1030.12	1.86	324.91	124.77	124.14	8 53 43	430.1	6.33	318.67
110.00	15 34 9	4937.67	33.87	212.53	133.41	85.07	16 56 26	4337.7	32.82	203.45

DIFFERENTIAL CORRECTIONS
TDE .0525 TRA -.5493 TC3-6.1024 BAU 1.1719
RDE .2088 RRA -.0626 RC3 .3577 FAU .03134
FDE .1087 FRA .3502 FC3-1.8922 BSP 14959
BDE .2153 BRA .5529 BC3 6.1128 FSP -431

MID-COURSE EXECUTION ACCURACY
SGT 4709.2 SGR 428.6 SG3 134.1
RRT -.5622 RRF -.5939 RTF .8372
SGB 4728.7 R23 .1457 R13 -.8378
SG1 4715.4 SG2 354.0 THA 177.05

ORBIT DETERMINATION ACCURACY
ST 313.7 SR 317.5 SS 152.6
CRT .3242 CRS -.6029 CST .3614
LSA 364.4 MSA 290.4 SSA 73.2
EL1 363.2 EL2 259.4 ALF 46.05

LAUNCH DATE OCT 18 1970 FLIGHT TIME 156.00 ARRIVAL DATE MAR 23 1971

HELIOCENTRIC CONIC DISTANCE 469.353

RL 149.04 LAL -.00 LOL 24.20 VL 26.454 GAL -3.96 AZL 89.65 HCA 237.16 SMA 122.76 ECC .22452 INC .3487 V1 29.896
RP 108.68 LAP -.29 LOP 261.36 VP 36.895 GAP 11.20 AZP 90.19 TAL 193.97 TAP 71.13 RCA 95.20 APO 150.32 V2 34.869
RC 167.985 GL 2.45 GP 15.85 ZAL 110.94 ZAP 161.19 ETS 53.03 ZAE 128.67 ETE 167.42 ZAC 118.73 ETC 266.51 CLP-169.73

PLANETOCENTRIC CONIC

C3 14.090 VHL 3.754 DLA -20.95 RAL 273.47 RAD 6567.6 VEL 11.639 PTH 2.04 VHP 7.382 DPA -8.49 RAP 272.48 ECC 1.2319

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 51 46	1415.37	4.49	355.17	130.38	117.99	7 15 21	815.4	8.20	348.46
90.00	12 48 31	5496.65	28.30	254.62	136.31	89.11	14 20 8	4896.6	27.88	245.98
100.00	7 59 4	1198.16	3.19	338.49	129.66	119.74	8 19 2	598.2	7.13	331.91
100.00	14 23 54	5189.09	29.78	231.94	136.26	87.29	15 50 23	4589.1	29.09	223.21
110.00	8 37 36	1077.39	.05	327.38	127.70	124.18	8 55 34	477.4	4.54	321.16
110.00	16 1 51	4882.63	33.47	208.29	135.88	82.59	17 23 14	4282.6	32.08	199.33

DIFFERENTIAL CORRECTIONS
TDE .1373 TRA -.4034 TC3-6.2920 BAU 1.1872
RDE .2097 RRA -.0714 RC3 .3587 FAU .03001
FDE .1417 FRA .3884 FC3-1.8438 BSP 15187
BDE .2506 BRA .4097 BC3 6.3022 FSP -428

MID-COURSE EXECUTION ACCURACY
SGT 4774.1 SGR 434.2 SG3 132.9
RRT -.5440 RRF -.5654 RTF .8396
SGB 4793.8 R23 .1262 R13 -.8401
SG1 4779.9 SG2 363.9 THA 177.15

ORBIT DETERMINATION ACCURACY
ST 321.2 SR 322.0 SS 185.7
CRT .7045 CRS -.6635 CST -.1449
LSA 429.3 MSA 223.5 SSA 84.5
EL1 419.9 EL2 174.8 ALF 45.11

LAUNCH DATE OCT 18 1970 FLIGHT TIME 158.00 ARRIVAL DATE MAR 25 1971

HELIOCENTRIC CONIC DISTANCE 474.977

RL 149.04 LAL -.00 LOL 24.20 VL 26.387 GAL -3.49 AZL 89.45 HCA 240.33 SMA 122.36 ECC .22600 INC .5520 V1 29.896
RP 108.71 LAP -.48 LOP 264.53 VP 36.838 GAP 11.41 AZP 90.27 TAL 192.13 TAP 72.46 RCA 94.71 APO 150.02 V2 34.859
RC 170.025 GL 3.90 GP 15.09 ZAL 107.42 ZAP 162.19 ETS 53.74 ZAE 128.86 ETE 167.97 ZAC 117.96 ETC 267.19 CLP-170.43

PLANETOCENTRIC CONIC

C3 13.951 VHL 3.735 DLA -19.38 RAL 277.13 RAD 6567.5 VEL 11.633 PTH 2.04 VHP 7.471 DPA -9.33 RAP 274.87 ECC 1.2296

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 48 18	1479.76	2.42	358.78	133.38	118.22	7 12 58	879.8	6.18	352.11
90.00	13 21 11	5427.88	28.13	249.60	139.19	86.60	14 51 39	4827.9	27.36	241.02
100.00	7 57 34	1256.23	1.23	341.68	132.72	119.87	8 18 30	656.2	5.19	335.14
100.00	14 54 36	5126.65	29.49	227.33	139.08	84.88	16 20 3	4526.6	28.47	218.67
110.00	8 39 45	1124.07	-1.73	329.81	130.87	124.14	8 58 29	524.1	2.76	323.61
110.00	16 28 55	4831.58	32.95	204.39	138.55	80.34	17 49 27	4231.6	31.27	195.57

DIFFERENTIAL CORRECTIONS
TDE .2309 TRA -.2445 TC3-6.4210 BAU 1.1994
RDE .2104 RRA -.0815 RC3 .3562 FAU .02855
FDE .1756 FRA .4281 FC3-1.7715 BSP 15308
BDE .3123 BRA .2577 BC3 6.4309 FSP -420

MID-COURSE EXECUTION ACCURACY
SGT 4826.1 SGR 438.8 SG3 131.3
RRT -.5239 RRF -.5363 RTF .8410
SGB 4846.0 R23 .1092 R13 -.8414
SG1 4831.6 SG2 373.3 THA 177.26

ORBIT DETERMINATION ACCURACY
ST 400.4 SR 325.3 SS 221.5
CRT .9051 CRS -.7016 CST -.5546
LSA 525.1 MSA 176.8 SSA 90.8
EL1 504.1 EL2 109.9 ALF 38.49

LAUNCH DATE OCT 18 1970 FLIGHT TIME 160.00 ARRIVAL DATE MAR 27 1971

HELIOCENTRIC CONIC DISTANCE 480.586

RL 149.04 LAL -.00 LOL 24.20 VL 26.322 GAL -3.00 AZL 89.26 HCA 243.50 SMA 121.98 ECC .22770 INC .7430 V1 29.896
RP 108.74 LAP -.66 LOP 267.70 VP 36.782 GAP 11.62 AZP 90.33 TAL 190.29 TAP 73.79 RCA 94.20 APO 149.75 V2 34.850
RC 172.049 GL 5.24 GP 14.41 ZAL 103.80 ZAP 163.13 ETS 54.65 ZAE 129.03 ETE 168.45 ZAC 117.25 ETC 267.87 CLP-171.13

PLANETOCENTRIC CONIC

C3 13.926 VHL 3.732 DLA -17.81 RAL 280.83 RAD 6567.5 VEL 11.632 PTH 2.04 VHP 7.569 DPA -10.04 RAP 277.28 ECC 1.2292

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 46 31	1541.50	.43	2.22	136.64	118.31	7 12 13	941.5	4.21	355.58
90.00	13 52 29	5365.35	27.79	245.06	142.23	84.35	15 21 55	4765.4	26.72	236.55
100.00	7 57 24	1312.79	-.69	344.78	136.02	119.89	8 19 17	712.8	3.29	338.26
100.00	15 24 18	5069.29	29.07	223.11	142.07	82.70	16 48 47	4469.3	27.75	214.56
110.00	8 42 43	1170.82	-3.52	332.26	134.25	124.02	9 2 14	570.8	.97	326.05
110.00	16 55 28	4784.03	32.35	200.81	141.43	78.30	18 15 12	4184.0	30.40	192.14

DIFFERENTIAL CORRECTIONS
TDE .3267 TRA -.0801 TC3-6.5047 BAU 1.2128
RDE .2117 RRA -.0920 RC3 .3522 FAU .02718
FDE .2065 FRA .4649 FC3-1.6896 BSP 15505
BDE .3893 BRA .1220 BC3 6.5142 FSP -416

MID-COURSE EXECUTION ACCURACY
SGT 4882.3 SGR 443.6 SG3 129.7
RRT -.5052 RRF -.5103 RTF .8439
SGB 4902.4 R23 .0942 R13 -.8443
SG1 4887.4 SG2 382.4 THA 177.36

ORBIT DETERMINATION ACCURACY
ST 523.8 SR 328.1 SS 255.4
CRT .9519 CRS -.7236 CST -.7618
LSA 644.1 MSA 158.5 SSA 85.3
EL1 612.1 EL2 86.0 ALF 31.50

LAUNCH DATE OCT 18 1970 FLIGHT TIME 162.00 ARRIVAL DATE MAR 29 1971

HELIOCENTRIC CONIC DISTANCE 486.178

RL 149.04 LAL -.00 LOL 24.20 VL 26.258 GAL -2.50 AZL 89.08 HCA 246.67 SMA 121.60 ECC .22964 INC .9236 V1 29.896
RP 108.77 LAP -.85 LOP 270.86 VP 36.728 GAP 11.84 AZP 90.37 TAL 188.43 TAP 75.10 RCA 93.68 APO 149.52 V2 34.841
RC 174.060 GL 6.48 GP 13.81 ZAL 100.09 ZAP 164.00 ETS 55.75 ZAE 129.19 ETE 168.89 ZAC 116.58 ETC 268.54 CLP-171.83

PLANETOCENTRIC CONIC

C3 14.020 VHL 3.744 DLA -16.25 RAL 284.55 RAD 6567.6 VEL 11.636 PTH 2.04 VHP 7.677 DPA -10.63 RAP 279.73 ECC 1.2307

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 45 59	1601.80	-1.52	5.58	140.12	118.28	7 12 41	1001.8	2.27	358.96
90.00	14 22 43	5308.00	27.34	240.92	145.44	82.32	15 51 11	4708.0	25.99	232.51
100.00	7 58 14	1368.70	-2.59	347.85	139.53	119.79	8 21 2	768.7	1.40	341.33
100.00	15 53 10	5016.33	28.55	219.26	145.24	80.74	17 16 46	4416.3	26.97	210.82
110.00	8 46 19	1218.06	-5.31	334.73	137.83	123.82	9 6 37	618.1	-.83	328.51
110.00	17 21 34	4739.74	31.69	197.53	144.50	76.46	18 40 34	4139.7	29.50	189.00

DIFFERENTIAL CORRECTIONS
TDE .4279 TRA .0931 TC3-6.5304 BAU 1.2257
RDE .2134 RRA -.1032 RC3 .3455 FAU .02583
FDE .2358 FRA .5009 FC3-1.5952 BSP 15695
BDE .4782 BRA .1390 BC3 6.5396 FSP -412

MID-COURSE EXECUTION ACCURACY
SGT 4936.2 SGR 448.0 SG3 128.0
RRT -.4865 RRF -.4861 RTF .8474
SGB 4956.5 R23 .0814 R13 -.8477
SG1 4941.1 SG2 391.0 THA 177.46

ORBIT DETERMINATION ACCURACY
ST 672.5 SR 330.4 SS 288.2
CRT .9475 CRS -.7365 CST -.8629
LSA 783.6 MSA 158.8 SSA 72.0
EL1 743.2 EL2 95.6 ALF 25.41

LAUNCH DATE OCT 18 1970 FLIGHT TIME 164.00 ARRIVAL DATE MAR 31 1971

HELIOCENTRIC CONIC DISTANCE 491.751

RL 149.04 LAL -.00 LOL 24.20 VL 26.195 GAL -1.98 AZL 88.90 HCA 249.83 SMA 121.23 ECC .23184 INC 1.0956 V1 29.896
RP 108.79 LAP -1.03 LOP 274.03 VP 36.676 GAP 12.06 AZP 90.38 TAL 186.58 TAP 76.41 RCA 93.13 APO 149.34 V2 34.833
RC 176.055 GL 7.62 GP 13.26 ZAL 96.32 ZAP 164.80 ETS 57.06 ZAE 129.35 ETE 169.28 ZAC 115.95 ETC 269.21 CLP-172.51

PLANETOCENTRIC CONIC

C3 14.240 VHL 3.774 DLA -14.70 RAL 288.27 RAD 6567.6 VEL 11.646 PTH 2.04 VHP 7.794 DPA -11.12 RAP 282.20 ECC 1.2343

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 46 23	1661.40	-3.44	8.91	143.80	118.12	7 14 5	1061.4	.35	2.28
90.00	14 52 3	5255.27	26.80	237.16	148.80	80.51	16 19 38	4655.3	25.22	228.85
100.00	7 59 50	1424.45	-4.47	350.92	143.23	119.59	8 23 34	824.5	-.49	344.39
100.00	16 21 18	4967.44	27.96	215.75	148.57	78.98	17 44 5	4367.4	26.16	207.41
110.00	8 50 24	1266.03	-7.12	337.27	141.59	123.52	9 11 30	666.0	-2.67	331.02
110.00	17 47 12	4698.63	31.00	194.52	147.76	74.81	19 5 31	4098.6	28.60	186.14

DIFFERENTIAL CORRECTIONS
TDE .5289 TRA .2687 TC3-6.5117 BAU 1.2413
RDE .2162 RRA -.1142 RC3 .3373 FAU .02466
FDE .2606 FRA .5325 FC3-1.4993 BSP 16041
BDE .5714 BRA .2920 BC3 6.5204 FSP -415

MID-COURSE EXECUTION ACCURACY
SGT 4997.4 SGR 452.5 SG3 126.3
RRT -.4701 RRF -.4658 RTF .8532
SGB 5017.9 R23 .0704 R13 -.8535
SG1 5002.0 SG2 399.0 THA 177.55

ORBIT DETERMINATION ACCURACY
ST 826.2 SR 332.8 SS 316.3
CRT .9301 CRS -.7432 CST -.9135
LSA 928.9 MSA 164.3 SSA 59.8
EL1 883.3 EL2 114.4 ALF 20.90

LAUNCH DATE OCT 18 1970 FLIGHT TIME 166.00 ARRIVAL DATE APR 2 1971

HELIOCENTRIC CONIC DISTANCE 497.305
RL 149.04 LAL -.00 LOL 24.20 VL 26.133 GAL -1.44 AZL 88.74 HCA 253.00 SMA 120.88 ECC .23430 INC 1.2607 V1 29.896
RP 108.82 LAP -1.21 LOP 277.20 VP 36.624 GAP 12.30 AZP 90.37 TAL 184.71 TAP 77.71 RCA 92.55 APO 149.20 V2 34.825
RC 178.036 GL 8.65 GP 12.77 ZAL 92.53 ZAP 165.56 ETS 58.58 ZAE 129.49 ETE 169.64 ZAC 115.35 ETC 269.87 CLP-173.20
PLANETOCENTRIC CONIC
C3 14.595 VHL 3.820 DLA -13.15 RAL 291.99 RAD 6567.6 VEL 11.661 PTH 2.05 VHP 7.921 DPA -11.52 RAP 284.69 ECC 1.2402

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 47 32	1720.71	-5.33	12.24	147.66	117.85	7 16 12	1120.7	-1.56	5.59
90.00	15 20 31	5206.87	26.21	233.74	152.32	78.89	16 47 18	4606.9	24.42	225.53
100.00	8 2 1	1480.35	-6.34	354.02	147.11	119.27	8 26 42	880.3	-2.39	347.46
100.00	16 48 42	4922.46	27.33	212.55	152.05	77.41	18 10 44	4322.5	25.33	204.33
110.00	8 54 52	1314.84	-8.95	339.87	145.51	123.13	9 16 47	714.8	-4.52	333.57
110.00	18 12 21	4660.73	30.29	191.80	151.17	73.34	19 30 1	4060.7	27.71	183.55

DIFFERENTIAL CORRECTIONS
TDE .6490 TRA .4667 TC3-6.3954 BAU 1.2494
RDE .2185 RRA -.1268 RC3 .3229 FAU .02320
FDE .2913 FRA .5706 FC3-1.3763 BSP 16077
BDE .6848 BRA .4836 BC3 6.4035 FSP -404

MID-COURSE EXECUTION ACCURACY
SGT 5034.0 SGR 454.3 SG3 124.3
RRT -.4491 RRF -.4406 RTF .8556
SGB 5054.5 R23 .0603 R13 -.8558
SG1 5038.2 SG2 405.6 THA 177.66

ORBIT DETERMINATION ACCURACY
ST 1007.6 SR 333.0 SS 349.9
CRT .9097 CRS -.7488 CST -.9448
LSA 1103.1 MSA 171.3 SSA 49.2
EL1 1052.9 EL2 132.3 ALF 17.01

LAUNCH DATE OCT 18 1970 FLIGHT TIME 168.00 ARRIVAL DATE APR 4 1971

HELIOCENTRIC CONIC DISTANCE 502.837
RL 149.04 LAL -.00 LOL 24.20 VL 26.073 GAL -.88 AZL 88.58 HCA 256.16 SMA 120.53 ECC .23706 INC 1.4203 V1 29.896
RP 108.84 LAP -1.38 LOP 280.36 VP 36.574 GAP 12.55 AZP 90.34 TAL 182.85 TAP 79.01 RCA 91.96 APO 149.10 V2 34.818
RC 180.002 GL 9.57 GP 12.33 ZAL 88.74 ZAP 166.25 ETS 60.32 ZAE 129.63 ETE 169.96 ZAC 114.77 ETC 270.54 CLP-173.87
PLANETOCENTRIC CONIC
C3 15.096 VHL 3.885 DLA -11.63 RAL 295.66 RAD 6567.6 VEL 11.683 PTH 2.05 VHP 8.058 DPA -11.82 RAP 287.19 ECC 1.2484

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 49 13	1779.93	-7.20	15.59	151.68	117.46	7 18 53	1179.9	-3.47	8.90
90.00	15 48 7	5162.73	25.60	230.65	155.97	77.46	17 14 10	4562.7	23.62	222.54
100.00	8 4 41	1536.49	-8.19	357.75	151.14	118.85	8 30 17	936.5	-4.28	350.55
100.00	17 15 21	4881.40	26.69	209.67	155.68	76.02	18 36 42	4281.4	24.51	201.55
110.00	8 59 36	1364.48	-10.78	342.54	149.58	122.64	9 22 21	764.5	-6.40	336.19
110.00	18 36 55	4626.17	29.59	189.35	154.74	72.04	19 54 1	4026.2	26.85	181.23

DIFFERENTIAL CORRECTIONS
TDE .7706 TRA .6693 TC3-6.2307 BAU 1.2590
RDE .2220 RRA -.1391 RC3 .3067 FAU .02187
FDE .3181 FRA .6051 FC3-1.2539 BSP 16216
BDE .8019 BRA .6836 BC3 6.2382 FSP -399

MID-COURSE EXECUTION ACCURACY
SGT 5074.3 SGR 455.9 SG3 122.2
RRT -.4291 RRF -.4180 RTF .8597
SGB 5094.8 R23 .0516 R13 -.8599
SG1 5078.1 SG2 411.5 THA 177.78

ORBIT DETERMINATION ACCURACY
ST 1184.8 SR 333.5 SS 378.5
CRT .8910 CRS -.7512 CST -.9624
LSA 1274.7 MSA 177.4 SSA 41.6
EL1 1222.0 EL2 146.8 ALF 14.29

LAUNCH DATE OCT 18 1970 FLIGHT TIME 170.00 ARRIVAL DATE APR 6 1971

HELIOCENTRIC CONIC DISTANCE 508.343
RL 149.04 LAL -.00 LOL 24.20 VL 26.013 GAL -.31 AZL 88.42 HCA 259.33 SMA 120.19 ECC .24013 INC 1.5755 V1 29.896
RP 108.86 LAP -1.55 LOP 283.52 VP 36.526 GAP 12.82 AZP 90.29 TAL 180.98 TAP 80.31 RCA 91.33 APO 149.05 V2 34.812
RC 181.954 GL 10.38 GP 11.93 ZAL 84.98 ZAP 166.90 ETS 62.30 ZAE 129.76 ETE 170.25 ZAC 114.21 ETC 271.19 CLP-174.55
PLANETOCENTRIC CONIC
C3 15.757 VHL 3.970 DLA -10.13 RAL 299.27 RAD 6567.6 VEL 11.711 PTH 2.06 VHP 8.206 DPA -12.03 RAP 289.71 ECC 1.2593

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 51 22	1839.12	-9.05	18.96	155.83	116.95	7 22 1	1239.1	-5.36	12.22
90.00	16 14 49	5122.84	24.98	227.89	159.74	76.21	17 40 12	4522.8	22.84	219.88
100.00	8 7 41	1592.88	-10.03	.33	155.31	118.31	8 34 14	992.9	-6.17	353.67
100.00	17 41 11	4844.31	26.06	207.10	159.43	74.81	19 1 55	4244.3	23.72	199.08
110.00	9 4 32	1414.87	-12.62	345.29	153.78	122.04	9 28 7	814.9	-8.30	338.86
110.00	19 0 49	4595.09	28.92	187.18	158.44	70.92	20 17 25	3995.1	26.04	179.18

DIFFERENTIAL CORRECTIONS
TDE .8972 TRA .8799 TC3-6.0119 BAU 1.2679
RDE .2266 RRA -.1514 RC3 .2883 FAU .02061
FDE .3431 FRA .6381 FC3-1.1324 BSP 16386
BDE .9253 BRA .8928 BC3 6.0188 FSP -397

MID-COURSE EXECUTION ACCURACY
SGT 5110.9 SGR 456.7 SG3 120.0
RRT -.4093 RRF -.3965 RTF .8649
SGB 5131.3 R23 .0440 R13 -.8650
SG1 5114.4 SG2 416.4 THA 177.89

ORBIT DETERMINATION ACCURACY
ST 1359.1 SR 333.8 SS 404.1
CRT .8745 CRS -.7522 CST -.9732
LSA 1444.8 MSA 182.5 SSA 35.8
EL1 1390.5 EL2 158.3 ALF 12.28

LAUNCH DATE OCT 18 1970 FLIGHT TIME 172.00 ARRIVAL DATE APR 8 1971

HELIOCENTRIC CONIC DISTANCE 513.822
RL 149.04 LAL -.00 LOL 24.20 VL 25.954 GAL .29 AZL 88.27 HCA 262.49 SMA 119.86 ECC .24355 INC 1.7275 V1 29.896
RP 108.87 LAP -1.71 LOP 286.69 VP 36.478 GAP 13.10 AZP 90.23 TAL 179.11 TAP 81.60 RCA 90.67 APO 149.05 V2 34.806
RC 183.891 GL 11.07 GP 11.56 ZAL 81.28 ZAP 167.50 ETS 64.52 ZAE 129.89 ETE 170.52 ZAC 113.66 ETC 271.84 CLP-175.22
PLANETOCENTRIC CONIC
C3 16.593 VHL 4.073 DLA -8.68 RAL 302.81 RAD 6567.7 VEL 11.746 PTH 2.07 VHP 8.366 DPA -12.16 RAP 292.23 ECC 1.2731

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 53 51	1898.25	-10.85	22.36	160.11	116.32	7 25 29	1298.2	-7.23	15.56
90.00	16 40 34	5087.25	24.38	225.46	163.61	75.13	18 5 22	4487.3	22.10	217.53
100.00	8 10 58	1649.45	-11.84	3.56	159.60	117.65	8 38 28	1049.4	-8.04	356.82
100.00	18 6 8	4811.29	25.45	204.83	163.28	73.76	19 26 20	4211.3	22.98	196.91
110.00	9 9 36	1465.87	-14.44	348.12	158.09	121.32	9 34 2	865.9	-10.19	341.60
110.00	19 24 0	4567.63	28.29	185.29	162.24	69.96	20 40 8	3967.6	25.30	177.39

DIFFERENTIAL CORRECTIONS
TDE 1.0347 TRA 1.1068 TC3-5.7416 BAU 1.2750
RDE .2315 RRA -.1646 RC3 .2668 FAU .01924
FDE .3718 FRA .6779 FC3-1.0038 BSP 16467
BDE 1.0603 BRA 1.1190 BC3 5.7478 FSP -386

MID-COURSE EXECUTION ACCURACY
SGT 5145.7 SGR 456.2 SG3 118.2
RRT -.3884 RRF -.3739 RTF .8670
SGB 5165.9 R23 .0378 R13 -.8671
SG1 5148.8 SG2 420.1 THA 178.02

ORBIT DETERMINATION ACCURACY
ST 1536.6 SR 333.1 SS 432.4
CRT .8590 CRS -.7516 CST -.9805
LSA 1619.5 MSA 187.4 SSA 31.5
EL1 1563.3 EL2 167.6 ALF 10.67

LAUNCH DATE OCT 18 1970 FLIGHT TIME 174.00 ARRIVAL DATE APR 10 1971

HELIOCENTRIC CONIC DISTANCE 519.269

RL 149.04 LAL -.00 LOL 24.20 VL 25.897 GAL .91 AZL 88.12 HCA 265.65 SMA 119.54 ECC .24733 INC 1.8772 V1 29.896
RP 108.89 LAP -1.87 LOP 289.85 VP 36.433 GAP 13.39 AZP 90.14 TAL 177.24 TAP 82.89 RCA 89.97 APO 149.10 V2 34.801
RC 185.813 GL 11.66 GP 11.23 ZAL 77.66 ZAP 168.04 ETS 67.00 ZAE 130.01 ETE 170.76 ZAC 113.12 ETC 272.48 CLP-175.88

PLANETOCENTRIC CONIC

C3 17.622 VHL 4.198 DLA -7.27 RAL 306.26 RAD 6567.7 VEL 11.790 PTH 2.08 VHP 8.539 DPA -12.21 RAP 294.76 ECC 1.2900

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 56 36	1957.24	-12.61	25.81	164.49	115.57	7 29 13	1357.2	-9.06	18.92
90.00	17 5 19	5056.03	23.82	223.34	167.57	74.22	18 29 35	4456.0	21.42	-215.49
100.00	8 14 28	1706.07	-13.60	6.83	163.99	116.88	8 42 54	1106.1	-9.89	.01
100.00	18 30 9	4782.43	24.88	202.87	167.22	72.88	19 49 51	4182.4	22.30	195.03
110.00	9 14 44	1517.33	-16.24	351.02	162.49	120.50	9 40 2	917.3	-12.07	344.39
110.00	19 46 21	4543.94	27.73	183.68	166.13	69.16	21 2 5	3943.9	24.64	175.87

DIFFERENTIAL CORRECTIONS
TDE 1.1743 TRA 1.3392 TC3-5.4351 BAU 1.2818
RDE .2380 RRA -.1767 RC3 .2446 FAU .01802
FDE .3966 FRA .7115 FC3 -.8852 BSP 16605
BDE 1.1982 BRA 1.3509 BC3 5.4406 FSP -382

MID-COURSE EXECUTION ACCURACY
SGT 5175.6 SGR 454.7 SG3 116.0
RRT -.3674 RRF -.3518 RTF .8722
SGB 5195.5 R23 .0314 R13 -.8723
SG1 5178.3 SG2 422.7 THA 178.14

ORBIT DETERMINATION ACCURACY
ST 1701.0 SR 333.0 SS 454.7
CRT .8465 CRS -.7518 CST -.9855
LSA 1781.5 MSA 190.8 SSA 28.0
EL1 1724.4 EL2 174.8 ALF 9.51

LAUNCH DATE OCT 18 1970 FLIGHT TIME 176.00 ARRIVAL DATE APR 12 1971

HELIOCENTRIC CONIC DISTANCE 524.680

RL 149.04 LAL -.00 LOL 24.20 VL 25.840 GAL 1.55 AZL 87.97 HCA 268.81 SMA 119.22 ECC .25151 INC 2.0256 V1 29.896
RP 108.90 LAP -2.03 LOP 293.01 VP 36.388 GAP 13.71 AZP 90.04 TAL 175.37 TAP 84.19 RCA 89.24 APO 149.21 V2 34.797
RC 187.719 GL 12.13 GP 10.93 ZAL 74.14 ZAP 168.54 ETS 69.74 ZAE 130.13 ETE 170.99 ZAC 112.59 ETC 273.11 CLP-176.55

PLANETOCENTRIC CONIC

C3 18.867 VHL 4.344 DLA -5.92 RAL 309.60 RAD 6567.8 VEL 11.843 PTH 2.10 VHP 8.726 DPA -12.19 RAP 297.28 ECC 1.3105

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 59 34	2015.96	-14.31	29.28	168.95	114.70	7 33 10	1416.0	-10.86	22.30
90.00	17 29 0	5029.22	23.31	221.54	171.59	73.45	18 52 50	4429.2	20.82	213.75
100.00	8 18 6	1762.61	-15.32	10.16	168.46	115.99	8 47 28	1162.6	-11.70	3.24
100.00	18 53 9	4757.80	24.38	201.22	171.23	72.14	20 12 27	4157.8	21.71	193.44
110.00	9 19 55	1569.07	-18.01	353.99	166.98	119.56	9 46 4	969.1	-13.93	347.25
110.00	20 7 50	4524.10	27.24	182.34	170.09	68.50	21 23 14	3924.1	24.07	174.60

DIFFERENTIAL CORRECTIONS
TDE 1.3144 TRA 1.5784 TC3-5.1103 BAU 1.2902
RDE .2460 RRA -.1883 RC3 .2223 FAU .01694
FDE .4187 FRA .7444 FC3 -.7774 BSP 16871
BDE 1.3372 BRA 1.5896 BC3 5.1151 FSP -382

MID-COURSE EXECUTION ACCURACY
SGT 5205.4 SGR 452.7 SG3 113.8
RRT -.3468 RRF -.3314 RTF .8781
SGB 5225.0 R23 .0265 R13 -.8782
SG1 5207.8 SG2 424.4 THA 178.26

ORBIT DETERMINATION ACCURACY
ST 1848.8 SR 333.1 SS 472.7
CRT .8360 CRS -.7514 CST -.9888
LSA 1927.3 MSA 193.9 SSA 25.2
EL1 1869.9 EL2 180.7 ALF 8.65

LAUNCH DATE OCT 18 1970 FLIGHT TIME 178.00 ARRIVAL DATE APR 14 1971

HELIOCENTRIC CONIC DISTANCE 530.052

RL 149.04 LAL -.00 LOL 24.20 VL 25.785 GAL 2.22 AZL 87.83 HCA 271.97 SMA 118.91 ECC .25613 INC 2.1737 V1 29.896
RP 108.92 LAP -2.17 LOP 296.17 VP 36.345 GAP 14.05 AZP 89.93 TAL 173.51 TAP 85.48 RCA 88.46 APO 149.37 V2 34.793
RC 189.610 GL 12.51 GP 10.66 ZAL 70.74 ZAP 168.99 ETS 72.75 ZAE 130.24 ETE 171.20 ZAC 112.06 ETC 273.74 CLP-177.22

PLANETOCENTRIC CONIC

C3 20.352 VHL 4.511 DLA -4.64 RAL 312.82 RAD 6567.8 VEL 11.905 PTH 2.12 VHP 8.927 DPA -12.10 RAP 299.81 ECC 1.3349

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 2 41	2074.31	-15.94	32.79	173.49	113.72	7 37 15	1474.3	-12.60	25.71
90.00	17 51 36	5006.81	22.87	220.05	175.67	72.83	19 15 3	4406.8	20.30	212.31
100.00	8 21 51	1818.94	-16.97	13.53	173.00	114.98	8 52 10	1218.9	-13.46	6.49
100.00	19 15 7	4737.41	23.95	199.86	175.29	71.55	20 34 5	4137.4	21.20	192.13
110.00	9 25 5	1620.94	-19.72	357.04	171.54	118.50	9 52 6	1020.9	-15.76	350.16
110.00	20 28 22	4508.17	26.84	181.28	174.11	67.99	21 43 30	3908.2	23.61	173.60

DIFFERENTIAL CORRECTIONS
TDE 1.4724 TRA 1.8417 TC3-4.7403 BAU 1.2909
RDE .2547 RRA -.2001 RC3 .1981 FAU .01567
FDE .4454 FRA .7832 FC3 -.6666 BSP 16850
BDE 1.4942 BRA 1.8525 BC3 4.7444 FSP -372

MID-COURSE EXECUTION ACCURACY
SGT 5224.6 SGR 449.0 SG3 111.9
RRT -.3232 RRF -.3079 RTF .8825
SGB 5243.9 R23 .0219 R13 -.8826
SG1 5226.7 SG2 424.8 THA 178.40

ORBIT DETERMINATION ACCURACY
ST 2002.2 SR 332.4 SS 493.9
CRT .8268 CRS -.7516 CST -.9914
LSA 2079.5 MSA 196.2 SSA 23.0
EL1 2021.2 EL2 185.2 ALF 7.88

LAUNCH DATE OCT 18 1970 FLIGHT TIME 180.00 ARRIVAL DATE APR 16 1971

HELIOCENTRIC CONIC DISTANCE 535.378

RL 149.04 LAL -.00 LOL 24.20 VL 25.730 GAL 2.93 AZL 87.68 HCA 275.13 SMA 118.62 ECC .26122 INC 2.3222 V1 29.896
RP 108.93 LAP -2.31 LOP 299.33 VP 36.304 GAP 14.42 AZP 89.79 TAL 171.65 TAP 86.78 RCA 87.63 APO 149.60 V2 34.790
RC 191.483 GL 12.79 GP 10.41 ZAL 67.47 ZAP 169.38 ETS 76.03 ZAE 130.34 ETE 171.39 ZAC 111.53 ETC 274.35 CLP-177.89

PLANETOCENTRIC CONIC

C3 22.108 VHL 4.702 DLA -3.43 RAL 315.92 RAD 6567.9 VEL 11.979 PTH 2.13 VHP 9.146 DPA -11.94 RAP 302.32 ECC 1.3638

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 5 55	2132.14	-17.49	36.33	178.08	112.63	7 41 27	1532.1	-14.27	29.13
90.00	18 13 4	4988.79	22.50	218.85	179.78	72.34	19 36 12	4388.8	19.87	211.17
100.00	8 25 40	1874.91	-18.55	16.93	177.60	113.87	8 56 55	1274.9	-15.16	9.78
100.00	19 36 0	4721.26	23.59	198.79	179.39	71.09	20 54 41	4121.3	20.80	191.11
110.00	9 30 14	1672.76	-21.37	.15	176.16	117.34	9 58 7	1072.8	-17.54	353.12
110.00	20 47 55	4496.17	26.53	180.48	178.17	67.61	22 2 51	3896.2	23.26	172.85

DIFFERENTIAL CORRECTIONS
TDE 1.6316 TRA 2.1129 TC3-4.3673 BAU 1.2919
RDE .2650 RRA -.2109 RC3 .1747 FAU .01450
FDE .4701 FRA .8208 FC3 -.5679 BSP 16921
BDE 1.6530 BRA 2.1234 BC3 4.3708 FSP -366

MID-COURSE EXECUTION ACCURACY
SGT 5241.5 SGR 444.5 SG3 109.9
RRT -.2991 RRF -.2844 RTF .8876
SGB 5260.3 R23 .0180 R13 -.8877
SG1 5243.1 SG2 424.0 THA 178.54

ORBIT DETERMINATION ACCURACY
ST 2137.0 SR 332.0 SS 511.4
CRT .8196 CRS -.7524 CST -.9932
LSA 2213.3 MSA 197.8 SSA 21.1
EL1 2154.4 EL2 188.7 ALF 7.31

LAUNCH DATE OCT 18 1970 FLIGHT TIME 182.00 ARRIVAL DATE APR 18 1971

HELIOCENTRIC CONIC DISTANCE 540.647

RL 149.04 LAL -.00 LOL 24.20 VL 25.676 GAL 3.66 AZL 87.53 HCA 278.29 SMA 118.32 ECC .26685 INC 2.4723 V1 29.896
RP 108.93 LAP -2.45 LOP 302.50 VP 36.263 GAP 14.81 AZP 89.64 TAL 169.81 TAP 88.10 RCA 86.75 APO 149.90 V2 34.788
RC 193.340 GL 12.99 GP 10.18 ZAL 64.35 ZAP 169.72 ETS 79.60 ZAE 130.44 ETE 171.57 ZAC 111.00 ETC 274.95 CLP-178.56

PLANETOCENTRIC CONIC

C3 24.172 VHL 4.917 DLA -2.29 RAL 318.88 RAD 6568.0 VEL 12.064 PTH 2.16 VHP 9.383 DPA -11.72 RAP 304.82 ECC 1.3978

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 9 14	2189.32	-18.95	39.89	182.71	111.44	7 45 44	1589.3	-15.87	32.57
90.00	18 33 22	4975.10	22.21	217.95	183.91	71.97	19 56 17	4375.1	19.54	210.30
100.00	8 29 31	1930.36	-20.04	20.38	182.24	112.66	9 1 41	1330.4	-16.79	13.09
100.00	19 55 46	4709.30	23.33	198.00	183.50	70.76	21 14 16	4109.3	20.49	190.35
110.00	9 35 19	1724.38	-22.95	3.33	180.82	116.06	10 4 3	1124.4	-19.26	356.13
110.00	21 6 28	4488.04	26.32	179.94	182.24	67.35	22 21 16	3888.0	23.01	172.34

DIFFERENTIAL CORRECTIONS
TDE 1.7703 TRA 2.3716 TC3-4.0365 BAU 1.3054
RDE .2779 RRA -.2197 RC3 .1541 FAU .01383
FDE .4851 FRA .8501 FC3 -.4955 BSP 17622
BDE 1.7920 BRA 2.3817 BC3 4.0395 FSP -380

MID-COURSE EXECUTION ACCURACY
SGT 5259.3 SGR 439.9 SG3 107.2
RRT -.2774 RRF -.2652 RTF .8952
SGB 5277.7 R23 .0159 R13 -.8952
SG1 5260.8 SG2 422.5 THA 178.66

ORBIT DETERMINATION ACCURACY
ST 2226.9 SR 332.9 SS 518.0
CRT .8145 CRS -.7529 CST -.9943
LSA 2301.7 MSA 199.5 SSA 19.5
EL1 2243.4 EL2 191.7 ALF 6.99

LAUNCH DATE OCT 18 1970 FLIGHT TIME 184.00 ARRIVAL DATE APR 20 1971

HELIOCENTRIC CONIC DISTANCE 545.862

RL 149.04 LAL -.00 LOL 24.20 VL 25.624 GAL 4.44 AZL 87.38 HCA 281.45 SMA 118.04 ECC .27305 INC 2.6247 V1 29.896
RP 108.94 LAP -2.57 LOP 305.66 VP 36.225 GAP 15.23 AZP 89.48 TAL 167.97 TAP 89.42 RCA 85.81 APO 150.27 V2 34.786
RC 195.178 GL 13.11 GP 9.97 ZAL 61.36 ZAP 170.00 ETS 83.41 ZAE 130.53 ETE 171.74 ZAC 110.48 ETC 275.54 CLP-179.24

PLANETOCENTRIC CONIC

C3 26.586 VHL 5.156 DLA -1.22 RAL 321.71 RAD 6568.1 VEL 12.164 PTH 2.18 VHP 9.641 DPA -11.44 RAP 307.31 ECC 1.4375

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 12 37	2245.82	-20.31	43.47	187.37	110.16	7 50 3	1645.8	-17.39	36.02
90.00	18 52 33	4965.58	22.01	217.33	188.05	71.72	20 15 18	4365.6	19.31	209.69
100.00	8 33 24	1985.26	-21.44	23.85	186.92	111.35	9 6 29	1385.3	-18.35	16.42
100.00	20 14 27	4701.37	23.15	197.48	187.63	70.54	21 32 49	4101.4	20.28	189.85
110.00	9 40 20	1775.71	-24.45	6.56	185.53	114.67	10 9 56	1175.7	-20.91	359.20
110.00	21 24 0	4483.68	26.20	179.65	186.34	67.22	22 38 44	3883.7	22.88	172.07

DIFFERENTIAL CORRECTIONS
TDE 1.9668 TRA 2.6965 TC3-3.6245 BAU 1.2891
RDE .2900 RRA -.2296 RC3 .1306 FAU .01231
FDE .5190 FRA .8993 FC3 -.4010 BSP 17084
BDE 1.9880 BRA 2.7062 BC3 3.6269 FSP -355

MID-COURSE EXECUTION ACCURACY
SGT 5265.8 SGR 432.6 SG3 105.9
RRT -.2476 RRF -.2356 RTF .8988
SGB 5283.6 R23 .0120 R13 -.8988
SG1 5266.9 SG2 419.0 THA 178.83

ORBIT DETERMINATION ACCURACY
ST 2365.9 SR 331.3 SS 541.5
CRT .8103 CRS -.7562 CST -.9956
LSA 2441.4 MSA 199.4 SSA 18.3
EL1 2381.2 EL2 192.9 ALF 6.52

LAUNCH DATE OCT 18 1970 FLIGHT TIME 186.00 ARRIVAL DATE APR 22 1971

HELIOCENTRIC CONIC DISTANCE 551.003

RL 149.04 LAL -.00 LOL 24.20 VL 25.572 GAL 5.26 AZL 87.22 HCA 284.60 SMA 117.76 ECC .27990 INC 2.7806 V1 29.896
RP 108.94 LAP -2.69 LOP 308.82 VP 36.187 GAP 15.69 AZP 89.30 TAL 166.15 TAP 90.76 RCA 84.80 APO 150.73 V2 34.785
RC 196.997 GL 13.17 GP 9.78 ZAL 58.53 ZAP 170.22 ETS 87.48 ZAE 130.60 ETE 171.90 ZAC 109.95 ETC 276.11 CLP-179.92

PLANETOCENTRIC CONIC

C3 29.402 VHL 5.422 DLA -.24 RAL 324.40 RAD 6568.2 VEL 12.279 PTH 2.21 VHP 9.921 DPA -11.11 RAP 309.78 ECC 1.4839

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 16 2	2301.46	-21.58	47.06	192.05	108.79	7 54 24	1701.5	-18.81	39.48
90.00	19 10 34	4960.12	21.90	216.97	192.19	71.58	20 33 14	4360.1	19.18	209.35
100.00	8 37 16	2039.43	-22.74	27.35	191.61	109.95	9 11 16	1439.4	-19.81	19.78
100.00	20 32 1	4697.38	23.06	197.22	191.76	70.43	21 50 19	4097.4	20.18	189.60
110.00	9 45 16	1826.60	-25.85	9.84	190.26	113.18	10 15 43	1226.6	-22.49	2.30
110.00	21 40 31	4482.98	26.18	179.61	190.43	67.20	22 55 14	3883.0	22.86	172.02

DIFFERENTIAL CORRECTIONS
TDE 2.1436 TRA 3.0110 TC3-3.2620 BAU 1.2830
RDE .3048 RRA -.2370 RC3 .1106 FAU .01127
FDE .5439 FRA .9409 FC3 -.3317 BSP 17153
BDE 2.1652 BRA 3.0203 BC3 3.2639 FSP -350

MID-COURSE EXECUTION ACCURACY
SGT 5269.5 SGR 425.3 SG3 104.0
RRT -.2194 RRF -.2092 RTF .9048
SGB 5286.6 R23 .0097 R13 -.9048
SG1 5270.3 SG2 414.8 THA 178.98

ORBIT DETERMINATION ACCURACY
ST 2460.3 SR 330.7 SS 555.1
CRT .8079 CRS -.7594 CST -.9965
LSA 2535.8 MSA 199.3 SSA 17.1
EL1 2474.8 EL2 193.8 ALF 6.24

LAUNCH DATE OCT 18 1970 FLIGHT TIME 188.00 ARRIVAL DATE APR 24 1971

HELIOCENTRIC CONIC DISTANCE 556.062

RL 149.04 LAL -.00 LOL 24.20 VL 25.522 GAL 6.12 AZL 87.06 HCA 287.76 SMA 117.50 ECC .28747 INC 2.9411 V1 29.896
RP 108.94 LAP -2.80 LOP 311.98 VP 36.152 GAP 16.19 AZP 89.10 TAL 164.35 TAP 92.11 RCA 83.72 APO 151.27 V2 34.785
RC 198.798 GL 13.16 GP 9.60 ZAL 55.86 ZAP 170.38 ETS 91.76 ZAE 130.66 ETE 172.05 ZAC 109.42 ETC 276.66 CLP 179.38

PLANETOCENTRIC CONIC

C3 32.681 VHL 5.717 DLA .67 RAL 326.94 RAD 6568.3 VEL 12.412 PTH 2.24 VHP 10.228 DPA -10.72 RAP 312.23 ECC 1.5379

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 19 29	2356.17	-22.73	50.66	196.74	107.35	7 58 45	1756.2	-20.15	42.94
90.00	19 27 28	4958.53	21.86	216.87	196.32	71.54	20 50 7	4358.5	19.14	209.25
100.00	8 41 8	2092.79	-23.93	30.86	196.32	108.46	9 16 1	1492.8	-21.19	23.14
100.00	20 48 30	4697.15	23.05	197.20	195.87	70.43	22 6 47	4097.2	20.17	189.59
110.00	9 50 6	1876.93	-27.16	13.18	195.01	111.60	10 21 22	1276.9	-23.98	5.45
110.00	21 56 2	4485.78	26.26	179.79	194.51	67.28	23 10 47	3885.8	22.95	172.20

DIFFERENTIAL CORRECTIONS
TDE 2.3267 TRA 3.3421 TC3-2.9173 BAU 1.2753
RDE .3212 RRA -.2428 RC3 .0922 FAU .01026
FDE .5692 FRA .9842 FC3 -.2719 BSP 17222
BDE 2.3487 BRA 3.3509 BC3 2.9188 FSP -345

MID-COURSE EXECUTION ACCURACY
SGT 5271.1 SGR 417.1 SG3 102.0
RRT -.1893 RRF -.1811 RTF .9109
SGB 5287.6 R23 .0077 R13 -.9109
SG1 5271.7 SG2 409.5 THA 179.14

ORBIT DETERMINATION ACCURACY
ST 2541.2 SR 330.1 SS 567.9
CRT .8070 CRS -.7636 CST -.9971
LSA 2617.1 MSA 198.6 SSA 16.1
EL1 2555.2 EL2 193.9 ALF 6.02

LAUNCH DATE OCT 18 1970 FLIGHT TIME 190.00 ARRIVAL DATE APR 26 1971

HELIOCENTRIC CONIC DISTANCE 561.023

RL	149.04	LAL	-.00	LOL	24.20	VL	25.472	GAL	7.04	AZL	86.89	HCA	290.92	SMA	117.23	ECC	.29584	INC	3.1072
RP	108.94	LAP	-2.90	LOP	315.15	VP	36.117	GAP	16.74	AZP	88.89	TAL	162.58	TAP	93.50	RCA	82.55	APO	151.92
RC	200.578	GL	13.11	GP	9.44	ZAL	53.34	ZAP	170.46	ETS	96.22	ZAE	130.71	ETE	172.20	ZAC	108.89	ETC	277.20

V1	29.896	V2	34.786	CLP	178.67														

PLANETOCENTRIC CONIC

C3	36.500	VHL	6.042	DLA	1.51	RAL	329.36	RAD	6568.4	VEL	12.565	PTH	2.28	VHP	10.563	DPA	-10.29	RAP	314.66
ECC	1.6007																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 22 55	2409.88	-23.78	54.24	201.42	105.85	8 3 5	1809.9	-21.38	46.40
90.00	19 43 16	4960.62	21.91	217.00	200.42	71.60	21 5 56	4360.6	19.19	209.38
100.00	8 44 58	2145.24	-25.02	34.38	201.02	106.92	9 20 43	1545.2	-22.46	26.52
100.00	21 3 54	4700.48	23.13	197.42	199.97	70.52	22 22 15	4100.5	20.26	189.80
110.00	9 54 49	1926.61	-28.36	16.54	199.77	109.94	10 26 55	1326.6	-25.38	8.63
110.00	22 10 32	4491.88	26.42	180.20	198.58	67.47	23 25 24	3891.9	23.13	172.58

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.5158	TRA	3.6903	TC3	-2.5899	BAU	1.2644	SGT	5267.1	SGR	408.1	SG3	100.1	ST	2608.5	SR	329.2	SS	580.2
RDE	.3391	RRA	-.2467	RC3	.0756	FAU	.00931	RRT	-.1572	RRF	-.1512	RTF	.9173	CRT	.8074	CRS	-.7685	CST	-.9977
FDE	.5948	FRA	1.0295	FC3	-.2207	BSP	17335	SGB	5282.9	R23	.0062	R13	-.9173	LSA	2685.2	MSA	197.3	SSA	15.2
BDE	2.5386	BRA	3.6985	BC3	2.5910	FSP	-341	SG1	5267.5	SG2	403.0	THA	179.30	EL1	2622.1	EL2	193.2	ALF	5.85

LAUNCH DATE OCT 18 1970 FLIGHT TIME 192.00 ARRIVAL DATE APR 28 1971

HELIOCENTRIC CONIC DISTANCE 565.870

RL	149.04	LAL	-.00	LOL	24.20	VL	25.424	GAL	8.01	AZL	86.72	HCA	294.08	SMA	116.98	ECC	.30511	INC	3.2806
RP	108.93	LAP	-3.00	LOP	318.31	VP	36.084	GAP	17.34	AZP	88.66	TAL	160.83	TAP	94.91	RCA	81.29	APO	152.67
RC	202.339	GL	13.01	GP	9.30	ZAL	50.96	ZAP	170.48	ETS	100.82	ZAE	130.74	ETE	172.34	ZAC	108.36	ETC	277.72

V1	29.896	V2	34.787	CLP	177.94														

PLANETOCENTRIC CONIC

C3	40.950	VHL	6.399	DLA	2.26	RAL	331.63	RAD	6568.6	VEL	12.740	PTH	2.32	VHP	10.932	DPA	-9.81	RAP	317.05
ECC	1.6739																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 26 21	2462.47	-24.71	57.82	206.07	104.29	8 7 24	1862.5	-22.50	49.84
90.00	19 57 58	4966.15	22.02	217.36	204.49	71.74	21 20 44	4366.2	19.33	209.73
100.00	8 48 45	2196.70	-25.99	37.90	205.69	105.31	9 25 22	1596.7	-23.64	29.89
100.00	21 18 15	4707.16	23.28	197.86	204.03	70.70	22 36 42	4107.2	20.43	190.22
110.00	9 59 25	1975.52	-29.45	19.93	204.52	108.20	10 32 21	1375.5	-26.68	11.84
110.00	22 24 4	4501.10	26.65	180.81	202.62	67.76	23 39 6	3901.1	23.40	173.15

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.7130	TRA	4.0583	TC3	-2.2823	BAU	1.2499	SGT	5258.9	SGR	398.5	SG3	98.2	ST	2664.2	SR	328.1	SS	592.5
RDE	.3588	RRA	-.2484	RC3	.0609	FAU	.00838	RRT	-.1225	RRF	-.1187	RTF	.9238	CRT	.8090	CRS	-.7744	CST	-.9981
FDE	.6215	FRA	1.0774	FC3	-.1771	BSP	17455	SGB	5274.0	R23	.0050	R13	-.9238	LSA	2742.0	MSA	195.4	SSA	14.4
BDE	2.7366	BRA	4.0659	BC3	2.2831	FSP	-338	SG1	5259.2	SG2	395.5	THA	179.47	EL1	2677.5	EL2	191.9	ALF	5.72

LAUNCH DATE OCT 18 1970 FLIGHT TIME 194.00 ARRIVAL DATE APR 30 1971

HELIOCENTRIC CONIC DISTANCE 570.581

RL	149.04	LAL	-.00	LOL	24.20	VL	25.377	GAL	9.05	AZL	86.54	HCA	297.23	SMA	116.73	ECC	.31539	INC	3.4628
RP	108.93	LAP	-3.08	LOP	321.48	VP	36.053	GAP	17.99	AZP	88.41	TAL	159.13	TAP	96.36	RCA	79.92	APO	153.55
RC	204.080	GL	12.88	GP	9.16	ZAL	48.74	ZAP	170.42	ETS	105.50	ZAE	130.75	ETE	172.48	ZAC	107.83	ETC	278.22

V1	29.896	V2	34.789	CLP	177.20														

PLANETOCENTRIC CONIC

C3	46.144	VHL	6.793	DLA	2.95	RAL	333.77	RAD	6568.7	VEL	12.942	PTH	2.36	VHP	11.338	DPA	-9.30	RAP	319.42
ECC	1.7594																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 29 47	2513.84	-25.53	61.36	210.68	102.69	8 11 41	1913.8	-23.52	53.26
90.00	20 11 36	4974.91	22.21	217.94	208.52	71.97	21 34 31	4374.9	19.54	210.29
100.00	8 52 30	2247.03	-26.85	41.39	210.34	103.66	9 29 57	1647.0	-24.70	33.25
100.00	21 31 34	4716.95	23.50	198.50	208.05	70.97	22 50 11	4117.0	20.69	190.84
110.00	10 3 54	2023.55	-30.42	23.33	209.25	106.40	10 37 38	1423.6	-27.87	15.06
110.00	22 36 39	4513.20	26.96	181.61	206.63	68.15	23 51 52	3913.2	23.76	173.91

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	2.9184	TRA	4.4478	TC3	-1.9949	BAU	1.2310	SGT	5245.6	SGR	388.3	SG3	96.4	ST	2708.5	SR	326.7	SS	605.2
RDE	.3801	RRA	-.2477	RC3	.0479	FAU	.00747	RRT	-.0849	RRF	-.0836	RTF	.9303	CRT	.8118	CRS	-.7809	CST	-.9984
FDE	.6492	FRA	1.1285	FC3	-.1401	BSP	17582	SGB	5260.0	R23	.0042	R13	-.9303	LSA	2787.7	MSA	192.9	SSA	13.6
BDE	2.9431	BRA	4.4547	BC3	1.9955	FSP	-335	SG1	5245.7	SG2	386.9	THA	179.64	EL1	2721.5	EL2	189.8	ALF	5.62

LAUNCH DATE OCT 18 1970 FLIGHT TIME 196.00 ARRIVAL DATE MAY 2 1971

HELIOCENTRIC CONIC DISTANCE 575.129

RL	149.04	LAL	-.00	LOL	24.20	VL	25.330	GAL	10.17	AZL	86.34	HCA	300.39	SMA	116.49	ECC	.32682	INC	3.6556
RP	108.92	LAP	-3.15	LOP	324.64	VP	36.023	GAP	18.72	AZP	88.15	TAL	157.47	TAP	97.87	RCA	78.42	APO	154.56
RC	205.802	GL	12.71	GP	9.04	ZAL	46.66	ZAP	170.29	ETS	110.21	ZAE	130.73	ETE	172.61	ZAC	107.30	ETC	278.70

V1	29.896	V2	34.792	CLP	176.43														

PLANETOCENTRIC CONIC

C3	52.223	VHL	7.227	DLA	3.56	RAL	335.77	RAD	6568.9	VEL	13.175	PTH	2.41	VHP	11.787	DPA	-8.75	RAP	321.75
ECC	1.8595																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 33 11	2563.87	-26.23	64.85	215.24	101.08	8 15 55	1963.9	-24.43	56.64
90.00	20 24 11	4986.66	22.46	218.71	212.50	72.28	21 47 18	4386.7	19.82	211.03
100.00	8 56 12	2296.13	-27.59	44.85	214.93	101.98	9 34 28	1696.1	-25.66	36.58
100.00	21 43 52	4729.64	23.78	199.34	212.03	71.33	23 2 41	4129.6	21.01	191.64
110.00	10 8 16	2070.57	-31.27	26.73	213.93	104.56	10 42 47	1470.6	-28.96	18.29
110.00	22 48 17	4527.97	27.33	182.60	210.59	68.63	24 3 45	3928.0	24.18	174.85

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	3.1353	TRA	4.8627	TC3	-1.7275	BAU	1.2063	SGT	5228.3	SGR	377.6	SG3	94.6	ST	2743.7	SR	324.9	SS	618.9
RDE	.4031	RRA	-.2441	RC3	.0367	FAU	.00656	RRT	-.0440	RRF	-.0450	RTF	.9369	CRT	.8156	CRS	-.7883	CST	-.9987
FDE	.6789	FRA	1.1836	FC3	-.1087	BSP	17698	SGB	5241.9	R23	.0035	R13	-.9369	LSA	2825.0	MSA	189.7	SSA	12.9
BDE	3.1611	BRA	4.8688	BC3	1.7279	FSP	-331	SG1	5228.3	SG2	377.2	THA	179.82	EL1	2756.5	EL2	187.1	ALF	5.54

LAUNCH DATE OCT 18 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAY 4 1971

HELIOCENTRIC CONIC DISTANCE 579.480

RL 149.04 LAL -.00 LOL 24.20 VL 25.286 GAL 11.37 AZL 86.14 HCA 303.55 SMA 116.26 ECC .33956 INC 3.8614 V1 29.896
RP 108.91 LAP -3.22 LOP 327.81 VP 35.995 GAP 19.53 AZP 87.86 TAL 155.87 TAP 99.42 RCA 76.78 APO 155.74 V2 34.795
RC 207.503 GL 12.51 GP 8.92 ZAL 44.73 ZAP 170.07 ETS 114.90 ZAE 130.68 ETE 172.75 ZAC 106.77 ETC 279.16 CLP 175.63

PLANETOCENTRIC CONIC

C3 59.360 VHL 7.705 DLA 4.11 RAL 337.64 RAD 6569.1 VEL 13.443 PTH 2.46 VHP 12.285 DPA -8.17 RAP 324.04 ECC 1.9769

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 36 34	2612.41	-26.82	68.29	219.73	99.45	8 20 7	2012.4	-25.24	59.97
90.00	20 35 44	5001.19	22.75	219.67	216.42	72.68	21 59 5	4401.2	20.17	211.96
100.00	8 59 51	2343.83	-28.22	48.26	219.45	100.30	9 38 54	1743.8	-26.51	39.87
100.00	21 55 9	4745.00	24.11	200.36	215.95	71.77	23 14 14	4145.0	21.39	192.62
110.00	10 12 30	2116.42	-32.01	30.10	218.56	102.69	10 47 47	1516.4	-29.93	21.51
110.00	22 58 59	4545.18	27.76	183.76	214.51	69.20	24 14 44	3945.2	24.67	175.95

DIFFERENTIAL CORRECTIONS
TDE 3.3655 TRA 5.3070 TC3-1.4792 BAU 1.1741
RDE .4280 RRA -.2372 RC3 .0272 FAU .00562
FDE .7110 FRA 1.2436 FC3 -.0820 BSP 17780
BDE 3.3926 BRA 5.3123 BC3 1.4795 FSP -327

MID-COURSE EXECUTION ACCURACY
SGT 5207.3 SGR 366.5 SG3 92.9
RRT .0006 RRF -.0026 RTF .9434
SGB 5220.2 R23 -.0031 R13 .9434
SG1 5207.3 SG2 366.5 THA .00

ORBIT DETERMINATION ACCURACY
ST 2770.9 SR 322.7 SS 634.2
CRT .8204 CRS -.7963 CST -.9990
LSA 2854.7 MSA 186.0 SSA 12.2
EL1 2783.6 EL2 183.7 ALF 5.48

LAUNCH DATE OCT 18 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAY 6 1971

HELIOCENTRIC CONIC DISTANCE 583.593

RL 149.04 LAL -.00 LOL 24.20 VL 25.242 GAL 12.68 AZL 85.92 HCA 306.71 SMA 116.04 ECC .35380 INC 4.0828 V1 29.896
RP 108.90 LAP -3.27 LOP 330.98 VP 35.968 GAP 20.43 AZP 87.56 TAL 154.34 TAP 101.05 RCA 74.98 APO 157.09 V2 34.799
RC 209.184 GL 12.30 GP 8.82 ZAL 42.94 ZAP 169.77 ETS 119.52 ZAE 130.60 ETE 172.88 ZAC 106.24 ETC 279.59 CLP 174.80

PLANETOCENTRIC CONIC

C3 67.777 VHL 8.233 DLA 4.59 RAL 339.38 RAD 6569.3 VEL 13.752 PTH 2.51 VHP 12.840 DPA -7.56 RAP 326.28 ECC 2.1154

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 39 56	2659.28	-27.30	71.63	224.11	97.84	8 24 15	2059.3	-25.93	63.23
90.00	20 46 16	5018.25	23.10	220.81	220.26	73.14	22 9 54	4418.3	20.57	213.05
100.00	9 3 26	2389.97	-28.73	51.59	223.87	98.61	9 43 16	1790.0	-27.25	43.10
100.00	22 5 27	4762.80	24.48	201.55	219.79	72.29	23 24 50	4162.8	21.83	193.76
110.00	10 16 37	2160.92	-32.63	33.43	223.10	100.81	10 52 38	1560.9	-30.79	24.69
110.00	23 8 45	4564.61	28.22	185.08	218.36	69.86	24 24 50	3964.6	25.21	177.20

DIFFERENTIAL CORRECTIONS
TDE 3.6126 TRA 5.7854 TC3-1.2495 BAU 1.1323
RDE .4549 RRA -.2267 RC3 .0194 FAU .00463
FDE .7462 FRA 1.3096 FC3 -.0591 BSP 17793
BDE 3.6411 BRA 5.7899 BC3 1.2497 FSP -322

MID-COURSE EXECUTION ACCURACY
SGT 5183.6 SGR 355.4 SG3 91.2
RRT .0494 RRF .0443 RTF .9498
SGB 5195.8 R23 -.0029 R13 .9498
SG1 5183.7 SG2 354.9 THA .20

ORBIT DETERMINATION ACCURACY
ST 2791.7 SR 320.1 SS 651.6
CRT .8262 CRS -.8052 CST -.9992
LSA 2878.8 MSA 181.5 SSA 11.6
EL1 2804.2 EL2 179.5 ALF 5.43

LAUNCH DATE OCT 18 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAY 8 1971

HELIOCENTRIC CONIC DISTANCE 587.414

RL 149.04 LAL -.00 LOL 24.20 VL 25.200 GAL 14.10 AZL 85.68 HCA 309.87 SMA 115.82 ECC .36974 INC 4.3233 V1 29.896
RP 108.88 LAP -3.32 LOP 334.15 VP 35.943 GAP 21.44 AZP 87.23 TAL 152.90 TAP 102.76 RCA 73.00 APO 158.64 V2 34.804
RC 210.844 GL 12.06 GP 8.72 ZAL 41.30 ZAP 169.38 ETS 124.04 ZAE 130.47 ETE 173.02 ZAC 105.71 ETC 280.00 CLP 173.92

PLANETOCENTRIC CONIC

C3 77.754 VHL 8.818 DLA 4.99 RAL 340.99 RAD 6569.5 VEL 14.110 PTH 2.57 VHP 13.461 DPA -6.94 RAP 328.47 ECC 2.2796

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 43 16	2704.27	-27.67	74.87	228.37	96.26	8 28 20	2104.3	-26.52	66.39
90.00	20 55 45	5037.66	23.47	222.11	224.02	73.69	22 19 43	4437.7	21.01	214.30
100.00	9 6 57	2434.32	-29.14	54.82	228.18	96.96	9 47 32	1834.3	-27.87	46.25
100.00	22 14 44	4782.84	24.89	202.90	223.55	72.89	23 34 27	4182.8	22.31	195.05
110.00	10 20 35	2203.86	-33.13	36.68	227.53	98.95	10 57 19	1603.9	-31.54	27.81
110.00	23 17 36	4586.06	28.71	186.56	222.14	70.60	24 34 2	3986.1	25.80	178.59

DIFFERENTIAL CORRECTIONS
TDE 3.8792 TRA 6.3026 TC3-1.0378 BAU 1.0789
RDE .4840 RRA -.2117 RC3 .0131 FAU .00354
FDE .7851 FRA 1.3825 FC3 -.0394 BSP 17730
BDE 3.9092 BRA 6.3062 BC3 1.0379 FSP -316

MID-COURSE EXECUTION ACCURACY
SGT 5157.8 SGR 344.2 SG3 89.7
RRT .1029 RRF .0960 RTF .9560
SGB 5169.2 R23 -.0028 R13 .9560
SG1 5157.9 SG2 342.4 THA .40

ORBIT DETERMINATION ACCURACY
ST 2806.6 SR 317.2 SS 671.6
CRT .8330 CRS -.8147 CST -.9993
LSA 2897.9 MSA 176.5 SSA 11.0
EL1 2819.1 EL2 174.8 ALF 5.40

LAUNCH DATE OCT 18 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAY 10 1971

HELIOCENTRIC CONIC DISTANCE 590.873

RL 149.04 LAL -.00 LOL 24.20 VL 25.159 GAL 15.65 AZL 85.41 HCA 313.03 SMA 115.61 ECC .38766 INC 4.5871 V1 29.896
RP 108.86 LAP -3.35 LOP 337.32 VP 35.920 GAP 22.58 AZP 86.87 TAL 151.56 TAP 104.58 RCA 70.79 APO 160.43 V2 34.810
RC 212.484 GL 11.81 GP 8.63 ZAL 39.80 ZAP 168.90 ETS 128.42 ZAE 130.29 ETE 173.16 ZAC 105.19 ETC 280.39 CLP 172.99

PLANETOCENTRIC CONIC

C3 89.650 VHL 9.468 DLA 5.33 RAL 342.46 RAD 6569.8 VEL 14.526 PTH 2.64 VHP 14.159 DPA -6.30 RAP 330.60 ECC 2.4754

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 46 34	2747.11	-27.95	77.97	232.48	94.73	8 32 21	2147.1	-27.00	69.44
90.00	21 4 11	5059.21	23.88	223.56	227.67	74.31	22 28 30	4459.2	21.49	215.69
100.00	9 10 25	2476.63	-29.45	57.93	232.33	95.35	9 51 42	1876.6	-28.40	49.29
100.00	22 23 0	4804.93	25.33	204.40	227.22	73.56	23 43 5	4204.9	22.83	196.49
110.00	10 24 26	2245.00	-33.52	39.82	231.81	97.13	11 1 51	1645.0	-32.17	30.85
110.00	23 25 29	4609.32	29.23	188.17	225.83	71.43	24 42 18	4009.3	26.41	180.12

DIFFERENTIAL CORRECTIONS
TDE 4.1688 TRA 6.8643 TC3 -.8436 BAU 1.0111
RDE .5157 RRA -.1917 RC3 .0083 FAU .00234
FDE .8285 FRA 1.4635 FC3 -.0225 BSP 17555
BDE 4.2005 BRA 6.8670 BC3 .8436 FSP -307

MID-COURSE EXECUTION ACCURACY
SGT 5130.3 SGR 333.5 SG3 88.3
RRT .1614 RRF .1531 RTF .9620
SGB 5141.1 R23 -.0029 R13 .9620
SG1 5130.6 SG2 329.1 THA .60

ORBIT DETERMINATION ACCURACY
ST 2816.4 SR 314.0 SS 694.8
CRT .8406 CRS -.8250 CST -.9995
LSA 2912.8 MSA 170.9 SSA 10.4
EL1 2828.8 EL2 169.3 ALF 5.37

LAUNCH DATE OCT 18 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAY 12 1971

HELIOCENTRIC CONIC DISTANCE 593.881

RL	149.04	LAL	-.00	LOL	24.20	VL	25.120	GAL	17.36	AZL	85.12	HCA	316.19	SMA	115.42	ECC	.40787	INC	4.8797	V1	29.896
RP	108.85	LAP	-3.38	LOP	340.49	VP	35.899	GAP	23.86	AZP	86.47	TAL	150.34	TAP	106.53	RCA	68.34	APO	162.49	V2	34.816
RC	214.102	GL	11.54	GP	8.54	ZAL	38.45	ZAP	168.31	ETS	132.65	ZAE	130.05	ETE	173.31	ZAC	104.68	ETC	280.75	CLP	171.99

PLANETOCENTRIC CONIC

C3	103.932	VHL	10.195	DLA	5.60	RAL	343.79	RAD	6570.0	VEL	15.009	PTH	2.70	VHP	14.949	DPA	-5.66	RAP	332.66	ECC	2.7105

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 49 50	2787.51	-28.14	80.91	236.41	93.27	8 36 18	2187.5	-27.39	72.33
90.00	21 11 31	5082.76	24.30	225.15	231.21	75.00	22 36 14	4482.8	22.01	217.23
100.00	9 13 49	2516.60	-29.67	60.88	236.30	93.81	9 55 46	1916.6	-28.83	52.18
100.00	22 30 13	4828.89	25.78	206.04	230.76	74.31	23 50 42	4228.9	23.37	198.06
110.00	10 28 8	2284.04	-33.81	42.84	235.91	95.37	11 6 12	1684.0	-32.70	33.78
110.00	23 32 24	4634.22	29.76	189.92	229.41	72.34	24 49 38	4034.2	27.05	181.77

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TOE	4.4853	TRA	7.4769	TC3	-.6662	BAU	.9257	SGT	5101.7	SGR	323.3	SG3	87.0	ST	2821.5	SR	310.6	SS	721.7
ROE	.5504	RRA	-.1656	RC3	.0049	FAU	.00095	RRT	.2252	RRF	.2158	RTF	.9677	CRT	.8492	CRS	-.8359	CST	-.9996
FOE	.8770	FRA	1.5540	FC3	-.0080	BSP	17261	SGB	5111.9	R23	-.0030	R13	.9677	LSA	2924.2	MSA	164.7	SSA	9.8
BOE	4.5189	BRA	7.4787	BC3	.6662	FSP	-297	SG1	5102.2	SG2	315.0	THA	.82	EL1	2833.8	EL2	163.3	ALF	5.36

LAUNCH DATE OCT 18 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAY 14 1971

HELIOCENTRIC CONIC DISTANCE 596.320

RL	149.04	LAL	-.00	LOL	24.20	VL	25.084	GAL	19.26	AZL	84.79	HCA	319.35	SMA	115.23	ECC	.43073	INC	5.2081	V1	29.896
RP	108.82	LAP	-3.39	LOP	343.66	VP	35.880	GAP	25.33	AZP	86.04	TAL	149.28	TAP	108.62	RCA	65.60	APO	164.87	V2	34.823
RC	215.699	GL	11.26	GP	8.45	ZAL	37.26	ZAP	167.61	ETS	136.70	ZAE	129.73	ETE	173.48	ZAC	104.18	ETC	281.08	CLP	170.91

PLANETOCENTRIC CONIC

C3	121.210	VHL	11.010	DLA	5.79	RAL	344.97	RAD	6570.3	VEL	15.574	PTH	2.77	VHP	15.846	DPA	-5.02	RAP	334.64	ECC	2.9948

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 53 4	2825.09	-28.26	83.66	240.12	91.89	8 40 10	2225.1	-27.70	75.04
90.00	21 17 42	5108.16	24.74	226.88	234.59	75.76	22 42 50	4508.2	22.54	218.90
100.00	9 17 10	2553.88	-29.81	63.64	240.06	92.37	9 59 43	1953.9	-29.16	54.90
100.00	22 36 18	4854.61	26.24	207.81	234.16	75.14	23 57 12	4254.6	23.94	199.76
110.00	10 31 41	2320.64	-34.01	45.68	239.79	93.70	11 10 22	1720.6	-33.12	36.55
110.00	23 38 16	4660.61	30.29	191.79	232.87	73.33	24 55 56	4060.6	27.71	183.55

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TOE	4.8330	TRA	8.1473	TC3	-.5052	BAU	.8186	SGT	5072.1	SGR	314.2	SG3	85.8	ST	2821.7	SR	307.1	SS	753.1
ROE	.5888	RRA	-.1325	RC3	.0027	FAU	-.00066	RRT	.2940	RRF	.2840	RTF	.9731	CRT	.8586	CRS	-.8474	CST	-.9997
FOE	.9316	FRA	1.6557	FC3	.0047	BSP	16829	SGB	5081.8	R23	-.0033	R13	.9731	LSA	2932.3	MSA	157.9	SSA	9.3
BOE	4.8687	BRA	8.1483	BC3	.5052	FSP	-285	SG1	5072.9	SG2	300.3	THA	1.05	EL1	2834.0	EL2	156.7	ALF	5.36

LAUNCH DATE OCT 18 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAY 16 1971

HELIOCENTRIC CONIC DISTANCE 598.037

RL	149.04	LAL	-.00	LOL	24.20	VL	25.050	GAL	21.38	AZL	84.42	HCA	322.51	SMA	115.06	ECC	.45668	INC	5.5818	V1	29.896
RP	108.80	LAP	-3.39	LOP	346.84	VP	35.863	GAP	27.01	AZP	85.57	TAL	148.41	TAP	110.91	RCA	62.52	APO	167.61	V2	34.830
RC	217.273	GL	10.96	GP	8.37	ZAL	36.24	ZAP	166.79	ETS	140.59	ZAE	129.31	ETE	173.65	ZAC	103.69	ETC	281.38	CLP	169.74

PLANETOCENTRIC CONIC

C3	142.293	VHL	11.929	DLA	5.91	RAL	345.99	RAD	6570.5	VEL	16.236	PTH	2.85	VHP	16.871	DPA	-4.40	RAP	336.53	ECC	3.3418

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 56 17	2859.41	-28.31	86.17	243.58	90.64	8 43 56	2259.4	-27.92	77.52
90.00	21 22 38	5135.36	25.18	228.75	237.81	76.60	22 48 13	4535.4	23.09	220.71
100.00	9 20 25	2588.02	-29.88	66.18	243.55	91.03	10 3 34	1988.0	-29.41	57.41
100.00	22 41 10	4881.99	26.70	209.71	237.40	76.04	24 2 32	4282.0	24.52	201.59
110.00	10 35 5	2354.39	-34.12	48.30	243.41	92.14	11 14 19	1754.4	-33.45	39.13
110.00	23 43 1	4688.38	30.81	193.78	236.17	74.40	25 1 9	4088.4	28.36	185.44

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TOE	5.2155	TRA	8.8823	TC3	-.3601	BAU	.6851	SGT	5040.8	SGR	306.5	SG3	84.6	ST	2816.4	SR	303.6	SS	789.4
ROE	.6314	RRA	-.0910	RC3	.0017	FAU	-.00258	RRT	.3675	RRF	.3573	RTF	.9780	CRT	.8688	CRS	-.8594	CST	-.9998
FOE	.9931	FRA	1.7700	FC3	.0157	BSP	16263	SGB	5050.1	R23	-.0035	R13	.9779	LSA	2936.7	MSA	150.7	SSA	8.7
BOE	5.2536	BRA	8.8827	BC3	.3601	FSP	-271	SG1	5042.1	SG2	285.0	THA	1.28	EL1	2828.7	EL2	149.7	ALF	5.37

LAUNCH DATE OCT 18 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAY 18 1971

HELIOCENTRIC CONIC DISTANCE 598.820

RL	149.04	LAL	-.00	LOL	24.20	VL	25.018	GAL	23.77	AZL	83.99	HCA	325.67	SMA	114.91	ECC	.48622	INC	6.0137	V1	29.896
RP	108.78	LAP	-3.39	LOP	350.01	VP	35.849	GAP	28.95	AZP	85.03	TAL	147.77	TAP	113.44	RCA	59.04	APO	170.77	V2	34.838
RC	218.823	GL	10.66	GP	8.29	ZAL	35.41	ZAP	165.82	ETS	144.31	ZAE	128.78	ETE	173.85	ZAC	103.23	ETC	281.64	CLP	168.45

PLANETOCENTRIC CONIC

C3	168.258	VHL	12.971	DLA	5.93	RAL	346.84	RAD	6570.8	VEL	17.017	PTH	2.92	VHP	18.049	DPA	-3.80	RAP	338.30	ECC	3.7691

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 59 28	2889.94	-28.31	88.40	246.74	89.52	8 47 38	2289.9	-28.08	79.74
90.00	21 26 11	5164.36	25.62	230.76	240.83	77.51	22 52 15	4564.4	23.65	222.65
100.00	9 23 37	2618.52	-29.89	68.45	246.75	89.84	10 7 15	2018.5	-29.59	59.66
100.00	22 44 42	4911.02	27.16	211.75	240.45	77.01	24 6 34	4311.0	25.10	203.55
110.00	10 38 18	2384.80	-34.18	50.68	246.72	90.74	11 18 2	1784.8	-33.70	41.47
110.00	23 46 31	4717.50	31.32	195.90	239.28	75.56	25 5 9	4117.5	29.02	187.45

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TOE	5.5822	TRA	9.6345	TC3	-.2436	BAU	.5481	SGT	4978.5	SGR	300.2	SG3	82.9	ST	2779.8	SR	299.6	SS	823.3
ROE	.6782	RRA	-.0407	RC3	.0014	FAU	-.00438	RRT	.4410	RRF	.4309	RTF	.9822	CRT	.8785	CRS	-.8705	CST	-.9998
FOE	1.0509	FRA	1.8873	FC3	.0225	BSP	16876	SGB	4987.5	R23	-.0039	R13	.9822	LSA	2911.1	MSA	143.5	SSA	8.1
BOE	5.6232	BRA	9.6346	BC3	.2436	FSP	-280	SG1	4980.2	SG2	269.3	THA	1.53	EL1	2792.3	EL2	142.5	ALF	5.42

LAUNCH DATE OCT 18 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAY 20 1971

HELIOCENTRIC CONIC DISTANCE 598.406

RL 149.04 LAL -.00 LOL 24.20 VL 24.990 GAL 26.48 AZL 83.48 HCA 328.82 SMA 114.77 ECC .51993 INC 6.5217 V1 29.896
RP 108.75 LAP -3.37 LOP 353.19 VP 35.838 GAP 31.20 AZP 84.41 TAL 147.42 TAP 116.25 RCA 55.10 APO 174.44 V2 34.847
RC 220.349 GL 10.33 GP 8.21 ZAL 34.78 ZAP 164.68 ETS 147.86 ZAE 128.11 ETE 174.07 ZAC 102.78 ETC 281.88 CLP 167.02

PLANETOCENTRIC CONIC

C3 200.561 VHL 14.162 DLA 5.86 RAL 347.48 RAD 6571.1 VEL 17.941 PTH 3.00 VHP 19.413 DPA -3.25 RAP 339.93 ECC 4.3007

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 2 36	2916.08	-28.28	90.31	249.55	88.56	8 51 13	2316.1	-28.18	81.65
90.00	21 28 11	5195.23	26.06	232.92	243.62	78.51	22 54 46	4595.2	24.21	224.74
100.00	9 26 43	2644.77	-29.87	70.40	249.59	88.81	10 10 48	2044.8	-29.72	61.60
100.00	22 46 45	4941.77	27.61	213.92	243.26	78.07	24 9 7	4341.8	25.69	205.65
110.00	10 41 19	2411.32	-34.18	52.75	249.66	89.51	11 21 30	1811.3	-33.87	43.52
110.00	23 48 39	4747.99	31.82	198.13	242.18	76.80	25 7 47	4148.0	29.68	189.58

DIFFERENTIAL CORRECTIONS
TDE 6.0173 TRA10.4917 TC3 -.1330 BAU .3567
RDE .7317 RRA .0217 RC3 .0022 FAU-.00699
FDE 1.1236 FRA 2.0273 FC3 .0302 BSP 16760
BDE 6.0616 BRA10.4917 BC3 .1330 FSP -276

MID-COURSE EXECUTION ACCURACY
SGT 4927.0 SGR 296.2 SG3 81.7
RRT .5180 RRF .5084 RTF .9860
SGB 4935.9 R23 -.0043 R13 .9860
SG1 4929.4 SG2 253.3 THA 1.79

ORBIT DETERMINATION ACCURACY
ST 2750.5 SR 296.0 SS 868.0
CRT .8892 CRS -.8826 CST -.9999
LSA 2896.2 MSA 135.7 SSA 7.6
EL1 2763.1 EL2 134.8 ALF 5.48

LAUNCH DATE OCT 18 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAY 22 1971

HELIOCENTRIC CONIC DISTANCE 596.430

RL 149.04 LAL -.00 LOL 24.20 VL 24.966 GAL 29.59 AZL 82.87 HCA 331.98 SMA 114.65 ECC .55842 INC 7.1320 V1 29.896
RP 108.72 LAP -3.34 LOP 356.37 VP 35.830 GAP 33.83 AZP 83.70 TAL 147.44 TAP 119.42 RCA 50.63 APO 178.67 V2 34.856
RC 221.851 GL 10.00 GP 8.12 ZAL 34.40 ZAP 163.34 ETS 151.26 ZAE 127.25 ETE 174.32 ZAC 102.37 ETC 282.08 CLP 165.40

PLANETOCENTRIC CONIC

C3 241.172 VHL 15.530 DLA 5.67 RAL 347.90 RAD 6571.4 VEL 19.039 PTH 3.08 VHP 20.999 DPA -2.76 RAP 341.39 ECC 4.9691

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 5 43	2937.07	-28.24	91.84	251.95	87.79	8 54 40	2337.1	-28.25	83.18
90.00	21 28 24	5228.17	26.48	235.24	246.13	79.60	22 55 32	4628.2	24.78	226.98
100.00	9 29 45	2666.06	-29.83	71.98	252.01	87.98	10 14 11	2066.1	-29.79	63.18
100.00	22 47 4	4974.41	28.05	216.25	245.80	79.22	24 9 58	4374.4	26.28	207.89
110.00	10 44 7	2433.27	-34.15	54.46	252.17	88.50	11 24 41	1833.3	-33.98	45.22
110.00	23 49 10	4779.96	32.29	200.51	244.82	78.13	25 8 50	4180.0	30.32	191.85

DIFFERENTIAL CORRECTIONS
TDE 6.4945 TRA11.4296 TC3 -.0360 BAU .1166
RDE .7927 RRA .0978 RC3 .0037 FAU-.01029
FDE 1.2061 FRA 2.1861 FC3 .0370 BSP 16636
BDE 6.5427 BRA11.4300 BC3 .0362 FSP -272

MID-COURSE EXECUTION ACCURACY
SGT 4869.4 SGR 294.9 SG3 80.5
RRT .5940 RRF .5854 RTF .9892
SGB 4878.3 R23 -.0045 R13 .9892
SG1 4872.5 SG2 237.1 THA 2.07

ORBIT DETERMINATION ACCURACY
ST 2712.5 SR 292.7 SS 920.0
CRT .9002 CRS -.8947 CST -.9999
LSA 2876.3 MSA 127.7 SSA 7.0
EL1 2725.3 EL2 126.9 ALF 5.56

LAUNCH DATE OCT 18 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAY 24 1971

HELIOCENTRIC CONIC DISTANCE 592.416

RL 149.04 LAL -.00 LOL 24.20 VL 24.948 GAL 33.17 AZL 82.12 HCA 335.14 SMA 114.56 ECC .60231 INC 7.8840 V1 29.896
RP 108.69 LAP -3.31 LOP 359.55 VP 35.827 GAP 36.94 AZP 82.84 TAL 147.90 TAP 123.04 RCA 45.56 APO 183.56 V2 34.865
RC 223.327 GL 9.64 GP 8.02 ZAL 34.30 ZAP 161.76 ETS 154.51 ZAE 126.18 ETE 174.60 ZAC 101.99 ETC 282.25 CLP 163.56

PLANETOCENTRIC CONIC

C3 292.761 VHL 17.110 DLA 5.34 RAL 348.05 RAD 6571.7 VEL 20.349 PTH 3.16 VHP 22.855 DPA -2.36 RAP 342.65 ECC 5.8181

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 8 47	2952.02	-28.19	92.94	253.87	87.25	8 58 0	2352.0	-28.28	84.27
90.00	21 26 33	5263.54	26.90	237.74	248.32	80.79	22 54 16	4663.5	25.35	229.42
100.00	9 32 39	2681.52	-29.79	73.13	253.96	87.38	10 17 21	2081.5	-29.83	64.32
100.00	22 45 22	5009.27	28.47	218.75	248.03	80.48	24 8 51	4409.3	26.86	210.32
110.00	10 46 41	2449.86	-34.12	55.76	254.17	87.73	11 27 30	1849.9	-34.05	46.51
110.00	23 47 50	4813.69	32.74	203.04	247.16	79.56	25 8 4	4213.7	30.95	194.27

DIFFERENTIAL CORRECTIONS
TDE 7.0160 TRA12.4520 TC3 .0482 BAU .1900
RDE .8631 RRA .1902 RC3 .0059 FAU-.01458
FDE 1.3000 FRA 2.3665 FC3 .0431 BSP 16490
BDE 7.0689 BRA12.4535 BC3 .0486 FSP -269

MID-COURSE EXECUTION ACCURACY
SGT 4804.7 SGR 296.7 SG3 79.4
RRT .6665 RRF .6590 RTF .9919
SGB 4813.9 R23 -.0047 R13 .9919
SG1 4808.8 SG2 221.0 THA 2.36

ORBIT DETERMINATION ACCURACY
ST 2664.2 SR 289.6 SS 980.5
CRT .9111 CRS -.9067 CST -.9999
LSA 2851.1 MSA 119.6 SSA 6.5
EL1 2677.3 EL2 118.8 ALF 5.67

LAUNCH DATE OCT 18 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAY 26 1971

HELIOCENTRIC CONIC DISTANCE 585.751

RL 149.04 LAL -.00 LOL 24.20 VL 24.936 GAL 37.33 AZL 81.16 HCA 338.30 SMA 114.50 ECC .65208 INC 8.8397 V1 29.896
RP 108.66 LAP -3.26 LOP 2.73 VP 35.828 GAP 40.61 AZP 81.78 TAL 148.91 TAP 127.21 RCA 39.84 APO 189.16 V2 34.875
RC 224.777 GL 9.26 GP 7.90 ZAL 34.53 ZAP 159.88 ETS 157.60 ZAE 124.83 ETE 174.93 ZAC 101.65 ETC 282.37 CLP 161.44

PLANETOCENTRIC CONIC

C3 358.926 VHL 18.945 DLA 4.86 RAL 347.89 RAD 6572.0 VEL 21.914 PTH 3.23 VHP 25.036 DPA -2.07 RAP 343.67 ECC 6.9070

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 11 49	2959.88	-28.17	93.51	255.24	86.96	9 1 9	2359.9	-28.29	84.85
90.00	21 22 14	5301.87	27.28	240.48	250.14	82.11	22 50 36	4701.9	25.91	232.08
100.00	9 35 26	2690.14	-29.76	73.77	255.33	87.04	10 20 17	2090.1	-29.85	64.96
100.00	22 41 17	5046.84	28.86	221.48	249.89	81.86	24 5 24	4446.8	27.44	212.96
110.00	10 48 56	2460.17	-34.09	56.56	255.59	87.26	11 29 56	1860.2	-34.09	47.32
110.00	23 44 18	4849.58	33.15	205.76	249.14	81.13	25 5 7	4249.6	31.57	196.89

DIFFERENTIAL CORRECTIONS
TDE 7.5790 TRA13.5536 TC3 .1200 BAU .5773
RDE .9448 RRA .3013 RC3 .0087 FAU-.02021
FDE 1.4065 FRA 2.5709 FC3 .0487 BSP 16302
BDE 7.6377 BRA13.5570 BC3 .1203 FSP -266

MID-COURSE EXECUTION ACCURACY
SGT 4731.1 SGR 301.8 SG3 78.4
RRT .7326 RRF .7264 RTF .9941
SGB 4740.7 R23 -.0048 R13 .9941
SG1 4736.3 SG2 205.2 THA 2.68

ORBIT DETERMINATION ACCURACY
ST 2603.3 SR 287.0 SS 1050.3
CRT .9218 CRS -.9181 CST -.9999
LSA 2819.6 MSA 111.5 SSA 5.9
EL1 2616.7 EL2 110.7 ALF 5.81

LAUNCH DATE OCT 19 1970 FLIGHT TIME 70.00 ARRIVAL DATE DEC 28 1970

HELIOCENTRIC CONIC DISTANCE 215.750

RL	149.00	LAL	-.00	LOL	25.19	VL	30.097	GAL	-16.91	AZL	87.44	HCA	99.25	SMA	151.58	ECC	.29139	INC	2.5587	V1	29.904
RP	107.48	LAP	2.53	LOP	124.45	VP	39.924	GAP	-1.01	AZP	90.41	TAL	256.28	TAP	355.54	RCA	107.41	APO	195.74	V2	35.257
RC	73.903	GL	8.75	GP	-21.81	ZAL	168.29	ZAP	82.29	ETS	.10	ZAE	154.51	ETE	246.57	ZAC	76.88	ETC	257.01	CLP	-81.69

PLANETOCENTRIC CONIC

C3	71.337	VHL	8.446	DLA	-4.27	RAL	213.78	RAD	6569.4	VEL	13.881	PTH	2.53	VHP	5.026	DPA	-34.15	RAP	212.03	ECC	2.1740

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 20 53	2396.14	-23.52	53.32	95.62	106.24	1 0 49	1796.1	-21.07	45.51
90.00	11 15 20	5305.64	27.32	240.75	99.27	82.24	12 43 45	4705.6	25.96	232.35
100.00	1 40 13	2140.20	-24.92	34.04	95.16	107.07	2 15 53	1540.2	-22.35	26.19
100.00	12 38 40	5036.81	28.76	220.75	99.03	81.49	14 2 37	4436.8	27.29	212.26
110.00	2 43 52	1940.94	-28.69	17.53	93.77	109.44	3 16 13	1340.9	-25.77	9.56
110.00	13 51 31	4808.83	32.68	202.67	98.27	79.36	15 11 40	4208.8	30.86	193.92

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.4128	TRA	-.8960	TC3	-.1510	BAU	.2360	SGT	717.6	SGR	457.6	SG3	184.2	ST	334.5	SR	247.8	SS	382.3
RDE	-.3535	RRA	-.3025	RC3	-.1960	FAU	.09079	RRT	.4346	RRF	.5431	RTF	.7009	CRT	-.6729	CRS	.8940	CST	-.9290
FDE	1.2692	FRA	-.8600	FC3	-1.1018	BSP	1679	SGB	851.1	R23	.1192	R13	.7397	LSA	541.2	MSA	162.1	SSA	18.6
BDE	.5434	BRA	.9457	BC3	.2474	FSP	-524	SG1	755.8	SG2	391.3	THA	21.53	EL1	384.5	EL2	159.5	ALF	147.17

LAUNCH DATE OCT 19 1970 FLIGHT TIME 72.00 ARRIVAL DATE DEC 30 1970

HELIOCENTRIC CONIC DISTANCE 222.168

RL	149.00	LAL	-.00	LOL	25.19	VL	30.035	GAL	-16.72	AZL	87.29	HCA	102.50	SMA	150.93	ECC	.28797	INC	2.7142	V1	29.904
RP	107.48	LAP	2.65	LOP	127.70	VP	39.878	GAP	-.40	AZP	90.59	TAL	255.71	TAP	358.21	RCA	107.47	APO	194.39	V2	35.258
RC	76.087	GL	9.39	GP	-22.37	ZAL	167.59	ZAP	86.94	ETS	358.31	ZAE	152.62	ETE	240.32	ZAC	76.05	ETC	256.77	CLP	-86.69

PLANETOCENTRIC CONIC

C3	69.728	VHL	8.350	DLA	-3.79	RAL	214.31	RAD	6569.3	VEL	13.823	PTH	2.52	VHP	4.955	DPA	-33.99	RAP	209.96	ECC	2.1475

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 19 22	2405.89	-23.70	53.98	95.94	105.96	0 59 28	1805.9	-21.29	46.14
90.00	11 21 5	5285.12	27.12	239.28	99.16	81.53	12 49 10	4685.1	25.67	230.92
100.00	1 38 56	2149.21	-25.10	34.65	95.49	106.79	2 14 45	1549.2	-22.56	26.77
100.00	12 44 12	5017.03	28.56	219.31	98.90	80.76	14 7 49	4417.0	26.98	210.87
110.00	2 43 7	1948.29	-28.85	18.03	94.12	109.18	3 15 35	1348.3	-25.97	10.05
110.00	13 56 31	4790.71	32.44	201.31	98.08	78.58	15 16 21	4190.7	30.53	192.62

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.4601	TRA	-.9532	TC3	-.1939	BAU	.2637	SGT	796.4	SGR	460.9	SG3	190.1	ST	372.0	SR	239.0	SS	394.5
RDE	-.3365	RRA	-.2939	RC3	-.2059	FAU	.09256	RRT	.4658	RRF	.5620	RTF	.7365	CRT	-.6846	CRS	.8956	CST	-.9337
FDE	1.3156	FRA	-.8518	FC3	-1.1492	BSP	1947	SGB	920.1	R23	.1237	R13	.7670	LSA	569.5	MSA	162.8	SSA	18.7
BDE	.5700	BRA	.9975	BC3	.2829	FSP	-549	SG1	833.6	SG2	389.7	THA	19.52	EL1	413.5	EL2	156.7	ALF	151.87

LAUNCH DATE OCT 19 1970 FLIGHT TIME 74.00 ARRIVAL DATE JAN 1 1971

HELIOCENTRIC CONIC DISTANCE 228.537

RL	149.00	LAL	-.00	LOL	25.19	VL	29.967	GAL	-16.53	AZL	87.13	HCA	105.74	SMA	150.23	ECC	.28461	INC	2.8737	V1	29.904
RP	107.48	LAP	2.77	LOP	130.95	VP	39.828	GAP	.18	AZP	90.78	TAL	255.05	TAP	.79	RCA	107.48	APO	192.99	V2	35.259
RC	78.289	GL	10.05	GP	-22.89	ZAL	166.84	ZAP	91.43	ETS	356.49	ZAE	150.58	ETE	234.94	ZAC	75.26	ETC	256.55	CLP	-91.56

PLANETOCENTRIC CONIC

C3	68.169	VHL	8.256	DLA	-3.30	RAL	214.90	RAD	6569.3	VEL	13.767	PTH	2.52	VHP	4.911	DPA	-33.84	RAP	208.07	ECC	2.1219

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 18 2	2415.82	-23.89	54.65	96.32	105.67	0 58 18	1815.8	-21.51	46.78
90.00	11 27 6	5264.46	26.91	237.81	99.10	80.82	12 54 50	4664.5	25.36	229.48
100.00	1 37 51	2158.39	-25.28	35.28	95.88	106.51	2 13 49	1558.4	-22.77	27.37
100.00	12 49 59	4997.12	28.33	217.88	98.83	80.04	14 13 16	4397.1	26.66	209.47
110.00	2 42 33	1955.81	-29.02	18.56	94.53	108.91	3 15 9	1355.8	-26.16	10.54
110.00	14 1 46	4772.47	32.19	199.95	97.96	77.81	15 21 18	4172.5	30.17	191.31

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.5109	TRA	-1.0119	TC3	-.2393	BAU	.2931	SGT	881.3	SGR	462.3	SG3	194.2	ST	412.8	SR	229.9	SS	404.8
RDE	-.3198	RRA	-.2830	RC3	-.2148	FAU	.09346	RRT	.4905	RRF	.5786	RTF	.7642	CRT	-.6967	CRS	.8978	CST	-.9378
FDE	1.3490	FRA	-.8333	FC3	-1.1869	BSP	2236	SGB	995.2	R23	.1298	R13	.7886	LSA	600.2	MSA	162.7	SSA	18.8
BDE	.6027	BRA	1.0508	BC3	.3216	FSP	-569	SG1	916.7	SG2	387.3	THA	17.69	EL1	447.3	EL2	152.2	ALF	155.82

LAUNCH DATE OCT 19 1970 FLIGHT TIME 76.00 ARRIVAL DATE JAN 3 1971

HELIOCENTRIC CONIC DISTANCE 234.860

RL	149.00	LAL	-.00	LOL	25.19	VL	29.893	GAL	-16.34	AZL	86.96	HCA	108.99	SMA	149.49	ECC	.28130	INC	3.0383	V1	29.904
RP	107.48	LAP	2.87	LOP	134.20	VP	39.772	GAP	.72	AZP	90.99	TAL	254.30	TAP	3.29	RCA	107.44	APO	191.54	V2	35.258
RC	80.507	GL	10.73	GP	-23.38	ZAL	166.03	ZAP	95.73	ETS	354.66	ZAE	148.44	ETE	230.38	ZAC	74.53	ETC	256.36	CLP	-96.24

PLANETOCENTRIC CONIC

C3	66.655	VHL	8.164	DLA	-2.79	RAL	215.54	RAD	6569.3	VEL	13.712	PTH	2.51	VHP	4.892	DPA	-33.73	RAP	206.37	ECC	2.0970

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 16 51	2426.11	-24.08	55.34	96.76	105.37	0 57 18	1826.1	-21.73	47.45
90.00	11 33 25	5243.46	26.67	236.32	99.11	80.11	13 0 49	4643.5	25.03	228.03
100.00	1 36 54	2167.92	-25.46	35.92	96.33	106.22	2 13 2	1567.9	-22.99	28.00
100.00	12 56 4	4976.88	28.08	216.42	98.82	79.31	14 19 1	4376.9	26.32	208.07
110.00	2 42 9	1963.64	-29.19	19.10	95.01	108.63	3 14 53	1363.6	-26.37	11.05
110.00	14 7 18	4753.93	31.91	198.57	97.90	77.04	15 26 32	4153.9	29.80	190.00

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	.5653	TRA	-1.0714	TC3	-.2866	BAU	.3233	SGT	971.1	SGR	461.5	SG3	196.6	ST	456.7	SR	220.3	SS	413.9
RDE	-.3029	RRA	-.2695	RC3	-.2225	FAU	.09349	RRT	.5092	RRF	.5929	RTF	.7853	CRT	-.7091	CRS	.9009	CST	-.9414
FDE	1.3716	FRA	-.8041	FC3	-1.2142	BSP	2536	SGB	1075.2	R23	.1374	R13	.8051	LSA	633.9	MSA	161.7	SSA	18.8
BDE	.6413	BRA	1.1047	BC3	.3628	FSP	-582	SG1	1004.3	SG2	384.1	THA	16.01	EL1	485.5	EL2	146.1	ALF	159.14

LAUNCH DATE OCT 19 1970 FLIGHT TIME 78.00 ARRIVAL DATE JAN 5 1971

HELIOCENTRIC CONIC DISTANCE 241.141

RL	149.00	LAL	-.00	LOL	25.19	VL	29.816	GAL	-16.14	AZL	86.79	HCA	112.23	SMA	148.72	ECC	.27805	INC	3.2095	V1	29.904
RP	107.48	LAP	2.97	LOP	137.45	VP	39.713	GAP	1.24	AZP	91.22	TAL	253.48	TAP	5.71	RCA	107.37	APO	190.07	V2	35.257
RC	82.739	GL	11.46	GP	-23.87	ZAL	165.16	ZAP	99.81	ETS	352.80	ZAE	146.27	ETE	226.53	ZAC	73.84	ETC	256.19	CLP	-100.73

PLANETOCENTRIC CONIC

C3	65.182	VHL	8.074	DLA	-2.27	RAL	216.24	RAD	6569.2	VEL	13.658	PTH	2.50	VHP	4.894	DPA	-33.67	RAP	204.89	ECC	2.0727

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 15 46	2436.98	-24.27	56.08	97.27	105.05	0 56 23	1837.0	-21.97	48.16
90.00	11 40 6	5221.90	26.41	234.79	99.17	79.39*	13 7 8	4621.9	24.67	226.55
100.00	1 36 3	2178.00	-25.65	36.61	96.85	105.90	2 12 21	1578.0	-23.22	28.66
100.00	13 2 30	4956.11	27.81	214.94	98.86	78.58	14 25 6	4356.1	25.95	206.63
110.00	2 41 52	1971.97	-29.37	19.68	95.55	108.33	3 14 44	1372.0	-26.59	11.61
110.00	14 13 10	4734.91	31.61	197.17	97.88	76.26	15 32 5	4134.9	29.40	188.66

DIFFERENTIAL CORRECTIONS

TDE	.6230	TRA	-1.1307	TC3	-.3354	BAU	.3539
RDE	-.2859	RRA	-.2537	RC3	-.2290	FAU	.09271
FDE	1.3840	FRA	-.7665	FC3	-1.2313	BSP	2844
BDE	.6855	BRA	1.1588	BC3	.4061	FSP	-589

MID-COURSE EXECUTION ACCURACY

SGT	1064.7	SGR	458.7	SG3	197.3		
RRT	.5227	RRF	.6054	RTF	.8013		
SGB	1159.3	R23	.1465	R13	.8176		
SG1	1095.2	SG2	380.2	THA	14.47		

ORBIT DETERMINATION ACCURACY

ST	503.8	SR	210.3	SS	421.8		
CRT	-.7222	CRS	.9049	CST	-.9444		
LSA	670.8	MSA	159.9	SSA	18.8		
EL1	528.0	EL2	138.8	ALF	161.93		

LAUNCH DATE OCT 19 1970 FLIGHT TIME 80.00 ARRIVAL DATE JAN 7 1971

HELIOCENTRIC CONIC DISTANCE 247.379

RL	149.00	LAL	-.00	LOL	25.19	VL	29.735	GAL	-15.95	AZL	86.61	HCA	115.47	SMA	147.91	ECC	.27485	INC	3.3887	V1	29.904
RP	107.49	LAP	3.06	LOP	140.70	VP	39.650	GAP	1.73	AZP	91.46	TAL	252.58	TAP	8.05	RCA	107.26	APO	188.57	V2	35.255
RC	84.985	GL	12.22	GP	-24.35	ZAL	164.24	ZAP	103.65	ETS	350.91	ZAE	144.11	ETE	223.29	ZAC	73.19	ETC	256.05	CLP	-105.01

PLANETOCENTRIC CONIC

C3	63.753	VHL	7.985	DLA	-1.72	RAL	216.99	RAD	6569.2	VEL	13.605	PTH	2.49	VHP	4.915	DPA	-33.70	RAP	203.62	ECC	2.0492

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 14 42	2448.66	-24.47	56.87	97.84	104.70	0 55 30	1848.7	-22.22	48.93
90.00	11 47 10	5199.56	26.12	233.22	99.28	78.65	13 13 50	4599.6	24.29	225.03
100.00	1 35 14	2188.85	-25.85	37.36	97.43	105.56	2 11 43	1588.9	-23.46	29.37
100.00	13 9 19	4934.59	27.51	213.41	98.95	77.82	14 31 34	4334.6	25.56	205.16
110.00	2 41 38	1980.99	-29.56	20.32	96.17	108.00	3 14 39	1381.0	-26.82	12.20
110.00	14 19 24	4715.22	31.29	195.73	97.92	75.47	15 37 59	4115.2	28.97	187.29

DIFFERENTIAL CORRECTIONS

TDE	.6837	TRA	-1.1897	TC3	-.3853	BAU	.3845
RDE	-.2688	RRA	-.2361	RC3	-.2347	FAU	.09130
FDE	1.3868	FRA	-.7232	FC3	-1.2398	BSP	3166
BDE	.7347	BRA	1.2129	BC3	.4512	FSP	-593

MID-COURSE EXECUTION ACCURACY

SGT	1161.4	SGR	454.4	SG3	196.6		
RRT	.5321	RRF	.6171	RTF	.8134		
SGB	1247.1	R23	.1576	R13	.8271		
SG1	1189.1	SG2	375.7	THA	13.09		

ORBIT DETERMINATION ACCURACY

ST	553.8	SR	199.8	SS	428.5		
CRT	-.7357	CRS	.9096	CST	-.9471		
LSA	710.8	MSA	157.3	SSA	18.8		
EL1	574.1	EL2	130.6	ALF	164.30		

LAUNCH DATE OCT 19 1970 FLIGHT TIME 82.00 ARRIVAL DATE JAN 9 1971

HELIOCENTRIC CONIC DISTANCE 253.579

RL	149.00	LAL	-.00	LOL	25.19	VL	29.650	GAL	-15.75	AZL	86.42	HCA	118.72	SMA	147.09	ECC	.27171	INC	3.5779	V1	29.904
RP	107.50	LAP	3.14	LOP	143.95	VP	39.585	GAP	2.20	AZP	91.72	TAL	251.61	TAP	10.33	RCA	107.12	APO	187.06	V2	35.253
RC	87.241	GL	13.03	GP	-24.86	ZAL	163.24	ZAP	107.24	ETS	348.98	ZAE	141.98	ETE	220.59	ZAC	72.55	ETC	255.93	CLP	-109.06

PLANETOCENTRIC CONIC

C3	62.368	VHL	7.897	DLA	-1.14	RAL	217.80	RAD	6569.2	VEL	13.554	PTH	2.48	VHP	4.953	DPA	-33.84	RAP	202.56	ECC	2.0264

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 13 36	2461.41	-24.69	57.74	98.49	104.32	0 54 38	1861.4	-22.48	49.77
90.00	11 54 43	5176.20	25.79	231.59	99.44	77.89	13 20 59	4576.2	23.87	223.45
100.00	1 34 25	2200.73	-26.06	38.18	98.09	105.18	2 11 6	1600.7	-23.73	30.16
100.00	13 16 36	4912.11	27.18	211.82	99.09	77.05	14 38 28	4312.1	25.12	203.62
110.00	2 41 27	1990.92	-29.77	21.02	96.86	107.63	3 14 38	1390.9	-27.07	12.87
110.00	14 26 3	4694.68	30.93	194.24	98.01	74.65	15 44 18	4094.7	28.51	185.87

DIFFERENTIAL CORRECTIONS

TDE	.7479	TRA	-1.2474	TC3	-.4359	BAU	.4147
RDE	-.2513	RRA	-.2166	RC3	-.2395	FAU	.08930
FDE	1.3831	FRA	-.6746	FC3	-1.2396	BSP	3491
BDE	.7890	BRA	1.2661	BC3	.4974	FSP	-592

MID-COURSE EXECUTION ACCURACY

SGT	1260.1	SGR	448.4	SG3	194.7		
RRT	.5377	RRF	.6280	RTF	.8224		
SGB	1337.5	R23	.1704	R13	.8342		
SG1	1285.1	SG2	370.7	THA	11.83		

ORBIT DETERMINATION ACCURACY

ST	607.1	SR	188.7	SS	434.7		
CRT	-.7498	CRS	.9150	CST	-.9495		
LSA	754.4	MSA	154.0	SSA	18.7		
EL1	624.0	EL2	121.4	ALF	166.36		

LAUNCH DATE OCT 19 1970 FLIGHT TIME 84.00 ARRIVAL DATE JAN 11 1971

HELIOCENTRIC CONIC DISTANCE 259.742

RL	149.00	LAL	-.00	LOL	25.19	VL	29.562	GAL	-15.55	AZL	86.22	HCA	121.96	SMA	146.25	ECC	.26863	INC	3.7792	V1	29.904
RP	107.51	LAP	3.21	LOP	147.21	VP	39.516	GAP	2.65	AZP	92.00	TAL	250.58	TAP	12.54	RCA	106.96	APO	185.54	V2	35.249
RC	89.506	GL	13.90	GP	-25.41	ZAL	162.18	ZAP	110.56	ETS	347.00	ZAE	139.92	ETE	218.35	ZAC	71.91	ETC	255.83	CLP	-112.88

PLANETOCENTRIC CONIC

C3	61.033	VHL	7.812	DLA	-.52	RAL	218.67	RAD	6569.1	VEL	13.505	PTH	2.47	VHP	5.006	DPA	-34.09	RAP	201.71	ECC	2.0045

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 12 25	2475.56	-24.93	58.71	99.23	103.89	0 53 41	1875.6	-22.77	50.71
90.00	12 2 49	5151.56	25.43	229.87	99.65	77.11	13 28 40	4551.6	23.40	221.79
100.00	1 33 32	2213.95	-26.30	39.09	98.84	104.75	2 10 25	1614.0	-24.01	31.03
100.00	13 24 24	4888.41	26.81	210.16	99.29	76.25	14 45 52	4288.4	24.65	202.02
110.00	2 41 13	2002.05	-30.00	21.80	97.64	107.22	3 14 35	1402.1	-27.35	13.61
110.00	14 33 11	4673.07	30.53	192.68	98.15	73.81	15 51 4	4073.1	28.01	184.39

DIFFERENTIAL CORRECTIONS

TDE	.8154	TRA	-1.3038	TC3	-.4870	BAU	.4443
RDE	-.2333	RRA	-.1955	RC3	-.2436	FAU	.08683
FDE	1.3740	FRA	-.6228	FC3	-1.2317	BSP	3822
BDE	.8481	BRA	1.3184	BC3	.5445	FSP	-586

MID-COURSE EXECUTION ACCURACY

SGT	1360.5	SGR	441.2	SG3	191.8		
RRT	.5404	RRF	.6386	RTF	.8290		
SGB	1430.3	R23	.1850	R13	.8393		
SG1	1382.8	SG2	365.3	THA	10.69		

ORBIT DETERMINATION ACCURACY

ST	663.6	SR	176.8	SS	440.6		
CRT	-.7647	CRS	.9210	CST	-.9515		
LSA	801.8	MSA	150.2	SSA	18.5		
EL1	677.7	EL2	111.6	ALF	168.16		

LAUNCH DATE OCT 19 1970 FLIGHT TIME 86.00 ARRIVAL DATE JAN 13 1971

HELIOCENTRIC CONIC DISTANCE 265.871

RL 149.00 LAL -.00 LOL 25.19 VL 29.472 GAL -15.34 AZL 86.00 HCA 125.20 SMA 145.40 ECC .26560 INC 3.9952 V1 29.904
RP 107.52 LAP 3.26 LOP 150.46 VP 39.445 GAP 3.07 AZP 92.31 TAL 249.50 TAP 14.70 RCA 106.78 APO 184.01 V2 35.245
RC 91.778 GL 14.84 GP -26.02 ZAL 161.03 ZAP 113.62 ETS 344.94 ZAE 137.92 ETE 216.51 ZAC 71.24 ETC 255.74 CLP-116.48

PLANETOCENTRIC CONIC

C3 59.752 VHL 7.730 DLA .16 RAL 219.59 RAD 6569.1 VEL 13.458 PTH 2.46 VHP 5.073 DPA -34.50 RAP 201.03 ECC 1.9834

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 11 5	2491.47	-25.18	59.81	100.05	103.40	0 52 36	1891.5	-23.09	51.76
90.00	12 11 33	5125.34	25.02	228.06	99.92	76.29	13 36 58	4525.3	22.89	220.04
100.00	1 32 30	2228.84	-26.55	40.12	99.68	104.26	2 9 39	1628.8	-24.33	32.03
100.00	13 32 49	4863.20	26.39	208.40	99.54	75.42	14 53 52	4263.2	24.12	200.34
110.00	2 40 55	2014.68	-30.25	22.70	98.51	106.74	3 14 30	1414.7	-27.66	14.46
110.00	14 40 53	4650.13	30.08	191.04	98.35	72.94	15 58 23	4050.1	27.45	182.84

DIFFERENTIAL CORRECTIONS
TDE .8925 TRA-1.3530 TC3 -.5347 BAU .4696
RDE -.2105 RRA -.1683 RC3 -.2440 FAU .08280
FDE 1.3860 FRA -.5429 FC3-1.1997 BSP 4004
BDE .9169 BRA 1.3635 BC3 .5878 FSP -525

MID-COURSE EXECUTION ACCURACY
SGT 1458.4 SGR 426.9 SG3 186.5
RRT .5362 RRF .6401 RTF .8313
SGB 1519.6 R23 .1967 R13 .8399
SG1 1477.3 SG2 355.7 THA 9.47

ORBIT DETERMINATION ACCURACY
ST 727.1 SR 160.8 SS 454.0
CRT -.7838 CRS .9311 CST -.9523
LSA 859.6 MSA 146.7 SSA 17.9
EL1 738.2 EL2 98.4 ALF 169.99

LAUNCH DATE OCT 19 1970 FLIGHT TIME 88.00 ARRIVAL DATE JAN 15 1971

HELIOCENTRIC CONIC DISTANCE 271.968

RL 149.00 LAL -.00 LOL 25.19 VL 29.380 GAL -15.13 AZL 85.77 HCA 128.44 SMA 144.54 ECC .26264 INC 4.2290 V1 29.904
RP 107.53 LAP 3.31 LOP 153.71 VP 39.372 GAP 3.47 AZP 92.63 TAL 248.36 TAP 16.80 RCA 106.58 APO 182.50 V2 35.240
RC 94.056 GL 15.86 GP -26.71 ZAL 159.80 ZAP 116.42 ETS 342.78 ZAE 135.98 ETE 215.00 ZAC 70.54 ETC 255.67 CLP-119.87

PLANETOCENTRIC CONIC

C3 58.549 VHL 7.652 DLA .91 RAL 220.58 RAD 6569.1 VEL 13.413 PTH 2.45 VHP 5.153 DPA -35.06 RAP 200.51 ECC 1.9636

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 9 30	2509.62	-25.46	61.07	100.99	102.83	0 51 19	1909.6	-23.44	52.98
90.00	12 21 1	5097.26	24.55	226.14	100.25	75.43	13 45 58	4497.3	22.31	218.18
100.00	1 31 16	2245.88	-26.83	41.31	100.63	103.70	2 8 41	1645.9	-24.68	33.17
100.00	13 41 56	4836.23	25.91	206.54	99.85	74.55	15 2 32	4236.2	23.54	198.55
110.00	2 40 29	2029.23	-30.53	23.74	99.50	106.18	3 14 18	1429.2	-28.01	15.45
110.00	14 49 12	4625.65	29.58	189.31	98.60	72.02	16 6 18	4025.6	26.84	181.20

DIFFERENTIAL CORRECTIONS
TDE .9656 TRA-1.4078 TC3 -.5876 BAU .4994
RDE -.1937 RRA -.1466 RC3 -.2487 FAU .08038
FDE 1.3564 FRA -.5029 FC3-1.1886 BSP 4421
BDE .9848 BRA 1.4154 BC3 .6380 FSP -545

MID-COURSE EXECUTION ACCURACY
SGT 1563.0 SGR 421.8 SG3 182.9
RRT .5356 RRF .6566 RTF .8362
SGB 1618.9 R23 .2186 R13 .8441
SG1 1580.1 SG2 352.3 THA 8.66

ORBIT DETERMINATION ACCURACY
ST 789.7 SR 149.1 SS 455.6
CRT -.7992 CRS .9365 CST -.9548
LSA 912.7 MSA 141.8 SSA 17.9
EL1 798.7 EL2 88.6 ALF 171.31

LAUNCH DATE OCT 19 1970 FLIGHT TIME 90.00 ARRIVAL DATE JAN 17 1971

HELIOCENTRIC CONIC DISTANCE 278.034

RL 149.00 LAL -.00 LOL 25.19 VL 29.287 GAL -14.91 AZL 85.52 HCA 131.68 SMA 143.68 ECC .25975 INC 4.4848 V1 29.904
RP 107.55 LAP 3.35 LOP 156.96 VP 39.298 GAP 3.85 AZP 92.99 TAL 247.18 TAP 18.85 RCA 106.36 APO 181.00 V2 35.235
RC 96.339 GL 16.98 GP -27.52 ZAL 158.46 ZAP 118.94 ETS 340.50 ZAE 134.09 ETE 213.79 ZAC 69.76 ETC 255.59 CLP-123.06

PLANETOCENTRIC CONIC

C3 57.429 VHL 7.578 DLA 1.74 RAL 221.64 RAD 6569.0 VEL 13.371 PTH 2.44 VHP 5.246 DPA -35.80 RAP 200.11 ECC 1.9451

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 7 34	2530.54	-25.77	62.52	102.05	102.16	0 49 45	1930.5	-23.84	54.38
90.00	12 31 21	5066.89	24.02	224.08	100.65	74.53	13 55 48	4466.9	21.66	216.19
100.00	1 29 43	2265.56	-27.14	42.69	101.70	103.04	2 7 29	1665.6	-25.07	34.50
100.00	13 51 53	4807.10	25.37	204.55	100.23	73.63	15 12 1	4207.1	22.88	196.63
110.00	2 39 49	2046.15	-30.84	24.96	100.63	105.53	3 13 55	1446.1	-28.41	16.61
110.00	14 58 17	4599.28	29.01	187.47	98.93	71.07	16 14 56	3999.3	26.15	179.46

DIFFERENTIAL CORRECTIONS
TDE 1.0454 TRA-1.4588 TC3 -.6391 BAU .5274
RDE -.1749 RRA -.1221 RC3 -.2519 FAU .07735
FDE 1.3331 FRA -.4548 FC3-1.1660 BSP 4807
BDE 1.0599 BRA 1.4639 BC3 .6869 FSP -548

MID-COURSE EXECUTION ACCURACY
SGT 1667.5 SGR 414.4 SG3 178.3
RRT .5313 RRF .6703 RTF .8394
SGB 1718.2 R23 .2407 R13 .8466
SG1 1682.6 SG2 347.9 THA 7.86

ORBIT DETERMINATION ACCURACY
ST 857.4 SR 135.6 SS 459.8
CRT -.8173 CRS .9437 CST -.9568
LSA 972.5 MSA 137.0 SSA 17.6
EL1 864.6 EL2 77.5 ALF 172.58

LAUNCH DATE OCT 19 1970 FLIGHT TIME 92.00 ARRIVAL DATE JAN 19 1971

HELIOCENTRIC CONIC DISTANCE 284.072

RL 149.00 LAL -.00 LOL 25.19 VL 29.192 GAL -14.69 AZL 85.23 HCA 134.91 SMA 142.83 ECC .25694 INC 4.7677 V1 29.904
RP 107.57 LAP 3.37 LOP 160.20 VP 39.221 GAP 4.22 AZP 93.37 TAL 245.94 TAP 20.86 RCA 106.13 APO 179.52 V2 35.229
RC 98.624 GL 18.21 GP -28.45 ZAL 157.01 ZAP 121.17 ETS 338.07 ZAE 132.25 ETE 212.85 ZAC 68.88 ETC 255.52 CLP-126.07

PLANETOCENTRIC CONIC

C3 56.416 VHL 7.511 DLA 2.66 RAL 222.77 RAD 6569.0 VEL 13.333 PTH 2.44 VHP 5.352 DPA -36.73 RAP 199.81 ECC 1.9285

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 5 12	2554.92	-26.11	64.23	103.26	101.37	0 47 47	1954.9	-24.28	56.03
90.00	12 42 45	5033.77	23.40	221.85	101.14	73.58	14 6 39	4433.8	20.92	214.05
100.00	1 27 47	2288.54	-27.48	44.31	102.94	102.25	2 5 55	1688.5	-25.52	36.06
100.00	14 2 51	4775.38	24.74	202.40	100.69	72.67	15 22 26	4175.4	22.13	194.57
110.00	2 38 52	2066.03	-31.20	26.40	101.91	104.74	3 13 18	1466.0	-28.86	17.98
110.00	15 8 15	4570.66	28.36	185.50	99.33	70.06	16 24 25	3970.7	25.38	177.59

DIFFERENTIAL CORRECTIONS
TDE 1.1331 TRA-1.5056 TC3 -.6889 BAU .5538
RDE -.1545 RRA -.0949 RC3 -.2540 FAU .07390
FDE 1.3147 FRA -.4019 FC3-1.1341 BSP 5164
BDE 1.1436 BRA 1.5086 BC3 .7343 FSP -539

MID-COURSE EXECUTION ACCURACY
SGT 1772.0 SGR 405.9 SG3 172.9
RRT .5232 RRF .6824 RTF .8414
SGB 1817.9 R23 .2639 R13 .8479
SG1 1785.2 SG2 343.3 THA 7.10

ORBIT DETERMINATION ACCURACY
ST 931.2 SR 120.4 SS 466.2
CRT -.8387 CRS .9523 CST -.9587
LSA 1039.8 MSA 132.4 SSA 17.0
EL1 936.7 EL2 65.2 ALF 173.78

LAUNCH DATE OCT 19 1970 FLIGHT TIME 94.00 ARRIVAL DATE JAN 21 1971

HELIOCENTRIC CONIC DISTANCE 290.083

RL 149.00 LAL -.00 LOL 25.19 VL 29.096 GAL -14.46 AZL 84.92 HCA 138.15 SMA 141.97 ECC .25419 INC 5.0842 V1 29.904
RP 107.59 LAP 3.39 LOP 163.45 VP 39.144 GAP 4.57 AZP 93.79 TAL 244.67 TAP 22.82 RCA 105.88 APO 178.06 V2 35.222
RC 100.910 GL 19.58 GP -29.56 ZAL 155.43 ZAP 123.11 ETS 335.45 ZAE 130.42 ETE 212.14 ZAC 67.87 ETC 255.45 CLP-128.90

PLANETOCENTRIC CONIC

C3 55.539 VHL 7.452 DLA 3.71 RAL 223.98 RAD 6569.0 VEL 13.300 PTH 2.43 VHP 5.473 DPA -37.87 RAP 199.56 ECC 1.9140

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	0 -2 14	2583.63	-26.48	66.25	104.65	100.42	0 45 17	1983.6	-24.77	57.99
90.00	12 55 24	4997.36	22.68	219.42	101.73	72.57	14 18 41	4397.4	20.08	211.71
100.00	1 25 18	2315.66	-27.86	46.24	104.36	101.30	2 3 54	1715.7	-26.02	37.92
100.00	14 15 0	4740.56	24.01	200.07	101.26	71.64	15 34 1	4140.6	21.28	192.33
110.00	2 37 32	2089.61	-31.59	28.12	103.40	103.79	3 12 21	1489.6	-29.37	19.62
110.00	15 19 16	4539.37	27.62	183.37	99.83	69.00	16 34 55	3939.4	24.51	175.58

DIFFERENTIAL CORRECTIONS
TDE 1.2295 TRA-1.5489 TC3 -.7369 BAU .5791
RDE -.1332 RRA -.0654 RC3 -.2553 FAU .07023
FDE 1.2980 FRA -.3483 FC3-1.0947 BSP 5520
BDE 1.2367 BRA 1.5503 BC3 .7799 FSP -525

MID-COURSE EXECUTION ACCURACY
SGT 1877.2 SGR 397.3 SG3 166.9
RRT .5112 RRF .6936 RTF .8428
SGB 1918.8 R23 .2887 R13 .8488
SG1 1888.5 SG2 339.4 THA 6.38

ORBIT DETERMINATION ACCURACY
ST 1011.3 SR 104.2 SS 473.9
CRT -.8641 CRS .9620 CST -.9606
LSA 1114.2 MSA 128.2 SSA 16.3
EL1 1015.3 EL2 52.2 ALF 174.90

LAUNCH DATE OCT 19 1970 FLIGHT TIME 96.00 ARRIVAL DATE JAN 23 1971

HELIOCENTRIC CONIC DISTANCE 296.070

RL 149.00 LAL -.00 LOL 25.19 VL 29.000 GAL -14.22 AZL 84.56 HCA 141.38 SMA 141.13 ECC .25153 INC 5.4431 V1 29.904
RP 107.61 LAP 3.39 LOP 166.70 VP 39.066 GAP 4.90 AZP 94.26 TAL 243.36 TAP 24.74 RCA 105.63 APO 176.62 V2 35.215
RC 103.196 GL 21.11 GP -30.87 ZAL 153.68 ZAP 124.73 ETS 332.61 ZAE 128.58 ETE 211.65 ZAC 66.69 ETC 255.36 CLP-13[illegible].59

PLANETOCENTRIC CONIC

C3 54.840 VHL 7.405 DLA 4.90 RAL 225.29 RAD 6569.0 VEL 13.274 PTH 2.43 VHP 5.611 DPA -39.25 RAP 199.32 ECC 1.9025

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 54 33	2617.80	-26.88	68.67	106.28	99.27	24 38 10	2017.8	-25.32	60.35
90.00	13 9 35	4956.94	21.83	216.76	102.46	71.50	14 32 12	4356.9	19.10	209.15
100.00	1 22 8	2347.99	-28.27	48.56	106.01	100.15	2 1 16	1748.0	-26.58	40.16
100.00	14 28 37	4701.98	23.16	197.52	101.96	70.56	15 46 59	4102.0	20.30	189.89
110.00	2 35 39	2117.86	-32.03	30.21	105.13	102.63	3 10 57	1517.9	-29.96	21.61
110.00	15 31 34	4504.88	26.75	181.06	100.46	67.88	16 46 39	3904.9	23.51	173.39

DIFFERENTIAL CORRECTIONS
TDE 1.3374 TRA-1.5876 TC3 -.7818 BAU .6030
RDE -.1112 RRA -.0333 RC3 -.2555 FAU .06633
FDE 1.2835 FRA -.2945 FC3-1.0472 BSP 5867
BDE 1.3420 BRA 1.5879 BC3 .8225 FSP -508

MID-COURSE EXECUTION ACCURACY
SGT 1982.7 SGR 389.0 SG3 160.3
RRT .4941 RRF .7030 RTF .8440
SGB 2020.5 R23 .3147 R13 .8494
SG1 1992.3 SG2 336.6 THA 5.70

ORBIT DETERMINATION ACCURACY
ST 1099.4 SR 87.1 SS 483.1
CRT -.8953 CRS .9718 CST -.9626
LSA 1197.5 MSA 124.7 SSA 15.4
EL1 1102.2 EL2 38.7 ALF 175.94

LAUNCH DATE OCT 19 1970 FLIGHT TIME 98.00 ARRIVAL DATE JAN 25 1971

HELIOCENTRIC CONIC DISTANCE 302.034

RL 149.00 LAL -.00 LOL 25.19 VL 28.903 GAL -13.98 AZL 84.14 HCA 144.61 SMA 140.29 ECC .24894 INC 5.8565 V1 29.904
RP 107.64 LAP 3.39 LOP 169.94 VP 38.986 GAP 5.21 AZP 94.78 TAL 242.01 TAP 26.62 RCA 105.36 APO 175.21 V2 35.207
RC 105.482 GL 22.84 GP -32.43 ZAL 151.74 ZAP 126.01 ETS 329.52 ZAE 126.69 ETE 211.35 ZAC 65.28 ETC 255.25 CLP-134.15

PLANETOCENTRIC CONIC

C3 54.375 VHL 7.374 DLA 6.27 RAL 226.71 RAD 6569.0 VEL 13.256 PTH 2.42 VHP 5.771 DPA -40.90 RAP 199.01 ECC 1.8949

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 49 46	2658.92	-27.29	71.61	108.19	97.85	24 34 5	2058.9	-25.92	63.21
90.00	13 25 40	4911.61	20.82	213.82	103.37	70.36	14 47 32	4311.6	17.95	206.32
100.00	1 18 2	2386.95	-28.70	51.37	107.96	98.73	1 57 49	1786.9	-27.20	42.89
100.00	14 44 2	4658.82	22.16	194.71	102.84	69.41	16 1 41	4058.8	19.16	187.20
110.00	2 33 6	2152.02	-32.51	32.76	107.18	101.19	3 8 58	1552.0	-30.63	24.05
110.00	15 45 27	4466.51	25.74	178.53	101.26	66.69	16 59 54	3866.5	22.37	171.00

DIFFERENTIAL CORRECTIONS
TDE 1.4700 TRA-1.6116 TC3 -.8150 BAU .6199
RDE -.0842 RRA .0072 RC3 -.2507 FAU .06122
FDE 1.2916 FRA -.2192 FC3 -.9747 BSP 5963
BDE 1.4724 BRA 1.6116 BC3 .8527 FSP -443

MID-COURSE EXECUTION ACCURACY
SGT 2082.4 SGR 375.5 SG3 152.2
RRT .4638 RRF .7028 RTF .8424
SGB 2116.0 R23 .3408 R13 .8471
SG1 2089.8 SG2 331.5 THA 4.90

ORBIT DETERMINATION ACCURACY
ST 1203.6 SR 66.3 SS 501.6
CRT -.9382 CRS .9775 CST -.9642
LSA 1299.6 MSA 124.4 SSA 13.8
EL1 1205.3 EL2 22.9 ALF 177.04

LAUNCH DATE OCT 19 1970 FLIGHT TIME 100.00 ARRIVAL DATE JAN 27 1971

HELIOCENTRIC CONIC DISTANCE 307.975

RL 149.00 LAL -.00 LOL 25.19 VL 28.806 GAL -13.73 AZL 83.66 HCA 147.84 SMA 139.46 ECC .24645 INC 6.3409 V1 29.904
RP 107.66 LAP 3.37 LOP 173.19 VP 38.907 GAP 5.51 AZP 95.37 TAL 240.63 TAP 28.46 RCA 105.09 APO 173.83 V2 35.198
RC 107.765 GL 24.81 GP -34.29 ZAL 149.57 ZAP 126.90 ETS 326.13 ZAE 124.70 ETE 211.21 ZAC 63.59 ETC 255.09 CLP-136.62

PLANETOCENTRIC CONIC

C3 54.241 VHL 7.365 DLA 7.87 RAL 228.26 RAD 6569.0 VEL 13.251 PTH 2.42 VHP 5.961 DPA -42.84 RAP 198.55 ECC 1.8927

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 43 39	2709.02	-27.71	75.21	110.47	96.09	24 28 48	2109.0	-26.57	66.73
90.00	13 44 10	4860.30	19.61	210.54	104.51	69.15	15 5 10	4260.3	16.60	203.16
100.00	1 12 42	2434.44	-29.15	54.83	110.28	96.96	1 53 17	1834.4	-27.88	46.26
100.00	15 1 43	4610.11	20.96	191.59	103.95	68.18	16 18 33	4010.1	17.81	184.20
110.00	2 29 36	2193.78	-33.02	35.91	109.64	99.39	3 6 10	1593.8	-31.37	27.07
110.00	16 1 18	4423.53	24.56	175.76	102.28	65.44	17 15 2	3823.5	21.03	168.38

DIFFERENTIAL CORRECTIONS
TDE 1.6018 TRA-1.6493 TC3 -.8557 BAU .6467
RDE -.0666 RRA .0418 RC3 -.2512 FAU .05789
FDE 1.2604 FRA -.1891 FC3 -.9240 BSP 6555
BDE 1.6032 BRA 1.6499 BC3 .8918 FSP -465

MID-COURSE EXECUTION ACCURACY
SGT 2195.3 SGR 375.1 SG3 145.5
RRT .4364 RRF .7092 RTF .8466
SGB 2227.1 R23 .3677 R13 .8509
SG1 2201.6 SG2 336.5 THA 4.37

ORBIT DETERMINATION ACCURACY
ST 1305.9 SR 53.9 SS 506.0
CRT -.9658 CRS .9592 CST -.9671
LSA 1396.3 MSA 120.4 SSA 12.9
EL1 1306.9 EL2 14.0 ALF 177.72

LAUNCH DATE OCT 19 1970 FLIGHT TIME 102.00 ARRIVAL DATE JAN 29 1971

HELIOCENTRIC CONIC DISTANCE 313.895

RL	149.00	LAL	-.00	LOL	25.19	VL	28.709	GAL	-13.47	AZL	83.08	HCA	151.06	SMA	138.65	ECC	.24404	INC	6.9204
RP	107.69	LAP	3.34	LOP	176.43	VP	38.826	GAP	5.80	AZP	96.06	TAL	239.21	TAP	30.27	RCA	104.81	APO	172.48
RC	110.046	GL	27.09	GP	-36.52	ZAL	147.11	ZAP	127.35	ETS	322.39	ZAE	122.55	ETE	211.21	ZAC	61.54	ETC	254.87

V1	29.904	V2	35.189	CLP	-139.02														

PLANETOCENTRIC CONIC

C3	54.565	VHL	7.387	DLA	9.74	RAL	229.97	RAD	6569.0	VEL	13.264	PTH	2.42	VHP	6.191	DPA	-45.11	RAP	197.82
ECC	1.8980																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 35 41	2770.92	-28.07	79.71	113.23	93.87	24 21 52	2170.9	-27.24	71.14
90.00	14 5 47	4801.33	18.14	206.84	105.98	67.88	15 25 49	4201.3	14.98	199.59
100.00	1 5 45	2493.11	-29.55	59.15	113.10	94.72	1 47 18	1893.1	-28.58	50.48
100.00	15 22 20	4554.38	19.51	188.08	105.38	66.89	16 38 15	3954.4	16.21	180.84
110.00	2 24 54	2245.44	-33.52	39.86	112.62	97.11	3 2 19	1645.4	-32.18	30.88
110.00	16 19 41	4374.82	23.14	172.68	103.60	64.11	17 32 36	3774.8	19.47	165.46

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.7695	TRA	-1.6712	TC3	-.8799	BAU	.6664	SGT	2302.9	SGR	370.6	SG3	137.0	ST	1428.6	SR	42.7
RDE	-.0461	RRA	.0870	RC3	-.2453	FAU	.05335	RRT	.3890	RRF	.6992	RTF	.8490	CRT	-.9317	CRS	.8441
FDE	1.2499	FRA	-.1399	FC3	-.8464	BSP	6918	SGB	2332.6	R23	.3925	R13	.8527	LSA	1515.9	MSA	119.8
BDE	1.7701	BRA	1.6735	BC3	.9135	FSP	-443	SG1	2307.5	SG2	340.7	THA	3.66	EL1	1429.2	EL2	15.5

SS	519.3	V1	29.904	V2	35.179
CST	-.9699				
SSA	11.4				
ALF	178.41				

LAUNCH DATE OCT 19 1970 FLIGHT TIME 104.00 ARRIVAL DATE JAN 31 1971

HELIOCENTRIC CONIC DISTANCE 319.794

RL	149.00	LAL	-.00	LOL	25.19	VL	28.612	GAL	-13.21	AZL	82.37	HCA	154.28	SMA	137.85	ECC	.24171	INC	7.6306
RP	107.72	LAP	3.30	LOP	179.67	VP	38.746	GAP	6.08	AZP	96.88	TAL	237.77	TAP	32.04	RCA	104.53	APO	171.17
RC	112.324	GL	29.75	GP	-39.23	ZAL	144.29	ZAP	127.26	ETS	318.27	ZAE	120.16	ETE	211.29	ZAC	59.04	ETC	254.55

V1	29.904	V2	35.179	CLP	-141.40														

PLANETOCENTRIC CONIC

C3	55.566	VHL	7.454	DLA	11.95	RAL	231.89	RAD	6569.0	VEL	13.301	PTH	2.43	VHP	6.480	DPA	-47.77	RAP	196.62
ECC	1.9145																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 25 10	2848.72	-28.30	85.38	116.59	91.03	24 12 39	2248.7	-27.86	76.75
90.00	14 31 38	4732.50	16.32	202.61	107.94	66.54	15 50 30	4132.5	13.01	195.49
100.00	0 56 31	2566.77	-29.84	64.60	116.55	91.86	1 39 18	1966.8	-29.26	55.84
100.00	15 46 53	4489.69	17.73	184.10	107.28	65.53	17 1 43	3889.7	14.28	177.01
110.00	2 18 31	2310.21	-33.96	44.86	116.29	94.17	2 57 1	1710.2	-33.01	35.75
110.00	16 41 23	4319.01	21.44	169.24	105.37	62.72	17 53 22	3719.0	17.61	162.20

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	1.9806	TRA	-1.6783	TC3	-.8852	BAU	.6800	SGT	2407.9	SGR	365.8	SG3	127.3	ST	1573.4	SR	41.1
RDE	-.0272	RRA	.1435	RC3	-.2330	FAU	.04802	RRT	.3156	RRF	.6681	RTF	.8514	CRT	-.6921	CRS	.5156
FDE	1.2494	FRA	-.0833	FC3	-.7482	BSP	7129	SGB	2435.5	R23	.4149	R13	.8543	LSA	1658.9	MSA	121.7
BDE	1.9808	BRA	1.6845	BC3	.9154	FSP	-399	SG1	2410.7	SG2	346.7	THA	2.80	EL1	1573.7	EL2	29.7

SS	538.0	V1	29.904	V2	35.169
CST	-.9728				
SSA	9.6				
ALF	178.96				

LAUNCH DATE OCT 19 1970 FLIGHT TIME 106.00 ARRIVAL DATE FEB 2 1971

HELIOCENTRIC CONIC DISTANCE 325.672

RL	149.00	LAL	-.00	LOL	25.19	VL	28.515	GAL	-12.94	AZL	81.47	HCA	157.49	SMA	137.06	ECC	.23948	INC	8.5279
RP	107.75	LAP	3.26	LOP	182.90	VP	38.666	GAP	6.34	AZP	97.89	TAL	236.30	TAP	33.78	RCA	104.24	APO	169.89
RC	114.599	GL	32.88	GP	-42.51	ZAL	141.00	ZAP	126.53	ETS	313.68	ZAE	117.42	ETE	211.36	ZAC	55.95	ETC	254.05

V1	29.904	V2	35.169	CLP	-143.86														

PLANETOCENTRIC CONIC

C3	57.626	VHL	7.591	DLA	14.59	RAL	234.08	RAD	6569.0	VEL	13.378	PTH	2.45	VHP	6.856	DPA	-50.85	RAP	194.63
ECC	1.9484																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	23 10 56	2948.66	-28.20	92.69	120.75	87.37	24 0 5	2348.7	-28.27	84.03
90.00	15 3 20	4650.45	14.03	197.67	110.61	65.15	16 20 51	4050.4	10.57	190.70
100.00	0 44 2	2661.08	-29.84	71.61	120.82	88.18	1 28 24	2061.1	-29.78	62.81
100.00	16 16 51	4413.25	15.52	179.50	109.88	64.13	17 30 24	3813.3	11.91	172.57
110.00	2 9 47	2392.78	-34.18	51.30	120.89	90.37	2 49 40	1792.8	-33.75	42.08
110.00	17 7 36	4254.33	19.37	165.36	107.79	61.27	18 18 30	3654.3	15.39	158.51

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.2353	TRA	-1.6842	TC3	-.8767	BAU	.6959	SGT	2518.7	SGR	368.2	SG3	117.0	ST	1733.0	SR	52.3
RDE	-.0221	RRA	.2074	RC3	-.2176	FAU	.04306	RRT	.2147	RRF	.6079	RTF	.8581	CRT	-.5170	CRS	.3233
FDE	1.2336	FRA	-.0468	FC3	-.6469	BSP	7607	SGB	2545.4	R23	.4298	R13	.8601	LSA	1815.4	MSA	122.2
BDE	2.2354	BRA	1.6969	BC3	.9033	FSP	-385	SG1	2519.9	SG2	359.5	THA	1.84	EL1	1733.2	EL2	44.7

SS	551.9	V1	29.904	V2	35.158
CST	-.9764				
SSA	8.1				
ALF	179.11				

LAUNCH DATE OCT 19 1970 FLIGHT TIME 108.00 ARRIVAL DATE FEB 4 1971

HELIOCENTRIC CONIC DISTANCE 331.529

RL	149.00	LAL	-.00	LOL	25.19	VL	28.419	GAL	-12.66	AZL	80.30	HCA	160.69	SMA	136.29	ECC	.23732	INC	9.7049
RP	107.79	LAP	3.20	LOP	186.14	VP	38.585	GAP	6.59	AZP	99.17	TAL	234.79	TAP	35.48	RCA	103.95	APO	168.64
RC	116.871	GL	36.61	GP	-46.53	ZAL	137.12	ZAP	125.02	ETS	308.53	ZAE	114.16	ETE	211.25	ZAC	52.12	ETC	253.26

V1	29.904	V2	35.158	CLP	-146.53														

PLANETOCENTRIC CONIC

C3	61.434	VHL	7.838	DLA	17.76	RAL	236.65	RAD	6569.1	VEL	13.520	PTH	2.47	VHP	7.373	DPA	-54.36	RAP	191.34
ECC	2.0110																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 50 54	3081.03	-27.42	102.29	125.88	82.62	23 42 15	2481.0	-28.15	93.70
90.00	15 43 52	4549.28	11.06	191.72	114.40	63.77	16 59 41	3949.3	7.45	184.91
100.00	0 26 36	2785.12	-29.22	80.77	126.13	83.39	1 13 1	2185.f	-29.83	72.02
100.00	16 54 48	4320.41	12.68	174.06	113.56	62.70	18 6 48	3720.4	8.93	167.29
110.00	1 57 40	2500.17	-33.91	59.67	126.67	85.43	2 39 20	1900.2	-34.17	50.44
110.00	17 40 13	4178.13	16.82	160.93	111.22	59.79	18 49 51	3578.1	12.68	154.27

DIFFERENTIAL CORRECTIONS						MID-COURSE EXECUTION ACCURACY						ORBIT DETERMINATION ACCURACY					
TDE	2.5788	TRA	-1.6662	TC3	-.8336	BAU	.7023	SGT	2626.2	SGR	375.4	SG3	105.0	ST	1924.1	SR	73.4
RDE	-.0366	RRA	.2941	RC3	-.1906	FAU	.03720	RRT	.0519	RRF	.4832	RTF	.8670	CRT	-.5388	CRS	.3624
FDE	1.2259	FRA	-.0054	FC3	-.5242	BSP	7932	SGB	2652.9	R23	.4378	R13	.8675	LSA	2004.5	MSA	125.1
BDE	2.5790	BRA	1.6919	BC3	.8551	FSP	-349	SG1	2626.2	SG2	374.9	THA	.43	EL1	1924.5	EL2	61.8

SS	571.1	V1	29.904	V2	35.158
CST	-.9802				
SSA	6.5				
ALF	178.82				

LAUNCH DATE OCT 19 1970 FLIGHT TIME 110.00 ARRIVAL DATE FEB 6 1971

HELIOCENTRIC CONIC DISTANCE 337.362

```
RL  149.00 LAL   -.00 LOL  25.19 VL  28.324 GAL -12.37 AZL  78.67 HCA 163.88 SMA 135.54 ECC .23524 INC11.3273 V1  29.904
RP  107.82 LAP   3.13 LOP 189.37 VP  38.505 GAP   6.82 AZP 100.89 TAL 233.27 TAP  37.15 RCA 103.65 APO 167.42 V2  35.147
RC 119.138 GL   41.07 GP  -51.46 ZAL 132.47 ZAP 122.55 ETS 302.58 ZAE 110.18 ETE 210.58 ZAC  47.33 ETC 251.92 CLP-149.71
```

PLANETOCENTRIC CONIC

```
C3  68.399 VHL  8.270 DLA  21.58 RAL 239.77 RAD 6569.3 VEL 13.775 PTH   2.52 VHP  8.126 DPA -58.20 RAP 185.76 ECC 2.1257
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	22 20 30	3265.53	-25.13	115.30	132.04	76.50	23 14 56	2665.5	-26.74	107.00
90.00	16 39 9	4416.35	6.96	184.11	120.09	62.48	17 52 46	3816.4	3.22	177.42
100.00	0 0 44	2955.01	-27.27	93.01	132.80	77.25	0 49 59	2355.0	-28.75	84.52
100.00	17 45 32	4202.10	8.90	167.32	119.04	61.35	18 55 34	3602.1	5.01	160.69
110.00	1 40 19	2643.46	-32.59	70.64	133.89	79.07	2 24 23	2043.5	-33.75	61.60
110.00	18 22 27	4086.41	13.61	155.76	116.26	58.34	19 30 33	3486.4	9.32	149.29

DIFFERENTIAL CORRECTIONS

```
TDE 3.0563 TRA-1.6154 TC3 -.7464 BAU  .6961
RDE -.1042 RRA  .4154 RC3 -.1492 FAU .03066
FDE 1.2212 FRA  .0324 FC3 -.3880 BSP   8193
BDE 3.0580 BRA 1.6680 BC3  .7612 FSP   -302
```

MID-COURSE EXECUTION ACCURACY

```
SGT 2730.5 SGR  402.3 SG3   91.8
RRT -.2008 RRF  .2452 RTF  .8808
SGB 2760.0 R23 -.4347 R13 -.8789
SG1 2731.7 SG2  394.0 THA 178.27
```

ORBIT DETERMINATION ACCURACY

```
ST  2148.2 SR   117.8 SS   594.2
CRT -.7351 CRS  .6043 CST -.9843
LSA 2228.2 MSA  129.5 SSA    4.9
EL1 2150.0 EL2   79.8 ALF 177.69
```

LAUNCH DATE OCT 19 1970 FLIGHT TIME 112.00 ARRIVAL DATE FEB 8 1971

HELIOCENTRIC CONIC DISTANCE 343.162

```
RL  149.00 LAL   -.00 LOL  25.19 VL  28.229 GAL -12.08 AZL  76.28 HCA 167.05 SMA 134.80 ECC .23321 INC13.7202 V1  29.904
RP  107.86 LAP   3.05 LOP 192.60 VP  38.425 GAP   7.04 AZP 103.38 TAL 231.71 TAP  38.76 RCA 103.36 APO 166.24 V2  35.136
RC 121.402 GL   46.39 GP  -57.50 ZAL 126.83 ZAP 118.91 ETS 295.18 ZAE 105.15 ETE 208.51 ZAC  41.31 ETC 249.52 CLP-154.15
```

PLANETOCENTRIC CONIC

```
C3  81.757 VHL  9.042 DLA  26.11 RAL 243.74 RAD 6569.6 VEL 14.251 PTH   2.59 VHP  9.314 DPA -61.97 RAP 176.15 ECC 2.3455
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	21 23 42	3560.34	-19.05	134.74	138.48	68.64	22 23 3	2960.3	-21.78	127.13
90.00	18 7 38	4204.59	.19	172.24	129.51	61.68	19 17 43	3604.6	-3.60	165.60
100.00	23 12 46	3208.75	-22.28	110.19	139.80	69.54	24 6 15	2608.7	-24.87	102.35
100.00	19 1 16	4031.41	3.22	157.83	127.83	60.27	20 8 27	3431.4	-.76	151.31
110.00	1 14 0	2841.72	-29.11	85.02	142.49	71.23	2 1 22	2241.7	-31.39	76.55
110.00	19 20 27	3971.21	9.41	149.48	124.04	56.98	20 26 38	3371.2	4.99	143.17

DIFFERENTIAL CORRECTIONS

```
TDE 3.7463 TRA-1.5096 TC3 -.6068 BAU  .6711
RDE -.3241 RRA  .5919 RC3 -.0941 FAU .02392
FDE 1.2153 FRA  .0550 FC3 -.2533 BSP   8611
BDE 3.7603 BRA 1.6215 BC3  .6140 FSP   -266
```

MID-COURSE EXECUTION ACCURACY

```
SGT 2823.8 SGR  495.6 SG3   77.5
RRT -.5330 RRF -.1441 RTF  .9040
SGB 2867.0 R23 -.4118 R13 -.8983
SG1 2836.4 SG2  417.4 THA 174.54
```

ORBIT DETERMINATION ACCURACY

```
ST  2395.5 SR   240.6 SS   619.8
CRT -.9149 CRS  .8450 CST -.9889
LSA 2482.5 MSA  133.0 SSA    3.6
EL1 2405.6 EL2   96.7 ALF 174.74
```

LAUNCH DATE OCT 19 1970 FLIGHT TIME 114.00 ARRIVAL DATE FEB 10 1971

HELIOCENTRIC CONIC DISTANCE 348.915

```
RL  149.00 LAL   -.00 LOL  25.19 VL  28.135 GAL -11.77 AZL  72.38 HCA 170.18 SMA 134.08 ECC .23119 INC17.6166 V1  29.904
RP  107.89 LAP   2.96 LOP 195.83 VP  38.345 GAP   7.25 AZP 107.37 TAL 230.12 TAP  40.30 RCA 103.08 APO 165.08 V2  35.124
RC 123.660 GL   52.51 GP  -64.75 ZAL 119.99 ZAP 113.94 ETS 284.30 ZAE  98.58 ETE 202.71 ZAC  33.72 ETC 244.64 CLP-162.07
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PLANETOCENTRIC CONIC

```
C3 110.374 VHL 10.506 DLA  31.22 RAL 249.14 RAD 6570.1 VEL 15.222 PTH   2.73 VHP 11.387 DPA -64.40 RAP 160.16 ECC 2.8165
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
76.27	18 18 36	4296.57	-8.77	184.00	144.41	59.92	19 30 12	3696.6	-12.71	177.33
103.73	21 55 50	3598.77	-8.76	132.45	144.40	59.91	22 55 49	2998.8	-12.69	125.78
76.27	18 18 36	4296.57	-8.77	184.00	144.41	59.92	19 30 12	3696.6	-12.71	177.33
103.73	21 55 50	3598.77	-8.76	132.45	144.40	59.91	22 55 49	2998.8	-12.69	125.78
110.00	0 27 44	3138.25	-21.08	104.27	151.39	62.44	1 20 2	2538.3	-24.59	96.89
110.00	20 49 48	3805.09	3.14	140.70	136.96	55.94	21 53 13	3205.1	-1.35	134.49

DIFFERENTIAL CORRECTIONS

```
TDE 4.7987 TRA-1.2415 TC3 -.3998 BAU  .5914
RDE-1.0159 RRA  .8779 RC3 -.0278 FAU .01645
FDE 1.2425 FRA  .0760 FC3 -.1290 BSP   8953
BDE 4.9050 BRA 1.5205 BC3  .4008 FSP   -220
```

MID-COURSE EXECUTION ACCURACY

```
SGT 2860.3 SGR  789.8 SG3   63.2
RRT -.8163 RRF -.5755 RTF  .9381
SGB 2967.4 R23 -.3621 R13 -.9260
SG1 2933.8 SG2  444.8 THA 166.99
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ORBIT DETERMINATION ACCURACY

```
ST  2627.9 SR   578.9 SS   666.9
CRT -.9792 CRS  .9504 CST -.9937
LSA 2768.8 MSA  138.9 SSA    2.4
EL1 2688.5 EL2  114.8 ALF 167.80
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LAUNCH DATE OCT 19 1970 FLIGHT TIME 116.00 ARRIVAL DATE FEB 12 1971

HELIOCENTRIC CONIC DISTANCE 354.571

```
RL  149.00 LAL   -.00 LOL  25.19 VL  28.042 GAL -11.43 AZL  64.97 HCA 173.23 SMA 133.38 ECC .22903 INC25.0327 V1  29.904
RP  107.93 LAP   2.86 LOP 199.05 VP  38.266 GAP   7.42 AZP 114.88 TAL 228.48 TAP  41.71 RCA 102.83 APO 163.93 V2  35.112
RC 125.912 GL   58.53 GP  -72.37 ZAL 111.83 ZAP 107.62 ETS 262.67 ZAE  89.47 ETE 185.55 ZAC  24.22 ETC 233.42 CLP 177.64
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PLANETOCENTRIC CONIC

```
C3 185.944 VHL 13.636 DLA  35.99 RAL 257.10 RAD 6571.0 VEL 17.529 PTH   2.97 VHP 15.589 DPA -62.61 RAP 138.51 ECC 4.0602
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
66.80	17 51 5	4574.91	-6.19	203.86	158.53	54.48	19 7 20	3974.9	-10.79	197.66
113.20	23 26 53	3512.52	-6.17	124.11	158.52	54.47	24 25 25	2912.5	-10.77	117.91
66.80	17 51 5	4574.91	-6.19	203.86	158.53	54.48	19 7 20	3974.9	-10.79	197.66
113.20	23 26 53	3512.52	-6.17	124.11	158.52	54.47	24 25 25	2912.5	-10.77	117.91
66.80	17 51 5	4574.91	-6.19	203.86	158.53	54.48	19 7 20	3974.9	-10.79	197.66
113.20	23 26 53	3512.52	-6.17	124.11	158.52	54.47	24 25 25	2912.5	-10.77	117.91

DIFFERENTIAL CORRECTIONS

```
TDE 6.0598 TRA -.4287 TC3 -.1447 BAU  .3597
RDE-3.5106 RRA 1.2463 RC3  .0037 FAU .00778
FDE 1.3804 FRA  .1142 FC3 -.0362 BSP   9223
BDE 7.0032 BRA 1.3180 BC3  .1447 FSP   -178
```

MID-COURSE EXECUTION ACCURACY

```
SGT 2586.2 SGR 1610.9 SG3   51.1
RRT -.9371 RRF -.8589 RTF  .9825
SGB 3046.8 R23 -.2712 R13 -.9608
SG1 3008.2 SG2  483.4 THA 148.83
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ORBIT DETERMINATION ACCURACY

```
ST  2547.1 SR  1487.8 SS   781.6
CRT -.9945 CRS  .9870 CST -.9984
LSA 3047.9 MSA  148.5 SSA    1.4
EL1 2946.7 EL2  134.5 ALF 149.78
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LAUNCH DATE OCT 19 1970 FLIGHT TIME 118.00 ARRIVAL DATE FEB 14 1971

HELIOCENTRIC CONIC DISTANCE 359.935

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RL  149.00 LAL   -.00 LOL  25.19 VL  27.950 GAL -11.03 AZL  46.64 HCA 175.99 SMA 132.69 ECC .22615 INC43.3608 V1  29.904
RP  107.97 LAP   2.75 LOP 202.27 VP  38.187 GAP   7.50 AZP 133.29 TAL 226.73 TAP  42.72 RCA 102.68 APO 162.70 V2  35.099
RC 128.158 GL   59.54 GP  -71.87 ZAL 102.85 ZAP 100.42 ETS 217.16 ZAE  74.61 ETE 143.97 ZAC  15.10 ETC 227.94 CLP 125.55
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PLANETOCENTRIC CONIC

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C3 477.516 VHL 21.852 DLA  36.10 RAL 269.48 RAD 6572.3 VEL 24.471 PTH   3.32 VHP 26.295 DPA -51.55 RAP 120.69 ECC 8.8587
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
66.61	18 39 26	4692.11	-1.65	209.95	177.23	53.93	19 57 38	4092.1	-6.34	203.87
113.39	0 21 10	3623.78	-1.63	129.72	177.22	53.93	1 21 33	3023.8	-6.32	123.64
66.61	18 39 26	4692.11	-1.65	209.95	177.23	53.93	19 57 38	4092.1	-6.34	203.87
113.39	0 21 10	3623.78	-1.63	129.72	177.22	53.93	1 21 33	3023.8	-6.32	123.64
66.61	18 39 26	4692.11	-1.65	209.95	177.23	53.93	19 57 38	4092.1	-6.34	203.87
113.39	0 21 10	3623.78	-1.63	129.72	177.22	53.93	1 21 33	3023.8	-6.32	123.64

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 3.4492 TRA 1.5395 TC3 -.0062 BAU  .7402   SGT 1033.5 SGR 2851.6 SG3   44.2      ST   916.7 SR  2806.3 SS  1131.1
 RD-10.7028 RRA  .0631 RC3 -.1158 FAU-.00902   RRT -.8530 RRF -.9783 RTF  .9408      CRT -.9862 CRS  .9980 CST -.9947
 FDE 1.8953 FRA  .3113 FC3  .0163 BSP   8814   SGB 3033.1 R23 -.1497 R13 -.9880      LSA 3157.8 MSA  153.0 SSA    1.3
 BDE11.2448 BRA 1.5408 BC3  .1159 FSP   -142   SG1 2989.1 SG2  514.6 THA 107.72      EL1 2948.7 EL2  144.6 ALF 107.90
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LAUNCH DATE OCT 19 1970 FLIGHT TIME 120.00 ARRIVAL DATE FEB 16 1971

HELIOCENTRIC CONIC DISTANCE 369.166

```
RL  149.00 LAL   -.00 LOL  25.19 VL  27.860 GAL -11.44 AZL 173.49 HCA 182.65 SMA 132.02 ECC .23500 INC83.4852 V1  29.904
RP  108.01 LAP   2.64 LOP 205.49 VP  38.109 GAP   8.70 AZP   6.52 TAL 226.13 TAP  48.78 RCA 101.00 APO 163.05 V2  35.086
RC 130.397 GL  -44.85 GP   48.98 ZAL  97.53 ZAP  96.39 ETS 176.20 ZAE  56.52 ETE 244.70 ZAC 127.80 ETC 264.71 CLP  99.76
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PLANETOCENTRIC CONIC

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C31479.784 VHL 38.468 DLA -66.93 RAL 297.02 RAD 6573.2 VEL 40.013 PTH   3.56 VHP 49.787 DPA  67.95 RAP 152.89 ECC25.3535
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.43	6 14 3	2442.12	-1.33	76.55	207.58	156.93	6 54 45	1842.1	6.03	73.83
153.57	16 26 20	709.74	-1.32	290.32	207.60	156.93	16 38 9	109.7	6.04	287.59
26.43	6 14 3	2442.12	-1.33	76.55	207.58	156.93	6 54 45	1842.1	6.03	73.83
153.57	16 26 20	709.74	-1.32	290.32	207.60	156.93	16 38 9	109.7	6.04	287.59
26.43	6 14 3	2442.12	-1.33	76.55	207.58	156.93	6 54 45	1842.1	6.03	73.83
153.57	16 26 20	709.74	-1.32	290.32	207.60	156.93	16 38 9	109.7	6.04	287.59

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE 5.4414 TRA -.0276 TC3 -.0820 BAU 3.6096   SGT 1026.9 SGR 2339.8 SG3   44.2      ST   810.7 SR  1554.4 SS  1472.0
 RD-10.1101 RRA 3.3629 RC3  .1630 FAU-.05670   RRT -.8426 RRF  .9988 RTF -.8225      CRT -.9700 CRS -.9999 CST  .9669
 FDE-2.2186 FRA  .7763 FC3  .0332 BSP   7486   SGB 2555.3 R23 -.1155 R13  .9928      LSA 2281.2 MSA  189.6 SSA    1.9
 BDE11.4814 BRA 3.3630 BC3  .1825 FSP   -138   SG1 2502.4 SG2  517.1 THA 111.25      EL1 1744.3 EL2  175.5 ALF 117.13
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LAUNCH DATE OCT 19 1970 FLIGHT TIME 122.00 ARRIVAL DATE FEB 18 1971

HELIOCENTRIC CONIC DISTANCE 373.434

```
RL  149.00 LAL   -.00 LOL  25.19 VL  27.770 GAL -10.80 AZL 125.57 HCA 184.32 SMA 131.37 ECC .22904 INC35.5695 V1  29.904
RP  108.05 LAP  -2.51 LOP 208.71 VP  38.032 GAP   8.45 AZP  54.51 TAL 224.07 TAP  48.39 RCA 101.28 APO 161.46 V2  35.074
RC 132.627 GL  -60.33 GP   71.83 ZAL 104.97 ZAP 102.77 ETS 136.97 ZAE  84.53 ETE 210.23 ZAC 154.74 ETC 240.87 CLP 135.12
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PLANETOCENTRIC CONIC

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C3 333.491 VHL 18.262 DLA -83.18 RAL 242.97 RAD 6571.9 VEL 21.326 PTH   3.21 VHP 24.254 DPA  66.41 RAP 232.38 ECC 6.4884
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
7.75	2 0 15	2381.75	5.13	85.20	152.35	173.16	2 39 57	1781.8	13.07	84.64
172.25	13 28 54	5864.10	5.13	258.03	152.37	173.16	15 6 38	5264.1	13.07	257.48
7.75	2 0 15	2381.75	5.13	85.20	152.35	173.16	2 39 57	1781.8	13.07	84.64
172.25	13 28 54	5864.10	5.13	258.03	152.37	173.16	15 6 38	5264.1	13.07	257.48
7.75	2 0 15	2381.75	5.13	85.20	152.35	173.16	2 39 57	1781.8	13.07	84.64
172.25	13 28 54	5864.10	5.13	258.03	152.37	173.16	15 6 38	5264.1	13.07	257.48

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-3.8747 TRA -.0735 TC3 -.0125 BAU  .3197   SGT 1232.0 SGR 2992.0 SG3   50.5      ST  1217.1 SR  2596.9 SS  1163.5
 RDE-8.1461 RRA -.5804 RC3  .0706 FAU .00026   RRT  .9206 RRF  .9747 RTF  .9842      CRT  .9915 CRS -.9972 CST -.9984
 FDE-1.7601 FRA -.0724 FC3 -.0007 BSP   9956   SGB 3235.7 R23 -.1693 R13  .9853      LSA 3091.2 MSA  153.6 SSA     .8
 BDE 9.0207 BRA  .5850 BC3  .0717 FSP   -161   SG1 3204.4 SG2  449.2 THA  68.80      EL1 2864.4 EL2  143.4 ALF  65.01
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LAUNCH DATE OCT 19 1970 FLIGHT TIME 124.00 ARRIVAL DATE FEB 20 1971

HELIOCENTRIC CONIC DISTANCE 378.830

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RL  149.00 LAL   -.00 LOL  25.19 VL  27.682 GAL -10.39 AZL 109.53 HCA 187.14 SMA 130.74 ECC .22668 INC19.5283 V1  29.904
RP  108.09 LAP   2.38 LOP 211.92 VP  37.955 GAP   8.54 AZP  70.61 TAL 222.30 TAP  49.44 RCA 101.10 APO 160.37 V2  35.061
RC 134.850 GL  -55.80 GP   68.82 ZAL 114.17 ZAP 111.16 ETS  85.20 ZAE  98.26 ETE 161.26 ZAC 161.14 ETC 225.12 CLP 177.76
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PLANETOCENTRIC CONIC

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C3 121.098 VHL 11.004 DLA -75.19 RAL 216.10 RAD 6570.3 VEL 15.570 PTH   2.77 VHP 14.955 DPA  52.37 RAP 244.80 ECC 2.9930
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
16.88	0 30 58	2212.88	15.28	77.88	121.95	164.64	1 7 51	1612.9	22.98	76.00
163.12	11 23 47	5720.01	15.28	259.60	121.97	164.64	12 59 7	5120.0	22.98	257.73
16.88	0 30 58	2212.88	15.28	77.88	121.95	164.64	1 7 51	1612.9	22.98	76.00
163.12	11 23 47	5720.01	15.28	259.60	121.97	164.64	12 59 7	5120.0	22.98	257.73
16.88	0 30 58	2212.88	15.28	77.88	121.95	164.64	1 7 51	1612.9	22.98	76:00
163.12	11 23 47	5720.01	15.28	259.60	121.97	164.64	12 59 7	5120.0	22.98	257.73

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
 TDE-3.2493 TRA-1.3388 TC3 -.3394 BAU  .5502   SGT 3295.2 SGR  982.2 SG3   61.0      ST  1879.4 SR   296.9 SS   623.2
 RDE -.0778 RRA -.4813 RC3 -.0182 FAU .01554   RRT  .8567 RRF  .7145 RTF  .9716      CRT  .5542 CRS -.4241 CST -.9889
 FDE -.8847 FRA -.2340 FC3 -.1111 BSP  10638   SGB 3438.5 R23 -.2648 R13  .9623      LSA 1984.7 MSA  263.9 SSA    1.7
 BDE 3.2502 BRA 1.4227 BC3  .3399 FSP   -201   SG1 3403.3 SG2  490.5 THA  14.63      EL1 1886.7 EL2  246.2 ALF   5.09
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LAUNCH DATE OCT 19 1970 FLIGHT TIME 126.00 ARRIVAL DATE FEB 22 1971

HELIOCENTRIC CONIC DISTANCE 384.452

RL 149.00 LAL -.00 LOL 25.19 VL 27.594 GAL -10.02 AZL 102.77 HCA 190.19 SMA 130.12 ECC .22515 INC12.7726 V1 29.904
RP 108.13 LAP 2.24 LOP 215.13 VP 37.879 GAP 8.68 AZP 77.42 TAL 220.59 TAP 50.77 RCA 100.82 APO 159.42 V2 35.047
RC 137.063 GL -47.56 GP 60.23 ZAL 122.01 ZAP 119.13 ETS 70.74 ZAE 106.75 ETE 150.47 ZAC 157.46 ETC 239.22 CLP-168.64

PLANETOCENTRIC CONIC

C3 66.270 VHL 8.141 DLA -66.51 RAL 220.74 RAD 6569.3 VEL 13.698 PTH 2.50 VHP 11.258 DPA 41.33 RAP 247.13 ECC 2.0906

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
26.92	1 10 49	2053.98	22.69	66.87	120.26	154.41	1 45 3	1454.0	29.85	63.31
153.08	11 20 55	5612.83	22.70	259.08	120.28	154.41	12 54 28	5012.8	29.86	255.52
26.92	1 10 49	2053.98	22.69	66.87	120.26	154.41	1 45 3	1454.0	29.85	63.31
153.08	11 20 55	5612.83	22.70	259.08	120.28	154.41	12 54 28	5012.8	29.86	255.52
26.92	1 10 49	2053.98	22.69	66.87	120.26	154.41	1 45 3	1454.0	29.85	63.31
153.08	11 20 55	5612.83	22.70	259.08	120.28	154.41	12 54 28	5012.8	29.86	255.52

DIFFERENTIAL CORRECTIONS
TDE-2.2056 TRA-1.6003 TC3 -.8664 BAU .7703
RDE .4210 RRA -.1892 RC3 .0730 FAU .02376
FDE -.7657 FRA -.2622 FC3 -.3105 BSP 10975
BDE 2.2454 BRA 1.6115 BC3 .8695 FSP -248

MID-COURSE EXECUTION ACCURACY
SGT 3519.5 SGR 462.1 SG3 75.3
RRT .1947 RRF -.1613 RTF .9314
SGB 3549.7 R23 -.3525 R13 .9302
SG1 3520.7 SG2 453.1 THA 1.49

ORBIT DETERMINATION ACCURACY
ST 1769.3 SR 312.8 SS 541.5
CRT -.6778 CRS .8372 CST -.9695
LSA 1858.8 MSA 257.6 SSA 2.6
EL1 1782.2 EL2 228.3 ALF 173.05

LAUNCH DATE OCT 19 1970 FLIGHT TIME 128.00 ARRIVAL DATE FEB 24 1971

HELIOCENTRIC CONIC DISTANCE 390.140

RL 149.00 LAL -.00 LOL 25.19 VL 27.508 GAL -9.66 AZL 99.14 HCA 193.31 SMA 129.52 ECC .22397 INC 9.1356 V1 29.904
RP 108.17 LAP 2.09 LOP 218.34 VP 37.805 GAP 8.84 AZP 81.11 TAL 218.88 TAP 52.19 RCA 100.51 APO 158.53 V2 35.034
RC 139.266 GL -39.73 GP 52.29 ZAL 127.83 ZAP 126.08 ETS 65.21 ZAE 112.65 ETE 149.22 ZAC 151.47 ETC 247.99 CLP-164.33

PLANETOCENTRIC CONIC

C3 45.379 VHL 6.736 DLA -59.02 RAL 226.02 RAD 6568.7 VEL 12.913 PTH 2.35 VHP 9.466 DPA 32.42 RAP 248.17 ECC 1.7468

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
35.79	1 53 12	1924.83	26.38	55.21	118.68	144.93	2 25 16	1324.8	32.82	50.17
144.21	11 20 44	5555.53	26.39	257.79	118.70	144.92	12 53 20	4955.5	32.83	252.74
35.79	1 53 12	1924.83	26.38	55.21	118.68	144.93	2 25 16	1324.8	32.82	50.17
144.21	11 20 44	5555.53	26.39	257.79	118.70	144.92	12 53 20	4955.5	32.83	252.74
35.79	1 53 12	1924.83	26.38	55.21	118.68	144.93	2 25 16	1324.8	32.82	50.17
144.21	11 20 44	5555.53	26.39	257.79	118.70	144.92	12 53 20	4955.5	32.83	252.74

DIFFERENTIAL CORRECTIONS
TDE-1.6791 TRA-1.6515 TC3-1.4166 BAU .8652
RDE .4012 RRA -.0947 RC3 .1645 FAU .02961
FDE -.6754 FRA -.2454 FC3 -.5649 BSP 11314
BDE 1.7264 BRA 1.6542 BC3 1.4261 FSP -293

MID-COURSE EXECUTION ACCURACY
SGT 3623.2 SGR 435.9 SG3 89.5
RRT -.3060 RRF -.6669 RTF .9001
SGB 3649.3 R23 .4073 R13 -.9019
SG1 3625.6 SG2 414.7 THA 177.86

ORBIT DETERMINATION ACCURACY
ST 1647.1 SR 344.6 SS 480.6
CRT -.7918 CRS .9408 CST -.9518
LSA 1732.6 MSA 246.3 SSA 3.9
EL1 1669.9 EL2 207.6 ALF 170.45

LAUNCH DATE OCT 19 1970 FLIGHT TIME 130.00 ARRIVAL DATE FEB 26 1971

HELIOCENTRIC CONIC DISTANCE 395.851

RL 149.00 LAL -.00 LOL 25.19 VL 27.424 GAL -9.30 AZL 96.87 HCA 196.46 SMA 128.93 ECC .22301 INC 6.8684 V1 29.904
RP 108.21 LAP 1.94 LOP 221.54 VP 37.731 GAP 9.01 AZP 83.41 TAL 217.16 TAP 53.63 RCA 100.18 APO 157.69 V2 35.021
RC 141.459 GL -33.03 GP 45.64 ZAL 131.68 ZAP 131.93 ETS 61.99 ZAE 116.86 ETE 150.47 ZAC 145.80 ETC 252.68 CLP-162.88

PLANETOCENTRIC CONIC

C3 35.253 VHL 5.937 DLA -52.80 RAL 230.52 RAD 6568.4 VEL 12.515 PTH 2.27 VHP 8.489 DPA 25.15 RAP 249.12 ECC 1.5802

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
43.38	2 32 9	1817.67	27.59	44.35	117.14	136.98	3 2 27	1217.7	33.29	38.25
136.62	11 17 40	5535.25	27.60	257.09	117.15	136.98	12 49 55	4935.3	33.30	250.99
43.38	2 32 9	1817.67	27.59	44.35	117.14	136.98	3 2 27	1217.7	33.29	38.25
136.62	11 17 40	5535.25	27.60	257.09	117.15	136.98	12 49 55	4935.3	33.30	250.99
43.38	2 32 9	1817.67	27.59	44.35	117.14	136.98	3 2 27	1217.7	33.29	38.25
136.62	11 17 40	5535.25	27.60	257.09	117.15	136.98	12 49 55	4935.3	33.30	250.99

DIFFERENTIAL CORRECTIONS
TDE-1.3288 TRA-1.6440 TC3-1.9360 BAU .9187
RDE .3414 RRA -.0599 RC3 .2279 FAU .03368
FDE -.5782 FRA -.2061 FC3 -.8271 BSP 11617
BDE 1.3720 BRA 1.6451 BC3 1.9493 FSP -330

MID-COURSE EXECUTION ACCURACY
SGT 3716.7 SGR 436.9 SG3 101.7
RRT -.4887 RRF -.8134 RTF .8774
SGB 3742.3 R23 .4356 R13 -.8800
SG1 3722.9 SG2 380.6 THA 176.68

ORBIT DETERMINATION ACCURACY
ST 1506.2 SR 330.8 SS 416.1
CRT -.8037 CRS .9656 CST -.9305
LSA 1579.4 MSA 238.5 SSA 5.5
EL1 1529.9 EL2 193.8 ALF 169.82

LAUNCH DATE OCT 19 1970 FLIGHT TIME 132.00 ARRIVAL DATE FEB 28 1971

HELIOCENTRIC CONIC DISTANCE 401.570

RL 149.00 LAL -.00 LOL 25.19 VL 27.340 GAL -8.94 AZL 95.32 HCA 199.63 SMA 128.36 ECC .22223 INC 5.3160 V1 29.904
RP 108.25 LAP 1.78 LOP 224.74 VP 37.658 GAP 9.18 AZP 84.99 TAL 215.44 TAP 55.07 RCA 99.84 APO 156.89 V2 35.008
RC 143.643 GL -27.44 GP 40.17 ZAL 133.89 ZAP 136.80 ETS 59.64 ZAE 119.89 ETE 152.45 ZAC 140.94 ETC 255.49 CLP-162.54

PLANETOCENTRIC CONIC

C3 29.481 VHL 5.430 DLA -47.70 RAL 234.43 RAD 6568.2 VEL 12.282 PTH 2.21 VHP 7.918 DPA 19.18 RAP 250.23 ECC 1.4852

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
49.86	3 8 30	1723.69	27.49	34.64	116.15	130.66	3 37 14	1123.7	32.52	27.87
130.14	11 12 27	5539.24	27.50	257.39	116.17	130.65	12 44 47	4939.2	32.53	250.62
49.86	3 8 30	1723.69	27.49	34.64	116.15	130.66	3 37 14	1123.7	32.52	27.87
130.14	11 12 27	5539.24	27.50	257.39	116.17	130.65	12 44 47	4939.2	32.53	250.62
49.86	3 8 30	1723.69	27.49	34.64	116.15	130.66	3 37 14	1123.7	32.52	27.87
130.14	11 12 27	5539.24	27.50	257.39	116.17	130.65	12 44 47	4939.2	32.53	250.62

DIFFERENTIAL CORRECTIONS
TDE-1.0727 TRA-1.6108 TC3-2.4100 BAU .9557
RDE .2932 RRA -.0447 RC3 .2667 FAU .03631
FDE -.4814 FRA -.1566 FC3-1.0663 BSP 11917
BDE 1.1121 BRA 1.6114 BC3 2.4247 FSP -360

MID-COURSE EXECUTION ACCURACY
SGT 3809.3 SGR 429.6 SG3 111.3
RRT -.5690 RRF -.8590 RTF .8612
SGB 3833.4 R23 .4435 R13 -.8639
SG1 3817.2 SG2 352.5 THA 176.30

ORBIT DETERMINATION ACCURACY
ST 1364.4 SR 310.3 SS 352.0
CRT -.7914 CRS .9769 CST -.9026
LSA 1423.9 MSA 233.1 SSA 7.7
EL1 1386.8 EL2 186.6 ALF 169.61

LAUNCH DATE OCT 19 1970 FLIGHT TIME 134.00 ARRIVAL DATE MAR 2 1971

HELIOCENTRIC CONIC DISTANCE 407.291

RL	149.00	LAL	-.00	LOL	25.19	VL	27.258	GAL	-8.58	AZL	94.18	HCA	202.80	SMA	127.81	ECC	.22162	INC	4.1820
RP	108.29	LAP	1.62	LOP	227.94	VP	37.586	GAP	9.35	AZP	86.14	TAL	213.71	TAP	56.51	RCA	99.48	APO	156.13
RC	145.816	GL	-22.78	GP	35.68	ZAL	134.81	ZAP	140.85	ETS	57.77	ZAE	122.09	ETE	154.57	ZAC	136.90	ETC	257.40

PLANETOCENTRIC CONIC

C3	25.780	VHL	5.077	DLA	-43.51	RAL	237.96	RAD	6568.0	VEL	12.131	PTH	2.17	VHP	7.572	DPA	14.25	RAP	251.54

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
55.47	3 43 27	1636.57	26.79	25.92	115.82	125.67	4 10 43	1036.6	31.25	18.73
124.53	11 5 43	5559.59	26.80	258.66	115.83	125.66	12 38 22	4959.6	31.26	251.48
55.47	3 43 27	1636.57	26.79	25.92	115.82	125.67	4 10 43	1036.6	31.25	18.73
124.53	11 5 43	5559.59	26.80	258.66	115.83	125.66	12 38 22	4959.6	31.26	251.48
55.47	3 43 27	1636.57	26.79	25.92	115.82	125.67	4 10 43	1036.6	31.25	18.73
124.53	11 5 43	5559.59	26.80	258.66	115.83	125.66	12 38 22	4959.6	31.26	251.48

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.8678	TRA	-1.5539	TC3	-2.8306	BAU	.9805	SGT	3881.7	SGR	415.2	SG3	117.4	ST	1221.7	SR	291.4	SS	286.5
RDE	.2576	RRA	-.0395	RC3	.2856	FAU	.03751	RRT	-.6017	RRF	-.8646	RTF	.8463	CRT	-.7642	CRS	.9845	CST	-.8615
FDE	-.3846	FRA	-.0965	FC3	-1.2596	BSP	12013	SGB	3903.8	R23	.4402	R13	-.8488	LSA	1267.7	MSA	229.1	SSA	10.4
BDE	.9053	BRA	1.5544	BC3	2.8450	FSP	-368	SG1	3889.8	SG2	330.9	THA	176.29	EL1	1242.3	EL2	184.9	ALF	169.43

LAUNCH DATE OCT 19 1970 FLIGHT TIME 136.00 ARRIVAL DATE MAR 4 1971

HELIOCENTRIC CONIC DISTANCE 413.007

RL	149.00	LAL	-.00	LOL	25.19	VL	27.177	GAL	-8.20	AZL	93.31	HCA	205.98	SMA	127.27	ECC	.22116	INC	3.3129
RP	108.33	LAP	1.45	LOP	231.14	VP	37.515	GAP	9.52	AZP	87.02	TAL	211.97	TAP	57.95	RCA	99.12	APO	155.42
RC	147.979	GL	-18.83	GP	31.98	ZAL	134.76	ZAP	144.26	ETS	56.23	ZAE	123.70	ETE	156.60	ZAC	133.55	ETC	258.82

PLANETOCENTRIC CONIC

C3	23.193	VHL	4.816	DLA	-40.02	RAL	241.28	RAD	6567.9	VEL	12.024	PTH	2.15	VHP	7.359	DPA	10.14	RAP	253.02

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
60.45	4 17 58	1552.10	25.83	17.85	116.06	121.70	4 43 50	952.1	29.82	10.43
119.55	10 57 40	5592.10	25.84	260.78	116.07	121.69	12 30 52	4992.1	29.83	253.35
60.45	4 17 58	1552.10	25.83	17.85	116.06	121.70	4 43 50	952.1	29.82	10.43
119.55	10 57 40	5592.10	25.84	260.78	116.07	121.69	12 30 52	4992.1	29.83	253.35
60.45	4 17 58	1552.10	25.83	17.85	116.06	121.70	4 43 50	952.1	29.82	10.43
119.55	10 57 40	5592.10	25.84	260.78	116.07	121.69	12 30 52	4992.1	29.83	253.35

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.7171	TRA	-1.4999	TC3	-3.2407	BAU	1.0092	SGT	3987.6	SGR	408.5	SG3	123.6	ST	1106.9	SR	283.2	SS	234.9
RDE	.2376	RRA	-.0336	RC3	.3013	FAU	.03840	RRT	-.6295	RRF	-.8565	RTF	.8405	CRT	-.7368	CRS	.9900	CST	-.8117
FDE	-.3080	FRA	-.0474	FC3	-1.4336	BSP	12463	SGB	4008.4	R23	.4171	R13	-.8426	LSA	1144.0	MSA	227.6	SSA	13.5
BDE	.7554	BRA	1.5003	BC3	3.2547	FSP	-393	SG1	3995.9	SG2	316.7	THA	176.29	EL1	1127.0	EL2	188.1	ALF	169.02

LAUNCH DATE OCT 19 1970 FLIGHT TIME 138.00 ARRIVAL DATE MAR 6 1971

HELIOCENTRIC CONIC DISTANCE 418.720

RL	149.00	LAL	-.00	LOL	25.19	VL	27.098	GAL	-7.82	AZL	92.62	HCA	209.16	SMA	126.75	ECC	.22085	INC	2.6222
RP	108.37	LAP	1.28	LOP	234.33	VP	37.446	GAP	9.69	AZP	87.71	TAL	210.21	TAP	59.37	RCA	98.75	APO	154.74
RC	150.132	GL	-15.45	GP	28.92	ZAL	133.98	ZAP	147.15	ETS	54.95	ZAE	124.89	ETE	158.44	ZAC	130.77	ETC	259.96

PLANETOCENTRIC CONIC

C3	21.259	VHL	4.611	DLA	-37.06	RAL	244.48	RAD	6567.9	VEL	11.943	PTH	2.13	VHP	7.230	DPA	6.69	RAP	254.66

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
65.02	4 53 5	1466.64	24.79	10.11	116.76	118.48	5 17 32	866.6	28.39	2.53
114.98	10 48 7	5635.37	24.80	263.70	116.77	118.46	12 22 2	5035.4	28.40	256.12
65.02	4 53 5	1466.64	24.79	10.11	116.76	118.48	5 17 32	866.6	28.39	2.53
114.98	10 48 7	5635.37	24.80	263.70	116.77	118.46	12 22 2	5035.4	28.40	256.12
65.02	4 53 5	1466.64	24.79	10.11	116.76	118.48	5 17 32	866.6	28.39	2.53
114.98	10 48 7	5635.37	24.80	263.70	116.77	118.46	12 22 2	5035.4	28.40	256.12

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.5885	TRA	-1.4305	TC3	-3.6191	BAU	1.0324	SGT	4078.6	SGR	402.0	SG3	127.5	ST	995.7	SR	278.9	SS	185.8
RDE	.2240	RRA	-.0314	RC3	.3099	FAU	.03851	RRT	-.6396	RRF	-.8354	RTF	.8350	CRT	-.7009	CRS	.9923	CST	.7365
FDE	-.2368	FRA	.0044	FC3	-1.5683	BSP	12777	SGB	4098.4	R23	.3880	R13	-.8369	LSA	1025.4	MSA	227.9	SSA	17.3
BDE	.6297	BRA	1.4309	BC3	3.6324	FSP	-405	SG1	4086.8	SG2	308.4	THA	176.37	EL1	1015.5	EL2	195.1	ALF	168.46

LAUNCH DATE OCT 19 1970 FLIGHT TIME 140.00 ARRIVAL DATE MAR 8 1971

HELIOCENTRIC CONIC DISTANCE 424.428

RL	149.00	LAL	-.00	LOL	25.19	VL	27.020	GAL	-7.43	AZL	92.06	HCA	212.34	SMA	126.24	ECC	.22070	INC	2.0572
RP	108.41	LAP	1.10	LOP	237.52	VP	37.377	GAP	9.87	AZP	88.26	TAL	208.45	TAP	60.79	RCA	98.38	APO	154.10
RC	152.275	GL	-12.50	GP	26.35	ZAL	132.63	ZAP	149.63	ETS	53.92	ZAE	125.80	ETE	160.09	ZAC	128.44	ETC	260.93

PLANETOCENTRIC CONIC

C3	19.742	VHL	4.443	DLA	-34.50	RAL	247.64	RAD	6567.8	VEL	11.880	PTH	2.11	VHP	7.158	DPA	3.76	RAP	256.43

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
69.41	5 30 3	1376.15	23.74	2.31	117.85	115.81	5 52 59	776.2	27.01	354.64
110.59	10 36 21	5690.48	23.75	267.50	117.85	115.79	12 11 12	5090.5	27.02	259.83
69.41	5 30 3	1376.15	23.74	2.31	117.85	115.81	5 52 59	776.2	27.01	354.64
110.59	10 36 21	5690.48	23.75	267.50	117.85	115.79	12 11 12	5090.5	27.02	259.83
69.41	5 30 3	1376.15	23.74	2.31	117.85	115.81	5 52 59	776.2	27.01	354.64
110.59	10 36 21	5690.48	23.75	267.50	117.85	115.79	12 11 12	5090.5	27.02	259.83

DIFFERENTIAL CORRECTIONS MID-COURSE EXECUTION ACCURACY ORBIT DETERMINATION ACCURACY

TDE	-.4693	TRA	-1.3422	TC3	-3.9607	BAU	1.0486	SGT	4143.1	SGR	394.3	SG3	128.9	ST	880.0	SR	276.2	SS	136.4
RDE	.2137	RRA	-.0328	RC3	.3121	FAU	.03781	RRT	-.6335	RRF	-.8033	RTF	.8266	CRT	-.6500	CRS	.9822	CST	-.5964
FDE	-.1660	FRA	.0625	FC3	-1.6579	BSP	12843	SGB	4161.8	R23	.3577	R13	-.8282	LSA	903.4	MSA	229.6	SSA	21.8
BDE	.5157	BRA	1.3426	BC3	3.9730	FSP	-398	SG1	4150.7	SG2	304.6	THA	176.53	EL1	899.1	EL2	205.4	ALF	167.82

LAUNCH DATE OCT 19 1970 FLIGHT TIME 142.00 ARRIVAL DATE MAR 10 1971

HELIOCENTRIC CONIC DISTANCE 430.126

RL	149.00	LAL	-.00	LOL	25.19	VL	26.943	GAL	-7.04	AZL	91.58	HCA	215.52	SMA	125.74	ECC	.22071	INC	1.5834
RP	108.45	LAP	.92	LOP	240.70	VP	37.310	GAP	10.04	AZP	88.71	TAL	206.67	TAP	62.19	RCA	97.99	APO	153.49
RC	154.408	GL	-9.89	GP	24.18	ZAL	130.84	ZAP	151.79	ETS	53.12	ZAE	126.49	ETE	161.53	ZAC	126.47	ETC	261.80

V1	29.904	V2	34.943	CLP	-165.02														

PLANETOCENTRIC CONIC

C3	18.516	VHL	4.303	DLA	-32.24	RAL	250.80	RAD	6567.7	VEL	11.828	PTH	2.09	VHP	7.125	DPA	1.26	RAP	258.32
ECC	1.3047																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
73.89	6 10 44	1274.55	22.70	353.93	119.25	113.54	6 31 58	674.6	25.68	346.21
106.11	10 20 50	5761.81	22.71	272.49	119.25	113.53	11 56 52	5161.8	25.69	264.77
73.89	6 10 44	1274.55	22.70	353.93	119.25	113.54	6 31 58	674.6	25.68	346.21
106.11	10 20 50	5761.81	22.71	272.49	119.25	113.53	11 56 52	5161.8	25.69	264.77
110.00	9 18 36	666.49	15.33	305.37	115.24	120.93	9 29 42	66.5	19.32	298.52
110.00	12 12 9	5417.87	30.50	249.17	122.40	106.24	13 42 26	4817.9	32.42	240.48

DIFFERENTIAL CORRECTIONS

TDE	-.3846	TRA	-1.2661	TC3	-4.3303	BAU	1.0749												
RDE	.2112	RRA	-.0313	RC3	.3223	FAU	.03759												
FDE	-.1193	FRA	.1014	FC3	-1.7574	BSP	13410												
BDE	.4388	BRA	1.2665	BC3	4.3423	FSP	-422												

MID-COURSE EXECUTION ACCURACY

SGT	4257.2	SGR	398.1	SG3	132.1						
RRT	-.6370	RRF	-.7755	RTF	.8295						
SGB	4275.7	R23	.3170	R13	-.8308						
SG1	4264.7	SG2	306.3	THA	176.57						

ORBIT DETERMINATION ACCURACY

ST	795.2	SR	281.8	SS	105.9		
CRT	-.6075	CRS	.9442	CST	-.4224		
LSA	816.4	MSA	235.9	SSA	26.3		
EL1	814.9	EL2	218.4	ALF	166.89		

LAUNCH DATE OCT 19 1970 FLIGHT TIME 144.00 ARRIVAL DATE MAR 12 1971

HELIOCENTRIC CONIC DISTANCE 435.819

RL	149.00	LAL	-.00	LOL	25.19	VL	26.867	GAL	-6.63	AZL	91.18	HCA	218.70	SMA	125.26	ECC	.22087	INC	1.1785
RP	108.49	LAP	.74	LOP	243.89	VP	37.244	GAP	10.21	AZP	89.08	TAL	204.89	TAP	63.59	RCA	97.59	APO	152.92
RC	156.530	GL	-7.54	GP	22.33	ZAL	128.71	ZAP	153.69	ETS	52.54	ZAE	127.04	ETE	162.80	ZAC	124.79	ETC	262.60

V1	29.904	V2	34.931	CLP	-165.73														

PLANETOCENTRIC CONIC

C3	17.502	VHL	4.183	DLA	-30.21	RAL	253.98	RAD	6567.7	VEL	11.785	PTH	2.08	VHP	7.120	DPA	-.90	RAP	260.31
ECC	1.2880																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
79.00	6 59 32	1147.69	21.67	343.91	120.93	111.58	7 18 39	547.7	24.41	336.16
101.00	9 57 27	5862.39	21.69	279.61	120.93	111.57	11 35 10	5262.4	24.42	271.86
79.00	6 59 32	1147.69	21.67	343.91	120.93	111.58	7 18 39	547.7	24.41	336.16
101.00	9 57 27	5862.39	21.69	279.61	120.93	111.57	11 35 10	5262.4	24.42	271.86
110.00	8 54 30	772.96	11.52	311.27	115.54	122.41	9 7 23	173.0	15.71	304.67
110.00	13 1 39	5285.12	32.62	239.41	124.50	100.83	14 29 44	4685.1	33.77	230.37

DIFFERENTIAL CORRECTIONS

TDE	-.2953	TRA	-1.1676	TC3	-4.6593	BAU	1.0928												
RDE	.2083	RRA	-.0339	RC3	.3266	FAU	.03663												
FDE	-.0677	FRA	.1494	FC3	-1.8119	BSP	13634												
BDE	.3614	BRA	1.1681	BC3	4.6707	FSP	-421												

MID-COURSE EXECUTION ACCURACY

SGT	4334.2	SGR	398.7	SG3	132.8						
RRT	-.6257	RRF	-.7399	RTF	.8269						
SGB	4352.5	R23	.2818	R13	-.8281						
SG1	4341.4	SG2	310.5	THA	176.69						

ORBIT DETERMINATION ACCURACY

ST	696.7	SR	285.9	SS	77.1		
CRT	-.5391	CRS	.7804	CST	-.0384		
LSA	715.7	MSA	244.5	SSA	31.8		
EL1	715.7	EL2	234.4	ALF	165.99		

LAUNCH DATE OCT 19 1970 FLIGHT TIME 146.00 ARRIVAL DATE MAR 14 1971

HELIOCENTRIC CONIC DISTANCE 441.502

RL	149.00	LAL	-.00	LOL	25.19	VL	26.793	GAL	-6.22	AZL	90.83	HCA	221.88	SMA	124.79	ECC	.22120	INC	.8264
RP	108.53	LAP	.55	LOP	247.07	VP	37.179	GAP	10.39	AZP	89.38	TAL	203.09	TAP	64.97	RCA	97.19	APO	152.39
RC	158.641	GL	-5.40	GP	20.75	ZAL	126.28	ZAP	155.38	ETS	52.15	ZAE	127.48	ETE	163.91	ZAC	123.34	ETC	263.36

V1	29.904	V2	34.919	CLP	-166.45														

PLANETOCENTRIC CONIC

C3	16.655	VHL	4.081	DLA	-28.35	RAL	257.22	RAD	6567.7	VEL	11.749	PTH	2.07	VHP	7.137	DPA	-2.77	RAP	262.38
ECC	1.2741																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
88.68	8 30 11	885.98	20.66	324.21	122.86	109.85	8 44 57	286.0	23.18	316.44
91.32	8 52 38	813.20	20.67	318.89	122.87	109.84	9 6 11	213.2	23.19	311.12
100.00	8 42 8	847.17	14.57	318.65	120.14	116.39	8 56 15	247.2	18.00	311.54
100.00	11 23 21	5615.27	27.02	263.11	124.93	103.31	12 56 57	5015.3	28.58	254.65
110.00	8 41 45	848.37	8.74	315.33	116.73	123.18	8 55 54	248.4	13.04	308.89
110.00	13 40 13	5186.85	33.63	231.92	126.27	96.51	15 6 40	4586.8	34.17	222.72

DIFFERENTIAL CORRECTIONS

TDE	-.2144	TRA	-1.0633	TC3	-4.9800	BAU	1.1113												
RDE	.2073	RRA	-.0374	RC3	.3320	FAU	.03560												
FDE	-.0228	FRA	.1935	FC3	-1.8507	BSP	13910												
BDE	.2983	BRA	1.0639	BC3	4.9910	FSP	-423												

MID-COURSE EXECUTION ACCURACY

SGT	4414.7	SGR	402.1	SG3	133.2						
RRT	-.6130	RRF	-.7049	RTF	.8264						
SGB	4432.9	R23	.2477	R13	-.8274						
SG1	4421.6	SG2	317.2	THA	176.79						

ORBIT DETERMINATION ACCURACY

ST	603.7	SR	291.7	SS	66.6		
CRT	-.4516	CRS	.3605	CST	.4901		
LSA	621.5	MSA	257.4	SSA	37.8		
EL1	620.9	EL2	253.0	ALF	165.18		

LAUNCH DATE OCT 19 1970 FLIGHT TIME 148.00 ARRIVAL DATE MAR 16 1971

HELIOCENTRIC CONIC DISTANCE 447.177

RL	149.00	LAL	-.00	LOL	25.19	VL	26.720	GAL	-5.79	AZL	90.52	HCA	225.06	SMA	124.33	ECC	.22170	INC	.5154
RP	108.56	LAP	.37	LOP	250.25	VP	37.115	GAP	10.56	AZP	89.64	TAL	201.28	TAP	66.34	RCA	96.77	APO	151.90
RC	160.740	GL	-3.43	GP	19.38	ZAL	123.61	ZAP	156.90	ETS	51.97	ZAE	127.84	ETE	164.88	ZAC	122.08	ETC	264.08

V1	29.904	V2	34.907	CLP	-167.17														

PLANETOCENTRIC CONIC

C3	15.949	VHL	3.994	DLA	-26.60	RAL	260.52	RAD	6567.6	VEL	11.719	PTH	2.06	VHP	7.171	DPA	-4.39	RAP	264.53
ECC	1.2625																		

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 28 6	1123.03	13.46	338.39	122.46	115.15	7 46 49	523.0	16.74	331.25
90.00	10 21 3	5844.42	26.09	279.72	126.89	101.43	11 58 28	5244.4	27.40	271.30
100.00	8 18 33	960.05	11.05	325.19	121.23	117.95	8 34 33	360.0	14.71	318.30
100.00	12 13 17	5482.63	28.74	253.63	127.41	98.61	13 44 39	4882.6	29.63	244.94
110.00	8 34 37	909.63	6.44	318.59	118.45	123.64	8 49 46	309.6	10.82	312.23
110.00	14 13 43	5105.81	34.08	225.64	128.04	92.82	15 38 48	4505.8	34.10	216.40

DIFFERENTIAL CORRECTIONS

TDE	-.1369	TRA	-.9507	TC3	-5.2847	BAU	1.1291												
RDE	.2072	RRA	-.0419	RC3	.3375	FAU	.03448												
FDE	.0178	FRA	.2355	FC3	-1.8715	BSP	14184												
BDE	.2483	BRA	.9517	BC3	5.2955	FSP	-423												

MID-COURSE EXECUTION ACCURACY

SGT	4492.5	SGR	406.9	SG3	133.2						
RRT	-.5983	RRF	-.6707	RTF	.8269						
SGB	4510.9	R23	.2164	R13	-.8277						
SG1	4499.1	SG2	325.6	THA	176.88						

ORBIT DETERMINATION ACCURACY

ST	513.8	SR	298.1	SS	77.2		
CRT	-.3275	CRS	-.1327	CST	.8001		
LSA	530.1	MSA	275.4	SSA	44.7		
EL1	526.7	EL2	274.8	ALF	165.10		

LAUNCH DATE OCT 19 1970 FLIGHT TIME 150.00 ARRIVAL DATE MAR 18 1971

HELIOCENTRIC CONIC DISTANCE 452.841

RL	149.00	LAL	-.00	LOL	25.19	VL	26.648	GAL	-5.36	AZL	90.24	HCA	228.23	SMA	123.89	EGC	.22238	INC	.2370
RP	108.60	LAP	.18	LOP	253.43	VP	37.053	GAP	10.74	AZP	89.84	TAL	199.47	TAP	67.70	RCA	96.34	APO	151.44
RC	162.826	GL	-1.61	GP	18.18	ZAL	120.71	ZAP	158.27	ETS	51.98	ZAE	128.14	ETE	165.73	ZAC	120.97	ETC	264.80

V1 29.904 V2 34.896 CLP-167.89

PLANETOCENTRIC CONIC

C3	15.367	VHL	3.920	DLA	-24.93	RAL	263.90	RAD	6567.6	VEL	11.694	PTH	2.06	VHP	7.219	DPA	-5.79	RAP	266.75

ECC 1.2529

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 6 53	1232.15	10.22	344.76	123.98	116.55	7 27 25	632.2	13.70	337.82
90.00	11 9 11	5718.49	27.47	270.77	129.47	97.15	12 44 30	5118.5	28.18	262.18
100.00	8 5 39	1042.42	8.39	329.85	123.00	118.80	8 23 1	442.4	12.17	323.10
100.00	12 53 7	5383.45	29.53	246.37	129.72	94.86	14 22 50	4783.4	29.89	237.58
110.00	8 30 55	963.17	4.41	321.41	120.57	123.93	8 46 58	363.2	8.84	315.12
110.00	14 44 20	5035.47	34.18	220.15	129.93	89.57	16 8 15	4435.5	33.74	210.93

DIFFERENTIAL CORRECTIONS

TDE	-.0602	TRA	-.8298	TC3	-5.5693	BAU	1.1463
RDE	.2077	RRA	-.0477	RC3	.3428	FAU	.03328
FDE	.0551	FRA	.2759	FC3	-1.8752	BSP	14444
BDE	.2163	BRA	.8312	BC3	5.5799	FSP	-423

MID-COURSE EXECUTION ACCURACY

SGT	4567.5	SGR	412.7	SG3	132.9		
RRT	-.5823	RRF	-.6379	RTF	.8281		
SGB	4586.1	R23	.1883	R13	-.8288		
SG1	4573.9	SG2	335.0	THA	176.97		

ORBIT DETERMINATION ACCURACY

ST	431.2	SR	304.5	SS	101.0		
CRT	-.1411	CRS	-.4262	CST	.7854		
LSA	443.2	MSA	299.4	SSA	52.5		
EL1	435.3	EL2	298.7	ALF	169.15		

LAUNCH DATE OCT 19 1970 FLIGHT TIME 152.00 ARRIVAL DATE MAR 20 1971

HELIOCENTRIC CONIC DISTANCE 458.495

RL	149.00	LAL	-.00	LOL	25.19	VL	26.578	GAL	-4.91	AZL	89.99	HCA	231.41	SMA	123.45	ECC	.22325	INC	.0000
RP	108.63	LAP	-.01	LOP	256.60	VP	36.992	GAP	10.93	AZP	90.01	TAL	197.64	TAP	69.05	RCA	95.89	APO	151.02
RC	164.900	GL	.10	GP	17.14	ZAL	117.63	ZAP	159.52	ETS	52.18	ZAE	128.40	ETE	166.48	ZAC	119.98	ETC	265.49

V1 29.904 V2 34.885 CLP-168.61

PLANETOCENTRIC CONIC

C3	14.900	VHL	3.860	DLA	-23.32	RAL	267.35	RAD	6567.6	VEL	11.674	PTH	2.05	VHP	7.279	DPA	-7.01	RAP	269.02

ECC 1.2452

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 54 47	1315.31	7.65	349.52	126.05	117.35	7 16 42	715.3	11.26	342.70
90.00	11 48 49	5621.49	28.10	263.74	131.98	93.68	13 22 31	5021.5	28.31	255.09
100.00	7 57 57	1111.38	6.11	333.70	125.21	119.32	8 16 29	511.4	9.97	327.04
100.00	13 28 20	5300.65	29.85	240.23	132.07	91.65	14 56 40	4700.7	29.76	231.43
110.00	8 29 34	1012.28	2.54	323.98	123.00	124.10	8 46 26	412.3	7.00	317.73
110.00	15 13 13	4972.51	34.04	215.24	132.00	86.66	16 36 5	4372.5	33.20	206.10

DIFFERENTIAL CORRECTIONS

TDE	.0173	TRA	-.7003	TC3	-5.8271	BAU	1.1628
RDE	.2085	RRA	-.0546	RC3	.3473	FAU	.03203
FDE	.0900	FRA	.3151	FC3	-1.8611	BSP	14702
BDE	.2092	BRA	.7024	BC3	5.8375	FSP	-422

MID-COURSE EXECUTION ACCURACY

SGT	4638.9	SGR	418.9	SG3	132.2		
RRT	-.5654	RRF	-.6067	RTF	.8298		
SGB	4657.8	R23	.1636	R13	-.8304		
SG1	4645.0	SG2	345.0	THA	177.06		

ORBIT DETERMINATION ACCURACY

ST	366.3	SR	310.7	SS	130.5		
CRT	.1391	CRS	-.5732	CST	.5611		
LSA	377.8	MSA	318.2	SSA	61.5		
EL1	374.1	EL2	301.3	ALF	20.02		

LAUNCH DATE OCT 19 1970 FLIGHT TIME 154.00 ARRIVAL DATE MAR 22 1971

HELIOCENTRIC CONIC DISTANCE 464.136

RL	149.00	LAL	-.00	LOL	25.19	VL	26.509	GAL	-4.46	AZL	89.76	HCA	234.58	SMA	123.03	ECC	.22431	INC	.2445
RP	108.66	LAP	-.20	LOP	259.77	VP	36.932	GAP	11.12	AZP	90.14	TAL	195.81	TAP	70.39	RCA	95.44	APO	150.63
RC	166.961	GL	1.69	GP	16.21	ZAL	114.37	ZAP	160.67	ETS	52.57	ZAE	128.62	ETE	167.14	ZAC	119.09	ETC	266.18

V1 29.904 V2 34.874 CLP-169.33

PLANETOCENTRIC CONIC

C3	14.543	VHL	3.814	DLA	-21.75	RAL	270.87	RAD	6567.6	VEL	11.659	PTH	2.05	VHP	7.350	DPA	-8.07	RAP	271.35

ECC 1.2393

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 47 20	1386.60	5.40	353.55	128.52	117.84	7 10 27	786.6	9.09	346.81
90.00	12 24 23	5539.41	28.31	257.75	134.55	90.68	13 56 42	4939.4	28.10	249.09
100.00	7 53 27	1173.20	4.03	337.12	127.76	119.64	8 13 1	573.2	7.95	330.52
100.00	14 0 57	5228.04	29.87	234.84	134.55	88.81	15 28 5	4628.0	29.39	226.07
110.00	8 29 54	1058.97	.76	326.42	125.72	124.18	8 47 33	459.0	5.24	320.20
110.00	15 40 59	4915.03	33.72	210.78	134.26	84.04	17 2 54	4315.0	32.53	201.75

DIFFERENTIAL CORRECTIONS

TDE	.0966	TRA	-.5627	TC3	-6.0536	BAU	1.1790
RDE	.2095	RRA	-.0624	RC3	.3507	FAU	.03075
FDE	.1226	FRA	.3528	FC3	-1.8306	BSP	14961
BDE	.2307	BRA	.5661	BC3	6.0638	FSP	-421

MID-COURSE EXECUTION ACCURACY

SGT	4708.3	SGR	425.3	SG3	131.3		
RRT	-.5481	RRF	-.5774	RTF	.8322		
SGB	4727.5	R23	.1419	R13	-.8328		
SG1	4714.1	SG2	355.2	THA	177.15		

ORBIT DETERMINATION ACCURACY

ST	338.9	SR	316.3	SS	161.9		
CRT	.4932	CRS	-.6504	CST	.1644		
LSA	403.2	MSA	271.0	SSA	71.2		
EL1	401.0	EL2	232.5	ALF	41.03		

LAUNCH DATE OCT 19 1970 FLIGHT TIME 156.00 ARRIVAL DATE MAR 24 1971

HELIOCENTRIC CONIC DISTANCE 469.766

RL	149.00	LAL	-.00	LOL	25.19	VL	26.441	GAL	-3.99	AZL	89.54	HCA	237.75	SMA	122.62	ECC	.22557	INC	.4569
RP	108.69	LAP	-.39	LOP	262.94	VP	36.874	GAP	11.31	AZP	90.24	TAL	193.97	TAP	71.72	RCA	94.96	APO	150.28
RC	169.007	GL	3.19	GP	15.40	ZAL	110.97	ZAP	161.72	ETS	53.15	ZAE	128.82	ETE	167.73	ZAC	118.28	ETC	266.86

V1 29.904 V2 34.864 CLP-170.03

PLANETOCENTRIC CONIC

C3	14.296	VHL	3.781	DLA	-20.19	RAL	274.46	RAD	6567.6	VEL	11.648	PTH	2.04	VHP	7.431	DPA	-8.98	RAP	273.71

ECC 1.2353

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 42 49	1451.53	3.33	357.20	131.30	118.14	7 7 0	851.5	7.07	350.51
90.00	12 57 33	5466.89	28.25	252.45	137.26	88.02	14 28 40	4866.9	27.68	243.83
100.00	7 51 8	1231.07	2.08	340.30	130.60	119.83	8 11 39	631.1	6.03	333.75
100.00	14 31 55	5162.57	29.68	229.98	137.18	86.26	15 57 58	4562.6	28.85	221.27
110.00	8 31 30	1104.54	-.98	328.79	128.69	124.17	8 49 55	504.5	3.50	322.59
110.00	16 8 2	4861.87	33.27	206.70	136.74	81.67	17 29 4	4261.9	31.76	197.79

DIFFERENTIAL CORRECTIONS

TDE	.1810	TRA	-.4154	TC3	-6.2373	BAU	1.1940
RDE	.2106	RRA	-.0714	RC3	.3521	FAU	.02943
FDE	.1542	FRA	.3899	FC3	-1.7824	BSP	15181
BDE	.2777	BRA	.4215	BC3	6.2472	FSP	-418

MID-COURSE EXECUTION ACCURACY

SGT	4772.0	SGR	431.3	SG3	130.1		
RRT	-.5301	RRF	-.5494	RTF	.8349		
SGB	4791.4	R23	.1229	R13	-.8353		
SG1	4777.5	SG2	365.3	THA	177.24		

ORBIT DETERMINATION ACCURACY

ST	368.4	SR	321.1	SS	194.7		
CRT	.7892	CRS	-.6958	CST	-.2850		
LSA	473.8	MSA	214.0	SSA	80.2		
EL1	462.8	EL2	157.0	ALF	40.04		

LAUNCH DATE OCT 19 1970 FLIGHT TIME 158.00 ARRIVAL DATE MAR 26 1971

HELIOCENTRIC CONIC DISTANCE 475.380

RL 149.00 LAL -.00 LOL 25.19 VL 26.374 GAL -3.51 AZL 89.34 HCA 240.92 SMA 122.23 ECC .22705 INC .6551 V1 29.904
RP 108.72 LAP -.57 LOP 266.11 VP 36.817 GAP 11.51 AZP 90.32 TAL 192.12 TAP 73.04 RCA 94.47 APO 149.98 V2 34.855
RC 171.039 GL 4.59 GP 14.67 ZAL 107.43 ZAP 162.70 ETS 53.92 ZAE 129.01 ETE 168.25 ZAC 117.53 ETC 267.54 CLP-170.73

PLANETOCENTRIC CONIC

C3 14.160 VHL 3.763 DLA -18.64 RAL 278.11 RAD 6567.6 VEL 11.642 PTH 2.04 VHP 7.521 DPA -9.76 RAP 276.12 ECC 1.2330

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 40 17	1512.91	1.35	.63	134.35	118.29	7 5 30	912.9	5.12	353.98
90.00	13 29 9	5401.28	28.01	247.66	140.13	85.64	14 59 11	4801.3	27.11	239.11
100.00	7 50 21	1286.82	.19	343.36	133.70	119.89	8 11 48	686.8	4.17	336.83
100.00	15 1 47	5102.61	29.33	225.56	139.99	83.96	16 26 49	4502.6	28.19	216.94
110.00	8 34 4	1149.84	-2.72	331.16	131.89	124.09	8 53 14	549.8	1.78	324.95
110.00	16 34 33	4812.35	32.72	202.94	139.42	79.51	17 54 45	4212.3	30.93	194.18

DIFFERENTIAL CORRECTIONS
TDE .2591 TRA -.2705 TC3-6.4042 BAU 1.2142
RDE .2130 RRA -.0800 RC3 .3544 FAU .02841
FDE .1780 FRA .4195 FC3-1.7369 BSP 15663
BDE .3354 BRA .2821 BC3 6.4140 FSP -429

MID-COURSE EXECUTION ACCURACY
SGT 4855.4 SGR 439.1 SG3 129.2
RRT -.5168 RRF -.5291 RTF .8420
SGB 4875.2 R23 .1067 R13 -.8424
SG1 4860.7 SG2 375.5 THA 177.31

ORBIT DETERMINATION ACCURACY
ST 439.9 SR 326.6 SS 221.2
CRT .9171 CRS -.7173 CST -.5757
LSA 557.5 MSA 175.9 SSA 86.0
EL1 537.4 EL2 106.6 ALF 35.88

LAUNCH DATE OCT 19 1970 FLIGHT TIME 160.00 ARRIVAL DATE MAR 28 1971

HELIOCENTRIC CONIC DISTANCE 480.982

RL 149.00 LAL -.00 LOL 25.19 VL 26.308 GAL -3.01 AZL 89.16 HCA 244.09 SMA 121.84 ECC .22876 INC .8413 V1 29.904
RP 108.75 LAP -.76 LOP 269.28 VP 36.761 GAP 11.72 AZP 90.37 TAL 190.26 TAP 74.36 RCA 93.97 APO 149.71 V2 34.846
RC 173.056 GL 5.89 GP 14.03 ZAL 103.79 ZAP 163.60 ETS 54.88 ZAE 129.18 ETE 168.72 ZAC 116.84 ETC 268.22 CLP-171.43

PLANETOCENTRIC CONIC

C3 14.138 VHL 3.760 DLA -17.09 RAL 281.80 RAD 6567.6 VEL 11.641 PTH 2.04 VHP 7.620 DPA -10.42 RAP 278.56 ECC 1.2327

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 39 13	1572.39	-.57	3.94	137.65	118.31	7 5 26	972.4	3.22	357.31
90.00	13 59 40	5341.12	27.62	243.31	143.17	83.49	15 28 41	4741.1	26.43	234.84
100.00	7 50 45	1341.56	-1.67	346.36	137.03	119.85	8 13 7	741.6	2.32	339.84
100.00	15 30 49	5047.17	28.87	221.50	142.99	81.87	16 54 56	4447.2	27.44	212.99
110.00	8 37 24	1195.46	-4.45	333.55	135.30	123.93	8 57 19	595.5	.03	327.33
110.00	17 0 40	4766.04	32.09	199.47	142.31	77.54	18 20 6	4166.0	30.05	190.86

DIFFERENTIAL CORRECTIONS
TDE .3691 TRA -.0896 TC3-6.4423 BAU 1.2194
RDE .2129 RRA -.0921 RC3 .3463 FAU .02664
FDE .2162 FRA .4643 FC3-1.6313 BSP 15498
BDE .4261 BRA .1285 BC3 6.4516 FSP -407

MID-COURSE EXECUTION ACCURACY
SGT 4879.3 SGR 441.2 SG3 127.0
RRT -.4916 RRF -.4953 RTF .8396
SGB 4899.2 R23 .0919 R13 -.8399
SG1 4884.2 SG2 383.9 THA 177.44

ORBIT DETERMINATION ACCURACY
ST 582.5 SR 327.6 SS 262.6
CRT .9605 CRS -.7409 CST -.7793
LSA 695.8 MSA 158.4 SSA 79.2
EL1 663.5 EL2 80.1 ALF 28.83

LAUNCH DATE OCT 19 1970 FLIGHT TIME 162.00 ARRIVAL DATE MAR 30 1971

HELIOCENTRIC CONIC DISTANCE 486.566

RL 149.00 LAL -.00 LOL 25.19 VL 26.244 GAL -2.50 AZL 88.98 HCA 247.26 SMA 121.46 ECC .23071 INC 1.0178 V1 29.904
RP 108.78 LAP -.94 LOP 272.45 VP 36.707 GAP 11.94 AZP 90.39 TAL 188.40 TAP 75.66 RCA 93.44 APO 149.48 V2 34.837
RC 175.059 GL 7.09 GP 13.45 ZAL 100.07 ZAP 164.45 ETS 56.05 ZAE 129.34 ETE 169.14 ZAC 116.18 ETC 268.89 CLP-172.11

PLANETOCENTRIC CONIC

C3 14.237 VHL 3.773 DLA -15.55 RAL 285.51 RAD 6567.6 VEL 11.646 PTH 2.04 VHP 7.728 DPA -10.97 RAP 281.02 ECC 1.2343

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 39 15	1630.93	-2.46	7.21	141.16	118.22	7 6 25	1030.9	1.34	.58
90.00	14 29 17	5285.65	27.13	239.32	146.38	81.55	15 57 23	4685.7	25.68	230.95
100.00	7 52 3	1396.02	-3.51	349.36	140.58	119.70	8 15 19	796.0	.47	342.83
100.00	15 59 10	4995.79	28.31	217.78	146.16	79.99	17 22 26	4395.8	26.64	209.38
110.00	8 41 17	1241.76	-6.21	335.98	138.91	123.68	9 1 59	641.8	-1.74	329.75
110.00	17 26 25	4722.81	31.41	196.28	145.39	75.77	18 45 7	4122.8	29.14	187.82

DIFFERENTIAL CORRECTIONS
TDE .4703 TRA .0850 TC3-6.4637 BAU 1.2319
RDE .2148 RRA -.1033 RC3 .3397 FAU .02530
FDE .2445 FRA .4994 FC3-1.5384 BSP 15677
BDE .5170 BRA .1338 BC3 6.4726 FSP -402

MID-COURSE EXECUTION ACCURACY
SGT 4931.5 SGR 445.6 SG3 125.4
RRT -.4729 RRF -.4712 RTF .8432
SGB 4951.6 R23 .0793 R13 -.8435
SG1 4936.1 SG2 392.3 THA 177.54

ORBIT DETERMINATION ACCURACY
ST 730.1 SR 329.9 SS 294.7
CRT .9543 CRS -.7506 CST -.8681
LSA 836.2 MSA 157.6 SSA 68.1
EL1 796.1 EL2 90.4 ALF 23.65

LAUNCH DATE OCT 19 1970 FLIGHT TIME 164.00 ARRIVAL DATE APR 1 1971

HELIOCENTRIC CONIC DISTANCE 492.130

RL 149.00 LAL -.00 LOL 25.19 VL 26.180 GAL -1.98 AZL 88.81 HCA 250.43 SMA 121.09 ECC .23292 INC 1.1860 V1 29.904
RP 108.80 LAP -1.12 LOP 275.61 VP 36.654 GAP 12.17 AZP 90.40 TAL 186.54 TAP 76.96 RCA 92.89 APO 149.30 V2 34.829
RC 177.047 GL 8.19 GP 12.93 ZAL 96.29 ZAP 165.23 ETS 57.43 ZAE 129.49 ETE 169.51 ZAC 115.56 ETC 269.56 CLP-172.79

PLANETOCENTRIC CONIC

C3 14.464 VHL 3.803 DLA -14.01 RAL 289.23 RAD 6567.6 VEL 11.655 PTH 2.05 VHP 7.846 DPA -11.41 RAP 283.50 ECC 1.2380

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 40 6	1689.11	-4.32	10.47	144.87	118.01	7 8 15	1089.1	-.54	3.82
90.00	14 58 6	5234.46	26.56	235.68	149.75	79.81	16 25 21	4634.5	24.88	227.41
100.00	7 54 1	1450.59	-5.34	352.37	144.31	119.45	8 18 12	850.6	-1.38	345.82
100.00	16 26 52	4948.21	27.70	214.38	149.50	78.30	17 49 20	4348.2	25.81	206.09
110.00	8 45 38	1288.94	-7.98	338.49	142.69	123.35	9 7 7	688.9	-3.54	332.21
110.00	17 51 45	4682.63	30.70	193.37	148.66	74.18	19 9 47	4082.6	28.23	185.04

DIFFERENTIAL CORRECTIONS
TDE .5722 TRA .2635 TC3-6.4387 BAU 1.2467
RDE .2176 RRA -.1146 RC3 .3312 FAU .02412
FDE .2689 FRA .5311 FC3-1.4435 BSP 15995
BDE .6121 BRA .2873 BC3 6.4472 FSP -405

MID-COURSE EXECUTION ACCURACY
SGT 4989.5 SGR 450.1 SG3 123.7
RRT -.4561 RRF -.4509 RTF .8489
SGB 5009.8 R23 .0689 R13 -.8491
SG1 4993.7 SG2 400.2 THA 177.63

ORBIT DETERMINATION ACCURACY
ST 883.0 SR 332.2 SS 322.5
CRT .9372 CRS -.7550 CST -.9149
LSA 982.1 MSA 162.2 SSA 57.4
EL1 937.1 EL2 109.2 ALF 19.70

LAUNCH DATE OCT 19 1970 FLIGHT TIME 166.00 ARRIVAL DATE APR 3 1971

HELIOCENTRIC CONIC DISTANCE 497.676

RL 149.00 LAL -.00 LOL 25.19 VL 26.118 GAL -1.43 AZL 88.65 HCA 253.59 SMA 120.73 ECC .23541 INC 1.3478 V1 29.904
RP 108.83 LAP -1.29 LOP 278.78 VP 36.603 GAP 12.40 AZP 90.38 TAL 184.66 TAP 78.25 RCA 92.31 APO 149.15 V2 34.822
RC 179.021 GL 9.18 GP 12.46 ZAL 92.49 ZAP 165.96 ETS 59.03 ZAE 129.63 ETE 169.85 ZAC 114.97 ETC 270.22 CLP-173.47

PLANETOCENTRIC CONIC

C3 14.828 VHL 3.851 DLA -12.48 RAL 292.94 RAD 6567.6 VEL 11.671 PTH 2.05 VHP 7.974 DPA -11.76 RAP 286.01 ECC 1.2440

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 41 36	1747.26	-6.17	13.74	148.77	117.69	7 10 43	1147.3	-2.42	7.07
90.00	15 26 10	5187.36	25.95	232.37	153.27	78.25	16 52 37	4587.4	24.07	224.20
100.00	7 56 32	1505.51	-7.17	355.42	148.22	119.10	8 21 37	905.5	-3.24	348.84
100.00	16 53 55	4904.35	27.06	211.28	153.00	76.79	18 15 40	4304.3	24.97	203.10
110.00	8 50 19	1337.07	-9.77	341.06	146.64	122.92	9 12 36	737.1	-5.37	334.74
110.00	18 16 38	4645.55	29.99	190.72	152.09	72.76	19 34 3	4045.6	27.34	182.53

DIFFERENTIAL CORRECTIONS
TDE .6914 TRA .4616 TC3-6.3244 BAU 1.2553
RDE .2200 RRA -.1270 RC3 .3173 FAU .02270
FDE .2985 FRA .5675 FC3-1.3256 BSP 16045
BDE .7255 BRA .4788 BC3 6.3324 FSP -395

MID-COURSE EXECUTION ACCURACY
SGT 5027.5 SGR 452.0 SG3 121.8
RRT -.4355 RRF -.4260 RTF .8519
SGB 5047.8 R23 .0585 R13 -.8520
SG1 5031.4 SG2 406.6 THA 177.74

ORBIT DETERMINATION ACCURACY
ST 1060.3 SR 332.5 SS 355.0
CRT .9173 CRS -.7592 CST -.9447
LSA 1153.3 MSA 168.4 SSA 47.9
EL1 1103.9 EL2 127.2 ALF 16.27

LAUNCH DATE OCT 19 1970 FLIGHT TIME 168.00 ARRIVAL DATE APR 5 1971

HELIOCENTRIC CONIC DISTANCE 503.199

RL 149.00 LAL -.00 LOL 25.19 VL 26.057 GAL -.87 AZL 88.50 HCA 256.75 SMA 120.38 ECC .23819 INC 1.5042 V1 29.904
RP 108.85 LAP -1.46 LOP 281.94 VP 36.553 GAP 12.65 AZP 90.34 TAL 182.79 TAP 79.54 RCA 91.71 APO 149.06 V2 34.815
RC 180.980 GL 10.06 GP 12.03 ZAL 88.69 ZAP 166.63 ETS 60.85 ZAE 129.77 ETE 170.16 ZAC 114.40 ETC 270.88 CLP-174.14

PLANETOCENTRIC CONIC

C3 15.340 VHL 3.917 DLA -10.97 RAL 296.61 RAD 6567.6 VEL 11.693 PTH 2.06 VHP 8.112 DPA -12.02 RAP 288.53 ECC 1.2525

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 43 37	1805.52	-8.00	17.04	152.82	117.25	7 13 42	1205.5	-4.29	10.33
90.00	15 53 26	5144.34	25.32	229.37	156.94	76.88	17 19 11	4544.3	23.26	221.31
100.00	7 59 27	1560.83	-8.99	358.52	152.29	118.63	8 25 28	960.8	-5.10	351.89
100.00	17 20 17	4864.26	26.40	208.48	156.64	75.45	18 41 21	4264.3	24.15	200.41
110.00	8 55 15	1386.13	-11.57	343.72	150.74	122.39	9 18 21	786.1	-7.22	337.33
110.00	18 40 59	4611.73	29.28	188.34	155.67	71.52	19 57 51	4011.7	26.48	180.28

DIFFERENTIAL CORRECTIONS
TDE .8128 TRA .6657 TC3-6.1599 BAU 1.2648
RDE .2237 RRA -.1394 RC3 .3014 FAU .02141
FDE .3242 FRA .6018 FC3-1.2081 BSP 16199
BDE .8430 BRA .6801 BC3 6.1673 FSP -391

MID-COURSE EXECUTION ACCURACY
SGT 5067.7 SGR 453.8 SG3 119.9
RRT -.4157 RRF -.4042 RTF .8563
SGB 5087.9 R23 .0504 R13 -.8564
SG1 5071.2 SG2 412.4 THA 177.85

ORBIT DETERMINATION ACCURACY
ST 1234.2 SR 333.2 SS 382.6
CRT .8986 CRS -.7598 CST -.9617
LSA 1322.4 MSA 174.5 SSA 40.8
EL1 1270.5 EL2 142.0 ALF 13.81

LAUNCH DATE OCT 19 1970 FLIGHT TIME 170.00 ARRIVAL DATE APR 7 1971

HELIOCENTRIC CONIC DISTANCE 508.697

RL 149.00 LAL -.00 LOL 25.19 VL 25.997 GAL -.29 AZL 88.34 HCA 259.92 SMA 120.04 ECC .24129 INC 1.6567 V1 29.904
RP 108.87 LAP -1.63 LOP 285.10 VP 36.504 GAP 12.92 AZP 90.29 TAL 180.91 TAP 80.83 RCA 91.08 APO 149.01 V2 34.809
RC 182.925 GL 10.82 GP 11.65 ZAL 84.92 ZAP 167.26 ETS 62.92 ZAE 129.91 ETE 170.44 ZAC 113.84 ETC 271.53 CLP-174.81

PLANETOCENTRIC CONIC

C3 16.015 VHL 4.002 DLA -9.49 RAL 300.22 RAD 6567.6 VEL 11.722 PTH 2.07 VHP 8.261 DPA -12.19 RAP 291.05 ECC 1.2636

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 46 1	1863.91	-9.81	20.38	157.01	116.70	7 17 5	1263.9	-6.15	13.62
90.00	16 19 52	5105.42	24.69	226.70	160.72	75.68	17 44 58	4505.4	22.48	218.72
100.00	8 2 42	-1616.52	-10.79	1.67	156.49	118.05	8 29 39	1016.5	-6.96	354.98
100.00	17 45 52	4828.05	25.76	205.98	160.40	74.29	19 6 20	4228.1	23.36	198.01
110.00	9 0 21	1436.01	-13.38	346.46	154.97	121.75	9 24 17	836.0	-9.08	339.99
110.00	19 4 43	4581.33	28.61	186.23	159.39	70.43	20 21 4	3981.3	25.67	178.28

DIFFERENTIAL CORRECTIONS
TDE .9389 TRA .8802 TC3-5.9392 BAU 1.2731
RDE .2285 RRA -.1519 RC3 .2825 FAU .02009
FDE .3478 FRA .6363 FC3-1.0862 BSP 16348
BDE .9663 BRA .8932 BC3 5.9459 FSP -387

MID-COURSE EXECUTION ACCURACY
SGT 5102.6 SGR 454.7 SG3 117.7
RRT -.3952 RRF -.3831 RTF .8604
SGB 5122.8 R23 .0443 R13 -.8605
SG1 5105.8 SG2 417.4 THA 177.97

ORBIT DETERMINATION ACCURACY
ST 1405.1 SR 333.8 SS 407.2
CRT .8814 CRS -.7583 CST -.9723
LSA 1489.2 MSA 180.2 SSA 35.3
EL1 1436.0 EL2 154.3 ALF 11.97

LAUNCH DATE OCT 19 1970 FLIGHT TIME 172.00 ARRIVAL DATE APR 9 1971

HELIOCENTRIC CONIC DISTANCE 514.166

RL 149.00 LAL -.00 LOL 25.19 VL 25.938 GAL .31 AZL 88.19 HCA 263.08 SMA 119.71 ECC .24474 INC 1.8061 V1 29.904
RP 108.88 LAP -1.79 LOP 288.27 VP 36.457 GAP 13.20 AZP 90.22 TAL 179.03 TAP 82.11 RCA 90.41 APO 149.01 V2 34.804
RC 184.854 GL 11.48 GP 11.30 ZAL 81.21 ZAP 167.84 ETS 65.23 ZAE 130.04 ETE 170.70 ZAC 113.29 ETC 272.18 CLP-175.47

PLANETOCENTRIC CONIC

C3 16.869 VHL 4.107 DLA -8.05 RAL 303.76 RAD 6567.7 VEL 11.758 PTH 2.08 VHP 8.422 DPA -12.28 RAP 293.58 ECC 1.2776

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 48 44	1922.37	-11.58	23.77	161.32	116.02	7 20 47	1322.4	-7.98	16.93
90.00	16 45 24	5070.72	24.09	224.33	164.61	74.64	18 9 54	4470.7	21.75	216.44
100.00	8 6 12	1672.49	-12.56	4.89	160.81	117.35	8 34 4	1072.5	-8.80	358.12
100.00	18 10 37	4795.83	25.15	203.78	164.28	73.28	19 30 33	4195.8	22.62	195.90
110.00	9 5 34	1486.57	-15.17	349.28	159.31	121.01	9 30 21	886.6	-10.95	342.72
110.00	19 27 44	4554.51	27.98	184.39	163.21	69.51	20 43 39	3954.5	24.93	176.55

DIFFERENTIAL CORRECTIONS
TDE 1.0766 TRA 1.1059 TC3-5.6717 BAU 1.2805
RDE .2334 RRA -.1646 RC3 .2615 FAU .01879
FDE .3769 FRA .6724 FC3 -.9642 BSP 16425
BDE 1.1016 BRA 1.1181 BC3 5.6777 FSP -377

MID-COURSE EXECUTION ACCURACY
SGT 5137.0 SGR 453.7 SG3 116.0
RRT -.3745 RRF -.3589 RTF .8638
SGB 5157.0 R23 .0358 R13 -.8639
SG1 5139.9 SG2 420.5 THA 178.09

ORBIT DETERMINATION ACCURACY
ST 1579.1 SR 333.0 SS 435.3
CRT .8664 CRS -.7594 CST -.9802
LSA 1661.0 MSA 184.3 SSA 31.2
EL1 1605.5 EL2 163.6 ALF 10.46

LAUNCH DATE OCT 19 1970 FLIGHT TIME 174.00 ARRIVAL DATE APR 11 1971

HELIOCENTRIC CONIC DISTANCE 519.601

RL 149.00 LAL -.00 LOL 25.19 VL 25.880 GAL .94 AZL 88.05 HCA 266.24 SMA 119.39 ECC .24857 INC 1.9534 V1 29.904
RP 108.90 LAP -1.95 LOP 291.43 VP 36.411 GAP 13.50 AZP 90.13 TAL 177.16 TAP 83.40 RCA 89.71 APO 149.06 V2 34.799
RC 186.768 GL 12.03 GP 10.98 ZAL 77.59 ZAP 168.36 ETS 67.81 ZAE 130.16 ETE 170.94 ZAC 112.75 ETC 272.82 CLP-176.14

PLANETOCENTRIC CONIC

C3 17.920 VHL 4.233 DLA -6.66 RAL 307.21 RAD 6567.7 VEL 11.803 PTH 2.09 VHP 8.596 DPA -12.29 RAP 296.12 ECC 1.2949

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 51 42	1980.76	-13.29	27.19	165.73	115.23	7 24 43	1380.8	-9.79	20.27
90.00	17 9 56	5040.31	23.52	222.28	168.59	73.77	18 33 57	4440.3	21.07	214.47
100.00	8 9 52	1728.58	-14.29	8.15	165.23	116.54	8 38 41	1128.6	-10.62	1.29
100.00	18 34 27	4767.72	24.58	201.88	168.23	72.44	19 53 55	4167.7	21.95	194.08
110.00	9 10 51	1537.63	-16.94	352.18	163.75	120.14	9 36 29	937.6	-12.81	345.51
110.00	19 49 57	4531.44	27.42	182.83	167.12	68.74	21 5 29	3931.4	24.28	175.07

DIFFERENTIAL CORRECTIONS
TDE 1.1933 TRA 1.3179 TC3-5.4167 BAU 1.2990
RDE .2415 RRA -.1753 RC3 .2427 FAU .01806
FDE .3908 FRA .6966 FC3 -.8726 BSP 17125
BDE 1.2175 BRA 1.3295 BC3 5.4221 FSP -394

MID-COURSE EXECUTION ACCURACY
SGT 5183.2 SGR 454.0 SG3 113.5
RRT -.3583 RRF -.3447 RTF .8732
SGB 5203.0 R23 .0318 R13 -.8733
SG1 5185.8 SG2 423.7 THA 178.19

ORBIT DETERMINATION ACCURACY
ST 1708.2 SR 334.7 SS 446.4
CRT .8545 CRS -.7573 CST -.9844
LSA 1786.9 MSA 188.4 SSA 27.9
EL1 1732.2 EL2 171.5 ALF 9.60

LAUNCH DATE OCT 19 1970 FLIGHT TIME 176.00 ARRIVAL DATE APR 13 1971

HELIOCENTRIC CONIC DISTANCE 525.005

RL 149.00 LAL -.00 LOL 25.19 VL 25.823 GAL 1.59 AZL 87.90 HCA 269.40 SMA 119.07 ECC .25279 INC 2.0997 V1 29.904
RP 108.91 LAP -2.10 LOP 294.59 VP 36.367 GAP 13.82 AZP 90.02 TAL 175.28 TAP 84.68 RCA 88.97 APO 149.17 V2 34.795
RC 188.667 GL 12.47 GP 10.70 ZAL 74.06 ZAP 168.84 ETS 70.65 ZAE 130.28 ETE 171.15 ZAC 112.22 ETC 273.45 CLP-176.80

PLANETOCENTRIC CONIC

C3 19.191 VHL 4.381 DLA -5.32 RAL 310.56 RAD 6567.8 VEL 11.856 PTH 2.10 VHP 8.784 DPA -12.23 RAP 298.65 ECC 1.3158

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 54 51	2039.00	-14.96	30.66	170.23	114.33	7 28 50	1439.0	-11.55	23.64
90.00	17 33 28	5014.22	23.02	220.54	172.63	73.03	18 57 3	4414.2	20.47	212.79
100.00	8 13 41	1784.69	-15.97	11.47	169.74	115.61	8 43 26	1184.7	-12.40	4.51
100.00	18 57 20	4743.75	24.08	200.28	172.26	71.74	20 16 23	4143.8	21.36	192.54
110.00	9 16 10	1589.04	-18.67	355.16	168.28	119.17	9 42 39	989.0	-14.64	348.36
110.00	20 11 20	4512.17	26.94	181.54	171.11	68.11	21 26 32	3912.2	23.73	173.85

DIFFERENTIAL CORRECTIONS
TDE 1.3576 TRA 1.5832 TC3-5.0409 BAU 1.2945
RDE .2484 RRA -.1882 RC3 .2175 FAU .01656
FDE .4222 FRA .7395 FC3 -.7470 BSP 16812
BDE 1.3801 BRA 1.5943 BC3 5.0456 FSP -374

MID-COURSE EXECUTION ACCURACY
SGT 5194.6 SGR 450.5 SG3 111.9
RRT -.3327 RRF -.3178 RTF .8758
SGB 5214.1 R23 .0260 R13 -.8759
SG1 5196.8 SG2 424.7 THA 178.34

ORBIT DETERMINATION ACCURACY
ST 1886.7 SR 333.3 SS 474.1
CRT .8426 CRS -.7573 CST -.9884
LSA 1964.2 MSA 191.4 SSA 25.0
EL1 1907.7 EL2 177.5 ALF 8.54

LAUNCH DATE OCT 19 1970 FLIGHT TIME 178.00 ARRIVAL DATE APR 15 1971

HELIOCENTRIC CONIC DISTANCE 530.366

RL 149.00 LAL -.00 LOL 25.19 VL 25.767 GAL 2.27 AZL 87.75 HCA 272.56 SMA 118.76 ECC .25747 INC 2.2458 V1 29.904
RP 108.92 LAP -2.24 LOP 297.75 VP 36.324 GAP 14.16 AZP 89.90 TAL 173.41 TAP 85.97 RCA 88.19 APO 149.34 V2 34.791
RC 190.549 GL 12.81 GP 10.43 ZAL 70.65 ZAP 169.26 ETS 73.77 ZAE 130.39 ETE 171.35 ZAC 111.69 ETC 274.06 CLP-177.46

PLANETOCENTRIC CONIC

C3 20.708 VHL 4.551 DLA -4.05 RAL 313.78 RAD 6567.8 VEL 11.920 PTH 2.12 VHP 8.987 DPA -12.11 RAP 301.17 ECC 1.3408

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	6 58 8	2096.90	-16.55	34.17	174.80	113.31	7 33 5	1496.9	-13.26	27.04
90.00	17 55 56	4992.50	22.58	219.10	176.73	72.44	19 19 8	4392.5	19.96	211.40
100.00	8 17 35	1840.63	-17.59	14.84	174.32	114.57	8 48 16	1240.6	-14.13	7.76
100.00	19 19 10	4724.01	23.66	198.97	176.35	71.17	20 37 54	4124.0	20.87	191.28
110.00	9 21 29	1640.61	-20.35	358.21	172.87	118.07	9 48 49	1040.6	-16.44	351.27
110.00	20 31 46	4496.80	26.54	180.52	175.15	67.63	21 46 43	3896.8	23.27	172.88

DIFFERENTIAL CORRECTIONS
TDE 1.5152 TRA 1.8476 TC3-4.6744 BAU 1.2952
RDE .2574 RRA -.1997 RC3 .1935 FAU .01530
FDE .4481 FRA .7774 FC3 -.6398 BSP 16808
BDE 1.5369 BRA 1.8583 BC3 4.6784 FSP -365

MID-COURSE EXECUTION ACCURACY
SGT 5213.1 SGR 446.7 SG3 110.0
RRT -.3087 RRF -.2938 RTF .8804
SGB 5232.2 R23 .0213 R13 -.8804
SG1 5214.9 SG2 424.8 THA 178.47

ORBIT DETERMINATION ACCURACY
ST 2036.0 SR 332.8 SS 494.4
CRT .8333 CRS -.7574 CST 9910
LSA 2112.4 MSA 193.8 SSA 22.8
EL1 2054.9 EL2 182.3 ALF 7.82

LAUNCH DATE OCT 19 1970 FLIGHT TIME 180.00 ARRIVAL DATE APR 17 1971

HELIOCENTRIC CONIC DISTANCE 535.679

RL 149.00 LAL -.00 LOL 25.19 VL 25.712 GAL 2.99 AZL 87.61 HCA 275.72 SMA 118.47 ECC .26263 INC 2.3925 V1 29.904
RP 108.93 LAP -2.38 LOP 300.91 VP 36.283 GAP 14.52 AZP 89.76 TAL 171.55 TAP 87.26 RCA 87.35 APO 149.58 V2 34.789
RC 192.414 GL 13.06 GP 10.19 ZAL 67.38 ZAP 169.64 ETS 77.16 ZAE 130.50 ETE 171.54 ZAC 111.16 ETC 274.67 CLP-178.13

PLANETOCENTRIC CONIC

C3 22.502 VHL 4.744 DLA -2.85 RAL 316.88 RAD 6567.9 VEL 11.995 PTH 2.14 VHP 9.208 DPA -11.92 RAP 303.69 ECC 1.3703

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 1 32	2154.35	-18.06	37.70	179.43	112.18	7 37 26	1554.3	-14.90	30.46
90.00	18 17 16	4975.15	22.22	217.96	180.87	71.98	19 40 11	4375.1	19.55	210.30
100.00	8 21 33	1896.24	-19.13	18.25	178.96	113.42	8 53 9	1296.2	-15.80	11.04
100.00	19 39 57	4708.49	23.31	197.94	180.46	70.74	20 58 25	4108.5	20.47	190.30
110.00	9 26 45	1692.15	-21.97	1.33	177.53	116.87	9 54 57	1092.2	-18.19	354.24
110.00	20 51 14	4485.34	26.24	179.76	179.22	67.27	22 6 0	3885.3	22.93	172.17

DIFFERENTIAL CORRECTIONS
TDE 1.6741 TRA 2.1210 TC3-4.3053 BAU 1.2962
RDE .2680 RRA -.2103 RC3 .1703 FAU .01417
FDE .4722 FRA .8147 FC3 -.5451 BSP 16885
BDE 1.6954 BRA 2.1314 BC3 4.3087 FSP -360

MID-COURSE EXECUTION ACCURACY
SGT 5229.9 SGR 442.2 SG3 108.0
RRT -.2845 RRF -.2704 RTF .8858
SGB 5248.6 R23 .0175 R13 -.8859
SG1 5231.4 SG2 423.8 THA 178.61

ORBIT DETERMINATION ACCURACY
ST 2167.0 SR 332.6 SS 511.2
CRT .8259 CRS -.7580 CST -.9929
LSA 2242.6 MSA 195.6 SSA 21.0
EL1 2184.5 EL2 186.0 ALF 7.28

LAUNCH DATE OCT 19 1970 FLIGHT TIME 182.00 ARRIVAL DATE APR 19 1971

HELIOCENTRIC CONIC DISTANCE 540.939

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RL  149.00 LAL   -.00 LOL  25.19 VL  25.658 GAL   3.73 AZL  87.46 HCA 278.88 SMA 118.17 ECC .26833 INC 2.5409 V1  29.904
RP  108.94 LAP  -2.51 LOP 304.08 VP  36.243 GAP  14.92 AZP  89.61 TAL 169.69 TAP  88.57 RCA  86.46 APO 149.88 V2  34.787
RC 194.261 GL   13.23 GP    9.97 ZAL  64.24 ZAP 169.95 ETS  80.82 ZAE 130.60 ETE 171.72 ZAC 110.63 ETC 275.27 CLP-178.79
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PLANETOCENTRIC CONIC

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C3  24.612 VHL  4.961 DLA  -1.72 RAL 319.85 RAD 6568.0 VEL 12.083 PTH   2.16 VHP  9.447 DPA -11.66 RAP 306.19 ECC 1.4050
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 5 0	2211.21	-19.49	41.27	184.10	110.96	7 41 51	1611.2	-16.46	33.90
90.00	18 37 29	4962.07	21.94	217.10	185.02	71.63	20 0 11	4362.1	19.23	209.47
100.00	8 25 32	1951.40	-20.58	21.70	183.64	112.17	8 58 4	1351.4	-17.40	14.36
100.00	19 59 38	4697.11	23.05	197.20	184.60	70.42	21 17 55	4097.1	20.17	189.58
110.00	9 31 57	1743.53	-23.52	4.52	182.24	115.55	10 1 0	1143.5	-19.88	357.27
110.00	21 9 43	4477.74	26.04	179.26	183.32	67.03	22 24 20	3877.7	22.71	171.70

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 1.8389 TRA 2.4073 TC3-3.9335 BAU 1.2952  SGT 5242.0 SGR  436.7 SG3  106.1      ST  2284.8 SR   332.3 SS   526.5
RDE  .2800 RRA -.2199 RC3  .1480 FAU .01308  RRT -.2590 RRF -.2463 RTF  .8916     CRT  .8202 CRS -.7593 CST -.9944
FDE  .4962 FRA  .8532 FC3 -.4600 BSP  16960  SGB 5260.2 R23  .0143 R13 -.8916     LSA 2359.8 MSA  196.8 SSA   19.4
BDE 1.8601 BRA 2.4173 BC3 3.9362 FSP   -354  SG1 5243.3 SG2  421.7 THA 178.76     EL1 2301.1 EL2  188.8 ALF   6.85
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LAUNCH DATE OCT 19 1970 FLIGHT TIME 184.00 ARRIVAL DATE APR 21 1971

HELIOCENTRIC CONIC DISTANCE 546.136

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RL  149.00 LAL   -.00 LOL  25.19 VL  25.605 GAL   4.52 AZL  87.31 HCA 282.03 SMA 117.89 ECC .27462 INC 2.6918 V1  29.904
RP  108.94 LAP  -2.63 LOP 307.24 VP  36.204 GAP  15.35 AZP  89.44 TAL 167.85 TAP  89.89 RCA  85.51 APO 150.26 V2  34.786
RC 196.090 GL   13.32 GP    9.77 ZAL  61.26 ZAP 170.21 ETS  84.75 ZAE 130.68 ETE 171.88 ZAC 110.10 ETC 275.85 CLP-179.47
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PLANETOCENTRIC CONIC

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C3  27.080 VHL  5.204 DLA   -.67 RAL 322.68 RAD 6568.1 VEL 12.184 PTH   2.19 VHP  9.708 DPA -11.35 RAP 308.68 ECC 1.4457
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 8 31	2267.36	-20.81	44.85	188.80	109.64	7 46 18	1667.4	-17.95	37.35
90.00	18 56 33	4953.17	21.75	216.52	189.18	71.40	20 19 7	4353.2	19.01	208.91
100.00	8 29 33	2005.99	-21.95	25.18	188.35	110.82	9 2 59	1406.0	-18.92	17.70
100.00	20 18 13	4689.78	22.88	196.72	188.75	70.23	21 36 23	4089.8	19.98	189.12
110.00	9 37 4	1794.61	-24.98	7.77	186.99	114.13	10 6 59	1194.6	-21.51	.34
110.00	21 27 11	4473.91	25.94	179.01	187.44	66.92	22 41 45	3873.9	22.59	171.46

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 2.0088 TRA 2.7088 TC3-3.5650 BAU 1.2914  SGT 5249.2 SGR  430.2 SG3  104.2      ST  2388.5 SR   332.0 SS   540.7
RDE  .2936 RRA -.2283 RC3  .1268 FAU .01202  RRT -.2322 RRF -.2209 RTF  .8976     CRT  .8161 CRS -.7615 CST -.9955
FDE  .5205 FRA  .8930 FC3 -.3842 BSP  17203  SGB 5266.9 R23  .0115 R13 -.8976     LSA 2463.4 MSA  197.4 SSA   18.1
BDE 2.0301 BRA 2.7184 BC3 3.5672 FSP   -350  SG1 5250.2 SG2  418.4 THA 178.90     EL1 2403.9 EL2  190.6 ALF   6.51
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LAUNCH DATE OCT 19 1970 FLIGHT TIME 186.00 ARRIVAL DATE APR 23 1971

HELIOCENTRIC CONIC DISTANCE 551.261

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RL  149.00 LAL   -.00 LOL  25.19 VL  25.554 GAL   5.34 AZL  87.15 HCA 285.19 SMA 117.61 ECC .28157 INC 2.8463 V1  29.904
RP  108.94 LAP  -2.75 LOP 310.40 VP  36.167 GAP  15.81 AZP  89.25 TAL 166.03 TAP  91.22 RCA  84.50 APO 150.73 V2  34.785
RC 197.900 GL   13.35 GP    9.59 ZAL  58.43 ZAP 170.41 ETS  88.91 ZAE 130.76 ETE 172.04 ZAC 109.57 ETC 276.41 CLP 179.85
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PLANETOCENTRIC CONIC

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C3  29.960 VHL  5.474 DLA    .30 RAL 325.37 RAD 6568.2 VEL 12.302 PTH   2.22 VHP  9.992 DPA -10.99 RAP 311.15 ECC 1.4931
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 12 3	2322.71	-22.04	48.45	193.52	108.25	7 50 46	1722.7	-19.34	40.81
90.00	19 14 30	4948.30	21.64	216.20	193.34	71.28	20 36 58	4348.3	18.88	208.61
100.00	8 33 32	2059.88	-23.21	28.69	193.09	109.39	9 7 52	1459.9	-20.35	21.06
100.00	20 35 42	4686.36	22.81	196.49	192.90	70.13	21 53 49	4086.4	19.89	188.91
110.00	9 42 6	1845.27	-26.35	11.07	191.76	112.61	10 12 51	1245.3	-23.05	3.46
110.00	21 43 38	4473.73	25.94	179.00	191.55	66.91	22 58 12	3873.7	22.58	171.45

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 2.1871 TRA 3.0263 TC3-3.2096 BAU 1.2863  SGT 5255.6 SGR  422.9 SG3  102.4      ST  2481.0 SR   331.6 SS   554.2
RDE  .3088 RRA -.2353 RC3  .1070 FAU .01099  RRT -.2033 RRF -.1939 RTF  .9037     CRT  .8137 CRS -.7648 CST -.9963
FDE  .5453 FRA  .9346 FC3 -.3176 BSP  17109  SGB 5272.6 R23  .0092 R13 -.9037     LSA 2556.0 MSA  197.4 SSA   17.0
BDE 2.2088 BRA 3.0354 BC3 3.2114 FSP   -344  SG1 5256.4 SG2  414.0 THA 179.06     EL1 2495.8 EL2  191.6 ALF   6.24
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LAUNCH DATE OCT 19 1970 FLIGHT TIME 188.00 ARRIVAL DATE APR 25 1971

HELIOCENTRIC CONIC DISTANCE 556.301

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RL  149.00 LAL   -.00 LOL  25.19 VL  25.503 GAL   6.22 AZL  86.99 HCA 288.35 SMA 117.34 ECC .28925 INC 3.0055 V1  29.904
RP  108.94 LAP  -2.85 LOP 313.56 VP  36.132 GAP  16.32 AZP  89.05 TAL 164.22 TAP  92.57 RCA  83.40 APO 151.29 V2  34.785
RC 199.690 GL   13.31 GP    9.42 ZAL  55.75 ZAP 170.54 ETS  93.27 ZAE 130.82 ETE 172.19 ZAC 109.04 ETC 276.96 CLP 179.15
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PLANETOCENTRIC CONIC

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C3  33.318 VHL  5.772 DLA   1.19 RAL 327.93 RAD 6568.3 VEL 12.437 PTH   2.25 VHP 10.302 DPA -10.58 RAP 313.59 ECC 1.5483
```

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 15 37	2377.15	-23.15	52.05	198.24	106.77	7 55 14	1777.1	-20.64	44.28
90.00	19 31 19	4947.28	21.62	216.13	197.49	71.25	20 53 46	4347.3	18.86	208.54
100.00	8 37 31	2112.98	-24.36	32.21	197.83	107.88	9 12 44	1513.0	-21.69	24.43
100.00	20 52 6	4686.68	22.81	196.52	197.03	70.14	22 10 13	4086.7	19.90	188.93
110.00	9 47 2	1895.39	-27.62	14.42	196.55	111.00	10 18 37	1295.4	-24.51	6.62
110.00	21 59 5	4477.03	26.02	179.22	195.65	67.01	23 13 42	3877.0	22.68	171.65

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 2.3708 TRA 3.3600 TC3-2.8673 BAU 1.2778  SGT 5255.8 SGR  414.7 SG3  100.5      ST  2559.2 SR   331.0 SS   566.9
RDE  .3255 RRA -.2406 RC3  .0889 FAU .01001  RRT -.1726 RRF -.1654 RTF  .9102     CRT  .8127 CRS -.7688 CST -.9970
FDE  .5704 FRA  .9780 FC3 -.2600 BSP  17194  SGB 5272.1 R23  .0074 R13 -.9102     LSA 2634.6 MSA  196.7 SSA   16.0
BDE 2.3930 BRA 3.3686 BC3 2.8687 FSP   -340  SG1 5256.3 SG2  408.4 THA 179.21     EL1 2573.4 EL2  191.8 ALF   6.03
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LAUNCH DATE OCT 19 1970 FLIGHT TIME 190.00 ARRIVAL DATE APR 27 1971

HELIOCENTRIC CONIC DISTANCE 561.241

RL 149.00 LAL -.00 LOL 25.19 VL 25.453 GAL 7.15 AZL 86.83 HCA 291.51 SMA 117.08 ECC .29776 INC 3.1707 V1 29.904
RP 108.94 LAP -2.95 LOP 316.73 VP 36.097 GAP 16.87 AZP 88.84 TAL 162.45 TAP 93.95 RCA 82.22 APO 151.94 V2 34.786
RC 201.461 GL 13.23 GP 9.27 ZAL 53.22 ZAP 170.60 ETS 97.80 ZAE 130.87 ETE 172.33 ZAC 108.51 ETC 277.49 CLP 178.44

PLANETOCENTRIC CONIC

C3 37.230 VHL 6.102 DLA 2.01 RAL 330.34 RAD 6568.5 VEL 12.594 PTH 2.28 VHP 10.642 DPA -10.12 RAP 316.02 ECC 1.6127

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 19 10	2430.58	-24.16	55.64	202.95	105.24	7 59 41	1830.6	-21.83	47.75
90.00	19 47 2	4949.91	21.67	216.30	201.61	71.32	21 9 31	4349.9	18.92	208.71
100.00	8 41 27	2165.19	-25.41	35.74	202.56	106.30	9 17 32	1565.2	-22.93	27.82
100.00	21 7 26	4690.54	22.90	196.77	201.15	70.25	22 25 36	4090.5	20.00	189.17
110.00	9 51 51	1944.86	-28.78	17.80	201.34	109.30	10 24 15	1344.9	-25.87	9.82
110.00	22 13 32	4483.64	26.20	179.65	199.73	67.22	23 28 15	3883.6	22.88	172.06

DIFFERENTIAL CORRECTIONS
TDE 2.5600 TRA 3.7111 TC3-2.5437 BAU 1.2666
RDE .3439 RRA -.2439 RC3 .0727 FAU .00907
FDE .5960 FRA 1.0236 FC3 -.2110 BSP 17306
BDE 2.5830 BRA 3.7191 BC3 2.5447 FSP -336

MID-COURSE EXECUTION ACCURACY
SGT 5251.0 SGR 405.8 SG3 98.7
RRT -.1399 RRF -.1349 RTF .9168
SGB 5266.7 R23 .0059 R13 -.9168
SG1 5251.3 SG2 401.8 THA 179.38

ORBIT DETERMINATION ACCURACY
ST 2623.4 SR 330.2 SS 579.0
CRT .8129 CRS -.7737 CST -.9976
LSA 2699.6 MSA 195.5 SSA 15.1
EL1 2637.1 EL2 191.3 ALF 5.87

LAUNCH DATE OCT 19 1970 FLIGHT TIME 192.00 ARRIVAL DATE APR 29 1971

HELIOCENTRIC CONIC DISTANCE 566.064

RL 149.00 LAL -.00 LOL 25.19 VL 25.405 GAL 8.14 AZL 86.66 HCA 294.66 SMA 116.83 ECC .30718 INC 3.3432 V1 29.904
RP 108.93 LAP -3.04 LOP 319.89 VP 36.065 GAP 17.48 AZP 88.60 TAL 160.70 TAP 95.37 RCA 80.94 APO 152.71 V2 34.788
RC 203.212 GL 13.11 GP 9.13 ZAL 50.85 ZAP 170.59 ETS 102.44 ZAE 130.90 ETE 172.47 ZAC 107.97 ETC 278.00 CLP 177.72

PLANETOCENTRIC CONIC

C3 41.791 VHL 6.465 DLA 2.76 RAL 332.62 RAD 6568.6 VEL 12.773 PTH 2.32 VHP 11.016 DPA -9.62 RAP 318.41 ECC 1.6878

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 22 43	2482.90	-25.05	59.22	207.63	103.66	8 4 6	1882.9	-22.92	51.19
90.00	20 1 39	4955.99	21.81	216.70	205.70	71.48	21 24 15	4356.0	19.08	209.09
100.00	8 45 21	2216.38	-26.34	39.26	207.27	104.67	9 22 17	1616.4	-24.06	31.20
100.00	21 21 42	4697.74	23.07	197.24	205.22	70.44	22 40 0	4097.7	20.19	189.62
110.00	9 56 32	1993.55	-29.82	21.20	206.13	107.53	10 29 46	1393.6	-27.14	13.04
110.00	22 27 0	4493.33	26.45	180.29	203.79	67.52	23 41 53	3893.3	23.17	172.67

DIFFERENTIAL CORRECTIONS
TDE 2.7577 TRA 4.0824 TC3-2.2392 BAU 1.2515
RDE .3639 RRA -.2451 RC3 .0582 FAU .00816
FDE .6226 FRA 1.0718 FC3 -.1691 BSP 17427
BDE 2.7816 BRA 4.0897 BC3 2.2400 FSP -333

MID-COURSE EXECUTION ACCURACY
SGT 5241.9 SGR 396.2 SG3 96.9
RRT -.1046 RRF -.1019 RTF .9235
SGB 5256.8 R23 .0048 R13 -.9235
SG1 5242.0 SG2 394.0 THA 179.54

ORBIT DETERMINATION ACCURACY
ST 2676.3 SR 329.1 SS 591.3
CRT .8144 CRS -.7795 CST -.9980
LSA 2753.7 MSA 193.6 SSA 14.3
EL1 2689.7 EL2 190.0 ALF 5.75

LAUNCH DATE OCT 19 1970 FLIGHT TIME 194.00 ARRIVAL DATE MAY 1 1971

HELIOCENTRIC CONIC DISTANCE 570.746

RL 149.00 LAL -.00 LOL 25.19 VL 25.357 GAL 9.19 AZL 86.48 HCA 297.82 SMA 116.58 ECC .31764 INC 3.5247 V1 29.904
RP 108.92 LAP -3.12 LOP 323.06 VP 36.034 GAP 18.15 AZP 88.35 TAL 159.00 TAP 96.82 RCA 79.55 APO 153.61 V2 34.790
RC 204.943 GL 12.95 GP 9.00 ZAL 48.63 ZAP 170.51 ETS 107.15 ZAE 130.91 ETE 172.60 ZAC 107.44 ETC 278.49 CLP 176.98

PLANETOCENTRIC CONIC

C3 47.121 VHL 6.864 DLA 3.43 RAL 334.76 RAD 6568.8 VEL 12.980 PTH 2.37 VHP 11.428 DPA -9.08 RAP 320.77 ECC 1.7755

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 26 15	2533.99	-25.82	62.76	212.27	102.05	8 8 29	1934.0	-23.90	54.62
90.00	20 15 12	4965.27	22.01	217.31	209.74	71.72	21 37 57	4365.3	19.30	209.68
100.00	8 49 12	2266.45	-27.15	42.75	211.94	103.00	9 26 58	1666.5	-25.09	34.56
100.00	21 34 57	4708.04	23.30	197.91	209.26	70.72	22 53 25	4108.0	20.46	190.27
110.00	10 1 7	2041.35	-30.76	24.61	210.89	105.71	10 35 8	1441.4	-28.29	16.28
110.00	22 39 31	4505.90	26.78	181.12	207.81	67.91	23 54 37	3905.9	23.54	173.46

DIFFERENTIAL CORRECTIONS
TDE 2.9643 TRA 4.4780 TC3-1.9546 BAU 1.2317
RDE .3857 RRA -.2436 RC3 .0456 FAU .00727
FDE .6506 FRA 1.1235 FC3 -.1336 BSP 17553
BDE 2.9893 BRA 4.4827 BC3 1.9551 FSP -331

MID-COURSE EXECUTION ACCURACY
SGT 5227.9 SGR 386.1 SG3 95.1
RRT -.0663 RRF -.0660 RTF .9302
SGB 5242.1 R23 .0040 R13 -.9302
SG1 5228.0 SG2 385.2 THA 179.72

ORBIT DETERMINATION ACCURACY
ST 2718.3 SR 327.7 SS 604.1
CRT .8170 CRS -.7860 CST -.9984
LSA 2797.3 MSA 191.2 SSA 13.5
EL1 2731.5 EL2 188.0 ALF 5.65

LAUNCH DATE OCT 19 1970 FLIGHT TIME 196.00 ARRIVAL DATE MAY 3 1971

HELIOCENTRIC CONIC DISTANCE 575.260

RL 149.00 LAL -.00 LOL 25.19 VL 25.311 GAL 10.33 AZL 86.28 HCA 300.98 SMA 116.34 ECC .32928 INC 3.7171 V1 29.904
RP 108.91 LAP -3.19 LOP 326.23 VP 36.004 GAP 18.89 AZP 88.08 TAL 157.34 TAP 98.32 RCA 78.03 APO 154.65 V2 34.793
RC 206.655 GL 12.77 GP 8.88 ZAL 46.55 ZAP 170.35 ETS 111.87 ZAE 130.89 ETE 172.73 ZAC 106.90 ETC 278.96 CLP 176.21

PLANETOCENTRIC CONIC

C3 53.363 VHL 7.305 DLA 4.03 RAL 336.77 RAD 6568.9 VEL 13.218 PTH 2.41 VHP 11.884 DPA -8.50 RAP 323.09 ECC 1.8782

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 29 45	2583.72	-26.48	66.25	216.85	100.42	8 12 49	1983.7	-24.77	58.00
90.00	20 27 42	4977.53	22.27	218.11	213.73	72.04	21 50 40	4377.5	19.60	210.45
100.00	8 52 59	2315.26	-27.85	46.21	216.55	101.31	9 31 34	1715.3	-26.01	37.90
100.00	21 47 10	4721.22	23.59	198.78	213.25	71.09	23 5 51	4121.2	20.79	191.11
110.00	10 5 34	2088.12	-31.57	28.01	215.60	103.85	10 40 22	1488.1	-29.34	19.51
110.00	22 51 5	4521.12	27.16	182.14	211.79	68.40	24 6 26	3921.1	23.99	174.42

DIFFERENTIAL CORRECTIONS
TDE 3.1822 TRA 4.8955 TC3-1.6899 BAU 1.2058
RDE .4092 RRA -.2393 RC3 .0347 FAU .00637
FDE .6805 FRA 1.1793 FC3 -.1033 BSP 17662
BDE 3.2084 BRA 4.9014 BC3 1.6902 FSP -327

MID-COURSE EXECUTION ACCURACY
SGT 5209.8 SGR 375.5 SG3 93.4
RRT -.0247 RRF -.0267 RTF .9369
SGB 5223.3 R23 .0034 R13 -.9369
SG1 5209.8 SG2 375.4 THA 179.90

ORBIT DETERMINATION ACCURACY
ST 2751.1 SR 325.9 SS 618.0
CRT .8207 CRS -.7932 CST -.9987
LSA 2832.2 MSA 188.0 SSA 12.8
EL1 2764.2 EL2 185.3 ALF 5.58

LAUNCH DATE OCT 19 1970 FLIGHT TIME 198.00 ARRIVAL DATE MAY 5 1971

HELIOCENTRIC CONIC DISTANCE 579.571

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RL  149.00 LAL   -.00 LOL  25.19 VL  25.266 GAL  11.55 AZL  86.08 HCA 304.14 SMA 116.11 ECC .34226 INC 3.9227 V1  29.904
RP  108.90 LAP  -3.25 LOP 329.39 VP  35.976 GAP  19.71 AZP  87.80 TAL 155.74 TAP  99.88 RCA  76.37 APO 155.85 V2  34.797
RC 208.346 GL   12.55 GP    8.77 ZAL  44.62 ZAP 170.11 ETS 116.54 ZAE 130.84 ETE 172.86 ZAC 106.37 ETC 279.41 CLP 175.40
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PLANETOCENTRIC CONIC

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C3  60.701 VHL  7.791 DLA   4.56 RAL 338.64 RAD 6569.1 VEL 13.493 PTH   2.47 VHP 12.391 DPA  -7.90 RAP 325.37 ECC 1.9990
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 33 14	2631.93	-27.03	69.68	221.35	98.79	8 17 6	2031.9	-25.53	61.33
90.00	20 39 10	4992.54	22.58	219.10	217.66	72.44	22 2 23	4392.5	19.96	211.40
100.00	8 56 43	2362.66	-28.44	49.61	221.09	99.61	9 36 6	1762.7	-26.82	41.19
100.00	21 58 22	4737.05	23.94	199.83	217.18	71.54	23 17 19	4137.1	21.19	192.11
110.00	10 9 53	2133.70	-32.26	31.39	220.24	101.97	10 45 26	1533.7	-30.28	22.73
110.00	23 1 42	4538.77	27.60	183.33	215.72	68.98	24 17 21	3938.8	24.49	175.54

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 3.4142 TRA 5.3450 TC3-1.4442 BAU 1.1722   SGT 5188.2 SGR  364.6 SG3   91.7      ST  2776.4 SR   323.7 SS   633.6
RDE  .4346 RRA -.2317 RC3  .0255 FAU .00544   RRT  .0207 RRF  .0166 RTF  .9436     CRT  .8254 CRS -.8013 CST -.9990
FDE  .7130 FRA 1.2402 FC3 -.0776 BSP  17733   SGB 5201.0 R23 -.0031 R13  .9436     LSA 2860.1 MSA  184.3 SSA   12.2
BDE 3.4418 BRA 5.3501 BC3 1.4445 FSP   -323   SG1 5188.2 SG2  364.5 THA   .08      EL1 2789.2 EL2  181.9 ALF   5.52
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LAUNCH DATE OCT 19 1970 FLIGHT TIME 200.00 ARRIVAL DATE MAY 7 1971

HELIOCENTRIC CONIC DISTANCE 583.635

```
RL  149.00 LAL   -.00 LOL  25.19 VL  25.222 GAL  12.88 AZL  85.86 HCA 307.30 SMA 115.88 ECC .35677 INC 4.1444 V1  29.904
RP  108.89 LAP  -3.30 LOP 332.56 VP  35.950 GAP  20.63 AZP  87.49 TAL 154.22 TAP 101.51 RCA  74.54 APO 157.23 V2  34.802
RC 210.017 GL   12.32 GP    8.67 ZAL  42.84 ZAP 169.78 ETS 121.13 ZAE 130.75 ETE 173.00 ZAC 105.84 ETC 279.83 CLP 174.57
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PLANETOCENTRIC CONIC

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C3  69.365 VHL  8.329 DLA   5.02 RAL 340.38 RAD 6569.3 VEL 13.810 PTH   2.52 VHP 12.956 DPA  -7.28 RAP 327.61 ECC 2.1416
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 36 42	2678.44	-27.47	73.01	225.74	97.17	8 21 20	2078.4	-26.19	64.57
90.00	20 49 36	5010.09	22.93	220.27	221.51	72.92	22 13 6	4410.1	20.38	212.52
100.00	9 0 24	2408.45	-28.92	52.93	225.52	97.93	9 40 32	1808.4	-27.52	44.41
100.00	22 8 35	4755.32	24.33	201.05	221.03	72.07	23 27 50	4155.3	21.65	193.28
110.00	10 14 4	2177.90	-32.84	34.71	224.80	100.08	10 50 22	1577.9	-31.10	25.92
110.00	23 11 24	4558.63	28.08	184.67	219.58	69.65	24 27 23	3958.6	25.05	176.81

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 3.6631 TRA 5.8292 TC3-1.2172 BAU 1.1289   SGT 5164.0 SGR  353.6 SG3   90.2      ST  2795.1 SR   321.1 SS   651.4
RDE  .4620 RRA -.2201 RC3  .0180 FAU .00445   RRT  .0703 RRF  .0642 RTF  .9501     CRT  .8310 CRS -.8100 CST -.9992
FDE  .7486 FRA 1.3072 FC3 -.0555 BSP  17745   SGB 5176.1 R23 -.0029 R13  .9501     LSA 2882.3 MSA  179.9 SSA   11.5
BDE 3.6921 BRA 5.8334 BC3 1.2173 FSP   -318   SG1 5164.0 SG2  352.7 THA   .28      EL1 2807.9 EL2  177.8 ALF   5.48
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LAUNCH DATE OCT 19 1970 FLIGHT TIME 202.00 ARRIVAL DATE MAY 9 1971

HELIOCENTRIC CONIC DISTANCE 587.396

```
RL  149.00 LAL   -.00 LOL  25.19 VL  25.180 GAL  14.32 AZL  85.61 HCA 310.46 SMA 115.67 ECC .37304 INC 4.3856 V1  29.904
RP  108.87 LAP  -3.34 LOP 335.73 VP  35.925 GAP  21.66 AZP  87.15 TAL 152.78 TAP 103.24 RCA  72.52 APO 158.82 V2  34.807
RC 211.667 GL   12.07 GP    8.57 ZAL  41.20 ZAP 169.36 ETS 125.60 ZAE 130.62 ETE 173.13 ZAC 105.31 ETC 280.23 CLP 173.68
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PLANETOCENTRIC CONIC

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C3  79.647 VHL  8.925 DLA   5.41 RAL 341.99 RAD 6569.6 VEL 14.177 PTH   2.58 VHP 13.589 DPA  -6.64 RAP 329.79 ECC 2.3108
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 40 7	2723.02	-27.80	76.23	230.00	95.59	8 25 30	2123.0	-26.74	67.72
90.00	20 58 59	5029.96	23.32	221.59	225.27	73.47	22 22 49	4430.0	20.84	213.80
100.00	9 4 1	2452.41	-29.29	56.15	229.83	96.28	9 44 53	1852.4	-28.11	47.54
100.00	22 17 46	4775.81	24.75	202.43	224.79	72.68	23 37 22	4175.8	22.14	194.60
110.00	10 18 7	2220.50	-33.30	37.95	229.23	98.22	10 55 7	1620.5	-31.81	29.04
110.00	23 20 9	4580.48	28.59	186.17	223.36	70.41	24 36 30	3980.5	25.65	178.23

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 3.9320 TRA 6.3532 TC3-1.0079 BAU 1.0733   SGT 5137.6 SGR  342.7 SG3   88.7      ST  2808.2 SR   318.2 SS   671.9
RDE  .4917 RRA -.2042 RC3  .0120 FAU .00336   RRT  .1244 RRF  .1168 RTF  .9564     CRT  .8376 CRS -.8194 CST -.9993
FDE  .7882 FRA 1.3814 FC3 -.0365 BSP  17664   SGB 5149.0 R23 -.0028 R13  .9564     LSA 2899.7 MSA  174.8 SSA   10.9
BDE 3.9627 BRA 6.3564 BC3 1.0080 FSP   -312   SG1 5137.8 SG2  340.0 THA   .48      EL1 2820.9 EL2  173.0 ALF   5.44
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LAUNCH DATE OCT 19 1970 FLIGHT TIME 204.00 ARRIVAL DATE MAY 11 1971

HELIOCENTRIC CONIC DISTANCE 590.780

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RL  149.00 LAL   -.00 LOL  25.19 VL  25.140 GAL  15.91 AZL  85.35 HCA 313.62 SMA 115.47 ECC .39134 INC 4.6507 V1  29.904
RP  108.86 LAP  -3.37 LOP 338.90 VP  35.903 GAP  22.82 AZP  86.79 TAL 151.45 TAP 105.07 RCA  70.28 APO 160.65 V2  34.813
RC 213.296 GL   11.80 GP    8.49 ZAL  39.71 ZAP 168.85 ETS 129.92 ZAE 130.44 ETE 173.27 ZAC 104.79 ETC 280.61 CLP 172.74
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PLANETOCENTRIC CONIC

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C3  91.925 VHL  9.588 DLA   5.74 RAL 343.45 RAD 6569.8 VEL 14.604 PTH   2.65 VHP 14.302 DPA  -5.98 RAP 331.91 ECC 2.5128
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LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 43 31	2765.41	-28.05	79.30	234.11	94.07	8 29 36	2165.4	-27.19	70.74
90.00	21 7 17	5051.97	23.74	223.07	228.92	74.10	22 31 29	4452.0	21.33	215.22
100.00	9 7 34	2494.29	-29.56	59.23	233.98	94.67	9 49 8	1894.3	-28.60	50.56
100.00	22 25 55	4798.33	25.20	203.95	228.45	73.36	23 45 53	4198.3	22.68	196.06
110.00	10 22 2	2261.25	-33.65	41.07	233.51	96.40	10 59 43	1661.2	-32.40	32.06
110.00	23 27 57	4604.13	29.12	187.81	227.05	71.24	24 44 41	4004.1	26.28	179.78

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DIFFERENTIAL CORRECTIONS                    MID-COURSE EXECUTION ACCURACY          ORBIT DETERMINATION ACCURACY
TDE 4.2247 TRA 6.9226 TC3 -.8161 BAU 1.0029   SGT 5109.8 SGR  332.2 SG3   87.3      ST  2816.4 SR   314.9 SS   695.7
RDE  .5241 RRA -.1829 RC3  .0074 FAU .00214   RRT  .1835 RRF  .1746 RTF  .9625     CRT  .8451 CRS -.8296 CST -.9995
FDE  .8323 FRA 1.4640 FC3 -.0202 BSP  17472   SGB 5120.5 R23 -.0029 R13  .9625     LSA 2913.1 MSA  169.2 SSA   10.3
BDE 4.2571 BRA 6.9250 BC3  .8161 FSP   -303   SG1 5110.1 SG2  326.6 THA   .69      EL1 2829.0 EL2  167.6 ALF   5.42
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LAUNCH DATE OCT 19 1970 FLIGHT TIME 206.00 ARRIVAL DATE MAY 13 1971

HELIOCENTRIC CONIC DISTANCE 593.695

RL 149.00 LAL -.00 LOL 25.19 VL 25.101 GAL 17.65 AZL 85.05 HCA 316.78 SMA 115.27 ECC .41199 INC 4.9454 V1 29.904
RP 108.83 LAP -3.38 LOP 342.08 VP 35.882 GAP 24.13 AZP 86.39 TAL 150.25 TAP 107.03 RCA 67.78 APO 162.76 V2 34.819
RC 214.903 GL 11.52 GP 8.40 ZAL 38.37 ZAP 168.24 ETS 134.07 ZAE 130.18 ETE 173.43 ZAC 104.28 ETC 280.95 CLP 171.74

PLANETOCENTRIC CONIC

C3 106.688 VHL 10.329 DLA 5.99 RAL 344.78 RAD 6570.0 VEL 15.101 PTH 2.72 VHP 15.109 DPA -5.33 RAP 333.96 ECC 2.7558

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 46 52	2805.28	-28.21	82.21	238.02	92.62	8 33 37	2205.3	-27.54	73.61
90.00	21 14 29	5075.97	24.18	224.69	232.45	74.80	22 39 5	4476.0	21.86	216.79
100.00	9 11 3	2533.76	-29.74	62.15	237.93	93.15	9 53 17	1933.8	-28.99	53.43
100.00	22 32 59	4822.72	25.66	205.61	231.99	74.12	23 53 22	4222.7	23.24	197.66
110.00	10 25 48	2299.83	-33.90	44.06	237.60	94.65	11 4 8	1699.8	-32.89	34.97
110.00	23 34 44	4629.41	29.66	189.58	230.63	72.16	24 51 53	4029.4	26.93	181.45

DIFFERENTIAL CORRECTIONS
TDE 4.5451 TRA 7.5443 TC3 -.6410 BAU .9142
RDE .5596 RRA -.1555 RC3 .0043 FAU .00074
FDE .8818 FRA 1.5564 FC3 -.0060 BSP 17160
BDE 4.5794 BRA 7.5459 BC3 .6410 FSP -293

MID-COURSE EXECUTION ACCURACY
SGT 5080.9 SGR 322.4 SG3 86.1
RRT .2477 RRF .2378 RTF .9683
SGB 5091.1 R23 -.0030 R13 .9683
SG1 5081.5 SG2 312.3 THA .90

ORBIT DETERMINATION ACCURACY
ST 2819.9 SR 311.5 SS 723.4
CRT .8535 CRS -.8403 CST -.9996
LSA 2923.2 MSA 163.0 SSA 9.8
EL1 2832.4 EL2 161.6 ALF 5.40

LAUNCH DATE OCT 19 1970 FLIGHT TIME 208.00 ARRIVAL DATE MAY 15 1971

HELIOCENTRIC CONIC DISTANCE 596.017

RL 149.00 LAL -.00 LOL 25.19 VL 25.064 GAL 19.60 AZL 84.72 HCA 319.94 SMA 115.09 ECC .43537 INC 5.2770 V1 29.904
RP 108.81 LAP -3.39 LOP 345.25 VP 35.863 GAP 25.63 AZP 85.96 TAL 149.21 TAP 109.15 RCA 64.98 APO 165.19 V2 34.826
RC 216.489 GL 11.22 GP 8.32 ZAL 37.19 ZAP 167.51 ETS 138.05 ZAE 129.85 ETE 173.59 ZAC 103.78 ETC 281.27 CLP 170.65

PLANETOCENTRIC CONIC

C3 124.580 VHL 11.162 DLA 6.17 RAL 345.95 RAD 6570.3 VEL 15.682 PTH 2.79 VHP 16.026 DPA -4.68 RAP 335.92 ECC 3.0503

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 50 12	2842.25	-28.29	84.91	241.71	91.27	8 37 34	2242.3	-27.82	76.28
90.00	21 20 30	5101.83	24.63	226.45	235.82	75.57	22 45 32	4501.8	22.41	218.49
100.00	9 14 28	2570.45	-29.85	64.88	241.67	91.72	9 57 19	1970.4	-29.29	56.11
100.00	22 38 55	4848.86	26.14	207.41	235.39	74.95	23 59 44	4248.9	23.82	199.38
110.00	10 29 25	2335.90	-34.07	46.86	241.46	92.99	11 8 21	1735.9	-33.28	37.71
110.00	23 40 28	4656.17	30.20	191.47	234.07	73.16	24 58 4	4056.2	27.60	183.25

DIFFERENTIAL CORRECTIONS
TDE 4.8969 TRA 8.2245 TC3 -.4823 BAU .8032
RDE .5988 RRA -.1209 RC3 .0024 FAU-.00090
FDE .9374 FRA 1.6601 FC3 .0062 BSP 16712
BDE 4.9333 BRA 8.2254 BC3 .4823 FSP -281

MID-COURSE EXECUTION ACCURACY
SGT 5050.8 SGR 313.7 SG3 84.9
RRT .3167 RRF .3063 RTF .9736
SGB 5060.5 R23 -.0033 R13 .9736
SG1 5051.8 SG2 297.5 THA 1.13

ORBIT DETERMINATION ACCURACY
ST 2818.3 SR 307.9 SS 755.5
CRT .8628 CRS -.8517 CST -.9997
LSA 2929.8 MSA 156.2 SSA 9.2
EL1 2830.8 EL2 155.0 ALF 5.40

LAUNCH DATE OCT 19 1970 FLIGHT TIME 210.00 ARRIVAL DATE MAY 17 1971

HELIOCENTRIC CONIC DISTANCE 597.578

RL 149.00 LAL -.00 LOL 25.19 VL 25.030 GAL 21.77 AZL 84.34 HCA 323.10 SMA 114.92 ECC .46193 INC 5.6553 V1 29.904
RP 108.79 LAP -3.39 LOP 348.42 VP 35.847 GAP 27.35 AZP 85.47 TAL 148.37 TAP 111.47 RCA 61.83 APO 168.00 V2 34.834
RC 218.051 GL 10.91 GP 8.24 ZAL 36.18 ZAP 166.65 ETS 141.86 ZAE 129.42 ETE 173.77 ZAC 103.30 ETC 281.56 CLP 169.47

PLANETOCENTRIC CONIC

C3 146.450 VHL 12.102 DLA 6.26 RAL 346.96 RAD 6570.6 VEL 16.364 PTH 2.86 VHP 17.076 DPA -4.06 RAP 337.79 ECC 3.4102

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 53 30	2875.86	-28.32	87.37	245.14	90.03	8 41 26	2275.9	-28.01	78.72
90.00	21 25 14	5129.50	25.09	228.35	239.03	76.42	22 50 44	4529.5	22.97	220.32
100.00	9 17 49	2603.91	-29.89	67.36	245.13	90.41	10 1 13	2003.9	-29.51	58.58
100.00	22 43 36	4876.68	26.61	209.34	238.61	75.86	24 4 53	4276.7	24.41	201.24
110.00	10 32 52	2369.03	-34.16	49.45	245.05	91.47	11 12 21	1769.0	-33.57	40.25
110.00	23 45 3	4684.32	30.74	193.49	237.35	74.25	25 3 7	4084.3	28.27	185.16

DIFFERENTIAL CORRECTIONS
TDE 5.2518 TRA 8.9382 TC3 -.3484 BAU .6822
RDE .6418 RRA -.0782 RC3 .0014 FAU-.00255
FDE .9932 FRA 1.7699 FC3 .0151 BSP 16902
BDE 5.2908 BRA 8.9385 BC3 .3484 FSP -282

MID-COURSE EXECUTION ACCURACY
SGT 5001.7 SGR 306.2 SG3 83.5
RRT .3879 RRF .3774 RTF .9784
SGB 5011.1 R23 -.0037 R13 .9784
SG1 5003.2 SG2 282.1 THA 1.36

ORBIT DETERMINATION ACCURACY
ST 2795.4 SR 304.1 SS 787.7
CRT .8721 CRS -.8627 CST -.9998
LSA 2916.3 MSA 149.2 SSA 8.6
EL1 2808.0 EL2 148.1 ALF 5.43

LAUNCH DATE OCT 19 1970 FLIGHT TIME 212.00 ARRIVAL DATE MAY 19 1971

HELIOCENTRIC CONIC DISTANCE 598.170

RL 149.00 LAL -.00 LOL 25.19 VL 24.999 GAL 24.21 AZL 83.91 HCA 326.26 SMA 114.76 ECC .49219 INC 6.0939 V1 29.904
RP 108.76 LAP -3.38 LOP 351.60 VP 35.833 GAP 29.35 AZP 84.93 TAL 147.77 TAP 114.03 RCA 58.28 APO 171.25 V2 34.842
RC 219.589 GL 10.59 GP 8.16 ZAL 35.37 ZAP 165.65 ETS 145.51 ZAE 128.87 ETE 173.96 ZAC 102.83 ETC 281.82 CLP 168.16

PLANETOCENTRIC CONIC

C3 173.442 VHL 13.170 DLA 6.26 RAL 347.78 RAD 6570.9 VEL 17.169 PTH 2.94 VHP 18.285 DPA -3.46 RAP 339.53 ECC 3.8544

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	7 56 46	2905.57	-28.30	89.54	248.25	88.94	8 45 11	2305.6	-28.15	80.88
90.00	21 28 34	5158.98	25.54	230.39	242.02	77.34	22 54 33	4559.0	23.54	222.29
100.00	9 21 5	2633.61	-29.88	69.57	248.28	89.25	10 4 59	2033.6	-29.67	60.77
100.00	22 46 56	4906.17	27.09	211.41	241.63	76.85	24 8 42	4306.2	25.01	203.22
110.00	10 36 8	2398.73	-34.18	51.77	248.31	90.10	11 16 7	1798.7	-33.79	42.54
110.00	23 48 22	4713.82	31.26	195.63	240.45	75.41	25 6 56	4113.8	28.94	187.19

DIFFERENTIAL CORRECTIONS
TDE 5.6531 TRA 9.7317 TC3 -.2258 BAU .5236
RDE .6902 RRA -.0255 RC3 .0015 FAU-.00478
FDE 1.0588 FRA 1.8964 FC3 .0235 BSP 16810
BDE 5.6951 BRA 9.7317 BC3 .2258 FSP -277

MID-COURSE EXECUTION ACCURACY
SGT 4954.1 SGR 300.5 SG3 82.2
RRT .4626 RRF .4523 RTF .9827
SGB 4963.3 R23 -.0040 R13 .9827
SG1 4956.1 SG2 266.3 THA 1.61

ORBIT DETERMINATION ACCURACY
ST 2771.6 SR 300.3 SS 827.3
CRT .8822 CRS -.8743 CST -.9998
LSA 2904.5 MSA 141.8 SSA 8.0
EL1 2784.3 EL2 140.8 ALF 5.47

LAUNCH DATE OCT 19 1970 FLIGHT TIME 214.00 ARRIVAL DATE MAY 21 1971

HELIOCENTRIC CONIC DISTANCE 597.502

RL 149.00 LAL -.00 LOL 25.19 VL 24.972 GAL 27.00 AZL 83.39 HCA 329.42 SMA 114.63 ECC .52673 INC 6.6118 V1 29.904
RP 108.74 LAP -3.36 LOP 354.78 VP 35.823 GAP 31.66 AZP 84.30 TAL 147.48 TAP 116.90 RCA 54.25 APO 175.00 V2 34.851
RC 221.103 GL 10.26 GP 8.08 ZAL 34.77 ZAP 164.47 ETS 148.98 ZAE 128.16 ETE 174.18 ZAC 102.39 ETC 282.04 CLP 166.69

PLANETOCENTRIC CONIC

C3 207.093 VHL 14.391 DLA 6.16 RAL 348.40 RAD 6571.2 VEL 18.122 PTH 3.02 VHP 19.686 DPA -2.91 RAP 341.14 ECC 4.4082

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 0 0	2930.74	-28.25	91.38	251.01	88.02	8 48 51	2330.7	-28.23	82.72
90.00	21 30 17	5190.37	25.99	232.58	244.77	78.35	22 56 48	4590.4	24.13	224.41
100.00	9 24 16	2658.94	-29.85	71.45	251.07	88.26	10 8 35	2058.9	-29.77	62.65
100.00	22 48 42	4937.41	27.55	213.61	244.41	77.92	24 11 0	4337.4	25.61	205.35
110.00	10 39 13	2424.40	-34.17	53.77	251.20	88.91	11 19 37	1824.4	-33.94	44.53
110.00	23 50 15	4744.71	31.77	197.89	243.31	76.66	25 9 20	4144.7	29.61	189.35

DIFFERENTIAL CORRECTIONS
TDE 6.0935 TRA10.6015 TC3 -.1173 BAU .3250
RDE .7449 RRA .0391 RC3 .0024 FAU-.00740
FDE 1.1330 FRA 2.0396 FC3 .0309 BSP 16703
BDE 6.1389 BRA10.6015 BC3 .1174 FSP -274

MID-COURSE EXECUTION ACCURACY
SGT 4901.4 SGR 297.1 SG3 81.0
RRT .5382 RRF .5286 RTF .9865
SGB 4910.4 R23 -.0043 R13 .9865
SG1 4904.0 SG2 250.2 THA 1.87

ORBIT DETERMINATION ACCURACY
ST 2740.1 SR 296.6 SS 873.2
CRT .8926 CRS -.8862 CST -.9999
LSA 2888.0 MSA 134.0 SSA 7.5
EL1 2752.9 EL2 133.1 ALF 5.53

LAUNCH DATE OCT 19 1970 FLIGHT TIME 216.00 ARRIVAL DATE MAY 23 1971

HELIOCENTRIC CONIC DISTANCE 595.194

RL 149.00 LAL -.00 LOL 25.19 VL 24.949 GAL 30.18 AZL 82.76 HCA 332.58 SMA 114.51 ECC .56618 INC 7.2367 V1 29.904
RP 108.71 LAP -3.33 LOP 357.96 VP 35.816 GAP 34.38 AZP 83.57 TAL 147.56 TAP 120.14 RCA 49.68 APO 179.35 V2 34.860
RC 222.592 GL 9.90 GP 7.99 ZAL 34.42 ZAP 163.09 ETS 152.31 ZAE 127.28 ETE 174.43 ZAC 101.98 ETC 282.24 CLP 165.04

PLANETOCENTRIC CONIC

C3 249.489 VHL 15.795 DLA 5.95 RAL 348.79 RAD 6571.5 VEL 19.256 PTH 3.09 VHP 21.318 DPA -2.43 RAP 342.57 ECC 5.1060

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 3 12	2950.59	-28.20	92.83	253.34	87.30	8 52 22	2350.6	-28.28	84.17
90.00	21 30 10	5223.91	26.43	234.94	247.24	79.45	22 57 14	4623.9	24.71	226.69
100.00	9 27 22	2679.14	-29.80	72.95	253.43	87.47	10 12 1	2079.1	-29.83	64.15
100.00	22 48 42	4970.60	28.00	215.97	246.91	79.09	24 11 33	4370.6	26.21	207.63
110.00	10 42 3	2445.36	-34.13	55.41	253.63	87.94	11 22 49	1845.4	-34.04	46.16
110.00	23 50 30	4777.14	32.25	200.30	245.91	78.01	25 10 7	4177.1	30.27	191.65

DIFFERENTIAL CORRECTIONS
TDE 6.5776 TRA11.5541 TC3 -.0222 BAU .0753
RDE .8074 RRA .1177 RC3 .0041 FAU-.01085
FDE 1.2176 FRA 2.2023 FC3 .0376 BSP 16564
BDE 6.6269 BRA11.5547 BC3 .0226 FSP -270

MID-COURSE EXECUTION ACCURACY
SGT 4843.0 SGR 296.3 SG3 79.9
RRT .6124 RRF .6039 RTF .9896
SGB 4852.0 R23 -.0046 R13 .9896
SG1 4846.4 SG2 234.1 THA 2.15

ORBIT DETERMINATION ACCURACY
ST 2700.2 SR 293.2 SS 926.7
CRT .9033 CRS -.8980 CST -.9999
LSA 2867.0 MSA 126.0 SSA 6.9
EL1 2713.1 EL2 125.1 ALF 5.61

LAUNCH DATE OCT 19 1970 FLIGHT TIME 218.00 ARRIVAL DATE MAY 25 1971

HELIOCENTRIC CONIC DISTANCE 590.744

RL 149.00 LAL -.00 LOL 25.19 VL 24.931 GAL 33.87 AZL 81.99 HCA 335.74 SMA 114.43 ECC .61114 INC 8.0109 V1 29.904
RP 108.68 LAP -3.28 LOP 1.14 VP 35.813 GAP 37.58 AZP 82.69 TAL 148.11 TAP 123.84 RCA 44.50 APO 184.36 V2 34.870
RC 224.055 GL 9.53 GP 7.89 ZAL 34.37 ZAP 161.45 ETS 155.48 ZAE 126.16 ETE 174.72 ZAC 101.61 ETC 282.39 CLP 163.16

PLANETOCENTRIC CONIC

C3 303.459 VHL 17.420 DLA 5.59 RAL 348.90 RAD 6571.7 VEL 20.610 PTH 3.17 VHP 23.229 DPA -2.03 RAP 343.79 ECC 5.9942

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 6 21	2964.21	-28.15	93.83	255.19	86.80	8 55 46	2364.2	-28.30	85.16
90.00	21 27 55	5259.97	26.86	237.49	249.38	80.67	22 55 35	4660.0	25.29	229.17
100.00	9 30 20	2693.32	-29.75	74.00	255.29	86.92	10 15 14	2093.3	-29.86	65.20
100.00	22 46 37	5006.09	28.43	218.52	249.08	80.36	24 10 3	4406.1	26.81	210.10
110.00	10 44 38	2460.79	-34.08	56.61	255.55	87.23	11 25 39	1860.8	-34.09	47.36
110.00	23 48 48	4811.39	32.71	202.86	248.20	79.47	25 9 0	4211.4	30.91	194.11

DIFFERENTIAL CORRECTIONS
TDE 7.1059 TRA12.5904 TC3 .0600 BAU .2449
RDE .8795 RRA .2129 RC3 .0064 FAU-.01533
FDE 1.3138 FRA 2.3871 FC3 .0437 BSP 16406
BDE 7.1601 BRA12.5922 BC3 .0604 FSP -267

MID-COURSE EXECUTION ACCURACY
SGT 4776.9 SGR 298.5 SG3 78.8
RRT .6826 RRF .6753 RTF .9923
SGB 4786.2 R23 -.0047 R13 .9923
SG1 4781.3 SG2 218.0 THA 2.45

ORBIT DETERMINATION ACCURACY
ST 2649.6 SR 290.0 SS 988.8
CRT .9140 CRS -.9097 CST -.9999
LSA 2840.5 MSA 117.9 SSA 6.4
EL1 2662.9 EL2 117.1 ALF 5.72

LAUNCH DATE OCT 19 1970 FLIGHT TIME 220.00 ARRIVAL DATE MAY 27 1971

HELIOCENTRIC CONIC DISTANCE 583.515

RL 149.00 LAL -.00 LOL 25.19 VL 24.921 GAL 38.15 AZL 81.00 HCA 338.89 SMA 114.37 ECC .66205 INC 9.0014 V1 29.904
RP 108.64 LAP -3.23 LOP 4.32 VP 35.816 GAP 41.38 AZP 81.59 TAL 149.23 TAP 128.12 RCA 38.65 APO 190.10 V2 34.881
RC 225.492 GL 9.14 GP 7.77 ZAL 34.66 ZAP 159.51 ETS 158.51 ZAE 124.76 ETE 175.05 ZAC 101.27 ETC 282.50 CLP 160.98

PLANETOCENTRIC CONIC

C3 372.803 VHL 19.308 DLA 5.07 RAL 348.69 RAD 6572.0 VEL 22.229 PTH 3.25 VHP 25.476 DPA -1.76 RAP 344.76 ECC 7.1354

LNCH AZMTH	LNCH TIME	L-I TIME	INJ LAT	INJ LONG	INJ RT ASC	INJ AZMTH	INJ TIME	PO CST TIM	INJ 2 LAT	INJ 2 LONG
90.00	8 9 28	2970.51	-28.13	94.28	256.45	86.57	8 58 58	2370.5	-28.30	85.62
90.00	21 23 6	5299.12	27.26	240.29	251.13	82.01	22 51 25	4699.1	25.87	231.89
100.00	9 33 12	2700.44	-29.72	74.53	256.56	86.64	10 18 12	2100.4	-29.87	65.73
100.00	22 42 3	5044.42	28.84	221.30	250.88	81.77	24 6 8	4444.4	27.40	212.79
110.00	10 46 55	2469.72	-34.05	57.31	256.85	86.82	11 28 5	1869.7	-34.12	48.06
110.00	23 44 50	4847.90	33.13	205.63	250.12	81.05	25 5 37	4247.9	31.54	196.77

DIFFERENTIAL CORRECTIONS
TDE 7.6743 TRA13.7032 TC3 .1298 BAU .6488
RDE .9632 RRA .3270 RC3 .0093 FAU-.02123
FDE 1.4228 FRA 2.5961 FC3 .0493 BSP 16218
BDE 7.7345 BRA13.7071 BC3 .1302 FSP -264

MID-COURSE EXECUTION ACCURACY
SGT 4701.4 SGR 304.1 SG3 77.9
RRT .7460 RRF .7400 RTF .9944
SGB 4711.2 R23 -.0048 R13 .9943
SG1 4706.9 SG2 202.3 THA 2.77

ORBIT DETERMINATION ACCURACY
ST 2585.8 SR 287.3 SS 1060.5
CRT .9243 CRS -.9208 CST -.9999
LSA 2807.4 MSA 109.9 SSA 5.9
EL1 2599.4 EL2 109.1 ALF 5.87