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SATURN V AS-504
LAUNCH VEHICLE
REFERENCE TRAJECTORY
VOLUME II OF II
BOOK 3

MAY 15, 1967

H. 1

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SECTION 10

TRAJECTORY DATA FROM PREIGNITION-SEQUENCE
INITIATION TO FREE-RETURN VACUUM PERIGEE

10.0 DATA DESCRIPTION

This section contains the computer-printed listings of AS-504 trajectory characteristics from the beginning of the pre-ignition (restart) sequence through the TLI boost, translunar coast, and free-return transearth coast. Trajectory simulation of these phases of flight is performed by two computer programs. Simulation of flight between "Preignition-Sequence Initiation" and "Translunar Injection" is performed by the BHA 0035 boost simulation program which integrates two-body (earth and vehicle) equations of motion in six degrees of freedom. Simulation from "Translunar Injection" to "Free-Return Vacuum Perigee" is performed using the Apollo Reference Mission Program (ARMP), a program that integrates the gravitational accelerations of the earth, moon, and sun on a point-mass vehicle to establish the translunar and transearth coast phases.

Preignition-sequence initiation (t_{B6}) occurs during earth parking orbit when the S-IVB orbital position satisfies a specified geometrical relationship with the target vector. (See Section 11 for a complete explanation of the preignition-sequence initiation geometry.) The preignition-sequence initiation position for each simulated TLI boost is a position in one of the five parking orbits defined in Section 7. Flight sequencing prior to the J-2 engine start sequence (not to be confused with the restart (preignition) sequence) is a time-dependent function of t_{B6} . The J-2 engine start sequence begins at $t_{B6} + 450.0$ seconds. At $t_{B6} + 460.0$ seconds the S-IVB stage thrust level nominally reaches 90 percent of the operating thrust level. In this simulation, because the thrust level is approximated by step functions, the time $t_{B6} + 460.0$ seconds is designated "S-IVB Stage at Operating Thrust Level."

In this study, thrust decay and post-cutoff propulsive venting are not simulated. The full operating thrust is used until the S-IVB engine cutoff signal is given, and the thrust is then immediately set equal to zero. Because this simulation procedure is used, the S-IVB cutoff-signal time (t_{B7}) coincides with "Translunar Injection," the post-cutoff time when vehicle thrust becomes zero.

The portion of the trajectory between "Translunar Injection" and "Periselenium" is the translunar coast phase. The portion of the trajectory between "Periselenium" and "Free-Return Vacuum Perigee" is the free-return transearth coast phase.

Simulation ends at "Free-Return Vacuum Perigee;" atmospheric reentry of the spacecraft or S-IVB stage is not simulated. Launch Vehicle/Spacecraft separation and post-separation maneuvers are not included in this simulation because separation and post-separation times, attitudes, and velocity perturbations have not been defined for the AS-504 mission. Therefore the trajectory data contained in this section are applicable for both the spacecraft and the expended S-IVB stage until either vehicle performs an orbit-perturbing maneuver.

Data for the preignition, TLI-boost, translunar, and trans-earth trajectory phases are provided in "block" format; i.e., all of the trajectory data available at each flight time are printed together as a block of data. The number of data blocks printed for each trajectory depends on whether or not the trajectory is designated as a "key" trajectory. Data are provided for each of the 120 simulated trajectories at the flight times corresponding to the following major events: preignition-sequence initiation, S-IVB stage at operating thrust level, translunar injection, periselenium, and free-return vacuum perigee. These flight times are included in the major-events summary tables (Tables 5-III through 5-XCVIII). However, for the "key" trajectories, data are also printed at the following intervals:

<u>From</u>	<u>To</u>	<u>Print Increment</u> <u>(Hours)</u>	<u>(Seconds)</u>
Preignition-Sequence Initiation	Translunar Injection	0.0013889	5.0
Injection	4.0 Earth Radii (ER) from Earth	0.03125	112.5
4.0 ER from Earth	9.0 ER from the Moon	0.5	1800.0
9.0 ER from the Moon	2.0 ER from the Moon	0.25	900.0
2.0 ER from the Moon (before Periselenium)	2.0 ER from the Moon (after Periselenium)	0.0625	225.0
2.0 ER from the Moon	9.0 ER from the Moon	0.25	900.0
9.0 ER from the Moon	4.0 ER from Earth	0.5	1800.0
4.0 ER from Earth	Vacuum Perigee	0.03125	112.5

The selected key trajectories have the following combinations of launch date, launch azimuth, and injection opportunity:

<u>Launch Date</u>	<u>Launch Azimuth</u>	<u>Injection Opportunity</u>
February 1	72	First
February 1	72	Second
March 1	72	First
March 31	72	First

Trajectory data for the 120 trajectories considered in this report are provided in Tables 10-I through 10-CXX. Each table contains all of the trajectory data for one trajectory. The trajectory tables are arranged in groups of 10 with each group representing one launch day. These table groups are as follows:

<u>Launch Day</u>	<u>Table Group</u>
February 1	10-I through 10-X
February 2	10-XI through 10-XX
February 3	10-XXI through 10-XXX
February 4	10-XXXI through 10-XL
March 1	10-XLI through 10-L
March 3	10-LI through 10-LX
March 5	10-LXI through 10-LXX
March 7	10-LXXI through 10-LXXX
March 31	10-LXXXI through 10-XC
April 2	10-XCI through 10-C
April 4	10-CI through 10-CX
April 6	10-CXI through 10-CXX

In each table group the tables are arranged in the following sequence:

<u>Table</u>	<u>Launch Opportunity and Azimuth</u>		
10-() I	First Opportunity,	72	Degrees Azimuth
10-() II	" "	81	" "
10-() III	" "	90	" "
10-() IV	" "	99	" "
10-() V	" "	108	" "
10-() VI	Second Opportunity,	72	Degrees Azimuth
10-() VII	" "	81	" "
10-() VIII	" "	90	" "
10-() IX	" "	99	" "
10-() X	" "	108	" "

At each flight time vehicle and trajectory data are provided with respect to a geocentric reference system. During passage

through the lunar sphere of influence, data are also provided with respect to selenocentric and selenographic reference systems. The increased number of reference systems being used to describe the TLI-boost and space-coast trajectory characteristics requires that more explicit parameter definitions be used in Section 10 than were used in Section 7. The symbols used in the tables and their definitions are as follows:

Geocentric Reference

<u>Symbol</u>	<u>Unit</u>	<u>Definition</u>
ALT	Meters	Altitude above the geoid.
ANG	Degrees	The angle of attack (ANG) is the angle between the vehicle longitudinal body axis and the aerodynamic velocity vector (Figure 7-2). In space the aerodynamic velocity vector and the relative geocentric velocity vector are considered to be identical.
AZ	Degrees	The inertial geocentric azimuth (AZ) is the angle between the projection of the inertial geocentric velocity vector on a plane normal to the vehicle geocentric radius vector and a plane containing the earth spin axis and the vehicle geocentric radius vector. Inertial geocentric azimuth is positive when measured east from the local direction of north.
AZE	Degrees	The relative geocentric azimuth (AZE) is the angle between the projection of the relative geocentric velocity vector on a plane normal to the vehicle geocentric radius vector and a plane containing the earth spin axis and the vehicle geocentric radius vector. Relative geocentric azimuth is positive when measured east from the local direction of north.
CPA CYA CRA	Degrees	The commanded pitch angle (CPA), commanded yaw angle (CYA), and commanded roll angle (CRA) are the guidance-commanded attitude (Euler or gimbal) angles. These angles are measured from the IU platform inertial axes to the desired vehicle body-axis orientation.

Geocentric Reference (Continued)

<u>Symbol</u>	<u>Unit</u>	<u>Definition</u>
DEC	Degrees	The geocentric declination (DEC) is the angle between the vehicle geocentric radius vector and the mean equatorial plane at the beginning of the nearest Besselian year. Geocentric declination is positive in the northern hemisphere.
F	Pounds	S-IVB stage thrust.
FLIGHT TIME	Seconds	Flight time after liftoff.
IAC	M/Sec ²	The inertial acceleration (IAC) is the magnitude of the vector sum of the propulsive, aerodynamic, and earth-gravity induced accelerations on the vehicle.
LAT	Degrees	The geocentric latitude (LAT) is the angle between the vehicle geocentric radius vector and the true equatorial plane at the flight time being considered. Geocentric latitude is positive in the northern hemisphere.
LON	Degrees	The vehicle longitudinal position (LON) with respect to the earth is measured positive east of the prime meridian.
LTGD	Degrees	The geodetic latitude (LTGD) is the angle between the plumbline vector from the vehicle to the earth and the true equatorial plane at the flight time being considered. Geodetic latitude is positive in the northern hemisphere.
NFA	Degrees	The normal force angle (NFA) is the angle from the +Y body axis to the normal force vector (Figure 7-2). For space flight the normal force angle is used to establish the radial orientation of the relative geocentric velocity vector to the vehicle body axis system.

Geocentric Reference (Continued)

<u>Symbol</u>	<u>Unit</u>	<u>Definition</u>
PTE	Degrees	The relative geocentric flight-path angle (PTE) is the angle between the relative geocentric velocity vector and a plane normal to the geocentric radius vector. The relative geocentric flight-path angle is positive when the relative geocentric velocity vector points away from the center of the earth.
PTH	Degrees	The inertial geocentric flight-path angle (PTH) is the angle between the inertial geocentric velocity vector and a plane normal to the geocentric radius vector. The inertial geocentric flight-path angle is positive when the inertial geocentric velocity vector points away from the center of the earth.
R	Meters	Magnitude of the vehicle geocentric radius vector.
RA	Degrees	The vehicle geocentric right ascension (RA) is the angle from the +X axis of geocentric Project Apollo Standard Coordinate System 4 (Figure 10-1) to the projection of the vehicle geocentric radius vector on the mean equatorial plane of the beginning of of the nearest Besselian year. Right ascension is positive when measured east of the mean vernal equinox.
V	M/Sec	The inertial geocentric velocity (V) is the magnitude of the vehicle velocity vector measured in an earth-centered coordinate system with space-fixed orientation.
VE	M/Sec	The relative geocentric velocity (VE) is the magnitude of the vehicle velocity vector measured in a rotating, earth-fixed coordinate system.
VPA VYA VRA	Degrees	The vehicle pitch angle (VPA), vehicle yaw angle (VYA), and vehicle roll angle (VRA) are the actual vehicle attitude angles measured from the IU inertial platform axes to the vehicle body axes.

Geocentric Reference (Continued)

<u>Symbol</u>	<u>Unit</u>	<u>Definition</u>
WT	Pounds	Vehicle weight.
X Y Z	Meters	X, Y, and Z are vehicle position coordinates in geocentric Project Apollo Standard Coordinate System 4. This non-rotating, earth-centered system has the X and Y axes in the mean equatorial plane of the beginning of the nearest Besselian year. The +X axis points toward the mean vernal equinox of that time. The +Z axis points in the same direction as the earth's angular momentum vector (Figure 10-1).
DX DY DZ	M/Sec	Velocity components in Project Apollo Standard Coordinate System 4 (defined above).
XXX YYY ZZZ	Meters	XXX, YYY, and ZZZ are vehicle position coordinates in Project Apollo Standard Coordinate System 13. This system is earth centered and the axis orientations are inertialized at GRR. GRR is coincident with liftoff for this trajectory study. At GRR the X axis is aligned parallel to the launch pad vertical, the Z axis is aligned parallel to the flight azimuth, and the Y axis completes the right-handed system (Figure 7-3).
DXX DYY DZZ	M/Sec	Velocity components in Project Apollo Standard Coordinate System 13 (defined above).

Selenocentric Reference

AZSC	Degrees	The inertial selenocentric azimuth (AZSC) is the angle between the projection of the inertial selenocentric velocity vector on a plane normal to the vehicle selenocentric radius vector and a plane containing the vehicle selenocentric radius vector and the selenocentric +Z axis. The selenocentric +Z axis is parallel to the geocentric +Z axis of Project Apollo Coordinate System 4 (Figure 10-1) and is not the moon
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Selenocentric Reference (Continued)

<u>Symbol</u>	<u>Unit</u>	<u>Definition</u>
AZSC (Cont.)	Degrees	rotational axis. The inertial selenocentric azimuth is positive when measured clockwise from the local direction of ephemeral north.
DESC	Degrees	The selenocentric declination (DESC) is the angle between the selenocentric radius vector and the selenocentric X-Y plane of Project Apollo Standard Coordinate System 4 translated to a selenocentric origin (Figure 10-1). Selenocentric declination is positive in the northern ephemeral hemisphere.
PTSC	Degrees	The inertial selenocentric flight-path angle (PTSC) is the angle between the vehicle inertial selenocentric velocity vector and a plane normal to the vehicle selenocentric radius vector. The inertial selenocentric flight-path angle is positive when the inertial selenocentric velocity vector points away from the center of the moon.
RASC	Degrees	The vehicle selenocentric right ascension (RASC) is the angle from the +X axis of Project Apollo Standard Coordinate System 4 translated to a selenocentric origin (Figure 10-1) to the projection of the vehicle selenocentric radius vector on the selenocentric ephemeral X-Y plane. Right ascension is positive when measured from ephemeral +X to +Y.
RSC	Meters	Magnitude of the vehicle selenocentric radius vector.
VSC	M/Sec	The inertial selenocentric velocity (VSC) is the magnitude of the vehicle velocity vector measured in a moon-centered coordinate system with space-fixed orientation.

Selenocentric Reference (Continued)

<u>Symbol</u>	<u>Unit</u>	<u>Definition</u>
XSC YSC ZSC	Meters	XSC, YSC, and ZSC are vehicle position coordinates in Project Apollo Standard Coordinate System 4 translated to a selenocentric origin (Figure 10-1). This selenocentric coordinate system is parallel to the geocentric Coordinate System 4; therefore the selenocentric ephemeral +Z axis does not coincide with the moon angular momentum vector, nor does the ephemeral +X or +Y axis usually lie in the true lunar equatorial plane.
DXSC DYSC DZSC	M/Sec	Vehicle velocity components measured in Project Apollo Standard Coordinate System 4 translated to a selenocentric origin (defined above).

Selenographic Reference

AZSG	Degrees	The selenographic relative azimuth (AZSG) is the angle between the projection of the selenographic relative velocity vector on a plane normal to the vehicle selenographic radius vector and a plane containing the vehicle selenographic radius vector and the selenographic +Z axis. The selenographic +Z axis is the moon rotational axis (Figure 10-2). The selenographic relative azimuth is positive when measured clockwise from the local direction of lunar north.
DSMP	Degrees	The declination of the sun with respect to the earth-moon plane (DSMP) is the angle between the moon-sun vector and the earth-moon plane. Declination is positive in the direction of the angular momentum vector of the moon's orbit about the barycenter.
HSG	Meters	Altitude above the lunar surface.
LAN	Degrees	The selenographic longitude of the ascending node of the vehicle orbit plane (LAN) is the angle between the +X selenographic axis and the vector cross-product of the

Selenographic Reference (Continued)

<u>Symbol</u>	<u>Unit</u>	<u>Definition</u>
LAN (Cont.)	Degrees	+Z selenographic axis and the selenographic inertial angular momentum vector. Selenographic longitude is positive east of the lunar prime meridian (Figure 10-2).
LAP	Degrees	The angle of pericenter (LAP) is the great-circle angle from the position of the selenographic ascending node to the selenographic periselenium vector. The angle of pericenter is positive for periselenium positions in the northern lunar hemisphere.
LIN	Degrees	The magnitude of the vehicle-trajectory inclination with respect to the selenographic equator (LIN) is the angle between the +Z selenographic axis and the selenographic inertial angular momentum vector of the vehicle orbit. The magnitude of LIN given in the tables will be within the range, 0 degrees to +180 degrees.
LNE	Degrees	The selenographic longitude of the sub-earth point (LNE) is the angle between the +X selenographic axis and the projection of the moon-earth vector on the true lunar equator. Selenographic longitude is positive east of the lunar prime meridian (Figure 10-2).
LNS	Degrees	The selenographic longitude of the sub-solar point (LNS) is the angle between the +X selenographic axis and the projection of the moon-sun vector on the true lunar equator. Selenographic longitude is positive east of the lunar prime meridian (Figure 10-2).
LNSG	Degrees	The selenographic longitude of the sub-vehicle point (LNSG) is the angle between the +X selenographic axis and the projection of the vehicle selenographic radius vector on the true lunar equator. Selenographic longitude is positive east of the lunar prime meridian (Figure 10-2).

Selenographic Reference (Continued)

<u>Symbol</u>	<u>Unit</u>	<u>Definition</u>
LTE	Degrees	The selenographic latitude of the sub-earth point (LTE) is the angle between the moon-earth vector and the true lunar equator. Selenographic latitude is positive in the northern lunar hemisphere (Figure 10-2).
LTS	Degrees	The selenographic latitude of the sub-solar point (LTS) is the angle between the moon-sun vector and the true lunar equator. Selenographic latitude is positive in the northern lunar hemisphere (Figure 10-2).
LTSG	Degrees	The selenographic latitude of the sub-vehicle point (LTSG) is the angle between the vehicle selenographic radius vector and the true lunar equator. Selenographic latitude is positive in the northern lunar hemisphere (Figure 10-2).
PTSG	Degrees	The selenographic relative flight-path angle (PTSG) is the angle between the vehicle selenographic relative velocity vector and a plane normal to the vehicle selenographic radius vector. The selenographic relative flight-path angle is positive when the selenographic relative velocity vector points away from the center of the moon.
RSMP	Degrees	The right ascension of the sun with respect to the earth-moon plane (RSMP) is the angle from the moon-earth vector to the projection of the moon-sun vector on the earth-moon plane. The moon-earth vector points toward the true center of the earth and is directionally similar to the +X selenographic axis. Right ascension of the sun with respect to the earth-moon plane is positive east of the moon-earth vector.

Selenographic Reference (Continued)

<u>Symbol</u>	<u>Unit</u>	<u>Definition</u>
VRSG	M/Sec	The vehicle selenographic relative velocity (VRSG) is the magnitude of the vehicle velocity vector measured in a rotating moon-centered coordinate system.
XSG YSG ZSG	Meters	XSG, YSG, and ZSG are vehicle position coordinates in an orthogonal selenographic moon-fixed coordinate system (Figure 10-2). The selenographic +X axis points through the mean center of the apparent lunar disk as seen from earth. The selenographic +Z axis coincides with the moon's true axis of rotation. The selenographic +Y axis lies in the true lunar equator and completes the right-handed system.
DXSG DYSG DZSG	M/Sec	Velocity components in the orthogonal selenographic moon-fixed coordinate system defined above (Figure 10-2).

10.1 TRAJECTORY DATA FOR LAUNCH DURING FEBRUARY 1-4, 1968

Trajectory data from preignition-sequence initiation to free-return vacuum perigee are contained in Tables 10-I through 10-XL for launch on February 1, 2, 3, and 4, 1968.

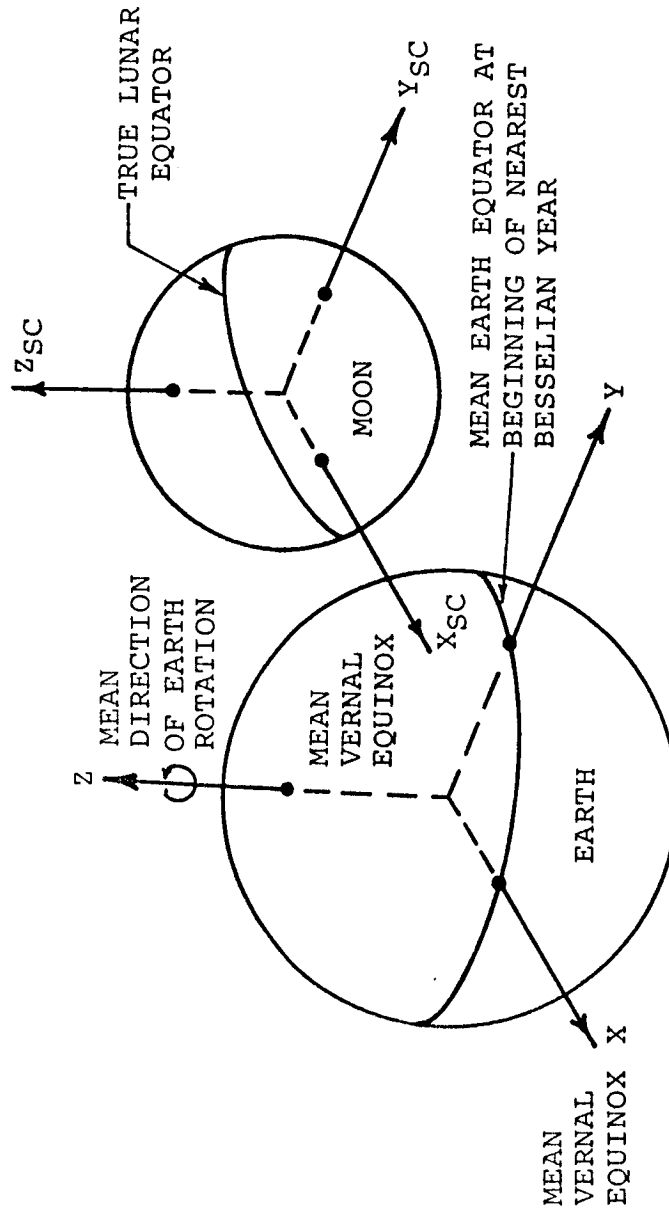


FIGURE 10-1. PROJECT APOLLO STANDARD COORDINATE SYSTEM NO.4 ORIENTATION FOR GEOCENTRIC AND TRANSLATED SELENOCENTRIC ORIGINS

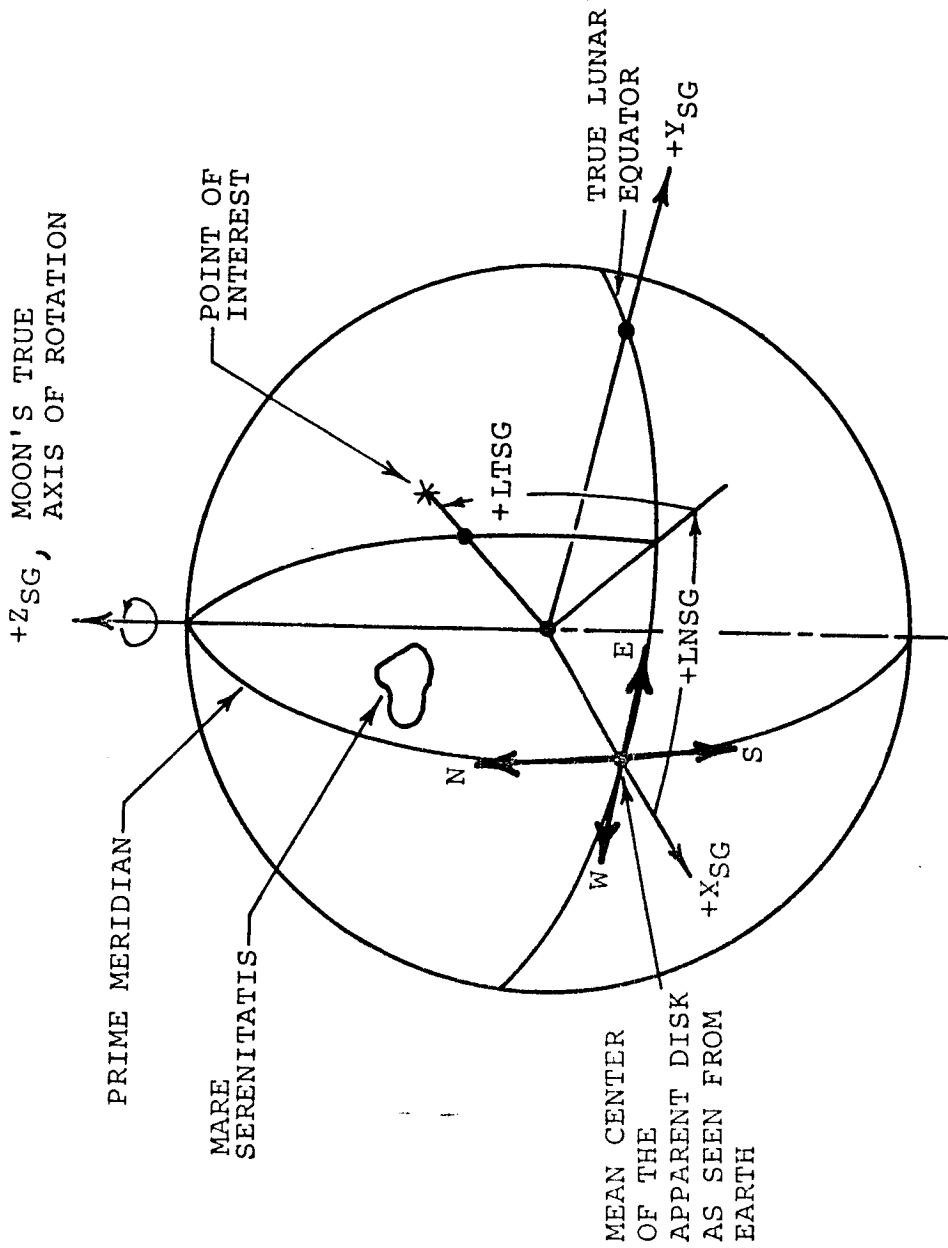


FIGURE 10-2. ORTHOGONAL SELENOGRAPHIC MOON-FIXED COORDINATE SYSTEM

TABLE 10-I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - FIRST OPPORTUNITY

LAUNCH TIME = 15 HRS., 37 MIN., 28.610 SEC. G. M. T.

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE		FLIGHT TIME		9.144000E 03	
XXX	-3.272479E 06	YYY	-1.374437E 05	ZZZ	-5.705598E 06
DXX	6.751322E 03	DYY	-5.253171E 01	DZZ	-3.875512E 03
R	6.578894E 06	WT	2.972367E 05	F	1.507699E 01
V	7.784773E 03	PTH	2.883368E-02	AZ	7.125068E 01
ALT	2.051923E 05	LAT	-2.712996E 01	LON	1.302643E 02
VE	7.281749E 03	PTE	3.040786E-02	AZE	7.018542E 01
ANG	4.015260E 00	NFA	7.338269E 01	IAC	9.214822E 00
CPA	2.598823E 01	VPA	2.598823E 01	CYA	-3.049773E-01
VYA	-3.049773E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME		9.145000E 03	
XXX	-3.265725E 06	YYY	-1.374961E 05	ZZZ	-5.709469E 06
DXX	6.755904E 03	DYY	-5.235001E 01	DZZ	-3.867519E 03
R	6.578898E 06	WT	2.972366E 05	F	1.507393E 01
V	7.784773E 03	PTH	2.880945E-02	AZ	7.121773E 01
ALT	2.051895E 05	LAT	-2.710815E 01	LON	1.303323E 02
VE	7.281753E 03	PTE	3.038264E-02	AZE	7.015045E 01
ANG	4.015778E 00	NFA	7.335460E 01	IAC	9.214824E 00
CPA	2.592042E 01	VPA	2.592042E 01	CYA	-3.036122E-01
VYA	-3.036122E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME		9.150000E 03	
XXX	-3.231388E 06	YYY	-1.377556E 05	ZZZ	-5.728707E 06
DXX	6.778675E 03	DYY	-5.144027E 01	DZZ	-3.827476E 03
R	6.578918E 06	WT	2.972357E 05	F	1.505866E 01
V	7.784771E 03	PTH	2.869376E-02	AZ	7.105351E 01
ALT	2.051758E 05	LAT	-2.699855E 01	LON	1.306716E 02
VE	7.281775E 03	PTE	3.026054E-02	AZE	6.997619E 01
ANG	4.018459E 00	NFA	7.321459E 01	IAC	9.214835E 00
CPA	2.558138E 01	VPA	2.558138E 01	CYA	-2.967794E-01
VYA	-2.567794E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME							
XXX	-3.197939E 06	YYY	-1.380105E 05	ZZZ	9.155000E 03	ZZZ	-5.747744E 06		
DXX	6.801209E 03	DYY	-5.052853E 01	DZZ	-3.787298E 03	F	1.504338E 01		
R	6.578937E 06	WT	2.972349E 05	AZ	7.089023E 01				
V	7.784769E 03	PTH	2.857656E-02	LON	1.310101E 02				
ALT	2.051619E 05	LAT	-2.688802E 01	AZE	6.980290E 01				
VE	7.381797E 03	PTE	3.013677E-02	IAC	9.214846E 00				
ANG	4.C21139E 00	NFA	7.307532E 01	CYA	-2.899338E-01				
CPA	2.524234E 01	VPA	2.524234E 01	VRA	-0.000000E-39				
VYA	-2.899338E-01	CRA	-0.000000E-39						

GEOCENTRIC REFERENCE		FLIGHT TIME							
XXX	-3.163877E 06	YYY	-1.382609E 05	ZZZ	9.160000E 03	ZZZ	-5.766579E 06		
DXX	6.823504E 03	DYY	-4.961481E 01	DZZ	-3.746988E 03	F	1.502810E 01		
R	6.578957E 06	WT	2.972340E 05	AZ	7.072789E 01				
V	7.784767E 03	PTH	2.845738E-02	LON	1.313480E 02				
ALT	2.C51477E 05	LAT	-2.677659E 01	AZE	6.963060E 01				
VE	7.381820E 03	PTE	3.001098E-02	IAC	9.214858E 00				
ANG	4.C2384CE 00	NFA	7.293680E 01	CYA	-2.830772E-01				
CPA	2.490330E 01	VPA	2.490330E 01	VRA	-0.000000E-39				
VYA	-2.830772E-01	CRA	-0.000000E-39						

GEOCENTRIC REFERENCE		FLIGHT TIME							
XXX	-3.129704E 06	YYY	-1.385067E 05	ZZZ	9.165000E 03	ZZZ	-5.785213E 06		
DXX	6.845561E 03	DYY	-4.869915E 01	DZZ	-3.706547E 03	F	1.501282E 01		
R	6.578976E 06	WT	2.972332E 05	AZ	7.056649E 01				
V	7.784765E 03	PTH	2.833477E-02	LON	1.316852E 02				
ALT	2.C51333E 05	LAT	-2.66426E 01	AZE	6.945927E 01				
VE	7.381843E 03	PTE	2.988173E-02	IAC	9.214870E 00				
ANG	4.C26553E 00	NFA	7.279903E 01	CYA	-2.762086E-01				
CPA	2.456426E 01	VPA	2.456426E 01	VRA	-0.000000E-39				
VYA	-2.762086E-01	CRA	-0.000000E-39						

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	-3.095421E 06	YYY	-1.387479E 05	ZZZ	-5.803645E 06
DXX	6.867378E 03	DYY	-4.778157E 01	DZZ	-3.665976E 03
R	6.578995E 06	WT	2.972324E 05	F	1.499754E 01
V	7.784764E 03	PTH	2.821162E-02	AZ	7.040605E 01
ALT	2.051186E 05	LAT	-2.655103E 01	LON	1.320217E 02
VE	7.381866E 03	PTE	2.975168E-02	AZE	6.928894E 01
ANG	4.029263E 00	NFA	7.266201E 01	IAC	9.214883E 00
CPA	2.422522E 01	VPA	2.422522E 01	CYA	-2.693280E-01
VYA	-2.693280E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	-3.061031E 06	YYY	-1.389845E 05	ZZZ	-5.821873E 06
DXX	6.888955E 03	DYY	-4.686211E 01	DZZ	-3.625276E 03
R	6.579014E 06	WT	2.972315E 05	F	1.498227E 01
V	7.784762E 03	PTH	2.808784E-02	AZ	7.024655E 01
ALT	2.051036E 05	LAT	-2.643690E 01	LON	1.323574E 02
VE	7.381889E 03	PTE	2.82105E-02	AZE	6.911959E 01
ANG	4.031996E 00	NFA	7.252577E 01	IAC	9.214896E 00
CPA	2.388618E 01	VPA	2.388618E 01	CYA	-2.624381E-01
VYA	-2.624381E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	-3.026532E 06	YYY	-1.392165E 05	ZZZ	-5.839897E 06
DXX	6.910291E 03	DYY	-4.594079E 01	DZZ	-3.584450E 03
R	6.579033E 06	WT	2.972307E 05	F	1.496699E 01
V	7.784761E 03	PTH	2.796250E-02	AZ	7.008802E 01
ALT	2.050883E 05	LAT	-2.632190E 01	LON	1.326925E 02
VE	7.381913E 03	PTE	2.948891E-02	AZE	6.895124E 01
ANG	4.034746E 00	NFA	7.239029E 01	IAC	9.214911E 00
CPA	2.354713E 01	VPA	2.354713E 01	CYA	-2.555362E-01
VYA	-2.555362E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.991928E 06	YYY -1.394439E 05	ZZZ -5.857717E 06	9.185000E 03
DXX 6.931385E 03	DYY -4.501765E 01	DZZ -3.543498E 03	
R 6.579052E 06	WT 2.972299E 05	F 1.495171E 01	
V 7.784760E 03	PTH 2.783400E-02	AZ 6.993044E 01	
ALT 2.050729E 05	LAT -2.620601E 01	LON 1.330268E 02	
VE 7.381937E 03	PTE 2.935308E-02	AZE 6.878390E 01	
ANG 4.037493E 00	NFA 7.225557E 01	IAC 9.214925E 00	
CPA 2.320809E 01	VPA 2.320809E 01	CYA -2.486240E-01	
VYA -2.486240E-01	CRA -0.000000E-39	VRA -0.000000E-39	

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.957219E 06	YYY -1.396667E 05	ZZZ -5.875332E 06	9.190000E 03
DXX 6.952236E 03	DYY -4.409271E 01	DZZ -3.502422E 03	
R 6.579071E 06	WT 2.972290E 05	F 1.493643E 01	
V 7.784760E 03	PTH 2.770550E-02	AZ 6.977382E 01	
ALT 2.050572E 05	LAT -2.608925E 01	LON 1.333605E 02	
VE 7.381961E 03	PTE 2.921719E-02	AZE 6.861755E 01	
ANG 4.040263E 00	NFA 7.212162E 01	IAC 9.214941E 00	
CPA 2.286905E 01	VPA 2.286905E 01	CYA -2.417008E-01	
VYA -2.417008E-01	CRA -0.000000E-39	VRA -0.000000E-39	

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.922406E 06	YYY -1.398848E 05	ZZZ -5.892741E 06	9.195000E 03
DXX 6.972844E 03	DYY -4.316601E 01	DZZ -3.461223E 03	
R 6.579090E 06	WT 2.972282E 05	F 1.492116E 01	
V 7.784759E 03	PTH 2.75743E-02	AZ 6.961817E 01	
ALT 2.050412E 05	LAT -2.597162E 01	LON 1.336934E 02	
VE 7.381986E 03	PTE 2.907984E-02	AZE 6.845221E 01	
ANG 4.043025E 00	NFA 7.198844E 01	IAC 9.214957E 00	
CPA 2.253001E 01	VPA 2.253001E 01	CYA -2.347673E-01	
VYA -2.347673E-01	CRA -0.000000E-39	VRA -0.000000E-39	

TABLE 10-I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME		9.200000E 03
XXX	-2.887491E 06	YYY	-1.400983E 05	ZZZ -5.909944E 06
DXX	6.593207E 03	DYY	-4.223757E 01	DZZ -3.419903E 03
R	6.579108E 06	WT	2.972274E 05	F 1.490588E 01
V	7.784759E 03	PTH	2.744213E-02	AZ 6.946349E 01
ALT	2.050250E 05	LAT	-2.585314E 01	LON 1.340256E 02
VE	7.382011E 03	PTE	2.893918E-02	AZE 6.828788E 01
ANG	4.045815E 00	NFA	7.185604E 01	IAC 9.214973E 00
CPA	2.219097E 01	VPA	2.219097E 01	CYA -2.278235E-01
VYA	-2.278235E-01	CRA	-0.000000E-39	VRA -0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME		9.205000E 03
XXX	-2.852474E 06	YYY	-1.403072E 05	ZZZ -5.926940E 06
DXX	7.013326E 03	DYY	-4.130744E 01	DZZ -3.378463E 03
R	6.579127E 06	WT	2.972266E 05	F 1.489060E 01
V	7.784758E 03	PTH	2.730816E-02	AZ 6.930978E 01
ALT	2.050086E 05	LAT	-2.573379E 01	LON 1.343571E 02
VE	7.382036E 03	PTE	2.879787E-02	AZE 6.812455E 01
ANG	4.048597E 00	NFA	7.172442E 01	IAC 9.214989E 00
CPA	2.185192E 01	VPA	2.185192E 01	CYA -2.208704E-01
VYA	-2.208704E-01	CRA	-0.000000E-39	VRA -0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME		9.210000E 03
XXX	-2.817358E 06	YYY	-1.405114E 05	ZZZ -5.943728E 06
DXX	7.033200E 03	DYY	-4.037563E 01	DZZ -3.36905E 03
R	6.579146E 06	WT	2.972257E 05	F 1.487532E 01
V	7.784759E 03	PTH	2.717308E-02	AZ 6.915704E 01
ALT	2.049919E 05	LAT	-2.561361E 01	LON 1.346878E 02
VE	7.382061E 03	PTE	2.865511E-02	AZE 6.796225E 01
ANG	4.051396E 00	NFA	7.159360E 01	IAC 9.215007E 00
CPA	2.151288E 01	VPA	2.151288E 01	CYA -2.139087E-01
VYA	-2.139087E-01	CRA	-0.000000E-39	VRA -0.000000E-39

TABLE 10-I TRANSUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME		9.215000E 03
XXX	-2.782143E 06	YYY	-1.407109E 05	ZZZ -5.960309E 06
DXX	7.052827E 03	DYY	-3.944218E 01	DZZ -3.295230E 03
R	6.579164E 06	WT	2.972249E 05	F 1.486004E 01
V	7.784759E 03	PTH	2.703602E-02	AZ 6.900527E 01
ALT	2.049752E 05	LAT	-2.549258E 01	LON 1.350179E 02
VE	7.032087E 03	PTE	2.851062E-02	AZE 6.780096E 01
ANG	4.054204E 00	NFA	7.146355E 01	IAC 9.215025E 00
CPA	2.117384E 01	VPA	2.117384E 01	CYA -2.069368E-01
VYA	-2.069368E-01	CRA	-0.000000E-39	VRA -0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME		9.220000E 03
XXX	-2.746830E 06	YYY	-1.409058E 05	ZZZ -5.976681E 06
DXX	7.072208E 03	DYY	-3.850712E 01	DZZ -3.253440E 03
R	6.579182E 06	WT	2.972241E 05	F 1.484477E 01
V	7.784759E 03	PTH	2.689684E-02	AZ 6.885449E 01
ALT	2.049581E 05	LAT	-2.537071E 01	LON 1.353473E 02
VE	7.382113E 03	PTE	2.836346E-02	AZE 6.764069E 01
ANG	4.057023E 00	NFA	7.133430E 01	IAC 9.215043E 00
CPA	2.083480E 01	VPA	2.083480E 01	CYA -1.999555E-01
VYA	-1.999555E-01	CRA	-0.000000E-39	VRA -0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME		9.225000E 03
XXX	-2.711421E 06	YYY	-1.410960E 05	ZZZ -5.992843E 06
DXX	7.091341E 03	DYY	-3.757048E 01	DZZ -3.211536E 03
R	6.579201E 06	WT	2.972232E 05	F 1.482949E 01
V	7.784760E 03	PTH	2.675574E-02	AZ 6.870469E 01
ALT	2.049408E 05	LAT	-2.524802E 01	LON 1.356759E 02
VE	7.382139E 03	PTE	2.821514E-02	AZE 6.748145E 01
ANG	4.059858E 00	NFA	7.120583E 01	IAC 9.215062E 00
CPA	2.049575E 01	VPA	2.049575E 01	CYA -1.929657E-01
VYA	-1.929657E-01	CRA	-0.000000E-39	VRA -0.000000E-39

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.683025E 06	YYY -1.412448E 05	ZZZ -6.005622E 06	03
DXX 7.106468E 03	DYY -3.682005E 01	DZZ -3.177931E 03	
R 6.579215E 06	WT 2.972221E 05	F 1.500000E 01	
V 7.784760E 03	PTH 2.664388E-02	AZ 6.858555E 01	
ALT 2.049270E 05	LAT -2.514927E 01	LON 1.359383E 02	
VE 7.382161E 03	PTE 2.809659E-02	AZE 6.735479E 01	
ANG 4.062118E 00	NFA 7.110363E 01	IAC 9.215078E 00	
CPA 2.022452E 01	VPA 2.022452E 01	CYA -1.873675E-01	
VYA -1.873675E-01	CRA -0.000000E-39	VRA -0.000000E-39	

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.675917E 06	YYY -1.412815E 05	ZZZ -6.008796E 06	03
DXX 7.110225E 03	DYY -3.663229E 01	DZZ -3.169519E 03	
R 6.579219E 06	WT 2.972191E 05	F 1.511433E 01	
V 7.784760E 03	PTH 2.661464E-02	AZ 6.855586E 01	
ALT 2.049233E 05	LAT -2.512450E 01	LON 1.360039E 02	
VE 7.382166E 03	PTE 2.806596E-02	AZE 6.732323E 01	
ANG 4.062679E 00	NFA 7.107817E 01	IAC 9.215082E 00	
CPA 2.015671E 01	VPA 2.015671E 01	CYA -1.859673E-01	
VYA -1.859673E-01	CRA -0.000000E-39	VRA -0.000000E-39	

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.640319E 06	YYY -1.414623E 05	ZZZ -6.024538E 06	03
DXX 7.128861E 03	DYY -3.569258E 01	DZZ -3.127391E 03	
R 6.579237E 06	WT 2.972042E 05	F 1.568601E 01	
V 7.784761E 03	PTH 2.647149E-02	AZ 6.840803E 01	
ALT 2.049057E 05	LAT -2.500017E 01	LON 1.363311E 02	
VE 7.382193E 03	PTE 2.791490E-02	AZE 6.716004E 01	
ANG 4.065516E 00	NFA 7.095129E 01	IAC 9.215103E 00	
CPA 1.981766E 01	VPA 1.981766E 01	CYA -1.789594E-01	
VYA -1.789594E-01	CRA -0.000000E-39	VRA -0.000000E-39	

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	-2.604629E 06	YYY	-1.416384E 05	ZZZ	-6.040069E 06
DXX	7.147248E 03	DYY	-3.475139E 01	DZZ	-3.085153E 03
R	6.579255E 06	WT	2.971894E 05	F	1.625768E 01
V	7.784763E 03	PTH	2.632628E-02	AZ	6.826118E 01
ALT	2.048878E 05	LAT	-2.487502E 01	LON	1.366576E 02
VE	7.382220E 03	PTE	2.776160E-02	AZE	6.700988E 01
ANG	4.068351E 00	NFA	7.082523E 01	IAC	9.215125E 00
CPA	1.947862E 01	VPA	1.947862E 01	CYA	-1.719444E-01
VYA	-1.719444E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	-2.568847E 06	YYY	-1.418098E 05	ZZZ	-6.055389E 06
DXX	7.165384E 03	DYY	-3.380874E 01	DZZ	-3.042808E 03
R	6.579273E 06	WT	2.971745E 05	F	1.682936E 01
V	7.784764E 03	PTH	2.617929E-02	AZ	6.811532E 01
ALT	2.048698E 05	LAT	-2.474908E 01	LON	1.369834E 02
VE	7.382248E 03	PTE	2.760678E-02	AZE	6.685476E 01
ANG	4.071202E 00	NFA	7.069997E 01	IAC	9.215146E 00
CPA	1.913957E 01	VPA	1.913957E 01	CYA	-1.649216E-01
VYA	-1.649216E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	-2.532975E 06	YYY	-1.419765E 05	ZZZ	-6.070497E 06
DXX	7.183270E 03	DYY	-3.286467E 01	DZZ	-3.000356E 03
R	6.579290E 06	WT	2.971596E 05	F	1.740103E 01
V	7.784766E 03	PTH	2.603147E-02	AZ	6.797045E 01
ALT	2.048515E 05	LAT	-2.462233E 01	LON	1.373086E 02
VE	7.382276E 03	PTE	2.745052E-02	AZE	6.670067E 01
ANG	4.074063E 00	NFA	7.057552E 01	IAC	9.215169E 00
CPA	1.880053E 01	VPA	1.880053E 01	CYA	-1.578910E-01
VYA	-1.578910E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

TABLE 10-I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.497015E 06	YYY -1.421385E 05	ZZZ -6.085393E 06	03
DXX 7.200904E 03	DYY -3.191920E 01	DZZ -2.957798E 03	03
R 6.579308E 06	WT 2.971447E 05	F 1.797271E 01	01
V 7.784768E 03	PTH 2.588106E-02	AZ 6.782657E 01	01
ALT 2.048330E 05	LAT -2.449479E 01	LON 1.376330E 02	02
VE 7.382304E 03	PTE 2.729210E-02	AZE 6.654761E 01	01
ANG 4.076904E 00	NFA 7.045188E 01	IAC 9.215192E 00	00
CPA 1.846148E 01	VPA 1.846148E 01	CYA -1.508530E-01	01
VYA -1.508530E-01	CRA -0.000000E-39	VRA -0.000000E-39	39

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.460967E 06	YYY -1.422957E 05	ZZZ -6.100075E 06	03
DXX 7.218287E 03	DYY -3.097238E 01	DZZ -2.915138E 03	03
R 6.579325E 06	WT 2.971298E 05	F 1.854438E 01	01
V 7.784770E 03	PTH 2.572955E-02	AZ 6.768369E 01	01
ALT 2.048143E 05	LAT -2.436647E 01	LON 1.379567E 02	02
VE 7.382333E 03	PTE 2.713194E-02	AZE 6.639560E 01	01
ANG 4.079779E 00	NFA 7.032906E 01	IAC 9.215216E 00	00
CPA 1.812244E 01	VPA 1.812244E 01	CYA -1.438077E-01	01
VYA -1.438077E-01	CRA -0.000000E-39	VRA -0.000000E-39	39

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.424833E 06	YYY -1.424482E 05	ZZZ -6.114544E 06	03
DXX 7.235416E 03	DYY -3.002422E 01	DZZ -2.872375E 03	03
R 6.579343E 06	WT 2.971149E 05	F 1.911606E 01	01
V 7.784773E 03	PTH 2.557680E-02	AZ 6.754180E 01	01
ALT 2.047956E 05	LAT -2.423737E 01	LON 1.382797E 02	02
VE 7.382362E 03	PTE 2.697092E-02	AZE 6.624463E 01	01
ANG 4.082640E-00	NFA 7.020705E 01	IAC 9.215239E 00	00
CPA 1.778339E 01	VPA 1.778339E 01	CYA -1.367555E-01	01
VYA -1.367555E-01	CRA -0.000000E-39	VRA -0.000000E-39	39

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-2.388613E 06	YYY	-1.425959E 05
DXX	7.252293E 03	DYY	-2.907476E 01
R	6.579360E 06	WT	2.971000E 05
V	7.784776E 03	PTH	2.542194E-02
ALT	2.047765E 05	LAT	-2.410750E 01
VE	7.382391E 03	PTE	2.680766E-02
ANG	4.085517E 00	NFA	7.008586E 01
CPA	1.744434E 01	VPA	1.744434E 01
VYA	-1.296965E-01	CRA	-0.000000E-39
		ZZZ	-6.128799E 06
		DZZ	-2.829511E 03
		F	1.968773E 01
		AZ	6.740091E 01
		LON	1.386020E 02
		AZE	6.609470E 01
		IAC	9.215264E 00
		CYA	-1.296965E-01
		VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-2.252310E 06	YYY	-1.427389E 05
DXX	7.268916E 03	DYY	-2.812404E 01
R	6.579377E 06	WT	2.970851E 05
V	7.784779E 03	PTH	2.526597E-02
ALT	2.047574E 05	LAT	-2.397686E 01
VE	7.382420E 03	PTE	2.664295E-02
ANG	4.088380E 00	NFA	6.996549E 01
CPA	1.710529E 01	VPA	1.710529E 01
VYA	-1.226310E-01	CRA	-0.000000E-39
		ZZZ	-6.142839E 06
		DZZ	-2.786548E 03
		F	2.025941E 01
		AZ	6.726102E 01
		LON	1.389236E 02
		AZE	6.594581E 01
		IAC	9.215289E 00
		CYA	-1.226310E-01
		VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-2.315924E 06	YYY	-1.428772E 05
DXX	7.285284E 03	DYY	-2.717208E 01
R	6.579394E 06	WT	2.970702E 05
V	7.784782E 03	PTH	2.510761E-02
ALT	2.047379E 05	LAT	-2.384546E 01
VE	7.382450E 03	PTE	2.647630E-02
ANG	4.091242E 00	NFA	6.984594E 01
CPA	1.676624E 01	VPA	1.676624E 01
VYA	-1.155592E-01	CRA	-0.000000E-39
		ZZZ	-6.156664E 06
		DZZ	-2.743488E 03
		F	2.083108E 01
		AZ	6.712213E 01
		LON	1.392445E 02
		AZE	6.579797E 01
		IAC	9.215314E 00
		CYA	-1.155592E-01
		VRA	-0.000000E-39

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TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.279458E 06	YYY -1.430107E C5	ZZZ -6.170274E 06	9.285000E 03
DXX 7.301398E 03	DYY -2.621891E 01	DZZ -2.700331E 03	
R 6.579412E 06	WT 2.970553E C5	F 2.140276E 01	
V 7.784785E 03	PTH 2.494857E-02	AZ 6.698425E 01	
ALT 2.047185E 05	LAT -2.371330E 01	LON 1.395647E 02	
VE 7.382480E 03	PTE 2.630834E-02	AZE 6.565118E 01	
ANG 4.094125E 00	NFA 6.972722E 01	IAC 9.215339E 00	
CPA 1.642719E 01	VPA 1.642719E C1	CYA -1.084813E-01	
VYA -1.084813E-01	CRA -0.000000E-39	VRA -0.000000E-39	

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.242911E 06	YYY -1.431394E C5	ZZZ -6.183667E 06	9.290000E 03
DXX 7.317256E 03	DYY -2.526457E 01	DZZ -2.657080E 03	
R 6.579428E 06	WT 2.970404E 05	F 2.197443E 01	
V 7.784789E 03	PTH 2.478767E-02	AZ 6.684736E 01	
ALT 2.046988E 05	LAT -2.358040E 01	LON 1.398842E 02	
VE 7.382511E 03	PTE 2.613815E-02	AZE 6.550544E 01	
ANG 4.097005E 00	NFA 6.960932E C1	IAC 9.215365E 00	
CPA 1.608814E 01	VPA 1.608814E C1	CYA -1.013977E-01	
VYA -1.013977E-01	CRA -0.000000E-39	VRA -0.000000E-39	

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.206285E 06	YYY -1.432633E 05	ZZZ -6.196844E 06	9.295000E 03
DXX 7.332858E 03	DYY -2.430910E 01	DZZ -2.613735E 03	
R 6.579445E 06	WT 2.970255E C5	F 2.254611E 01	
V 7.784793E 03	PTH 2.462637E-C2	AZ 6.671148E 01	
ALT 2.046791E 05	LAT -2.344676E C1	LON 1.402030E 02	
VE 7.382542E 03	PTE 2.596825E-02	AZF 6.536075E 01	
ANG 4.099996E 00	NFA 6.949225E 01	IAC 9.215391E 00	
CPA 1.574909E 01	VPA 1.574909E C1	CYA -9.430846E-02	
VYA -9.430846E-02	CRA -0.000000E-39	VRA -0.000000E-39	

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.169583E 06	YYY -1.433825E 05	ZZZ -6.209804E 06	03
DXX 7.348202E 03	DYY -2.335251E 01	DZZ -2.570299E 03	03
R 6.579462E 06	WT 2.970106E 05	F 2.311778E 01	01
V 7.784798E 03	PTH 2.446211E-02	AZ 6.657660E 01	01
ALT 2.046590E 05	LAT -2.331238E 01	LON 1.405211E 02	02
VE 7.382573E 03	PTE 2.579532E-02	AZE 6.521711E 01	01
ANG 4.102779E 00	NFA 6.937602E 01	IAC 9.215418E 00	00
CPA 1.541004E 01	VPA 1.541004E 01	CYA -8.721390E-02	02
VYA -8.721390E-02	CRA -0.000000E-39	VRA -0.000000E-39	39

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.132804E 06	YYY -1.434968E 05	ZZZ -6.222547E 06	06
DXX 7.363292E 03	DYY -2.239484E 01	DZZ -2.526773E 03	03
R 6.579478E 06	WT 2.969957E 05	F 2.368946E 01	01
V 7.784802E 03	PTH 2.429766E-02	AZ 6.644273E 01	01
ALT 2.046385E 05	LAT -2.317727E 01	LON 1.408386E 02	02
VE 7.382604E 03	PTE 2.562159E-02	AZE 6.707453E 01	01
ANG 4.105660E 00	NFA 6.926062E 01	IAC 9.215445E 00	00
CPA 1.507099E 01	VPA 1.507099E 01	CYA -8.011425E-02	02
VYA -8.011425E-02	CRA -0.000000E-39	VRA -0.000000E-39	39

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.095950E 06	YYY -1.436064E 05	ZZZ -6.235072E 06	06
DXX 7.379122E 03	DYY -2.143613E 01	DZZ -2.483158E 03	03
R 6.579495E 06	WT 2.969809E 05	F 2.426113E 01	01
V 7.784807E 03	PTH 2.413217E-02	AZ 6.630986E 01	01
ALT 2.046186E 05	LAT -2.304144E 01	LON -2.188447E 02	02
VE 7.382636E 03	PTE 2.544664E-02	AZE 6.493300E 01	01
ANG 4.108533E 00	NFA 6.914606E 01	IAC 9.215473E 00	00
CPA 1.473194E 01	VPA 1.473194E 01	CYA -7.300973E-02	02
VYA -7.300973E-02	CRA -0.000000E-39	VRA -0.000000E-39	39

TABLE 10-I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-2.059023E 06	YYY	-1.437112E 05
DXX	7.392695E 03	DYY	-2.047640E 01
R	6.579511E 06	WT	2.969660E 05
V	7.784812E 03	PTH	2.396354E-02
ALT	2.045982E 05	LAT	-2.290489E 01
VE	7.382668E 03	PTE	2.526865E-02
ANG	4.111428E 00	NFA	6.903233E 01
CPA	1.439288E 01	VPA	1.439288E 01
VYA	-6.590059E-02	CRA	-0.000000E-39
		ZZZ	-6.247379E 06
		DZZ	-2.439456E 03
		F	2.483281E 01
		AZ	6.617801E 01
		LON	-2.185286E 02
		AZE	6.479252E 01
		IAC	9.215501E 00
		CYA	-6.590059E-02
		VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-2.022024E 06	YYY	-1.438112E 05
DXX	7.407008E 03	DYY	-1.951569E 01
R	6.579527E 06	WT	2.969511E 05
V	7.784817E 03	PTH	2.379539E-02
ALT	2.045777E 05	LAT	-2.276763E 01
VE	7.382700E 03	PTE	2.509132E-02
ANG	4.114291E 00	NFA	6.891944E 01
CPA	1.405383E 01	VPA	1.405383E 01
VYA	-5.878707E-02	CRA	-0.000000E-39
		ZZZ	-6.259466E 06
		DZZ	-2.395669E 03
		F	2.540448E 01
		AZ	6.604715E 01
		LON	-2.182132E 02
		AZE	6.465311E 01
		IAC	9.215529E 00
		CYA	-5.878707E-02
		VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-1.984953E 06	YYY	-1.439063E 05
DXX	7.421063E 03	DYY	-1.855403E 01
R	6.579543E 06	WT	2.969362E 05
V	7.784823E 03	PTH	2.362360E-02
ALT	2.045570E 05	LAT	-2.262967E 01
VE	7.382732E 03	PTE	2.490994E-02
ANG	4.117187E 00	NFA	6.880739E 01
CPA	1.371478E 01	VPA	1.371478E 01
VYA	-5.166940E-02	CRA	-0.000000E-39
		ZZZ	-6.271335E 06
		DZZ	-2.351798E 03
		F	2.597616E 01
		AZ	6.591731E 01
		LON	-2.178985E 02
		AZE	6.451475E 01
		IAC	9.215558E 00
		CYA	-5.166940E-02
		VRA	-0.000000E-39

TABLE 10-I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	-1.947814E 06	YYY	-1.439967E 05	ZZZ	-6.282984E 06
DXX	7.434857E 03	DYY	-1.759145E 01	DZZ	-2.307844E 03
R	6.579560E 06	WT	2.969213E 05	F	2.654783E 01
V	7.784829E 03	PTH	2.345189E-02	AZ	6.578848E 01
ALT	2.045363E 05	LAT	-2.249101E 01	LON	-2.175844E 02
VE	7.382765E 03	PTE	2.472907E-02	AZE	6.437744E 01
ANG	4.120064E 00	NFA	6.869619E 01	IAC	9.215586E 00
CPA	1.337572E 01	VPA	1.337572E 01	CYA	-4.454782E-02
VYA	-0.454782E-02	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	-1.910605E 06	YYY	-1.440823E 05	ZZZ	-6.294413E 06
DXX	7.448392E 03	DYY	-1.662799E 01	DZZ	-2.263809E 03
R	6.579575E 06	WT	2.969064E 05	F	2.711951E 01
V	7.784835E 03	PTH	2.327777E-02	AZ	6.566066E 01
ALT	2.045152E 05	LAT	-2.235166E 01	LON	-2.172711E 02
VE	7.382798E 03	PTE	2.454531E-02	AZE	6.424120E 01
ANG	4.122945E 00	NFA	6.858583E 01	IAC	9.215616E 00
CPA	1.303667E 01	VPA	1.303667E 01	CYA	-3.742256E-02
VYA	-3.742256E-02	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	-1.873330E 06	YYY	-1.441630E 05	ZZZ	-6.305622E 06
DXX	7.461666E 03	DYY	-1.566367E 01	DZZ	-2.219695E 03
R	6.579591E 06	WT	2.968915E 05	F	2.769118E 01
V	7.784841E 03	PTH	2.310243E-02	AZ	6.553384E 01
ALT	2.044942E 05	LAT	-2.221162E 01	LON	-2.169584E 02
VE	7.382831E 03	PTE	2.436026E-02	AZE	6.410602E 01
ANG	4.125817E 00	NFA	6.847632E 01	IAC	9.215645E 00
CPA	1.269761E 01	VPA	1.269761E 01	CYA	-3.029388E-02
VYA	-3.029388E-02	CRA	-0.000000E-39	VRA	-0.000000E-39

TABLE 10-I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-1.835989E 06	YYY	-1.442389E 05
DXX	7.474679E 03	DYY	-1.469853E 01
R	6.579607E 06	WT	2.968766E 05
V	7.784847E 03	PTH	2.292599E-02
ALT	2.044731E 05	LAT	-2.207090E 01
VE	7.382864E 03	PTE	2.417441E-02
ANG	4.128688E 00	NFA	6.836765E 01
CPA	1.235855E 01	VPA	1.235855E 01
VYA	-2.316201E-02	CRA	-0.000000E-39
		ZZZ	-6.316610E 06
		DZZ	-2.175503E 03
		F	2.826286E 01
		A7	6.540804E 01
		LON	-2.166464E 02
		AZE	6.397190E 01
		IAC	9.215675E 00
		CYA	-2.316201E-02
		VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-1.798584E 06	YYY	-1.443100E 05
DXX	7.487430E 03	DYY	-1.373260E 01
R	6.579622E 06	WT	2.968617E 05
V	7.784854E 03	PTH	2.274962E-02
ALT	2.044518E 05	LAT	-2.192950E 01
VE	7.382898E 03	PTE	2.398820E-02
ANG	4.131557E 00	NFA	6.825984E 01
CPA	1.201949E 01	VPA	1.201949E 01
VYA	-1.602717E-02	CRA	-0.000000E-39
		ZZZ	-6.327377E 06
		DZZ	-2.17124E 03
		F	2.883453E 01
		AZ	6.528325E 01
		LON	-2.163350E 02
		AZE	6.383884E 01
		IAC	9.215705E 00
		CYA	-1.602717E-02
		VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-1.761115E 06	YYY	-1.443762E 05
DXX	7.499919E 03	DYY	-1.276591E 01
R	6.579638E 06	WT	2.968468E 05
V	7.784861E 03	PTH	2.256961E-02
ALT	2.044304E 05	LAT	-2.178744E 01
VE	7.382931E 03	PTE	2.379846E-02
ANG	4.134424E 00	NFA	6.815287E 01
CPA	1.168043E 01	VPA	1.168043E 01
VYA	-8.889625E-03	CRA	-0.000000E-39
		ZZZ	-6.337923E 06
		DZZ	-2.176891E 03
		F	2.940621E 01
		AZ	6.515947E 01
		LON	-2.160243E 02
		AZE	6.370684E 01
		IAC	9.215736E 00
		CYA	-8.889625E-03
		VRA	-0.000000E-39

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONT INUED)

GEOCENTRIC REFERENCE		FLIGHT TIME		9.360000E 03
XXX	-1.723585E 06	YYY	-1.444376E 05	ZZZ -6.348246E 06
DXX	7.512146E 03	DYY	-1.179849E 01	DZZ -2.042475E 03
R	6.579653E 06	WT	2.968319E 05	F 2.997788E 01
V	7.784868E 03	PTH	2.238934E-02	AZ 6.503670E 01
ALT	2.044091E 05	LAT	-2.164472E 01	LON -2.157143E 02
VE	7.382965E 03	PTE	2.360813E-02	AZF 6.357590E 01
ANG	4.137283E 00	NFA	6.804676E 01	IAC 9.215766F 00
CPA	1.134137E 01	VPA	1.134137F 01	CYA -1.749604E-03
VYA	-1.749604E-03	CRA	-0.000000E-39	VRA -0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME		9.365000E 03
XXX	-1.685794E 06	YYY	-1.444942E 05	ZZZ -6.358347E 06
DXX	7.524109E 03	DYY	-1.083038E 01	DZZ -1.997987E 03
R	6.579668E 06	WT	2.968170E 05	F 3.054956E 01
V	7.784875E 03	PTH	2.220776E-02	AZ 6.491494F 01
ALT	2.043874E 05	LAT	-2.150134E 01	LON -2.154049E 02
VE	7.383000E 03	PTE	2.341659E-02	AZE 6.344603E 01
ANG	4.140151E 00	NFA	6.794150E 01	IAC 9.215798E 00
CPA	1.100231E 01	VPA	1.100231E 01	CYA 5.392659E-03
VYA	5.392659E-03	CRA	-0.000000E-39	VRA -0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME		9.370000E 03
XXX	-1.648344E 06	YYY	-1.445459E 05	ZZZ -6.368226E 06
DXX	7.535810E 03	DYY	-9.861614E 00	DZZ -1.953428E 03
R	6.579683E 06	WT	2.968021E 05	F 3.112123E 01
V	7.784883E 03	PTH	2.202475E-02	AZ 6.479420E 01
ALT	2.043657E 05	LAT	-2.135732E 01	LON -2.150962E 02
VE	7.383034E 03	PTE	2.322360E-02	AZE 6.331722E 01
ANG	4.142994E 00	NFA	6.783710E 01	IAC 9.215829E 00
CPA	1.066325E 01	VPA	1.066325E 01	CYA 1.253691E-02
VYA	1.253691E-02	CRA	-0.000000E-39	VRA -0.000000E-39

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME		9.375000E 03
XXX	-1.610637E 06	YYY	-1.445928E 05	ZZZ -6.377881E 06
DXX	7.547246E 03	DYY	-8.892216E 00	DZZ -1.908802E 03
R	6.579698E 06	WT	2.967873E 05	F 3.169291E 01
V	7.784891E 03	PTH	2.184194E-02	A7 6.467446E 01
ALT	2.043440E 05	LAT	-2.121264E 01	LON -2.147881E 02
VE	7.383069E 03	PTE	2.303054E-02	AZE 6.318947E 01
ANG	4.145847E 00	NFA	6.773355E 01	IAC 9.215861E 00
CPA	1.032419E 01	VPA	1.032419E 01	CYA 1.968293E-02
VYA	1.968293E-02	CRA	-0.000000E-39	VRA -0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME		9.380000E 03
XXX	-1.572872E 06	YYY	-1.446348E 05	ZZZ -6.387314E 06
DXX	7.558419E 03	DYY	-7.922221E 00	DZZ -1.864108E 03
R	6.579713E 06	WT	2.967724E 05	F 3.226458E 01
V	7.784899E 03	PTH	2.165543E-02	AZ 6.455574E 01
ALT	2.043222E 05	LAT	-2.106734E 01	LON -2.144806E 02
VE	7.383104E 03	PTE	2.283379E-02	AZE 6.306279E 01
ANG	4.148698E 00	NFA	6.763086E 01	IAC 9.215893E 00
CPA	9.985128E 00	VPA	9.985128E 00	CYA 2.683045E-02
VYA	2.683045E-02	CRA	-0.000000E-39	VRA -0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME		9.385000E 03
XXX	-1.535053E 06	YYY	-1.446720E 05	ZZZ -6.396522E 06
DXX	7.569327E 03	DYY	-6.951662E 00	DZZ -1.819348E 03
R	6.579727E 06	WT	2.967575E 05	F 3.283626E 01
V	7.784907E 03	PTH	2.146933E-02	AZ 6.443803E 01
ALT	2.043002E 05	LAT	-2.092140E 01	LON -2.141739E 02
VE	7.383139E 03	PTE	2.263741E-02	AZF 6.293716E 01
ANG	4.151536E 00	NFA	6.752903E 01	IAC 9.215925E 00
CPA	9.646065E 00	VPA	9.646065E 00	CYA 3.397926E-02
VYA	3.397926E-02	CRA	-0.000000E-39	VRA -0.000000E-39

TABLE 10-I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1966 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - FIRST OPPORTUNITY
(CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME 9.390000E 03		
XXX	-1.497179E 06	YYY	-1.447044E 05	ZZZ	-6.405507E 06
DXX	7.579970E 03	DYY	-5.980572E 00	DZZ	-1.774525E 03
R	6.579742E 06	WT	2.967426E 05	F	3.340793E 01
V	7.784916E 03	PTH	2.128146E-02	AZ	6.432132E 01
ALT	2.042784E 05	LAT	-2.077483E 01	LON	-2.138677E 02
VE	7.383174E 03	PTE	2.243938E-02	AZE	6.281261E 01
ANG	4.154365E 00	NFA	6.742806E 01	IAC	9.215957E 00
CPA	9.307000E 00	VPA	9.307000E 00	CYA	4.112910E-02
VYA	4.112910E-02	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME 9.395000E 03		
XXX	-1.459254E 06	YYY	-1.447318E 05	ZZZ	-6.414267E 06
DXX	7.590347E 03	DYY	-5.008982E 00	DZZ	-1.729640E 03
R	6.579756E 06	WT	2.967277E 05	F	3.397961E 01
V	7.784924E 03	PTH	2.109235E-02	AZ	6.420564E 01
ALT	2.042562E 05	LAT	-2.062765E 01	LON	-2.135622E 02
VE	7.383209E 03	PTE	2.223982E-02	AZE	6.268912E 01
ANG	4.157193E 00	NFA	6.732795E 01	IAC	9.215990E 00
CPA	8.567935E 00	VPA	8.967935E 00	CYA	4.827973E-02
VYA	4.827973E-02	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME 9.400000E 03		
XXX	-1.421276E 06	YYY	-1.447545E 05	ZZZ	-6.422803E 06
DXX	7.600459E 03	DYY	-4.036925E 00	DZZ	-1.684694E 03
R	6.579771E 06	WT	2.967128E 05	F	3.455128E 01
V	7.784933E 03	PTH	2.090160E-02	AZ	6.409096E 01
ALT	2.042340E 05	LAT	-2.047985E 01	LON	-2.132573E 02
VE	7.383245E 03	PTE	2.20131E-02	AZE	6.256669E 01
ANG	4.160018E 00	NFA	6.722871E 01	IAC	9.216023E 00
CPA	5.628869E 00	VPA	8.628869E 00	CYA	5.543092E-02
VYA	5.543092E-02	CRA	-0.000000E-39	VRA	-0.000000E-39

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-1.383249E 06	YYY	-1.447722E 05	ZZZ	9.405000E 03
DXX	7.610305E 03	DYY	-3.064435E 00	DZZ	-6.431114E 06
R	6.579785E 06	WT	2.966979E 05	F	-1.639688E 03
V	7.784942E 03	PTH	2.071064E-02	AZ	3.512296E 01
ALT	2.042119E 05	LAT	-2.033144E 01	LON	6.397729E 01
VE	7.383281E 03	PTE	2.183733E-02	AZE	-2.129531E 02
ANG	4.162824E 00	NFA	6.713032E 01	IAC	6.244532E 01
CPA	8.289802E 00	VPA	8.289802E 00	CYA	9.216056E 00
VYA	6.258242E-02	CRA	-0.000000E-39	VRA	6.258242E-02
					-0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-1.345174E 06	YYY	-1.447851E 05	ZZZ	9.410000E 03
DXX	7.619885E 03	DYY	-2.091542E 00	DZZ	-6.439200E 06
R	6.579799E 06	WT	2.966830E 05	F	-1.594625E 03
V	7.784952E 03	PTH	2.051825E-02	AZ	3.569463E 01
ALT	2.041895E 05	LAT	-2.018244E 01	LON	6.386463E 01
VE	7.383317E 03	PTE	2.163432E-02	AZE	-2.126494E 02
ANG	4.165628E 00	NFA	6.703280E 01	IAC	6.232502E 01
CPA	7.550734E 00	VPA	7.950734E 00	CYA	9.216089E 00
VYA	6.573400E-02	CRA	-0.000000E-39	VRA	6.973400E-02
					-0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-1.307051E 06	YYY	-1.447931E 05	ZZZ	9.415000E 03
DXX	7.629197E 03	DYY	-1.118281E 00	DZZ	-6.447060E 06
R	6.579813E 06	WT	2.966681E 05	F	-1.549506E 03
V	7.784961E 03	PTH	2.032564E-02	AZ	3.626631E 01
ALT	2.041673E 05	LAT	-2.003283E 01	LON	6.375298E 01
VE	7.383353E 03	PTE	2.143109E-02	AZE	-2.123464E 02
ANG	4.168425E 00	NFA	6.693615E 01	IAC	6.220579E 01
CPA	7.611665E 00	VPA	7.611665E 00	CYA	9.216123E 00
VYA	7.688541E-02	CRA	-0.000000E-39	VRA	7.688541E-02
					-0.000000E-39

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-1.268882E 06	YYY	-1.447963E 05	ZZZ	-6.454695E 06
DXX	7.638243E 03	DYY	-1.446834E-01	DZZ	-1.504332E 03
R	6.579826E 06	WT	2.966532E 05	F	3.683798E 01
V	7.784971E 03	PTH	2.013037E-02	AZ	6.364234E 01
ALT	2.041450E 05	LAT	-1.988264E 01	LON	-2.120441E 02
VE	7.383389E 03	PTE	2.122526E-02	AZE	6.208762E 01
ANG	4.171208E 00	NFA	6.684036E 01	IAC	9.216157E 00
CPA	7.272596E 00	VPA	7.272596E 00	CYA	8.403641E-02
VYA	8.403641E-02	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-1.230669E 06	YYY	-1.447946E 05	ZZZ	-6.462104E 06
DXX	7.647022E 03	DYY	8.292182E-01	DZZ	-1.459106E 03
R	6.579840E 06	WT	2.966383E 05	F	3.740967E 01
V	7.784981E 03	PTH	1.993346E-02	AZ	6.353271E 01
ALT	2.041225E 05	LAT	-1.973187E 01	LON	-2.117423E 02
VE	7.383425E 03	PTE	2.101742E-02	AZE	6.197051E 01
ANG	4.173989E 00	NFA	6.674544E 01	IAC	9.216191E 00
CPA	6.533526E 00	VPA	6.933526E 00	CYA	9.118676E-02
VYA	9.118676E-02	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-1.192412E 06	YYY	-1.447880E 05	ZZZ	-6.469286E 06
DXX	7.655532E 03	DYY	1.803391E 00	DZZ	-1.413828E 03
R	6.579853E 06	WT	2.966234E 05	F	3.798133E 01
V	7.784991E 03	PTH	1.973709E-02	AZ	6.342409E 01
ALT	2.041001E 05	LAT	-1.958051E 01	LON	-2.114411E 02
VE	7.383462E 03	PTE	2.081044E-02	AZE	6.185446E 01
ANG	4.176756E 00	NFA	6.665139E 01	IAC	9.216225E 00
CPA	6.594454E 00	VPA	6.594454E 00	CYA	9.833622E-02
VYA	9.833622E-02	CRA	-0.000000E-39	VRA	-0.000000E-39

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	-1.154114E 06	YYY	-1.447765E 05	ZZZ	-6.476242E 06
DXX	7.663775E 03	DYY	2.777802E 00	DZZ	-1.368501E 03
R	6.579867E 06	WT	2.966085E 05	F	3.855301E 01
V	7.785001E 03	PTH	1.953956E-02	AZ	6.331647E 01
ALT	2.040776E 05	LAT	-1.942859E 01	LON	-2.111406E 02
VE	7.383498E 03	PTE	2.060202E-02	AZE	6.173948E 01
ANG	4.179504E 00	NFA	6.655820E 01	IAC	9.216259E 00
CPA	6.255382E 00	VPA	6.255382E 00	CYA	1.054845E-01
VYA	1.054845E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	-1.115775E 06	YYY	-1.447602E 05	ZZZ	-6.482971E 06
DXX	7.671749E 03	DYY	3.752420E 00	DZZ	-1.323125E 03
R	6.579880E 06	WT	2.965937E 05	F	3.912468E 01
V	7.785012E 03	PTH	1.934032E-02	AZ	6.320987E 01
ALT	2.040551E 05	LAT	-1.927610E 01	LON	-2.108406E 02
VE	7.383535E 03	PTE	2.039173E-02	AZE	6.162556E 01
ANG	4.182268E 00	NFA	6.646588E 01	IAC	9.216294E 00
CPA	5.916309E 00	VPA	5.916309E 00	CYA	1.126315E-01
VYA	1.126315E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	-1.077397E 06	YYY	-1.447390E 05	ZZZ	-6.489473E 06
DXX	7.679455E 03	DYY	4.727210E 00	DZZ	-1.277703E 03
R	6.579893E 06	WT	2.965788E 05	F	3.969636E 01
V	7.785023E 03	PTH	1.914026E-02	AZ	6.310426E 01
ALT	2.040325E 05	LAT	-1.912305E 01	LON	-2.105413E 02
VE	7.383572E 03	PTE	2.018108E-02	AZE	6.151270E 01
ANG	4.185012E 00	NFA	6.637444E 01	IAC	9.216329E 00
CPA	5.577234E 00	VPA	5.577234E 00	CYA	1.197768E-01
VYA	1.197768E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME		9.450000E 03
XXX	-1.038981E 06	YYY	-1.447129E 05	ZZZ -6.495748E 06
DXX	7.686892E 03	DYY	5.702141E 00	DZZ -1.232236E 03
R	6.579906E 06	WT	2.965639E 05	F 4.026803E 01
V	7.785034E 03	PTH	1.893931E-02	AZ 6.299967E 01
ALT	2.040101E 05	LAT	-1.896944E 01	LON -2.102425E 02
VE	7.383609E 03	PTE	1.996877E-02	AZE 6.140090E 01
ANG	4.187743E 00	NFA	6.628386E 01	IAC 9.216363E 00
CPA	5.238160E 00	VPA	5.238160E 00	CYA 1.269203E-01
VYA	1.269203E-01	CRA	-0.000000E-39	VRA -0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME		9.455000E 03
XXX	-1.000525E 06	YYY	-1.446820E 05	ZZZ -6.501795E 06
DXX	7.694060E 03	DYY	6.677179E 00	DZZ -1.186725E 03
R	6.579919E 06	WT	2.965490E 05	F 4.083971E 01
V	7.785045E 03	PTH	1.873767E-02	AZ 6.289608E 01
ALT	2.039874E 05	LAT	-1.881529E 01	LON -2.099444E 02
VE	7.383646E 03	PTE	1.975631E-02	AZE 6.129017E 01
ANG	4.190460E 00	NFA	6.619416E 01	IAC 9.216398E 00
CPA	4.899083E 00	VPA	4.899083E 00	CYA 1.340617E-01
VYA	1.340617E-01	CRA	-0.000000E-39	VRA -0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME		9.460000E 03
XXX	-9.620409E 05	YYY	-1.446462E 05	ZZZ -6.507615E 06
DXX	7.700959E 03	DYY	7.652293E 00	DZZ -1.141173E 03
R	6.579932E 06	WT	2.965341E 05	F 4.141138E 01
V	7.785056E 03	PTH	1.853446E-02	AZ 6.279350E 01
ALT	2.039649E 05	LAT	-1.866059E 01	LON -2.096468E 02
VE	7.383683E 03	PTE	1.954184E-02	AZE 6.118050E 01
ANG	4.193176E 00	NFA	6.610533E 01	IAC 9.216433E 00
CPA	4.560006E 00	VPA	4.560006E 00	CYA 1.412008E-01
VYA	1.412008E-01	CRA	-0.000000E-39	VRA -0.000000E-39

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME					
XXX	-9.235195E 05	YYY	-1.446055E 05	ZZZ	9.465000E 03		-6.513207E 06
DXX	7.707588E 03	DYY	8.627448E 00	DZZ	-1.095580E 03		
R	6.579944E 06	WT	2.965192E 05	F	4.198306E 01		
V	7.785068E 03	PTH	1.833022E-02	AZ	6.269192E 01		
ALT	2.039423E 05	LAT	-1.850536E 01	LON	-2.093498E 02		
VE	7.383721E 03	PTE	1.932643E-02	AZE	6.107188E 01		
ANG	4.195872E 00	NFA	6.601737E 01	IAC	9.216469E 00		
CPA	4.220929E 00	VPA	4.220929E 00	CYA	1.483372E-01		
VYA	1.483372E-01	CRA	-0.000000E-39	VRA	-0.000000E-39		

GEOCENTRIC REFERENCE		FLIGHT TIME					
XXX	-8.849655E 05	YYY	-1.445599E 05	ZZZ	9.470000E 03		-6.518571E 06
DXX	7.713947E 03	DYY	9.602613E 00	DZZ	-1.049949E 03		
R	6.579956E 06	WT	2.965043E 05	F	4.255473E 01		
V	7.785079E 03	PTH	1.812571E-02	AZ	6.259134E 01		
ALT	2.039196E 05	LAT	-1.834959E 01	LON	-2.090534E 02		
VE	7.383758E 03	PTE	1.911102E-02	AZE	6.096433E 01		
ANG	4.198544E 00	NFA	6.593028E 01	IAC	9.216504E 00		
CPA	3.881850E 00	VPA	3.881850E 00	CYA	1.554709E-01		
VYA	1.554709E-01	CRA	-0.000000E-39	VRA	-0.000000E-39		

GEOCENTRIC REFERENCE		FLIGHT TIME					
XXX	-8.461304E 05	YYY	-1.445094E 05	ZZZ	9.475000E 03		-6.523706E 06
DXX	7.720036E 03	DYY	1.057775E 01	DZZ	-1.004281E 03		
R	6.579969E 06	WT	2.964894E 05	F	4.312641E 01		
V	7.785091E 03	PTH	1.791867E-02	AZ	6.249176E 01		
ALT	2.038970E 05	LAT	-1.819330E 01	LON	-2.087576E 02		
VE	7.383796E 03	PTE	1.889244E-02	AZE	6.085784E 01		
ANG	4.201207E 00	NFA	6.584407E 01	IAC	9.216540E 00		
CPA	3.542770E 00	VPA	3.542770E 00	CYA	1.626015E-01		
VYA	1.626015E-01	CRA	-0.000000E-39	VRA	-0.000000E-39		

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-8.077656E 05	YYY	-1.444541E 05	ZZZ	-6.528614E 06
DXX	7.725854E 03	DYY	1.155284E 01	DZZ	-9.585778E 02
R	6.579981E 06	WT	2.964745E 05	F	4.369808E 01
V	7.785103E 03	PTH	1.771306E-02	AZ	6.239319E 01
ALT	2.038744E 05	LAT	-1.803649E 01	LON	-2.094623E 02
VE	7.383833E 03	PTE	1.867574E-02	AZE	6.075240E 01
ANG	4.203881E 00	NFA	6.575873E 01	IAC	9.216575E 00
CPA	3.203689E 00	VPA	3.203689E 00	CYA	1.697287E-01
VYA	1.697287E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-7.691223E 05	YYY	-1.443939E 05	ZZZ	-6.533292E 06
DXX	7.731403E 03	DYY	1.252784E 01	DZZ	-9.128405E 02
R	6.579993E 06	WT	2.964596E 05	F	4.426976E 01
V	7.785115E 03	PTH	1.750540E-02	AZ	6.229561E 01
ALT	2.038519E 05	LAT	-1.787916E 01	LON	-2.081676E 02
VE	7.383871E 03	PTE	1.845665E-02	AZE	6.064803E 01
ANG	4.206524E 00	NFA	6.567426E 01	IAC	9.216611E 00
CPA	2.864607E 00	VPA	2.864607E 00	CYA	1.768525E-01
VYA	1.768525E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-7.304520E 05	YYY	-1.443288E 05	ZZZ	-6.537742E 06
DXX	7.736681E 03	DYY	1.350271E 01	DZZ	-8.670710E 02
R	6.580005E 06	WT	2.964447E 05	F	1.848300E 02
V	7.785128E 03	PTH	1.729582E-02	AZ	6.219904E 01
ALT	2.038293E 05	LAT	-1.772133E 01	LON	-2.078734E 02
VE	7.383909E 03	PTE	1.823562E-02	AZE	6.054471E 01
ANG	4.209154E 00	NFA	6.559067E 01	IAC	9.216962E 00
CPA	2.525524E 00	VPA	2.525524E 00	CYA	1.839729E-01
VYA	1.839729E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME					
XXX	-6.917559E 05	YYY	-1.442589E 05	ZZZ	-6.541963E 06		9.495000E 03
DXX	7.741705E 03	DYY	1.447749E 01	DZZ	-8.212716E 02		
R	6.580016E 06	WT	2.964298E 05	F	1.400000E 02		
V	7.785158E 03	PTH	1.708025E-C2	AZ	6.210347E 01		
ALT	2.038067E 05	LAT	-1.756299E 01	LON	-2.075798E 02		
VE	7.383964E 03	PTE	1.800806E-C2	AZE	6.044245E 01		
ANG	4.211765E 00	NFA	6.550800E 01	IAC	9.216895E 00		
CPA	2.186432E 00	VPA	2.186432E 00	CYA	1.910891E-01		
VYA	1.910891E-01	CRA	-0.000000E-39	VRA	-0.000000E-39		

GEOCENTRIC REFERENCE		FLIGHT TIME					
XXX	-6.530354E 05	YYY	-1.441841E 05	ZZZ	-6.545955E 06		9.500000E 03
DXX	7.746456E 03	DYY	1.545208E 01	DZZ	-7.754431E 02		
R	6.580028E 06	WT	2.964149E 05	F	1.400000E 02		
V	7.785187E 03	PTH	1.686407E-C2	AZ	6.200889E 01		
ALT	2.037841E 05	LAT	-1.740416E 01	LON	-2.072868E 02		
VE	7.384018E 03	PTE	1.778007E-C2	AZE	6.034125E 01		
ANG	4.214379E 00	NFA	6.542619E 01	IAC	9.216930E 00		
CPA	1.847341E 00	VPA	1.847341E 00	CYA	1.982018E-01		
VYA	1.982018E-01	CRA	-0.000000E-39	VRA	-0.000000E-39		

GEOCENTRIC REFERENCE		FLIGHT TIME					
XXX	-6.142918E 05	YYY	-1.441044E 05	ZZZ	-6.549717E 06		9.505000E 03
DXX	7.750936E 03	DYY	1.642644E 01	DZZ	-7.295870E 02		
R	6.580039E 06	WT	2.964000E 05	F	1.400000E 02		
V	7.785215E 03	PTH	1.664851E-C2	AZ	6.191531E 01		
ALT	2.037614E 05	LAT	-1.724484E 01	LON	-2.069943E 02		
VE	7.384071E 03	PTE	1.755302E 2	AZE	6.024110E 01		
ANG	4.216958E 00	NFA	6.534527E 01	IAC	9.216965E 00		
CPA	1.508249E 00	VPA	1.508249E 00	CYA	2.053087E-01		
VYA	2.053087E-01	CRA	-0.000000E-39	VRA	-0.000000E-39		

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -5.755265E 05	YYY -1.440198E 05	ZZZ -6.510000E 03	03
DXX 7.755144E 03	DYY 1.740056E 01	DZZ -6.553250E 06	06
R 6.580050E 06	WT 2.963852E 05	F 1.400000E 02	02
V 7.785243E 03	PTH 1.643479E-02	AZ 6.182272E 01	01
ALT 2.037389E 05	LAT -1.708502E 01	LON -2.067023E 02	02
VE 7.384124E 03	PTE 1.732749E-02	AZE 6.014200E 01	01
ANG 4.219523E 00	NFA 6.526523E 01	IAC 9.217000E 00	00
CPA 1.169157E 00	VPA 1.169157E 00	CYA 2.124112E-01	-01
VYA 2.124112E-01	CRA -0.000000E-39	VRA -0.000000E-39	-39

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -5.367408E 05	YYY -1.439304E 05	ZZZ -6.515000E 03	03
DXX 7.759081E 03	DYY 1.837439E 01	DZZ -6.556554E 06	06
R 6.580061E 06	WT 2.963703E 05	F 1.400000E 02	02
V 7.785272E 03	PTH 1.622039E-02	AZ 6.173113E 01	01
ALT 2.037164E 05	LAT -1.692473E 01	LON -2.064109E 02	02
VE 7.384178E 03	PTE 1.710146E-02	AZE 6.004397E 01	01
ANG 4.222092E 00	NFA 6.518606E 01	IAC 9.217035E 00	00
CPA 8.300646E-01	VPA 8.300646E-01	CYA 2.195086E-01	-01
VYA 2.195086E-01	CRA -0.000000E-39	VRA -0.000000E-39	-39

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -4.579362E 05	YYY -1.438361E 05	ZZZ -6.520000E 03	03
DXX 7.762746E 03	DYY 1.914790E 01	DZZ -6.559628E 06	06
R 6.580072E 06	WT 2.963554E 05	F 1.400000E 02	02
V 7.785301E 03	PTH 1.600750E-02	AZ 6.164053E 01	01
ALT 2.036941E 05	LAT -1.676396E 01	LON -2.061200E 02	02
VE 7.384231E 03	PTE 1.687687E-02	AZE 5.994698E 01	01
ANG 4.224631E 00	NFA 6.510777E 01	IAC 9.217070E 00	00
CPA 4.509721E-01	VPA 4.909721E-01	CYA 2.266009E-01	-01
VYA 2.266009E-01	CRA -0.000000E-39	VRA -0.000000E-39	-39

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-4.591138E 05	YYY	-1.437369E 05
DXX	7.766139E 03	ZZZ	-6.562473E 06
R	6.580083E 06	DYY	2.032106E 01
V	7.785329E 03	DZZ	-5.459199E 02
ALT	2.036716E 05	WT	2.963405E C5
VE	7.384284E 03	F	1.400000F 02
ANG	4.227157E 00	PTH	1.579571E-02
CPA	1.518791E-01	AZ	6.155093F 01
VYA	2.336872E-01	LAT	-1.660273E 01
		LON	-2.058297E 02
		PTE	1.665352E-C2
		AZE	5.985105E 01
		IAC	9.217105E 00
		CYA	2.336872E-01
		VRA	-0.000000E-39
		CRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-4.202752E 05	YYY	-1.436328E C5
DXX	7.769260E 03	ZZZ	-6.565088E 06
R	6.580094E 06	DYY	2.129384E 01
V	7.785358E 03	DZZ	-4.999505E 02
ALT	2.036493E 05	WT	2.963256F C5
VE	7.384337E 03	F	1.400000E 02
ANG	4.229670E 00	PTH	1.558200E-02
CPA	-1.872142E-01	AZ	6.146232E 01
VYA	2.407684E-01	LAT	-1.644103E 01
		LON	-2.055399E 02
		PTE	1.642836E-02
		AZE	5.975616E 01
		IAC	9.217140E 00
		CYA	2.407684E-01
		VRA	-0.000000E-39
		CRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-3.814217E 05	YYY	-1.435239E 05
DXX	7.772109E 03	ZZZ	-6.567472E 06
R	6.580104E 06	DYY	2.226620E 01
V	7.785387E 03	DZZ	-4.539631E 02
ALT	2.036268E 05	WT	2.963107E C5
VE	7.384390E 03	F	1.400000E 02
ANG	4.232164E 00	PTH	1.537220E-C2
CPA	-5.263078E-01	AZ	6.137469E 01
VYA	2.478437E-01	LAT	-1.627887E C1
		LON	-2.052505E 02
		PTE	1.620703E-02
		AZE	5.966233E 01
		IAC	9.217175E 00
		CYA	2.478437E-01
		VRA	-0.000000E-39
		CRA	-0.000000E-39

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	-3.425546E 05	YYY	-1.434102E 05	ZZZ	-6.569627E 06
DXX	7.774685E 03	DYY	2.323812E 01	DZZ	-4.079596E 02
R	6.580115E 06	WT	2.962958E 05	F	1.400000E 02
V	7.785416E 03	PTH	1.516082E-C2	AZ	6.128806E 01
ALT	2.036047E 05	LAT	-1.611626E C1	LON	-2.049617E 02
VE	7.384443E 03	PTE	1.598398E-02	AZE	5.956955E 01
ANG	4.234633E 00	NFA	6.480337E 01	IAC	9.217210E 00
CPA	-8.654016E-01	VPA	-8.654016E-01	CYA	2.549129E-01
VYA	2.549129E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	-3.036753E 05	YYY	-1.432916E 05	ZZZ	-6.571552E 06
DXX	7.776989E 03	DYY	2.420955E 01	DZZ	-3.619414E 02
R	6.580125E 06	WT	2.962809E 05	F	1.400000E 02
V	7.785445E 03	PTH	1.495211E-02	AZ	6.120242E 01
ALT	2.035824E 05	LAT	-1.595320E 01	LON	-2.046734E 02
VE	7.384496E 03	PTE	1.576410E-02	AZE	5.947781E 01
ANG	4.237101E 00	NFA	6.472947E 01	IAC	9.217245E 00
CPA	-1.204496E 00	VPA	-1.204496E 00	CYA	2.619753E-01
VYA	2.619753E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	-2.647852E 05	YYY	-1.431681E 05	ZZZ	-6.573246E 06
DXX	7.779021E 03	DYY	2.518046E 01	DZZ	-3.159102E 02
R	6.580135E 06	WT	2.962660E 05	F	1.400000E 02
V	7.785474E 03	PTH	1.474252E-02	AZ	6.111776E 01
ALT	2.035603E 05	LAT	-1.578970E C1	LON	-2.043856E 02
VE	7.384549E 03	PTE	1.554314E-C2	AZE	5.938713E 01
ANG	4.239555E 00	NFA	6.465643E 01	IAC	9.217280E 00
CPA	-1.543591E 00	VPA	-1.543591E 00	CYA	2.690318E-01
VYA	2.690318E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

TABLE 10-I TRANSUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME		9.555000E 03
XXX	-2.258855E 05	YYY	-1.430398E 05	ZZZ -6.574711E 06
DXX	7.780780E 03	DYY	2.615083E 01	DZZ -2.698676E 02
R	6.580145E 06	WT	2.962511E 05	F 1.400000E 02
V	7.785503E 03	PTH	1.453505E-02	AZ 6.103409E 01
ALT	2.035383E 05	LAT	-1.562576E 01	LON -2.040983E 02
VE	7.384601E 03	PTE	1.532399E-02	AZE 5.929749E 01
ANG	4.241986E 00	NFA	6.458429E 01	IAC 9.217315E 00
CPA	-1.882686E 00	VPA	-1.882686E 00	CYA 2.760797E-01
VYA	2.760797E-01	CRA	-0.000000E-39	VRA -0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME		9.560000E 03
XXX	-1.869778E 05	YYY	-1.429066E 05	ZZZ -6.575945E 06
DXX	7.782267E 03	DYY	2.712062E 01	DZZ -2.238152E 02
R	6.580155E 06	WT	2.962362E 05	F 1.400000E 02
V	7.785532E 03	PTH	1.432628E-02	AZ 6.095141E 01
ALT	2.035163E 05	LAT	-1.546140E 01	LON -2.038115E 02
VE	7.384654E 03	PTE	1.510391E-02	AZE 5.920389E 01
ANG	4.244380E 00	NFA	6.451301E 01	IAC 9.217350E 00
CPA	-2.221781E 00	VPA	-2.221781E 00	CYA 2.831224E-01
VYA	2.831224E-01	CRA	-0.000000E-39	VRA -0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME		9.565000E 03
XXX	-1.480633E 05	YYY	-1.427686E 05	ZZZ -6.576949E 06
DXX	7.783481E 03	DYY	2.808980E 01	DZZ -1.777546E 02
R	6.580164E 06	WT	2.962213E 05	F 1.400000E 02
V	7.785561E 03	PTH	1.412052E-02	AZ 6.086970E 01
ALT	2.034943E 05	LAT	-1.529660E 01	LON -2.035252E 02
VE	7.384706E 03	PTE	1.488672E-02	AZE 5.912134E 01
ANG	4.246773E 00	NFA	6.444262E 01	IAC 9.217385E 00
CPA	-2.560877E 00	VPA	-2.560877E 00	CYA 2.901558E-01
VYA	2.901558E-01	CRA	-0.000000E-39	VRA -0.000000E-39

TABLE 10-1 - TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME		9.570000E 03	
XXX	-1.091435E 05	YYY	-1.426257E 05	ZZZ	-6.577723E 06
DXX	7.784422E 03	DYY	2.905832E 01	DZZ	-1.316875E 02
R	6.580174E 06	WT	2.962064E 05	F	1.400000E 02
V	7.785590E 03	PTH	1.391422E-C2	AZ	6.078898E 01
ALT	2.034724E 05	LAT	-1.513139E C1	LON	-2.032394E 02
VF	7.384759E 03	PTE	1.466931E-C2	AZE	5.903484E 01
ANG	4.249142E 00	NFA	6.437311E 01	IAC	9.217420E 00
CPA	-2.899973E 00	VPA	-2.899973E C0	CYA	2.971824E-01
VYA	2.971824E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME		9.575000E 03	
XXX	-7.021957E 04	YYY	-1.424780E C5	ZZZ	-6.578266E 06
DXX	7.785091E 03	DYY	3.002617E 01	DZZ	-8.561536E 01
R	6.580183E 06	WT	2.961916E C5	F	1.400000E 02
V	7.785619E 03	PTH	1.370887E-02	AZ	6.070925E 01
ALT	2.034506E 05	LAT	-1.496576E 01	LON	-2.029541E 02
VE	7.384811E 03	PTE	1.445285E-C2	AZE	5.894938E 01
ANG	4.251498E 00	NFA	6.430447E 01	IAC	9.217455E 00
CPA	-3.239069E 00	VPA	-3.239069E 00	CYA	3.042013E-01
VYA	3.042013E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME		9.580000E 03	
XXX	-3.129301E 04	YYY	-1.423254E 05	ZZZ	-6.578579E 06
DXX	7.785486E 03	DYY	3.099331E 01	DZZ	-3.953992E 01
R	6.580193E 06	WT	2.961767E 05	F	1.400000E 02
V	7.785648E 03	PTH	1.350305E-C2	AZ	6.063049E 01
ALT	2.034290E 05	LAT	-1.479973E C1	LON	-2.026692E 02
VE	7.384863E 03	PTE	1.423617E-02	AZE	5.886496E 01
ANG	4.253823E 00	NFA	6.423670E C1	IAC	9.217489E 00
CPA	-3.578166E 00	VPA	-3.578166E C0	CYA	3.112124E-01
VYA	3.112124E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - FIRST OPPORTUNITY
(CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	7.634841E 03	YYY	-1.421680E 05	ZZZ	-6.578661E 06
DXX	7.785609E 03	DYY	3.195970E 01	DZZ	6.537254E 00
R	6.580202E 06	WT	2.961618E C5	F	1.400000E 02
V	7.785678E 03	PTH	1.330004E-C2	AZ	6.055271E 01
ALT	2.034075E 05	LAT	-1.463329E 01	LON	-2.023848E 02
VE	7.384914E 03	PTE	1.402187E-02	AZE	5.878158E 01
ANG	4.256148E 00	NFA	6.416982E 01	IAC	9.217524E 00
CPA	-3.917264E 00	VPA	-3.917264E 00	CYA	3.182142E-01
VYA	3.182142E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	4.656263E 04	YYY	-1.420058E 05	ZZZ	-6.578514E 06
DXX	7.785460E 03	DYY	3.292532E 01	DZZ	5.261453E 01
R	6.580211E 06	WT	2.961469E 05	F	1.400000E 02
V	7.785707E 03	PTH	1.309696E-C2	AZ	6.047591E 01
ALT	2.033861E 05	LAT	-1.446645E 01	LON	-2.021008E 02
VE	7.384966E 03	PTE	1.380787E-02	AZE	5.869924E 01
ANG	4.258442E 00	NFA	6.410380E 01	IAC	9.217559E 00
CPA	-4.256361E 00	VPA	-4.256361E 00	CYA	3.252092E-01
VYA	3.252092E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	8.548938E 04	YYY	-1.418388E 05	ZZZ	-6.578135E 06
DXX	7.785735E 03	DYY	3.389417E 01	DZZ	9.874590E 01
R	6.580219E 06	WT	2.961320E 05	F	1.825100E 04
V	7.786434E 03	PTH	1.255378E-02	AZ	6.040008E 01
ALT	2.033647E 05	LAT	-1.429921E 01	LON	-2.018173E 02
VE	7.385716E 03	PTE	1.323497E-02	AZE	5.861811E 01
ANG	4.260620E 00	NFA	6.404064E 01	IAC	9.277773E 00
CPA	-4.595804E 00	VPA	-4.595804E 00	CYA	3.322008E-01
VYA	3.322008E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

TABLE 10-I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.244239E 05	YYY	-1.416669E 05	ZZZ	-6.577526E 06
DXX	7.788028E 03	DYY	3.487570E 01	DZZ	1.450677E 02
R	6.580227E 06	WT	2.961171E 05	F	1.825100E 04
V	7.789457E 03	PTH	1.105510E-02	AZ	6.032521E 01
ALT	2.033427E 05	LAT	-1.413154E 01	LON	-2.015342E 02
VE	7.388758E 03	PTE	1.165448E-02	AZE	5.853855E 01
ANG	4.262510E 00	NFA	6.398483E 01	IAC	9.277827E 00
CPA	-4.936296E 00	VPA	-4.936296E 00	CYA	3.392060E-01
VYA	3.392060E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.555793E 05	YYY	-1.415258E 05	ZZZ	-6.576871E 06
DXX	7.789665E 03	DYY	3.566056E 01	DZZ	1.821347E 02
R	6.580233E 06	WT	2.961052E 05	F	1.825100E 04
V	7.791875E 03	PTH	1.004423E-02	AZ	6.026600E 01
ALT	2.033248E 05	LAT	-1.399709E 01	LON	-2.013080E 02
VE	7.391193E 03	PTE	1.058866E-02	AZE	5.847563E 01
ANG	4.264003E 00	NFA	6.394087E 01	IAC	9.277870E 00
CPA	-5.208595E 00	VPA	-5.208595E 00	CYA	3.448016E-01
VYA	3.448016E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.555793E 05	YYY	-1.415258E 05	ZZZ	-6.576871E 06
DXX	7.789665E 03	DYY	3.566056E 01	DZZ	1.821347E 02
R	6.580233E 06	WT	2.961052E 05	F	2.073030E 05
V	7.791875E 03	PTH	1.004423E-02	AZ	6.026600E 01
ALT	2.033248E 05	LAT	-1.399709E 01	LON	1.586920E 02
VE	7.391193E 03	PTE	1.058866E-02	AZE	5.847563E 01
ANG	4.264003E 00	NFA	6.394087E 01	IAC	1.186620E 01
CPA	-5.208595E 00	VPA	-5.208595E 00	CYA	3.448016E-01
VYA	3.448016E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

TABLE 10-I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - FIRST OPPORTUNITY
(CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME		9.605000E 03
XXX	1.633723E 05	YYY	-1.414900E 05	ZZZ -6.576684E 06
DXX	7.796286E 03	DYY	3.589443E 01	DZZ 1.919816E 02
R	6.580234E 06	WT	2.956204E 05	F 2.073030E 05
V	7.798732E 03	PTH	6.717988E-03	AZ 6.025129E 01
ALT	2.033199E 05	LAT	-1.396342E 01	LON 1.587486E 02
VE	7.398052E 03	PTE	7.081837E-03	AZE 5.846151E 01
ANG	4.237603E 00	NFA	6.379769E 01	IAC 1.186983E 01
CPA	-5.208595E 00	VPA	-5.251544E 00	CYA 3.448016E-01
VYA	3.448016E-01	CRA	-0.000000E-39	VRA 0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME		9.606600E 03
XXX	1.758547E 05	YYY	-1.414323E 05	ZZZ -6.576364E 06
DXX	7.806882E 03	DYY	3.626867E 01	DZZ 2.077357E 02
R	6.580235E 06	WT	2.948449E 05	F 1.777494E 05
V	7.809729E 03	PTH	1.785893E-03	AZ 6.022780E 01
ALT	2.033115E 05	LAT	-1.390945E 01	LON 1.588392E 02
VE	7.409050E 03	PTE	1.882401E-03	AZE 5.843898E 01
ANG	4.127176E 00	NFA	6.309345E 01	IAC 1.127101E 01
CPA	-5.208595E 00	VPA	-5.243634E 00	CYA 3.448016E-01
VYA	3.448016E-01	CRA	-0.000000E-39	VRA 0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME		9.610000E 03
XXX	2.024309E 05	YYY	-1.413076E 05	ZZZ -6.575602E 06
DXX	7.826057E 03	DYY	3.704401E 01	DZZ 2.408838E 02
R	6.580234E 06	WT	2.934431E 05	F 1.777494E 05
V	7.829851E 03	PTH	-5.510060E-03	AZ 6.017812E 01
ALT	2.032905E 05	LAT	-1.379441E 01	LON 1.590319E 02
VE	7.429178E 03	PTE	-5.807375E-03	AZE 5.839056E 01
ANG	3.872502E 00	NFA	6.127152E 01	IAC 1.133211E 01
CPA	-4.208595E 00	VPA	-5.198094E 00	CYA -6.551984E-01
VYA	3.448016E-01	CRA	-0.000000E-39	VRA 0.000000E-39

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.416316E 05	YYY	-1.411203E 05	ZZZ	-6.574276E 06
DXX	7.854240E 03	DYY	3.753187E 01	DZZ	2.887882E 02
R	6.580229E 06	WT	2.913817E 05	F	1.777494E 05
V	7.859637E 03	PTH	-6.687765E-03	AZ	6.010103E 01
ALT	2.032553E 05	LAT	-1.362437E 01	LON	1.593159E 02
VE	7.458991E 03	PTE	-7.047343E-03	AZE	5.831515E 01
ANG	2.028294E-01	NFA	-1.266651E 02	IAC	1.092371E 01
CPA	-2.708897E 00	VPA	-1.981800E 00	CYA	-1.106937E 00
VYA	-1.632865E 00	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.809732E 05	YYY	-1.409319E 05	ZZZ	-6.572714E 06
DXX	7.882407E 03	DYY	3.792830E 01	DZZ	3.361669E 02
R	6.580226E 06	WT	2.893203E 05	F	1.777494E 05
V	7.889663E 03	PTH	-1.419914E-04	AZ	6.002413E 01
ALT	2.032240E 05	LAT	-1.345327E 01	LON	1.596005E 02
VE	7.489046E 03	PTE	-1.495158E-04	AZE	5.823998E 01
ANG	8.842594E-01	NFA	3.871382E 01	IAC	1.107323E 01
CPA	-2.934854E 00	VPA	-3.033488E 00	CYA	-8.539051E-01
VYA	-8.183944E-01	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	3.204555E 05	YYY	-1.407409E 05	ZZZ	-6.570914E 06
DXX	7.910504E 03	DYY	3.847023E 01	DZZ	3.837898E 02
R	6.580229E 06	WT	2.872589E 05	F	1.777494E 05
V	7.919902E 03	PTH	8.466765E-03	AZ	5.994900E 01
ALT	2.031977E 05	LAT	-1.328113E 01	LON	1.598860E 02
VE	7.519310E 03	PTE	8.917692E-03	AZE	5.816672E 01
ANG	8.589751E-01	NFA	1.696910E 01	IAC	1.105872E 01
CPA	-3.149928E 00	VPA	-3.066045E 00	CYA	-6.036461E-01
VYA	-6.820467E-01	CRA	-0.000000E-39	VRA	0.000000E-39

TABLE 10-I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	3.600781E 05	YYY	-1.405469E 05	ZZZ	-6.568876E 06
DXX	7.938538E 03	DYY	3.914351E 01	DZZ	4.315088E 02
R	6.580239E 06	WT	2.851975E 05	F	1.777494E 05
V	7.950353E 03	PTH	2.022304E-02	AZ	5.987557E 01
ALT	2.031785E 05	LAT	-1.310794E 01	LON	1.601721E 02
VE	7.549780E 03	PTE	2.129602E-02	AZE	5.809530E 01
ANG	1.100851E 00	NFA	9.084413E 00	IAC	1.107750E 01
CPA	-3.368321E 00	VPA	-3.322131E 00	CYA	-3.547600E-01
VYA	-4.107732E-01	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	3.598408E 05	YYY	-1.403493E 05	ZZZ	-6.566599E 06
DXX	7.566508E 03	DYY	3.994502E 01	DZZ	4.793434E 02
R	6.580258E 06	WT	2.831361E 05	F	1.777494E 05
V	7.981016E 03	PTH	3.499182E-02	AZ	5.980381E 01
ALT	2.031689E 05	LAT	-1.293370E 01	LON	1.504590E 02
VE	7.580458E 03	PTE	3.684082E-02	AZE	5.802566E 01
ANG	1.325483E 00	NFA	2.364315E 00	IAC	1.109048E 01
CPA	-3.586330E 00	VPA	-3.534092E 00	CYA	-1.065934E-01
VYA	-1.666899E-01	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	4.397431E 05	YYY	-1.401473E 05	ZZZ	-6.564083E 06
DXX	7.994416E 03	DYY	4.087928E 01	DZZ	5.272910E 02
R	6.580288E 06	WT	2.810747E 05	F	1.777494E 05
V	8.011890E 03	PTH	5.279518E-02	AZ	5.973376E 01
ALT	2.031709E 05	LAT	-1.275842E 01	LON	1.607666E 02
VE	7.611343E 03	PTE	5.557325E-02	AZE	5.795785E 01
ANG	1.572341E 00	NFA	-2.462582E 00	IAC	1.110327E 01
CPA	-3.789124E 00	VPA	-3.741078E 00	CYA	1.483761E-01
VYA	8.766106E-02	CRA	-0.000000E-39	VRA	0.000000E-39

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	4.797848E 05	YYY	-1.399403E C5
DXX	8.022263E 03	DYY	4.195098E 01
R	6.580332E 06	WT	2.790133E 05
V	8.042977E 03	PTH	7.370309E-02
ALT	2.031866E 05	LAT	-1.258210E C1
VE	7.642434E 03	PTE	7.756583E-02
ANG	1.824804E 00	NFA	-6.072333E 00
CPA	-3.99062CE 00	VPA	-3.942900E 00
VYA	3.401785E-01	CRA	-0.000000E-39
		ZZZ	-6.561326E 06
		DZZ	5.753424E 02
		F	1.777494E 05
		AZ	5.966543E 01
		LON	1.610349E 02
		AZE	5.789190E 01
		IAC	1.111602E 01
		CYA	4.003852E-01
		VRA	0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	4.936549E 05	YYY	-1.398674E C5
DXX	8.031873E 03	DYY	4.235311E 01
R	6.580351E C6	WT	2.783009E C5
V	8.05377CE 03	PTH	8.164886E-C2
ALT	2.031959E 05	LAT	-1.252092E 01
VE	7.653227E 03	PTE	8.592221E-02
ANG	1.912758E 00	NFA	-7.100829E C0
CPA	-4.059454E 00	VPA	-4.012151E 00
VYA	4.270097E-01	CRA	-0.000000E-39
		ZZZ	-6.560317E 06
		DZZ	5.919725E 02
		F	2.060472E 05
		AZ	5.964222E 01
		LON	1.611348E 02
		AZE	5.786954E 01
		IAC	1.170744E 01
		CYA	4.872737E-01
		VRA	0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	5.199710E 05	YYY	-1.397275E C5
DXX	8.053322E 03	DYY	4.318537E 01
R	6.580393E 06	WT	2.767241E 05
V	8.077557E 03	PTH	9.776851E-C2
ALT	2.032188E 05	LAT	-1.240471E 01
VE	7.677011E 03	PTE	1.028690E-01
ANG	2.043419E 00	NFA	-5.980107E 00
CPA	-4.261975E 00	VPA	-4.248416E C0
VYA	5.686074E-01	CRA	-0.000000E-39
		ZZZ	-6.558329E 06
		DZZ	6.237504E 02
		F	2.060472E 05
		AZ	5.959888E 01
		LON	1.613241E 02
		AZE	5.782861E 01
		IAC	1.173760E 01
		CYA	6.335044E-01
		VRA	0.000000E-39

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	5.603196E 05	YYY -1.395081E C5	ZZZ	9.655000E 03	-6.555088E 06
DXX	8.086116E 03	DYY 4.446750E 01	DZZ	6.724549E 02	2.060472E 05
R	6.580471E 06	WT 2.743146E 05	F	5.953331F 01	1.616143E 02
V	8.114151E 03	PTH 1.251241E-C1	AZ	5.776677E 01	1.175216F 01
ALT	2.032694E 05	LAT -1.222618E 01	LON	2.528742E-01	0.000000E-39
VE	7.713599E 03	PTE 1.316217E-C1	AZE		
ANG	1.550739E 00	NFA -1.384063E C1	IAC		
CPA	-4.424534E 00	VPA -4.413749E 00	CYA		
VYA	5.242221E-02	CRA -0.000000E-39	VRA		

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	6.008322E 05	YYY -1.392833E C5	ZZZ	9.660000E 03	-6.551604E 06
DXX	8.118945E 03	DYY 4.557756E C1	DZZ	7.212307E 02	2.060472F 05
R	6.580571E 06	WT 2.719051E 05	F	5.946725E 01	1.619054E 02
V	8.151044E 03	PTH 1.565512E-01	AZ	5.770446E 01	1.177672F 01
ALT	2.033414E 05	LAT -1.204648E C1	LON	5.754549E-01	0.000000E-39
VE	7.750491E 03	PTE 1.646421E-01	AZF		
ANG	2.090584E 00	NFA -1.459391E C1	IAC		
CPA	-4.625773E 00	VPA -4.578801E 00	CYA		
VYA	5.809380E-01	CRA -0.000000E-39	VRA		

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	6.415091E 05	YYY -1.390520E C5	ZZZ	9.665000F 03	-6.547875E 06
DXX	8.151805E 03	DYY 4.695431E C1	DZZ	7.701448E 02	2.060472E 05
R	6.580695E 06	WT 2.694956E 05	F	5.940379E 01	1.621976E 02
V	8.188239E 03	PTH 1.915202E-01	AZ	5.764492E 01	1.179998E 01
ALT	2.034378E 05	LAT -1.186563E 01	LON	8.489701E-01	0.000000E-39
VE	7.787674E 03	PTE 2.013702F-01	AZF		
ANG	2.290968E 00	NFA -1.671903E C1	IAC		
CPA	-4.811453E 00	VPA -4.765181E C0	CYA		
VYA	7.639884E-01	CRA -0.000000F-39	VRA		

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	6.823503E 05	YYY	-1.388134E C5	ZZZ	-6.543902E 06
DXX	8.184702F 03	DYY	4.850913E C1	DZZ	8.191753E 02
R	6.580845E 06	WT	2.670860E 05	F	2.060472E 05
V	8.225737E 03	PTH	2.302081E-C1	AZ	5.934231F 01
ALT	2.035614E 05	LAT	-1.168362E C1	LON	1.624907E 02
VF	7.825154E 03	PTE	2.419927E-01	AZE	5.758748E 01
ANG	2.59616CF 00	NFA	-1.762161E 01	IAC	1.182569E 01
CPA	-4.598697E 00	VPA	-4.954725E C0	CYA	1.119762E 00
VYA	1.057558E 00	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	7.233562E 05	YYY	-1.385666E C5	ZZZ	-6.539684E 06
DXX	8.217638E 03	DYY	5.024589E C1	DZZ	8.683266E 02
R	6.581026E 06	WT	2.646765E C5	F	2.060472F 05
V	8.263540E 03	PTH	2.725980E-01	AZ	5.928282E 01
ALT	2.037151F C5	LAT	-1.150045E C1	LON	1.627849E 02
VF	7.862931E 03	PTE	2.864863E-01	AZE	5.753216F 01
ANG	2.879721E 00	NFA	-1.852434E C1	IAC	1.185115E 01
CPA	-5.184455E 00	VPA	-5.139911E C0	CYA	1.393882E 00
VYA	1.328407E 00	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	7.645268F 05	YYY	-1.383106E C5	ZZZ	-6.535219E 06
DXX	8.250617E 03	DYY	5.217259E 01	DZZ	9.175974E 02
R	6.581240E 06	WT	2.622670E 05	F	2.060472E 05
V	8.301650E 03	PTH	3.187035E-01	AZ	5.922537E 01
ALT	2.039017E 05	LAT	-1.131613E C1	LON	1.630801E 02
VF	7.901009E 03	PTE	3.348645E-01	AZE	5.747901F 01
ANG	3.163535E 00	NFA	-1.922668E 01	IAC	1.187726F 01
CPA	-5.369082E 00	VPA	-5.324963E 00	CYA	1.666359E 00
VYA	1.600968E 00	CRA	-0.000000E-39	VRA	0.000000E-39

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	8.058624E 05	YYY	-1.380446E C5	ZZZ	-6.530507E 06
DXX	8.283644E 03	DYY	5.429048E 01	DZZ	9.669873E 02
R	6.581489E 06	WT	2.598575E C5	F	2.060472E 05
V	8.34007CF 03	PTH	3.685425E-01	AZ	5.916996E 01
ALT	2.041245E 05	LAT	-1.113066E C1	LON	1.633764E 02
VE	7.539388E 03	PTE	3.871428F-01	AZE	5.742803E 01
ANG	3.446134E 00	NFA	-1.980401E 01	IAC	1.190385E 01
CPA	-5.55275CF 00	VPA	-5.508836E 00	CYA	1.938642E 00
VYA	1.873544E 00	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	8.473633E 05	YYY	-1.377674E C5	ZZZ	-6.525549E 06
DXX	8.316722E 03	DYY	5.660315E C1	DZZ	1.016496E 03
R	6.581777E 06	WT	2.574480F C5	F	2.060472E 05
V	8.378802E 03	PTH	4.221262E-01	AZ	5.911661E 01
ALT	2.043865E 05	LAT	-1.094405E C1	LON	1.636737E 02
VE	7.978072E 03	PTE	4.433288E-01	AZE	5.737923E 01
ANG	3.726563E 00	NFA	-2.028324E C1	IAC	1.193100E 01
CPA	-5.735756E 00	VPA	-5.691957E C0	CYA	2.210442E 00
VYA	2.145398E 00	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	8.890297E 05	YYY	-1.374782E C5	ZZZ	-6.520342E 06
DXX	8.349855E 03	DYY	5.911380E C1	DZZ	1.066123E 03
R	6.582107E 06	WT	2.550385E 05	F	2.060472E 05
V	8.417849E 03	PTH	4.794656E-C1	AZ	5.906533E 01
ALT	2.046904E 05	LAT	-1.075628E 01	LON	1.639722E 02
VE	8.017063E 03	PTE	5.034353E-01	AZE	5.733263E 01
ANG	4.004999E 00	NFA	-2.068213E 01	IAC	1.195874E 01
CPA	-5.918150E 00	VPA	-5.874488E 00	CYA	2.481749E 00
VYA	2.416833E 00	CRA	-0.000000E-39	VRA	0.000000E-39

TABLE 10-I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	9.308619E 05	YYY	-1.371759E 05	ZZZ	-6.514887E 06
DXX	8.383048E 03	DYY	6.182574E 01	DZZ	1.115869E 03
R	6.582483E 06	WT	2.526290E 05	F	2.060472E 05
V	8.457215E 03	PTH	5.405745E-01	AZ	5.901615E 01
ALT	2.050401E 05	LAT	-1.056738E 01	LON	1.642717E 02
VE	8.056364E 03	PTF	5.674709E-01	AZE	5.728824E 01
ANG	4.281233E 00	NFA	-2.101606E 01	IAC	1.198714E 01
CPA	-6.100104E 00	VPA	-6.056536E 00	CYA	2.752555E 00
VYA	2.687770E 00	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	9.728603E 05	YYY	-1.368596E 05	ZZZ	-6.509183E 06
DXX	8.416305E 03	DYY	6.474235E 01	DZZ	1.165732E 03
R	6.582906E 06	WT	2.502195E 05	F	2.060472E 05
V	8.496901E 03	PTH	6.054604E-01	AZ	5.896907E 01
ALT	2.054383E 05	LAT	-1.037734E 01	LON	1.645723E 02
VE	8.095977E 03	PTF	6.354458E-01	AZE	5.724607E 01
ANG	4.555092E 00	NFA	-2.129431E 01	IAC	1.201621E 01
CPA	-6.281878E 00	VPA	-6.238378E 00	CYA	3.022837E 00
VYA	2.958171E 00	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.015025E 06	YYY	-1.365282E 05	ZZZ	-6.503230E 06
DXX	8.449632E 03	DYY	6.786709E 01	DZZ	1.215715E 03
R	6.583382E 06	WT	2.478100E 05	F	2.060472E 05
V	8.536911E 03	PTH	6.741388E-01	AZ	5.892411E 01
ALT	2.058884E 05	LAT	-1.018616E 01	LON	1.648741E 02
VE	8.135907E 03	PTF	7.073677E-01	AZE	5.720615E 01
ANG	4.826529E 00	NFA	-2.152617E 01	IAC	1.204602E 01
CPA	-6.463526E 00	VPA	-6.420073E 00	CYA	3.292563E 00
VYA	3.228038E 00	CRA	-0.000000E-39	VRA	0.000000E-39

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.057357E 06	YYY	-1.361806E C5	ZZZ	-6.497026E 06
DXX	8.483032E 03	DYY	7.120349E 01	DZZ	1.265816E 03
R	6.583912E 06	WT	2.454005E 05	F	2.060472E 05
V	8.577249E 03	PTH	7.466157E-01	AZ	5.888128E 01
ALT	2.063939E 05	LAT	-9.993864E C0	LON	1.651771E 02
VE	8.176156E 03	PTF	7.832451E-C1	AZE	5.716847E 01
ANG	5.095358E 00	NFA	-2.171690E C1	IAC	1.207661E 01
CPA	-6.645449E 00	VPA	-6.601879E C0	CYA	3.561720E 00
VYA	3.497335E 00	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.099856E 06	YYY	-1.358158E C5	ZZZ	-6.490571E 06
DXX	8.516512E 03	DYY	7.475517E C1	DZZ	1.316036E 03
R	6.584500E 06	WT	2.429910E 05	F	2.060472E 05
V	8.617918E 03	PTH	8.229003E-01	AZ	5.884061E 01
ALT	2.069578E 05	LAT	-9.800437E C0	LON	1.654912E 02
VE	8.216727E 03	PTE	8.630823E-01	AZE	5.713306E 01
ANG	5.261523E 00	NFA	-2.187215E 01	IAC	1.210803E 01
CPA	-6.827593E 00	VPA	-6.783889E C0	CYA	3.830285E 00
VYA	3.766044E 00	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.142522E 06	YYY	-1.354327E C5	ZZZ	-6.483865E 06
DXX	8.550076E 03	DYY	7.852581E C1	DZZ	1.366375E 03
R	6.585151E 06	WT	2.405815E 05	F	2.060472E 05
V	8.658923E 03	PTH	9.029988E-01	AZ	5.880211E 01
ALT	2.075839E 05	LAT	-9.605893E C0	LON	1.657864E 02
VE	8.257625E 03	PTE	9.468862E-01	AZE	5.709994E 01
ANG	5.624860E 00	NFA	-2.199438E 01	IAC	1.214035E 01
CPA	-7.010184E 00	VPA	-6.966420E 00	CYA	4.098235E 00
VYA	4.034137E 00	CRA	-0.000000E-39	VRA	0.000000E-39

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.185356E 06	YYY	-1.350302E 05	ZZZ	-6.476907E 06
DXX	8.58373CE 03	DYY	8.251922E 01	DZZ	1.416835E 03
R	6.585866E 06	WT	2.381720E 05	F	2.060472E 05
V	8.700267E 03	PTH	9.869239E-01	AZ	5.876580E 01
ALT	2.082754E 05	LAT	-9.410234E 00	LON	1.660929E 02
VE	8.298854E 03	PTE	1.034666E 00	AZE	5.706911E 01
ANG	5.885239E 00	NFA	-2.208617E 01	IAC	1.217363E 01
CPA	-7.193704E 00	VPA	-7.149701E 00	CYA	4.365541E 00
VYA	4.301613E 00	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.228359E 06	YYY	-1.346071E 05	ZZZ	-6.469697E 06
DXX	8.61748CE 03	DYY	8.673925E 01	DZZ	1.467417E 03
R	6.58665CE 06	WT	2.357625E 05	F	2.060472E 05
V	8.741956E 03	PTH	1.074676E 00	AZ	5.873169E 01
ALT	2.090361E 05	LAT	-9.213468E 00	LON	1.664006E 02
VE	8.340418E 03	PTE	1.126420E 00	AZE	5.704060E 01
ANG	6.142586E 00	NFA	-2.215098E 01	IAC	1.220792E 01
CPA	-7.378134E 00	VPA	-7.333821E 00	CYA	4.632205E 00
VYA	4.568425E 00	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.271531E 06	YYY	-1.341624E 05	ZZZ	-6.462233E 06
DXX	8.651331E 03	DYY	9.118989E 01	DZZ	1.518120E 03
R	6.587507E 06	WT	2.333530E 05	F	2.060472E 05
V	8.783993E 03	PTH	1.166262E 00	AZ	5.869980E 01
ALT	2.098695E 05	LAT	-9.015600E 00	LON	1.567095E 02
VE	8.382322E 03	PTE	1.222156E 00	AZE	5.701441E 01
ANG	6.296748E 00	NFA	-2.218949E 01	IAC	1.224332E 01
CPA	-7.563846E 00	VPA	-7.519117E 00	CYA	4.898168E 00
VYA	4.834554E 00	CRA	-0.000000E-39	VRA	0.000000E-39

TABLE 10-I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.314873E 06	YYY	-1.336948E 05	ZZZ	-6.454515E 06
DXX	8.685290E 03	DYY	9.587520E 01	DZZ	1.568948E 03
R	6.588439E 06	WT	2.309435E 05	F	2.060472E 05
V	8.826384E 03	PTH	1.261686E 00	AZ	5.867015E 01
ALT	2.107792E 05	LAT	-8.816637E 00	LON	1.570196E 02
VE	8.424571E 03	PTE	1.321873E 00	AZE	5.699057E 01
ANG	6.647602E 00	NFA	-2.220234E 01	IAC	1.227991E 01
CPA	-7.750821E 00	VPA	-7.705903E 00	CYA	5.163428E 00
VYA	5.099993E 00	CRA	-0.000000E -39	VRA	0.000000E -39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.358385E 06	YYY	-1.332032E 05	ZZZ	-6.446543E 06
DXX	8.719364E 03	DYY	1.007993E 02	DZZ	1.619901E 03
R	6.589452E 06	WT	2.285340E 05	F	2.060472E 05
V	8.869135E 03	PTH	1.360950E 00	AZ	5.864276E 01
ALT	2.117689E 05	LAT	-8.616586E 00	LON	1.672311E 02
VE	8.467169E 03	PTE	1.425571E 00	AZE	5.696910E 01
ANG	6.895008E 00	NFA	-2.219076E 01	IAC	1.231774E 01
CPA	-7.539907E 00	VPA	-7.894412E 00	CYA	5.427964E 00
VYA	5.364697E 00	CRA	-0.000000E -39	VRA	0.000000E -39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.402067E 06	YYY	-1.326864E 05	ZZZ	-6.438316E 06
DXX	8.753559E 03	DYY	1.059666E 02	DZZ	1.670981E 03
R	6.590547E 06	WT	2.261245E 05	F	2.060472E 05
V	8.912250E 03	PTH	1.464056E 00	AZ	5.861765E 01
ALT	2.128423E 05	LAT	-8.415453E 00	LON	1.676437E 02
VE	8.510123E 03	PTE	1.533255E 00	AZE	5.695001E 01
ANG	7.138921E 00	NFA	-2.215681E 01	IAC	1.235691E 01
CPA	-8.130714E 00	VPA	-8.084722E 00	CYA	5.691727E 00
VYA	5.628651E 00	CRA	-0.000000E -39	VRA	0.000000E -39

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.445920E 06	YYY	-1.321431E 05	ZZZ	9.760000E 03
DXX	8.787881E 03	DYY	1.113814E 02	DZZ	-6.429833E 06
R	6.591730E 06	WT	2.237150E 05	F	1.722191E 03
V	8.955735E 03	PTH	1.571008E 00	AZ	2.060472E 05
ALT	2.140034E 05	LAT	-8.213247E 00	LON	5.859483E 01
VE	8.553437E 03	PTE	1.644916E 00	AZE	1.679577E 02
ANG	7.379107E 00	NFA	-2.209851E 01	IAC	5.693331E 01
CPA	-8.323862E 00	VPA	-8.277430E 00	CYA	1.239752E 01
VYA	5.891829E 00	CRA	-0.000000E-39	VRA	5.954714E 00
					0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.489946E 06	YYY	-1.315722E 05	ZZZ	9.765000E 03
DXX	8.822339E 03	DYY	1.170481E 02	DZZ	-6.421094E 06
R	6.593004E 06	WT	2.213055E 05	F	1.773533E 03
V	8.999599E 03	PTH	1.681797E 00	AZ	2.060472E 05
ALT	2.152561E 05	LAT	-8.009975E 00	LON	5.857434E 01
VE	8.597120E 03	PTE	1.760555E 00	AZE	1.692730E 02
ANG	7.615592E 00	NFA	-2.201937E 01	IAC	5.691903E 01
CPA	-8.519812E 00	VPA	-8.472375E 00	CYA	1.243960E 01
VYA	6.154195E 00	CRA	-0.000000E-39	VRA	6.216881E 00
					0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.534144E 06	YYY	-1.309722E 05	ZZZ	9.770000E 03
DXX	8.856938E 03	DYY	1.229715E 02	DZZ	-6.412098E 06
R	6.594373E 06	WT	2.188960E 05	F	1.825010E 03
V	9.043845E 03	PTH	1.796427E 00	AZ	2.060472E 05
ALT	2.166038E 05	LAT	-7.805644E 00	LON	5.855617E 01
VE	8.641176E 03	PTE	1.880168E 00	AZE	1.685896E 02
ANG	7.848032E 00	NFA	-2.191462E 01	IAC	5.690718E 01
CPA	-8.718554E 00	VPA	-8.670535E 00	CYA	1.248338E 01
VYA	6.415741E 00	CRA	-0.000000E-39	VRA	6.478225E 00
					0.000000E-39

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.578515E 06	YYY	-1.303420E 05	ZZZ	-6.402844E 06
DXX	8.891688E 03	DYY	1.291563E 02	DZZ	1.876625E 03
R	6.595840E 06	WT	2.164865E 05	F	2.060472E 05
V	9.088483E 03	PTH	1.914888E 00	AZ	5.854037E 01
ALT	2.180511E 05	LAT	-7.600266E 00	LON	1.689076E 02
VE	8.685613E 03	PTE	2.003743E 00	AZE	5.689780E 01
ANG	8.076397E 00	NFA	-2.178672E 01	IAC	1.252891E 01
CPA	-8.920500E 00	VPA	-8.871883E 00	CYA	6.738679E 00
VYA	6.676417E 00	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.623061E 06	YYY	-1.296802E 05	ZZZ	-6.393331E 06
DXX	8.926597E 03	DYY	1.356073E 02	DZZ	1.928383E 03
R	6.597411E 06	WT	2.140770E 05	F	2.060472E 05
V	9.133520E 03	PTH	2.037178E 00	A7	5.852694E 01
ALT	2.196016E 05	LAT	-7.393847E 00	LON	1.692269E 02
VE	8.730439E 03	PTE	2.131276E 00	AZE	5.689088E 01
ANG	8.300556E 00	NFA	-2.163481E 01	IAC	1.257624E 01
CPA	-9.126630E 00	VPA	-9.076841E 00	CYA	6.998269E 00
VYA	6.936201E 00	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.667782E 06	YYY	-1.289855E 05	ZZZ	-6.383560E 06
DXX	8.961671E 03	DYY	1.423296E 02	DZZ	1.980287E 03
R	6.599088E 06	WT	2.116674E 05	F	2.060472E 05
V	9.178962E 03	PTH	2.163285E 00	AZ	5.851591E 01
ALT	2.212596E 05	LAT	-7.186399E 00	LON	1.695475E 02
VE	8.775661E 03	PTE	2.262753E 00	AZE	5.688646E 01
ANG	8.520486E 00	NFA	-2.146038E 01	IAC	1.262554E 01
CPA	-9.236308E 00	VPA	-9.285465E 00	CYA	7.256909E 00
VYA	7.195073E 00	CRA	-0.000000E-39	VRA	0.000000E-39

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.712678E 06	YYY	-1.282565E 05	ZZZ	-6.373528E 06
DXX	8.596921E 03	DYY	1.493283E 02	DZZ	2.032343E 03
R	6.6C0877E 06	WT	2.092579E C5	F	2.060472E 05
V	9.224820E 03	PTH	2.293203E C0	AZ	5.850729E 01
ALT	2.230291E 05	LAT	-6.977930E C0	LON	1.698696E 02
VE	8.821288E 03	PTE	2.398166E C0	AZE	5.688455E 01
ANG	8.735823E 00	NFA	-2.125831E 01	IAC	1.267706E 01
CPA	-9.550589E 00	VPA	-9.498852E 00	CYA	7.514584E 00
VYA	7.452999E 00	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.757751E 06	YYY	-1.274918E C5	ZZZ	-6.363236E 06
DXX	9.032354E 03	DYY	1.566087E C2	DZZ	2.084555E 03
R	6.602781E 06	WT	2.068484E C5	F	2.060472E 05
V	9.271101E 03	PTH	2.426916E 00	AZ	5.850112E 01
ALT	2.249144E 05	LAT	-6.768451E 00	LON	1.701931E 02
VE	8.867328E 03	PTE	2.537496E C0	AZE	5.688518E 01
ANG	8.946635E 00	NFA	-2.103217E 01	IAC	1.273073E 01
CPA	-9.769704E 00	VPA	-9.716729E C0	CYA	7.771268E 00
VYA	7.709924E 00	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.803002E 06	YYY	-1.266899E 05	ZZZ	-6.352682E 06
DXX	9.067980E 03	DYY	1.641764E C2	DZZ	2.136929E 03
R	6.604804E 06	WT	2.044389E C5	F	2.060472E 05
V	9.317815E 03	PTH	2.564412E 00	AZ	5.849742E 01
ALT	2.269195E 05	LAT	-6.557973E C0	LON	1.705180E 02
VE	8.913791E 03	PTE	2.680728E 00	AZE	5.688836E 01
ANG	9.152683E 00	NEA	-2.077801E 01	IAC	1.278688E 01
CPA	-9.994348E 00	VPA	-9.940016E C0	CYA	8.026941E 00
VYA	7.965840E 00	CRA	-0.000000E-39	VRA	0.000000E-39

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.848431E 06	YYY	-1.258495E 05	ZZZ	9.805000E 03
DXX	9.103808E 03	DYY	1.720368E 02	DZZ	-6.341866E 06
R	6.606951E 06	WT	2.020294E C5	F	2.189472E 03
V	5.364973E 03	PTH	2.705670E 00	AZ	2.060472E 05
ALT	2.290489E 05	LAT	-6.346508E 00	LON	5.849620E 01
VE	8.960686E 03	PTE	2.827839E 00	AZE	1.708443E 02
ANG	9.353920E 00	NFA	-2.049668E 01	IAC	5.689412E 01
CPA	-1.022495E 01	VPA	-1.016886E C1	CYA	1.284552E 01
VYA	8.220688E 00	CRA	-0.000000E-39	VRA	8.281547E 00
					0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.894040E 06	YYY	-1.249690E 05	ZZZ	9.810000E 03
DXX	9.139849E 03	DYY	1.801959E 02	DZZ	-6.330787E 06
R	6.609226E 06	WT	1.996199E C5	F	2.242191E 03
V	9.412583E 03	PTH	2.850670E C0	AZ	2.060472E 05
ALT	2.313069E 05	LAT	-6.134066E 00	LON	5.849749E 01
VE	9.008024E 03	PTE	2.978809E C0	AZE	1.711721E 02
ANG	9.550060E 00	NFA	-2.018369E 01	IAC	5.690248E 01
CPA	-1.046175E 01	VPA	-1.040433E 01	CYA	1.290700E 01
VYA	8.474460E 00	CRA	-0.000000E-39	VRA	8.535038E 00
					0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.939830E 06	YYY	-1.240470E C5	ZZZ	9.815000E 03
DXX	9.176111E 03	DYY	1.886595E 02	DZZ	-6.319444E 06
R	6.611634E 06	WT	1.972104E 05	F	2.295095E 03
V	9.460659E 03	PTH	2.999390E 00	AZ	2.060472E 05
ALT	2.336976E 05	LAT	-5.920659E 00	LON	5.850132E 01
VE	9.055816E 03	PTE	3.133609E C0	AZE	1.715014E 02
ANG	9.741274E 00	NFA	-1.984309E C1	IAC	5.691347E 01
CPA	-1.070545E 01	VPA	-1.064598E 01	CYA	1.297128E 01
VYA	8.727080E 00	CRA	-0.000000E-39	VRA	8.787398E 00
					0.000000E-39

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.985802E 06	YYY	-1.230819E C5	ZZZ	9.820000E 03
DXX	9.212605E 03	DYY	1.974339E C2	DZZ	-6.307836E 06
R	6.614178E 06	WT	1.948009E C5	F	2.348192E 03
V	9.509210F C3	PTH	3.151803E 00	AZ	2.060472E 05
ALT	2.362257E 05	LAT	-5.706300E C0	LON	5.850770E 01
VE	9.104074E 03	PTE	3.292211E C0	AZE	1.718322E 02
ANG	9.927115E 00	NFA	-1.946667E 01	IAC	5.692711E 01
CPA	-1.095705E 01	VPA	-1.089556E C1	CYA	1.303870E 01
VYA	8.978542E 00	CRA	-0.000000E-39	VRA	9.038564E 00
					0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.031957E 06	YYY	-1.220722E C5	ZZZ	9.825000E 03
DXX	9.249342E 03	DYY	2.065253E C2	DZZ	-6.295962E 06
R	6.616864E 06	WT	1.923914E C5	F	2.401492E 03
V	9.55825CF C3	PTH	3.307876E C0	AZ	2.060472E 05
ALT	2.388956E 05	LAT	-5.491004E 00	LON	5.851667E 01
VE	9.152809E 03	PTE	3.454578E 00	AZE	1.721645E 02
ANG	1.010758E 01	NFA	-1.905484E C1	IAC	5.694341E 01
CPA	-1.121665E 01	VPA	-1.115330E C1	CYA	1.310954E 01
VYA	9.228788E 00	CRA	-0.000000E-39	VRA	9.288513E 00
					0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.078296E 06	YYY	-1.210161E 05	ZZZ	9.830000E 03
DXX	9.286333E 03	DYY	2.159403F C2	DZZ	-6.283821E 06
R	6.619695E 06	WT	1.899819E C5	F	2.455006E 03
V	9.607792E 03	PTH	3.467575E 00	AZ	2.060472E 05
ALT	2.417116E 05	LAT	-5.274783E C0	LON	5.852824E 01
VE	9.202035E 03	PTE	3.620674E C0	AZE	1.724983E 02
ANG	1.028261E 01	NFA	-1.860624E C1	IAC	5.696241E 01
CPA	-1.148517E 01	VPA	-1.141974E C1	CYA	1.318393E 01
VYA	9.477745E 00	CRA	-0.000000E-39	VRA	9.537153E 00
					0.000000E-39

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME			9.835000E 03
XXX	2.124820E 06	YYY	-1.199122E 05	ZZZ	-6.271412E 06	
DXX	9.323589E 03	DYY	2.256856E 02	DZZ	2.508746E 03	
R	6.622676E 06	WT	1.875724E 05	F	2.060472E 05	
V	9.657849E 03	PTH	3.630859E 00	AZ	5.854244E 01	
ALT	2.446785E 05	LAT	-5.057649E 00	LON	1.728337E 02	
VE	9.251765E 03	PTE	3.790455E 00	AZE	5.698413E 01	
ANG	1.045220E 01	NFA	-1.811882E 01	IAC	1.326201E 01	
CPA	-1.176334E 01	VPA	-1.169553E 01	CYA	9.784479E 00	
VYA	9.725414E 00	CRA	-0.000000E-39	VRA	0.000000E-39	

GEOCENTRIC REFERENCE			FLIGHT TIME			9.840000E 03
XXX	2.171532E 06	YYY	-1.187587E 05	ZZZ	-6.258733E 06	
DXX	9.361121E 03	DYY	2.357683E 02	DZZ	2.562725E 03	
R	6.625813E 06	WT	1.851629E 05	F	2.060472E 05	
V	9.708436E 03	PTH	3.797688E 00	AZ	5.855931E 01	
ALT	2.478006E 05	LAT	-4.839620E 00	LON	1.731706E 02	
VE	9.302014E 03	PTE	3.963876E 00	AZE	5.700859E 01	
ANG	1.061617E 01	NFA	-1.758896E 01	IAC	1.334422E 01	
CPA	-1.205219E 01	VPA	-1.198167E 01	CYA	1.003041E 01	
VYA	9.971687E 00	CRA	-0.000000E-39	VRA	0.000000E-39	

GEOCENTRIC REFERENCE			FLIGHT TIME			9.845000E 03
XXX	2.218432E 06	YYY	-1.175540E 05	ZZZ	-6.245784E 06	
DXX	9.398941E 03	DYY	2.461955E 02	DZZ	2.616959E 03	
R	6.629108E 06	WT	1.827534E 05	F	2.060472E 05	
V	9.759568E 03	PTH	3.968005E 00	AZ	5.857885E 01	
ALT	2.510827E 05	LAT	-4.620708E 00	LON	1.735092E 02	
VE	9.352796E 03	PTE	4.140876E 00	AZE	5.703583E 01	
ANG	1.077431E 01	NFA	-1.701026E 01	IAC	1.343075E 01	
CPA	-1.235275E 01	VPA	-1.227968E 01	CYA	1.027491E 01	
VYA	1.021654E 01	CRA	-0.000000E-39	VRA	0.000000E-39	

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.265522F 06	YYY	-1.162962E 05	ZZZ	-6.232563E 06
DXX	9.437060E 03	DYY	2.569745E C2	DZZ	2.671463E 03
R	6.632568E 06	WT	1.803439E C5	F	2.060472E 05
V	9.811262F 03	PTH	4.141759F C0	AZ	5.860111E 01
ALT	2.545293E 05	LAT	-4.400929E 00	LON	1.738493E 02
VE	9.404129E 03	PTE	4.321403E C0	AZE	5.706587E 01
ANG	1.092691E 01	NFA	-1.638500E 01	IAC	1.352188E 01
CPA	-1.266553E 01	VPA	-1.258942E C1	CYA	1.051790E 01
VYA	1.045988E 01	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.312803E 06	YYY	-1.149836E 05	ZZZ	-6.219069E 06
DXX	9.475492E 03	DYY	2.681131E C2	DZZ	2.726256E 03
R	6.636196E 06	WT	1.779344E C5	F	2.060472E 05
V	9.863534E 03	PTH	4.318885E 00	AZ	5.862610F 01
ALT	2.581451E 05	LAT	-4.180299E 00	LON	1.741911E 02
VE	9.456029E 03	PTE	4.505383E 00	AZE	5.709872E 01
ANG	1.107376E 01	NFA	-1.570531E 01	IAC	1.361791E 01
CPA	-1.299269E 01	VPA	-1.291274E C1	CYA	1.075929F 01
VYA	1.070164E 01	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.360277E 06	YYY	-1.136144E 05	ZZZ	-6.205300E 06
DXX	9.514247E 03	DYY	2.796191E 02	DZZ	2.781357F 03
R	6.639997E 06	WT	1.755249E C5	F	2.060472E 05
V	9.916402E 03	PTH	4.499311E C0	AZ	5.865386E 01
ALT	2.619348E 05	LAT	-3.958832E C0	LON	1.745345E 02
VE	9.508513E 03	PTE	4.692743F 00	AZE	5.713443E 01
ANG	1.121491E 01	NFA	-1.496610F C1	IAC	1.371933E 01
CPA	-1.233393E 01	VPA	-1.325095E C1	CYA	1.099898E 01
VYA	1.094176E 01	CRA	-0.000000E-39	VRA	0.000000E-39

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.407946E 06	YYY	-1.121868E 05	ZZZ	9.865000E 03
DXX	9.553339E 03	DYY	2.915006E 02	DZZ	-6.191255E 06
R	6.643977E 06	WT	1.731154E 05	F	2.836788E 03
V	9.969885E 03	PTH	4.682961E 00	AZ	2.060472E 05
ALT	2.659029E 05	LAT	-3.736548E 00	LON	5.868440E 01
VE	9.561601E 03	PTE	4.883402E 00	AZE	1.748796E 02
ANG	1.135059E 01	NFA	-1.416611E 01	IAC	5.717302E 01
CPA	-1.369274E 01	VPA	-1.360465E 01	IAC	1.382624E 01
VYA	1.118011E 01	CRA	-0.000000E-39	CYA	1.123688E 01
				VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.455811E 06	YYY	-1.106988E 05	ZZZ	9.870000E 03
DXX	9.592779E 03	DYY	3.037661E 02	DZZ	-6.176931E 06
R	6.648138E 06	WT	1.707059E 05	F	2.892574E 03
V	1.002400E 04	PTH	4.869741E 00	AZ	2.060472E 05
ALT	2.700541E 05	LAT	-3.513460E 00	LON	5.871777E 01
VE	9.615312E 03	PTE	5.077259E 00	AZE	1.752263E 02
ANG	1.148079E 01	NFA	-1.329505E 01	IAC	5.721451E 01
CPA	-1.406819E 01	VPA	-1.397624E 01	IAC	1.393943E 01
VYA	1.141662E 01	CRA	-0.000000E-39	CYA	1.147294E 01
				VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.503875E 06	YYY	-1.091485E 05	ZZZ	9.875000E 03
DXX	9.632579E 03	DYY	3.164241E 02	DZZ	-6.162328E 06
R	6.652488E 06	WT	1.682964E 05	F	2.948741E 03
V	1.007878E 04	PTH	5.059552E 00	AZ	2.060472E 05
ALT	2.743934E 05	LAT	-3.289588E 00	LON	5.875397E 01
VE	9.669667E 03	PTE	5.274211E 00	AZE	1.755748E 02
ANG	1.160568E 01	NFA	-1.234565E 01	IAC	5.725894E 01
CPA	-1.446538E 01	VPA	-1.436756E 01	IAC	1.405901E 01
VYA	1.165112E 01	CRA	-0.000000E-39	CYA	1.170695E 01
				VRA	0.000000E-39

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.552138E 06	YYY	-1.075339E 05	ZZZ	9.880000E 03
DXX	9.672752E 03	DYY	3.294835E 02	DZZ	-6.147443E 06
R	6.657029E 06	WT	1.658869E 05	F	3.005321E 03
V	1.013423E 04	PTH	5.252278E 00	AZ	2.060472E 05
ALT	2.789251E 05	LAT	-3.064950E 00	LON	5.879305E 01
VE	9.724688E 03	PTE	5.474134E 00	AZE	1.759250E 02
ANG	1.172577E 01	NFA	-1.131339E 01	IAC	5.730632E 01
CPA	-1.488243E 01	VPA	-1.477993E 01	CYA	1.418593E 01
VYA	1.188350E 01	CRA	-0.000000E -39	VRA	1.193883E 01
					0.000000E -39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.600603E 06	YYY	-1.058530E 05	ZZZ	9.885000E 03
DXX	9.713310E 03	DYY	3.429535E 02	DZZ	-6.132274E 06
R	6.661766E 06	WT	1.634774E 05	F	3.062347E 03
V	1.019039E 04	PTH	5.447790E 00	AZ	2.060472E 05
ALT	2.836540E 05	LAT	-2.839561E 00	LON	5.883503E 01
VE	9.780399E 03	PTE	5.676892E 00	AZE	1.762770E 02
ANG	1.184124E 01	NFA	-1.018134E 01	IAC	5.735670E 01
CPA	-1.532643E 01	VPA	-1.521726E 01	CYA	1.432037E 01
VYA	1.211360E 01	CRA	-0.000000E -39	VRA	1.216830E 01
					0.000000E -39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.649272E 06	YYY	-1.041036E 05	ZZZ	9.890000E 03
DXX	9.754262E 03	DYY	3.568434E 02	DZZ	-6.116819E 06
R	6.666705E 06	WT	1.610679E 05	F	3.119859E 03
V	1.024727E 04	PTH	5.645933E 00	AZ	2.060472E 05
ALT	2.885845E 05	LAT	-2.613440E 00	LON	5.887993E 01
VE	9.836823E 03	PTE	5.882326E 00	AZE	1.766307E 02
ANG	1.195296E 01	NFA	-8.944925E 00	IAC	5.741009E 01
CPA	-1.579533E 01	VPA	-1.568099E 01	CYA	1.446310E 01
VYA	1.234119E 01	CRA	-0.000000E -39	VRA	1.239518E 01
					0.000000E -39

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.698146E 06	YYY	-1.022838E 05	ZZZ	-6.101075E 06
DXX	9.795619E 03	DYY	3.711626E 02	DZZ	3.177896E 03
R	6.671849E 06	WT	1.586584E 05	F	2.060472E 05
V	1.030490E 04	PTH	5.846551E 00	AZ	5.892778E 01
ALT	2.937213E 05	LAT	-2.386609E 00	LON	1.769863E 02
VE	9.893986E 03	PTE	6.090267E 00	AZE	5.746652E 01
ANG	1.206175E 01	NFA	-7.595756E 00	IAC	1.461466E 01
CPA	-1.629822E 01	VPA	-1.617340E 01	CYA	1.261915E 01
VYA	1.256588E 01	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.747228E 06	YYY	-1.003913E 05	ZZZ	-6.085039E 06
DXX	9.83739CE 03	DYY	3.859206E 02	DZZ	3.236511E 03
R	6.677203E 06	WT	1.562488E 05	F	2.060472E 05
V	1.036331E 04	PTH	6.049429E 00	AZ	5.897861E 01
ALT	2.990688E 05	LAT	-2.159083E 00	LON	1.773437E 02
VE	9.951915E 03	PTE	6.300493E 00	AZE	5.752602E 01
ANG	1.216840E 01	NFA	-6.099344E 00	IAC	1.477578E 01
CPA	-1.683574E 01	VPA	-1.670241E 01	CYA	1.283995E 01
VYA	1.278747E 01	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.796521E 06	YYY	-9.842386E 04	ZZZ	-6.068709E 06
DXX	9.879582E 03	DYY	4.011271E 02	DZZ	3.295757E 03
R	6.682772E 06	WT	1.538393E 05	F	2.060472E 05
V	1.042253E 04	PTH	6.254351E 00	AZ	5.903243E 01
ALT	3.046314E 05	LAT	-1.930883E 00	LON	1.777029E 02
VE	1.001064E 04	PTE	6.512780E 00	AZE	5.758861E 01
ANG	1.227464E 01	NFA	-4.448409E 00	IAC	1.494833E 01
CPA	-1.741441E 01	VPA	-1.727038E 01	CYA	1.305686E 01
VYA	1.300532E 01	CRA	-0.000000E-39	VRA	0.000000E-39

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.846025E 06	YYY	-9.637925E 04	ZZZ	-6.052080E 06
DXX	9.922198E 03	DYY	4.167916E 02	DZZ	3.355703E 03
R	6.688559E 06	WT	1.514298E 05	F	2.060472E 05
V	1.048258E 04	PTH	6.461026E 00	AZ	5.908926E 01
ALT	3.104132E 05	LAT	-1.702027E 00	LON	1.780640E 02
VE	1.007018E 04	PTE	6.726818E 00	AZE	5.765431E 01
ANG	1.238252E 01	NFA	-2.620836E 00	IAC	1.513151E 01
CPA	-1.804185E 01	VPA	-1.788306E 01	CYA	1.326935E 01
VYA	1.321879E 01	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.895743E 06	YYY	-9.425516E 04	ZZZ	-6.035150E 06
DXX	9.965240E 03	DYY	4.329229E 02	DZZ	3.416421E 03
R	6.694569E 06	WT	1.490203E 05	F	2.060472E 05
V	1.054350E 04	PTH	6.669145E 00	AZ	5.914912E 01
ALT	3.164183E 05	LAT	-1.472533E 00	LON	1.784270E 02
VE	1.013058E 04	PTE	6.942290E 00	AZE	5.772313E 01
ANG	1.249486E 01	NFA	-5.252780E-01	IAC	1.533260E 01
CPA	-1.872730E 01	VPA	-1.856150E 01	CYA	1.347587E 01
VYA	1.342710E 01	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.945678E 06	YYY	-9.204923E 04	ZZZ	-6.017915E 06
DXX	1.000870E 04	DYY	4.495288E 02	DZZ	3.478008E 03
R	6.700805E 06	WT	1.466108E 05	F	2.060472E 05
V	1.060532E 04	PTH	6.878279E 00	AZ	5.921200E 01
ALT	3.226502E 05	LAT	-1.242423E 00	LON	1.787919E 02
VE	1.019186E 04	PTE	7.158744E 00	AZE	5.779509E 01
ANG	1.261562E 01	NFA	1.816923E 00	IAC	1.554742E 01
CPA	-1.948903E 01	VPA	-1.930322E 01	CYA	1.367439E 01
VYA	1.262783E 01	CRA	-0.000000E-39	VRA	0.000000E-39

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.995831E 06	YYY	-8.975906E 04	ZZZ	9.925000E 03
DXX	1.005248E 04	DYY	4.666682E 02	DZZ	-6.000369E 06
R	6.707271E 06	WT	1.442013E 05	F	3.540774E 03
V	1.066805E 04	PTH	7.086752E 00	AZ	2.060472E 05
ALT	3.291128E 05	LAT	-1.011715E 00	LON	5.927818E 01
VE	1.025404E 04	PTE	7.374440E 00	AZE	1.791588E 02
ANG	1.306620E 01	NFA	9.150590E 00	IAC	5.787045E 01
CPA	-2.125167E 01	VPA	-2.120116E 01	CYA	1.597876E 01
VYA	1.401205E 01	CRA	-0.000000E-39	VRA	1.398157E 01
					0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	3.046203E 06	YYY	-8.738165E 04	ZZZ	9.930000E 03
DXX	1.009642E 04	DYY	4.843292E 02	DZZ	-5.982503E 06
R	6.713966E 06	WT	1.417918E 05	F	3.605222E 03
V	1.073172E 04	PTH	7.291864E 00	AZ	2.060472E 05
ALT	3.358047E 05	LAT	-7.804294E-01	LON	5.934749E 01
VE	1.031714E 04	PTE	7.586568E 00	AZE	1.795277E 02
ANG	1.290517E 01	NFA	8.067945E 00	IAC	5.794906E 01
CPA	-2.118149E 01	VPA	-2.117657E 01	CYA	1.604769E 01
VYA	1.397732E 01	CRA	-0.000000E-39	VRA	1.397898E 01
					0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	3.096797E 06	YYY	-8.491530E 04	ZZZ	9.935000E 03
DXX	1.014122E 04	DYY	5.022572E 02	DZZ	-5.964316E 06
R	6.720895E 06	WT	1.393823E 05	F	3.669751E 03
V	1.079646E 04	PTH	7.503070E 00	AZ	2.060472E 05
ALT	3.427317E 05	LAT	-5.485803E-01	LON	5.941870E 01
VE	1.038131E 04	PTE	7.804955E 00	AZE	1.798986E 02
ANG	1.279401E 01	NFA	7.106012E 00	IAC	5.802962E 01
CPA	-2.118974E 01	VPA	-2.118549E 01	CYA	1.618652E 01
VYA	1.398406E 01	CRA	-0.000000E-39	VRA	1.398487E 01
					0.000000E-39

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TRANSLUNAR INJECTION (S-IVB CUTOFF)			FLIGHT TIME					
GEOCENTRIC REFERENCE								
XXX	3.119454E	06	YYY	-8.378527E	04	ZZZ	-5.956093E	06
DXX	1.016144E	04	DYY	5.103543E	02	DZZ	3.698625E	03
R	6.724066E	06	WT	1.383068E	C5	F	2.060472E	05
V	1.082572E	04	PTH	7.599101E	00	AZ	5.945113E	01
ALT	3.459020E	05	LAT	-4.449066E	-01	LON	-1.799352E	02
VE	1.041031E	04	PTE	7.904237E	C0	AZE	5.806624E	01
ANG	1.274351E	01	NFA	6.680557E	C0	IAC	1.624944E	01
CPA	-2.118974E	01	VPA	-2.119013E	01	CYA	1.398487E	01
VYA	1.398498E	01	CRA	-0.000000E	-39	VRA	0.000000E	-39

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TRANSLUNAR INJECTION
 TIME 1 FEB. 1968 18 HRS., 23 MIN., 5.842 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 9.9372319D 03
 X-4.5968331D 06 Y-4.9070800D 06 Z-5.2453965D 04
 DX 5.7364969D 03 DY-7.3936828D 03 DZ 5.4426327D 03
 R 6.7240657D 05 DEC-4.4596487D-01 RA-1.3313029D 02
 V 1.0825719D 04 PTH 7.5991004D 00 AZ 5.9451938D 01
 ALT 3.4590293D 05 LTGD-4.4982070D-01 LON 1.8006444D 02
 VE 1.0410302D 04 PTF 7.9027276D 00 AZE 5.8066740D 01

TIME 1 FEB. 1968 18 HRS., 24 MIN., 58.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.0049732D 04
 X-3.9160749D 06 Y-5.6970432D 06 Z 5.5863773D 05
 DX 6.3404660D 03 DY-6.6431480D 03 DZ 5.4073349D 03
 R 6.9357062D 06 DEC 4.6199034D 00 RA-1.2450413D 02
 V 1.0657026D 04 PTH 1.2531273D 01 AZ 5.9767376D 01
 ALT 5.5768143D 05 LTGD 4.6483911D 00 LON 1.8822056D 02
 VE 1.0235435D 04 PTE 1.3071325D 01 AZE 5.8314258D 01

TIME 1 FEB. 1968 18 HRS., 26 MIN., 50.842 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.0162232D 04
 X-3.1760132D 06 Y-6.4012334D 06 Z 1.1614461D 06
 DX 6.7909213D 03 DY-5.8774003D 03 DZ 5.2988611D 03
 R 7.2395999D 06 DEC 9.2318324D 00 RA-1.1638860D 02
 V 1.0427769D 04 PTH 1.7108691D 01 AZ 6.0749791D 01
 ALT 9.6198838D 05 LTGD 9.2856405D 00 LON 1.9586606D 02
 VE 9.9973848D 03 PTE 1.7897026D 01 AZE 5.9231353D 01

TIME 1 FEB. 1968 18 HRS., 28 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.0274732D 04
 X-2.3935028D 06 Y-7.0205610D 06 Z 1.7489684D 06
 DX 7.0981805D 03 DY-5.1404843D 03 DZ 5.1393232D 03
 R 7.6207626D 06 DEC 1.3267662D 01 RA-1.0882565D 02
 V 1.0159793D 04 PTH 2.1270790D 01 AZ 6.2230146D 01
 ALT 1.2437290D 06 LTGD 1.3339733D 01 LON 2.0295897D 02
 VE 9.7185287D 03 PTE 2.2322197D 01 AZE 6.0650051D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 1 FEB. 1968 18 HRS., 30 MIN., 35.842 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.0387232D 04
 X-1.5834416D 06 Y-7.5599794D 06 Z 2.3166728D 06
 DX 7.2850386D 03 DY-4.4600519D 03 DZ 4.9497343D 03
 R 8.0639661D 06 DEC 1.6695603D 01 RA-1.0182962D 02
 V 9.8723716D 03 PTH 2.5003607D 01 AZ 6.4043789D 01
 ALT 1.6875726D 06 LTGD 1.5779466D 01 LON 2.0948497D 02
 VE 9.4190640D 03 PTE 2.6335420D 01 AZE 6.2407612D 01

TIME 1 FEB. 1968 18 HRS., 32 MIN., 28.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.0499732D 04
 X-7.5789197D 05 Y-8.0266851D 06 Z 2.8621628D 06
 DX 7.3778770D 03 DY-3.8489364D 03 DZ 4.7467487D 03
 R 8.5553521D 06 DEC 1.9544960D 01 RA-9.5393959D 01
 V 9.5801359D 03 PTH 2.8325077D 01 AZ 6.6050096D 01
 ALT 2.1795882D 06 LTGD 1.9635483D 01 LON 2.1545060D 02
 VE 9.1138605D 03 PTE 2.9956408D 01 AZE 6.4365794D 01

TIME 1 FEB. 1968 18 HRS., 34 MIN., 20.842 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.0612732D 04
 X 7.3976949D 04 Y-8.4286862D 06 Z 3.3846302D 06
 DX 7.4011300D 03 DY-3.3095189D 03 DZ 4.5419896D 03
 R 9.0831682D 06 DEC 2.1877698D 01 RA-8.9497134D 01
 V 9.2929710D 03 PTH 3.1270574D 01 AZ 6.8139712D 01
 ALT 2.7079808D 06 LTGD 2.1971178D 01 LON 2.2087739D 02
 VE 8.8133370D 03 PTE 3.3221422D 01 AZE 6.6417717D 01

TIME 1 FEB. 1968 18 HRS., 36 MIN., 13.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.0724732D 04
 X 9.0551433D 05 Y-8.7738793D 06 Z 3.8843221D 06
 DX 7.3749469D 03 DY-2.8380767D 03 DZ 4.3427682D 03
 R 9.6378874D 06 DEC 2.3767502D 01 RA-8.4107606D 01
 V 9.0168817D 03 PTH 3.3882258D 01 AZ 7.0233719D 01
 ALT 3.2632044D 06 LTGD 2.3861446D 01 LON 2.2579689D 02
 VE 8.5238291D 03 PTE 3.5172734D 01 AZE 6.8486790D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 1 FEB. 1968	18 HRS., 38 MIN., 5.842 SEC., GMT	
GEOCENTRIC REFERENCE	FLIGHT TIME 1.0837232D 04	
X 1.7320733D 06	Y-9.0695551D 06	Z 4.3621182D 06
DX 7.3148488D 03	DY-2.4279854D 03	DZ 4.1532145D 03
R 1.0212002D 07	DEC 2.5287208D 01	RA-7.9188030D 01
V 8.7550738D 03	PTH 3.6202566D 01	AZ 7.2278918D 01
ALT 3.8377472D 06	LTGD 2.5380023D 01	LON 2.3024643D 02
VF 8.2487860D 03	PTE 3.8852323D 01	AZE 7.0521881D 01

TIME 1 FEB. 1968	18 HRS., 39 MIN., 58.342 SEC., GMT	
GEOCENTRIC REFERENCE	FLIGHT TIME 1.0949732D 04	
X 2.5505174D 06	Y-9.3221937D 06	Z 4.8192343D 06
DX 7.2322999D 03	DY-2.0717065D 03	DZ 3.9753225D 03
R 1.0799697D 07	DEC 2.6502566D 01	RA-7.4698545D 01
V 8.5088964D 03	PTH 3.8270846D 01	AZ 7.4242027D 01
ALT 4.4257984D 06	LTGD 2.6593291D 01	LON 2.3426588D 02
VF 7.9897320D 03	PTE 4.1298729D 01	AZE 7.2491498D 01

TIME 1 FEB. 1968	18 HRS., 41 MIN., 50.842 SEC., GMT	
GEOCENTRIC REFERENCE	FLIGHT TIME 1.1062232D 04	
X 3.3588110D 06	Y-9.5374296D 06	Z 5.2570285D 06
DX 7.1355435D 03	DY-1.7618633D 03	DZ 3.8097452D 03
R 1.1396514D 07	DEC 2.7469986D 01	RA-7.0599185D 01
V 8.2785447D 03	PTH 4.0121983D 01	AZ 7.6104270D 01
ALT 5.0229066D 06	LTGD 2.7558082D 01	LON 2.3789521D 02
VF 7.7469856D 03	PTE 4.3545836D 01	AZE 7.4378420D 01

TIME 1 FEB. 1968	18 HRS., 43 MIN., 43.342 SEC., GMT	
GEOCENTRIC REFERENCE	FLIGHT TIME 1.1174732D 04	
X 4.1557024D 06	Y-9.7201015D 06	Z 5.6768840D 06
DX 7.0304017D 03	DY-1.4917426D 03	DZ 3.6563437D 03
R 1.1999052D 07	DEC 2.8236430D 01	RA-6.6851499D 01
V 8.0635410D 03	PTH 4.1786129D 01	AZ 7.7856932D 01
ALT 5.6256809D 06	LTGD 2.8321630D 01	LON 2.4117286D 02
VF 7.5201545D 03	PTE 4.5622723D 01	AZE 7.6175315D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	1	FEB. 1968	18 HRS.,	45 MIN.,	35.842 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	1.1287232D 04	
X	4.9404906D	06	Y	-9.8743399D	06	Z	6.0801412D 06
DX	6.9209307D	03	DY	-1.2554707D	03	DZ	3.5145445D 03
R	1.2604727D	07	DEC	2.8840298D	01	RA	-6.3419533D 01
V	7.8630472D	03	PTH	4.3288983D	01	AZ	7.9497988D 01
ALT	6.2315450D	06	LTGD	2.8922508D	01	LON	2.4413479D 02
VE	7.3084589D	03	PTE	4.7554009D	01	AZE	7.7881432D 01

TIME	1	FEB. 1968	18 HRS.,	47 MIN.,	28.342 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	1.1399732D 04	
X	5.7129553D	06	Y	-1.0003662D	07	Z	6.4680622D 06
DX	6.8099233D	03	DY	-1.0480206D	03	DZ	3.3835604D 03
R	1.3211578D	07	DEC	2.9312668D	01	RA	-6.0270329D 01
V	7.6760591D	03	PTH	4.4652297D	01	AZ	8.1029654D 01
ALT	6.8385452D	06	LTGD	2.9391902D	01	LON	2.4681396D 02
VE	7.1109330D	03	PTE	4.9360393D	01	AZE	7.9500213D 01

TIME	1	FEB. 1968	18 HRS.,	49 MIN.,	20.842 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	1.1512232D 04	
X	6.4727376D	06	Y	-1.0111065D	07	Z	6.8418153D 06
DX	6.6992768D	03	DY	-8.6514226D	02	DZ	3.2625242D 03
R	1.3818119D	07	DEC	2.9678561D	01	RA	-5.7374097D 01
V	7.5015228D	03	PTH	4.5894429D	01	AZ	8.2456683D 01
ALT	7.4452022D	06	LTGD	2.9754893D	01	LON	2.4924016D 02
VE	6.9265471D	03	PTE	5.1059232D	01	AZE	8.1037645D 01

TIME	1	FEB. 1968	18 HRS.,	51 MIN.,	13.342 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	1.1624732D 04	
X	7.2202542D	06	Y	-1.0199106D	07	Z	7.2024705D 06
DX	6.5902580D	03	DY	-7.0326524D	02	DZ	3.1505647D 03
R	1.4423225D	07	DEC	2.9958073D	01	RA	-5.4704171D 01
V	7.3384018D	03	PTH	4.7030873D	01	AZ	8.3785211D 01
ALT	8.0503979D	06	LTGD	3.0031617D	01	LON	2.5144005D 02
VE	6.7542791D	03	PTE	5.2665073D	01	AZE	8.2501157D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	1	FEB. 1968	18 HRS.,	53 MIN.,	5.842 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	1.1737232D 04	
X	7.9556380D	06	Y	-1.0269975D	07	Z	7.5510014D 06
DX	6.4836918D	03	DY	-5.5939704D	02	DZ	3.0468484D 03
R	1.5026050D	07	DEC	3.0167350D	01	RA	-5.2236836D 01
V	7.1857129D	03	PTH	4.8074731D	01	AZ	8.5022001D 01
ALT	8.6532902D	06	LTGD	3.0238235D	01	LON	2.5343736D 02
VE	6.5931535D	03	PTE	5.4190125D	01	AZE	8.3898901D 01

TIME	1	FEB. 1968	18 HRS.,	54 MIN.,	58.342 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	1.1849732D 04	
X	8.6791964D	06	Y	-1.0325551D	07	Z	7.8882914D 06
DX	6.3800937D	03	DY	-4.3102978D	02	DZ	2.9506005D 03
R	1.5625959D	07	DEC	3.0319380D	01	RA	-4.9951090D 01
V	7.0425439D	03	PTH	4.9037114D	01	AZ	8.6173957D 01
ALT	9.2532483D	06	LTGD	3.0387745D	01	LON	2.5525307D 02
VE	6.4422603D	03	PTE	5.5644655D	01	AZE	8.5239311D 01

TIME	1	FEB. 1968	18 HRS.,	56 MIN.,	50.842 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	1.1962232D 04	
X	9.3912818D	06	Y	-1.0367458D	07	Z	8.2151400D 06
DX	6.2797637D	03	DY	-3.1605840D	02	DZ	2.8611129D 03
R	1.6222481D	07	DEC	3.0424640D	01	RA	-4.7828383D 01
V	6.9080599D	03	PTH	4.9927479D	01	AZ	8.7247826D 01
ALT	9.8498040D	06	LTGD	3.0490623D	01	LON	2.5690574D 02
VE	6.3007634D	03	PTE	5.7037317D	01	AZE	8.6530843D 01

TIME	1	FEB. 1968	18 HRS.,	58 MIN.,	43.342 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	1.2074732D 04	
X	1.0092272D	07	Y	-1.0397100D	07	Z	8.5322712D 06
DX	6.1828527D	03	DY	-2.1271139D	02	DZ	2.7777452D 03
R	1.6815269D	07	DEC	3.0491603D	01	RA	-4.5852346D 01
V	6.7815030D	03	PTH	5.0753908D	01	AZ	8.8250030D 01
ALT	1.0442614D	07	LTGD	3.0555340D	01	LON	2.5841175D 02
VE	6.1679013D	03	PTE	5.8375428D	01	AZE	8.7781845D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	1	FEB. 1968	19 HRS.,	0 MIN.,	35.842 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	1.2187232D 04	
X	1.0782554D	07	Y	-1.0415698D	07	Z	8.8403405D 06
DX	6.0894087D	03	DY	-1.1949310D	02	DZ	2.6999223D 03
R	1.7404076D	07	DEC	3.0527147D	01	RA	-4.4008538D 01
V	6.6621886D	03	PTH	5.1523338D	01	AZ	8.9186568D 01
ALT	1.1031431D	07	LTGD	3.0588767D	01	LON	2.5978552D 02
VE	6.0429845D	03	PTE	5.9665184D	01	AZE	8.9000506D 01

TIME	1	FEB. 1968	19 HRS.,	2 MIN.,	28.342 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	1.2299732D 04	
X	1.1462518D	07	Y	-1.0424318D	07	Z	9.1399423D 06
DX	5.9994094D	03	DY	-3.5136190D	01	DZ	2.6271297D 03
R	1.7988726D	07	DEC	3.0536874D	01	RA	-4.2284214D 01
V	6.5495006D	03	PTH	5.2241746D	01	AZ	9.0062983D 01
ALT	1.1616085D	07	LTGD	3.0596501D	01	LON	2.6103981D 02
VE	5.9253903D	03	PTE	6.0911840D	01	AZE	9.0194868D 01

TIME	1	FEB. 1968	19 HRS.,	4 MIN.,	20.842 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	1.2412232D 04	
X	1.2132548D	07	Y	-1.0423895D	07	Z	9.4316160D 06
DX	5.9127863D	03	DY	4.1437382D	01	DZ	2.5589079D 03
R	1.8569106D	07	DEC	3.0525365D	01	RA	-4.0668110D 01
V	6.4428851D	03	PTH	5.2914309D	01	AZ	9.0884356D 01
ALT	1.2196460D	07	LTGD	3.0583113D	01	LON	2.6218588D 02
VE	5.8145575D	03	PTE	6.2119863D	01	AZE	9.1372867D 01

TIME	1	FEB. 1968	19 HRS.,	6 MIN.,	13.342 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	1.2524732D 04	
X	1.2793018D	07	Y	-1.0415252D	07	Z	9.7158525D 06
DX	5.8294401D	03	DY	1.1114827D	02	DZ	2.4948469D 03
R	1.9145144D	07	DEC	3.0496376D	01	RA	-3.9150262D 01
V	6.3418441D	03	PTH	5.3545525D	01	AZ	9.1655316D 01
ALT	1.2772489D	07	LTGD	3.0552354D	01	LON	2.6323370D 02
VE	5.7099806D	03	PTE	6.3293045D	01	AZE	9.2542418D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	1	FEB. 1968	19 HRS.,	8 MIN.,	5.842 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	1.2637232D 04	
X	1.3444290D	07	Y	-1.0399114D	07	Z	9.9930988D 06
DX	5.7492529D	03	DY	1.7478586D	02	DZ	2.4345808D 03
R	1.9716809D	07	DEC	3.0453003D	01	RA	-3.7721832D 01
V	6.2459301D	03	PTH	5.4139322D	01	AZ	9.2380068D 01
ALT	1.3344139D	07	LTGD	3.0507310D	01	LON	2.6419209D 02
VE	5.6112041D	03	PTE	6.4434599D	01	AZE	9.3711503D 01

TIME	1	FEB. 1968	19 HRS.,	9 MIN.,	58.342 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	1.2749732D 04	
X	1.4086713D	07	Y	-1.0376127D	07	Z	1.0263763D 07
DX	5.6720962D	03	DY	2.3302969D	02	DZ	2.3777828D 03
R	2.0284091D	07	DEC	3.0397799D	01	RA	-3.6374974D 01
V	6.1547404D	03	PTH	5.4699144D	01	AZ	9.3062424D 01
ALT	1.3911403D	07	LTGD	3.0450529D	01	LON	2.6506892D 02
VE	5.5178172D	03	PTE	6.5547242D	01	AZE	9.4888293D 01

TIME	1	FEB. 1968	19 HRS.,	11 MIN.,	50.842 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	1.2862232D 04	
X	1.4720620D	07	Y	-1.0346863D	07	Z	1.0528219D 07
DX	5.5978363D	03	DY	2.8646700D	02	DZ	2.3241609D 03
R	2.0847005D	07	DEC	3.0332884D	01	RA	-3.5102701D 01
V	6.0679122D	03	PTH	5.5228020D	01	AZ	9.3705834D 01
ALT	1.4474296D	07	LTGD	3.0384123D	01	LON	2.6587116D 02
VE	5.4294488D	03	PTE	6.6633250D	01	AZE	9.6081286D 01

TIME	1	FEB. 1968	19 HRS.,	13 MIN.,	43.342 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	1.2974732D 04	
X	1.5346330D	07	Y	-1.0311833D	07	Z	1.0786809D 07
DX	5.5263385D	03	DY	3.3560719D	02	DZ	2.2734535D 03
R	2.1405583D	07	DEC	3.0260017D	01	RA	-3.3898782D 01
V	5.9851183D	03	PTH	5.5728624D	01	AZ	9.4313420D 01
ALT	1.5032850D	07	LTGD	3.0309846D	01	LON	2.6660504D 02
VE	5.3457635D	03	PTE	6.7694515D	01	AZE	9.7299457D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	1	FEB. 1968	19 HRS.,	15 MIN.,	35.842 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	1.3087232D 04	
X	1.5964145D	07	Y	-1.0271496D	07	Z	1.1039847D 07
DX	5.4574699D	03	DY	3.8089379D	02	DZ	2.2254259D 03
R	2.1959867D	07	DEC	3.0180666D	01	RA	-3.2757645D 01
V	5.9060628D	03	PTH	5.6203329D	01	AZ	9.4888006D 01
ALT	1.5587108D	07	LTGD	3.0229160D	01	LON	2.6727615D 02
VE	5.2664572D	03	PTE	6.8732574D	01	AZE	9.8552449D 01

TIME	1	FEB. 1968	19 HRS.,	17 MIN.,	28.342 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	1.3199732D 04	
X	1.6574354D	07	Y	-1.0226262D	07	Z	1.1287622D 07
DX	5.3911007D	03	DY	4.2271433D	02	DZ	2.1798673D 03
R	2.2509910D	07	DEC	3.0096057D	01	RA	-3.1674297D 01
V	5.8304782D	03	PTH	5.6654244D	01	AZ	9.5432149D 01
ALT	1.6137124D	07	LTGD	3.0143286D	01	LON	2.6788946D 02
VE	5.1912540D	03	PTE	6.9748644D	01	AZE	9.9850782D 01

TIME	1	FEB. 1968	19 HRS.,	19 MIN.,	20.842 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	1.3312232D 04	
X	1.7177232D	07	Y	-1.0176502D	07	Z	1.1530402D 07
DX	5.3271060D	03	DY	4.6140861D	02	DZ	2.1365878D 03
R	2.3055773D	07	DEC	3.0007218D	01	RA	-3.0644252D 01
V	5.7581215D	03	PTH	5.7083252D	01	AZ	9.5948164D 01
ALT	1.6682957D	07	LTGD	3.0053245D	01	LON	2.6844947D 02
VE	5.1199031D	03	PTE	7.0743635D	01	AZE	1.0120611D 02

TIME	1	FEB. 1968	19 HRS.,	21 MIN.,	13.342 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	1.3424732D 04	
X	1.7773038D	07	Y	-1.0122551D	07	Z	1.1768433D 07
DX	5.2653658D	03	DY	4.9727552D	02	DZ	2.0954163D 03
R	2.3597520D	07	DEC	2.9915010D	01	RA	-2.9663473D 01
V	5.6887722D	03	PTH	5.7492036D	01	AZ	9.6438154D 01
ALT	1.7224674D	07	LTGD	2.9959896D	01	LON	2.6896022D 02
VE	5.0521757D	03	PTE	7.1718162D	01	AZE	1.0263150D 02

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - FIRST OPPORTUNITY
(CONTINUED)

TIME	1	FEB. 1968	19 HRS.,	23 MIN.,	5.842 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	1.3537232D 04	
X	1.8362019D	07	Y	-1.0064711D	07	Z	1.2001944D 07
DX	5.2057662D	03	DY	5.3057887D	02	DZ	2.0561979D 03
R	2.4135220D	07	DEC	2.9820158D	01	RA	-2.8728318D 01
V	5.6222296D	03	PTH	5.7882109D	01	AZ	9.6904023D 01
ALT	1.7762343D	07	LTGD	2.9863958D	01	LON	2.6942534D 02
VE	4.9878631D	03	PTE	7.2672544D	01	AZE	1.0414184D 02

TIME	1	FEB. 1968	19 HRS.,	24 MIN.,	58.342 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	1.3649732D 04	
X	1.8944411D	07	Y	-1.0003258D	07	Z	1.2231146D 07
DX	5.1481988D	03	DY	5.6155214D	02	DZ	2.0187926D 03
R	2.4668944D	07	DEC	2.9723273D	01	RA	-2.7835492D 01
V	5.5583105D	03	PTH	5.8254834D	01	AZ	9.7347505D 01
ALT	1.8296037D	07	LTGD	2.9766040D	01	LON	2.6984813D 02
VE	4.9267740D	03	PTE	7.3606790D	01	AZE	1.0575421D 02

TIME	1	FEB. 1968	19 HRS.,	26 MIN.,	50.842 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	1.3762232D 04	
X	1.9520436D	07	Y	-9.9384415D	06	Z	1.2456236D 07
DX	5.0925611D	03	DY	5.9040264D	02	DZ	1.9830730D 03
R	2.5198767D	07	DEC	2.9624869D	01	RA	-2.6982012D 01
V	5.4968475D	03	PTH	5.8611439D	01	AZ	9.7770179D 01
ALT	1.8825828D	07	LTGD	2.9666651D	01	LON	2.7023158D 02
VE	4.8687333D	03	PTE	7.4520584D	01	AZE	1.0748846D 02

TIME	1	FEB. 1968	19 HRS.,	28 MIN.,	43.342 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	1.3874732D 04	
X	2.0090306D	07	Y	-9.8704901D	06	Z	1.2677396D 07
DX	5.0387564D	03	DY	6.1731492D	02	DZ	1.9489235D 03
R	2.5724761D	07	DEC	2.9525381D	01	RA	-2.6165167D 01
V	5.4376876D	03	PTH	5.8953039D	01	AZ	9.8173480D 01
ALT	1.9351790D	07	LTGD	2.9566223D	01	LON	2.7057839D 02
VE	4.8135799D	03	PTE	7.5413239D	01	AZE	1.0936781D 02

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 1 FEB. 1968 19 HRS., 58 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.5674732D 04
 X 2.8509096D 07 Y-8.4857286D 06 Z 1.5793002D 07
 DX 4.3667177D 03 DY 8.7979925D 02 DZ 1.5517159D 03
 R 3.3677813D 07 DEC 2.7965759D 01 RA-1.6575629D 01
 V 4.7170003D 03 PTH 6.2990423D 01 AZ 1.0279545D 02
 ALT 2.7304349D 07 LTGD 2.7995885D 01 LON 2.7264740D 02
 VF 4.2299731D 03 PTE 8.3439017D 01 AZE-1.7046347D 02

TIME 1 FEB. 1968 20 HRS., 28 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.7474732D 04
 X 3.5942258D 07 Y-6.7913702D 06 Z 1.8356061D 07
 DX 3.9186907D 03 DY 9.8835608D 02 DZ 1.3133566D 03
 R 4.0925708D 07 DEC 2.6648864D 01 RA-1.0700015D 01
 V 4.2494576D 03 PTH 6.5491348D 01 AZ 1.0549394D 02
 ALT 3.4551843D 07 LTGD 2.6672855D 01 LON 2.7100248D 02
 VE 4.0137667D 03 PTE 7.4424882D 01 AZE-1.1600562D 02

TIME 1 FEB. 1968 20 HRS., 58 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.9274732D 04
 X 4.2688655D 07 Y-4.9620122D 06 Z 2.0556243D 07
 DX 3.5927224D 03 DY 1.0379756D 03 DZ 1.1516186D 03
 R 4.7643606D 07 DEC 2.5573491D 01 RA-6.6301506D 00
 V 3.9129621D 03 PTH 6.7233128D 01 AZ 1.0728666D 02
 ALT 4.1269423D 07 LTGD 2.5593506D 01 LON 2.6755181D 02
 VE 4.0087641D 03 PTE 6.4159596D 01 AZE-1.0496581D 02

TIME 1 FEB. 1968 21 HRS., 28 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 2.1074732D 04
 X 4.8920409D 07 Y-3.0706386D 06 Z 2.2527564D 07
 DX 3.3413492D 03 DY 1.0604290D 03 DZ 1.0331812D 03
 R 5.3945587D 07 DEC 2.4683024D 01 RA-3.5916322D 00
 V 3.6546666D 03 PTH 6.8535145D 01 AZ 1.0857811D 02
 ALT 4.7571149D 07 LTGD 2.4700248D 01 LON 2.6306979D 02
 VE 4.1316374D 03 PTE 5.5403851D 01 AZE-1.0048991D 02

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	1	FEB. 1968	21 HRS.,	58 MIN.,	43.342 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	2.2874732D 04	
X	5.4746983D	07	Y	-1.1527515D	06	Z	2.4301827D 07
DX	3.1394204D	03	DY	1.0688696D	03	DZ	9.4185400D 02
R	5.9909429D	07	DEC	2.3931411D	01	RA	-1.2062406D 00
V	3.4475399D	03	PTH	6.9555526D	01	AZ	1.0956113D 02
ALT	5.3534781D	07	LTGD	2.3946565D	01	LON	2.5793465D 02
VE	4.3322342D	03	PTE	4.8213890D	01	AZE	-9.8045690D 01

TIME	1	FEB. 1968	22 HRS.,	28 MIN.,	43.342 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	2.4674732D 04	
X	6.0243079D	07	Y	7.7268605D	05	Z	2.5929110D 07
DX	2.9722592D	03	DY	1.0695419D	03	DZ	8.6875911D 02
R	6.5590733D	07	DEC	2.3285724D	01	RA	7.3484325D-01
V	3.2761238D	03	PTH	7.0382630D	01	AZ	1.1033972D 02
ALT	5.9215908D	07	LTGD	2.3299279D	01	LON	2.5235520D 02
VE	4.5795769D	03	PTE	4.2363641D	01	AZE	-9.6499849D 01

TIME	1	FEB. 1968	22 HRS.,	58 MIN.,	43.342 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	2.6474732D 04	
X	6.5462394D	07	Y	2.6949213D	06	Z	2.7437078D 07
DX	2.8306604D	03	DY	1.0657057D	03	DZ	8.0858984D 02
R	7.1030844D	07	DEC	2.2722599D	01	RA	2.3573912D 00
V	3.1308440D	03	PTH	7.1070218D	01	AZ	1.1097516D 02
ALT	6.4655868D	07	LTGD	2.2734880D	01	LON	2.4645722D 02
VE	4.8544874D	03	PTE	3.7592523D	01	AZE	-9.5433163D 01

TIME	1	FEB. 1968	23 HRS.,	28 MIN.,	43.342 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	2.8274732D 04	
X	7.0445095D	07	Y	4.6076292D	06	Z	2.8845737D 07
DX	2.7085204D	03	DY	1.0591835D	03	DZ	7.5796230D 02
R	7.6261512D	07	DEC	2.2225179D	01	RA	3.7422362D 00
V	3.0054050D	03	PTH	7.1653135D	01	AZ	1.1150607D 02
ALT	6.9886404D	07	LTGD	2.2236419D	01	LON	2.4032153D 02
VE	5.1450606D	03	PTE	3.3671345D	01	AZE	-9.4653208D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 1 FEB. 1968	23 HRS.,	58 MIN.,	43.342 SEC.,	GMT
GEOCENTRIC REFERENCE	FLIGHT TIME 3.0074732D 04			
X 7.5222182D 07	Y 6.5070223D 06	Z 3.0170093D 07		
DX 2.6016107D 03	DY 1.0510485D 03	DZ 7.1460784D 02		
R 8.1307764D 07	DEC 2.1781030D 01	RA 4.9440084D 00		
V 2.8954699D 03	PTH 7.2155097D 01	AZ 1.1195807D 02		
ALT 7.4932541D 07	LTGD 2.1791404D 01	LON 2.3400277D 02		
VE 5.4438588D 03	PTE 3.0416241D 01	AZE-9.4058747D 01		

TIME 2 FEB. 1968	0 HRS.,	28 MIN.,	43.342 SEC.,	GMT
GEOCENTRIC REFERENCE	FLIGHT TIME 3.1874732D 04			
X 7.9818195D 07	Y 8.3908350D 06	Z 3.1421731D 07		
DX 2.5068959D 03	DY 1.0419576D 03	DZ 6.7694293D 02		
R 8.6189764D 07	DEC 2.1380784D 01	RA 6.0011390D 00		
V 2.7979375D 03	PTH 7.2592887D 01	AZ 1.1234887D 02		
ALT 7.9814439D 07	LTGD 2.1390426D 01	LON 2.2753937D 02		
VE 5.7461979D 03	PTE 2.7685054D 01	AZE-9.3591259D 01		

TIME 2 FEB. 1968	0 HRS.,	58 MIN.,	43.342 SEC.,	GMT
GEOCENTRIC REFERENCE	FLIGHT TIME 3.3674732D 04			
X 8.4252967D 07	Y 1.0257747D 07	Z 3.2609810D 07		
DX 2.4221318D 03	DY 1.0323247D 03	DZ 6.4382543D 02		
R 9.0924054D 07	DEC 2.1017241D 01	RA 6.9415622D 00		
V 2.7105217D 03	PTH 7.2978765D 01	AZ 1.1269114D 02		
ALT 8.4548637D 07	LTGD 2.1026255D 01	LON 2.2095926D 02		
VE 6.0491080D 03	PTE 2.5369258D 01	AZE-9.3214492D 01		

TIME 2 FEB. 1968	1 HRS.,	28 MIN.,	43.342 SEC.,	GMT
GEOCENTRIC REFERENCE	FLIGHT TIME 3.5474732D 04			
X 8.8542812D 07	Y 1.2107041D 07	Z 3.3741719D 07		
DX 2.3456184D 03	DY 1.0224167D 03	DZ 6.1440868D 02		
R 9.5524414D 07	DEC 2.0684766D 01	RA 7.7861421D 00		
V 2.6314938D 03	PTH 7.3321928D 01	AZ 1.1299422D 02		
ALT 8.9148914D 07	LTGD 2.0693234D 01	LON 2.1428330D 02		
VE 6.3507000D 03	PTE 2.3386065D 01	AZE-9.2904771D 01		

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	2	FEB. 1968	1	HRS.,	58	MIN.,	43.342	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	3.7274732D	04
X	9.2701349D	07	Y	1.3938388D	07	Z	3.4823514D	07	
DX	2.2760401D	03	DY	1.0124080D	03	DZ	5.8805033D	02	
R	1.0000248D	08	DEC	2.0378877D	01	RA	8.5508238D	00	
V	2.5595179D	03	PTH	7.3629427D	01	AZ	1.1326514D	02	
ALT	9.3625905D	07	LTGD	2.0386868D	01	LON	2.0752745D	02	
VE	6.6497763D	03	PTE	2.1671988D	01	AZE	-9.2645972D	01	

TIME	2	FEB. 1968	2	HRS.,	28	MIN.,	43.342	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	3.9074732D	04
X	9.6740092D	07	Y	1.5751719D	07	Z	3.5860234D	07	
DX	2.2123608D	03	DY	1.0024136D	03	DZ	5.6425329D	02	
R	1.0436819D	08	DEC	2.0095963D	01	RA	9.2480345D	00	
V	2.4935427D	03	PTH	7.3906776D	01	AZ	1.1350931D	02	
ALT	9.7992544D	07	LTGD	2.0103530D	01	LON	2.0070413D	02	
VE	6.9455877D	03	PTE	2.0177940D	01	AZE	-9.2426732D	01	

TIME	2	FEB. 1968	2	HRS.,	58	MIN.,	43.342	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	4.0874732D	04
X	1.0065889D	08	Y	1.7547132D	07	Z	3.6856126D	07	
DX	2.1537512D	03	DY	9.9250956D	02	DZ	5.4262616D	02	
R	1.0863011D	08	DEC	1.9833070D	01	RA	9.8876260D	00	
V	2.4327274D	03	PTH	7.4158357D	01	AZ	1.1373099D	02	
ALT	1.0225440D	08	LTGD	1.9840262D	01	LON	1.9382319D	02	
VE	7.2376789D	03	PTE	1.8865598D	01	AZE	-9.2238815D	01	

TIME	2	FEB. 1968	3	HRS.,	28	MIN.,	43.342	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	4.2674732D	04
X	1.0449623D	08	Y	1.9324838D	07	Z	3.7814802D	07	
DX	2.0995387D	03	DY	9.8274557D	02	DZ	5.2285616D	02	
R	1.1279571D	08	DEC	1.9587762D	01	RA	1.0477525D	01	
V	2.3763902D	03	PTH	7.4387704D	01	AZ	1.1393353D	02	
ALT	1.0641994D	08	LTGD	1.9594616D	01	LON	1.8689255D	02	
VE	7.5257893D	03	PTE	1.7704739D	01	AZE	-9.2076107D	01	

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 2 FEB. 1968
 GEOCENTRIC REFERENCE
 X 1.0822953D 08
 DX 2.0491707D 03
 R 1.1687152D 08
 V 2.3239709D 03
 ALT 1.1049570D 08
 VE 7.8097881D 03

3 HRS., 58 MIN., 43.342 SEC., GMT
 FLIGHT TIME 4.4474732D 04
 Y 2.1085119D 07
 DY 9.7315368D 02
 DEC 1.9358004D 01
 PTH 7.4597700D 01
 LTGD 1.9364554D 01
 PTE 1.6671288D 01

Z 3.8739369D 07
 DZ 5.0468990D 02
 RA 1.1024192D 01
 AZ 1.1411968D 02
 LON 1.7991869D 02
 AZE-9.1933974D 01

TIME 2 FEB. 1968
 GEOCENTRIC REFERENCE
 X 1.1187528D 08
 DX 2.0021887D 03
 R 1.2086334D 08
 V 2.2750047D 03
 ALT 1.1448747D 08
 VE 8.0896313D 03

4 HRS., 28 MIN., 43.342 SEC., GMT
 FLIGHT TIME 4.6274732D 04
 Y 2.2828306D 07
 DY 9.6375372D 02
 DEC 1.9142082D 01
 PTH 7.4790730D 01
 LTGD 1.9148356D 01
 PTE 1.5745882D 01

Z 3.9632522D 07
 DZ 4.8791974D 02
 RA 1.1532957D 01
 AZ 1.1429164D 02
 LON 1.7290692D 02
 AZE-9.1808842D 01

TIME 2 FEB. 1968
 GEOCENTRIC REFERENCE
 X 1.1543921D 08
 DX 1.9582082D 03
 R 1.2477629D 08
 V 2.2291020D 03
 ALT 1.1840038D 08
 VE 8.3653326D 03

4 HRS., 58 MIN., 43.342 SEC., GMT
 FLIGHT TIME 4.8074732D 04
 Y 2.4554755D 07
 DY 9.5455708D 02
 DEC 1.8938541D 01
 PTH 7.4968782D 01
 LTGD 1.8944562D 01
 PTE 1.4912800D 01

Z 4.0496614D 07
 DZ 4.7237369D 02
 RA 1.2008259D 01
 AZ 1.1445127D 02
 LON 1.6586169D 02
 AZE-9.1697914D 01

TIME 2 FEB. 1968
 GEOCENTRIC REFERENCE
 X 1.1892643D 08
 DX 1.9169041D 03
 R 1.2861498D 08
 V 2.1859328D 03
 ALT 1.2223902D 08
 VE 8.6369443D 03

5 HRS., 28 MIN., 43.342 SEC., GMT
 FLIGHT TIME 4.9874732D 04
 Y 2.6264837D 07
 DY 9.4556932D 02
 DEC 1.8746134D 01
 PTH 7.5133531D 01
 LTGD 1.8751925D 01
 PTE 1.4159165D 01

Z 4.1333715D 07
 DZ 4.5790793D 02
 RA 1.2453833D 01
 AZ 1.1460009D 02
 LON 1.5978673D 02
 AZE-9.1598965D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	2	FEB. 1968	5 HRS.,	58 MIN.,	43.342 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	5.1674732D 04	
X	1.2234150D	08	Y	2.7958931D	07	Z	4.2145658D 07
DX	1.8779993D	03	DY	9.3679190D	02	DZ	4.4440117D 02
R	1.3238354D	08	DEC	1.8563788D	01	RA	1.2872846D 01
V	2.1452163D	03	PTH	7.5286397D	01	AZ	1.1473939D 02
ALT	1.2600754D	08	LTGD	1.8569368D	01	LON	1.5168521D 02
VE	8.9045432D	03	PTE	1.3474344D	01	AZE-9.1510207D	01

TIME	2	FEB. 1968	6 HRS.,	28 MIN.,	43.342 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3474732D 04	
X	1.2568853D	08	Y	2.9637413D	07	Z	4.2934073D 07
DX	1.8412560D	03	DY	9.2822348D	02	DZ	4.3175031D 02
R	1.3608569D	08	DEC	1.8390572D	01	RA	1.3268006D 01
V	2.1067109D	03	PTH	7.5428596D	01	AZ	1.1487027D 02
ALT	1.2970966D	08	LTGD	1.8395957D	01	LON	1.4455984D 02
VE	9.1682223D	03	PTE	1.2849488D	01	AZE-9.1430190D	01

TIME	2	FEB. 1968	6 HRS.,	58 MIN.,	43.342 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	5.5274732D 04	
X	1.2897120D	08	Y	3.1300659D	07	Z	4.3700419D 07
DX	1.8064683D	03	DY	9.1986078D	02	DZ	4.1986708D 02
R	1.3972483D	08	DEC	1.8225674D	01	RA	1.3641643D 01
V	2.0702077D	03	PTH	7.5561176D	01	AZ	1.1499367D 02
ALT	1.3334875D	08	LTGD	1.8230878D	01	LON	1.3741294D 02
VE	9.4280836D	03	PTE	1.2277179D	01	AZE-9.1357719D	01

TIME	2	FEB. 1968	7 HRS.,	28 MIN.,	43.342 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	5.7074732D 04	
X	1.3219288D	08	Y	3.2949033D	07	Z	4.4446009D 07
DX	1.7734578D	03	DY	9.1169923D	02	DZ	4.0867541D 02
R	1.4330402D	08	DEC	1.8068381D	01	RA	1.3995774D 01
V	2.0355254D	03	PTH	7.5685043D	01	AZ	1.1511038D 02
ALT	1.3692791D	08	LTGD	1.8073417D	01	LON	1.3024654D 02
VE	9.6842344D	03	PTE	1.1751157D	01	AZE-9.1291808D	01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	2	FEB. 1968	7 HRS.,	58 MIN.,	43.342 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	5.8874732D	04
X	1.3535662D	08	Y	3.4582893D	07	Z	4.5172026D 07
DX	1.7420679D	03	DY	9.0373339D	02	DZ	3.9810936D 02
R	1.4682610D	08	DEC	1.7918065D	01	RA	1.4332160D 01
V	2.0025048D	03	PTH	7.5800988D	01	AZ	1.1522112D 02
ALT	1.4044995D	08	LTGD	1.7922945D	01	LON	1.2306239D 02
VE	9.9367835D	03	PTE	1.1266105D	01	AZE	-9.1231632D 01

TIME	2	FEB. 1968	8 HRS.,	28 MIN.,	43.342 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	6.0674732D	04
X	1.3846521D	08	Y	3.6202587D	07	Z	4.5879543D 07
DX	1.7121613D	03	DY	8.9595729D	02	DZ	3.8811144D 02
R	1.5029363D	08	DEC	1.7774170D	01	RA	1.4652338D 01
V	1.9710064D	03	PTH	7.5909704D	01	AZ	1.1532649D 02
ALT	1.4391745D	08	LTGD	1.7778904D	01	LON	1.1586204D 02
VE	1.0185840D	04	PTE	1.0817479D	01	AZE	-9.1176496D 01

TIME	2	FEB. 1968	8 HRS.,	58 MIN.,	43.342 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	6.2474732D	04
X	1.4152122D	08	Y	3.7808450D	07	Z	4.6569538D 07
DX	1.6836168D	03	DY	8.8836469D	02	DZ	3.7863129D 02
R	1.5370899D	08	DEC	1.7636201D	01	RA	1.4957667D 01
V	1.9409068D	03	PTH	7.6011802D	01	AZ	1.1542703D 02
ALT	1.4733279D	08	LTGD	1.7640799D	01	LON	1.0864683D 02
VE	1.0431511D	04	PTE	1.0401377D	01	AZE	-9.1125814D 01

TIME	2	FEB. 1968	9 HRS.,	28 MIN.,	43.342 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	6.4274732D	04
X	1.4452698D	08	Y	3.9400806D	07	Z	4.7242900D 07
DX	1.6563267D	03	DY	8.8094918D	02	DZ	3.6962454D 02
R	1.5707439D	08	DEC	1.7503717D	01	RA	1.5249345D 01
V	1.9120962D	03	PTH	7.6107821D	01	AZ	1.1552320D 02
ALT	1.5069816D	08	LTGD	1.7508186D	01	LON	1.0141798D 02
VE	1.0673902D	04	PTE	1.0014428D	01	AZE	-9.1079084D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 2 FEB. 1968 9 HRS., 58 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 6.6074732D 04
 X 1.4748469D 08 Y 4.0979969D 07 Z 4.7900446D 07
 DX 1.6301952D 03 DY 8.7370437D 02 DZ 3.6105198D 02
 R 1.6039184D 08 DEC 1.7376320D 01 RA 1.5528438D 01
 V 1.8844772D 03 PTH 7.6198240D 01 AZ 1.1561543D 02
 ALT 1.5401558D 08 LTGD 1.7380669D 01 LON 9.4176538D 01
 VE 1.0913113D 04 PTE 9.6537074D 00 AZE-9.1035877D 01

TIME 2 FEB. 1968 10 HRS., 28 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 6.7874732D 04
 X 1.5039633D 08 Y 4.2546240D 07 Z 4.8542927D 07
 DX 1.6051367D 03 DY 8.6662392D 02 DZ 3.5287877D 02
 R 1.6366324D 08 DEC 1.7253655D 01 RA 1.5795896D 01
 V 1.8579624D 03 PTH 7.6283488D 01 AZ 1.1570409D 02
 ALT 1.5728695D 08 LTGD 1.7257891D 01 LON 8.6923463D 01
 VE 1.1149244D 04 PTE 9.3166651D 00 AZE-9.0995822D 01

TIME 2 FEB. 1968 10 HRS., 58 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 6.9674732D 04
 X 1.5326378D 08 Y 4.4099910D 07 Z 4.9171031D 07
 DX 1.5810742D 03 DY 8.5970163D 02 DZ 3.4507386D 02
 R 1.6689032D 08 DEC 1.7135400D 01 RA 1.6052571D 01
 V 1.8324733D 03 PTH 7.6363947D 01 AZ 1.1578952D 02
 ALT 1.6051401D 08 LTGD 1.7139529D 01 LON 7.9659604D 01
 VE 1.1382389D 04 PTE 9.0010682D 00 AZE-9.0958598D 01

TIME 2 FEB. 1968 11 HRS., 28 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 7.1474732D 04
 X 1.5608875D 08 Y 4.5641258D 07 Z 4.9785397D 07
 DX 1.5579385D 03 DY 8.5293148D 02 DZ 3.3760946D 02
 R 1.7007472D 08 DEC 1.7021265D 01 RA 1.6299225D 01
 V 1.8079393D 03 PTH 7.6439962D 01 AZ 1.1587200D 02
 ALT 1.6369838D 08 LTGD 1.7025292D 01 LON 7.2385726D 01
 VE 1.1612638D 04 PTE 8.7049536D 00 AZE-9.0923926D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 2 FEB. 1968 11 HRS., 58 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 7.3274732D 04
 X 1.5887287D 08 Y 4.7170551D 07 Z 5.0386614D 07
 DX 1.5356671D 03 DY 8.4630761D 02 DZ 3.3046062D 02
 R 1.7321796D 08 DEC 1.6910984D 01 RA 1.6536549D 01
 V 1.7842966D 03 PTH 7.6511842D 01 AZ 1.1595182D 02
 ALT 1.6684160D 08 LTGD 1.6914915D 01 LON 6.5102517D 01
 VE 1.1840078D 04 PTE 8.4265887D 00 AZE-9.0891562D 01

TIME 2 FEB. 1968 12 HRS., 28 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 7.5074732D 04
 X 1.6161764D 08 Y 4.8688049D 07 Z 5.0975231D 07
 DX 1.5142034D 03 DY 8.3982440D 02 DZ 3.2360488D 02
 R 1.7632147D 08 DEC 1.6804316D 01 RA 1.6765166D 01
 V 1.7614872D 03 PTH 7.6579869D 01 AZ 1.1502921D 02
 ALT 1.6994509D 08 LTGD 1.6808158D 01 LON 5.7810600D 01
 VE 1.2064792D 04 PTE 8.1644390D 00 AZE-9.0861291D 01

TIME 2 FEB. 1968 12 HRS., 58 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 7.6874732D 04
 X 1.6432446D 08 Y 5.0194000D 07 Z 5.1551755D 07
 DX 1.4934959D 03 DY 8.3347645D 02 DZ 3.1702192D 02
 R 1.7938659D 08 DEC 1.6701043D 01 RA 1.6985640D 01
 V 1.7394585D 03 PTH 7.6644297D 01 AZ 1.1610440D 02
 ALT 1.7301019D 08 LTGD 1.6704798D 01 LON 5.0510541D 01
 VE 1.2286861D 04 PTE 7.9171406D 00 AZE-9.0832923D 01

TIME 2 FEB. 1968 13 HRS., 28 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 7.8674732D 04
 X 1.6699465D 08 Y 5.1688643D 07 Z 5.2116662D 07
 DX 1.4734978D 03 DY 8.2725856D 02 DZ 3.1069337D 02
 R 1.8241457D 08 DEC 1.6600963D 01 RA 1.7198485D 01
 V 1.7181627D 03 PTH 7.6705357D 01 AZ 1.1617760D 02
 ALT 1.7603815D 08 LTGD 1.6604636D 01 LON 4.3202853D 01
 VE 1.2506359D 04 PTE 7.6834773D 00 AZE-9.0806292D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	2	FEB. 1968	13	HRS.,	58	MIN.,	43.342	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	8.04747320	04
X	1.69629450	08	Y	5.31722060	07	Z	5.26703940	07	
DX	1.45416630	03	DY	8.21165770	02	DZ	3.04602490	02	
R	1.85406590	08	DEC	1.65038920	01	RA	1.74041690	01	
V	1.69755580	03	PTH	7.67632600	01	AZ	1.16248980	02	
ALT	1.79030150	08	LTGD	1.65074870	01	LON	3.59880040	01	
VE	1.27233600	04	PTE	7.46236130	00	AZE	-9.07812500	01	

TIME	2	FEB. 1968	14	HRS.,	28	MIN.,	43.342	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	8.22747320	04
X	1.72230030	08	Y	5.46449120	07	Z	5.32133650	07	
DX	1.43546220	03	DY	8.15193330	02	DZ	2.99734070	02	
R	1.88363770	08	DEC	1.64096590	01	RA	1.76031210	01	
V	1.67759770	03	PTH	7.68182000	01	AZ	1.16318730	02	
ALT	1.81987310	08	LTGD	1.64131790	01	LON	2.85664230	01	
VE	1.29379330	04	PTE	7.25281660	00	AZE	-9.07576630	01	

TIME	2	FEB. 1968	14	HRS.,	58	MIN.,	43.342	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	8.40747320	04
X	1.74797470	08	Y	5.61069720	07	Z	5.37459620	07	
DX	1.41734950	03	DY	8.09336710	02	DZ	2.93074200	02	
R	1.91287160	08	DEC	1.63181080	01	RA	1.77957330	01	
V	1.65825150	03	PTH	7.68703530	01	AZ	1.16387000	02	
ALT	1.84910680	08	LTGD	1.63215580	01	LON	2.12385020	01	
VE	1.31501450	04	PTE	7.05396560	00	AZE	-9.07354130	01	

TIME	2	FEB. 1968	15	HRS.,	28	MIN.,	43.342	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	8.59747320	04
X	1.77332820	08	Y	5.75585910	07	Z	5.42685490	07	
DX	1.39979530	03	DY	8.03591570	02	DZ	2.87610170	02	
R	1.94177740	08	DEC	1.62290950	01	RA	1.79823650	01	
V	1.63948340	03	PTH	7.69198810	01	AZ	1.16453930	02	
ALT	1.87801250	08	LTGD	1.62324770	01	LON	1.39046000	01	
VE	1.33600580	04	PTE	6.86501640	00	AZE	-9.07143950	01	

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 2 FEB. 1968 15 HRS., 58 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 8.7674732D 04
 X 1.7983705D 08 Y 5.8999966D 07 Z 5.4781469D 07
 DX 1.3827691D 03 DY 7.9795377D 02 DZ 2.8233030D 02
 R 1.9703647D 08 DEC 1.6142488D 01 RA 1.8163348D 01
 V 1.6212622D 03 PTH 7.6966936D 01 AZ 1.1651967D 02
 ALT 1.9065995D 08 LTGD 1.6145804D 01 LON 6.5650504D 00
 VE 1.3567733D 04 PTE 6.6852531D 00 AZE-9.0694514D 01

TIME 2 FEB. 1968 16 HRS., 28 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 8.9474732D 04
 X 1.8231109D 08 Y 6.0431286D 07 Z 5.5285043D 07
 DX 1.3662428D 03 DY 7.9241939D 02 DZ 2.7722386D 02
 R 1.9986423D 08 DEC 1.6058160D 01 RA 1.8338988D 01
 V 1.6035589D 03 PTH 7.7011653D 01 AZ 1.1658434D 02
 ALT 1.9348770D 08 LTGD 1.6061415D 01 LON 3.5922012D 02
 VE 1.3773228D 04 PTE 6.5140268D 00 AZE-9.0675683D 01

TIME 2 FEB. 1968 16 HRS., 58 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 9.1274732D 04
 X 1.8475581D 08 Y 6.1852735D 07 Z 5.5779573D 07
 DX 1.3501905D 03 DY 7.8698465D 02 DZ 2.7228097D 02
 R 2.0266186D 08 DEC 1.5975999D 01 RA 1.8509566D 01
 V 1.5863468D 03 PTH 7.7054162D 01 AZ 1.1664806D 02
 ALT 1.9628532D 08 LTGD 1.5979194D 01 LON 3.5187017D 02
 VE 1.3976599D 04 PTF 6.3507481D 00 AZE-9.0657825D 01

TIME 2 FEB. 1968 17 HRS., 28 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 9.3074732D 04
 X 1.8717204D 08 Y 6.3264489D 07 Z 5.6265347D 07
 DX 1.3345880D 03 DY 7.8164596D 02 DZ 2.6749252D 02
 R 2.0543018D 08 DEC 1.5895897D 01 RA 1.8675345D 01
 V 1.5696012D 03 PTH 7.7094581D 01 AZ 1.1671095D 02
 ALT 1.9905362D 08 LTGD 1.5899035D 01 LON 3.4451541D 02
 VE 1.4177899D 04 PTE 6.1948801D 00 AZE-9.0640871D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	2	FEB. 1968	17 HRS.,	58 MIN.,	43.342 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	9.4874732D 04
X	1.8956058D	08	Y	6.4666716D	07	Z 5.6742634D 07
DX	1.3194131D	03	DY	7.7639989D	02	DZ 2.6285006D 02
R	2.0816994D	08	DEC	1.5817755D	01	RA 1.8836566D 01
V	1.5532990D	03	PTH	7.7133019D	01	AZ 1.1677310D 02
ALT	2.0179336D	08	LTGD	1.5820838D	01	LON 3.3715610D 02
VE	1.4377179D	04	PTE	6.0459333D	00	AZE-9.0624757D 01

TIME	2	FEB. 1968	18 HRS.,	28 MIN.,	43.342 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	9.6674732D 04
X	1.9192217D	08	Y	6.6059582D	07	Z 5.7211690D 07
DX	1.3046450D	03	DY	7.7124319D	02	DZ 2.5834578D 02
R	2.1088188D	08	DEC	1.5741479D	01	RA 1.8993454D 01
V	1.5374190D	03	PTH	7.7169578D	01	AZ 1.1683463D 02
ALT	2.0450529D	08	LTGD	1.5744509D	01	LON 3.2979245D 02
VE	1.4574487D	04	PTE	5.9034599D	00	AZE-9.0609424D 01

TIME	2	FEB. 1968	18 HRS.,	58 MIN.,	43.342 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	9.8474732D 04
X	1.9425754D	08	Y	6.7443243D	07	Z 5.7672757D 07
DX	1.2902645D	03	DY	7.5617272D	02	DZ 2.5397245D 02
R	2.1356668D	08	DEC	1.5666983D	01	RA 1.9146218D 01
V	1.5219412D	03	PTH	7.7204355D	01	AZ 1.1689562D 02
ALT	2.0719008D	08	LTGD	1.5669963D	01	LON 3.2242468D 02
VE	1.4769870D	04	PTE	5.7670499D	00	AZE-9.0594820D 01

TIME	2	FEB. 1968	19 HRS.,	28 MIN.,	43.342 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.0027473D 05
X	1.9656735D	08	Y	6.8817853D	07	Z 5.8126065D 07
DX	1.2762534D	03	DY	7.6118550D	02	DZ 2.4972333D 02
R	2.1622502D	08	DEC	1.5594187D	01	RA 1.9295052D 01
V	1.5068470D	03	PTH	7.7237437D	01	AZ 1.1695618D 02
ALT	2.0984840D	08	LTGD	1.5597117D	01	LON 3.1505299D 02
VE	1.4963373D	04	PTE	5.6363271D	00	AZE-9.0580897D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	2	FEB. 1968	19 HRS.,	58 MIN.,	43.342 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.0207473D 05
X	1.9885226D	08	Y	7.0183559D	07	Z 5.8571832D 07
DX	1.2625951D	03	DY	7.5627869D	02	DZ 2.4559214D 02
R	2.1885752D	08	DEC	1.5523013D	01	RA 1.9440138D 01
V	1.4921190D	03	PTH	7.7268908D	01	AZ 1.1701638D 02
ALT	2.1248088D	08	LTGD	1.5525896D	01	LON 3.0767754D 02
VE	1.5155039D	04	PTE	5.5109455D	00	AZE-9.0567611D 01

TIME	2	FEB. 1968	20 HRS.,	28 MIN.,	43.342 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.0387473D 05
X	2.0111289D	08	Y	7.1540503D	07	Z 5.9010264D 07
DX	1.2492737D	03	DY	7.5144955D	02	DZ 2.4157304D 02
R	2.2146478D	08	DEC	1.5453390D	01	RA 1.9581647D 01
V	1.4777411D	03	PTH	7.7298846D	01	AZ 1.1707631D 02
ALT	2.1508814D	08	LTGD	1.5456228D	01	LON 3.0029851D 02
VE	1.5344909D	04	PTE	5.3905867D	00	AZE-9.0554922D 01

TIME	2	FEB. 1968	20 HRS.,	58 MIN.,	43.342 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.0567473D 05
X	2.0334984D	08	Y	7.2888823D	07	Z 5.9441559D 07
DX	1.2362748D	03	DY	7.4669550D	02	DZ 2.3766059D 02
R	2.2404740D	08	DEC	1.5385252D	01	RA 1.9719736D 01
V	1.4636981D	03	PTH	7.7327324D	01	AZ 1.1713605D 02
ALT	2.1767074D	08	LTGD	1.5398046D	01	LON 2.9291607D 02
VE	1.5533023D	04	PTE	5.2749568D	00	AZE-9.0542793D 01

TIME	2	FEB. 1968	21 HRS.,	28 MIN.,	43.342 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.0747473D 05
X	2.0556367D	08	Y	7.4228651D	07	Z 5.9865903D 07
DX	1.2235843D	03	DY	7.4201404D	02	DZ 2.3384966D 02
R	2.2660591D	08	DEC	1.5318535D	01	RA 1.9854554D 01
V	1.4499756D	03	PTH	7.7354410D	01	AZ 1.1719568D 02
ALT	2.2022924D	08	LTGD	1.5321287D	01	LON 2.8553036D 02
VE	1.5719420D	04	PTE	5.1637846D	00	AZE-9.0531189D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	2	FEB. 1968	21	HRS.,	58	MIN.,	43.342	SEC.,	GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 1.0927473D 05						
X	2.0775492D	08	Y	7.5560115D	07	Z	6.0283476D	07	
DX	1.2111896D	03	DY	7.3740277D	02	DZ	2.3013550D	02	
R	2.2914086D	08	DEC	1.5253181D	01	RA	1.9986241D	01	
V	1.4365603D	03	PTH	7.7380170D	01	AZ	1.1725528D	02	
ALT	2.2276418D	08	LTGD	1.5255891D	01	LON	2.7814151D	02	
VE	1.5904136D	04	PTE	5.0568190D	00	AZE	-9.0520079D	01	

TIME	2	FEB. 1968	22	HRS.,	28	MIN.,	43.342	SEC.,	GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 1.1107473D 05						
X	2.0992412D	08	Y	7.6883341D	07	Z	6.0694446D	07	
DX	1.1990784D	03	DY	7.3285942D	02	DZ	2.2651361D	02	
R	2.3165276D	08	DEC	1.5189132D	01	RA	2.0114926D	01	
V	1.4234396D	03	PTH	7.7404664D	01	AZ	1.1731493D	02	
ALT	2.2527606D	08	LTGD	1.5191803D	01	LON	2.7074966D	02	
VE	1.6087206D	04	PTE	4.9538274D	00	AZE	-9.0509435D	01	

TIME	2	FEB. 1968	22	HRS.,	58	MIN.,	43.342	SEC.,	GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 1.1287473D 05						
X	2.1207177D	08	Y	7.8198449D	07	Z	6.1098977D	07	
DX	1.1872393D	03	DY	7.2838181D	02	DZ	2.2297981D	02	
R	2.3414209D	08	DEC	1.5126337D	01	RA	2.0240734D	01	
V	1.4106017D	03	PTH	7.7427950D	01	AZ	1.1737469D	02	
ALT	2.2776538D	08	LTGD	1.5128970D	01	LON	2.6335494D	02	
VE	1.6268664D	04	PTE	4.8545940D	00	AZE	-9.0499230D	01	

TIME	2	FEB. 1968	23	HRS.,	28	MIN.,	43.342	SEC.,	GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 1.1467473D 05						
X	2.1419834D	08	Y	7.9505554D	07	Z	6.1497224D	07	
DX	1.1756617D	03	DY	7.2396782D	02	DZ	2.1953012D	02	
R	2.3660932D	08	DEC	1.5064745D	01	RA	2.0363780D	01	
V	1.3980355D	03	PTH	7.7450083D	01	AZ	1.1743464D	02	
ALT	2.3023260D	08	LTGD	1.5067341D	01	LON	2.5595745D	02	
VE	1.6448545D	04	PTE	4.7589183D	00	AZE	-9.0489439D	01	

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 2 FEB. 1968 23 HRS., 58 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.1647473D 05
 X 2.1630430D 08 Y 8.0804770D 07 Z 6.1889334D 07
 DX 1.1643354D 03 DY 7.1961545D 02 DZ 2.1616085D 02
 R 2.3905491D 08 DEC 1.5004309D 01 RA 2.0484172D 01
 V 1.3857304D 03 PTH 7.7471115D 01 AZ 1.1749484D 02
 ALT 2.3267818D 08 LTGD 1.5076869D 01 LON 2.4855731D 02
 VE 1.6626878D 04 PTE 4.6666139D 00 AZE-9.0480039D 01

TIME 3 FEB. 1968 0 HRS., 28 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.1827473D 05
 X 2.1839009D 08 Y 8.2096206D 07 Z 6.2275449D 07
 DX 1.1532509D 03 DY 7.1532278D 02 DZ 2.1286848D 02
 R 2.4147930D 08 DEC 1.4944985D 01 RA 2.0502014D 01
 V 1.3736766D 03 PTH 7.7491095D 01 AZ 1.1755538D 02
 ALT 2.3510255D 08 LTGD 1.4947510D 01 LON 2.4115462D 02
 VE 1.6803695D 04 PTE 4.5775070D 00 AZE-9.0471008D 01

TIME 3 FEB. 1968 0 HRS., 58 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.2007473D 05
 X 2.2045614D 08 Y 8.3379967D 07 Z 6.2655705D 07
 DX 1.1423993D 03 DY 7.1108793D 02 DZ 2.0964970D 02
 R 2.4388289D 08 DEC 1.4886730D 01 RA 2.0717402D 01
 V 1.3618646D 03 PTH 7.7510070D 01 AZ 1.1761632D 02
 ALT 2.3750614D 08 LTGD 1.4889221D 01 LON 2.3374947D 02
 VE 1.6979025D 04 PTE 4.4914356D 00 AZE-9.0462329D 01

TIME 3 FEB. 1968 1 HRS., 28 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.2187473D 05
 X 2.2250286D 08 Y 8.4656156D 07 Z 6.3030230D 07
 DX 1.1317721D 03 DY 7.0690912D 02 DZ 2.0650140D 02
 R 2.4626611D 08 DEC 1.4829503D 01 RA 2.0830428D 01
 V 1.3502857D 03 PTH 7.7528084D 01 AZ 1.1767773D 02
 ALT 2.3988935D 08 LTGD 1.4831961D 01 LON 2.2634197D 02
 VE 1.7152897D 04 PTE 4.4082487D 00 AZE-9.0453981D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	3	FEB. 1968	1	HRS.,	58	MIN.,	43.342	SEC.,	GMT
GEOCENTRIC REFERENCE									FLIGHT TIME 1.2367473D 05
X	2.2453065D	08	Y	8.5924872D	07	Z	6.3399150D	07	
DX	1.1213612D	03	DY	7.0278464D	02	DZ	2.0342062D	02	
R	2.4862934D	08	DEC	1.4773267D	01	RA	2.0941178D	01	
V	1.3389313D	03	PTH	7.7545180D	01	AZ	1.1773968D	02	
ALT	2.4225256D	08	LTGD	1.4775694D	01	LON	2.1893218D	02	
VE	1.7325338D	04	PTE	4.3278047D	00	AZE-9.0445948D	01		

TIME	3	FEB. 1968	2	HRS.,	28	MIN.,	43.342	SEC.,	GMT
GEOCENTRIC REFERENCE									FLIGHT TIME 1.2547473D 05
X	2.2653989D	08	Y	8.7186212D	07	Z	6.3762584D	07	
DX	1.1111591D	03	DY	6.9871285D	02	DZ	2.0040457D	02	
R	2.5097295D	08	DEC	1.4717985D	01	RA	2.1049734D	01	
V	1.3277937D	03	PTH	7.7561399D	01	AZ	1.1780225D	02	
ALT	2.4459617D	08	LTGD	1.4720381D	01	LON	2.1152020D	02	
VE	1.7496376D	04	PTE	4.2499715D	00	AZE-9.0438215D	01		

TIME	3	FEB. 1968	2	HRS.,	58	MIN.,	43.342	SEC.,	GMT
GEOCENTRIC REFERENCE									FLIGHT TIME 1.2727473D 05
X	2.2853094D	08	Y	8.8440269D	07	Z	6.4120644D	07	
DX	1.1011586D	03	DY	6.9469214D	02	DZ	1.9745060D	02	
R	2.5329732D	08	DEC	1.4663623D	01	RA	2.1156173D	01	
V	1.3168653D	03	PTH	7.7576780D	01	AZ	1.1786549D	02	
ALT	2.4692052D	08	LTGD	1.4665989D	01	LON	2.0410611D	02	
VE	1.7666035D	04	PTE	4.1746252D	00	AZE-9.0430766D	01		

TIME	3	FEB. 1968	3	HRS.,	28	MIN.,	43.342	SEC.,	GMT
GEOCENTRIC REFERENCE									FLIGHT TIME 1.2907473D 05
X	2.3050418D	08	Y	8.9687133D	07	Z	6.4473441D	07	
DX	1.0913530D	03	DY	6.9072098D	02	DZ	1.9455619D	02	
R	2.5560278D	08	DEC	1.4610148D	01	RA	2.1260570D	01	
V	1.3061390D	03	PTH	7.7591361D	01	AZ	1.1792949D	02	
ALT	2.4922598D	08	LTGD	1.4612485D	01	LON	1.9668997D	02	
VE	1.7834342D	04	PTE	4.1016497D	00	AZE-9.0423588D	01		

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	3	FEB. 1968	3	HRS.,	58	MIN.,	43.342	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	1.3087473D	05
X	2.3245993D	08	Y	9.0926893D	07	Z	6.4821081D	07	
DX	1.0817359D	03	DY	6.8679790D	02	DZ	1.9171896D	02	
R	2.5788969D	08	DEC	1.4557528D	01	RA	2.1352993D	01	
V	1.2956030D	03	PTH	7.7605178D	01	AZ	1.1799432D	02	
ALT	2.5151287D	08	LTGD	1.4559837D	01	LON	1.8927186D	02	
VF	1.8001319D	04	PTE	4.0309359D	00	AZE	-9.0416667D	01	

TIME	3	FEB. 1968	4	HRS.,	28	MIN.,	43.342	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	1.3267473D	05
X	2.3439853D	08	Y	9.2159634D	07	Z	6.5163663D	07	
DX	1.0723010D	03	DY	6.8292147D	02	DZ	1.8893663D	02	
R	2.6015836D	08	DEC	1.4505734D	01	RA	2.1463508D	01	
V	1.2852658D	03	PTH	7.7618266D	01	AZ	1.1806005D	02	
ALT	2.5378154D	08	LTGD	1.4508015D	01	LON	1.8185185D	02	
VE	1.8166992D	04	PTE	3.9623816D	00	AZF	-9.0409992D	01	

TIME	3	FEB. 1968	4	HRS.,	58	MIN.,	43.342	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	1.3447473D	05
X	2.3632032D	08	Y	9.3385438D	07	Z	6.5501284D	07	
DX	1.0630427D	03	DY	6.7909031D	02	DZ	1.8620705D	02	
R	2.6240913D	08	DEC	1.4454737D	01	RA	2.1562179D	01	
V	1.2751065D	03	PTH	7.7630659D	01	AZ	1.1812676D	02	
ALT	2.5603230D	08	LTGD	1.4456991D	01	LON	1.7442998D	02	
VE	1.8331381D	04	PTE	3.8958903D	00	AZE	-9.0403551D	01	

TIME	3	FEB. 1968	5	HRS.,	28	MIN.,	43.342	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	1.3627473D	05
X	2.3822559D	08	Y	9.4604385D	07	Z	6.5834038D	07	
DX	1.0539556D	03	DY	6.7530310D	02	DZ	1.8352815D	02	
R	2.6464229D	08	DEC	1.4404509D	01	RA	2.1659065D	01	
V	1.2651242D	03	PTH	7.7642389D	01	AZ	1.1819452D	02	
ALT	2.5826545D	08	LTGD	1.4406737D	01	LON	1.6700634D	02	
VE	1.8494511D	04	PTE	3.8313716D	00	AZE	-9.0397334D	01	

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	3	FEB. 1968	5	HRS.,	58	MIN.,	43.342	SEC.,	GMT	
GEOCENTRIC REFERENCE							FLIGHT	TIME	1.3807473D	05
X	2.4011466D	08	Y	9.5816555D	07	Z	6.6162015D	07		
DX	1.0450343D	03	DY	6.7155853D	02	DZ	1.8089797D	02		
R	2.6685815D	08	DEC	1.4355025D	01	RA	2.1754223D	01		
V	1.2553133D	03	PTH	7.7653488D	01	AZ	1.1826341D	02		
ALT	2.6048130D	08	LTGD	1.4357227D	01	LON	1.5958096D	02		
VE	1.8656401D	04	PTE	3.7687400D	00	AZE	-9.0391332D	01		

TIME	3	FEB. 1968	6	HRS.,	28	MIN.,	43.342	SEC.,	GMT	
GEOCENTRIC REFERENCE							FLIGHT	TIME	1.3987473D	05
X	2.4198781D	08	Y	9.7022021D	07	Z	6.6485299D	07		
DX	1.0362740D	03	DY	6.6785537D	02	DZ	1.7831462D	02		
R	2.6905700D	08	DEC	1.4306259D	01	RA	2.1847706D	01		
V	1.2456688D	03	PTH	7.7663988D	01	AZ	1.1833352D	02		
ALT	2.6268014D	08	LTGD	1.4308437D	01	LON	1.5215391D	02		
VE	1.8817074D	04	PTE	3.7079151D	00	AZE	-9.0385533D	01		

TIME	3	FEB. 1968	6	HRS.,	58	MIN.,	43.342	SEC.,	GMT	
GEOCENTRIC REFERENCE							FLIGHT	TIME	1.4167473D	05
X	2.4384534D	08	Y	9.8220858D	07	Z	6.6803974D	07		
DX	1.0276700D	03	DY	6.6419240D	02	DZ	1.7577632D	02		
R	2.7123911D	08	DEC	1.4258188D	01	RA	2.1939566D	01		
V	1.2361854D	03	PTH	7.7673918D	01	AZ	1.1840493D	02		
ALT	2.6486224D	08	LTGD	1.4260342D	01	LON	1.4472524D	02		
VE	1.8976549D	04	PTE	3.6488211D	00	AZE	-9.0379931D	01		

TIME	3	FEB. 1968	7	HRS.,	28	MIN.,	43.342	SEC.,	GMT	
GEOCENTRIC REFERENCE							FLIGHT	TIME	1.4347473D	05
X	2.4568751D	08	Y	9.9413137D	07	Z	6.7118120D	07		
DX	1.0192178D	03	DY	6.6056845D	02	DZ	1.7328135D	02		
R	2.7340477D	08	DEC	1.4210789D	01	RA	2.2029852D	01		
V	1.2268586D	03	PTH	7.7683308D	01	AZ	1.1847772D	02		
ALT	2.6702789D	08	LTGD	1.4212918D	01	LON	1.3729499D	02		
VE	1.9134846D	04	PTE	3.5913863D	00	AZE	-9.0374517D	01		

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 3 FEB. 1968 7 HRS., 58 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.4527473D 05
 X 2.4751461D 08 Y 1.0059893D 08 Z 6.7427812D 07
 DX 1.0109133D 03 DY 6.5698238D 02 DZ 1.7082804D 02
 R 2.7555423D 08 DEC 1.4164038D 01 RA 2.2118610D 01
 V 1.2176837D 03 PTH 7.7692186D 01 AZ 1.1855200D 02
 ALT 2.6917735D 08 LTGD 1.4166145D 01 LON 1.2986322D 02
 VE 1.9291984D 04 PTE 3.5355429D 00 AZE-9.0369283D 01

TIME 3 FEB. 1968 8 HRS., 28 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.4707473D 05
 X 2.4932689D 08 Y 1.0177830D 03 Z 6.7733125D 07
 DX 1.0027523D 03 DY 6.5343308D 02 DZ 1.6841483D 02
 R 2.7768776D 08 DEC 1.4117916D 01 RA 2.2205884D 01
 V 1.2086565D 03 PTH 7.7700583D 01 AZ 1.1862784D 02
 ALT 2.7131087D 08 LTGD 1.4120001D 01 LON 1.2242996D 02
 VE 1.9447982D 04 PTE 3.4812270D 00 AZE-9.0364221D 01

TIME 3 FEB. 1968 8 HRS., 58 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.4887473D 05
 X 2.5112460D 08 Y 1.0295131D 08 Z 6.8034129D 07
 DX 9.9473124D 02 DY 6.4991949D 02 DZ 1.6604018D 02
 R 2.7980561D 08 DEC 1.4072402D 01 RA 2.2291718D 01
 V 1.1997729D 03 PTH 7.7708524D 01 AZ 1.1870535D 02
 ALT 2.7342871D 08 LTGD 1.4074465D 01 LON 1.1499526D 02
 VE 1.9602859D 04 PTE 3.4283779D 00 AZE-9.0359326D 01

TIME 3 FEB. 1968 9 HRS., 28 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.5067473D 05
 X 2.5290800D 08 Y 1.0411803D 08 Z 6.8330892D 07
 DX 9.8684637D 02 DY 6.4644054D 02 DZ 1.6370264D 02
 R 2.8190802D 08 DEC 1.4027476D 01 RA 2.2376151D 01
 V 1.1910288D 03 PTH 7.7716039D 01 AZ 1.1878462D 02
 ALT 2.7553111D 08 LTGD 1.4029517D 01 LON 1.0755916D 02
 VE 1.9756632D 04 PTE 3.3769384D 00 AZE-9.0354591D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 3 FEB. 1968 9 HRS., 58 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.5247473D 05
 X 2.5467733D 08 Y 1.0527851D 08 Z 6.8623480D 07
 DX 9.7909429D 02 DY 6.4299521D 02 DZ 1.6140079D 02
 R 2.8399523D 08 DEC 1.3983120D 01 RA 2.2459221D 01
 V 1.1824207D 03 PTH 7.7723155D 01 AZ 1.1886578D 02
 ALT 2.7761831D 08 LTGD 1.3985140D 01 LON 1.0012170D 02
 VE 1.9909318D 04 PTE 3.3268541D 00 AZE-9.0350009D 01

TIME 3 FEB. 1968 10 HRS., 28 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.5427473D 05
 X 2.5643282D 08 Y 1.0643283D 08 Z 6.8911955D 07
 DX 9.7147175D 02 DY 6.3958251D 02 DZ 1.5913327D 02
 R 2.8606747D 08 DEC 1.3939314D 01 RA 2.2540966D 01
 V 1.1739449D 03 PTH 7.7729898D 01 AZ 1.1894891D 02
 ALT 2.7969054D 08 LTGD 1.3941314D 01 LON 9.2682908D 01
 VE 2.0060935D 04 PTE 3.2780735D 00 AZE-9.0345576D 01

TIME 3 FEB. 1968 10 HRS., 58 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.5507473D 05
 X 2.5817470D 08 Y 1.0758103D 08 Z 6.9196379D 07
 DX 9.6397570D 02 DY 6.3620146D 02 DZ 1.5689876D 02
 R 2.8812496D 08 DEC 1.3896042D 01 RA 2.2621421D 01
 V 1.1655980D 03 PTH 7.7736297D 01 AZ 1.1903415D 02
 ALT 2.8174803D 08 LTGD 1.3898022D 01 LON 8.5242830D 01
 VE 2.0211499D 04 PTE 3.2305477D 00 AZE-9.0341285D 01

TIME 3 FEB. 1968 11 HRS., 28 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.5787473D 05
 X 2.5990321D 08 Y 1.0872317D 08 Z 6.9476810D 07
 DX 9.5660320D 02 DY 6.3285110D 02 DZ 1.5469599D 02
 R 2.9016794D 08 DEC 1.3853287D 01 RA 2.2700619D 01
 V 1.1573768D 03 PTH 7.7742379D 01 AZ 1.1912161D 02
 ALT 2.8379100D 08 LTGD 1.3855247D 01 LON 7.7801495D 01
 VE 2.0361026D 04 PTE 3.1842304D 00 AZE-9.0337133D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	3	FEB. 1968	11 HRS.,	58 MIN.,	43.342 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.59674730 05
X	2.61618550	08	Y	1.09859310	08	Z 6.97533030 07
DX	9.49351510	02	DY	6.29530490	02	DZ 1.52523710 02
R	2.92196610	08	DEC	1.39110310	01	RA 2.27785920 01
V	1.14927820	03	PTH	7.77481710	01	AZ 1.19211420 02
ALT	2.85819660	08	LTGD	1.38129730	01	LON 7.03589350 01
VE	2.05095320	04	PTE	3.13907760	00	AZE-9.03331140 01

TIME	3	FEB. 1968	12 HRS.,	28 MIN.,	43.342 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.61474730 05
X	2.63320940	08	Y	1.10989500	08	Z 7.00259130 07
DX	9.42218030	02	DY	6.26238720	02	DZ 1.50380730 02
R	2.94211180	08	DEC	1.37692600	01	RA 2.28553710 01
V	1.14129930	03	PTH	7.77537000	01	AZ 1.19303720 02
ALT	2.87834220	08	LTGD	1.37711830	01	LON 6.29151800 01
VE	2.06570320	04	PTE	3.09504730	00	AZE-9.03292230 01

TIME	3	FEB. 1968	12 HRS.,	58 MIN.,	43.342 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.63274730 05
X	2.65010600	08	Y	1.12113790	08	Z 7.02946910 07
DX	9.35200300	02	DY	6.22974870	02	DZ 1.48265880 02
R	2.96211860	08	DEC	1.37279580	01	RA 2.29309840 01
V	1.13343730	03	PTH	7.77589940	01	AZ 1.19398640 02
ALT	2.89834890	08	LTGD	1.37298630	01	LON 5.54702600 01
VE	2.08035430	04	PTE	3.05209990	00	AZE-9.03254570 01

TIME	3	FEB. 1968	13 HRS.,	28 MIN.,	43.342 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.65074730 05
X	2.66687730	08	Y	1.13232230	08	Z 7.05596860 07
DX	9.28296010	02	DY	6.19738060	02	DZ 1.46178010 02
R	2.98198850	08	DEC	1.36871100	01	RA 2.30054500 01
V	1.12568950	03	PTH	7.77640810	01	AZ 1.19496350 02
ALT	2.91821880	08	LTGD	1.36889960	01	LON 4.80242030 01
VE	2.09490790	04	PTE	3.01019760	00	AZE-9.03218130 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH OF 72 DEGREES - FIRST OPPORTUNITY (CONTINUED)

TIME 3 FEB. 1968 13 HRS., 58 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.6687473D 05
 X 2.6835253D 08 Y 1.1434486D 08 Z 7.0820947D 07
 DX 9.2150299D 02 DY 6.1652740D 02 DZ 1.4411601D 02
 R 3.0017234D 08 DEC 1.3646701D 01 RA 2.3078825D 01
 V 1.1180533D 03 PTH 7.7768989D 01 AZ 1.1959699D 02
 ALT 2.9379537D 08 LTGD 1.3648570D 01 LON 4.0577035D 01
 VE 2.1093654D 04 PTE 2.9693044D 00 AZE-9.0318285D 01

TIME 3 FEB. 1968 14 HRS., 28 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.6867473D 05
 X 2.7000521D 08 Y 1.1545174D 08 Z 7.1078519D 07
 DX 9.1481922D 02 DY 6.1334202D 02 DZ 1.4207879D 02
 R 3.0213254D 08 DEC 1.3606718D 01 RA 2.3151104D 01
 V 1.1105265D 03 PTH 7.7773748D 01 AZ 1.1970075D 02
 ALT 2.9575556D 08 LTGD 1.3608570D 01 LON 3.3128782D 01
 VE 2.1237283D 04 PTE 2.9293861D 00 AZE-9.0314872D 01

TIME 3 FEB. 1968 14 HRS., 58 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.7047473D 05
 X 2.7164595D 08 Y 1.1655291D 08 Z 7.1332445D 07
 DX 9.0824278D 02 DY 6.1018106D 02 DZ 1.4006527D 02
 R 3.0407963D 08 DEC 1.3567146D 01 RA 2.3222323D 01
 V 1.1031066D 03 PTH 7.7778387D 01 AZ 1.1980779D 02
 ALT 2.9770264D 08 LTGD 1.3568981D 01 LON 2.5679467D 01
 VE 2.1379980D 04 PTE 2.8904101D 00 AZE-9.0311569D 01

TIME 3 FEB. 1968 15 HRS., 28 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.7227473D 05
 X 2.7327495D 08 Y 1.1764841D 08 Z 7.1582767D 07
 DX 9.0177192D 02 DY 6.0704366D 02 DZ 1.3807440D 02
 R 3.0601378D 08 DEC 1.3527973D 01 RA 2.3292503D 01
 V 1.0957916D 03 PTH 7.7782935D 01 AZ 1.1991830D 02
 ALT 2.9963679D 08 LTGD 1.3529791D 01 LON 1.8229114D 01
 VE 2.1521759D 04 PTE 2.8523455D 00 AZE-9.0308374D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 3 FEB. 1968 15 HRS., 58 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.7407473D 05
 X 2.7489239D 08 Y 1.1873828D 08 Z 7.1829526D 07
 DX 8.9547501D 02 DY 6.0392897D 02 DZ 1.3610514D 02
 R 3.0793520D 08 DEC 1.3489185D 01 RA 2.3361667D 01
 V 1.0885793D 03 PTH 7.7787424D 01 AZ 1.2003251D 02
 ALT 3.0155819D 08 LTGD 1.3490987D 01 LON 1.0777745D 01
 VE 2.1662634D 04 PTE 2.8151626D 00 AZE-9.0305284D 01

TIME 3 FEB. 1968 16 HRS., 28 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.7587473D 05
 X 2.7649846D 08 Y 1.1982256D 08 Z 7.2072758D 07
 DX 8.8914053D 02 DY 6.0083612D 02 DZ 1.3415645D 02
 R 3.0984404D 08 DEC 1.3450769D 01 RA 2.3429836D 01
 V 1.0814679D 03 PTH 7.7791886D 01 AZ 1.2015061D 02
 ALT 3.0346703D 08 LTGD 1.3452556D 01 LON 3.3253810D 00
 VE 2.1802619D 04 PTE 2.7788333D 00 AZE-9.0302297D 01

TIME 3 FEB. 1968 16 HRS., 58 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.7767473D 05
 X 2.7809336D 08 Y 1.2090130D 08 Z 7.2312501D 07
 DX 8.8297713D 02 DY 5.9776428D 02 DZ 1.3222732D 02
 R 3.1174050D 08 DEC 1.3412714D 01 RA 2.3497030D 01
 V 1.0744556D 03 PTH 7.7796353D 01 AZ 1.2027285D 02
 ALT 3.0536348D 08 LTGD 1.3414485D 01 LON 3.5587200D 02
 VE 2.1941726D 04 PTE 2.7433310D 00 AZE-9.0299410D 01

TIME 3 FEB. 1968 17 HRS., 28 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.7947473D 05
 X 2.7967724D 08 Y 1.2197453D 08 Z 7.2548788D 07
 DX 8.7691355D 02 DY 5.9471257D 02 DZ 1.3031674D 02
 R 3.1362473D 08 DEC 1.3375007D 01 RA 2.3563268D 01
 V 1.0675406D 03 PTH 7.7800858D 01 AZ 1.2039947D 02
 ALT 3.0724771D 08 LTGD 1.3376763D 01 LON 3.4841771D 02
 VE 2.2079969D 04 PTE 2.7085299D 00 AZE-9.0296622D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 3 FEB. 1968 17 HRS., 58 MIN., 43.342 SEC., GMT
 GEODCENTRIC REFERENCE FLIGHT TIME 1.8127473D 05
 X 2.8125030D 08 Y 1.2304228D 08 Z 7.2781651D 07
 DX 8.7094869D 02 DY 5.9168014D 02 DZ 1.2842367D 02
 R 3.1549692D 08 DEC 1.3337636D 01 RA 2.3628567D 01
 V 1.0607213D 03 PTH 7.7805438D 01 AZ 1.2053073D 02
 ALT 3.0911989D 08 LTGD 1.3339376D 01 LON 3.4096248D 02
 VE 2.2217361D 04 PTE 2.6747059D 00 AZE-9.0293930D 01

TIME 3 FEB. 1968 18 HRS., 28 MIN., 43.342 SEC., GMT
 GEODCENTRIC REFERENCE FLIGHT TIME 1.8307473D 05
 X 2.8281272D 08 Y 1.2410459D 08 Z 7.3011123D 07
 DX 8.6508158D 02 DY 5.8866611D 02 DZ 1.2654712D 02
 R 3.1735722D 08 DEC 1.3300589D 01 RA 2.3692946D 01
 V 1.0539963D 03 PTH 7.7810127D 01 AZ 1.2066694D 02
 ALT 3.1098019D 08 LTGD 1.3302315D 01 LON 3.3350632D 02
 VE 2.2353916D 04 PTE 2.6415357D 00 AZE-9.0291332D 01

TIME 3 FEB. 1968 18 HRS., 58 MIN., 43.342 SEC., GMT
 GEODCENTRIC REFERENCE FLIGHT TIME 1.8487473D 05
 X 2.8436466D 08 Y 1.2516149D 08 Z 7.3237230D 07
 DX 8.5931138D 02 DY 5.8566961D 02 DZ 1.2468605D 02
 R 3.1920581D 08 DEC 1.3263855D 01 RA 2.3756420D 01
 V 1.0473641D 03 PTH 7.7814965D 01 AZ 1.2080838D 02
 ALT 3.1282877D 08 LTGD 1.3265567D 01 LON 3.2604926D 02
 VE 2.2489645D 04 PTE 2.6090973D 00 AZE-9.0288827D 01

TIME 3 FEB. 1968 19 HRS., 28 MIN., 43.342 SEC., GMT
 GEODCENTRIC REFERENCE FLIGHT TIME 1.8667473D 05
 X 2.8590629D 08 Y 1.2621301D 08 Z 7.3460001D 07
 DX 8.5363740D 02 DY 5.8268974D 02 DZ 1.2283943D 02
 R 3.2104284D 08 DEC 1.3227422D 01 RA 2.3819005D 01
 V 1.0408236D 03 PTH 7.7819990D 01 AZ 1.2095541D 02
 ALT 3.1466579D 08 LTGD 1.3229120D 01 LON 3.1859131D 02
 VE 2.2624563D 04 PTE 2.5773697D 00 AZE-9.0286414D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 3 FEB. 1968 19 HRS., 58 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.8847473D 05
 X 2.8743781D 08 Y 1.2725918D 08 Z 7.3679460D 07
 DX 8.4805909D 02 DY 5.7972558D 02 DZ 1.2100623D 02
 R 3.2285848D 08 DEC 1.3191280D 01 RA 2.3880714D 01
 V 1.0343735D 03 PTH 7.7825244D 01 AZ 1.2110836D 02
 ALT 3.1649143D 08 LTGD 1.3192964D 01 LON 3.1113249D 02
 VE 2.2758681D 04 PTE 2.5463329D 00 AZE-9.0284092D 01

TIME 3 FEB. 1968 20 HRS., 28 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.9027473D 05
 X 2.8895936D 08 Y 1.2830003D 08 Z 7.3895631D 07
 DX 3.4257604D 02 DY 5.7677619D 02 DZ 1.1918538D 02
 R 3.2468288D 08 DEC 1.3155417D 01 RA 2.3941562D 01
 V 1.0280128D 03 PTH 7.7830769D 01 AZ 1.2126764D 02
 ALT 3.1830583D 08 LTGD 1.3157087D 01 LUN 3.0367281D 02
 VF 2.2892012D 04 PTE 2.5159679D 00 AZE-9.0281859D 01

TIME 3 FEB. 1968 20 HRS., 58 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.9207473D 05
 X 2.9047114D 08 Y 1.2933558D 08 Z 7.4108534D 07
 DX 8.3718801D 02 DY 5.7384062D 02 DZ 1.1737580D 02
 R 3.2648622D 08 DEC 1.3119821D 01 RA 2.4001562D 01
 V 1.0217406D 03 PTH 7.7836612D 01 AZ 1.2143366D 02
 ALT 3.2010915D 08 LTGD 1.3121478D 01 LON 2.9621227D 02
 VE 2.3024570D 04 PTE 2.4862566D 00 AZE-9.0279714D 01

TIME 3 FEB. 1968 21 HRS., 28 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.9387473D 05
 X 2.9197330D 08 Y 1.3036586D 08 Z 7.4318190D 07
 DX 8.3189493D 02 DY 5.7091787D 02 DZ 1.1557638D 02
 R 3.2827863D 08 DEC 1.3084483D 01 RA 2.4060725D 01
 V 1.0155561D 03 PTH 7.7842818D 01 AZ 1.2160688D 02
 ALT 3.2190156D 08 LTGD 1.3086127D 01 LON 2.8875090D 02
 VE 2.3156366D 04 PTE 2.4571820D 00 AZE-9.0277658D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 3 FEB. 1968 21 HRS., 58 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.9567473D 05
 X 2.9346602D 08 Y 1.3139089D 08 Z 7.4524615D 07
 DX 8.2669689D 02 DY 5.6800691D 02 DZ 1.1378598D 02
 R 3.3006028D 08 DEC 1.3049391D 01 RA 2.4119062D 01
 V 1.0094587D 03 PTH 7.7849440D 01 AZ 1.2178779D 02
 ALT 3.2368320D 08 LTGD 1.3051021D 01 LON 2.8128871D 02
 VE 2.3287414D 04 PTE 2.4287276D 00 AZE-9.0275690D 01

TIME 3 FEB. 1968 22 HRS., 28 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.9747473D 05
 X 2.9494946D 08 Y 1.3241069D 08 Z 7.4727824D 07
 DX 8.2159416D 02 DY 5.6510668D 02 DZ 1.1200342D 02
 R 3.3183132D 08 DEC 1.3014534D 01 RA 2.4176584D 01
 V 1.0034477D 03 PTH 7.7856529D 01 AZ 1.2197694D 02
 ALT 3.2545424D 08 LTGD 1.3016152D 01 LON 2.7382569D 02
 VE 2.3417727D 04 PTE 2.4008783D 00 AZE-9.0273810D 01

TIME 3 FEB. 1968 22 HRS., 58 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.9927473D 05
 X 2.9642381D 08 Y 1.3342528D 08 Z 7.4927831D 07
 DX 8.1658722D 02 DY 5.6221605D 02 DZ 1.1022747D 02
 R 3.3359191D 08 DEC 1.2979901D 01 RA 2.4233300D 01
 V 9.9752277D 02 PTH 7.7864141D 01 AZ 1.2217490D 02
 ALT 3.2721482D 08 LTGD 1.2981507D 01 LON 2.6636188D 02
 VE 2.3547317D 04 PTE 2.3736193D 00 AZE-9.0272017D 01

TIME 3 FEB. 1968 23 HRS., 28 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 2.0107473D 05
 X 2.9788924D 08 Y 1.3443468D 08 Z 7.5124646D 07
 DX 8.1167676D 02 DY 5.5933386D 02 DZ 1.0845685D 02
 R 3.3534220D 08 DEC 1.2945482D 01 RA 2.4289218D 01
 V 9.9168362D 02 PTH 7.7872335D 01 AZ 1.2238232D 02
 ALT 3.2896511D 08 LTGD 1.2947075D 01 LON 2.5889726D 02
 VE 2.3676198D 04 PTE 2.3469370D 00 AZE-9.0270313D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 3 FEB. 1968 23 HRS., 58 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 2.0287473D 05
 X 2.9934591D 08 Y 1.3543889D 08 Z 7.5318278D 07
 DX 8.0686368D 02 DY 5.5645886D 02 DZ 1.0669022D 02
 R 3.3708235D 08 DEC 1.2911265D 01 RA 2.4344346D 01
 V 9.8593016D 02 PTH 7.7881173D 01 AZ 1.2259991D 02
 ALT 3.3070525D 08 LTGD 1.2912846D 01 LON 2.5143186D 02
 VE 2.3804383D 04 PTE 2.3208185D 00 AZE-9.0268697D 01

TIME 4 FEB. 1968 0 HRS., 28 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 2.0467473D 05
 X 3.0079400D 08 Y 1.3643793D 08 Z 7.5508733D 07
 DX 8.0214915D 02 DY 5.5359975D 02 DZ 1.0492618D 02
 R 3.3881250D 08 DEC 1.2877239D 01 RA 2.4398690D 01
 V 9.8026241D 02 PTH 7.7890722D 01 AZ 1.2282845D 02
 ALT 3.3243540D 08 LTGD 1.2878808D 01 LON 2.4396567D 02
 VE 2.3931886D 04 PTE 2.2952517D 00 AZE-9.0267171D 01

TIME 4 FEB. 1968 0 HRS., 58 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 2.0647473D 05
 X 3.0223371D 08 Y 1.3743181D 08 Z 7.5696013D 07
 DX 7.9753459D 02 DY 5.5072517D 02 DZ 1.0316322D 02
 R 3.4053282D 08 DEC 1.2843393D 01 RA 2.4452257D 01
 V 9.7468061D 02 PTH 7.7901052D 01 AZ 1.2306877D 02
 ALT 3.3415571D 08 LTGD 1.2844951D 01 LON 2.3649870D 02
 VE 2.4058720D 04 PTE 2.2702255D 00 AZE-9.0265736D 01

TIME 4 FEB. 1963 1 HRS., 28 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 2.0827473D 05
 X 3.0366519D 08 Y 1.3842054D 08 Z 7.5880120D 07
 DX 7.9302172D 02 DY 5.4786359D 02 DZ 1.0139977D 02
 R 3.4224346D 08 DEC 1.2809716D 01 RA 2.4505051D 01
 V 9.6918516D 02 PTH 7.7912238D 01 AZ 1.2332183D 02
 ALT 3.3586635D 08 LTGD 1.2811261D 01 LON 2.2903096D 02
 VE 2.4184899D 04 PTE 2.2457292D 00 AZE-9.0264393D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 1 HRS., 58 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 2.1007473D 05
 X 3.0508865D 08 Y 1.3940412D 08 Z 7.6061051D 07
 DX 7.9861257D 02 DY 5.4500344D 02 DZ 9.9634111D 01
 R 3.4394458D 08 DEC 1.2776195D 01 RA 2.4557077D 01
 V 9.6377669D 02 PTH 7.7924359D 01 AZ 1.2358866D 02
 ALT 3.3756746D 08 LTGD 1.2777729D 01 LON 2.2156246D 02
 VE 2.4310438D 04 PTE 2.2217534D 00 AZE-9.0263145D 01

TIME 4 FEB. 1968 2 HRS., 28 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 2.1187473D 05
 X 3.0650426D 08 Y 1.4038256D 08 Z 7.6238800D 07
 DX 7.8430956D 02 DY 5.4214300D 02 DZ 9.7864438D 01
 R 3.4563634D 08 DEC 1.2742818D 01 RA 2.4608335D 01
 V 9.5845604D 02 PTH 7.7937498D 01 AZ 1.2387042D 02
 ALT 3.3925921D 08 LTGD 1.2744341D 01 LON 2.1409318D 02
 VE 2.4435351D 04 PTE 2.1982892D 00 AZE-9.0261993D 01

TIME 4 FEB. 1968 2 HRS., 58 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 2.1367473D 05
 X 3.0791223D 08 Y 1.4135584D 08 Z 7.6413359D 07
 DX 7.8011548D 02 DY 5.3928041D 02 DZ 9.6088780D 01
 R 3.4731889D 08 DEC 1.2709574D 01 RA 2.4658829D 01
 V 9.5322430D 02 PTH 7.7951746D 01 AZ 1.2416838D 02
 ALT 3.4094176D 08 LTGD 1.2711086D 01 LON 2.0662314D 02
 VE 2.4559655D 04 PTE 2.1753289D 00 AZE-9.0260940D 01

TIME 4 FEB. 1968 3 HRS., 28 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 2.1547473D 05
 X 3.0931274D 08 Y 1.4232396D 08 Z 7.6584715D 07
 DX 7.7603357D 02 DY 5.3641363D 02 DZ 9.4305007D 01
 R 3.4899241D 08 DEC 1.2676449D 01 RA 2.4708559D 01
 V 9.4808286D 02 PTH 7.7967199D 01 AZ 1.2448397D 02
 ALT 3.4261527D 08 LTGD 1.2677950D 01 LON 1.9915234D 02
 VE 2.4683364D 04 PTE 2.1528653D 00 AZE-9.0259990D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	4	FEB. 1968	3	HRS.,	58	MIN.,	43.342	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	2.1727473D	05
X	3.1070602D	08	Y	1.4328692D	08	Z	7.6752851D	07	
DX	7.7206757D	02	DY	5.3354045D	02	DZ	9.2510799D	01	
R	3.5065706D	08	DEC	1.2643431D	01	RA	2.4757524D	01	
V	9.4303340D	02	PTH	7.7983956D	01	AZ	1.2481879D	02	
ALT	3.4427991D	08	LTGD	1.2644921D	01	LON	1.9168077D	02	
VE	2.4806496D	04	PTE	2.1308925D	00	AZE	-9.0259146D	01	

TIME	4	FEB. 1968	4	HRS.,	28	MIN.,	43.342	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	2.1907473D	05
X	3.1209226D	08	Y	1.4424470D	08	Z	7.6917746D	07	
DX	7.6822179D	02	DY	5.3065843D	02	DZ	9.0703611D	01	
R	3.5231300D	08	DEC	1.2610506D	01	RA	2.4805722D	01	
V	9.3807795D	02	PTH	7.8002125D	01	AZ	1.2517464D	02	
ALT	3.4593586D	08	LTGD	1.2611985D	01	LON	1.8420844D	02	
VE	2.4929068D	04	PTE	2.1094054D	00	AZE	-9.0258412D	01	

TIME	4	FEB. 1968	4	HRS.,	58	MIN.,	43.342	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	2.2087473D	05
X	3.1347169D	08	Y	1.4519729D	08	Z	7.7079375D	07	
DX	7.6450118D	02	DY	5.2776488D	02	DZ	8.8880647D	01	
R	3.5396042D	08	DEC	1.2577658D	01	RA	2.4853149D	01	
V	9.3321894D	02	PTH	7.8021821D	01	AZ	1.2555353D	02	
ALT	3.4758327D	08	LTGD	1.2579127D	01	LON	1.7673533D	02	
VE	2.5051098D	04	PTE	2.0884001D	00	AZE	-9.0257794D	01	

TIME	4	FEB. 1968	5	HRS.,	28	MIN.,	43.342	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	2.2267473D	05
X	3.1484454D	08	Y	1.4614465D	08	Z	7.7237705D	07	
DX	7.6091141D	02	DY	5.2485678D	02	DZ	8.7038810D	01	
R	3.5559950D	08	DEC	1.2544874D	01	RA	2.4899801D	01	
V	9.2845925D	02	PTH	7.8043163D	01	AZ	1.2595773D	02	
ALT	3.4922234D	08	LTGD	1.2546333D	01	LON	1.6926145D	02	
VE	2.5172606D	04	PTE	2.0678737D	00	AZE	-9.0257298D	01	

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	4	FEB. 1968	5	HRS.,	58	MIN.,	43.342	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	2.2447473D	05
X	3.1621105D	08	Y	1.4708676D	08	Z	7.7392701D	07	
DX	7.5745899D	02	DY	5.2193081D	02	DZ	8.5174659D	01	
R	3.5723042D	08	DEC	1.2512138D	01	RA	2.4945669D	01	
V	9.2380226D	02	PTH	7.8066277D	01	AZ	1.2638984D	02	
ALT	3.5085326D	08	LTGD	1.2513586D	01	LON	1.6178678D	02	
VE	2.5293612D	04	PTF	2.0478246D	00	AZE	-9.0256930D	01	

TIME	4	FEB. 1968	6	HRS.,	28	MIN.,	43.342	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	2.2627473D	05
X	3.1757148D	08	Y	1.4802359D	08	Z	7.7544318D	07	
DX	7.5415140D	02	DY	5.1898319D	02	DZ	8.3284343D	01	
R	3.5885338D	08	DEC	1.2479432D	01	RA	2.4990746D	01	
V	9.1925196D	02	PTH	7.8091296D	01	AZ	1.2685277D	02	
ALT	3.5247621D	08	LTGD	1.2480870D	01	LON	1.5431133D	02	
VE	2.5414137D	04	PTF	2.0282526D	00	AZE	-9.0256698D	01	

TIME	4	FEB. 1968	6	HRS.,	58	MIN.,	43.342	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	2.2807473D	05
X	3.1892609D	08	Y	1.4895508D	08	Z	7.7692506D	07	
DX	7.5099723D	02	DY	5.1600967D	02	DZ	8.1363538D	01	
R	3.6046857D	08	DEC	1.2446739D	01	RA	2.5035021D	01	
V	9.1481301D	02	PTH	7.8118357D	01	AZ	1.2734990D	02	
ALT	3.5409140D	08	LTGD	1.2448167D	01	LON	1.4683507D	02	
VE	2.5534207D	04	PTF	2.0091590D	00	AZE	-9.0256611D	01	

TIME	4	FEB. 1968	7	HRS.,	28	MIN.,	43.342	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	2.2987473D	05
X	3.2027517D	08	Y	1.4988120D	08	Z	7.7837206D	07	
DX	7.4800637D	02	DY	5.1300544D	02	DZ	7.9407350D	01	
R	3.6207622D	08	DEC	1.2414039D	01	RA	2.5078481D	01	
V	9.1049088D	02	PTH	7.8147600D	01	AZ	1.2788506D	02	
ALT	3.5569904D	08	LTGD	1.2415458D	01	LON	1.3935800D	02	
VE	2.5653846D	04	PTE	1.9905469D	00	AZE	-9.0256679D	01	

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 7 HRS., 58 MIN., 43.342 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 2.3167473D 05
 X 3.2161902D 08 Y 1.5080188D 08 Z 7.7978348D 07
 DX 7.4519022D 02 DY 5.0996499D 02 DZ 7.7410220D 01
 R 3.6367654D 08 DEC 1.2381312D 01 RA 2.5121109D 01
 V 9.0629194D 02 PTH 7.8179169D 01 AZ 1.2846270D 02
 ALT 3.5729935D 08 LTGD 1.2382721D 01 LON 1.3188009D 02
 VE 2.5773081D 04 PTE 1.9724210D 00 AZE-9.0256916D 01

TIME 4 FEB. 1968 8 HRS., 28 MIN., 43.342 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-5.1449802D 07 YSC 1.8657510D 07 ZSC 2.0274764D 07
 DXSC 1.0655685D 03 DYSC-2.9888988D 02 DZSC-3.6817058D 02
 RSC 5.8363094D 07 DESC 2.0327766D 01 RASC 1.6006756D 02
 VSC 1.1663280D 03 PTSC-8.5540175D 01 AZSC-6.5124995D 01
 SELENOGRAPHIC REFERENCE
 XSG 4.0662503D 07 YSG-4.0013358D 07 ZSG 1.2318393D 07
 DXSG-9.8102274D 02 DYSG 6.2530025D 02 DZSG-2.3973892D 02
 HSG 5.6625005D 07 LTSG 1.2184757D 01 LNSG-4.4538987D 01
 VRSG 1.1878050D 03 PTSG-7.8221927D 01 AZSG-8.8625106D 01
 LTS-1.4269444D 00 LNS 1.1578912D 02 LTE-8.3273398D-03
 LNE 2.5084280D 00 DSMP 4.6617560D 00 RSMP 1.1335464D 02
 LIN 1.6731808D 02 LAN 2.9112229D 01 LAP 1.9972947D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.3347473D 05
 X 3.2295797D 08 Y 1.5171705D 08 Z 7.8115854D 07
 DX 7.4256200D 02 DY 5.0688196D 02 DZ 7.5365783D 01
 R 3.6526976D 08 DEC 1.2348536D 01 RA 2.5162886D 01
 V 9.0222372D 02 PTH 7.8213204D 01 AZ 1.2908793D 02
 ALT 3.5889257D 08 LTGD 1.2349935D 01 LON 1.2440134D 02
 VE 2.5891944D 04 PTE 1.9547887D 00 AZE-9.0257334D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 8 HRS., 43 MIN., 43.342 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-5.0490406D 07 YSC 1.8388152D 07 ZSC 1.9943092D 07
 DXSC 1.0664303D 03 DYSC-2.9968467D 02 DZSC-3.6888004D 02
 RSC 5.7316072D 07 DESC 2.0361940D 01 RASC 1.5998882D 02
 VSC 1.1675431D 03 PTSC-8.5489715D 01 AZSC-6.5197794D 01

SELENOGRAPHIC REFERENCE

XSG 3.9780865D 07 YSG-3.9448054D 07 ZSG 1.2102310D 07
 DXSG-9.7824650D 02 DYSG 6.3096521D 02 DZSG-2.4011204D 02
 HSG 5.5577982D 07 LTSG 1.2189775D 01 LNSG-4.4759321D 01
 VRSG 1.1885862D 03 PTSG-7.8308746D 01 AZSG-8.8624383D 01
 LTS-1.4269039D 00 LNS 1.1566229D 02 LTE-2.2767896D-02
 LNE 2.4954516D 00 DSMP 4.6614343D 00 RSMP 1.1323998D 02

GEOCENTRIC REFERENCE

LIN 1.6733043D 02 LAN 2.9174084D 01 LAP 2.0011812D 02
 X 3.2362571D 08 Y 1.5217254D 08 Z 7.8183216D 07
 DX 7.4132307D 02 DY 5.0532225D 02 DZ 7.4323585D 01
 R 3.6606379D 08 DEC 1.2332121D 01 RA 2.5183450D 01
 V 9.0024133D 02 PTH 7.8231188D 01 AZ 1.2942023D 02
 ALT 3.5968660D 08 LTGD 1.2333516D 01 LON 1.2066163D 02
 VE 2.5951246D 04 PTE 1.9461605D 00 AZE-9.0257617D 01

FLIGHT TIME

2.3437473D 05

TIME 4 FEB. 1968 8 HRS., 58 MIN., 43.342 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-4.9530212D 07 YSC 1.8118075D 07 ZSC 1.9610776D 07
 DXSC 1.0673429D 03 DYSC-3.0048905D 02 DZSC-3.6960200D 02
 RSC 5.6268010D 07 DESC 2.0397087D 01 RASC 1.5990755D 02
 VSC 1.1688115D 03 PTSC-8.5436344D 01 AZSC-6.5269975D 01

SELENOGRAPHIC REFERENCE

XSG 3.8901717D 07 YSG-3.8877642D 07 ZSG 1.1885891D 07
 DXSG-9.7548945D 02 DYSG 6.3665100D 02 DZSG-2.4049365D 02
 HSG 5.4529921D 07 LTSG 1.2194858D 01 LNSG-4.4982263D 01
 VRSG 1.1894290D 03 PTSG-7.8392950D 01 AZSG-8.8623284D 01
 LTS-1.4268633D 00 LNS 1.1553547D 02 LTE-3.7206446D-02
 LNE 2.4824565D 00 DSMP 4.6611121D 00 RSMP 1.1312534D 02

GEOCENTRIC REFERENCE

LIN 1.6734217D 02 LAN 2.9229609D 01 LAP 2.0049427D 02
 X 3.2429236D 08 Y 1.5262663D 08 Z 7.8249632D 07
 DX 7.4013706D 02 DY 5.0374905D 02 DZ 7.3266728D 01
 R 3.6685614D 08 DEC 1.2315685D 01 RA 2.5203792D 01
 V 8.9829504D 02 PTH 7.8249838D 01 AZ 1.2976673D 02
 ALT 3.6047895D 08 LTGD 1.2317075D 01 LON 1.1692171D 02
 VE 2.6010468D 04 PTE 1.9376595D 00 AZE-9.0257952D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 9 HRS., 13 MIN., 43.342 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-4.85691730 07 YSC 1.78472690 07 ZSC 1.92778040 07
 DXSC 1.06830880 03 DYSC-3.01304150 02 DZSC-3.70337550 02
 RSC 5.52188660 07 DESC 2.04332700 01 RASC 1.59823590 02
 VSC 1.17013580 03 PTSC-8.53799240 01 AZSC-6.53416010 01

SELENOGRAPHIC REFERENCE

XSG 3.80250400 07 YSG-3.83021020 07 ZSG 1.16691270 07
 DXSG-9.72753030 02 DYSG 6.42360050 02 DZSG-2.40884400 02
 HSG 5.34807770 07 LTSG 1.22000110 01 LNSG-4.52079760 01
 VRSG 1.19033620 03 PTSG-7.84744000 01 AZSG-8.86218260 01
 LTS-1.42682270 00 LNS 1.15408640 02 LTF-5.16429310-02
 LNE 2.46944300 00 DSMP 4.66078940 00 RSMP 1.13010720 02

GEOCENTRIC REFERENCE

LIN 1.67353290 02 LAN 2.92787720 01 LAP 2.00857920 02
 X 3.24957970 08 Y 1.53079290 08 Z 7.83150910 07
 DX 7.39006290 02 DY 5.02161260 02 DZ 7.21941130 01
 R 3.67646850 08 DEC 1.22992240 01 RA 2.52239090 01
 V 8.96386200 02 PTH 7.82691690 01 AZ 1.30128360 02
 ALT 3.61269650 08 LTGD 1.23006090 01 LON 1.13181560 02
 VE 2.60696130 04 PTE 1.92928730 00 AZE-9.02583410 01

FLIGHT TIME 2.36174730 05

TIME 4 FEB. 1968 9 HRS., 28 MIN., 43.342 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-4.76072390 07 YSC 1.75757240 07 ZSC 1.89441640 07
 DXSC 1.06933040 03 DYSC-3.02131170 02 DZSC-3.71087890 02
 RSC 5.41685940 07 DESC 2.04705530 01 RASC 1.59736770 02
 VSC 1.17151910 03 PTSC-8.53203080 01 AZSC-6.54127420 01

SELENOGRAPHIC REFERENCE

XSG 3.71508160 07 YSG-3.77214120 07 ZSG 1.14520100 07
 DXSG-9.70038790 02 DYSG 6.48095030 02 DZSG-2.41284950 02
 HSG 5.24305050 07 LTSG 1.22052400 01 LNSG-4.54366370 01
 VRSG 1.19131060 03 PTSG-7.85529470 01 AZSG-8.86200290 01
 LTS-1.42678210 00 LNS 1.15281820 02 LTF-6.60772930-02
 LNE 2.45641110 00 DSMP 4.66046630 00 RSMP 1.12896110 02

GEOCENTRIC REFERENCE

LIN 1.67363830 02 LAN 2.93215540 01 LAP 2.01209100 02
 X 3.25622590 08 Y 1.53530510 08 Z 7.83795770 07
 DX 7.37933270 02 DY 5.00557680 02 DZ 7.11045520 01
 R 3.68435950 08 DEC 1.22827340 01 RA 2.52437990 01
 V 8.94516270 02 PTH 7.82891930 01 AZ 1.30506090 02
 ALT 3.62058750 08 LTGD 1.22841150 01 LON 1.09441180 02
 VE 2.61286890 04 PTE 1.92104600 00 AZE-9.02587870 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 9 HRS., 43 MIN., 43.342 SEC.,GMT
 SELENOCENTRIC REFERENCE
 XSC-4.6644360D 07 YSC 1.7303429D 07 ZSC 1.8609841D 07
 DXSC 1.0704104D 03 DYSC-3.0297141D 02 DZSC-3.7185430D 02
 RSC 5.3117146D 07 DESC 2.0509010D 01 RASC 1.5964690D 02
 VSC 1.1729645D 03 PTSC-8.5257335D 01 AZSC-6.5483476D 01
 SELENOGRAPHIC REFERENCE
 XSG 3.6279023D 07 YSG-3.7135549D 07 ZSG 1.1234531D 07
 DXSG-9.6734842D 02 DYSG 6.5385877D 02 DZSG-2.4169603D 02
 HSG 5.1379056D 07 LTSG 1.2210551D 01 LNSG-4.5668435D 01
 VRSG 1.1923553D 03 PTSG-7.8628431D 01 AZSG-8.8517917D 01
 LTS-1.4267414D 00 LNS 1.1515499D 02 LTE-8.0509473D-02
 LNE 2.4433610D 00 DSMP 4.6601427D 00 RSMP 1.1278153D 02
 LIN 1.6737379D 02 LAN 2.9357945D 01 LAP 2.0154785D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.3797473D 05
 X 3.2628627D 08 Y 1.5398029D 08 Z 7.8443074D 07
 DX 7.3692071D 02 DY 4.9893700D 02 DZ 6.9996761D 01
 R 3.6922347D 08 DEC 1.2266212D 01 RA 2.5263456D 01
 V 8.9268685D 02 PTH 7.8309921D 01 AZ 1.3090099D 02
 ALT 3.6284627D 08 LTGD 1.2267588D 01 LON 1.0570057D 02
 VE 2.6187699D 04 PTE 1.9129375D 00 AZE-9.0259294D 01

TIME 4 FEB. 1968 9 HRS., 58 MIN., 43.342 SEC.,GMT
 SELENOCENTRIC REFERENCE
 XSC-4.5680482D 07 YSC 1.7030371D 07 ZSC 1.8274821D 07
 DXSC 1.0715518D 03 DYSC-3.0382631D 02 DZSC-3.7263819D 02
 RSC 5.2064470D 07 DESC 2.0548716D 01 RASC 1.5955378D 02
 VSC 1.1744756D 03 PTSC-8.5190830D 01 AZSC-6.5553888D 01
 SELENOGRAPHIC REFERENCE
 XSG 3.5409639D 07 YSG-3.6544483D 07 ZSG 1.1016679D 07
 DXSG-9.6468372D 02 DYSG 6.5965437D 02 DZSG-2.4211844D 02
 HSG 5.0326380D 07 LTSG 1.2215949D 01 LNSG-4.5903578D 01
 VRSG 1.1934739D 03 PTSG-7.8700679D 01 AZSG-8.8615519D 01
 LTS-1.4267006D 00 LNS 1.1502817D 02 LTE-9.4939411D-02
 LNE 2.4302927D 00 DSMP 4.6598187D 00 RSMP 1.1266696D 02
 LIN 1.6738321D 02 LAN 2.9387948D 01 LAP 2.0187423D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.3887473D 05
 X 3.2694907D 08 Y 1.5442859D 08 Z 7.8505565D 07
 DX 7.3597158D 02 DY 4.9729780D 02 DZ 6.8869346D 01
 R 3.7000947D 08 DEC 1.2249654D 01 RA 2.5282876D 01
 V 8.9089968D 02 PTH 7.8331363D 01 AZ 1.3131422D 02
 ALT 3.6363226D 08 LTGD 1.2251025D 01 LON 1.0195973D 02
 VE 2.6246649D 04 PTE 1.9049643D 00 AZE-9.0259864D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 10 HRS., 43 MIN., 43.342 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-4.27822690 07 YSC 1.62064750 07 ZSC 1.72654040 07
 DXSC 1.07537760 03 DYSC-3.06495140 02 DZSC-3.75110510 02
 RSC 4.88985330 07 DESC 2.06762040 01 RASC 1.59252660 02
 VSC 1.17944230 03 PTSC-8.49681650 01 AZSC-6.57641910 01
 SELENOGRAPHIC REFERENCE
 XSG 3.28156950 07 YSG-3.47397590 07 ZSG 1.03607830 07
 DXSG-9.56864180 02 DYSG 6.77267410 02 DZSG-2.43462560 02
 HSG 4.71604440 07 LTSG 1.22327410 01 LNSG-4.66314120 01
 VRSG 1.19731120 03 PTSG-7.88960470 01 AZSG-8.86069680 01
 LTS-1.42657820 00 LNS 1.14647700 02 LTF-1.38215190-01
 LNE 2.39097980 00 DSMP 4.65884360 00 RSMP 1.12323380 02
 LIN 1.67408310 02 LAN 2.94398260 01 LAP 2.02780000 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.41574730 05
 X 3.28932760 08 Y 1.55764530 08 Z 7.86868140 07
 DX 7.33538170 02 DY 4.92252900 02 DZ 6.53535360 01
 R 3.72358650 08 DEC 1.21997160 01 RA 2.53396700 01
 V 8.85811630 02 PTH 7.84000020 01 AZ 1.32677100 02
 ALT 3.65981440 08 LTGD 1.22010730 01 LON 9.07357200 01
 VE 2.64232060 04 PTE 1.88188440 00 AZE-9.02619920 01

TIME 4 FEB. 1968 10 HRS., 58 MIN., 43.342 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-4.18137950 07 YSC 1.59302120 07 ZSC 1.69274140 07
 DXSC 1.07679940 03 DYSC-3.07425670 02 DZSC-3.75980850 02
 RSC 4.78403860 07 DESC 2.07218190 01 RASC 1.59144160 02
 VSC 1.18125740 03 PTSC-8.48854810 01 AZSC-6.58343630 01
 SELENOGRAPHIC REFERENCE
 XSG 3.19556900 07 YSG-3.41275520 07 ZSG 1.01413290 07
 DXSG-9.54323580 02 DYSG 6.83227130 02 DZSG-2.43939610 02
 HSG 4.61022960 07 LTSG 1.22385620 01 LNSG-4.68823770 01
 VRSG 1.19876580 03 PTSG-7.89533050 01 AZSG-8.86038180 01
 LTS-1.42653730 00 LNS 1.14520880 02 LTF-1.52635580-01
 LNE 2.37783980 00 DSMP 4.65851760 00 RSMP 1.12208890 02
 LIN 1.67415690 02 LAN 2.94445240 01 LAP 2.03057820 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.42474730 05
 X 3.29592640 08 Y 1.56206780 08 Z 7.87450840 07
 DX 7.32877750 02 DY 4.90522650 02 DZ 6.41310660 01
 R 3.73138920 08 DEC 1.21829670 01 RA 2.53580930 01
 V 8.84214370 02 PTH 7.84243070 01 AZ 1.33177500 02
 ALT 3.66761710 08 LTGD 1.21843190 01 LON 8.69938770 01
 VE 2.64819830 04 PTE 1.87448210 00 AZE-9.02628550 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 11 HRS., 13 MIN., 43.342 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-4.08440060 07 YSC 1.56531010 07 ZSC 1.65886300 07
 DXSC 1.07830180 03 DYSC-3.08380220 02 DZSC-3.76877760 02
 RSC 4.67807130 07 DESC 2.07691780 01 RASC 1.59031110 02
 VSC 1.18316100 03 PTSC-8.47981420 01 AZSC-6.59047900 01

SELENOGRAPHIC REFERENCE

XSG 3.10979540 07 YSG-3.35099590 07 ZSG 9.92144140 06
 DXSG-9.51820330 02 DYSG 6.89238780 02 DZSG-2.44433100 02
 HSG 4.50426230 07 LTSG 1.22445080 01 LNSG-4.71380250 01
 VRSG 1.20031640 03 PTSG-7.90062110 01 AZSG-8.86006130 01
 LTS-1.42649630 00 LNS 1.14394060 02 LTF-1.67053430-01
 LNE 2.36468220 00 DSMP 4.65819120 00 RSMP 1.12094410 02
 LIN 1.67422610 02 LAN 2.94430100 01 LAP 2.03323790 02
 FLIGHT TIME 2.43374730 05

GEOCENTRIC REFERENCE

X 3.30251960 08 Y 1.56647470 08 Z 7.88022420 07
 DX 7.32299920 02 DY 4.88764530 02 DZ 6.28798930 01
 R 3.73917880 08 DEC 1.21661580 01 RA 2.53762530 01
 V 8.82670850 02 PTH 7.84493030 01 AZ 1.33703820 02
 ALT 3.67540660 08 LTGD 1.21675060 01 LON 8.32517700 01
 VE 2.65407340 04 PTE 1.86723180 00 AZE-9.02638030 01

TIME 4 FEB. 1968 11 HRS., 28 MIN., 43.342 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-3.98728270 07 YSC 1.53751200 07 ZSC 1.62490260 07
 DXSC 1.07988960 03 DYSC-3.09361260 02 DZSC-3.77803600 02
 RSC 4.57194430 07 DESC 2.09184110 01 RASC 1.58913150 02
 VSC 1.18515880 03 PTSC-8.47058580 01 AZSC-6.59756250 01

SELENOGRAPHIC REFERENCE

XSG 3.02424520 07 YSG-3.28869290 07 ZSG 9.70110470 06
 DXSG-9.49357410 02 DYSG 6.95307570 02 DZSG-2.44944340 02
 HSG 4.39813530 07 LTSG 1.22505890 01 LNSG-4.73987030 01
 VRSG 1.20196910 03 PTSG-7.90544750 01 AZSG-8.85974230 01
 LTS-1.42645540 00 LNS 1.14267240 02 LTF-1.81468690-01
 LNE 2.35150700 00 DSMP 4.65786420 00 RSMP 1.11979960 02
 LIN 1.67429080 02 LAN 2.94353480 01 LAP 2.03578070 02
 FLIGHT TIME 2.44274730 05

GEOCENTRIC REFERENCE

X 3.30910810 08 Y 1.57086550 08 Z 7.88582590 07
 DX 7.31809680 02 DY 4.86976090 02 DZ 6.15976490 01
 R 3.74695570 08 DEC 1.21492830 01 RA 2.53941420 01
 V 8.81184090 02 PTH 7.84749650 01 AZ 1.34258050 02
 ALT 3.68318350 08 LTGD 1.21506270 01 LON 7.95093930 01
 VE 2.65994700 04 PTE 1.86013810 00 AZE-9.02648410 01

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - FIRST OPPORTUNITY
(CONTINUED)

TIME 4 FEB. 1968 11 HRS., 43 MIN., 43.342 SEC., GMT
SELENOCENTRIC REFERENCE
XSC-3.8900178D 07 YSC 1.5096242D 07 ZSC 1.5908574D 07
DXSC 1.0815684D 03 DYSC-3.1037152D 02 DZSC-3.7876098D 02
RSC 4.4656501D 07 DESC 2.0869654D 01 RASC 1.5878993D 02
VSC 1.1872576D 03 PTSC-8.4608310D 01 AZSC-6.6047035D 01
SELENOGRAPHIC REFERENCE
XSG 2.9389147D 07 YSG-3.2258409D 07 ZSG 9.4803023D 06
DXSG-9.4693809D 02 DYSG 7.0143924D 02 DZSG-2.4547480D 02
HSG 4.2918412D 07 LTSG 1.2256813D 01 LNSG-4.7664791D 01
VRSG 1.2037303D 03 PTSG-7.9097783D 01 AZSG-8.8594330D 01
LTS-1.4264143D 00 LNS 1.1414042D 02 LTF-1.9588129D-01
LNF 2.3383144D 00 DSMP 4.6575368D 00 RSMP 1.1186552D 02
LIN 1.6743511D 02 LAN 2.9421612D 01 LAP 2.0382081D 02
GEOCENTRIC REFERENCE FLIGHT TIME 2.4517473D 05
X 3.3156925D 08 Y 1.5752401D 08 Z 7.8913107D 07
DX 7.3141249D 02 DY 4.8515461D 02 DZ 6.0281729D 01
R 3.7547205D 08 DEC 1.2132337D 01 RA 2.5411752D 01
V 8.7975741D 02 PTH 7.8501255D 01 AZ 1.3484238D 02
ALT 3.6909483D 08 LTGD 1.2133676D 01 LON 7.5766736D 01
VE 2.6658198D 04 PTE 1.8532059D 00 AZE-9.0265976D 01

TIME 4 FEB. 1968 11 HRS., 58 MIN., 43.342 SEC., GMT
SELENOCENTRIC REFERENCE
XSC-3.7925974D 07 YSC 1.4816441D 07 ZSC 1.5567246D 07
DXSC 1.0833441D 03 DYSC-3.1141401D 02 DZSC-3.7975277D 02
RSC 4.3591807D 07 DESC 2.0923063D 01 RASC 1.5866102D 02
VSC 1.1894643D 03 PTSC-8.4505148D 01 AZSC-6.6119204D 01
SELENOGRAPHIC REFERENCE
XSG 2.8537998D 07 YSG-3.1624340D 07 ZSG 9.2590161D 06
DXSG-9.4456597D 02 DYSG 7.0764012D 02 DZSG-2.4602606D 02
HSG 4.1853717D 07 LTSG 1.2263191D 01 LNSG-4.7936710D 01
VRSG 1.2056070D 03 PTSG-7.9135789D 01 AZSG-8.8591425D 01
LTS-1.4263732D 00 LNS 1.1401360D 02 LTF-2.1029119D-01
LNE 2.3251044D 00 DSMP 4.6572089D 00 RSMP 1.1175111D 02
LIN 1.6744074D 02 LAN 2.9401887D 01 LAP 2.0405220D 02
GEOCENTRIC REFERENCE FLIGHT TIME 2.4607473D 05
X 3.3222738D 08 Y 1.5795982D 08 Z 7.8966755D 07
DX 7.3111435D 02 DY 4.8329706D 02 DZ 5.8929254D 01
R 3.7624737D 08 DEC 1.2115313D 01 RA 2.5429075D 01
V 3.7839450D 02 PTH 7.8528124D 01 AZ 1.3545921D 02
ALT 3.6987015D 08 LTGD 1.2116647D 01 LON 7.2023793D 01
VE 2.6716929D 04 PTE 1.8464409D.00 AZE-9.0267214D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 12 HRS., 13 MIN., 43.342 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-3.69501270 07 YSC 1.45356870 07 ZSC 1.52250080 07
 DXSC 1.08522340 03 DYSC-3.12492090 02 DZSC-3.80782180 02
 RSC 4.25252740 07 DESC 2.09788040 01 RASC 1.58525980 02
 VSC 1.19178700 03 PTSC-8.43959860 01 AZSC-6.61923360 01

SELENOGRAPHIC REFERENCE

XSG 2.76889610 07 YSG-3.09846560 07 ZSG 9.03722680 06
 DXSG-9.42244980 02 DYSG 7.13917170 02 DZSG-2.46599900 02
 HSG 4.07871850 07 LTSG 1.22697340 01 LNSG-4.82149220 01
 VRSG 1.20760710 03 PTSG-7.91681110 01 AZSG-9.85888150 01
 LTS-1.42633210 00 LNS 1.13886780 02 LTE-2.24698320-01
 LNE 2.31187720 00 DSMP 4.55688050 00 RSMP 1.11636710 02
 LIN 1.67445970 02 LAN 2.93762620 01 LAP 2.04272410 02

GEOCENTRIC REFERENCE

X 3.32885290 08 Y 1.58393940 08 Z 7.90191680 07
 DX 7.30921900 02 DY 4.81400100 02 DZ 5.75370390 01
 R 3.77021590 08 DEC 1.20982030 01 RA 2.54461030 01
 V 8.77099410 02 PTH 7.85555040 01 AZ 1.36111180 02
 ALT 3.70644370 08 LTGD 1.20995330 01 LON 6.82805540 01
 VE 2.67756740 04 PTE 1.83984940 00 AZE-9.02685630 01

FLIGHT TIME 2.46974730 05

TIME 4 FEB. 1968 12 HRS., 28 MIN., 43.342 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-3.59725390 07 YSC 1.42539440 07 ZSC 1.48818250 07
 DXSC 1.08721360 03 DYSC-3.13609520 02 DZSC-3.81852740 02
 RSC 4.14568110 07 DESC 2.10370620 01 RASC 1.58384280 02
 VSC 1.19423440 03 PTSC-8.42803980 01 AZSC-6.62666540 01

SELENOGRAPHIC REFERENCE

XSG 2.68419870 07 YSG-3.03392860 07 ZSG 8.81491300 06
 DXSG-9.39979460 02 DYSG 7.20278150 02 DZSG-2.47198270 02
 HSG 3.97187220 07 LTSG 1.22764520 01 LNSG-4.84999400 01
 VRSG 1.20973920 03 PTSG-7.91943270 01 AZSG-8.85866220 01
 LTS-1.42629090 00 LNS 1.13759960 02 LTE-2.39102620-01
 LNE 2.29863270 00 DSMP 4.55655170 00 RSMP 1.11522330 02
 LIN 1.67450820 02 LAN 2.93448400 01 LAP 2.04481650 02

GEOCENTRIC REFERENCE

X 3.33543070 08 Y 1.58926330 08 Z 7.90703090 07
 DX 7.30842460 02 DY 4.79459980 02 DZ 5.61015430 01
 R 3.77794780 08 DEC 1.20810010 01 RA 2.54628250 01
 V 8.75876680 02 PTH 7.85833070 01 AZ 1.36801230 02
 ALT 3.71417550 08 LTGD 1.20823270 01 LON 6.45370090 01
 VE 2.68344450 04 PTE 1.83343830 00 AZE-9.02700320 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 12 HRS., 43 MIN., 43.342 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-3.49931070 07 YSC 1.39711760 07 ZSC 1.45376590 07
 DXSC 1.08932280 03 DYSC-3.14770470 02 DZSC-3.82968390 02
 RSC 4.03863200 07 DESC 2.10980420 01 RASC 1.58235380 02
 VSC 1.19681640 03 PTSC-8.41579130 01 AZSC-6.63424070 01
 SELENOGRAPHIC REFERENCE
 XSG 2.59970240 07 YSG-2.96881490 07 ZSG 8.59205180 06
 DXSG-9.37774180 02 DYSG 7.26731670 02 DZSG-2.47823330 02
 HSG 3.86482300 07 LTSG 1.22833570 01 LNSG-4.87923350 01
 VRSG 1.21201310 03 PTSG-7.92139710 01 AZSG-8.85849860 01
 LTS-1.42624970 00 LNS 1.13633150 02 LTE-2.53504040-01
 LNF 2.28537130 00 DSMP 4.65622230 00 RSMP 1.11407960 02
 LIN 1.67455310 02 LAN 2.93077250 01 LAP 2.04680110 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.48774730 05
 X 3.34200840 08 Y 1.59256950 08 Z 7.91201370 07
 DX 7.30884180 02 DY 4.77472510 02 DZ 5.46188230 01
 R 3.78567000 08 DEC 1.20636990 01 RA 2.54792300 01
 V 8.74731330 02 PTH 7.86114220 01 AZ 1.37532610 02
 ALT 3.72189770 08 LTGD 1.20650200 01 LON 6.07931480 01
 VE 2.68932530 04 PTE 1.82721550 00 AZE-9.02716290 01

TIME 4 FEB. 1968 12 HRS., 58 MIN., 43.342 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-3.40117200 07 YSC 1.36873430 07 ZSC 1.41924670 07
 DXSC 1.09156010 03 DYSC-3.15979670 02 DZSC-3.84133540 02
 RSC 3.93136940 07 DESC 2.11519710 01 RASC 1.58078650 02
 VSC 1.19954370 03 PTSC-8.40280070 01 AZSC-6.64198730 01
 SELENOGRAPHIC REFERENCE
 XSG 2.51540170 07 YSG-2.90311590 07 ZSG 8.36861810 06
 DXSG-9.35634450 02 DYSG 7.33287330 02 DZSG-2.48477500 02
 HSG 3.75756050 07 LTSG 1.22904630 01 LNSG-4.90927390 01
 VRSG 1.21443950 03 PTSG-7.92265240 01 AZSG-8.85840650 01
 LTS-1.42620850 00 LNS 1.13506330 02 LTE-2.67902510-01
 LNE 2.27209290 00 DSMP 4.65589250 00 RSMP 1.11293620 02
 LIN 1.67459450 02 LAN 2.92650340 01 LAP 2.04868030 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.49674730 05
 X 3.34858700 08 Y 1.59685750 08 Z 7.91686070 07
 DX 7.31056080 02 DY 4.75433000 02 DZ 5.30844740 01
 R 3.79338320 08 DEC 1.20462870 01 RA 2.54953080 01
 V 8.73668980 02 PTH 7.86397040 01 AZ 1.38308900 02
 ALT 3.72961090 08 LTGD 1.20476040 01 LON 5.70489600 01
 VE 2.69521140 04 PTE 1.82118950 00 AZE-9.02733660 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 13 HRS., 13 MIN., 43.342 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-3.30282570 07 YSC 1.34023970 07 ZSC 1.38462030 07
 DXSC 1.09393540 03 DYSC-3.17242400 02 DZSC-3.85353140 02
 RSC 3.82388200 07 DESC 2.12291000 01 RASC 1.57913380 02
 VSC 1.20242860 03 PTSC-8.38900950 01 AZSC-6.64993600 01
 SELENOGRAPHIC REFERENCE
 XSG 2.43129030 07 YSG-2.83682190 07 ZSG 8.14458450 06
 DXSG-9.33566120 02 DYSG 7.39955890 02 DZSG-2.49163470 02
 HSG 3.65007300 07 LTSG 1.22977820 01 LNSG-4.94018620 01
 VRSG 1.21703030 03 PTSG-7.92314110 01 AZSG-8.85840430 01
 LTS-1.42616710 00 LNS 1.13379510 02 LTE-2.82297990-01
 LNE 2.25879760 00 DSMP 4.65556220 00 RSMP 1.11179290 02
 LIN 1.67463260 02 LAN 2.92168870 01 LAP 2.05045610 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.50574730 05
 X 3.35516780 08 Y 1.60112710 08 Z 7.92156720 07
 DX 7.31368220 02 DY 4.73336150 02 DZ 5.14935570 01
 R 3.80108820 08 DEC 1.20287570 01 RA 2.55110460 01
 V 8.72695920 02 PTH 7.86679730 01 AZ 1.39134110 02
 ALT 3.73731580 08 LTGD 1.20300690 01 LON 5.33044310 01
 VE 2.70110430 04 PTE 1.81537000 00 AZE-9.02752540 01

TIME 4 FEB. 1968 13 HRS., 28 MIN., 43.342 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-3.20425910 07 YSC 1.31162880 07 ZSC 1.34988140 07
 DXSC 1.09646010 03 DYSC-3.18564660 02 DZSC-3.86632750 02
 RSC 3.71615750 07 DESC 2.12997110 01 RASC 1.57738780 02
 VSC 1.20548460 03 PTSC-8.37435260 01 AZSC-6.65812110 01
 SELENOGRAPHIC REFERENCE
 XSG 2.34736160 07 YSG-2.76992210 07 ZSG 7.91992100 06
 DXSG-9.31575730 02 DYSG 7.46749430 02 DZSG-2.49884280 02
 HSG 3.54234850 07 LTSG 1.23053270 01 LNSG-4.97204960 01
 VRSG 1.21979920 03 PTSG-7.92279850 01 AZSG-8.85851260 01
 LTS-1.42612580 00 LNS 1.13252700 02 LTE-2.96690410-01
 LNE 2.24548560 00 DSMP 4.65523140 00 RSMP 1.11064980 02
 LIN 1.67466750 02 LAN 2.91534110 01 LAP 2.05213110 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.51474730 05
 X 3.36175210 08 Y 1.60537750 08 Z 7.92612770 07
 DX 7.31831860 02 DY 4.71175970 02 DZ 4.98405120 01
 R 3.80878580 08 DEC 1.20110980 01 RA 2.55264290 01
 V 8.71819210 02 PTH 7.86960010 01 AZ 1.40012680 02
 ALT 3.74501340 08 LTGD 1.20124060 01 LON 4.95595470 01
 VE 2.70700570 04 PTE 1.80976800 00 AZE-9.02773050 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 13 HRS., 43 MIN., 43.342 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-3.1054581D 07 YSC 1.2828961D 07 ZSC 1.3150244D 07
 DXSC 1.0991468D 03 DYSC-3.1995326D 02 DZSC-3.8797865D 02
 RSC 3.6081825D 07 DESC 2.1374117D 01 RASC 1.5755398D 02
 VSC 1.2087271D 03 PTSC-8.3587569D 01 AZSC-6.6665816D 01
 SELENOGRAPHIC REFERENCE

XSG 2.2636081D 07 YSG-2.7024048D 07 ZSG 7.6945948D 06
 DXSG-9.2967054D 02 DYSG 7.5368154D 02 DZSG-2.5064332D 02
 HSG 3.4343736D 07 LTSG 1.2313115D 01 LNSG-5.0049536D 01
 VRSG 1.2227613D 03 PTSG-7.9215524D 01 AZSG-8.8587554D 01
 LTS-1.4260844D 00 LNS 1.1312588D 02 LTF-3.1107971D-01
 LNF 2.2321570D 00 DSMP 4.6549001D 00 RSMP 1.1095068D 02
 LIN 1.6746994D 02 LAN 2.9104741D 01 LAP 2.0537075D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.5237473D 05

X 3.3683413D 08 Y 1.6096081D 08 Z 7.9305364D 07
 DX 7.3245963D 02 DY 4.6894566D 02 DZ 4.8119058D 01
 R 3.8164768D 08 DEC 1.1993300D 01 RA 2.5541441D 01
 V 8.7104683D 02 PTH 7.8723501D 01 AZ 1.4094958D 02
 ALT 3.7527044D 08 LTGD 1.1994603D 01 LON 4.5814293D 01
 VE 2.7129176D 04 PTE 1.8043954D 00 AZE-9.0279536D 01

TIME 4 FEB. 1968 13 HRS., 58 MIN., 43.342 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-3.0064074D 07 YSC 1.2540350D 07 ZSC 1.2800430D 07
 DXSC 1.1020096D 03 DYSC-3.2141595D 02 DZSC-3.8939796D 02
 RSC 3.4999428D 07 DESC 2.1452671D 01 RASC 1.5735796D 02
 VSC 1.2121733D 03 PTSC-8.3421400D 01 AZSC-6.6753609D 01
 SELENOGRAPHIC REFERENCE

XSG 2.1800219D 07 YSG-2.6342567D 07 ZSG 7.4685698D 06
 DXSG-9.2785871D 02 DYSG 7.6076766D 02 DZSG-2.5144443D 02
 HSG 3.3261338D 07 LTSG 1.2321159D 01 LNSG-5.0389988D 01
 VRSG 1.2259337D 03 PTSG-7.9193215D 01 AZSG-8.8591598D 01
 LTS-1.4260429D 00 LNS 1.1299907D 02 LTF-3.2546585D-01
 LNF 2.2188119D 00 DSMP 4.6545683D 00 RSMP 1.1083641D 02
 LIN 1.6747285D 02 LAN 2.9041014D 01 LAP 2.0551880D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.5327473D 05

X 3.3749369D 08 Y 1.6138183D 08 Z 7.9347868D 07
 DX 7.3326572D 02 DY 4.6663747D 02 DZ 4.6322073D 01
 R 3.8241623D 08 DEC 1.1975349D 01 RA 2.5556067D 01
 V 8.7038778D 02 PTH 7.8750118D 01 AZ 1.4195031D 02
 ALT 3.7603898D 08 LTGD 1.1976648D 01 LON 4.2068653D 01
 VE 2.7188419D 04 PTE 1.7992661D 00 AZE-9.0281962D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 14 HRS., 13 MIN., 43.342 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-2.90709060 07 YSC 1.22503870 07 ZSC 1.24493030 07
 DXSC 1.10506460 03 DYSC-3.22961630 02 DZSC-3.90898800 02
 RSC 3.39142250 07 DESC 2.15357700 01 RASC 1.57149590 02
 VSC 1.21584280 03 PTSC-8.32440920 01 AZSC-6.68450860 01
 SELENOGRAPHIC REFERENCE
 XSG 2.09659420 07 YSG-2.56546330 07 ZSG 7.24180630 06
 DXSG-9.26149370 02 DYSG 7.68025280 02 DZSG-2.52291970 02
 HSG 3.21761360 07 LTSG 1.23294750 01 LNSG-5.07429970 01
 VRSG 1.22933590 03 PTSG-7.91601380 01 AZSG-8.85975700 01
 LTS-1.42600140 00 LNS 1.12872250 02 LTE-3.39848750-01
 LNE 2.20545030 00 DSMP 4.65423600 00 RSMP 1.10722150 02
 LIN 1.67475490 02 LAN 2.89723740 01 LAP 2.05657510 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.54174730 05
 X 3.38154070 08 Y 1.61800730 08 Z 7.93887190 07
 DX 7.34266200 02 DY 4.64242510 02 DZ 4.44414420 01
 R 3.83184310 08 DEC 1.19572340 01 RA 2.55702870 01
 V 8.69852280 02 PTH 7.87754060 01 AZ 1.43021060 02
 ALT 3.76807060 08 LTGD 1.19585280 01 LON 3.83226060 01
 VE 2.72478120 04 PTE 1.79439540 00 AZE-9.02846040 01

TIME 4 FEB. 1968 14 HRS., 28 MIN., 43.342 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-2.80748950 07 YSC 1.19589910 07 ZSC 1.20967850 07
 DXSC 1.10833000 03 DYSC-3.24600530 02 DZSC-3.92490470 02
 RSC 3.28260470 07 DESC 2.16238630 01 RASC 1.56927570 02
 VSC 1.21975800 03 PTSC-8.30545900 01 AZSC-6.69408080 01
 SELENOGRAPHIC REFERENCE
 XSG 2.01331530 07 YSG-2.49600820 07 ZSG 7.01426020 06
 DXSG-9.24552800 02 DYSG 7.75474420 02 DZSG-2.53190910 02
 HSG 3.10879580 07 LTSG 1.23380790 01 LNSG-5.11098630 01
 VRSG 1.23298990 03 PTSG-7.91152510 01 AZSG-8.86058270 01
 LTS-1.42595990 00 LNS 1.12745440 02 LTE-3.54228360-01
 LNE 2.19207250 00 DSMP 4.65390320 00 RSMP 1.10607910 02
 LIN 1.67477870 02 LAN 2.88989700 01 LAP 2.05787140 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.55074730 05
 X 3.38815430 08 Y 1.62217430 08 Z 7.94278350 07
 DX 7.35479260 02 DY 4.61750550 02 DZ 4.24678770 01
 R 3.83952050 08 DEC 1.19389390 01 RA 2.55840800 01
 V 8.69452020 02 PTH 7.97988100 01 AZ 1.44168710 02
 ALT 3.77574800 08 LTGD 1.19402280 01 LON 3.45761330 01
 VE 2.73073790 04 PTE 1.78980060 00 AZE-9.02874820 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 14 HRS., 43 MIN., 43.342 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-2.7075842D 07 YSC 1.1666075D 07 ZSC 1.1742790D 07
 DXSC 1.1118265D 03 DYSC-3.2634449D 02 DZSC-3.9418364D 02
 RSC 3.1734707D 07 DESC 2.1717459D 01 RASC 1.5669040D 02
 VSC 1.2239443D 03 PTSC-8.2851694D 01 AZSC-6.7041421D 01

SELENOGRAPHIC REFERENCE

XSG 1.9301745D 07 YSG-2.4258732D 07 ZSG 6.7858828D 06
 DXSG-9.2308065D 02 DYSG 7.8313803D 02 DZSG-2.5414690D 02
 HSG 2.9996618D 07 LTSG 1.2346987D 01 LNSG-5.1492074D 01
 VRSG 1.2369211D 03 PTSG-7.9057366D 01 AZSG-8.8616779D 01
 LTS-1.4259183D 00 LNS 1.1261863D 02 LTF-3.6860463D-01
 LNE 2.1786784D 00 DSMP 4.6535699D 00 RSMP 1.1049369D 02
 LIN 1.6748000D 02 LAN 2.8820953D 01 LAP 2.0590797D 02

GEOCENTRIC REFERENCE

X 3.3947800D 08 Y 1.6263185D 08 Z 7.9465130D 07
 DX 7.3692563D 02 DY 4.5914975D 02 DZ 4.0390695D 01
 R 3.8471956D 08 DEC 1.1920448D 01 RA 2.5597424D 01
 V 8.6920037D 02 PTH 7.8919637D 01 AZ 1.4540097D 02
 ALT 3.7834230D 08 LTGD 1.1921733D 01 LON 3.0829210D 01
 VE 2.7367153D 04 PTE 1.7855015D 00 AZE-9.0290622D 01

TIME 4 FEB. 1968 14 HRS., 58 MIN., 43.342 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-2.6073531D 07 YSC 1.1371536D 07 ZSC 1.1387220D 07
 DXSC 1.1155779D 03 DYSC-3.2820731D 02 DZSC-3.9599067D 02
 RSC 3.0640000D 07 DESC 2.1817139D 01 RASC 1.5643637D 02
 VSC 1.2284310D 03 PTSC-8.2634031D 01 AZSC-6.7147665D 01

SELENOGRAPHIC REFERENCE

XSG 1.8471600D 07 YSG-2.3550379D 07 ZSG 6.5566199D 06
 DXSG-9.2174612D 02 DYSG 7.9104258D 02 DZSG-2.5516650D 02
 HSG 2.8901911D 07 LTSG 1.2356214D 01 LNSG-5.1891344D 01
 VRSG 1.2411584D 03 PTSG-7.8985123D 01 AZSG-8.8630897D 01
 LTS-1.4258767D 00 LNS 1.1249182D 02 LTE-3.8297750D-01
 LNE 2.1652681D 00 DSMP 4.6532362D 00 RSMP 1.1037948D 02
 LIN 1.6748191D 02 LAN 2.8738480D 01 LAP 2.0602026D 02

GEOCENTRIC REFERENCE

X 3.4014198D 08 Y 1.6304387D 08 Z 7.9500504D 07
 DX 7.3862903D 02 DY 4.5642633D 02 DZ 3.8197543D 01
 R 3.8548696D 08 DEC 1.1901743D 01 RA 2.5610291D 01
 V 8.6911271D 02 PTH 7.8837023D 01 AZ 1.4672644D 02
 ALT 3.7910971D 08 LTGD 1.1903024D 01 LON 2.7081810D 01
 VE 2.7427165D 04 PTE 1.7815204D 00 AZE-9.0294053D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 15 HRS., 13 MIN., 43.342 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-2.5067718D 07	YSC 1.1075261D 07	ZSC 1.1029968D 07
DXSC 1.1196113D 03	DYSC-3.3020511D 02	DZSC-3.9792594D 02
RSC 2.9541700D 07	DESC 2.1923569D 01	RASC 1.5616349D 02
VSC 1.2332518D 03	PTSC-8.2400021D 01	AZSC-6.7260400D 01

SELENOGRAPHIC REFERENCE

XSG 1.7642588D 07	YSG-2.2834791D 07	ZSG 6.3264109D 06
DXSG-9.2056426D 02	DYSG 7.9921878D 02	DZSG-2.5625724D 02
HSG 2.7803611D 07	LTSG 1.2365775D 01	LNSG-5.2309649D 01
VRSG 1.2457355D 03	PTSG-7.8896957D 01	AZSG-8.8648725D 01
LTS-1.4258350D 00	LNS 1.1236500D 02	LTE-3.9734691D-01
LNE 2.1518419D 00	DSMP 4.6529019D 00	RSMP 1.1026529D 02
LIN 1.6748361D 02	LAN 2.8651710D 01	LAP 2.0612430D 02

GEOCENTRIC REFERENCE

X 3.4080762D 08	Y 1.6345337D 08	Z 7.9533846D 07
DX 7.4061674D 02	DY 4.5356417D 02	DZ 3.5874055D 01
R 3.8625441D 08	DEC 1.1882805D 01	RA 2.5622654D 01
V 8.6920686D 02	PTH 7.8849888D 01	AZ 1.4815473D 02
ALT 3.7987715D 08	LTGD 1.1884081D 01	LON 2.3333906D 01
VE 2.7487455D 04	PTE 1.7778829D 00	AZE-9.0297808D 01

FLIGHT TIME 2.5777473D 05

TIME 4 FEB. 1968 15 HRS., 28 MIN., 43.342 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-2.4058136D 07	YSC 1.0777120D 07	ZSC 1.0670910D 07
DXSC 1.1239584D 03	DYSC-3.3235691D 02	DZSC-4.0000625D 02
RSC 2.8439560D 07	DESC 2.2037515D 01	RASC 1.5586945D 02
VSC 1.2384460D 03	PTSC-8.2147837D 01	AZSC-6.7380628D 01

SELENOGRAPHIC REFERENCE

XSG 1.6814565D 07	YSG-2.2111709D 07	ZSG 6.0951880D 06
DXSG-9.1955228D 02	DYSG 8.0770249D 02	DZSG-2.5742790D 02
HSG 2.6701470D 07	LTSG 1.2375680D 01	LNSG-5.2749290D 01
VRSG 1.2506913D 03	PTSG-7.8791058D 01	AZSG-8.8670891D 01
LTS-1.4257932D 00	LNS 1.1223819D 02	LTE-4.1171280D-01
LNE 2.1383998D 00	DSMP 4.6525672D 00	RSMP 1.1015112D 02
LIN 1.6748510D 02	LAN 2.8560804D 01	LAP 2.0622036D 02

GEOCENTRIC REFERENCE

X 3.4147518D 08	Y 1.6386023D 08	Z 7.9565033D 07
DX 7.4292028D 02	DY 4.5054424D 02	DZ 3.3403418D 01
R 3.8702206D 08	DEC 1.1863610D 01	RA 2.5634478D 01
V 8.6950356D 02	PTH 7.8856876D 01	AZ 1.4969655D 02
ALT 3.8064479D 08	LTGD 1.1864882D 01	LON 1.9585464D 01
VE 2.7548068D 04	PTE 1.7746182D 00	AZE-9.0301926D 01

FLIGHT TIME 2.5867473D 05

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 15 HRS., 43 MIN., 43.342 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-2.3044488D 07 YSC 1.0476966D 07 ZSC 1.0309908D 07
 DXSC 1.1286557D 03 DYSC-3.3468529D 02 DZSC-4.0225143D 02
 RSC 2.7333302D 07 DESC 2.2159866D 01 RASC 1.5555151D 02
 VSC 1.2440595D 03 PTSC-8.1875354D 01 AZSC-6.7509526D 01
 SELENOGRAPHIC REFERENCE
 XSG 1.5987367D 07 YSG-2.1380837D 07 ZSG 5.8628748D 06
 DXSG-9.1873000D 02 DYSG 8.1653582D 02 DZSG-2.5868877D 02
 HSG 2.5595213D 07 LTSG 1.2385940D 01 LNSG-5.3212958D 01
 VRSG 1.2560714D 03 PTSG-7.8665316D 01 AZSG-8.8698127D 01
 LTS-1.4257514D 00 LNS 1.1211138D 02 LTE-4.2607512D-01
 LNE 2.1249419D 00 DSMP 4.6522319D 00 RSMP 1.1003696D 02
 LIN 1.6748640D 02 LAN 2.8465928D 01 LAP 2.0630874D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.5957473D 05
 X 3.4214498D 08 Y 1.6426430D 08 Z 7.9593922D 07
 DX 7.4557627D 02 DY 4.4734399D 02 DZ 3.0765822D 01
 R 3.8779007D 08 DEC 1.1844135D 01 RA 2.5645728D 01
 V 8.7002710D 02 PTH 7.8856288D 01 AZ 1.5136380D 02
 ALT 3.8141281D 08 LTGD 1.1845402D 01 LON 1.5836448D 01
 VF 2.7609054D 04 PTE 1.7717598D 00 AZF-9.0306453D 01

TIME 4 FEB. 1968 15 HRS., 58 MIN., 43.342 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-2.2026438D 07 YSC 1.0174626D 07 ZSC 9.9468013D 06
 DXSC 1.1337461D 03 DYSC-3.3721726D 02 DZSC-4.0468497D 02
 RSC 2.6222621D 07 DESC 2.2291654D 01 RASC 1.5520646D 02
 VSC 1.2501462D 03 PTSC-8.1580080D 01 AZSC-6.7648489D 01
 SELENOGRAPHIC REFERENCE
 XSG 1.5160816D 07 YSG-2.0641839D 07 ZSG 5.6293848D 06
 DXSG-9.1812029D 02 DYSG 8.2576860D 02 DZSG-2.6005194D 02
 HSG 2.4484531D 07 LTSG 1.2396558D 01 LNSG-5.3703824D 01
 VRSG 1.2619293D 03 PTSG-7.8517263D 01 AZSG-8.8731285D 01
 LTS-1.4257096D 00 LNS 1.1198457D 02 LTE-4.4043380D-01
 LNE 2.1114682D 00 DSMP 4.6518962D 00 RSMP 1.0992283D 02
 LIN 1.6748753D 02 LAN 2.8367248D 01 LAP 2.0638973D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.6047473D 05
 X 3.4281734D 08 Y 1.6466539D 08 Z 7.9620354D 07
 DX 7.4862759D 02 DY 4.4393639D 02 DZ 2.7937759D 01
 R 3.8855864D 08 DEC 1.1824351D 01 RA 2.5656361D 01
 V 8.7090612D 02 PTH 7.8845985D 01 AZ 1.5316964D 02
 ALT 3.8218138D 08 LTGD 1.1825614D 01 LON 1.2086814D 01
 VE 2.7670473D 04 PTE 1.7693464D 00 AZF-9.0311444D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 16 HRS., 13 MIN., 43.342 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-2.10036120 07 YSC 9.86990380 06 ZSC 9.58140970 06
 DXSC 1.13928000 03 DYSC-3.39985380 02 DZSC-4.07335010 02
 RSC 2.51071720 07 DESC 2.24340900 01 RASC 1.54830470 02
 VSC 1.25677000 03 PTSC-8.12590800 01 AZSC-6.77991850 01

SELENOGRAPHIC REFERENCE

XSG 1.43347070 07 YSG-1.98943300 07 ZSG 5.39461960 06
 DXSG-9.17749760 02 DYSG 8.35460280 02 DZSG-2.61531810 02
 HSG 2.33690830 07 LTSG 1.24075300 01 LNSG-5.42256510 01
 VRSG 1.26832860 03 PTSG-7.83439820 01 AZSG-8.87713630 01
 LTS-1.42566770 00 LNS 1.11857760 02 LTF-4.54788800-01
 LNF 2.09797900 00 DSMP 4.65155990 00 RSMP 1.09808700 02
 LIN 1.67488490 02 LAN 2.82649340 01 LAP 2.06463620 02
 FLIGHT TIME 2.61374730 05

GEOCENTRIC REFERENCE

X 3.43492640 08 Y 1.65063310 08 Z 7.96441450 07
 DX 7.52124680 02 DY 4.40288900 02 DZ 2.48911020 01
 R 3.89327990 08 DEC 1.18042250 01 RA 2.56663290 01
 V 8.71874650 02 PTH 7.88232600 01 AZ 1.55128540 02
 ALT 3.82950720 08 LTGD 1.18054840 01 LON 8.33651560 00
 VE 2.77323950 04 PTE 1.76742290 00 AZE-9.03169620 01

TIME 4 FEB. 1968 16 HRS., 28 MIN., 43.342 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-1.99755830 07 YSC 9.56256950 06 ZSC 9.21352320 06
 DXSC 1.14531730 03 DYSC-3.43029330 02 DZSC-4.10235500 02
 RSC 2.39865720 07 DESC 2.25886030 01 RASC 1.54418950 02
 VSC 1.26400710 03 PTSC-8.09088620 01 AZSC-6.79636230 01

SELENOGRAPHIC REFERENCE

XSG 1.35088110 07 YSG-1.91378650 07 ZSG 5.15846670 06
 DXSG-9.17649460 02 DYSG 8.45682370 02 DZSG-2.63145590 02
 HSG 2.22484830 07 LTSG 1.24188380 01 LNSG-5.47829440 01
 VRSG 1.27534500 03 PTSG-7.81420050 01 AZSG-8.88195440 01
 LTS-1.42562580 00 LNS 1.11730960 02 LTF-4.69140050-01
 LNF 2.08447430 00 DSMP 4.65122320 00 RSMP 1.09694600 02
 LIN 1.67489300 02 LAN 2.81591540 01 LAP 2.06530690 02
 FLIGHT TIME 2.62274730 05

GEOCENTRIC REFERENCE

X 3.44171320 08 Y 1.65457830 08 Z 7.96550820 07
 DX 7.56127400 02 DY 4.36361840 02 DZ 2.15919050 01
 R 3.90098340 08 DEC 1.17837220 01 RA 2.56755770 01
 V 8.73273440 02 PTH 7.87846890 01 AZ 1.57256250 02
 ALT 3.83721060 08 LTGD 1.17849760 01 LON 4.58549680 00
 VE 2.77949030 04 PTE 1.76604150 00 AZE-9.03230860 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 16 HRS., 43 MIN., 43.342 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-1.89418680 07 YSC 9.25235370 06 ZSC 8.84289840 06
 DXSC 1.15192950 03 DYSC-3.46397890 02 DZSC-4.13427800 02
 RSC 2.28603860 07 DESC 2.27568920 01 RASC 1.53966310 02
 VSC 1.27194960 03 PTSC-8.05252400 01 AZSC-6.81442560 01
 SELENOGRAPHIC REFERENCE
 XSG 1.26828710 07 YSG-1.83719300 07 ZSG 4.92079660 06
 DXSG-9.17855900 02 DYSG 8.56521700 02 DZSG-2.64914060 02
 HSG 2.11222970 07 LTSG 1.24304470 01 LNSG-5.53811420 01
 VRSG 1.28306990 03 PTSG-7.79071710 01 AZSG-8.88772320 01
 LTS-1.42558380 00 LNS 1.11604150 02 LTE-4.83487500-01
 LNE 2.07095420 00 DSMP 4.65088590 00 RSMP 1.09580510 02
 LIN 1.67489980 02 LAN 2.80500820 01 LAP 2.06591270 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.63174730 05
 X 3.44853850 08 Y 1.55848660 08 Z 7.96829220 07
 DX 7.60707300 02 DY 4.32106440 02 DZ 1.79987980 01
 R 3.90869960 08 DEC 1.17627980 01 RA 2.56840400 01
 V 8.75051730 02 PTH 7.87259080 01 AZ 1.59569710 02
 ALT 3.84492680 08 LTGD 1.17640470 01 LON 8.33693550-01
 VE 2.78580950 04 PTE 1.76526310 00 AZE-9.03299100 01

TIME 4 FEB. 1968 16 HRS., 58 MIN., 43.342 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-1.79019120 07 YSC 8.93893790 06 ZSC 8.46925040 06
 DXSC 1.15920300 03 DYSC-3.50151750 02 DZSC-4.16962890 02
 RSC 2.17281210 07 DESC 2.29409910 01 RASC 1.53465720 02
 VSC 1.28070910 03 PTSC-8.01031450 01 AZSC-6.83441060 01
 SELENOGRAPHIC REFERENCE
 XSG 1.18565900 07 YSG-1.75959220 07 ZSG 4.68145900 06
 DXSG-9.18412270 02 DYSG 8.68084860 02 DZSG-2.66862610 02
 HSG 1.99900320 07 LTSG 1.24422940 01 LNSG-5.60268830 01
 VRSG 1.29161450 03 PTSG-7.76344410 01 AZSG-8.87461130 01
 LTS-1.42554170 00 LNS 1.11477340 02 LTE-4.97831090-01
 LNE 2.05741880-09 DSMP 4.65054820 00 RSMP 1.09466440 02
 LIN 1.67490530 02 LAN 2.79378890 01 LAP 2.06645630 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.54074730 05
 X 3.45540790 08 Y 1.66235500 08 Z 7.96973770 07
 DX 7.65950710 02 DY 4.27462010 02 DZ 1.40608240 01
 R 3.91643140 08 DEC 1.17414050 01 RA 2.56916440 01
 V 8.77269610 02 PTH 7.86413450 01 AZ 1.62086790 02
 ALT 3.85265860 08 LTGD 1.17426490 01 LON 3.57080990 02
 VE 2.79220900 04 PTE 1.76515960 00 AZE-9.03375470 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 17 HRS., 13 MIN., 43.342 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-1.6855073D 07 YSC 8.6219422D 06 ZSC 8.0922434D 06
 DXSC 1.1672429D 03 DYSC-3.5436739D 02 DZSC-4.2090427D 02
 RSC 2.0589215D 07 DESC 2.3143360D 01 RASC 1.5290871D 02
 VSC 1.2904234D 03 PTSC-7.9636376D 01 AZSC-6.8566949D 01
 SELENOGRAPHIC REFERENCE
 XSG 1.1029631D 07 YSG-1.6809133D 07 ZSG 4.4402783D 06
 DXSG-9.1936996D 02 DYSG 8.8050420D 02 DZSG-2.6902253D 02
 HSG 1.8851126D 07 LTSG 1.2454274D 01 LNSG-5.6728355D 01
 VRSG 1.3011156D 03 PTSG-7.7317642D 01 AZSG-8.9028233D 01
 LTS-1.4254997D 00 LNS 1.1135053D 02 LTF-5.1217077D-01
 LNE 2.0438682D 00 DSMP 4.6502099D 00 RSMP 1.0935238D 02
 LIN 1.6749096D 02 LAN 2.7822750D 01 LAP 2.0669408D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.6497473D 05
 X 3.4623279D 08 Y 1.6661796D 08 Z 7.9708109D 07
 DX 7.7195276D 02 DY 4.2235208D 02 DZ 9.7144643D 00
 R 3.9241823D 08 DEC 1.1719485D 01 RA 2.5698301D 01
 V 8.8000122D 02 PTH 7.8523844D 01 AZ 1.6482586D 02
 ALT 3.8604095D 09 LTGD 1.1720725D 01 LON 3.5332738D 02
 VE 2.7987034D 04 PTE 1.7658156D 00 AZE-9.0346141D 01

TIME 4 FEB. 1968 17 HRS., 28 MIN., 43.342 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-1.5800606D 07 YSC 8.3009090D 06 ZSC 7.7114770D 06
 DXSC 1.1761785D 03 DYSC-3.5914250D 02 DZSC-4.2533221D 02
 RSC 1.9443022D 07 DESC 2.3366999D 01 RASC 1.5228463D 02
 VSC 1.3012635D 03 PTSC-7.9117257D 01 AZSC-6.8817567D 01
 SELENOGRAPHIC REFERENCE
 XSG 1.0201606D 07 YSG-1.5010720D 07 ZSG 4.1970474D 06
 DXSG-9.2079055D 02 DYSG 8.9394620D 02 DZSG-2.7143290D 02
 HSG 1.7704933D 07 LTSG 1.2466217D 01 LNSG-5.7495789D 01
 VRSG 1.3117434D 03 PTSG-7.6949128D 01 AZSG-8.9126105D 01
 LTS-1.4254575D 00 LNS 1.1127373D 02 LTF-5.2650647D-01
 LNE 2.0303026D 00 DSMP 4.6498712D 00 RSMP 1.0923834D 02
 LIN 1.6749129D 02 LAN 2.7704840D 01 LAP 2.0673693D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.6587473D 05
 X 3.4693059D 08 Y 1.6699557D 08 Z 7.9714716D 07
 DX 7.7887286D 02 DY 4.1667895D 02 DZ 4.8794727D 00
 R 3.9319561D 08 DEC 1.1696970D 01 RA 2.5703907D 01
 V 8.8333917D 02 PTH 7.8364172D 01 AZ 1.6780509D 02
 ALT 3.8681833D 08 LTGD 1.1698205D 01 LON 3.4957272D 02
 VE 2.8053106D 04 PTE 1.7673319D 00 AZE-9.0355870D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 17 HRS., 43 MIN., 43.342 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-1.4737635D 07	YSC 7.9752802D 06	ZSC 7.3264689D 06
DXSC 1.1861711D 03	DYSC-3.6460395D 02	DZSC-4.3034960D 02
RSC 1.8288798D 07	DESC 2.3615611D 01	RASC 1.5157993D 02
VSC 1.3134454D 03	PTSC-7.8536149D 01	AZSC-6.9102116D 01

SELENOGRAPHIC REFERENCE

XSG 9.3720671D 06	YSG-1.5199670D 07	ZSG 3.9515195D 06
DXSG-9.2274834D 02	DYSG 9.0862344D 02	DZSG-2.7414323D 02
HSG 1.6550708D 07	LTSG 1.2477856D 01	LNSG-5.8342149D 01
VRSG 1.3237128D 03	PTSG-7.6519297D 01	AZSG-8.9242856D 01
LTS-1.4254153D 00	LNS 1.1109692D 02	LTE-5.4083814D-01
LNE 2.0167220D 00	DSMP 4.6495319D 00	RSMP 1.0912432D 02
LIN 1.6749153D 02	LAN 2.7584333D 01	LAP 2.0677447D 02

GEOCENTRIC REFERENCE

X 3.4763509D 08	Y 1.6736777D 08	Z 7.9716715D 07
DX 7.8684227D 02	DY 4.1031578D 02	DZ-5.4706064D-01
R 3.9397572D 08	DEC 1.1673779D 01	RA 2.5708336D 01
V 8.8740075D 02	PTH 7.8150340D 01	AZ 1.7104142D 02
ALT 3.8759843D 08	LTGD 1.1675010D 01	LON 3.4581689D 02
VE 2.8120530D 04	PTE 1.7698281D 00	AZF-9.0366961D 01

FLIGHT TIME 2.6677473D 05

TIME 4 FEB. 1968 17 HRS., 58 MIN., 43.342 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-1.3665121D 07	YSC 7.6443663D 06	ZSC 6.9366310D 06
DXSC 1.1974243D 03	DYSC-3.7091941D 02	DZSC-4.3609072D 02
RSC 1.7125674D 07	DESC 2.3893808D 01	RASC 1.5077703D 02
VSC 1.3272458D 03	PTSC-7.7880774D 01	AZSC-6.9428663D 01

SELENOGRAPHIC REFERENCE

XSG 8.5404903D 06	YSG-1.4374755D 07	ZSG 3.7033972D 06
DXSG-9.2533353D 02	DYSG 9.2481190D 02	DZSG-2.7721722D 02
HSG 1.5387584D 07	LTSG 1.2488770D 01	LNSG-5.9284129D 01
VRSG 1.3372990D 03	PTSG-7.6015902D 01	AZSG-8.9382447D 01
LTS-1.4253731D 00	LNS 1.1097012D 02	LTE-5.5516573D-01
LNE 2.0031266D 00	DSMP 4.6491921D 00	RSMP 1.0901031D 02
LIN 1.6749168D 02	LAN 2.7461406D 01	LAP 2.0680702D 02

GEOCENTRIC REFERENCE

X 3.4834729D 08	Y 1.6773388D 08	Z 7.9713514D 07
DX 7.9607455D 02	DY 4.0309488D 02	DZ-6.6993898D 00
R 3.9475908D 08	DEC 1.1649815D 01	RA 2.5711436D 01
V 8.9233685D 02	PTH 7.7866680D 01	AZ 1.7454913D 02
ALT 3.8838178D 08	LTGD 1.1651040D 01	LON 3.4205972D 02
VE 2.8189595D 04	PTE 1.7734475D 00	AZE-9.0379708D 01

FLIGHT TIME 2.6767473D 05

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH OF 72 DEGREES - FIRST OPPORTUNITY (CONTINUED)

TIME 4 FEB. 1968 18 HRS., 13 MIN., 43.342 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-1.2581816D 07 YSC 7.3073020D 06 ZSC 6.5412356D 06
 DXSC 1.2101990D 03 DYSC-3.7831521D 02 DZSC-4.4273416D 02
 RSC 1.5952633D 07 DESC 2.4207416D 01 RASC 1.4985271D 02
 VSC 1.3430255D 03 PTSC-7.7135203D 01 AZSC-6.9808000D 01

SELENOGRAPHIC REFERENCE

XSG 7.7062634D 06 YSG-1.3534457D 07 ZSG 3.4523174D 06
 DXSG-9.2865620D 02 DYSG 9.4287682D 02 DZSG-2.8073826D 02
 HSG 1.4214544D 07 LTSG 1.2498291D 01 LNSG-6.0343629D 01
 VRSG 1.3528611D 03 PTSG-7.5423048D 01 AZSG-8.9549983D 01
 LTS-1.4253308D 00 LNS 1.1084331D 02 LTE-5.6948918D-01
 LNE 1.9895163D 00 DSMP 4.6488519D 00 RSMP 1.0889632D 02
 LIN 1.6749177D 02 LAN 2.7336235D 01 LAP 2.0683488D 02

GEOCENTRIC REFERENCE

X 3.4906847D 08 Y 1.6809302D 08 Z 7.9704385D 07
 DX 8.0683057D 02 DY 3.9478994D 02 DZ-1.3756123D 01
 R 3.9554626D 08 DEC 1.1624956D 01 RA 2.5713019D 01
 V 8.9834509D 02 PTH 7.7492536D 01 AZ 1.7833800D 02
 ALT 3.8916897D 08 LTGD 1.1626177D 01 LON 3.3830104D 02
 VE 2.8260673D 04 PTE 1.7783611D 00 AZE-9.0394495D 01

TIME 4 FEB. 1968 18 HRS., 28 MIN., 43.342 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-1.1486205D 07 YSC 6.9629822D 06 ZSC 6.1393669D 06
 DXSC 1.2248350D 03 DYSC-3.8710427D 02 DZSC-4.5052299D 02
 RSC 1.4768475D 07 DESC 2.4563882D 01 RASC 1.4877559D 02
 VSC 1.3612647D 03 PTSC-7.6278351D 01 AZSC-7.0254910D 01

SELENOGRAPHIC REFERENCE

XSG 6.8686641D 06 YSG-1.2676876D 07 ZSG 3.1978303D 06
 DXSG-9.3285112D 02 DYSG 9.6331238D 02 DZSG-2.8481789D 02
 HSG 1.3030385D 07 LTSG 1.2505353D 01 LNSG-6.1549999D 01
 VRSG 1.3708768D 03 PTSG-7.4719681D 01 AZSG-8.9752197D 01
 LTS-1.4252884D 00 LNS 1.1071651D 02 LTE-5.8380842D-01
 LNE 1.9758915D 00 DSMP-4.6485111D 00 RSMP 1.0878234D 02
 LIN 1.6749180D 02 LAN 2.7208999D 01 LAP 2.0685836D 02

GEOCENTRIC REFERENCE

X 3.4980014D 08 Y 1.6844408D 08 Z 7.9688410D 07
 DX 8.1945025D 02 DY 3.8508805D 02 DZ-2.1960320D 01
 R 3.9633797D 08 DEC 1.1599054D 01 RA 2.5712850D 01
 V 9.0568967D 02 PTH 7.7000369D 01 AZ-1.7758879D 02
 ALT 3.8996067D 08 LTGD 1.1600270D 01 LON 3.3454060D 02
 VE 2.8334261D 04 PTE 1.7847724D 00 AZE-9.0411842D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 18 HRS., 53 MIN., 56.606 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-9.6109129D 06 YSC 6.3634734D 06 ZSC 5.4456518D 06
 DXSC 1.2549623D 03 DYSC-4.0634878D 02 DZSC-4.6720906D 02
 RSC 1.2748277D 07 DESC 2.5287946D 01 RASC 1.4649108D 02
 VSC 1.3994049D 03 PTSC-7.4502553D 01 AZSC-7.1220588D 01

SELENOGRAPHIC REFERENCE

XSG 5.4502726D 06 YSG-1.1188929D 07 ZSG 2.7606077D 06
 DXSG-9.4234204D 02 DYSG 1.0050498D 03 DZSG-2.9338756D 02
 HSG 1.1010187D 07 LTSG 1.2506332D 01 LNSG-6.4028682D 01
 VRSG 1.4086199D 03 PTSG-7.3203732D 01 AZSG-9.0197183D 01
 LTS-1.4252171D 00 LNS 1.1050330D 02 LTF-6.0787525D-01
 LNE 1.9529498D 00 DSMP 4.6479369D 00 RSMP 1.0859074D 02
 LIN 1.6749174D 02 LAN 2.6990907D 01 LAP 2.0688984D 02

GEOCENTRIC REFERENCE

X 3.5105941D 08 Y 1.6901194D 08 FLIGHT TIME 2.7098900D 05
 DX 8.4619247D 02 DY 3.6430036D 02 Z 7.9642692D 07
 R 3.9769166D 08 DEC 1.1552598D 01 DZ-3.9349462D 01
 V 9.2211975D 02 PTH 7.5797212D 01 RA 2.5707744D 01
 ALT 3.9130436D 08 LTGD 1.1553806D 01 AZ-1.7011992D 02
 VF 2.8465647D 04 PTE 1.7996000D 00 LON 3.2821296D 02
 AZF-9.0448894D 01

TIME 4 FEB. 1968 18 HRS., 57 MIN., 41.606 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-9.3279630D 06 YSC 6.2716545D 06 ZSC 5.3401965D 06
 DXSC 1.2601847D 03 DYSC-4.0985337D 02 DZSC-4.7019750D 02
 RSC 1.2444366D 07 DESC 2.5412083D 01 RASC 1.4608508D 02
 VSC 1.4061049D 03 PTSC-7.4192675D 01 AZSC-7.1394739D 01

SELENOGRAPHIC REFERENCE

XSG 5.2380553D 06 YSG-1.0961985D 07 ZSG 2.6944203D 06
 DXSG-9.4406230D 02 DYSG 1.0122920D 03 DZSG-2.9489870D 02
 HSG 1.0706276D 07 LTSG 1.2504558D 01 LNSG-6.4459743D 01
 VRSG 1.4152576D 03 PTSG-7.2932679D 01 AZSG-9.0277754D 01
 LTS-1.4252065D 00 LNS 1.1047160D 02 LTF-6.1145259D-01
 LNE 1.9495352D 00 DSMP 4.6478514D 00 RSMP 1.0856225D 02
 LIN 1.6749172D 02 LAN 2.6958077D 01 LAP 2.0689248D 02

GEOCENTRIC REFERENCE

X 3.5125033D 08 Y 1.6909349D 08 FLIGHT TIME 2.7121300D 05
 DX 8.5091214D 02 DY 3.6056543D 02 Z 7.9633494D 07
 R 3.9788302D 08 DEC 1.1545320D 01 DZ-4.2442942D 01
 V 9.2512718D 02 PTH 7.5565275D 01 RA 2.5706371D 01
 ALT 3.9150571D 08 LTGD 1.1546525D 01 AZ-1.6894728D 02
 VF 2.8486240D 04 PTE 1.8023017D 00 LON 3.2727153D 02
 AZF-9.0455502D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH OF 72 DEGREES - FIRST OPPORTUNITY (CONTINUED)

TIME 4 FEB. 1968 19 HRS., 1 MIN., 26.606 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-9.0438125D 06	YSC 6.1790236D 06	ZSC 5.2340507D 06
DXSC 1.2656371D 03	DYSC-4.1356833D 02	DZSC-4.7334952D 02
RSC 1.2139447D 07	DESC 2.5541234D 01	RASC 1.4565785D 02
VSC 1.4131298D 03	PTSC-7.3868390D 01	AZSC-7.1578816D 01

SELENOGRAPHIC REFERENCE

XSG 5.0254409D 06	YSG-1.0733374D 07	ZSG 2.6278847D 06
DXSG-9.4587302D 02	DYSG 1.0198667D 03	DZSG-2.9648498D 02
HSG 1.0401357D 07	LTSG 1.2502067D 01	LNSG-6.4910675D 01
VRSG 1.4222191D 03	PTSG-7.2647269D 01	AZSG-9.0362861D 01
LTS-1.4251959D 00	LNS 1.1043990D 02	LTE-6.1502966D-01
LNE 1.9461198D 00	DSMP 4.6477659D 00	RSMP 1.0853377D 02
LIN 1.6749171D 02	LAN 2.6925152D 01	LAP 2.0689591D 02

GEOCENTRIC REFERENCE

X 3.5144234D 08	Y 1.6917418D 08	Z 7.9623581D 07
DX 8.5586194D 02	DY 3.5661990D 02	DZ-4.5700127D 01
R 3.9808484D 08	DEC 1.1537930D 01	RA 2.5704817D 01
V 9.2831348D 02	PTH 7.5316377D 01	AZ-1.6775981D 02
ALT 3.9170753D 08	LTGD 1.1539134D 01	LON 3.2632990D 02
VE 2.8507168D 04	PTE 1.8051445D 00	AZE-9.0462460D 01

FLIGHT TIME 2.7143800D 05

TIME 4 FEB. 1968 19 HRS., 5 MIN., 11.606 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-8.7584079D 06	YSC 6.0855315D 06	ZSC 5.1271759D 06
DXSC 1.2713353D 03	DYSC-4.1751324D 02	DZSC-4.7667932D 02
RSC 1.1833484D 07	DESC 2.5675704D 01	RASC 1.4520758D 02
VSC 1.4205048D 03	PTSC-7.3528605D 01	AZSC-7.1773712D 01

SELENOGRAPHIC REFERENCE

XSG 4.8124085D 06	YSG-1.0503020D 07	ZSG 2.5609835D 06
DXSG-9.4777800D 02	DYSG 1.0278019D 03	DZSG-2.9815239D 02
HSG 1.0095394D 07	LTSG 1.2498754D 01	LNSG-6.5383084D 01
VRSG 1.4295295D 03	PTSG-7.2346405D 01	AZSG-9.0452851D 01
LTS-1.4251853D 00	LNS 1.1040820D 02	LTE-6.1860645D-01
LNE 1.9427034D 00	DSMP-4.6476804D 00	RSMP 1.0850529D 02
LIN 1.6749169D 02	LAN 2.6892134D 01	LAP 2.0689912D 02

GEOCENTRIC REFERENCE

X 3.5163549D 08	Y 1.6925395D 08	Z 7.9612915D 07
DX 8.6105770D 02	DY 3.5244420D 02	DZ-4.9135213D 01
R 3.9828713D 08	DEC 1.1530423D 01	RA 2.5703070D 01
V 9.3169284D 02	PTH 7.5049140D 01	AZ-1.6655804D 02
ALT 3.9190981D 08	LTGD 1.1531627D 01	LON 3.2538809D 02
VE 2.8528458D 04	PTE 1.8081323D 00	AZE-9.0469796D 01

FLIGHT TIME 2.7166300D 05

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 19 HRS., 8 MIN., 56.606 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-8.47169197 06 YSC 5.99112380 06 ZSC 5.01953050 06
 DXSC 1.27729660 03 DYSC-4.21710160 02 DZSC-4.80202780 02
 RSC 1.15264400 07 DESC 2.58158200 01 RASC 1.44732300 02
 VSC 1.42825800 03 PTSC-7.31721040 01 AZSC-7.19804300 01
 SELENOGRAPHIC REFERENCE
 XSG 4.59893640 06 YSG-1.02708360 07 ZSG 2.49369750 06
 DXSG-9.49781100 02 DYSG 1.03512910 03 DZSG-2.99907570 02
 HSG 9.78835020 06 LTSG 1.24944970 01 LNSG-6.58787590 01
 VRSG 1.43721680 03 PTSG-7.20288710 01 AZSG-9.05481110 01
 LTS-1.42517460 00 LNS 1.10376500 02 LTE-6.22182960-01
 LNE 1.93928620 00 DSMP 4.64759480 00 RSMP 1.08476810 02
 LIN 1.67491660 02 LAN 2.68590260 01 LAP 2.06902140 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.71888000 05
 X 3.51829840 08 Y 1.69332760 08 Z 7.96014550 07
 DX 8.66516700 02 DY 3.48016250 02 DZ-5.27640970 01
 R 3.98489910 08 DEC 1.15227940 01 RA 2.57011210 01
 V 9.35281000 02 PTH 7.47620430 01 AZ-1.65342570 02
 ALT 3.92112600 08 LTGD 1.15239950 01 LON 3.24446080 02
 VE 2.85501380 04 PTE 1.81126880 00 AZE-9.04775430 01

TIME 4 FEB. 1968 19 HRS., 12 MIN., 41.606 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-8.18360320 06 YSC 5.89574110 06 ZSC 4.91106880 06
 DXSC 1.28354000 03 DYSC-4.26184040 02 DZSC-4.83937760 02
 RSC 1.12182760 07 DESC 2.59619330 01 RASC 1.44229750 02
 VSC 1.43642040 03 PTSC-7.27975370 01 AZSC-7.22001000 01
 SELENOGRAPHIC REFERENCE
 XSG 4.38500220 06 YSG-1.00367310 07 ZSG 2.42600630 06
 DXSG-9.51886120 02 DYSG 1.04488350 03 DZSG-3.01757930 02
 HSG 9.48018670 06 LTSG 1.24891540 01 LNSG-6.63996980 01
 VRSG 1.44531190 03 PTSG-7.16933160 01 AZSG-9.06490680 01
 LTS-1.42516400 00 LNS 1.10344800 02 LTE-6.25759210-01
 LNE 1.93586800 00 DSMP 4.64750920 00 RSMP 1.03448320 02
 LIN 1.67491640 02 LAN 2.68258310 01 LAP 2.06904950 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.72113000 05
 X 3.52025440 08 Y 1.69410540 08 Z 7.95891550 07
 DX 8.72257890 02 DY 3.43311110 02 DZ-5.66046300 01
 R 3.98693210 08 DEC 1.15150340 01 RA 2.56989590 01
 V 9.39095530 02 PTH 7.44534060 01 AZ-1.64114000 02
 ALT 3.92315900 08 LTGD 1.15162340 01 LON 3.23503850 02
 VE 2.85722430 04 PTE 1.81455710 00 AZE-9.04857350 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 19 HRS., 16 MIN., 26.606 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-7.8940762D 06 YSC 5.7993181D 06 ZSC 4.8017411D 06
 DXSC 1.2900861D 03 DYSC-4.3096318D 02 DZSC-4.8790438D 02
 RSC 1.0908952D 07 DESC 2.6114419D 01 RASC 1.4369743D 02
 VSC 1.4450267D 03 PTSC-7.2403399D 01 AZSC-7.2434000D 01

SELENOGRAPHIC REFERENCE

XSG 4.1705825D 06 YSG-9.8006047D 06 ZSG 2.3578874D 06
 DXSG-9.5409678D 02 DYSG 1.0541047D 03 DZSG-3.0371171D 02
 HSG 9.1708630D 06 LTSG 1.2482559D 01 LNSG-6.6948139D 01
 VRSG 1.4538494D 03 PTSG-7.1338232D 01 AZSG-9.0756199D 01
 LTS-1.4251534D 00 LNS 1.1031310D 02 LTF-6.2933517D-01
 LNE 1.9324490D 00 DSMP 4.6474235D 00 RSMP 1.0841984D 02
 LIN 1.6749162D 02 LAN 2.6792552D 01 LAP 2.0690756D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.7233800D 05

X 3.5222238D 08 Y 1.6948723D 08 Z 7.9575966D 07
 DX 8.7830200D 02 DY 3.3830049D 02 DZ-6.0676934D 01
 R 3.9889705D 08 DEC 1.1507136D 01 RA 2.5696570D 01
 V 9.4315604D 02 PTH 7.4121361D 01 AZ-1.6287300D 02
 ALT 3.9251974D 08 LTGD 1.1508335D 01 LON 3.2256139D 02
 VE 2.8594809D 04 PTE 1.8179994D 00 AZE-9.0494413D 01

TIME 4 FEB. 1968 19 HRS., 20 MIN., 11.606 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-7.6030401D 06 YSC 5.7017824D 06 ZSC 4.6914927D 06
 DXSC 1.2969578D 03 DYSC-4.3507981D 02 DZSC-4.9212541D 02
 RSC 1.0598426D 07 DESC 2.6273681D 01 RASC 1.4313249D 02
 VSC 1.4541157D 03 PTSC-7.1988005D 01 AZSC-7.2683582D 01

SELENOGRAPHIC REFERENCE

XSG 3.9556532D 06 YSG-9.5623470D 06 ZSG 2.2893167D 06
 DXSG-9.5641657D 02 DYSG 1.0638373D 03 DZSG-3.0577818D 02
 HSG 8.8603370D 06 LTSG 1.2474514D 01 LNSG-6.7526599D 01
 VRSG 1.4628680D 03 PTSG-7.0961932D 01 AZSG-9.0870037D 01
 LTS-1.4251427D 00 LNS 1.1028140D 02 LTF-6.3291086D-01
 LNE 1.9290291D 00 DSMP 4.6473378D 00 RSMP 1.0839137D 02
 LIN 1.6749159D 02 LAN 2.6759192D 01 LAP 2.0690999D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.7256300D 05

X 3.5242070D 08 Y 1.6956275D 08 Z 7.9561832D 07
 DX 8.8467184D 02 DY 3.3295214D 02 DZ-6.5003772D 01
 R 3.9910145D 08 DEC 1.1499091D 01 RA 2.5693942D 01
 V 9.4748450D 02 PTH 7.3763833D 01 AZ-1.6162026D 02
 ALT 3.9272413D 08 LTGD 1.1500289D 01 LON 3.2161870D 02
 VE 2.8617876D 04 PTF 1.8215971D 00 AZE-9.0503622D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 19 HRS., 23 MIN., 56.606 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-7.3104189D 06 YSC 5.6030541D 06 ZSC 4.5802636D 06
 DXSC 1.3041801D 03 DYSC-4.4157081D 02 DZSC-4.9662669D 02
 RSC 1.0286654D 07 DESC 2.6440147D 01 RASC 1.4253171D 02
 VSC 1.4637311D 03 PTSC-7.1549460D 01 AZSC-7.2950500D 01
 SELENOGRAPHIC REFERENCE
 XSG 3.7401893D 06 YSG-9.3218372D 06 ZSG 2.2202676D 06
 DXSG-9.5884863D 02 DYSG 1.0741319D 03 DZSG-3.0796773D 02
 HSG 8.5485646D 06 LTSG 1.2464791D 01 LNSG-6.8137920D 01
 VRSG 1.4724110D 03 PTSG-7.0562520D 01 AZSG-9.0991182D 01
 LTS-1.4251321D 00 LNS 1.1024970D 02 LTE-6.3648627D-01
 LNE 1.9256082D 00 DSMP 4.6472521D 00 RSMP 1.0836289D 02
 LIN 1.6749157D 02 LAN 2.6725755D 01 LAP 2.0691223D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.7278800D 05
 X 3.5262051D 08 Y 1.6963703D 08 Z 7.9546693D 07
 DX 8.9139245D 02 DY 3.2722919D 02 DZ-6.9610990D 01
 R 3.9930642D 08 DEC 1.1490891D 01 RA 2.5691058D 01
 V 9.5210563D 02 PTH 7.3378502D 01 AZ-1.6035649D 02
 ALT 3.9292910D 08 LTGD 1.1492087D 01 LON 3.2067575D 02
 VE 2.8641493D 04 PTE 1.8253499D 00 AZE-9.0513411D 01

TIME 4 FEB. 1968 19 HRS., 27 MIN., 41.606 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-7.0161307D 06 YSC 5.5030443D 06 ZSC 4.4679875D 06
 DXSC 1.3117807D 03 DYSC-4.4747855D 02 DZSC-5.0143769D 02
 RSC 9.9735900D 06 DESC 2.6614275D 01 RASC 1.4189142D 02
 VSC 1.4739218D 03 PTSC-7.1085632D 01 AZSC-7.3236648D 01
 SELENOGRAPHIC REFERENCE
 XSG 3.5241653D 06 YSG-9.0789425D 06 ZSG 2.1507112D 06
 DXSG-9.6139552D 02 DYSG 1.0850460D 03 DZSG-3.1029210D 02
 HSG 8.2355005D 06 LTSG 1.2453113D 01 LNSG-6.8785321D 01
 VRSG 1.4825274D 03 PTSG-7.0137858D 01 AZSG-9.1120307D 01
 LTS-1.4251215D 00 LNS 1.1021799D 02 LTE-6.4006140D-01
 LNE 1.9221866D-00 DSMP 4.6471664D 00 RSMP 1.0833441D 02
 LIN 1.6749154D 02 LAN 2.6692243D 01 LAP 2.0691430D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.7301300D 05
 X 3.5282186D 08 Y 1.6970997D 08 Z 7.9530484D 07
 DX 8.9849141D 02 DY 3.2108927D 02 DZ-7.4528060D 01
 R 3.9951200D 08 DEC 1.1482526D 01 RA 2.5687903D 01
 V 9.5704732D 02 PTH 7.2962765D 01 AZ-1.5908244D 02
 ALT 3.9313468D 08 LTGD 1.1483720D 01 LON 3.1973252D 02
 VE 2.8665712D 04 PTE 1.8292557D 00 AZE-9.0523838D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 19 HRS., 31 MIN., 26.606 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-5.7200869D 06	YSC 5.4016539D 06	ZSC 4.3545909D 06
DXSC 1.3197898D 03	DYSC-4.5385191D 02	DZSC-5.0659217D 02
RSC 9.6591870D 06	DESC 2.6796546D 01	RASC 1.4120742D 02
VSC 1.4847432D 03	PTSC-7.0594102D 01	AZSC-7.3544203D 01

SELENOGRAPHIC REFERENCE

XSG 3.3075550D 06	YSG-8.8335164D 06	ZSG 2.0806156D 06
DXSG-9.6405899D 02	DYSG 1.0966452D 03	DZSG-3.1276455D 02
HSG 7.9210975D 06	LTSG 1.2439157D 01	LNSG-6.9472466D 01
VRSG 1.4932723D 03	PTSG-6.9685524D 01	AZSG-9.1258173D 01
LTS-1.4251108D 00	LNS 1.1018629D 02	LTE-6.4363625D-01
LNF 1.9187640D 00	DSMP 4.6470806D 00	RSMP 1.0830593D 02
LIN 1.6749152D 02	LAN 2.6658659D 01	LAP 2.0691619D 02

GEOCENTRIC REFERENCE

X 3.5302486D 08	Y 1.6978148D 08	Z 7.9513130D 07
DX 9.0599912D 02	DY 3.1448350D 02	DZ-7.9788728D 01
R 3.9971820D 08	DEC 1.1473983D 01	RA 2.5684459D 01
V 9.6234117D 02	PTH 7.2513691D 01	AZ-1.5779888D 02
ALT 3.9334088D 08	LTGD 1.1475177D 01	LON 3.1878901D 02
VE 2.8690592D 04	PTE 1.8333098D 00	AZE-9.0534967D 01

FLIGHT TIME 2.7323800D 05

TIME 4 FEB. 1968 19 HRS., 35 MIN., 11.606 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-6.4221921D 06	YSC 5.2987718D 06	ZSC 4.2399924D 06
DXSC 1.3282411D 03	DYSC-4.6074762D 02	DZSC-5.1212893D 02
RSC 9.3433970D 06	DESC 2.6987466D 01	RASC 1.4047490D 02
VSC 1.4962583D 03	PTSC-7.0072124D 01	AZSC-7.3875680D 01

SELENOGRAPHIC REFERENCE

XSG 3.0903323D 06	YSG-8.5853964D 06	ZSG 2.0099458D 06
DXSG-9.6683957D 02	DYSG 1.1090048D 03	DZSG-3.1540017D 02
HSG 7.6053075D 06	LTSG 1.2422531D 01	LNSG-7.0203544D 01
VRSG 1.5047085D 03	PTSG-6.9202766D 01	AZSG-9.1405643D 01
LTS-1.4251002D 00	LNS 1.1015459D 02	LTE-6.4721082D-01
LNE 1.9153405D 00	DSMP 4.6469948D 00	RSMP 1.0827746D 02
LIN 1.6749149D 02	LAN 2.6625007D 01	LAP 2.0691791D 02

GEOCENTRIC REFERENCE

X 3.5322959D 08	Y 1.6985145D 08	Z 7.9494550D 07
DX 9.1394911D 02	DY 3.0735515D 02	DZ-8.5431820D 01
R 3.9992505D 08	DEC 1.1465252D 01	RA 2.5680705D 01
V 9.6802312D 02	PTH 7.2027964D 01	AZ-1.5650655D 02
ALT 3.9354773D 08	LTGD 1.1466444D 01	LON 3.1784519D 02
VE 2.8716203D 04	PTE 1.8375038D 00	AZE-9.0546873D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 19 HRS., 38 MIN., 56.606 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-6.1223425D 06	YSC 5.1942733D 06	ZSC 4.1241009D 06
DXSC 1.3371715D 03	DYSC-4.6823183D 02	DZSC-5.1809287D 02
RSC 9.0261708D 06	DESC 2.7187559D 01	RASC 1.3968829D 02
VSC 1.5085387D 03	PTSC-6.9516557D 01	AZSC-7.4233999D 01

SELENOGRAPHIC REFERENCE

XSG 2.8724708D 06	YSG-8.3344019D 06	ZSG 1.9386633D 06
DXSG-9.6973606D 02	DYSG 1.1222114D 03	DZSG-3.1821616D 02
HSG 7.2880814D 06	LTSG 1.2402765D 01	LNSG-7.0983366D 01
VRSG 1.5169073D 03	PTSG-6.8686438D 01	AZSG-9.1563700D 01
LTS-1.4250895D 00	LNS 1.1012289D 02	LTE-6.5078511D-01
LNE 1.9119162D 00	DSMP 4.6469089D 00	RSMP 1.0824898D 02
LIN 1.6749147D 02	LAN 2.6591291D 01	LAP 2.0691947D 02

GEOCENTRIC REFERENCE

X 3.5343617D 08	Y 1.6991975D 08	Z 7.9474653D 07
DX 9.2237837D 02	DY 2.9963808D 02	DZ-9.1502215D 01
R 4.0013256D 08	DEC 1.1456319D 01	RA 2.5676618D 01
V 9.7413423D 02	PTH 7.1501815D 01	AZ-1.5520625D 02
ALT 3.9375524D 08	LTGD 1.1457509D 01	LON 3.1690104D 02
VE 2.8742622D 04	PTF 1.8418246D 00	AZE-9.0559640D 01

FLIGHT TIME 2.7368800D 05

TIME 4 FEB. 1968 19 HRS., 42 MIN., 41.606 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-5.8204259D 06	YSC 5.0880176D 06	ZSC 4.0068147D 06
DXSC 1.3466218D 03	DYSC-4.7638209D 02	DZSC-5.2453614D 02
RSC 8.7074590D 06	DESC 2.7397359D 01	RASC 1.3984115D 02
VSC 1.5216663D 03	PTSC-6.8923796D 01	AZSC-7.4622568D 01

SELENOGRAPHIC REFERENCE

XSG 2.6539449D 06	YSG-8.0803314D 06	ZSG 1.8667253D 06
DXSG-9.7274486D 02	DYSG 1.1363653D 03	DZSG-3.2123223D 02
HSG 6.9693696D 06	LTSG 1.2379292D 01	LNSG-7.1817486D 01
VRSG 1.5299506D 03	PTSG-6.8132927D 01	AZSG-9.1733468D 01
LTS-1.4250798D 00	LNS 1.1009119D 02	LTE-6.5435912D-01
LNE 1.9084910D 00	DSMP 4.6468231D 00	RSMP 1.0822051D 02
LIN 1.6749144D 02	LAN 2.6557512D 01	LAP 2.0692088D 02

GEOCENTRIC REFERENCE

X 3.5364470D 08	Y 1.6998624D 08	Z 7.9453339D 07
DX 9.3132770D 02	DY 2.9125472D 02	DZ-9.8052067D 01
R 4.0034077D 08	DEC 1.1447168D 01	RA 2.5672175D 01
V 9.8072157D 02	PTH 7.0930937D 01	AZ-1.5389873D 02
ALT 3.9396344D 08	LTGD 1.1448356D 01	LON 3.1595653D 02
VE 2.8769941D 04	PTF 1.8462529D 00	AZE-9.0573365D 01

FLIGHT TIME 2.7391300D 05

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH OF 72 DEGREES - FIRST OPPORTUNITY (CONTINUED)

TIME 4 FEB. 1968 19 HRS., 46 MIN., 26.606 SEC., GMT

SELENOCENTRIC REFERENCE		
XSC-5.5163203D 06	YSC 4.9798446D 06	ZSC 3.8880191D 06
DXSC 1.3566370D 03	DYSC-4.8528993D 02	DZSC-5.3151968D 02
RSC 8.3872125D 06	DESC 2.7617396D 01	RASC 1.3792593D 02
VSC 1.5357355D 03	PTSC-6.8239679D 01	AZSC-7.5045389D 01
SELENOGRAPHIC REFERENCE		
XSG 2.4347299D 06	YSG-7.8229589D 06	ZSG 1.7940843D 06
DXSG-9.7585899D 02	DYSG 1.1515834D 03	DZSG-3.2447103D 02
HSG 6.6491230D 06	LTSG 1.2351417D 01	LNSG-7.2712351D 01
VRSG 1.5439322D 03	PTSG-6.7538062D 01	AZSG-9.1916238D 01
LTS-1.4250682D 00	LNS 1.1005949D 02	LTF-6.5793284D-01
LNF 1.9050649D 00	DSMP 4.6467372D 00	RSMP 1.0819204D 02
LIN 1.6749142D 02	LAN 2.6523676D 01	LAP 2.0692213D 02
GEOCENTRIC REFERENCE		
X 3.5385531D 08	Y 1.7005075D 08	Z 7.9430489D 07
DX 9.4084207D 02	DY 2.8211356D 02	DZ-1.0514232D 02
P 4.0054967D 08	DEC 1.1437782D 01	RA 2.5667345D 01
V 9.8783944D 02	PTH 7.0310383D 01	A7-1.5258474D 02
ALT 3.9417235D 08	LTGD 1.1438969D 01	LON 3.1501163D 02
VE 2.8798265D 04	PTE 1.8507606D 00	AZF-9.0588162D 01

TIME 4 FEB. 1968 19 HRS., 50 MIN., 11.606 SEC., GMT

SELENOCENTRIC REFERENCE		
XSC-5.2098932D 06	YSC 4.8695722D 06	ZSC 3.7675849D 06
DXSC 1.3672666D 03	DYSC-4.9506402D 02	DZSC-5.3911512D 02
RSC 8.0653838D 06	DESC 2.7848175D 01	RASC 1.3693378D 02
VSC 1.5508551D 03	PTSC-6.7609374D 01	AZSC-7.5507187D 01
SELENOGRAPHIC REFERENCE		
XSG 2.2148033D 06	YSG-7.5620299D 06	ZSG 1.7206874D 06
DXSG-9.7906675D 02	DYSG 1.1580025D 03	DZSG-3.2795877D 02
HSG 6.3272943D 06	LTSG 1.2318290D 01	LNSG-7.3675492D 01
VRSG 1.5589607D 03	PTSG-6.5897000D 01	A7SG-9.2113497D 01
LTS-1.4250575D 00	LNS 1.1002779D 02	LTF-6.6150628D-01
LNF 1.9016379D 00	DSMP -4.6465512D 00	RSMP 1.0816357D 02
LIN 1.6749139D 02	LAN 2.6489785D 01	LAP 2.0692324D 02
GEOCENTRIC REFERENCE		
X 3.5405813D 08	Y 1.7011312D 08	Z 7.9405978D 07
DX 9.5097092D 02	DY 2.7210592D 02	DZ-1.1284460D 02
P 4.0075931D 08	DEC 1.1428143D 01	RA 2.5662099D 01
V 9.9555072D 02	PTH 6.9634435D 01	A7-1.5126500D 02
ALT 3.9438198D 08	LTGD 1.1429329D 01	LON 3.1406632D 02
VE 2.8827715D 04	PTE 1.8553080D 00	AZE-9.0604160D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 19 HRS., 53 MIN., 56.606 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-4.90100030 06	YSC 4.75699120 06	ZSC 3.64536510 06
DXSC 1.37856460 03	DYSC-5.05834300 02	DZSC-5.47407190 02
RSC 7.74192830 06	DESC 2.80901400 01	RASC 1.35854260 02
VSC 1.56715140 03	PTSC-6.68772330 01	AZSC-7.60135750 01

SELENOGRAPHIC REFERENCE

XSG 1.99414610 06	YSG-7.29725670 06	ZSG 1.64647500 06
DXSG-0.82349880 02	DYSG 1.18578340 03	DZSG-3.31725860 02
HSG 6.00383880 06	LTSG 1.22788600 01	LNSG-7.47157570 01
VRSG 1.57516210 03	PTSG-6.62040790 01	AZSG-9.23269700 01
LTS-1.42504690 00	LNS 1.09996090 02	LTE-6.65079430-01
LNE 1.89821010 00	DSMP 4.64656530 00	RSMP 1.08135100 02
LIN 1.67491360 02	LAN 2.64558430 01	LAP 2.06924220 02

GEOCENTRIC REFERENCE

X 3.54283300 08	Y 1.70173130 08	Z 7.93796570 07
DX 9.61768410 02	DY 2.61101860 02	DZ-1.21243640 02
R 4.00969670 08	DEC 1.14182300 01	RA 2.55564000 01
V 1.00392860 03	PTH 6.88964420 01	AZ-1.49940220 02
ALT 3.94592340 08	LTGD 1.14194140 01	LON 3.13120550 02
VE 2.88584350 04	PTE 1.85983990 00	AZE-9.05215140 01

FLIGHT TIME 2.74588000 05

TIME 4 FEB. 1968 19 HRS., 57 MIN., 41.606 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-4.58948460 06	YSC 4.64185040 06	ZSC 3.52119190 06
DXSC 1.39059010 03	DYSC-5.17757310 02	DZSC-5.56496770 02
RSC 7.41680710 06	DESC 2.83436230 01	RASC 1.34674920 02
VSC 1.58477190 03	PTSC-6.60866150 01	AZSC-7.65712700 01

SELENOGRAPHIC REFERENCE

XSG 1.77274410 06	YSG-7.02831200 06	ZSG 1.57138070 06
DXSG-9.85680920 02	DYSG 1.20511710 03	DZSG-3.35807760 02
HSG 5.67871760 06	LTSG 1.22318170 01	LNSG-7.58436160 01
VRSG 1.59268350 03	PTSG-6.54526430 01	AZSG-9.25586540 01
LTS-1.42503620 00	LNS 1.09964390 02	LTE-6.68652300-01
LNE 1.89478130 00	DSMP 4.64647930 00	RSMP 1.08106630 02
LIN 1.67491340 02	LAN 2.64218550 01	LAP 2.05925060 02

GEOCENTRIC REFERENCE

X 3.54500980 08	Y 1.70230530 08	Z 7.93513590 07
DX 9.73293450 02	DY 2.48944830 02	DZ-1.30440310 02
R 4.01180780 08	DEC 1.14080170 01	RA 2.56502070 01
V 1.01305890 03	PTH 6.80886180 01	AZ-1.48611030 02
ALT 3.94803450 08	LTGD 1.14092000 01	LON 3.12174290 02
VE 2.88905950 04	PTE 1.86427960 00	AZE-9.06404010 01

FLIGHT TIME 2.74813000 05

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 20 HRS., 1 MIN., 26.606 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-4.2751754D 06	YSC 4.5238998D 06	ZSC 3.3948728D 06
DXSC 1.4034063D 03	DYSC-5.3102314D 02	DZSC-5.6650484D 02
RSC 7.0899897D 06	DESC 2.8608765D 01	RASC 1.3338084D 02
VSC 1.6038898D 03	PTSC-6.5229649D 01	AZSC-7.7188365D 01

SELENOGRAPHIC REFERENCE

XSG 1.5505908D 06	YSG-6.7548215D 06	ZSG 1.4953289D 06
DXSG-9.8901951D 02	DYSG 1.2262309D 03	DZSG-3.4024609D 02
HSG 5.3519002D 06	LTSG 1.2175513D 01	LNSG-7.7071548D 01
VRSG 1.6116976D 03	PTSG-6.4634802D 01	AZSG-9.2810929D 01
LTS-1.4250255D 00	LNS 1.0993269D 02	LTF-6.7222488D-01
LNE 1.8913517D 00	DSMP 4.6463932D 00	RSMP 1.0807816D 02
LIN 1.6749132D 02	LAN 2.6387823D 01	LAP 2.0692578D 02

GEOCENTRIC REFERENCE

X 3.5472134D 08	Y 1.7028505D 08	Z 7.9320890D 07	FLIGHT TIME 2.7503800D 05
DX 9.8560941D 02	DY 2.3544476D 02	DZ-1.4055561D 02	
P 4.0139261D 08	DEC 1.1397479D 01	RA 2.5643474D 01	
V 1.0230425D 03	PTH 6.7201778D 01	AZ-1.4727802D 02	
ALT 3.9501528D 08	LTGD 1.1398660D 01	LON 3.1122749D 02	
VE 2.8924394D 04	PTE 1.8685210D 00	AZE-9.0661035D 01	

TIME 4 FEB. 1968 20 HRS., 5 MIN., 11.606 SEC., GMT
 SELENOCENTRIC REFERENCE

YSC-3.9578874D 06	YSC 4.4027819D 06	ZSC 3.2661850D 06
DXSC 1.4170803D 03	DYSC-5.4586457D 02	DZSC-5.7757761D 02
RSC 6.7614588D 06	DESC 2.8885394D 01	RASC 1.3195400D 02
VSC 1.6247094D 03	PTSC-6.4296937D 01	AZSC-7.7874681D 01

SELENOGRAPHIC REFERENCE

XSG 1.3276908D 06	YSG-6.4763550D 06	ZSG 1.4182340D 06
DXSG-9.9230708D 02	DYSG 1.2493983D 03	DZSG-3.4508983D 02
HSG 5.0233693D 06	LTSG 1.2107858D 01	LNSG-7.8414547D 01
VRSG 1.6324082D 03	PTSG-6.3741131D 01	AZSG-9.3086522D 01
LTS-1.4250148D 00	LNS 1.0990099D 02	LTF-6.7579718D-01
LNE 1.8879213D 00	DSMP 4.6463072D 00	RSMP 1.0804969D 02
LIN 1.6749129D 02	LAN 2.6353753D 01	LAP 2.0692639D 02

GEOCENTRIC REFERENCE

X 3.5494457D 08	Y 1.7033636D 08	Z 7.9288029D 07	FLIGHT TIME 2.7526300D 05
DX 9.9878333D 02	DY 2.2036886D 02	DZ-1.5173573D 02	
R 4.0160517D 08	DEC 1.1386584D 01	RA 2.5636146D 01	
V 1.0339992D 03	PTH 6.6225002D 01	AZ-1.4594169D 02	
ALT 3.9522784D 08	LTGD 1.1387763D 01	LON 3.1028010D 02	
VE 2.8960073D 04	PTE 1.8724175D 00	AZE-9.0683667D 01	

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 20 HRS., 8 MIN., 56.606 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-3.6374198D 06 YSC 4.2781211D 06 ZSC 3.1348697D 06
 DXSC 1.4316809D 03 DYSC-5.6256932D 02 DZSC-5.8989312D 02
 RSC 6.4312169D 06 DESC 2.9172838D 01 RASC 1.3037243D 02
 VSC 1.6474733D 03 PTSC-6.3277157D 01 AZSC-7.8642229D 01
 SELENOGRAPHIC REFERENCE
 XSG 1.1040643D 06 YSG-6.1924144D 06 ZSG 1.3399986D 06
 DXSG-9.9545908D 02 DYSG 1.2749502D 03 DZSG-3.5039700D 02
 HSG 4.6931274D 06 LTSG 1.2026172D 01 LNSG-7.9890783D 01
 VRSG 1.6550573D 03 PTSG-6.2760281D 01 AZSG-9.3388701D 01
 LTS-1.4250042D 00 LNS 1.0986929D 02 LTF-6.7936918D-01
 LNE 1.8844900D 00 DSMP 4.6462211D 00 RSMP 1.0802123D 02
 LIN 1.6749127D 02 LAN 2.6319649D 01 LAP 2.0592688D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.7548800D 05
 X 3.5517086D 08 Y 1.7038408D 08 Z 7.9252516D 07
 DX 1.0128840D 03 DY 2.0342941D 02 DZ-1.6415873D 02
 R 4.0181841D 08 DEC 1.1375295D 01 RA 2.5628163D 01
 V 1.0460715D 03 PTH 6.5145195D 01 AZ-1.4460247D 02
 ALT 3.9544108D 08 LTGD 1.1376472D 01 LON 3.0933205D 02
 VE 2.8997920D 04 PTE 1.8757656D 00 AZE-9.0708600D 01

TIME 4 FEB. 1968 20 HRS., 12 MIN., 41.606 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-3.3135565D 06 YSC 4.1494593D 06 ZSC 3.0006236D 06
 DXSC 1.4472751D 03 DYSC-5.8149647D 02 DZSC-6.0367011D 02
 RSC 6.0992959D 06 DESC 2.9469638D 01 RASC 1.2860916D 02
 VSC 1.6724715D 03 PTSC-6.2156547D 01 AZSC-7.9505814D 01
 SELENOGRAPHIC REFERENCE
 XSG 8.7975485D 05 YSG-5.9024193D 06 ZSG 1.2605109D 06
 DXSG-9.9835366D 02 DYSG 1.3032900D 03 DZSG-3.5523650D 02
 HSG 4.3612064D 06 LTSG 1.1926982D 01 LNSG-8.1522478D 01
 VRSG 1.6799343D 03 PTSG-6.1678453D 01 AZSG-9.3721321D 01
 LTS-1.4249935D 00 LNS 1.0983759D 02 LTF-6.8294090D-01
 LNE 1.8810578D 00 DSMP 4.6461349D 00 RSMP 1.0799276D 02
 LIN 1.6749125D 02 LAN 2.6295516D 01 LAP 2.0692727D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.7571300D 05
 X 3.5540044D 08 Y 1.7042774D 08 Z 7.9214048D 07
 DX 1.0279784D 03 DY 1.8426733D 02 DZ-1.7804333D 02
 R 4.0203228D 08 DEC 1.1363571D 01 RA 2.5619451D 01
 V 1.0594307D 03 PTH 6.3946512D 01 AZ-1.4326069D 02
 ALT 3.9565494D 08 LTGD 1.1364747D 01 LON 3.0838327D 02
 VE 2.9038287D 04 PTE 1.8782815D 00 AZE-9.0736194D 01

TABLE 10- I. TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 20 HRS., 16 MIN., 26.606 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-2.98606700 06 YSC 4.01624740 06 ZSC 1.86308840 06
 DXSC 1.46392140 03 DYSC-6.03098830 02 DZSC-1.19179560 02
 RSC 5.76577090 06 DESC 2.97730950 01 RASC 126630680 02
 VSC 1.70005220 03 PTSC-6.09182070 01 AZSC-104838230 01

SELENOGRAPHIC REFERENCE

XSG 6.54838980 05 YSG-5.60568960 06 ZSG 17964200 06
 DXSG-1.00081480 03 DYSG 1.33491360 03 DZSG-32690560 02
 HSG 4.02768140 06 LTSG 1.18057310 01 LNSG-83370810 01
 VRSG 1.70738660 03 PTSG-6.04787030 01 AZSG-90889650 01
 LTS-1.42498280 00 LNS 1.09805890 02 LTF-66512330-01
 LNE 1.87762470 00 DSMP 4.64604880 00 RSMP 17964300 02
 LIN 1.67491230 02 LAN 2.62513600 01 LAP 26927570 02

GEOCENTRIC REFERENCE

X 3.55633530 08 Y 1.70466800 08 Z 7722670 07
 DX 1.04412500 03 DY 1.62429810 02 DZ-1660510 02
 R 4.02246670 08 DEC 1.13513640 01 RA 2099250 01
 V 1.07428340 03 PTH 6.26095840 01 AZ-1916560 02
 ALT 3.95869330 08 LTGD 1.13525370 01 LON 3433680 02
 VE 2.90816020 04 PTE 1.87956670 00 AZE-9568890 01

TIME 4 FEB. 1968 20 HRS., 20 MIN., 11. SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-2.65471000 06 YSC 3.87782130 06 ZSC 283770 06
 DXSC 1.48165820 03 DYSC-6.27953730 02 DZSC-660210 02
 RSC 5.43078100 06 DESC 3.00785710 01 RASC 195070 02
 VSC 1.73063590 03 PTSC-5.95411620 01 AZSC-892650 01

SELENOGRAPHIC REFERENCE

XSG 4.29440910 05 YSG-5.30141690 06 ZSG 124310 06
 DXSG-1.00258660 03 DYSG 1.37043510 03 DZSG-57330 02
 HSG 3.69269150 06 LTSG 1.16563640 01 LNSG-88670 01
 VRSG 1.73783390 03 PTSG-5.91399990 01 AZSG-90810 01
 LTS-1.42497210 00 LNS 1.09774190 02 LTF-83460-01
 LNF 1.87419080 00 DSMP 4.54596260 00 RSMP 35830 02
 LIN 1.67491210 02 LAN 2.62171850 01 LAP 27790 02

GEOCENTRIC REFERENCE

X 3.55870380 08 Y 1.70500590 08 Z 17460 07
 DX 1.06136230 03 DY 1.37339530 02 DZ-19040 02
 R 4.02461450 08 DEC 1.13386160 01 RA 4850 01
 V 1.09088060 03 PTH 6.11104890 01 AZ-0150 02
 ALT 3.96084110 08 LTGD 1.13397880 01 LON 3170 02
 VE 2.91283920 04 PTE 1.87905640 00 AZE-2170 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 20 HRS., 23 MIN., 56.606 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-2.31923900 06 YSC 3.73336900 06 ZSC 2.57535920 06
 DXSC 1.50048330 03 DYSC-6.56805580 02 DZSC-6.56839210 02
 RSC 5.09455990 06 DESC 3.03783540 01 RASC 1.21849320 02
 VSC 1.76473270 03 PTSC-5.79990770 01 AZSC-8.28811120 01

SFLENOGRAPHIC REFERENCE

XSG 2.03755480 05 YSG-4.98864410 06 ZSG 1.01314080 06
 DXSG-1.00329430 03 DYSG 1.41062070 03 DZSG-3.77853950 02
 HSG 3.35647040 06 LTSG 1.14707230 01 LNSG-8.76611140 01
 VRSG 1.77178550 03 PTSG-5.76359360 01 AZSG-9.49521280 01
 LTS-1.42496140 00 LNS 1.09742490 02 LTE-6.93654300-01
 LNE 1.87075610 00 DSMP 4.64587640 00 RSMP 1.07907370 02
 LIN 1.67491180 02 LAN 2.61829990 01 LAP 2.06927930 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.76388000 05

X 3.56111220 08 Y 1.70528300 08 Z 7.90769730 07
 DX 1.07968800 03 DY 1.03252060 02 DZ-2.31536040 02
 R 4.02676390 08 DEC 1.13252610 01 RA 2.55880100 01
 V 1.10952860 03 PTH 5.94193370 01 AZ-1.39221390 02
 ALT 3.96299050 08 LTGD 1.13264300 01 LON 3.05531630 02
 VE 2.91793130 04 PTE 1.87594180 00 AZE-9.08398270 01

TIME 4 FEB. 1968 20 HRS., 27 MIN., 41.606 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-1.97941640 06 YSC 3.58188690 06 ZSC 2.42603230 06
 DXSC 1.52031760 03 DYSC-6.90625290 02 DZSC-6.79959460 02
 RSC 4.75748210 06 DESC 3.06598580 01 RASC 1.18925840 02
 VSC 1.80296250 03 PTSC-5.62584730 01 AZSC-8.43660060 01

SFLENOGRAPHIC REFERENCE

XSG-2.19196800 04 YSG-4.66621680 06 ZSG 9.27133480 05
 DXSG-1.00238300 03 DYSG 1.45643160 03 DZSG-3.86819270 02
 HSG 3.01939260 06 LTSG 1.12376560 01 LNSG-9.02691420 01
 VRSG 1.80986020 03 PTSG-5.59329460 01 AZSG-9.54617110 01
 LTS-1.42495070 00 LNS 1.09710790 02 LTE-6.97224850-01
 LNE 1.85732040 00 DSMP 4.64579010 00 RSMP 1.07878910 02
 LIN 1.67491160 02 LAN 2.61488090 01 LAP 2.06928010 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.76613000 05

X 3.56356310 08 Y 1.70548930 08 Z 7.90223270 07
 DX 1.09902310 03 DY 7.41965190 01 DZ-2.54764410 02
 R 4.02891160 08 DEC 1.13112180 01 RA 2.55753570 01
 V 1.13060240 03 PTH 5.74983310 01 AZ-1.37870100 02
 ALT 3.96513820 08 LTGD 1.13123860 01 LON 3.04578910 02
 VE 2.92351790 04 PTE 1.86904930 00 AZE-9.08835120 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - FIRST OPPORTUNITY
(CONTINUED)

TIME 4 FEB. 1968 20 HRS., 31 MIN., 26.606 SEC., GMT
SELENOCENTRIC REFERENCE

XSC-1.63503630	06	YSC 3.42212010	06	ZSC 2.27009780	06
DXSC 1.54094130	03	DYSC-7.30693010	02	DZSC-7.05815270	02
RSC 4.42013500	06	DESC 3.09025590	01	RASC 1.15537750	02
VSC 1.84607700	03	PTSC-5.42762510	01	AZSC-8.61003120	01

SELENOGRAPHIC REFERENCE

XSG-2.47133090	05	YSG-4.33273840	06	ZSG 8.38985210	05
DXSG-9.99020610	02	DYSG 1.50907770	03	DZSG-3.96915240	02
HSG 2.68204550	06	LTSG 1.09416880	01	LNSG-9.32645260	01
VRS 1.85280850	03	PTSG-5.39878200	01	AZSG-9.60346130	01
LTS-1.42494000	00	LNS 1.09679090	02	LTF-7.00795110	-01
LNE 1.86388390	00	DSMP 4.64570380	00	RSMP 1.07850450	02
LIN 1.67491140	02	LAN 2.61146210	01	LAP 2.06928030	02

GEOCENTRIC REFERENCE

X 3.56605840	08	Y 1.70561220	08	Z 7.89620490	07
DX 1.11914770	03	DY 3.38927200	01	DZ-2.81728470	02
R 4.03105280	08	DEC 1.12963940	01	RA 2.55613500	01
V 1.15456100	03	PTH 5.52990810	01	AZ-1.36515900	02
ALT 3.96727930	08	LTGD 1.12975600	01	LON 3.03624840	02
VE 2.92970090	04	PTE 1.85665370	00	AZE-9.09332350	01

TIME 4 FEB. 1968 20 HRS., 35 MIN., 11.606 SEC., GMT
SELENOCENTRIC REFERENCE

XSC-1.28596810	06	YSC 3.25248010	06	ZSC 2.10761910	06
DXSC 1.56188030	03	DYSC-7.78712360	02	DZSC-7.38296770	02
RSC 4.08342980	06	DESC 3.10736440	01	RASC 1.11572880	02
VSC 1.89497890	03	PTSC-5.19962120	01	AZSC-8.81423020	01

SELENOGRAPHIC REFERENCE

XSG-4.71201040	05	YSG-3.98650650	06	ZSG 7.48421450	05
DXSG-9.91942290	02	DYSG 1.57007860	03	DZSG-4.08324250	02
HSG 2.34534030	06	LTSG 1.05610170	01	LNSG-9.67410210	01
VRS 1.90153230	03	PTSG-5.17442140	01	AZSG-9.66805850	01
LTS-1.42492930	00	LNS 1.09647390	02	LTF-7.04365070	-01
LNE 1.86044660	00	DSMP 4.64561750	00	RSMP 1.07821990	02
LIN 1.67491110	02	LAN 2.60804440	01	LAP 2.06928010	02

GEOCENTRIC REFERENCE

X 3.56859950	08	Y 1.70563590	08	Z 7.88952030	07
DX 1.13958780	03	DY-1.43629230	01	DZ-3.13318360	02
R 4.03318010	08	DEC 1.12806740	01	RA 2.55457760	01
V 1.18196230	03	PTH 5.27588630	01	AZ-1.35158380	02
ALT 3.96940660	08	LTGD 1.12818370	01	LON 3.02669200	02
VE 2.93660720	04	PTE 1.83617990	00	AZE-9.09901470	01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 20 HRS., 38 MIN., 56.606 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-9.32234380 05 YSC 3.07093410 06 ZSC 1.93743290 06
 DXSC 1.58220340 03 DYSC-8.36962410 02 DZSC-7.75539460 02
 RSC 3.74877890 06 DESC 3.11189850 01 PASC 1.05886560 02
 VSC 1.95072690 03 PTSC-4.93442150 01 AZSC-9.05637210 01
 SELENOGRAPHIC REFERENCE
 XSG-6.93084010 05 YSG-3.62543630 06 ZSG 6.55125310 05
 DXSG-9.79197370 02 DYSG 1.64131970 03 DZSG-4.21235990 02
 HSG 2.01068940 06 LTSG 1.00645160 01 LNSG-1.00822790 02
 VRSG 1.95708910 03 PTSG-4.91278040 01 AZSG-9.74095230 01
 LTS-1.42491860 00 LNS 1.09615690 02 LTE-7.07934740-01
 LNE 1.85700840 00 DSMP 4.64553110 00 RSMP 1.07793530 02
 LIN 1.67491070 02 LAN 2.60462860 01 LAP 2.06927940 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.77288000 05
 X 3.57118610 08 Y 1.70553990 08 Z 7.88206240 07
 DX 1.15941220 03 DY-7.28495000 01 DZ-3.50669550 02
 R 4.03528270 08 DEC 1.12639210 01 RA 2.55283740 01
 V 1.21347140 03 PTH 4.97954480 01 AZ-1.33797080 02
 ALT 3.97150920 08 LTGD 1.12650830 01 LON 3.01711730 02
 VE 2.94439210 04 PTE 1.80372920 00 AZE-9.10555790 01

TIME 4 FEB. 1968 20 HRS., 42 MIN., 41.605 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-5.74150720 05 YSC 2.87485420 06 ZSC 1.75808860 06
 DXSC 1.60015720 03 DYSC-9.08492750 02 DZSC-8.19962350 02
 RSC 3.41837840 06 DESC 3.09509990 01 PASC 1.01294210 02
 VSC 2.01449300 03 PTSC-4.62215940 01 AZSC-9.34486550 01
 SELENOGRAPHIC REFERENCE
 XSG-9.11189940 05 YSG-3.24697610 06 ZSG 5.58739590 05
 DXSG-9.57738910 02 DYSG 1.72506070 03 DZSG-4.35809970 02
 HSG 1.68028890 06 LTSG 9.40729900 00 LNSG-1.05675560 02
 VRSG 2.02065060 03 PTSG-4.60396880 01 AZSG-9.82292740 01
 LTS-1.42490790 00 LNS 1.09583990 02 LTE-7.11504110-01
 LNE 1.85356930 00 DSMP 4.64544470 00 RSMP 1.07765070 02
 LIN 1.67491030 02 LAN 2.60121490 01 LAP 2.06927830 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.77513000 05
 X 3.57381510 08 Y 1.70529810 08 Z 7.87368640 07
 DX 1.17686730 03 DY-1.44606600 02 DZ-3.95201080 02
 R 4.03734390 08 DEC 1.12459760 01 RA 2.55088240 01
 V 1.24984460 03 PTH 4.53001550 01 AZ-1.32431760 02
 ALT 3.97357040 08 LTGD 1.12471350 01 LON 3.00752110 02
 VE 2.95323880 04 PTE 1.75332280 00 AZE-9.11309530 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 20 HRS., 46 MIN., 26.606 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-2.12577070 05 YSC 2.66082630 06 ZSC 1.56778560 06
 DXSC 1.61251490 03 DYSC-9.97243060 02 DZSC-8.73244130 02
 RSC 3.09566430 06 DESC 3.04273610 01 RASC 9.45677320 01
 VSC 2.08740350 03 PTSC-4.24968370 01 AZSC-9.68847350 01

SELENOGRAPHIC REFERENCE

XSG-1.12305950 06 YSG-2.84803470 06 ZSG 4.58882390 05
 DXSG-9.22771820 02 DYSG 1.82378690 03 DZSG-4.52083340 02
 HSG 1.35757480 06 LTSG 8.52459200 00 LNSG-1.11520690 02
 VRSG 2.09334320 03 PTSG-4.23480590 01 AZSG-9.91404230 01
 LTS-1.42489720 00 LNS 1.09552300 02 LTF-7.15073180-01
 LNE 1.85012940 00 DSMP 4.64535830 00 RSMP 1.07736610 02
 LIN 1.67490980 02 LAN 2.59780340 01 LAP 2.06927680 02

GEOCENTRIC REFERENCE

X 3.57647790 08 Y 1.70487630 08 Z 7.86421200 07
 DX 1.18872650 03 DY-2.33603890 02 DZ-4.48591630 02
 R 4.03933850 08 DEC 1.12266490 01 RA 2.54867350 01
 V 1.29184980 03 PTH 4.21292120 01 AZ-1.31062810 02
 ALT 3.97556500 08 LTGD 1.12278050 01 LON 2.99789960 02
 VE 2.96334280 04 PTE 1.67573180 00 AZE-9.12174780 01

FLIGHT TIME

TIME 4 FEB. 1968 20 HRS., 50 MIN., 11.606 SEC., GMT

SELENOCENTRIC REFERENCE

XSC 1.50635680 05 YSC 2.42443710 06 ZSC 1.36433420 06
 DXSC 1.61345990 03 DYSC-1.10811770 03 DZSC-9.37100330 02
 RSC 2.78603560 06 DESC 2.93211600 01 RASC 8.64446510 01
 VSC 2.17010020 03 PTSC-3.79971170 01 AZSC-1.00936190 02

SELENOGRAPHIC REFERENCE

XSG-1.32487050 06 YSG-2.42498420 06 ZSG 3.55195120 05
 DXSG-8.66791210 02 DYSG 1.93962650 03 DZSG-4.69762720 02
 HSG 1.04794610 06 LTSG 7.32464410 00 LNSG-1.18649620 02
 VRSG 2.17581140 03 PTSG-3.78797230 01 AZSG-1.00124840 02
 LTS-1.42488640 00 LNS 1.09520600 02 LTE-7.18641950-01
 LNE 1.84668870 00 DSMP 4.64527190 00 RSMP 1.07708160 02
 LIN 1.67490910 02 LAN 2.59439240 01 LAP 2.06927480 02

GEOCENTRIC REFERENCE

X 3.57915600 08 Y 1.70423030 08 Z 7.85342030 07
 DX 1.18917320 03 DY-3.44715780 02 DZ-5.12556720 02
 R 4.04122760 08 DEC 1.12057350 01 RA 2.54616520 01
 V 1.34002850 03 PTH 3.70952300 01 AZ-1.29692120 02
 ALT 3.97745400 08 LTGD 1.12068890 01 LON 2.98824810 02
 VE 2.97485750 04 PTE 1.55681070 00 AZE-9.13153840 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 20 HRS., 53 MIN., 56.606 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC 5.1188059D 05 YSC 2.1601318D 06 ZSC 1.1452160D 06
 DXSC 1.5928685D 03 DYSC -1.2461454D 03 DZSC -1.0125379D 03
 RSC 2.4979412D 06 DESC 2.7288031D 01 RASC 7.6668672D 01
 VSC 2.2617120D 03 PTSC -3.2506176D 01 AZSC -1.0558109D 02

SELENOGRAPHIC REFERENCE

XSG -1.5106998D 06 YSG -1.9738947D 06 ZSG 2.4745990D 05
 DXSG -7.7845377D 02 DYSG 2.0727322D 03 DZSG -4.8779334D 02
 HSG 7.5985176D 05 LTSG 5.6853624D 00 LNSG -1.2742826D 02
 VRSG 2.2671902D 03 PTSG -3.2418000D 01 AZSG -1.0112260D 02
 LTS -1.4248757D 00 LNS 1.0948890D 02 LTF -7.2221043D -01
 LNE 1.8432471D 00 DSMP 4.6451854D 00 RSMP 1.0767970D 02
 LIN 1.6749084D 02 LAN 2.5909782D 01 LAP 2.0692728D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.7818800D 05

X 3.5818132D 08 Y 1.7033047D 08 Z 7.8410595D 07
 DX 1.1680836D 03 DY -4.8298090D 02 DZ -5.8810329D 02
 R 4.0429512D 08 DEC 1.1183038D 01 RA 2.5433076D 01
 V 1.3941145D 03 PTH 3.0965969D 01 AZ -1.2832464D 02
 ALT 3.9791776D 08 LTGD 1.1184190D 01 LON 2.9785616D 02
 VE 2.9877513D 04 PTE 1.3756853D 00 AZE -9.1422156D 01

TIME 4 FEB. 1968 20 HRS., 57 MIN., 41.606 SEC., GMT
 SELFNOCENTRIC REFERENCE

XSC 8.6460636D 05 YSC 1.8614235D 06 ZSC 9.0792655D 05
 DXSC 1.5344581D 03 DYSC -1.4138736D 03 DZSC -1.0979844D 03
 RSC 2.2442754D 06 DESC 2.3863067D 01 RASC 6.5085757D 01
 VSC 2.3577892D 03 PTSC -2.5787573D 01 AZSC -1.1059763D 02

SELENOGRAPHIC REFERENCE

XSG -1.6715910D 06 YSG -1.4913418D 06 ZSG 1.3584989D 05
 DXSG -6.4228390D 02 DYSG 2.2176179D 03 DZSG -5.0360098D 02
 HSG 5.0618592D 05 LTSG 3.4703343D 00 LNSG -1.3826164D 02
 VRSG 2.3630429D 03 PTSG -2.5726042D 01 AZSG -1.0199221D 02
 LTS -1.4248650D 00 LNS 1.0945720D 02 LTF -7.2577850D -01
 LNE 1.8398047D 00 DSMP 4.6450989D 00 RSMP 1.0765125D 02
 LIN 1.6749079D 02 LAN 2.5875550D 01 LAP 2.0692730D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.7841300D 05

X 3.5843841D 08 Y 1.7020344D 08 Z 7.8268791D 07
 DX 1.1091751D 03 DY -6.5094672D 02 DZ -6.7365895D 02
 R 4.0444198D 08 DEC 1.1158449D 01 RA 2.5400569D 01
 V 1.4518325D 03 PTH 2.3490727D 01 AZ -1.2697121D 02
 ALT 3.9806461D 08 LTGD 1.1159597D 01 LON 2.9588359D 02
 VE 3.0014903D 04 PTE 1.1047272D 00 AZE -9.1529118D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 21 HRS., 1 MIN., 26.606 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC 1.19791340 06 YSC 1.52208100 06 ZSC 6.50918740 05
 DXSC 1.41648160 03 DYSC-1.60509450 03 DZSC-1.18581920 03
 RSC 2.04338500 06 DESC 1.85752110 01 RASC 5.17964230 01
 VSC 2.44722610 03 PTSC-1.76732780 01 AZSC-1.15431450 02

SELENOGRAPHIC REFERENCE

XSG-1.79492080 06 YSG-9.76332300 05 ZSG 2.13735270 04
 DXSG-4.42395690 02 DYSG 2.35703610 03 DZSG-5.12229180 02
 HSG 3.05295480 05 LTSG 5.99316900-01 LNSG-1.51456380 02
 VRSG 2.45228710 03 PTSG-1.76356060 01 AZSG-1.02466310 02
 LTS-1.42485430 00 LNS 1.09425500 02 LTE-7.29346480-01
 LNE 1.83636140 00 DSMP 4.64501230 00 RSMP 1.07622790 02
 LIN 1.67490800 02 LAN 2.58412190 01 LAP 2.06928270 02

GEOCENTRIC REFERENCE

X 3.58675980 08 Y 1.70035730 08 Z 7.81072440 07
 DX 9.90700810 02 DY-8.42405550 02 DZ-7.61603000 02
 R 4.04550800 08 DEC 1.11320890 01 RA 2.53639920 01
 V 1.50704160 03 PTH 1.44965460 01 AZ-1.25652480 02
 ALT 3.98173430 08 LTGD 1.11332350 01 LON 2.95906950 02
 VE 3.01451970 04 PTE 7.17001200-01 AZE-9.16167470 01

TIME 4 FEB. 1968 21 HRS., 5 MIN., 11.606 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC 1.49617680 06 YSC 1.13908690 06 ZSC 3.75372740 05
 DXSC 1.22143120 03 DYSC-1.79623620 03 DZSC-1.25923700 03
 RSC 1.91754240 06 DESC 1.12889600 01 RASC 3.72831680 01
 VSC 2.51078400 03 PTSC-8.25511240 00 AZSC-1.19197340 02

SELENOGRAPHIC REFERENCE

XSG-1.86554190 06 YSG-4.33547250 05 ZSG-9.35891300 04
 DXSG-1.75240300 02 DYSG 2.45791000 03 DZSG-5.06753310 02
 HSG 1.79452870 05 LTSG-2.79753560 00 LNSG-1.66916830 02
 VRSG 2.51571650 03 PTSG-8.23881420 00 AZSG-1.02172390 02
 LTS-1.42484350 00 LNS 1.09393800 02 LTE-7.32914050-01
 LNE 1.83291720 00 DSMP 4.64492570 00 RSMP 1.07594340 02
 LIN 1.67490970 02 LAN 2.58069900 01 LAP-1.53068610 02

GEOCENTRIC REFERENCE

X 3.58878380 08 Y 1.69824320 08 Z 7.79271340 07
 DX 7.95152640 02 DY-1.03378540 03 DZ-8.35130260 02
 R 4.04606760 08 DEC 1.11045370 01 RA 2.53239110 01
 V 1.54868410 03 PTH 4.09275910 00 AZ-1.24401560 02
 ALT 3.98229390 08 LTGD 1.11056800 01 LON 2.94926800 02
 VE 3.02393490 04 PTE 2.09396660-01 AZE-9.16538930 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

PERISELENIUM

TIME 4 FEB. 1968 21 HRS., 8 MIN., 14.665 SEC., GMT

SELENOCENTRIC REFERENCE

XSC 1.7010046D 06 YSC 7.9799045D 05 ZSC 1.4130440D 05
 DXSC 1.0100531D 03 DYSC -1.9240405D 03 DZSC -1.2932299D 03
 RSC 1.8841901D 06 DESC 4.3009213D 00 RASC 2.5132630D 01
 VSC 2.5287513D 03 PTSC 1.3679287D -12 AZSC -1.2085416D 02

SELENOGRAPHIC REFERENCE

XSG -1.8749954D 06 YSG 1.9769936D 04 ZSG -1.8486186D 05
 DXSG 7.4344247D 01 DYSG 2.4850395D 03 DZSG -4.8828920D 02
 HSG 1.4610062D 05 LTSG -5.6304673D 00 LNSG 1.7939589D 02
 VRSG 2.5336485D 03 PTSG 4.9627491D -08 AZSG -1.0116622D 02
 LTS -1.4248348D 00 LNS 1.0936801D 02 LTE -7.3581639D -01
 LNE 1.8301145D 00 DSMP 4.6448553D 00 RSMP 1.0757119D 02
 LIN 1.6749125D 02 LAN 2.5779550D 01 LAP -1.5306442D 02

GEOCENTRIC REFERENCE

X 3.5900514D 08 Y 1.6962278D 08 Z 7.7770694D 07
 DX 5.8336975D 02 DY -1.1617836D 03 DZ -8.6921227D 02
 R 4.0460457D 08 DEC 1.1082023D 01 RA 2.5289800D 01
 V 1.5638387D 03 PTH -5.0077137D 00 AZ -1.2346231D 02
 ALT 3.9822719D 08 LTGD 1.1083164D 01 LON 2.9412785D 02
 VE 3.0266216D 04 PTE -2.5844975D -01 AZE -9.1626347D 01

FLIGHT TIME 2.7904606D 05

TIME 4 FEB. 1968 21 HRS., 11 MIN., 59.665 SEC., GMT

SELENOCENTRIC REFERENCE

XSC 1.8958352D 06 YSC 3.5312002D 05 ZSC -1.5049529D 05
 DXSC 7.2038565D 02 DYSC -2.0172793D 03 DZSC -1.2927713D 03
 RSC 1.9343044D 06 DESC -4.4623108D 00 RASC 1.0551057D 01
 VSC 2.5019251D 03 PTSC 1.0091127D 01 AZSC -1.2083295D 02

SELENOGRAPHIC REFERENCE

XSG -1.8237988D 06 YSG 5.7514676D 05 ZSG -2.9068491D 05
 DXSG 3.7544662D 02 DYSG 2.4373989D 03 DZSG -4.5005333D 02
 HSG 1.9621492D 05 LTSG -8.6430823D 00 LNSG 1.6249698D 02
 VRSG 2.5069749D 03 PTSG 1.0070993D 01 AZSG -9.9058026D 01
 LTS -1.4248241D 00 LNS 1.0933631D 02 LTE -7.3938341D -01
 LNE 1.8266688D 00 DSMP 4.6447686D 00 RSMP 1.0754274D 02
 LIN 1.6749164D 02 LAN 2.5746587D 01 LAP -1.5305892D 02

GEOCENTRIC REFERENCE

X 3.5910391D 08 Y 1.6934939D 08 Z 7.7574286D 07
 DX 2.9320481D 02 DY -1.2552609D 03 DZ -8.6886334D 02
 R 4.0453999D 08 DEC 1.1055469D 01 RA 2.5248039D 01
 V 1.5545329D 03 PTH -1.6127791D 01 AZ -1.2243375D 02
 ALT 3.9815261D 08 LTGD 1.1056608D 01 LON 2.9314603D 02
 VE 3.0226176D 04 PTE -8.1860065D -01 AZE -9.1518513D 01

FLIGHT TIME 2.7927106D 05

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 21 HRS., 15 MIN., 44.665 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC 2.02654380 06 YSC-1.04095560 05 ZSC-4.37429600 05
 DXSC 4.48080250 02 DYSC-2.03569860 03 DZSC-1.25257900 03
 RSC 2.07582760 06 DESC-1.21648650 01 RASC-2.94047370 00
 VSC 2.43183040 03 PTSC 1.92930230 01 AZSC-1.18868350 02

SELENOGRAPHIC REFERENCE

XSG-1.71006530 06 YSG 1.11138350 06 ZSG-3.86734310 05
 DXSG 6.24197720 02 DYSG 2.32086590 03 DZSG-4.03179760 02
 HSG 3.37738090 05 LTSG-1.07371480 01 LNSG 1.46979870 02
 VRSG 2.43692330 03 PTSG 1.92511110 01 AZSG-9.64389570 01
 LTS-1.42481330 00 LNS 1.09304610 02 LTE-7.42950130-01

LNF 1.82322240 00 DSMP 4.64468200 00 RSMP 1.07514290 02

LIN 1.67491960 02 LAN 2.57142010 01 LAP-1.53054850 02

GEOCENTRIC REFERENCE

X 3.59138450 08 Y 1.59063600 08 Z 7.73827190 07

DX 2.04021010 01 DY-1.27391900 03 DZ-8.28780790 02

R 4.04414400 08 DEC 1.10312930 01 RA 2.52086020 01

V 1.51992220 03 PTH-2.62826530 01 AZ-1.21555310 02

ALT 3.98037020 08 LTGD 1.10324290 01 LON 2.92166520 02

VE 3.01227150 04 PTE-1.28027270 00 AZE-9.13569580 01

TIME 4 FEB. 1968 21 HRS., 19 MIN., 29.665 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC 2.10132180 06 YSC-5.58967390 05 ZSC-7.12589900 05
 DXSC 2.25088300 02 DYSC-2.00118710 03 DZSC-1.19137060 03
 RSC 2.28818320 06 DESC-1.81449290 01 RASC-1.48961510 01
 VSC 2.33992080 03 PTSC 2.71430120 01 AZSC-1.15727440 02

SELENOGRAPHIC REFERENCE

XSG-1.54825040 06 YSG 1.61732510 06 ZSG-4.72189010 05

DXSG 8.02691470 02 DYSG 2.17443360 03 DZSG-3.57150500 02

HSG 5.50093670 05 LTSG-1.19091110 01 LNSG 1.33749960 02

VRSG 2.34521460 03 PTSG 2.70767260 01 AZSG-9.38406950 01

LTS-1.42480260 00 LNS 1.09272910 02 LTE-7.46516550-01

LNF 1.81977500 00 DSMP 4.64459530 00 RSMP 1.07485840 02

LIN 1.67492140 02 LAN 2.56818100 01 LAP-1.53052480 02

GEOCENTRIC REFERENCE

X 3.59116940 08 Y 1.68780100 08 Z 7.72029010 07

DX-2.02087000 02 DY-1.23964650 03 DZ-7.67682220 02

R 4.04242490 08 DEC 1.10100780 01 RA 2.51728880 01

V 1.47203890 03 PTH-3.49712100 01 AZ-1.20814930 02

ALT 3.97865100 08 LTGD 1.10112120 01 LON 2.91190740 02

VE 2.99894440 04 PTE-1.61219130 00 AZE-9.11810710 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 21 HRS., 23 MIN., 14.665 SEC.,GMT
 SELENOCENTRIC REFERENCE
 XSC 2.13245360 06 YSC-1.00269640 06 ZSC-9.73213660 05
 DXSC 5.92460180 01 DYSC-1.94055550 03 DZSC-1.12544550 03
 RSC 2.54949080 06 DESC-2.24407990 01 RASC-2.51832770 01
 VSC 2.24407960 03 PTSC 3.36159820 01 AZSC-1.12148350 02
 SELENOGRAPHIC REFERENCE
 XSG-1.35345970 05 YSG 2.08993990 06 ZSG-5.47906240 05
 DXSG 9.20010540 02 DYSG 2.02823640 03 DZSG-3.17082020 02
 HSG 8.11401270 05 LTSG-1.24101360 01 LNSG 1.22927370 02
 VRSG 2.24960070 03 PTSG 3.35225490 01 AZSG-9.15669500 01
 LTS-1.42479180 00 LNS 1.09241210 02 LTF-7.50082650-01
 LNE 1.81632690 00 DSMP 4.64450850 00 RSMP 1.07457400 02
 LIN 1.67492210 02 LAN 2.56490670 01 LAP-1.53051140 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.79946060 05
 X 3.59051680 08 Y 1.68507690 08 Z 7.70375950 07
 DX-3.69426300 02 DY-1.17925400 03 DZ-7.01867180 02
 R 4.04039280 08 DEC 1.09918040 01 RA 2.51412840 01
 V 1.42117320 03 PTH-4.21620400 01 A7-1.20187180 02
 ALT 3.97661890 08 LTGD 1.09929370 01 LON 2.90219070 02
 VE 2.98530250 04 PTE-1.93118040 00 AZE-9.10171640 01

TIME 4 FEB. 1968 21 HRS., 26 MIN., 59.665 SEC.,GMT
 SELENOCENTRIC REFERENCE
 XSC 2.13141360 06 YSC-1.43164960 06 ZSC-1.21935410 06
 DXSC-5.18983920 01 DYSC-1.87204570 03 DZSC-1.06351720 03
 RSC 2.84242310 06 DESC-2.54031000 01 RASC-3.38888690 01
 VSC 2.15393950 03 PTSC 3.89040970 01 AZSC-1.08611190 02
 SELENOGRAPHIC REFERENCE
 XSG-1.13752830 06 YSG 2.53113970 06 ZSG-6.15410570 05
 DXSG 9.93460240 02 DYSG 1.89646660 03 DZSG-2.84125070 02
 HSG 1.10433360 06 LTSG-1.25040800 01 LNSG 1.14199790 02
 VRSG 2.15969350 03 PTSG 3.87810110 01 AZSG-8.96949800 01
 LTS-1.42478110 00 LNS 1.09209510 02 LTF-7.53648460-01
 LNE 1.81287790 00 DSMP 4.64442170 00 RSMP 1.07428950 02
 LIN 1.67492210 02 LAN 2.56159200 01 LAP-1.53050330 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.80171060 05
 X 3.58954130 08 Y 1.68250000 08 Z 7.68867470 07
 DX-4.91067570 02 DY-1.11098370 03 DZ-6.40049040 02
 R 4.03816420 08 DEC 1.09761420 01 RA 2.51135580 01
 V 1.37298760 03 PTH-4.80586530 01 AZ-1.19645280 02
 ALT 3.97439030 08 LTGD 1.09772750 01 LON 2.89251280 02
 VE 2.97266360 04 PTE-1.96882040 00 AZE-9.08753690 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH OF 72 DEGREES - FIRST OPPORTUNITY (CONTINUED)

TIME 4 FEB. 1968 21 HRS., 30 MIN., 44.665 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC 2.10712590 06 YSC-1.8452366D 06 ZSC-1.4523362D 06
 DXSC-1.4927241D 02 DYSC-1.8049533D 03 DZSC-1.0086996D 03
 RSC 3.1550211D 06 DESC-2.7408103D 01 RASC-4.1209039D 01
 VSC 2.0730687D 03 PTSC 4.3244107D 01 AZSC-1.0535150D 02
 SELENOGRAPHIC REFERENCE
 XSG-9.0855422D 05 YSG 2.9447218D 06 ZSG-6.7624037D 05
 DXSG 1.0380697D 03 DYSG 1.7828399D 03 DZSG-2.5756568D 02
 HSG 1.4169316D 06 LTSG-1.2376681D 01 LNSG 1.0714690D 02
 VRSG 2.0790495D 03 PTSG 4.3089284D 01 AZSG-8.8189545D 01
 LTS-1.4247703D 00 LNS 1.0917781D 02 LTF-7.5721395D-01
 LNE 1.8094281D 00 DSMP 4.6443349D 00 RSMP 1.0740050D 02
 LIN 1.6749219D 02 LAN 2.5582441D 01 LAP-1.5304979D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.8039606D 05
 X 3.5883322D 08 Y 1.6800763D 08 Z 7.6749033D 07
 DX-5.7893830D 02 DY-1.0441310D 03 DZ-5.3534166D 02
 R 4.0358179D 08 DEC 1.0962688D 01 RA 2.5089243D 01
 V 1.3295631D 03 PTH-5.2914683D 01 AZ-1.1916670D 02
 ALT 3.9720440D 08 LTGD 1.0963820D 01 LON 2.8828690D 02
 VE 2.9614305D 04 PTE-2.0526709D 00 AZE-9.0756469D 01

TIME 4 FEB. 1968 21 HRS., 34 MIN., 29.665 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC 2.0660269D 06 YSC-2.2442764D 06 ZSC-1.6738304D 06
 DXSC-2.1274062D 02 DYSC-1.7430793D 03 DZSC-9.6133576D 02
 RSC 3.4795045D 06 DESC-2.8754276D 01 RASC-4.7368074D 01
 VSC 2.0019367D 03 PTSC 4.6844779D 01 AZSC-1.0244980D 02
 SELENOGRAPHIC REFERENCE
 XSG-6.7176358D 05 YSG 3.3347111D 06 ZSG-7.3170158D 05
 DXSG 1.0643421D 03 DYSG 1.6864115D 03 DZSG-2.3620006D 02
 HSG 1.7414151D 06 LTSG-1.2139289D 01 LNSG 1.0138956D 02
 VRSG 2.0081331D 03 PTSG 4.6656546D 01 AZSG-8.6983503D 01
 LTS-1.4247596D 00 LNS 1.0914611D 02 LTF-7.6077914D-01
 LNE 1.8059774D 00 DSMP 4.6442481D 00 RSMP 1.0737206D 02
 LIN 1.6749215D 02 LAN 2.5548718D 01 LAP-1.5304940D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.8062106D 05
 X 3.5869539D 08 Y 1.6777975D 08 Z 7.6622782D 07
 DX-6.4290306D 02 DY-9.8249690D 02 DZ-5.3808826D 02
 R 4.0334040D 08 DEC 1.0951063D 01 RA 2.5067838D 01
 V 1.2915740D 03 PTH-5.6955370D 01 AZ-1.1873401D 02
 ALT 3.9596301D 08 LTGD 1.0952194D 01 LON 2.8732543D 02
 VE 2.9515813D 04 PTE-2.1021264D 00 AZE-9.0657660D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - FIRST OPPORTUNITY
(CONTINUED)

TIME 4 FEB. 1968 21 HRS., 38 MIN., 14.665 SEC., GMT
SELENOCENTRIC REFERENCE
XSC 2.01264450 06 YSC-2.63009680 06 ZSC-1.88544320 06
DXSC-2.59444340 02 DYSC-1.58749490 03 DZSC-9.20709400 02
RSC 3.81091100 06 DESC-2.96531780 01 RASC-5.25754840 01
VSC 1.93975670 03 PTSC 4.98707430 01 AZSC-9.99075110 01
SELENOGRAPHIC REFERENCE
XSG-4.30462330 05 YSG 3.70471590 06 ZSG-7.82831470 05
DXSG 1.07904930 03 DYSG 1.60476160 03 DZSG-2.18891620 02
HSG 2.07292150 06 LTSG-1.18539960 01 LNSG 9.66276480 01
VRSG 1.94615530 03 PTSG 4.96477820 01 AZSG-8.60119500 01
LTS-1.42474880 00 LNS 1.09114410 02 LTE-7.64344010-01
LNE 1.80252590 00 DSMP 4.64416120 00 RSMP 1.07343610 02
LIN 1.67492110 02 LAN 2.55148240 01 LAP-1.53049110 02
GEOCENTRIC REFERENCE FLIGHT TIME 2.80846060 05
X 3.58545170 08 Y 1.67565030 08 Z 7.65063870 07
DX-5.90103200 02 DY-9.27152590 02 DZ-4.97572430 02
R 4.03095400 08 DEC 1.09409500 01 RA 2.50488960 01
V 1.25834520 03 PTH-6.03593880 01 AZ-1.18334110 02
ALT 3.96718010 08 LTGD 1.09420810 01 LON 2.86366420 02
VE 2.94294710 04 PTE-2.12977800 00 AZF-9.05753980 01

TIME 4 FEB. 1968 21 HRS., 41 MIN., 59.665 SEC., GMT
SELENOCENTRIC REFERENCE
XSC 1.95016030 06 YSC-3.00411290 06 ZSC-2.08858060 06
DXSC-2.94319220 02 DYSC-1.53908080 03 DZSC-8.85831790 02
RSC 4.14608110 06 DESC-3.02482840 01 RASC-5.70098370 01
VSC 1.88537280 03 PTSC 5.24467000 01 AZSC-9.76927080 01
SELENOGRAPHIC REFERENCE
XSG-1.86736650 05 YSG 4.05776980 06 ZSG-8.30434990 05
DXSG 1.08644650 03 DYSG 1.53532970 03 DZSG-2.04719240 02
HSG 2.40799160 06 LTSG-1.15541490 01 LNSG 9.26348610 01
VRSG 1.89196020 03 PTSG 5.21879750 01 AZSG-8.52218560 01
LTS-1.42473800 00 LNS 1.09082710 02 LTE-7.67908580-01
LNE 1.79907360 00 DSMP 4.64407430 00 RSMP 1.07315170 02
LIN 1.67492080 02 LAN 2.54808010 01 LAP-1.53048870 02
GEOCENTRIC REFERENCE FLIGHT TIME 2.81071060 05
X 3.58385730 08 Y 1.67362060 08 Z 7.63984430 07
DX-7.25474340 02 DY-8.77978880 02 DZ-4.62805480 02
R 4.02848750 08 DEC 1.09320950 01 RA 2.50320390 01
V 1.22936930 03 PTH-6.32628290 01 AZ-1.17957050 02
ALT 3.96471350 08 LTGD 1.09332260 01 LON 2.85409490 02
VE 2.93533250 04 PTF-2.14358760 00 AZE-9.05064400 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - FIRST OPPORTUNITY
(CONTINUED)

TIME 4 FEB. 1968 21 HRS., 45 MIN., 44.665 SEC., GMT
SELENOCENTRIC REFERENCE

XSC 1.88083240 06 YSC-3.36765360 06 ZSC-2.28442670 06
DXSC-3.20738610 02 DYSC-1.59426920 03 DZSC-8.55747840 02
RSC 4.48299300 06 DESC-3.06336050 01 RASC-6.08166660 01
VSC 1.83762670 03 PTSC 5.46661580 01 AZSC-9.57633350 01

SELENOGRAPHIC REFERENCE

XSG 5.80919840 04 YSG 4.39636110 06 ZSG-8.75134620 05
DXSG 1.08920220 03 DYSG 1.47586360 03 DZSG-1.92976630 02
HSG 2.74490350 06 LTSG-1.12571150 01 LNSG 8.92429530 01
VRSG 1.84439010 03 PTSG 5.43708610 01 AZSG-8.45724390 01
LTS-1.42472730 00 LNS 1.09051020 02 LTE-7.71472840-01
LNE 1.79562050 00 DSMP 4.54398740 00 RSMP 1.07286730 02
LIN 1.67492050 02 LAN 2.54466830 01 LAP-1.53048640 02

GEOCENTRIC REFERENCE

X 3.58219340 08 Y 1.67169520 08 Z 7.62977650 07
DX-7.52389830 02 DY-8.34407840 02 DZ-4.32832320 02
R 4.02601650 08 DEC 1.09242940 01 RA 2.50169570 01
V 1.20402270 03 PTH-6.57682330 01 AZ-1.17595170 02
ALT 3.96224260 08 LTGD 1.09254250 01 LON 2.84454340 02
VE 2.92855940 04 PTE-2.14857530 00 AZE-9.04481190 01

TIME 4 FEB. 1968 21 HRS., 49 MIN., 29.665 SEC., GMT

SELENOCENTRIC REFERENCE

XSC 1.80628660 06 YSC-3.72190280 06 ZSC-2.47396440 06
DXSC-3.41019550 02 DYSC-1.55537540 03 DZSC-8.29632420 02
RSC 4.82034560 06 DESC-3.08794730 01 RASC-6.41121100 01
VSC 1.79548790 03 PTSC 5.65994730 01 AZSC-9.40776460 01

SELENOGRAPHIC REFERENCE

XSG 3.03193320 05 YSG 4.72251650 06 ZSG-9.17414390 05
DXSG 1.08900380 03 DYSG 1.42451220 03 DZSG-1.83132180 02
HSG 3.08225610 06 LTSG-1.09715340 01 LNSG 8.63266740 01
VRSG 1.80241550 03 PTSG 5.62669670 01 AZSG-8.40329900 01
LTS-1.42471650 00 LNS 1.09019320 02 LTE-7.75036780-01
LNE 1.79216650 00 DSMP 4.64390040 00 RSMP 1.07258290 02
LIN 1.67492030 02 LAN 2.54124910 01 LAP-1.53048420 02

GEOCENTRIC REFERENCE

X 3.58047610 08 Y 1.66986210 08 Z 7.62033710 07
DX-7.73166720 02 DY-7.95754850 02 DZ-4.06827810 02
R 4.02354870 08 DEC 1.09173870 01 RA 2.50033990 01
V 1.18174510 03 PTH-6.79530910 01 AZ-1.17242360 02
ALT 3.95977470 08 LTGD 1.09185180 01 LON 2.83500720 02
VE 2.92247830 04 PTE-2.14793180 00 AZE-9.03983270 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 21 HRS., 53 MIN., 14.665 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC 1.72771200 06 YSC-4.06789140 06 ZSC-2.65800750 06
 DXSC-3.56772790 02 DYSC-1.52073530 03 DZSC-8.06803880 02
 RSC 5.15729890 06 DESC-3.10233580 01 RASC-6.69881280 01
 VSC 1.75808290 03 PTSC 5.83000800 01 AZSC-9.25982320 01
 SELENOGRAPHIC REFERENCE
 XSG 5.48073150 05 YSG 5.03788870 06 ZSG-9.57654350 05
 DXSG 1.08693210 03 DYSG 1.37979400 03 DZSG-1.74786660 02
 HSG 3.41920950 06 LTSG-1.07013120 01 LNSG 8.37919780 01
 VRSG 1.76516380 03 PTSG 5.79298660 01 AZSG-8.35804580 01
 LTS-1.42470570 00 LNS 1.08987620 02 LTE-7.78600410-01
 LNE 1.78871180 00 DSMP 4.64381350 00 RSMP 1.07229850 02
 LIN 1.67492010 02 LAN 2.53782370 01 LAP-1.53048180 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.81746060 05
 X 3.57871750 08 Y 1.66811110 08 Z 7.61144470 07
 DX-7.89415770 02 DY-7.61355820 02 DZ-3.84110320 02
 R 4.02108870 08 DEC 1.09112440 01 RA 2.49911570 01
 V 1.16205880 03 PTH-6.98764900 01 AZ-1.16893600 02
 ALT 3.95731470 08 LTGD 1.09123750 01 LON 2.82548410 02
 VE 2.91696780 04 PTE-2.14370870 00 AZE-9.03554220 01

TIME 4 FEB. 1968 21 HRS., 56 MIN., 59.665 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC 1.64599240 06 YSC-4.40650800 06 ZSC-2.83723090 06
 DXSC-3.69134900 02 DYSC-1.48975500 03 DZSC-7.86709730 02
 RSC 5.49331250 06 DESC-3.10969760 01 RASC-6.95174920 01
 VSC 1.72468600 03 PTSC 5.98090560 01 AZSC-9.12930780 01
 SELENOGRAPHIC REFERENCE
 XSG 7.92214420 05 YSG 5.34383300 06 ZSG-9.96156290 05
 DXSG 1.08368790 03 DYSG 1.34053450 03 DZSG-1.67638580 02
 HSG 3.75522300 06 LTSG-1.04478100 01 LNSG 8.15674090 01
 VRSG 1.73191080 03 PTSG 5.94007410 01 AZSG-8.31974520 01
 LTS-1.42469490 00 LNS 1.08955920 02 LTE-7.82163730-01
 LNE 1.78525620 00 DSMP 4.64372640 00 PSMP 1.07201410 02
 LIN 1.67492000 02 LAN 2.53439290 01 LAP-1.53047920 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.81971060 05
 X 3.57692630 08 Y 1.66643330 08 Z 7.60303170 07
 DX-8.02273540 02 DY-7.30616730 02 DZ-3.64126830 02
 R 4.01863940 08 DEC 1.09057600 01 RA 2.49800640 01
 V 1.14456630 03 PTH-7.15840130 01 AZ-1.16544550 02
 ALT 3.95486540 08 LTGD 1.09068910 01 LON 2.81597250 02
 VE 2.91193080 04 PTE-2.13724170 00 AZE-9.03181230 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 22 HRS., 0 MIN., 44.665 SEC., GMT

SELENOCENTRIC REFERENCE

XSC 1.55179400 06	YSC-4.73851700 06	ZSC-3.01219800 06
DXSC-3.78920560 02	DYSC-1.46192200 03	DZSC-7.68902330 02
RSC 5.82804250 06	DESC-3.11208940 01	RASC-7.17580070 01
VSC 1.69469980 03	PTSC 6.11583810 01	AZSC-9.01353800 01

SELENOGRAPHIC REFERENCE

XSG 1.03560860 06	YSG 5.64146870 06	ZSG-1.03316260 06
DXSG 1.07973120 03	DYSG 1.30580190 03	DZSG-1.61458160 02
HSG 4.08995310 06	LTSG-1.02110400 01	LNSG 7.95979780 01
VRSG 1.70205960 03	PTSG 6.07116580 01	AZSG-8.28707360 01
LTS-1.42468420 00	LNS 1.08924220 02	LTE-7.85726730-01
LNE 1.78179980 00	DSMP 4.64363940 00	RSMP 1.07172970 02
LIN 1.67491990 02	LAN 2.53095720 01	LAP-1.53047620 02

GEOCENTRIC REFERENCE

X 3.57510920 08	Y 1.66482100 08	Z 7.59504180 07	FLIGHT TIME 2.82196060 05
DX-8.12554710 02	DY-7.03025190 02	DZ-3.46431230 02	
R 4.01620240 08	DEC 1.09008510 01	RA 2.49699800 01	
V 1.12893940 03	PTH-7.31112640 01	AZ-1.16191310 02	
ALT 3.95242830 08	LTGD 1.09019820 01	LON 2.80647100 02	
VF 2.90728940 04	PTE-2.12941040 00	AZE-9.02854340 01	

TIME 4 FEB. 1968 22 HRS., 4 MIN., 29.665 SEC., GMT

SELENOCENTRIC REFERENCE

XSC 1.47562650 06	YSC-5.06457620 06	ZSC-3.18338140 06
DXSC-3.85722850 02	DYSC-1.43680160 03	DZSC-7.53023040 02
RSC 6.16127600 06	DESC-3.11095230 01	RASC-7.37558650 01
VSC 1.66763220 03	PTSC 6.23732750 01	AZSC-8.91029110 01

SELENOGRAPHIC REFERENCE

XSG 1.27806200 06	YSG 5.93172790 06	ZSG-1.06887040 06
DXSG 1.07536650 03	DYSG 1.27485450 03	DZSG-1.56068430 02
HSG 4.42318650 06	LTSG-9.99033020 00	LNSG 7.78408160 01
VRSG 1.67511930 03	PTSG 5.18879030 01	AZSG-8.25901230 01
LTS-1.42467340 00	LNS 1.08892520 02	LTF-7.89289420-01
LNF 1.77834250 00	DSMP 4.64355230 00	RSMP 1.07144530 02
LIN 1.67492000 02	LAN 2.52751690 01	LAP-1.53047290 02

GEOCENTRIC REFERENCE

X 3.57327130 08	Y 1.66326760 08	Z 7.58742780 07	FLIGHT TIME 2.82421060 05
DX-8.20852350 02	DY-6.78146570 02	DZ-3.30663360 02	
R 4.01377850 08	DEC 1.08964460 01	RA 2.49607880 01	
V 1.11490790 03	PTH-7.44863950 01	AZ-1.15830270 02	
ALT 3.95000450 08	LTGD 1.08975780 01	LON 2.79697840 02	
VE 2.90298110 04	PTE-2.12079900 00	AZE-9.02565680 01	

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 22 HRS., 8 MIN., 14.665 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC 1.3878843D 06 YSC-5.3852536D 06 ZSC-3.3511809D 06
 DXSC-3.9297996D 02 DYSC-1.4140279D 03 DZSC-7.3877945D 02
 RSC 6.4929878D 06 DEFC-3.1073083D 01 RASC-7.5548242D 01
 VSC 1.6430773D 03 PTSC 6.3473867D 01 AZSC-8.8177300D 01

SELENOGRAPHIC REFERENCE

XSG 1.5195073D 06 YSG 6.2153927D 06 ZSG-1.1034412D 06
 DXSG 1.0707968D 03 DYSG 1.2470978D 03 DZSG-1.5133152D 02
 HSG 4.7547983D 06 LTSG-9.7846869D 00 LNSG 7.6262083D 01
 VRSG 1.6505847D 03 PTSG 6.2949659D 01 AZSG-8.2347687D 01
 LTS-1.4246626D 00 LNS 1.0886082D 02 LTF-7.9285179D-01
 LNE 1.7748845D 00 DSMP 4.6434651D 00 RSMP 1.0711609D 02
 LIN 1.6749201D 02 LAN 2.5240723D 01 LAP-1.5304691D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.8264606D 05
 X 3.5714165D 08 Y 1.6617676D 08 Z 7.5801497D 07
 DX-8.2760466D 02 DY-6.5561476D 02 DZ-3.1653132D 02
 R 4.0113681D 08 DEC 1.0892487D 01 RA 2.4952392D 01
 V 1.1022487D 03 PTH-7.5731934D 01 AZ-1.1545786D 02
 ALT 3.9475941D 08 LTGD 1.0893619D 01 LON 2.7874938D 02
 VE 2.8989556D 04 PTE-2.1117981D 00 AZE-9.0230902D 01

TIME 4 FEB. 1968 22 HRS., 11 MIN., 59.665 SEC., GMT

SELENOCENTRIC REFERENCE

XSC 1.2988766D 06 YSC-5.7010415D 06 ZSC-3.5159369D 06
 DXSC-3.9802016D 02 DYSC-1.3932929D 03 DZSC-7.2593357D 02
 RSC 6.8228122D 06 DEFC-3.1018897D 01 RASC-7.7165293D 01
 VSC 1.6206988D 03 PTSC 6.4476409D 01 AZSC-8.7343352D 01

SELENOGRAPHIC REFERENCE

XSG 1.7599144D 06 YSG 6.4931254D 06 ZSG-1.1370094D 06
 DXSG 1.0661580D 03 DYSG 1.2220514D 03 DZSG-1.4713884D 02
 HSG 5.0847227D 06 LTSG-9.5929949D 00 LNSG 7.4834751D 01
 VRSG 1.6284202D 03 PTSG 6.3913221D 01 AZSG-8.2137189D 01
 LTS-1.4246518D 00 LNS 1.0882912D 02 LTF-7.9641385D-01
 LNE 1.7714256D 04 DSMP 4.6433780D 00 RSMP 1.0708766D 02
 LIN 1.6749203D 02 LAN 2.5206235D 01 LAP-1.5304649D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.8287106D 05
 X 3.5695480D 08 Y 1.6603158D 08 Z 7.5731735D 07
 DX-8.3313991D 02 DY-6.3512193D 02 DZ-3.0379712D 02
 R 4.0089713D 08 DEC 1.0888926D 01 RA 2.4944708D 01
 V 1.0907771D 03 PTH-7.6866103D 01 AZ-1.1507049D 02
 ALT 3.9451973D 08 LTGD 1.0890058D 01 LON 2.7780163D 02
 VF 2.8951719D 04 PTE-2.1026693D 00 AZE-9.0207938D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 22 HRS., 15 MIN., 44.665 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC 1.2088477D 06 YSC-6.0123687D 06 ZSC-3.6779411D 06
 DXSC-4.0209258D 02 DYSC-1.3743375D 03 DZSC-7.1429013D 02
 RSC 7.1510237D 06 DESC-3.0952260D 01 RASC-7.8631670D 01
 VSC 1.6002163D 03 PTSC 6.5394162D 01 AZSC-8.6588458D 01

SELENOGRAPHIC REFERENCE

XSG 1.9992789D 06 YSG 6.7654901D 06 ZSG-1.1696873D 06
 DXSG 1.0615404D 03 DYSG 1.1993246D 03 DZSG-1.4340397D 02
 HSG 5.4129343D 06 LTSG-9.4141264D 00 LNSG 7.3536990D 01
 VRSG 1.6080461D 03 PTSG 6.4791883D 01 AZSG-8.1953666D 01
 LTS-1.4246410D 00 LNS 1.0879742D 02 LTE-7.9997558D-01
 LNE 1.7679660D 00 DSMP 4.6432908D 00 RSMP 1.0705922D 02
 LIN 1.6749205D 02 LAN 2.5171704D 01 LAP-1.5304601D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.8309606D 05

X 3.5676681D 08 Y 1.6589082D 08 Z 7.5664698D 07
 DX-8.3770723D 02 DY-6.1640891D 02 DZ-2.9226549D 02
 R 4.0065879D 08 DEC 1.0885720D 01 RA 2.4937667D 01
 V 1.0803390D 03 PTH-7.7903800D 01 AZ-1.1466435D 02
 ALT 3.9428139D 08 LTGD 1.0886853D 01 LON 2.7685452D 02
 VE 2.8915964D 04 PTE-2.0935879D 00 AZE-9.0187272D 01

TIME 4 FEB. 1968 22 HRS., 19 MIN., 29.665 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC 1.1179930D 06 YSC-6.3196103D 06 ZSC-3.8374454D 06
 DXSC-4.0538852D 02 DYSC-1.3569428D 03 DZSC-7.0368781D 02
 RSC 7.4775243D 06 DESC-3.0877035D 01 RASC-7.9967683D 01
 VSC 1.5813950D 03 PTSC 6.6238054D 01 AZSC-8.5902117D 01

SELENOGRAPHIC REFERENCE

XSG 2.2376126D 06 YSG 7.0329716D 06 ZSG-1.2015698D 06
 DXSG 1.0570039D 03 DYSG 1.1785968D 03 DZSG-1.4005740D 02
 HSG 5.7394348D 06 LTSG-9.2469977D 00 LNSG 7.2350990D 01
 VRSG 1.5893281D 03 PTSG 6.5596602D 01 AZSG-8.1793126D 01
 LTS-1.4246302D 00 LNS 1.0876573D 02 LTE-8.0353700D-01
 LNE 1.7645055D 00 DSMP 4.6432036D 00 RSMP 1.0703079D 02
 LIN 1.6749209D 02 LAN 2.5137130D 01 LAP-1.5304547D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.8332106D 05

X 3.5657789D 08 Y 1.6575408D 08 Z 7.5600137D 07
 DX-8.4149791D 02 DY-5.9925684D 02 DZ-2.8177510D 02
 R 4.0042176D 08 DEC 1.0882835D 01 RA 2.4931208D 01
 V 1.0708056D 03 PTH-7.8857315D 01 AZ-1.1423536D 02
 ALT 3.9404436D 08 LTGD 1.0883968D 01 LON 2.7590800D 02
 VE 2.8882015D 04 PTE-2.0846696D 00 AZE-9.0168577D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 22 HRS., 23 MIN., 14.665 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC 1.0264699D 06 YSC-6.6230961D 06 ZSC-3.9946686D 06
 DXSC-4.0805651D 02 DYSC-1.3409233D 03 DZSC-6.9399239D 02
 RSC 7.8023342D 06 DESC-3.0796057D 01 RASC-8.1190192D 01
 VSC 1.5640367D 03 PTSC 6.7017171D 01 AZSC-8.5275540D 01
 SELENOGRAPHIC REFERENCE
 XSG 2.4749385D 06 YSG 7.2959890D 06 ZSG-1.2327377D 06
 DXSG 1.0525874D 03 DYSG 1.1596028D 03 DZSG-1.3704272D 02
 HSG 6.0642447D 06 LTSG-9.0905964D 00 LNSG 7.1262081D 01
 VRSG 1.5720686D 03 PTSG 6.6336488D 01 AZSG-8.1552330D 01
 LTS-1.4245194D 00 LNS 1.0873403D 02 LTF-8.0709810D-01
 LNE 1.7610442D 00 DSMP 4.6431163D 00 RSMP 1.0700235D 02
 LIN 1.6749214D 02 LAN 2.5102514D 01 LAP-1.5304488D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.8354606D 05
 X 3.5638818D 08 Y 1.6562105D 08 Z 7.5537832D 07
 DX-8.4466051D 02 DY-5.8348023D 02 DZ-2.7219174D 02
 R 4.0018600D 08 DEC 1.0880241D 01 RA 2.4925278D 01
 V 1.0620682D 03 PTH-7.9736880D 01 AZ-1.1377896D 02
 ALT 3.9380860D 08 LTGD 1.0881374D 01 LON 2.7495200D 02
 VE 2.8849643D 04 PTE-2.0759902D 00 AZE-9.0151583D 01

TIME 4 FEB. 1968 22 HRS., 26 MIN., 59.665 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC 9.3440590D 05 YSC-6.9231171D 06 ZSC-4.1498016D 06
 DXSC-4.1021306D 02 DYSC-1.3261212D 03 DZSC-6.8509145D 02
 RSC 8.1254856D 06 DESC-3.0711418D 01 RASC-8.2313294D 01
 VSC 1.5479737D 03 PTSC 6.7739134D 01 AZSC-8.4701330D 01
 SELENOGRAPHIC REFERENCE
 XSG 2.7112866D 06 YSG 7.5549067D 06 ZSG-1.2632603D 06
 DXSG 1.0483153D 03 DYSG 1.1421218D 03 DZSG-1.3431371D 02
 HSG 6.3873961D 06 LTSG-8.9439916D 00 LNSG 7.0258072D 01
 VRSG 1.5561001D 03 PTSG 6.7019180D 01 AZSG-8.1528624D 01
 LTS-1.4246086D 00 LNS 1.0870233D 02 LTF-8.1065888D-01
 LNE 1.7575821D 00 DSMP 4.6430290D 00 RSMP 1.0697392D 02
 LIN 1.6749220D 02 LAN 2.5067855D 01 LAP-1.5304423D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.8377106D 05
 X 3.5619783D 08 Y 1.6549143D 08 Z 7.5477591D 07
 DX-8.4731150D 02 DY-5.8892114D 02 DZ-2.6340299D 02
 R 3.9995146D 08 DEC 1.0877912D 01 RA 2.4919833D 01
 V 1.0540347D 03 PTH-8.0551076D 01 AZ-1.1328997D 02
 ALT 3.9357406D 08 LTGD 1.0879045D 01 LON 2.7401649D 02
 VE 2.8818654D 04 PTE-2.0675973D 00 AZE-9.0136066D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 22 HRS., 30 MIN., 44.665 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC 8.41905400 05 YSC-7.21993170 06 ZSC-4.30301220 06
 DXSC-4.11950380 02 DYSC-1.31240120 03 DZSC-6.76890250 02
 RSC 8.44701910 06 DESC-3.06246640 01 RASC-8.33488580 01
 VSC 1.53306250 03 PTSC 6.84103840 01 AZSC-8.41732320 01
 SELENOGRAPHIC REFERENCE
 XSG 2.94669110 06 YSG 7.81004380 06 ZSG-1.29319760 06
 DXSG 1.04420210 03 DYSG 1.12596870 03 DZSG-1.31832200 02
 HSG 6.70892960 06 LTSG-8.80633670 00 LNSG 6.93287520 01
 VRSG 1.54127970 03 PTSG 6.76511350 01 AZSG-8.14198120 01
 LTS-1.42459780 00 LNS 1.08670630 02 LTE-8.14219330-01
 LNF 1.75411920 00 DSMP 4.64294170 00 RSMP 1.06945490 02
 LIN 1.67492270 02 LAN 2.50331520 01 LAP-1.53043510 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.83996060 05
 X 3.56006930 08 Y 1.65364950 08 Z 7.54192480 07
 DX-8.49543100 02 DY-5.55444500 02 DZ-2.55314100 02
 R 3.99718100 08 DEC 1.08758240 01 RA 2.49148320 01
 V 1.04662670 03 PTH-8.13071550 01 AZ-1.12762410 02
 ALT 3.93340700 08 LTGD 1.08769580 01 LON 2.73071420 02
 VE 2.87888880 04 PTF-2.05951920 00 AZE-9.01218400 01

TIME 4 FEB. 1968 22 HRS., 34 MIN., 29.665 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC 7.49054110 05 YSC-7.51377010 06 ZSC-4.45444860 06
 DXSC-4.13342080 02 DYSC-1.29964740 03 DZSC-6.69308390 02
 RSC 8.76697980 06 DESC-3.05369440 01 RASC-8.43069400 01
 VSC 1.51918030 03 PTSC 6.90364030 01 AZSC-8.36859290 01
 SELENOGRAPHIC REFERENCE
 XSG 3.18118870 06 YSG 8.06168090 06 ZSG-1.32260130 06
 DXSG 1.04025520 03 DYSG 1.11098710 03 DZSG-1.29566420 02
 HSG 7.02889030 06 LTSG-8.67686530 00 LNSG 6.84655000 01
 VRSG 1.52748510 03 PTSG 6.82378460 01 AZSG-8.13240660 01
 LTS-1.42458690 00 LNS 1.08638930 02 LTE-8.17779470-01
 LNE 1.75065560 00 DSMP 4.64285430 00 RSMP 1.06917060 02
 LIN 1.67492360 02 LAN 2.49984050 01 LAP-1.53042730 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.84221060 05
 X 3.55815560 08 Y 1.65241400 08 Z 7.53626540 07
 DX-8.51428940 02 DY-5.42934220 02 DZ-2.47844680 02
 R 3.99485870 08 DEC 1.08739580 01 RA 2.49102410 01
 V 1.03977680 03 PTH-8.20112810 01 AZ-1.12189240 02
 ALT 3.93108470 08 LTGD 1.08750920 01 LON 2.72126760 02
 VE 2.87602050 04 PTE-2.05177070 00 AZE-9.01087480 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 22 HRS., 38 MIN., 14.665 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC 6.5592291D 05 YSC-7.8048380D 06 ZSC-4.6042422D 06
 DXSC-4.1444740D 02 DYSC-1.2877596D 03 DZSC-6.6227730D 02
 RSC 9.0854156D 06 DESC-3.0449109D 01 RASC-8.5196115D 01
 VSC 1.5062213D 03 PTSC 6.9621889D 01 AZSC-8.3234873D 01

SELENOGRAPHIC REFERENCE

XSG 3.4148173D 06 YSG 8.3100662D 06 ZSG-1.3515172D 06
 DXSG 1.0364774D 03 DYSG 1.0970441D 03 DZSG-1.2748973D 02
 HSG 7.3473261D 06 LTSG-8.5548866D 00 LNSG 6.7660990D 01
 VRSG 1.5146104D 03 PTSG 6.8784024D 01 AZSG-8.1239851D 01
 LTS-1.4245761D 00 LNS 1.0860723D 02 LTE-8.2133928D-01
 LNE 1.7471911D 00 DSMP 4.6427669D 00 RSMP 1.0688863D 02
 LIN 1.6749246D 02 LAN 2.4963612D 01 LAP-1.5304189D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.8444606D 05

GEOCENTRIC REFERENCE

X 3.5562380D 08 Y 1.6512057D 08 Z 7.5307677D 07
 DX-8.5302825D 02 DY-5.3129012D 02 DZ-2.4092616D 02
 R 3.9925473D 08 DEC 1.0872296D 01 RA 2.4906029D 01
 V 1.0334272D 03 PTH-8.2668724D 01 AZ-1.1156206D 02
 ALT 3.9287732D 08 LTGD 1.0873431D 01 LON 2.7118248D 02
 VE 2.8732489D 04 PTE-2.0443575D 00 AZE-9.0096659D 01

TIME 4 FEB. 1968 22 HRS., 41 MIN., 59.665 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC 5.6257064D 05 YSC-8.0933203D 06 ZSC-4.7525102D 06
 DXSC-4.1531436D 02 DYSC-1.2766508D 03 DZSC-6.5573813D 02
 RSC 9.4023759D 06 DESC-3.0361788D 01 RASC-8.6023734D 01
 VSC 1.4940936D 03 PTSC 7.0170892D 01 AZSC-8.2816161D 01

SELENOGRAPHIC REFERENCE

XSG 3.6476149D 06 YSG 8.5554204D 06 ZSG-1.3799850D 06
 DXSG 1.0328683D 03 DYSG 1.0840260D 03 DZSG-1.2557964D 02
 HSG 7.6642864D 06 LTSG-8.4397783D 00 LNSG 6.6908956D 01
 VRSG 1.5025643D 03 PTSG 6.9293725D 01 AZSG-8.1165858D 01
 LTS-1.4245653D 00 LNS 1.0857553D 02 LTE-8.2489876D-01
 LNE 1.7437258D 00 DSMP 4.6426795D 00 RSMP 1.0586020D 02
 LIN 1.6749257D 02 LAN 2.4928774D 01 LAP-1.5304098D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.8467106D 05

GEOCENTRIC REFERENCE

X 3.5543172D 08 Y 1.6500226D 08 Z 7.5254200D 07
 DX-8.5438905D 02 DY-5.2042529D 02 DZ-2.3449968D 02
 R 3.9902462D 08 DEC 1.0870823D 01 RA 2.4902168D 01
 V 1.0275277D 03 PTH-8.3284009D 01 AZ-1.1087065D 02
 ALT 3.9264721D 08 LTGD 1.0871959D 01 LON 2.7023856D 02
 VE 2.8705638D 04 PTE-2.0372787D 00 AZE-9.0085458D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 22 HRS., 45 MIN., 44.665 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC 4.69046370 05 YSC-8.37938360 06 ZSC-4.89935750 06
 DXSC-4.15982130 02 DYSC-1.26624540 03 DZSC-6.49640100 02
 RSC 9.71791010 06 DESC-3.02754410 01 RASC-8.67961360 01
 VSC 1.48271730 03 PTSC 7.06869250 01 AZSC-8.24264240 01
 SELENOGRAPHIC REFERENCE
 XSG 3.87961920 06 YSG 8.79794040 06 ZSG-1.40804000 06
 DXSG 1.02942500 03 DYSG 1.07183530 03 DZSG-1.23817050 02
 HSG 7.97982060 06 LTSG-8.33098070 00 LNSG 6.62040030 01
 VRSG 1.49126710 03 PTSG 6.97704700 01 AZSG-8.11010110 01
 LTS-1.42455450 00 LNS 1.08543840 02 LTE-8.28457930-01
 LNE 1.74025970 00 DSMP 4.64259210 00 RSMP 1.06831770 02
 LIN 1.67492690 02 LAN 2.48938880 01 LAP-1.53040000 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.84896060 05
 X 3.55239340 08 Y 1.64886320 08 Z 7.52021190 07
 DX-8.55550500 02 DY-5.10264050 02 DZ-2.28514480 02
 R 3.98795500 08 DEC 1.08695250 01 RA 2.48986330 01
 V 1.02203470 03 PTH-8.38610340 01 AZ-1.10102520 02
 ALT 3.92418090 08 LTGD 1.08706610 01 LON 2.69294950 02
 VE 2.86795660 04 PTE-2.03052920 00 AZE-9.00750500 01

TIME 4 FEB. 1968 22 HRS., 49 MIN., 29.665 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC 3.75391190 05 YSC-8.66317850 06 ZSC-5.04487810 06
 DXSC-4.16482870 02 DYSC-1.25647710 03 DZSC-6.43939220 02
 RSC 1.00320670 07 DESC-3.01904040 01 RASC-8.75188180 01
 VSC 1.47202250 03 PTSC 7.11730480 01 AZSC-8.20627380 01
 SELENOGRAPHIC REFERENCE
 XSG 4.11086690 06 YSG 9.03780240 06 ZSG-1.43571370 06
 DXSG 1.02614330 03 DYSG 1.06038760 03 DZSG-1.22185640 02
 HSG 8.29397780 06 LTSG-8.22798970 00 LNSG 6.55414640 01
 VRSG 1.48064900 03 PTSG 7.02173260 01 AZSG-8.10443340 01
 LTS-1.42454370 00 LNS 1.08512140 02 LTE-8.32016760-01
 LNE 1.73679280 00 DSMP 4.64250460 00 RSMP 1.06803340 02
 LIN 1.67492830 02 LAN 2.48589530 01 LAP-1.53038940 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.85121060 05
 X 3.55046730 08 Y 1.64772600 08 Z 7.51513390 07
 DX-8.56544770 02 DY-5.00740190 02 DZ-2.22926540 02
 R 3.98567330 08 DEC 1.08683900 01 RA 2.48954040 01
 V 1.01691000 03 PTH-8.44031600 01 AZ-1.09242030 02
 ALT 3.92189920 08 LTGD 1.08695270 01 LON 2.68351660 02
 VE 2.86541980 04 PTE-2.02410090 00 AZE-9.00653510 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 22 HRS., 53 MIN., 14.665 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC 2.81639600 05 YSC-8.94484170 06 ZSC-5.18915700 06
 DXSC-4.15843140 02 DYSC-1.24728780 03 DZSC-6.38597140 02
 RSC 1.03448950 07 DESC-3.01069180 01 RASC-8.81965610 01
 VSC 1.46194780 03 PTSC 7.16319440 01 AZSC-8.17225600 01
 SELENOGRAPHIC REFERENCE
 XSG 4.34139400 06 YSG 9.27516540 06 ZSG-1.46303370 06
 DXSG 1.02301820 03 DYSG 1.04960950 03 DZSG-1.20671370 02
 HSG 8.60690600 06 LTSG-8.13035130 00 INSG 6.49172780 01
 VRSG 1.47064380 03 PTSG 7.06369810 01 AZSG-8.09950190 01
 LTS-1.42453280 00 LNS 1.08480440 02 LTE-8.35575270-01
 LNE 1.73332510 00 DSMP 4.54241710 00 RSMP 1.06774920 02
 LIN 1.67492990 02 LAN 2.48239700 01 LAP-1.53037820 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.85346060 05
 X 3.54953910 08 Y 1.64660950 08 Z 7.51017750 07
 DX-9.57398420 02 DY-4.91795590 02 DZ-2.17697540 02
 R 3.99340060 08 DEC 1.08674070 01 RA 2.48924590 01
 V 1.01212010 03 PTH-8.49132870 01 AZ-1.08269490 02
 ALT 3.91962650 08 LTGD 1.08685450 01 LON 2.67408650 02
 VE 2.96294660 04 PTE-2.01798380 00 AZE-9.00562890 01

TIME 4 FEB. 1968 22 HRS., 56 MIN., 59.665 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC 1.87820650 05 YSC-9.22449750 06 ZSC-5.33227120 06
 DXSC-4.17084980 02 DYSC-1.23862630 03 DZSC-6.33580320 02
 RSC 1.05564420 07 DESC-3.00251480 01 RASC-8.88335530 01
 VSC 1.45243900 03 PTSC 7.20659740 01 AZSC-8.14036640 01
 SELENOGRAPHIC REFERENCE
 XSG 4.57123500 06 YSG 9.51017250 06 ZSG-1.49002520 06
 DXSG 1.02014370 03 DYSG 1.03943720 03 DZSG-1.19262130 02
 HSG 8.91835210 06 LTSG-8.03765590 00 LNSG 6.43278950 01
 VRSG 1.46121260 03 PTSG 7.10317970 01 AZSG-8.09523600 01
 LTS-1.42452200 00 LNS 1.08448740 02 LTE-8.39133450-01
 LNE 1.72985660 00 DSMP 4.64232950 00 RSMP 1.06746490 02
 LIN 1.67493160 02 LAN 2.47889370 01 LAP-1.53036620 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.85571060 05
 X 3.54660910 08 Y 1.64551250 08 Z 7.50533500 07
 DX-8.58133480 02 DY-4.83378980 02 DZ-2.12793930 02
 R 3.98113650 08 DEC 1.08665660 01 RA 2.48897820 01
 V 1.00763560 03 PTH-8.53939030 01 AZ-1.07159580 02
 ALT 3.91736250 08 LTGD 1.08677040 01 LON 2.66465900 02
 VE 2.86053130 04 PTE-2.01216690 00 AZE-9.00478030 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 23 HRS., 0 MIN., 44.665 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC 9.39588590 04 YSC-9.50225970 06 ZSC-5.47429030 06
 DXSC-4.17226770 02 DYSC-1.23044730 03 DZSC-6.28859300 02
 RSC 1.09667510 07 DEFC-2.99452060 01 PASC-8.94334700 01
 VSC 1.44344820 03 PTSC 7.24772240 01 AZSC-8.11040960 01

SELENOGRAPHIC REFERENCE

XSG 4.80042320 06 YSG 9.74295370 06 ZSG-1.51671060 06
 DXSG 1.01721400 03 DYSG 1.02981460 03 DZSG-1.17947410 02
 HSG 9.22866120 06 LTSG-7.74953330 00 LNSG 6.37701980 01
 VRSG 1.45229270 03 PTSG 7.14038660 01 AZSG-8.09157390 01
 LTS-1.42451110 00 LNS 1.08417040 02 LTF-8.42691310-01
 LNF 1.72638740 00 DSMP 4.64224190 00 RSMP 1.06718070 02
 LIN 1.67493340 02 LAN 2.47538530 01 LAP-1.53035350 02

GEOCENTRIC REFERENCE

X 3.54467760 08 Y 1.64443390 08 Z 7.50059950 07
 DX-8.58768340 02 DY-4.75445010 02 DZ-2.08186230 02
 R 3.97888070 08 DEC 1.08658580 01 RA 2.48873550 01
 V 1.00343040 03 PTH-8.58471200 01 AZ-1.05879330 02
 ALT 3.91510670 08 LTGD 1.08669970 01 LON 2.65523410 02
 VE 2.85816890 04 PTE-2.00563840 00 AZE-9.00398370 01

TIME 4 FEB. 1968 23 HRS., 4 MIN., 29.665 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC 7.49480720 01 YSC-9.77823200 06 ZSC-5.61527810 06
 DXSC-4.17283920 02 DYSC-1.22271040 03 DZSC-6.24408060 02
 RSC 1.12758670 07 DEFC-2.98671610 01 RASC-8.99995560 01
 VSC 1.43493270 03 PTSC 7.28675460 01 AZSC-8.08221330 01

SELENOGRAPHIC REFERENCE

XSG 5.02899030 06 YSG 9.97362700 06 ZSG-1.54311000 06
 DXSG 1.01452270 03 DYSG 1.02069240 03 DZSG-1.15718030 02
 HSG 9.53777710 06 LTSG-7.86564870 00 LNSG 6.32414380 01
 VRSG 1.44384640 03 PTSG 7.17550420 01 AZSG-8.08846170 01
 LTS-1.42450030 00 LNS 1.08385340 02 LTF-8.45248830-01
 LNF 1.72291730 00 DSMP 4.64215430 00 RSMP 1.06689640 02
 LIN 1.67493550 02 LAN 2.47187170 01 LAP-1.53034000 02

GEOCENTRIC REFERENCE

X 3.54274470 08 Y 1.64337270 08 Z 7.49596460 07
 DX-8.59318410 02 DY-4.57953410 02 DZ-2.03848450 02
 R 3.97663280 08 DEC 1.08652750 01 RA 2.48851650 01
 V 9.99481220 02 PTH-8.62746940 01 AZ-1.04384980 02
 ALT 3.91285880 08 LTGD 1.08664140 01 LON 2.64581150 02
 VE 2.85585490 04 PTE-2.00138640 00 AZE-9.00323420 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 23 HRS., 8 MIN., 14.665 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-9.38135340 04 YSC-1.00525100 07 ZSC-5.75529250 06
 DXSC-4.17269380 02 DYSC-1.21537970 03 DZSC-6.20203600 02
 RSC 1.15838310 07 DESC-2.97910500 01 RASC-9.05346840 01
 VSC 1.42685460 03 PTSC 7.32385900 01 AZSC-8.05562500 01
 SELENOGRAPHIC REFERENCE
 XSG 5.25696690 06 YSG 1.02023000 07 ZSG-1.56924170 06
 DXSG 1.01196390 03 DYSG 1.01202700 03 DZSG-1.15565960 02
 HSG 9.84574170 06 LTSG-7.78569870 00 LNSG 6.27391800 01
 VRSG 1.43583600 03 PTSG 7.20869770 01 AZSG-8.08585190 01
 LTS-1.42448950 00 LNS 1.08353650 02 LTE-8.49806020-01
 LNE 1.71944650 00 DSMP 4.64206670 00 RSMP 1.06661220 02
 LIN 1.67493770 02 LAN 2.46835270 01 LAP-1.53032570 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.86246050 05
 X 3.54081070 08 Y 1.64232780 08 Z 7.49142450 07
 DX-8.59796640 02 DY-4.60868300 02 DZ-1.99757570 02
 R 3.97439250 08 DEC 1.08648100 01 RA 2.48831980 01
 V 9.95767510 02 PTH-8.66780180 01 AZ-1.02617430 02
 ALT 3.91061840 08 LTGD 1.08659500 01 LON 2.63639120 02
 VE 2.85358520 04 PTE-1.99539900 00 AZE-9.00252780 01

TIME 4 FEB. 1968 23 HRS., 11 MIN., 59.665 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-1.87691720 05 YSC-1.03251810 07 ZSC-5.89438670 06
 DXSC-4.17194100 02 DYSC-1.20842320 03 DZSC-6.16225450 02
 RSC 1.18906850 07 DESC-2.97168850 01 RASC-9.10414060 01
 VSC 1.41917980 03 PTSC 7.35918310 01 AZSC-8.03050960 01
 SELENOGRAPHIC REFERENCE
 XSG 5.48438210 06 YSG 1.04290710 07 ZSG-1.59512230 06
 DXSG 1.00953130 03 DYSG 1.00377990 03 DZSG-1.14484150 02
 HSG 1.01525950 07 LTSG-7.70940760 00 LNSG 6.22612610 01
 VRSG 1.42822760 03 PTSG 7.24011480 01 AZSG-8.08370240 01
 LTS-1.42447860 00 LNS 1.08321950 02 LTE-8.53362890-01
 LNE 1.71597480 00 DSMP 4.64197900 00 RSMP 1.06632800 02
 LIN 1.67494010 02 LAN 2.46482840 01 LAP-1.53031060 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.86471060 05
 X 3.53887570 08 Y 1.64129850 08 Z 7.48697380 07
 DX-8.60213970 02 DY-4.54157610 02 DZ-1.95893130 02
 R 3.97215930 08 DEC 1.08644560 01 RA 2.48814420 01
 V 9.92270790 02 PTH-8.70580900 01 AZ-1.00495250 02
 ALT 3.90838520 08 LTGD 1.08655960 01 LON 2.62697300 02
 VE 2.85135620 04 PTE-1.99166430 00 AZE-9.00186070 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 23 HRS., 15 MIN., 44.665 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-2.81547020 05 YSC-1.05963260 07 ZSC-6.03260950 06
 DXSC-4.17067360 02 DYSC-1.20181220 03 DZSC-6.12455380 02
 RSC 1.21964660 07 DESC-2.96446600 01 PASC-9.15220000 01
 VSC 1.41187790 03 PTSC 7.39285920 01 AZSC-8.00674640 01

SELENOGRAPHIC REFERENCE

XSG 5.71126360 06 YSG 1.06540300 07 ZSG-1.62076700 06
 DXSG 1.00721930 03 DYSG 9.95916570 02 DZSG-1.13466350 02
 HSG 1.04583760 07 LTSG-7.63652480 00 LNSG 6.18057500 01
 VRSG 1.42099090 03 PTSG 7.26988790 01 AZSG-8.08197590 01
 LTS-1.42446770 00 LNS 1.08290250 02 LTE-8.55919420-01
 LNF 1.71250240 00 DSMP 4.64189130 00 RSMP 1.06604380 02
 LIN 1.67494270 02 LAN 2.46129860 01 LAP-1.53029480 02

GEOCENTRIC REFERENCE

X 3.53693980 09 Y 1.64028390 08 Z 7.48260780 07
 DX-8.60579680 02 DY-4.47792580 02 DZ-1.92236900 02
 R 3.96993300 08 DEC 1.08642060 01 RA 2.48798850 01
 V 9.88974520 02 PTH-8.74154370 01 AZ-9.79039010 01
 ALT 3.90615900 08 LTGD 1.08653470 01 LON 2.61755670 02
 VE 2.84916500 04 PTE-1.98717100 00 AZE-9.00122950 01

FLIGHT TIME 2.86696060 05

TIME 4 FEB. 1968 23 HRS., 19 MIN., 29.665 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-3.75368770 05 YSC-1.08660200 07 ZSC-6.17000600 06
 DXSC-4.16897030 02 DYSC-1.19552080 03 DZSC-6.08877060 02
 RSC 1.25012110 07 DESC-2.95743550 01 RASC-9.19785020 01
 VSC 1.40492150 03 PTSC 7.42500640 01 AZSC-7.98422780 01

SELENOGRAPHIC REFERENCE

XSG 5.93763780 06 YSG 1.08772600 07 ZSG-1.64618940 06
 DXSG 1.00502200 03 DYSG 9.88406410 02 DZSG-1.12507050 02
 HSG 1.07631210 07 LTSG-7.56682190 00 LNSG 6.13709190 01
 VRSG 1.41409840 03 PTSG 7.29813620 01 AZSG-8.08063930 01
 LTS-1.42445690 00 LNS 1.08258550 02 LTE-8.60475520-01
 LNF 1.70902920 00 DSMP 4.64180350 00 RSMP 1.06575960 02
 LIN 1.67494550 02 LAN 2.45776320 01 LAP-1.53027810 02

GEOCENTRIC REFERENCE

X 3.53500310 08 Y 1.63928320 08 Z 7.47832170 07
 DX-8.60901670 02 DY-4.41747360 02 DZ-1.88772540 02
 R 3.95771330 08 DEC 1.08640560 01 RA 2.48785170 01
 V 9.85863820 02 PTH-8.77499650 01 AZ-9.46790870 01
 ALT 3.90393930 08 LTGD 1.08651970 01 LON 2.60814240 02
 VE 2.84700840 04 PTE-1.98290790 00 AZE-9.00063140 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 23 HRS., 23 MIN., 14.665 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-4.6914793D 05 YSC-1.1134333D 07 ZSC-6.3066175D 06
 DXSC-4.1668986D 02 DYSC-1.1895256D 03 DZSC-6.0547586D 02
 RSC 1.2804956D 07 DESC-2.9505940D 01 RASC-9.2412740D 01
 VSC 1.3982856D 03 PTSC 7.4557322D 01 AZSC-7.9628574D 01
 SELENOGRAPHIC REFERENCE
 XSG 6.1635301D 06 YSG 1.1098838D 07 ZSG-1.6714022D 06
 DXSG 1.0029340D 03 DYSG 9.8122193D 02 DZSG-1.1160134D 02
 HSG 1.1066866D 07 LTSG-7.5000902D 00 LNSG 6.0955219D 01
 VRSG 1.4075254D 03 PTSG 7.3249673D 01 AZSG-8.0796627D 01
 LTS-1.4244460D 00 LNS 1.0822685D 02 LTE-8.6403148D-01
 LNE 1.7055552D 00 DSMP 4.6417157D 00 RSMP 1.0654754D 02
 LIN 1.6749486D 02 LAN 2.4542220D 01 LAP-1.5302606D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.8714606D 05
 X 3.5330657D 08 Y 1.6382958D 08 Z 7.4741117D 07
 DX-8.6118665D 02 DY-4.3599864D 02 DZ-1.8548543D 02
 R 3.9655000D 08 DEC 1.0863999D 01 RA 2.4877329D 01
 V 9.8292527D 02 PTH-8.8060693D 01 AZ-9.0581154D 01
 ALT 3.9017259D 08 LTGD 1.0865141D 01 LON 2.5987298D 02
 VE 2.8448841D 04 PTE-1.9788645D 00 AZE-9.0000635D 01

TIME 4 FEB. 1968 23 HRS., 38 MIN., 14.665 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-8.4370319D 05 YSC-1.2194984D 07 ZSC-6.8459404D 06
 DXSC-4.1559623D 02 DYSC-1.1681145D 03 DZSC-5.9339718D 02
 RSC 1.4010580D 07 DESC-2.9250342D 01 RASC-9.3057665D 01
 VSC 1.3745297D 03 PTSC 7.5662387D 01 AZSC-7.8872452D 01
 SELENOGRAPHIC REFERENCE
 XSG 7.0627426D 06 YSG 1.1969954D 07 ZSG-1.7703748D 06
 DXSG 9.9557489D 02 DYSG 9.5528705D 02 DZSG-1.0843344D 02
 HSG 1.2272491D 07 LTSG-7.2592916D 00 LNSG 5.9457724D 01
 VRSG 1.3840126D 03 PTSG 7.4199380D 01 AZSG-8.0788604D 01
 LTS-1.4244025D 00 LNS 1.0810006D 02 LTE-8.7825159D-01
 LNE 1.6916515D 00 DSMP 4.6413643D 00 RSMP 1.0643387D 02
 LIN 1.6749627D 02 LAN 2.4399986D 01 LAP-1.5301821D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.8804606D 05
 X 3.5253109D 08 Y 1.6344666D 08 Z 7.4579579D 07
 DX-8.6206008D 02 DY-4.1557563D 02 DZ-1.7386436D 02
 R 3.9567043D 08 DEC 1.0864625D 01 RA 2.4874209D 01
 V 9.7266618D 02 PTH-8.8979079D 01 AZ-5.6299051D 01
 ALT 3.8929302D 08 LTGD 1.0865769D 01 LON 2.5610960D 02
 VE 2.8366661D 04 PTE-1.9646912D 00 AZE-8.9980522D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - FIRST OPPORTUNITY
(CONTINUED)

TIME 4 FEB. 1968 23 HRS., 53 MIN., 14.665 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-1.21714710 06 YSC-1.32379440 07 ZSC-7.37532400 06
DXSC-4.14252130 02 DYSC-1.15006510 03 DZSC-5.83297360 02
RSC 1.52026320 07 DESC-2.90212950 01 RASC-9.52532180 01
VSC 1.35443360 03 PTSC 7.66039060 01 AZSC-7.82438900 01

SELENOGRAPHIC REFERENCE

XSG 7.95597100 06 YSG 1.28194270 07 ZSG-1.86677110 06
DXSG 9.89592350 02 DYSG 9.32955650 02 DZSG-1.05843400 02
HSG 1.34645420 07 LTSG-7.05330010 00 LNSG 5.81755020 01
VRSG 1.36414890 03 PTSG 7.49862300 01 AZSG-8.03208480 01
LTS-1.42435900 00 LNS 1.07973270 02 LTE-8.92466300-01
LNF 1.67773550 00 DSMP 4.64101230 00 RSMP 1.06320220 02
LIN 1.67498070 02 LAN 2.42567590 01 LAP-1.53008940 02

GEOCENTRIC REFERENCE

X 3.51754940 08 Y 1.63080530 08 Z 7.44275690 07
DX-8.62680580 02 DY-3.98517810 02 DZ-1.64224180 02
R 3.94799010 08 DEC 1.03664340 01 RA 2.48733690 01
V 9.64367050 02 PTH-8.89355530 01 AZ 4.17591460 00
ALT 3.88421610 08 LTGD 1.09675810 01 LON 2.52348490 02
VE 2.82881270 04 PTE-1.95330380 00 AZE-8.99637460 01

FLIGHT TIME 2.88946060 05

TIME 5 FEB. 1968 0 HRS., 8 MIN., 14.665 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-1.58932640 06 YSC-1.42658810 07 ZSC-7.89633000 06
DXSC-4.12893900 02 DYSC-1.13462380 03 DZSC-5.74716440 02
RSC 1.63827150 07 DESC-2.88155520 01 RASC-9.63569620 01
VSC 1.33719000 03 PTSC 7.74170620 01 AZSC-7.77128540 01

SELENOGRAPHIC REFERENCE

XSG 8.84434360 06 YSG 1.36501010 07 ZSG-1.96104140 06
DXSG 9.84749430 02 DYSG 9.13388480 02 DZSG-1.03685580 02
HSG 1.46446260 07 LTSG-6.87489580 00 LNSG 5.70594850 01
VPSG 1.34713050 03 PTSG 7.56453950 01 AZSG-8.08839560 01
LTS-1.42431540 00 LNS 1.07846480 02 LTE-9.06675540-01
LNF 1.66380710 00 DSMP 4.64065980 00 RSMP 1.06206580 02
LIN 1.67500270 02 LAN 2.41124790 01 LAP-1.52998180 02

GEOCENTRIC REFERENCE

X 3.50978290 09 Y 1.62728540 08 Z 7.42835210 07
DX-8.63194480 02 DY-3.84071720 02 DZ-1.56104920 02
R 3.93934490 08 DEC 1.08692380 01 RA 2.48744540 01
V 9.57593100 02 PTH-8.82740100 01 AZ 3.05316720 01
ALT 3.87557080 08 LTGD 1.08703880 01 LON 2.48589310 02
VE 2.82124190 04 PTE-1.94423850 00 AZE-8.99495000 01

FLIGHT TIME 2.89846060 05

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH, AZIMUTH
OF 72 DEGREES - FIRST OPPORTUNITY
(CONTINUED)

TIME 5 FEB. 1968 0 HRS., 23 MIN., 14.665 SEC., GMT
SELENOCENTRIC REFERENCE
XSC-1.96018810 06 YSC-1.52808860 07 ZSC-8.41017050 06
DXSC-4.11334420 02 DYSC-1.12124920 03 DZSC-5.67328040 02
RSC 1.75521730 07 DESC-2.86300750 01 RASC-9.73098130 01
VSC 1.32221660 03 PTSC 7.81273550 01 AZSC-7.72581460 01
SELENOGRAPHIC REFERENCE
XSG 9.72879780 06 YSG 1.44641730 07 ZSG-2.05352680 06
DXSG 9.80856950 02 DYSG 8.95977190 02 DZSG-1.01859400 02
HSG 1.58140830 07 LTSG-6.71874060 00 LNSG 5.60746870 01
VRSG 1.33237790 03 PTSG 7.52023510 01 AZSG-8.09711300 01
LTS-1.42427170 00 LNS 1.07719690 02 LTE-9.20879270-01
LNE 1.64986560 00 DSMP 4.64030680 00 RSMP 1.06092950 02
LIN 1.67502920 02 LAN 2.39670820 01 LAP-1.52985850 02
GEOCENTRIC REFERENCE FLIGHT TIME 2.90746060 05
X 3.50201200 08 Y 1.52388590 08 Z 7.41462220 07
DX-8.63684650 02 DY-3.71695890 02 DZ-1.49180200 02
R 3.93075810 08 DEC 1.08728920 01 RA 2.48771930 01
V 9.52031380 02 PTH-8.75689920 01 AZ 4.03094720 01
ALT 3.85698410 08 LTGD 1.08740450 01 LON 2.44831780 02
VE 2.81389480 04 PTE-1.93712410 00 AZE-8.99372190 01

TIME 5 FEB. 1968 0 HRS., 38 MIN., 14.665 SEC., GMT
SELENOCENTRIC REFERENCE
XSC-2.32973630 06 YSC-1.62846290 07 ZSC-8.91780620 06
DXSC-4.09890950 02 DYSC-1.10954170 03 DZSC-5.60893930 02
RSC 1.87121370 07 DESC-2.84621880 01 RASC-9.81416850 01
VSC 1.30908190 03 PTSC 7.87537690 01 AZSC-7.68643780 01
SELENOGRAPHIC REFERENCE
XSG 1.05101180 07 YSG 1.52633750 07 ZSG-2.14449170 06
DXSG 9.77763530 02 DYSG 8.80283160 02 DZSG-1.00293160 02
HSG 1.69740480 07 LTSG-6.58080270 00 LNSG 5.51954500 01
VRSG 1.31946150 03 PTSG 7.66760500 01 AZSG-8.10772710 01
LTS-1.42422800 00 LNS 1.07592900 02 LTE-9.35077420-01
LNE 1.63591410 00 DSMP 4.63995320 00 RSMP 1.05979340 02
LIN 1.67506060 02 LAN 2.39205070 01 LAP-1.52971980 02
GEOCENTRIC REFERENCE FLIGHT TIME 2.91646060 05
X 3.49423650 08 Y 1.62058990 08 Z 7.40147100 07
DX-8.64198340 02 DY-3.60990830 02 DZ-1.43211780 02
R 3.92222110 08 DEC 1.08772840 01 RA 2.48813700 01
V 9.47450660 02 PTH-8.69160590 01 AZ 4.51227210 01
ALT 3.85844700 08 LTGD 1.08784400 01 LON 2.41075690 02
VE 2.80672780 04 PTE-1.93166340 00 AZE-8.99264960 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 0 HRS., 53 MIN., 14.665 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-2.69800770 06 YSC-1.72784700 07 ZSC-9.42001200 06
 DXSC-4.08500090 02 DYSC-1.09920010 03 DZSC-5.55236070 02
 RSC 1.98635590 07 DESC-2.83095910 01 RASC-9.88749790 01
 VSC 1.29745910 03 PTSC 7.93107580 01 AZSC-7.65201050 01

SELENOGRAPHIC REFERENCE

XSG 1.14889680 07 YSG 1.60491000 07 ZSG-2.23414520 06
 DXSG 9.75347370 02 DYSG 8.65979640 02 DZSG-9.89344580 01
 HSG 1.81254800 07 LTSG-6.45797970 00 LNSG 5.44024970 01
 VRSG 1.30805630 03 PTSG 7.70809130 01 AZSG-8.11984360 01
 LTS-1.42418430 00 LNS 1.07466110 02 LTE-9.49269950-01
 LNE 1.62194960 00 DSMP 4.63959910 00 RSMP 1.05865740 02
 LIN 1.67509720 02 LAN 2.36726930 01 LAP-1.52956190 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.92546060 05
 X 3.48645620 08 Y 1.61738390 08 Z 7.38882080 07
 DX-8.64762140 02 DY-3.51655100 02 DZ-1.38021620 02
 R 3.91372640 08 DEC 1.08923220 01 RA 2.48968120 01
 V 9.43676230 02 PTH-8.63255580 01 AZ 4.79590620 01
 ALT 3.84995240 08 LTGD 1.08834810 01 LON 2.37320870 02
 VE 2.79970780 04 PTE-1.92761710 00 AZE-8.99170270 01

TIME 5 FEB. 1968 1 HRS., 8 MIN., 14.665 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-3.06505670 06 YSC-1.82635290 07 ZSC-9.91742290 06
 DXSC-4.07176240 02 DYSC-1.08999230 03 DZSC-5.50218590 02
 RSC 2.10072920 07 DESC-2.81703260 01 RASC-9.95268170 01
 VSC 1.28709600 03 PTSC 7.98095400 01 AZSC-7.62166410 01

SELENOGRAPHIC REFERENCE

XSG 1.23659090 07 YSG 1.68224810 07 ZSG-2.32265580 06
 DXSG 9.73509640 02 DYSG 8.52318040 02 DZSG-9.77440480 01
 HSG 1.92692030 07 LTSG-6.34784360 00 LNSG 5.36810470 01
 VRSG 1.29791120 03 PTSG 7.74281280 01 AZSG-8.13314950 01
 LTS-1.42414040 00 LNS 1.07339320 02 LTE-9.63456800-01
 LNE 1.60797330 00 DSMP 4.63924450 00 RSMP 1.05752150 02
 LIN 1.67513930 02 LAN 2.35235780 01 LAP-1.52938720 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.93446060 05
 X 3.47867060 08 Y 1.61425670 08 Z 7.37660790 07
 DX-8.65390460 02 DY-3.43456790 02 DZ-1.33473840 02
 R 3.90526790 08 DEC 1.08879340 01 RA 2.48933790 01
 V 9.40573480 02 PTH-8.57930160 01 AZ 4.98263960 01
 ALT 3.84149390 08 LTGD 1.08890960 01 LON 2.33567170 02
 VE 2.79280930 04 PTE-1.92479090 00 AZE-8.99085850 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 1 HRS., 23 MIN., 14.665 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-3.4309472D 06 YSC-1.9240741D 07 ZSC-1.0410566D 07
 DXSC-4.0592651D 02 DYSC-1.0817368D 03 DZSC-5.4573595D 02
 RSC 2.2144015D 07 DESC-2.8042734D 01 RASC-1.0011053D 02
 VSC 1.2777944D 03 PTSC 8.0258969D 01 AZSC-7.5947270D 01
 SELENOGRAPHIC REFERENCE
 XSG 1.3241426D 07 YSG 1.7584458D 07 ZSG-2.4101608D 06
 DXSG 9.7216954D 02 DYSG 8.4060575D 02 DZSG-9.6692003D 01
 HSG 2.0405925D 07 LTSG-6.2484667D 00 LNSG 5.3019564D 01
 VRSG 1.2888293D 03 PTSG 7.7726518D 01 AZSG-8.1473914D 01
 LTS-1.4240965D 00 LNS 1.0721254D 02 LTF-9.7763792D-01
 LNE 1.5939852D 00 DSMP 4.6388894D 00 RSMP 1.0563858D 02
 LIN 1.6751874D 02 LAN 2.3373103D 01 LAP-1.5291940D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.9434606D 05
 X 3.4708790D 08 Y 1.6111988D 08 Z 7.3647794D 07
 DX-8.6609038D 02 DY-3.3621442D 02 DZ-1.2946292D 02
 R 3.8968401D 08 DEC 1.0894059D 01 RA 2.4900955D 01
 V 9.3903695D 02 PTH-8.5311759D 01 AZ 5.1149812D 01
 ALT 3.8330661D 08 LTGD 1.0895224D 01 LON 2.2981448D 02
 VF 2.7860121D 04 PTE-1.9230259D 00 AZE-8.9900993D 01

TIME 5 FEB. 1968 1 HRS., 38 MIN., 14.665 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-3.7957475D 06 YSC-2.0210897D 07 ZSC-1.0899883D 07
 DXSC-4.0475358D 02 DYSC-1.0742897D 03 DZSC-5.4170490D 02
 RSC 2.3274353D 07 DESC-2.7925403D 01 RASC-1.0063664D 02
 VSC 1.2693967D 03 PTSC 8.0666137D 01 AZSC-7.5706721D 01
 SELENOGRAPHIC REFERENCE
 XSG 1.4115936D 07 YSG 1.8335812D 07 ZSG-2.4967737D 06
 DXSG 9.7126041D 02 DYSG 8.2919109D 02 DZSG-9.5755093D 01
 HSG 2.1536264D 07 LTSG-6.1582980D 00 LNSG 5.2408904D 01
 VRSG 1.2806536D 03 PTSG 7.7983149D 01 AZSG-8.1623610D 01
 LTS-1.4240526D 00 LNS 1.0708575D 02 LTF-9.9181325D-01
 LNE 1.5799855D 00 DSMP 4.6395337D 00 RSMP 1.0552502D 02
 LIN 1.6752417D 02 LAN 2.3221208D 01 LAP-1.5289814D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.9524606D 05
 X 3.4630808D 08 Y 1.6082024D 08 Z 7.3532910D 07
 DX-8.6686458D 02 DY-3.2978385D 02 DZ-1.2590559D 02
 R 3.8884383D 08 DEC 1.0900647D 01 RA 2.4909442D 01
 V 9.3598280D 02 PTH-8.4875352D 01 AZ 5.2138015D 01
 ALT 3.8246643D 08 LTGD 1.0901815D 01 LON 2.2606270D 02
 VE 2.7793001D 04 PTE-1.9221911D 00 AZE-8.9894113D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 1 HRS., 53 MIN., 14.565 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-4.15952670 06 YSC-2.11746700 07 ZSC-1.13857500 07
 DXSC-4.03657460 02 DYSC-1.06753470 03 DZSC-5.38058910 02
 RSC 2.43998440 07 DESC-2.78171350 01 RASC-1.01113600 02
 VSC 1.26177530 03 PTSC 8.10367980 01 AZSC-7.54907980 01

SELENOGRAPHIC REFERENCE
 XSG 1.49897990 07 YSG 1.90772050 07 ZSG-2.58258980 06
 DXSG 9.70726850 02 DYSG 8.18452970 02 DZSG-9.49150100 01
 HSG 2.26607550 07 LTSG-6.07607460 00 LNSG 5.18417180 01
 VRSG 1.27325750 03 PTSG 7.82037480 01 AZSG-8.17788430 01
 LTS-1.42400860 00 LNS 1.06958960 02 LTE-1.00598270 00
 LNE 1.56597440 00 DSMP 4.63917750 00 RSMP 1.05411480 02
 LIN 1.67530270 02 LAN 2.30678330 01 LAP-1.52874830 02

GEOCENTRIC REFERENCE FLIGHT TIME 2.96146060 05
 X 3.45527520 08 Y 1.60526060 08 Z 7.34210480 07
 DX-8.67713070 02 DY-3.24049080 02 DZ-1.22735220 02
 R 3.88005850 08 DEC 1.09076560 01 RA 2.49187580 01
 V 9.34343470 02 PTH-8.44781280 01 AZ 5.29051100 01
 ALT 3.81628450 08 LTGD 1.09088270 01 LON 2.22311750 02
 VE 2.77266010 04 PTE-1.92217740 00 AZE-8.98878360 01

TIME 5 FEB. 1968 2 HRS., 8 MIN., 14.665 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-4.52235350 06 YSC-2.21326390 07 ZSC-1.18684880 07
 DXSC-4.02636620 02 DYSC-1.06137760 03 DZSC-5.34743740 02
 RSC 2.55179620 07 DESC-2.77169050 01 RASC-1.01548250 02
 VSC 1.25482650 03 PTSC 8.13756740 01 AZSC-7.52961170 01

SELENOGRAPHIC REFERENCE
 XSG 1.58633340 07 YSG 1.98092010 07 ZSG-2.66768920 06
 DXSG 9.70522440 02 DYSG 8.08293440 02 DZSG-9.41571350 01
 HSG 2.37798730 07 LTSG-6.00075790 00 LNSG 5.13120290 01
 VRSG 1.26653770 03 PTSG 7.83930140 01 AZSG-8.19381520 01
 LTS-1.42396450 00 LNS 1.06832180 02 LTE-1.02014630 00
 LNE 1.55195180 00 DSMP 4.63782070 00 RSMP 1.05297940 02
 LIN 1.67537050 02 LAN 2.29129180 01 LAP-1.52842560 02

GEOCENTRIC REFERENCE FLIGHT TIME 2.97046060 05
 X 3.44746170 08 Y 1.60236770 08 Z 7.33118860 07
 DX-8.68634310 02 DY-3.18915640 02 DZ-1.19897870 02
 R 3.87159700 08 DEC 1.09150490 01 RA 2.49288330 01
 V 9.33063900 02 PTH-8.41152270 01 AZ 5.35186550 01
 ALT 3.80792300 08 LTGD 1.09162240 01 LON 2.18561560 02
 VE 2.76608150 04 PTE-1.92289370 00 AZE-8.98820720 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 2 HRS., 23 MIN., 14.665 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-4.8842945) 06 YSC-2.3085306D 07 ZSC-1.2348375D 07
 DXSC-4.0168861D 02 DYSC-1.0557405D 03 DZSC-5.3171550D 02
 RSC 2.6632124D 07 DESC-2.7623834D 01 RASC-1.0194623D 02
 VSC 1.2484643D 03 PTSC 8.1686677D 01 AZSC-7.5119922D 01
 SELENOGRAPHIC REFERENCE
 XSG 1.6736818D 07 YSG 2.0532283D 07 ZSG-2.7521405D 06
 DXSG 9.7060804D 02 DYSG 7.9863241D 02 DZSG-9.3469650D 01
 HSG 2.4894034D 07 LTSG-5.9314849D 00 LNSG 5.0814922D 01
 VRSG 1.2604088D 03 PTSG 7.8554842D 01 AZSG-8.2100301D 01
 LTS-1.4239203D 00 LNS 1.0670539D 02 LTF-1.0343039D 00
 LNE 1.5379179D 00 DSMP 4.6374634D 00 RSMP 1.0518442D 02
 LIN 1.6754456D 02 LAN 2.2756406D 01 LAP-1.5282209D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.9794606D 05
 X 3.4396396D 08 Y 1.5995185D 08 Z 7.3205145D 07
 DX-8.6962584D 02 DY-3.1430578D 02 DZ-1.1734935D 02
 R 3.8633508D 08 DEC 1.0922797D 01 RA 2.4939607D 01
 V 9.3209876D 02 PTH-8.3782516D 01 AZ 5.4021178D 01
 ALT 3.7995768D 08 LTGD 1.0923975D 01 LON 2.1481206D 02
 VE 2.7595552D 04 PTE-1.9242631D 00 AZE-8.9876751D 01

TIME 5 FEB. 1968 2 HRS., 38 MIN., 14.665 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-5.2454140D 06 YSC-2.4033108D 07 ZSC-1.2825651D 07
 DXSC-4.0081052D 02 DYSC-1.0505588D 03 DZSC-5.2893754D 02
 RSC 2.7741701D 07 DESC-2.7537164D 01 RASC-1.0231217D 02
 VSC 1.2426173D 03 PTSC 8.1973084D 01 AZSC-7.4959945D 01
 SELENOGRAPHIC REFERENCE
 XSG 1.7610497D 07 YSG 2.1246870D 07 ZSG-2.8360025D 06
 DXSG 9.7095038D 02 DYSG 7.8940372D 02 DZSG-9.2842899D 01
 HSG 2.6003611D 07 LTSG-5.8675325D 00 LNSG 5.0346314D 01
 VRSG 1.2547999D 03 PTSG 7.8692487D 01 AZSG-8.2264235D 01
 LTS-1.4238761D 00 LNS 1.0657861D 02 LTE-1.0484556D 00
 LNE 1.5238728D 00 DSMP 4.6371056D 00 RSMP 1.0507092D 02
 LIN 1.6755283D 02 LAN 2.2598238D 01 LAP-1.5279242D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.9884606D 05
 X 3.4318082D 08 Y 1.5967088D 08 Z 7.3100582D 07
 DX-8.7068475D 02 DY-3.1015491D 02 DZ-1.1505310D 02
 R 3.8550170D 08 DEC 1.0930873D 01 RA 2.4951027D 01
 V 9.3141034D 02 PTH-8.3476477D 01 AZ 5.4440786D 01
 ALT 3.7912431D 08 LTGD 1.0932054D 01 LON 2.1106322D 02
 VE 2.7530737D 04 PTE-1.9262204D 00 AZE-8.9871812D 01

TABLE 10- I TRANSUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 2 HRS., 53 MIN., 14.665 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-5.60577350	06	YSC-2.49764320	07	ZSC-1.33005280	07
DXSC-3.99999240	02	DYSC-1.04577850	03	DZSC-5.26379370	02
RSC 2.88470250	07	DESC-2.74562400	01	RASC-1.02649970	02
VSC 1.23722570	03	PTSC 8.22376580	01	AZSC-7.48143020	01

SELNOGRAPHIC REFERENCE

XSG 1.84845880	07	YSG 2.19533240	07	ZSG-2.91932620	06
DXSG 9.71521030	02	DYSG 7.80552180	02	DZSG-9.22689170	01
HSG 2.71089360	07	LTSG-5.80829020	00	LNSG 4.99027880	01
VRSG 1.24965130	03	PTSG 7.88086980	01	AZSG-8.24290570	01
LTS-1.42383190	00	LNS 1.06451820	02	LTF-1.06260110	00
LNE 1.50981670	00	DSMP 4.63674730	00	RSMP 1.04957420	02
LIN 1.67561890	02	LAN 2.24383560	01	LAP-1.52760470	02

GEOCENTRIC REFERENCE

X 3.42396710	08	Y 1.59393460	08	Z 7.29979830	07
DX-8.71807910	02	DY-3.06408890	02	DZ-1.12978630	02
R 3.84669320	08	DEC 1.09392530	01	RA 2.49630480	01
V 0.30967030	02	PTH-8.31941090	01	AZ 5.47968010	01
ALT 3.78291920	08	LTGD 1.09404380	01	LON 2.07314970	02
VF 2.74663070	04	PTE-1.92870980	00	AZE-8.98672080	01

FLIGHT TIME 2.99746060 05

TIME 5 FEB. 1968 3 HRS., 8 MIN., 14.665 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-5.96543170	06	YSC-2.59156160	07	ZSC-1.37731920	07
DXSC-3.99251590	02	DYSC-1.04135380	03	DZSC-5.24015340	02
RSC 2.99483950	07	DESC-2.73804920	01	RASC-1.02962920	02
VSC 1.23223850	03	PTSC 8.24827460	01	AZSC-7.46814170	01

SELNOGRAPHIC REFERENCE

XSG 1.93592860	07	YSG 2.26519630	07	ZSG-3.00215600	06
DXSG 9.72295550	02	DYSG 7.72031420	02	DZSG-9.17410730	01
HSG 2.82103050	07	LTSG-5.75323860	00	LNSG 4.94814550	01
VRSG 1.24491270	03	PTSG 7.89058090	01	AZSG-8.25940010	01
LTS-1.42378760	00	LNS 1.06325040	02	LTF-1.07674060	00
LNE 1.49574950	00	DSMP 4.63638840	00	RSMP 1.04843940	02
LIN 1.67571770	02	LAN 2.22767020	01	LAP-1.52726180	02

GEOCENTRIC REFERENCE

X 3.41611550	08	Y 1.59119240	08	Z 7.28971620	07
DX-8.72992150	02	DY-3.03022000	02	DZ-1.11100290	02
R 3.83837700	08	DEC 1.09479180	01	RA 2.49756310	01
V 0.30742120	02	PTH-8.29328430	01	AZ 5.51029470	01
ALT 3.77460310	08	LTGD 1.09491070	01	LON 2.03567290	02
VF 2.74022070	04	PTE-1.93168350	00	AZE-8.98628960	01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 3 HRS., 23 MIN., 14.665 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-6.32444450 06 YSC-2.68509640 07 ZSC-1.42438070 07
 DXSC-3.98564480 02 DYSC-1.03724580 03 DZSC-5.21823680 02
 RSC 3.10460770 07 DESC-2.73094240 01 RASC-1.03253800 02
 VSC 1.22751250 03 PTSC 8.27103610 01 AZSC-7.45599590 01

SELENOGRAPHIC REFERENCE

XSG 2.02347650 07 YSG 2.33430680 07 ZSG-3.08453090 06
 DXSG 9.73252810 02 DYSG 7.53802140 02 DZSG-9.12538020 01
 HSG 2.93079870 07 LTSG-5.70193280 00 LNSG 4.90798590 01
 VRSG 1.24054100 03 PTSG 7.89858190 01 AZSG-8.27584140 01
 LTS-1.42374320 00 LNS 1.06198260 02 LTE-1.09087380 00
 LNE 1.48167150 00 DSMP 4.63602900 00 RSMP 1.04730470 02
 LIN 1.67582500 02 LAN 2.21132200 01 LAP-1.52689480 02

GEOCENTRIC REFERENCE FLIGHT TIME 3.01546060 05

X 3.40825300 08 Y 1.58847920 08 Z 7.27979500 07
 DX-8.74234360 02 DY-2.99955330 02 DZ-1.09396310 02
 R 3.83006650 08 DEC 1.09568500 01 RA 2.49887400 01
 V 9.30712880 02 PTH-8.26904650 01 AZ 5.53692440 01
 ALT 3.76629260 08 LTGD 1.09580420 01 LON 1.99820130 02
 VE 2.73383900 04 PTE-1.93510040 00 AZE-8.98588410 01

TIME 5 FEB. 1968 3 HRS., 38 MIN., 14.665 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-6.68286500 06 YSC-2.77827440 07 ZSC-1.47125210 07
 DXSC-3.97934920 02 DYSC-1.03342110 03 DZSC-5.19785830 02
 RSC 3.21403140 07 DESC-2.72425980 01 RASC-1.03524990 02
 VSC 1.22331060 03 PTSC 8.29222330 01 AZSC-7.44488010 01

SELENOGRAPHIC REFERENCE

XSG 2.11111810 07 YSG 2.40268850 07 ZSG-3.16648510 06
 DXSG 9.74374440 02 DYSG 7.55830800 02 DZSG-9.08024000 01
 HSG 3.04022240 07 LTSG-5.65398980 00 LNSG 4.86958970 01
 VRSG 1.23649940 03 PTSG 7.90504490 01 AZSG-8.29217380 01
 LTS-1.42369870 00 LNS 1.06071470 02 LTE-1.10500090 00
 LNE 1.46758280 00 DSMP 4.63566900 00 RSMP 1.04617020 02
 LIN 1.67594110 02 LAN 2.19478530 01 LAP-1.52650300 02

GEOCENTRIC REFERENCE FLIGHT TIME 3.02446060 05

X 3.40037910 08 Y 1.58579230 08 Z 7.27002020 07
 DX-8.75531550 02 DY-2.97175560 02 DZ-1.07848120 02
 R 3.82175970 08 DEC 1.09660330 01 RA 2.50023450 01
 V 9.30859830 02 PTH-8.24650600 01 AZ 5.56031820 01
 ALT 3.75798580 08 LTGD 1.09672290 01 LON 1.96073470 02
 VE 2.72748150 04 PTE-1.93892460 00 AZE-8.98550150 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 5 .FEB. 1968 3 HRS., 53 MIN., 14.665 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-7.04074380 06 YSC-2.87111980 07 ZSC-1.51794630 07
 DXSC-3.97360080 02 DYSC-1.02985120 03 DZSC-5.17885850 02
 RSC 3.32313260 07 DFSC-2.71796320 01 RASC-1.03778530 02
 VSC 1.21930080 03 PTSC 8.31198640 01 AZSC-7.43469770 01

SELENOGRAPHIC REFERENCE

XSG 2.19886730 07 YSG 2.47036330 07 ZSG-3.24804900 06
 DXSG 9.75644410 02 DYSG 7.48088640 02 DZSG-9.03828630 01
 HSG 3.14932370 07 LTSG-5.60907740 00 LNSG 4.83277560 01
 VRSG 1.23275610 03 PTSG 7.91011900 01 AZSG-8.30835030 01
 LTS-1.42365420 00 LNS 1.05944690 02 LTE-1.11912160 00
 LNE 1.45348330 00 DSMP 4.63530850 00 RSMP 1.04503570 02
 LIN 1.67606620 02 LAN 2.17805450 01 LAP-1.52608580 02

GEOCENTRIC REFERENCE

X 3.39249330 08 Y 1.58312930 08 Z 7.26037820 07
 DX-8.76880870 02 DY-2.94654010 02 DZ-1.06439790 02
 R 3.81345520 08 DEC 1.09754540 01 RA 2.50164170 01
 V 9.31166190 02 PTH-8.22549670 01 AZ 5.58104710 01
 ALT 3.74968130 08 LTGD 1.09766530 01 LON 1.92327270 02
 VE 2.72114470 04 PTE-1.94312500 00 AZE-8.98513920 01

FLIGHT TIME 3.03346060 05

TIME 5 FEB. 1968 4 HRS., 8 MIN., 14.665 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-7.39812880 06 YSC-2.96365450 07 ZSC-1.56447520 07
 DXSC-3.96837300 02 DYSC-1.02651110 03 DZSC-5.16109980 02
 RSC 3.43193140 07 DESC-2.71201860 01 RASC-1.04016210 02
 VSC 1.21555520 03 PTSC 8.33045610 01 AZSC-7.42536590 01

SELENOGRAPHIC REFERENCE

XSG 2.28673710 07 YSG 2.53735060 07 ZSG-3.32924990 06
 DXSG 9.77048670 02 DYSG 7.40550770 02 DZSG-8.99917630 01
 HSG 3.25812250 07 LTSG-5.56690650 00 LNSG 4.79738660 01
 VRSG 1.22928360 03 PTSG 7.91393400 01 AZSG-8.32433100 01
 LTS-1.42360960 00 LNS 1.05817910 02 LTE-1.13323610 00
 LNE 1.43937340 00 DSMP 4.63494750 00 RSMP 1.04390140 02
 LIN 1.67620070 02 LAN 2.16112420 01 LAP-1.52564260 02

GEOCENTRIC REFERENCE

X 3.38459510 08 Y 1.58048790 08 Z 7.25085720 07
 DX-8.78279660 02 DY-2.92365800 02 DZ-1.05157540 02
 R 3.80515120 08 DEC 1.09851000 01 RA 2.50309330 01
 V 9.31617430 02 PTH-8.20587310 01 AZ 5.59955460 01
 ALT 3.74137730 08 LTGD 1.09863030 01 LON 1.88581520 02
 VE 2.71482540 04 PTE-1.94767440 00 AZE-8.98479490 01

D5-15481-1

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - FIRST OPPORTUNITY
(CONTINUED)

TIME 5 FEB. 1968 4 HRS., 23 MIN., 14.665 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-7.75506580 06	YSC-3.05589800 07	ZSC-1.61084950 07
DXSC-3.96364080 02	DYSC-1.02337920 03	DZSC-5.14446230 02
RSC 3.54044620 07	DESC-2.70639600 01	RASC-1.04239560 02
VSC 1.21204970 03	PTSC 8.34774680 01	AZSC-7.41681320 01

SELENOGRAPHIC REFERENCE

XSG 2.37473870 07	YSG 2.60366790 07	ZSG-3.41011190 06
DXSG 9.78574810 02	DYSG 7.33195620 02	DZSG-8.96261440 01
HSG 3.36663720 07	LTSG-5.52722380 00	LNSG 4.76328560 01
VRSG 1.22605760 03	PTSG 7.91660380 01	AZSG-8.34008280 01
LTS-1.42356500 00	LNS 1.05691130 02	LTF-1.14734410 00
LNE 1.42525300 00	DSMP 4.63458590 00	RSMP 1.04276720 02
LIN 1.67634480 02	LAN 2.14398890 01	LAP-1.52517280 02

GEOCENTRIC REFERENCE

X 3.37668410 08	Y 1.57786610 08	Z 7.24144640 07
DX-8.79725430 02	DY-2.90289260 02	DZ-1.03989390 02
R 3.79684640 08	DEC 1.09949600 01	RA 2.50458690 01
V 9.32200880 02	PTH-8.18750790 01	AZ 5.61619010 01
ALT 3.73307250 08	LTGD 1.09961670 01	LON 1.84836190 02
VE 2.70852090 04	PTE-1.95254890 00	AZE-8.98446690 01

FLIGHT TIME 3.05146060 05

TIME 5 FEB. 1968 4 HRS., 38 MIN., 14.665 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-8.11159830 06	YSC-3.14786840 07	ZSC-1.65707860 07
DXSC-3.95938120 02	DYSC-1.02043660 03	DZSC-5.12884180 02
RSC 3.64869360 07	DESC-2.70106860 01	RASC-1.04449920 02
VSC 1.20876300 03	PTSC 8.36395910 01	AZSC-7.40897740 01

SELENOGRAPHIC REFERENCE

XSG 2.46288280 07	YSG 2.66933070 07	ZSG-3.49065570 06
DXSG 9.80211900 02	DYSG 7.26004320 02	DZSG-8.92834470 01
HSG 3.47488470 07	LTSG-5.48980690 00	LNSG 4.73035300 01
VRSG 1.22305730 03	PTSG 7.91822840 01	AZSG-8.35557780 01
LTS-1.42352030 00	LNS 1.05564350 02	LTF-1.16144570 00
LNE 1.41112220 00	DSMP 4.63422380 00	RSMP 1.04163310 02
LIN 1.67649880 02	LAN 2.12664320 01	LAP-1.52467570 02

GEOCENTRIC REFERENCE

X 3.36875990 08	Y 1.57526210 08	Z 7.23213600 07
DX-8.81215840 02	DY-2.88405460 02	DZ-1.02924920 02
R 3.78853960 08	DEC 1.10050250 01	RA 2.50612070 01
V 9.32905470 02	PTH-8.17028890 01	AZ 5.63123310 01
ALT 3.72476570 08	LTGD 1.10062350 01	LON 1.81091260 02
VF 2.70222870 04	PTE-1.95772740 00	AZE-8.98415340 01

FLIGHT TIME 3.06046060 05

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 4 HRS., 53 MIN., 14.665 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-8.4677679D 06 YSC-3.2395818D 07 ZSC-1.7031714D 07
 DXSC-3.9555727D 02 DYSC-1.0176665D 03 DZSC-5.1141467D 02
 RSC 3.7566892D 07 DESC-2.6960125D 01 RASC-1.0464849D 02
 VSC 1.2056764D 03 PTSC 8.3791820D 01 AZSC-7.4018043D 01

SELENOGRAPHIC REFERENCE

XSG 2.5511788D 07 YSG 2.7343531D 07 ZSG-3.5709040D 06
 DXSG 9.8195021D 02 DYSG 7.1896034D 02 DZSG-8.8961446D 01
 HSG 3.5828802D 07 LTSG-5.4544592D 00 LNSG 4.6984834D 01
 VRSG 1.2202640D 03 PTSG 7.9188962D 01 AZSG-8.3707935D 01
 LTS-1.4234755D 00 LNS 1.0543757D 02 LTF-1.1755408D 00
 LNE 1.3969813D 00 DSMP 4.6338612D 00 RSMP 1.0404992D 02
 LIN 1.6766628D 02 LAN 2.1090818D 01 LAP-1.5241508D 02

GEOCENTRIC REFERENCE

X 3.3608221D 08 Y 1.5726742D 08 Z 7.2229171D 07
 DX-8.8274876D 02 DY-2.8669773D 02 DZ-1.0195495D 02
 R 3.7802295D 08 DEC 1.1015284D 01 RA 2.5076928D 01
 V 9.3372146D 02 PTH-8.1541168D 01 AZ 5.6449096D 01
 ALT 3.7164556D 08 LTGD 1.1016498D 01 LON 1.7734672D 02
 VE 2.6959467D 04 PTE-1.9631915D 00 AZE-8.9838531D 01

FLIGHT TIME 3.0694606D 05

TIME 5 FEB. 1968 5 HRS., 8 MIN., 14.665 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-8.8236143D 06 YSC-3.3310531D 07 ZSC-1.7491358D 07
 DXSC-3.9521953D 02 DYSC-1.0150543D 03 DZSC-5.1002965D 02
 RSC 3.8644472D 07 DESC-2.6912065D 01 RASC-1.0483631D 02
 VSC 1.2027734D 03 PTSC 8.3934941D 01 AZSC-7.3952463D 01

SELENOGRAPHIC REFERENCE

XSG 2.6396355D 07 YSG 2.7987476D 07 ZSG-3.6508715D 06
 DXSG 9.8378109D 02 DYSG 7.1204912D 02 DZSG-8.8658193D 01
 HSG 3.6906383D 07 LTSG-5.4210065D 00 LNSG 4.6675836D 01
 VRSG 1.2176615D 03 PTSG 7.9196855D 01 AZSG-8.3857115D 01
 LTS-1.4234307D 00 LNS 1.0531079D 02 LTF-1.1896294D 00
 LNE 1.3828302D 00 DSMP 4.6334980D 00 RSMP 1.0393654D 02
 LIN 1.6768371D 02 LAN 2.0912994D 01 LAP-1.5235975D 02

GEOCENTRIC REFERENCE

X 3.3528703D 08 Y 1.5701010D 08 Z 7.2137815D 07
 DX-8.8432218D 02 DY-2.8515136D 02 DZ-1.0107144D 02
 R 3.7719151D 08 DEC 1.1025732D 01 RA 2.5093017D 01
 V 9.3464028D 02 PTH-8.1389037D 01 AZ 5.6574045D 01
 ALT 3.7081412D 08 LTGD 1.1026949D 01 LON 1.7360254D 02
 VE 2.6896728D 04 PTE-1.9689246D 00 AZE-8.9835646D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 5 HRS., 23 MIN., 14.665 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-9.1791755D 06 YSC-3.4222959D 07 ZSC-1.7949791D 07
 DXSC-3.9492307D 02 DYSC-1.7125869D 03 DZSC-5.0872197D 02
 RSC 3.9719808D 07 DESC-2.6856312D 01 RASC-1.0501430D 02
 VSC 1.2009394D 03 PTSC 8.4069658D 01 AZSC-7.3892616D 01
 SELFNOGRAPHIC REFERENCE
 XSG 2.7282608D 07 YSG 2.8625255D 07 ZSG-3.7305752D 06
 DXSG 9.8569681D 02 DYSG 7.0525776D 02 DZSG-8.8371977D 01
 HSG 3.7981718D 07 LTSG-5.3892937D 00 LNSG 4.6375711D 01
 VRSG 1.2152351D 03 PTSG 7.9176661D 01 AZSG-8.4003172D 01
 LTS-1.4233858D 00 LNS 1.0518401D 02 LTE-1.2037113D 00
 LNE 1.3685691D 00 DSMP 4.6331342D 00 RSMP 1.0382317D 02
 LIN 1.6770220D 02 LAN 2.0732910D 01 LAP-1.5230152D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 3.0874606D 05
 X 3.3449042D 08 Y 1.5675411D 08 Z 7.2047218D 07
 DX-8.8593425D 02 DY-2.8375333D 02 DZ-1.0026724D 02
 R 3.7635953D 08 DEC 1.1036359D 01 RA 2.5109458D 01
 V 9.3565430D 02 PTH-8.1245710D 01 AZ 5.6588705D 01
 ALT 3.6998215D 08 LTGD 1.1037581D 01 LON 1.6985872D 02
 VE 2.6834053D 04 PTE-1.9749122D 00 AZE-8.9832868D 01

TIME 5 FEB. 1968 5 HRS., 38 MIN., 14.665 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-9.5344877D 06 YSC-3.5133227D 07 ZSC-1.8407079D 07
 DXSC-3.9465620D 02 DYSC-1.0102529D 03 DZSC-5.0748532D 02
 RSC 4.0793022D 07 DESC-2.6822694D 01 RASC-1.0518329D 02
 VSC 1.1974613D 03 PTSC 8.4196596D 01 AZSC-7.3838134D 01
 SELFNOGRAPHIC REFERENCE
 XSG 2.8170621D 07 YSG 2.9256972D 07 ZSG-3.8100298D 06
 DXSG 9.8769042D 02 DYSG 6.9857482D 02 DZSG-8.8101288D 01
 HSG 3.9054932D 07 LTSG-5.3591825D 00 LNSG 4.6083726D 01
 VRSG 1.2129720D 03 PTSG 7.9159004D 01 AZSG-8.4145994D 01
 LTS-1.4233408D 00 LNS 1.0505724D 02 LTE-1.2177866D 00
 LNE 1.3544981D 00 DSMP 4.6327700D 00 RSMP 1.0370981D 02
 LIN 1.6772176D 02 LAN 2.0550516D 01 LAP-1.5224033D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 3.0964606D 05
 X 3.3369234D 08 Y 1.5649931D 08 Z 7.1957312D 07
 DX-8.8758328D 02 DY-2.8249205D 02 DZ-9.9536039D 01
 R 3.7552692D 08 DEC 1.1047160D 01 RA 2.5126238D 01
 V 9.3675678D 02 PTH-8.1110487D 01 AZ 5.6794350D 01
 ALT 3.6914954D 08 LTGD 1.1048386D 01 LON 1.6611523D 02
 VE 2.6771427D 04 PTE-1.9811412D 00 AZE-8.9830187D 01

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TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - FIRST OPPORTUNITY
(CONTINUED)

TIME 5 FEB. 1968 5 HRS., 53 MIN., 14.665 SEC., GMT
SELENOCENTRIC REFERENCE
XSC-9.8895860D 06 YSC-3.6041451D 07 ZSC-1.8863284D 07
DXSC-3.9444734D 02 DYSC-1.0080418D 03 DZSC-5.0631406D 02
RSC 4.1864228D 07 DESC-2.6781054D 01 RASC-1.0534400D 02
VSC 1.1950275D 03 PTSC 8.4316318D 01 AZSC-7.3788686D 01
SELENOGRAPHIC REFERENCE
XSG 2.9060461D 07 YSG 2.9882719D 07 ZSG-3.8892486D 06
DXSG 9.8975571D 02 DYSG 6.9199010D 02 DZSG-8.7844792D 01
HSG 4.0126138D 07 LTSG-5.3305489D 00 LNSG 4.5799223D 01
VRSG 1.2108606D 03 PTSG 7.9134444D 01 AZSG-8.4285498D 01
LTS-1.4232958D 00 LNS 1.0493046D 02 LTE-1.2318552D 00
LNE 1.3403174D 00 DSMP 4.6324051D 00 RSMP 1.0359646D 02
LIN 1.6774241D 02 LAN 2.0365760D 01 LAP-1.5217615D 02
GEOCENTRIC REFERENCE FLIGHT TIME 3.1054606D 05
X 3.3289276D 08 Y 1.5624558D 08 Z 7.1868033D 07
DX-8.8926769D 02 DY-2.8135717D 02 DZ-9.8872185D 01
R 3.7469359D 08 DEC 1.1058129D 01 RA 2.5143345D 01
V 9.3794168D 02 PTH-8.0982738D 01 AZ 5.6892051D 01
ALT 3.6831621D 08 LTGD 1.1059358D 01 LON 1.6237207D 02
VE 2.6708834D 04 PTE-1.9876000D 00 AZE-8.9827595D 01

TIME 5 FEB. 1968 6 HRS., 8 MIN., 14.665 SEC., GMT
SELENOCENTRIC REFERENCE
XSC-1.0244504D 07 YSC-3.6947737D 07 ZSC-1.9318462D 07
DXSC-3.9426506D 02 DYSC-1.0059443D 03 DZSC-5.0520315D 02
RSC 4.2933531D 07 DESC-2.6741251D 01 RASC-1.0549710D 02
VSC 1.1927276D 03 PTSC 8.4429327D 01 AZSC-7.3743982D 01
SELENOGRAPHIC REFERENCE
XSG 2.9952189D 07 YSG 3.0502581D 07 ZSG-3.9682440D 06
DXSG 9.9188705D 02 DYSG 6.8549446D 02 DZSG-8.7601302D 01
HSG 4.1195441D 07 LTSG-5.3032814D 00 LNSG 4.5521614D 01
VRSG 1.2088906D 03 PTSG 7.9103483D 01 AZSG-8.4421627D 01
LTS-1.4232507D 00 LNS 1.0480368D 02 LTE-1.2459170D 00
LNE 1.3261269D 00 DSMP 4.6320398D 00 RSMP 1.0348312D 02
LIN 1.6776417D 02 LAN 2.0178596D 01 LAP-1.5210892D 02
GEOCENTRIC REFERENCE FLIGHT TIME 3.1144606D 05
X 3.3209165D 08 Y 1.5599283D 08 Z 7.1779324D 07
DX-8.9098603D 02 DY-2.8033943D 02 DZ-9.8270649D 01
R 3.7385946D 08 DEC 1.1069260D 01 RA 2.5160769D 01
V 9.3920361D 02 PTH-8.0861898D 01 AZ 5.6982713D 01
ALT 3.6748209D 08 LTGD 1.1070493D 01 LON 1.5862923D 02
VE 2.6646262D 04 PTE-1.9942784D 00 AZE-8.9825084D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - FIRST OPPORTUNITY
(CONTINUED)

TIME 5 FEB. 1968 6 HRS., 23 MIN., 14.665 SEC., GMT
SELENOCENTRIC REFERENCE

XSC-1.0599274D 07 YSC-3.7852183D 07 ZSC-1.9772666D 07
DXSC-3.9411803D 02 DYSC-1.0039522D 03 DZSC-5.0414809D 02
RSC 4.4001030D 07 DESC-2.6703158D 01 RASC-1.0564317D 02
VSC 1.1905521D 03 PTSC 8.4536080D 01 AZSC-7.3703759D 01

SELENOGRAPHIC REFERENCE

XSG 3.0845864D 07 YSG 3.1116633D 07 ZSG-4.0470270D 06
DXSG 9.9407937D 02 DYSG 6.7907971D 02 DZSG-8.7369760D 01
HSG 4.2262940D 07 LTSG-5.2772796D 00 LNSG 4.5250372D 01
VRSG 1.2070528D 03 PTSG 7.9066575D 01 AZSG-8.4554345D 01
LTS-1.4232056D 00 LNS 1.0467691D 02 LTE-1.2599720D 00
LNE 1.3119269D 00 DSMP 4.6316739D 00 RSMP 1.0336980D 02
LIN 1.6778705D 02 LAN 1.9988977D 01 LAP-1.5203859D 02

GEOCENTRIC REFERENCE

X 3.3128898D 08 Y 1.5574094D 08 Z 7.1691129D 07
DX-8.9273697D 02 DY-2.7943053D 02 DZ-9.7726913D 01
R 3.7302446D 08 DEC 1.1080548D 01 RA 2.5178498D 01
V 9.4053775D 02 PTH-8.0747457D 01 AZ 5.7067111D 01
ALT 3.6664708D 08 LTGD 1.1081785D 01 LON 1.5488669D 02
VE 2.6583699D 04 PTE-2.0011669D 00 AZE-8.9822646D 01

FLIGHT TIME 3.1234606D 05

TIME 5 FEB. 1968 6 HRS., 38 MIN., 14.665 SEC., GMT
SELENOCENTRIC REFERENCE

XSC-1.0953927D 07 YSC-3.8754880D 07 ZSC-2.0225944D 07
DXSC-3.9400500D 02 DYSC-1.0020581D 03 DZSC-5.0314482D 02
RSC 4.5066817D 07 DESC-2.6666656D 01 RASC-1.0578275D 02
VSC 1.1884927D 03 PTSC 8.4636987D 01 AZSC-7.3667781D 01

SELENOGRAPHIC REFERENCE

XSG 3.1741537D 07 YSG 3.1724946D 07 ZSG-4.1256080D 06
DXSG 9.9632807D 02 DYSG 6.7273848D 02 DZSG-8.7149220D 01
HSG 4.3328728D 07 LTSG-5.2524527D 00 LNSG 4.4985020D 01
VRSG 1.2053388D 03 PTSG 7.9024130D 01 AZSG-8.4683635D 01
LTS-1.4231603D 00 LNS 1.0455013D 02 LTE-1.2740201D 00
LNE 1.2977174D 00 DSMP 4.6313074D 00 RSMP 1.0325649D 02
LIN 1.6781106D 02 LAN 1.9796855D 01 LAP-1.5196511D 02

GEOCENTRIC REFERENCE

X 3.3048471D 08 Y 1.5548982D 08 Z 7.1603399D 07
DX-8.9451925D 02 DY-2.7862296D 02 DZ-9.7236920D 01
R 3.7218850D 08 DEC 1.1091989D 01 RA 2.5196524D 01
V 9.4193974D 02 PTH-8.0638954D 01 AZ 5.7145906D 01
ALT 3.6581112D 08 LTGD 1.1093230D 01 LON 1.5114445D 02
VE 2.6521133D 04 PTE-2.0082574D 00 AZE-8.9820276D 01

FLIGHT TIME 3.1324606D 05

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - FIRST OPPORTUNITY
(CONTINUED)

TIME 5 FEB. 1968 6 HRS., 53 MIN., 14.665 SEC., GMT
SELENOCENTRIC REFERENCE
XSC-1.13094930 07 YSC-3.96559140 07 ZSC-2.06783410 07
DXSC-3.93924850 02 DYSC-1.00025500 03 DZSC-5.02189580 02
RSC 4.61309800 07 DESC-2.66316390 01 RASC-1.05916310 02
VSC 1.18654180 03 PTSC 8.47324210 01 AZSC-7.36358380 01
SELENOGRAPHIC REFERENCE
XSG 3.26392580 07 YSG 3.23275820 07 ZSG-4.20399660 06
DXSG 9.98628980 02 DYSG 6.65464100 02 DZSG-8.69388340 01
HSG 4.43928900 07 LTSG-5.22871850 00 LNSG 4.47251260 01
VPSG 1.20374110 03 PTSG 7.89765220 01 AZSG-8.48094970 01
LTS-1.42311500 00 LNS 1.04423360 02 LTE-1.28806130 00
LNF 1.28349850 00 DSMP 4.63094040 00 RSMP 1.03143180 02
LIN 1.67836220 02 LAN 1.96021860 01 LAP-1.51888460 02
GEOCENTRIC REFERENCE FLIGHT TIME 3.14146060 05
X 3.29678830 08 Y 1.55239390 08 Z 7.15160870 07
DX-3.96331750 02 DY-2.77909980 02 DZ-9.67970030 01
R 3.71351520 08 DEC 1.11035780 01 RA 2.52148380 01
V 9.43405650 02 PTH-8.05359700 01 AZ 5.72196720 01
ALT 3.64974150 08 LTGD 1.11048230 01 LUN 1.47402500 02
VF 2.64585540 04 PTE-2.01554240 00 AZE-8.98179660 01

TIME 5 FEB. 1968 7 HRS., 8 MIN., 14.665 SEC., GMT
SELENOCENTRIC REFERENCE
XSC-1.16630010 07 YSC-4.05553650 07 ZSC-2.11298990 07
DXSC-3.93876520 02 DYSC-9.98536990 02 DZSC-5.01279370 02
RSC 4.71935990 07 DESC-2.65980110 01 RASC-1.06044290 02
VSC 1.18469230 03 PTSC 8.48227210 01 AZSC-7.36077350 01
SELENOGRAPHIC REFERENCE
XSG 3.35390710 07 YSG 3.29245990 07 ZSG-4.28220140 06
DXSG 1.00097830 03 DYSG 6.60250550 02 DZSG-8.67378380 01
HSG 4.54555090 07 LTSG-5.20600220 00 LNSG 4.44703000 01
VPSG 1.20225280 03 PTSG 7.39240890 01 AZSG-8.49319450 01
LTS-1.42306970 00 LNS 1.04296580 02 LTE-1.30209550 00
LNF 1.26927040 00 DSMP 4.63057290 00 RSMP 1.03029890 02
LIN 1.67862550 02 LAN 1.94049270 01 LAP-1.51808570 02
GEOCENTRIC REFERENCE FLIGHT TIME 3.15046060 05
X 3.28871310 08 Y 1.54989560 08 Z 7.14291500 07
DX-8.98173400 02 DY-2.77285460 02 DZ-9.64038720 01
R 3.70513460 08 DEC 1.11153130 01 RA 2.52334330 01
V 9.44931950 02 PTH-8.04381260 01 AZ 5.72889050 01
ALT 3.64136090 08 LTGD 1.11165620 01 LUN 1.43660830 02
VF 2.63959540 04 PTE-2.02301510 00 AZE-8.98157140 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 7 HRS., 23 MIN., 14.665 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-1.20174800	07	YSC-4.14533050	07	ZSC-2.15806570	07
DXSC-3.93859060	02	DYSC-9.96898440	02	DZSC-5.00410880	02
RSC 4.82547510	07	DESC-2.65656810	01	RASC-1.06167080	02
VSC 1.18293810	03	PTSC 8.49091970	01	AZSC-7.35833000	01

SELENOGRAPHIC REFERENCE

XSG 3.44410190	07	YSG 3.35160490	07	ZSG-4.36023070	06
DXSG 1.00337250	03	DYSG 6.54092350	02	DZSG-8.65455440	01
HSG 4.65166620	07	LTSG-5.18423590	00	LNSG 4.42201880	01
VRSG 1.20086780	03	PTSG 7.98671380	01	AZSG-8.50510040	01
LTS-1.42302420	00	LNS 1.04169810	02	LTE-1.31612270	00
LNE 1.25503320	00	DSMP 4.63020480	00	RSMP 1.02916510	02
LIN 1.67890040	02	LAN 1.92050360	01	LAP-1.51725430	02

GEOCENTRIC REFERENCE FLIGHT TIME 3.15946060 05

X 3.28052110	08	Y 1.54740250	08	Z 7.13425470	07
DX-9.00043240	02	DY-2.76743850	02	DZ-9.60545120	01
R 3.69674250	08	DEC 1.11271880	01	RA 2.52523010	01
V 9.46515430	02	PTH-8.03450740	01	AZ 5.73540380	01
ALT 3.63296880	08	LTGD 1.11284410	01	LON 1.39919430	02
VE 2.63333220	04	PTE-2.03066950	00	AZE-8.98135120	01

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SELENOCENTRIC REFERENCE

XSC-1.23719560	07	YSC-4.23498040	07	ZSC-2.20306500	07
DXSC-3.93871570	02	DYSC-9.95334310	02	DZSC-4.99581510	02
RSC 4.93145080	07	DESC-2.65345690	01	RASC-1.05285050	02
VSC 1.18127340	03	PTSC 8.49891280	01	AZSC-7.35623700	01

SELENOGRAPHIC REFERENCE

XSG 3.53451410	07	YSG 3.41019800	07	ZSG-4.43909190	06
DXSG 1.00580850	03	DYSG 6.47984510	02	DZSG-8.63613300	01
HSG 4.75764190	07	LTSG-5.16335740	00	LNSG 4.39744650	01
VRSG 1.19958040	03	PTSG 7.89059540	01	AZSG-8.51667120	01
LTS-1.42297870	00	LNS 1.04043040	02	LTE-1.33014280	00
LNE 1.24078690	00	DSMP 4.62983620	00	RSMP 1.02803350	02
LIN 1.67918700	02	LAN 1.90024710	01	LAP-1.51638990	02

GEOCENTRIC REFERENCE FLIGHT TIME 3.16846060 05

X 3.27251220	08	Y 1.54491400	08	Z 7.12562400	07
DX-9.01940360	02	DY-2.76280090	02	DZ-9.57462080	01
R 3.68833840	08	DEC 1.11392020	01	RA 2.52714360	01
V 9.48153170	02	PTH-8.02565000	01	AZ 5.74154520	01
ALT 3.62456480	08	LTGD 1.11404590	01	LON 1.36178290	02
VE 2.62706520	04	PTE-2.03850040	00	AZE-8.98113580	01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 7 HRS., 53 MIN., 14.665 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-1.27264570 07 YSC-4.32449280 07 ZSC-2.24799140 07
 DXSC-3.93913230 02 DYSC-9.93840010 02 DZSC-4.98788770 02
 RSC 5.03729390 07 DESC-2.65045980 01 RASC-1.06398510 02
 VSC 1.17959310 03 PTSC 8.50657740 01 AZSC-7.35448010 01

SELENOGRAPHIC REFERENCE

XSG 3.62514730 07 YSG 3.46824350 07 ZSG-4.51579220 06
 DXSG 1.00828340 03 DYSG 6.41922490 02 DZSG-8.51846330 01
 HSG 4.86348490 07 LTSG-5.14330990 00 LNSG 4.37328370 01
 VRSG 1.19838550 03 PTSG 7.87407940 01 AZSG-8.52791110 01
 LTS-1.42293320 00 LNS 1.03916270 02 LTF-1.34415570 00
 LNE 1.22653170 00 DSMP 4.62946700 00 RSMP 1.02690090 02
 LIN 1.67948540 02 LAN 1.17971940 01 LAP-1.51549230 02

GEOCENTRIC REFERENCE

X 3.26438610 08 Y 1.54242930 08 Z 7.11701920 07
 DX-9.03853940 02 DY-2.75889580 02 DZ-9.54764810 01
 R 3.67992180 08 DEC 1.11513510 01 RA 2.52908310 01
 V 9.49842530 02 PTH-8.01721120 01 AZ 5.74734800 01
 ALT 3.61614810 08 LTGD 1.11526120 01 LON 1.32437420 02
 VE 2.62079360 04 PTF-2.04650280 00 AZE-8.98092470 01

FLIGHT TIME 3.17746060 05

TIME 5 FEB. 1968 8 HRS., 8 MIN., 14.665 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-1.30810080 07 YSC-4.41387360 07 ZSC-2.29284810 07
 DXSC-3.93983270 02 DYSC-9.92411330 02 DZSC-4.98030410 02
 RSC 5.14301080 07 DESC-2.64757000 01 RASC-1.06507770 02
 VSC 1.17819240 03 PTSC 8.51383690 01 AZSC-7.35304550 01

SELENOGRAPHIC REFERENCE

XSG 3.71600490 07 YSG 3.52574530 07 ZSG-4.59333790 06
 DXSG 1.01079450 03 DYSG 6.35902140 02 DZSG-8.60149390 01
 HSG 4.96920190 07 LTSG-5.12404150 00 LNSG 4.34950340 01
 VRSG 1.19727840 03 PTSG 7.86718940 01 AZSG-8.53882550 01
 LTS-1.42288750 00 LNS 1.03789490 02 LTF-1.35816150 00
 LNE 1.21226760 00 DSMP 4.62909720 00 RSMP 1.02576840 02
 LIN 1.67979570 02 LAN 1.85891670 01 LAP-1.51456120 02

GEOCENTRIC REFERENCE

X 3.25624260 08 Y 1.53994770 08 Z 7.10843710 07
 DX-9.05813200 02 DY-2.75568110 02 DZ-9.52430710 01
 R 3.67149200 08 DEC 1.11636320 01 RA 2.53104810 01
 V 9.51581100 02 PTH-8.00916470 01 AZ 5.75284170 01
 ALT 3.60771840 08 LTGD 1.11648980 01 LON 1.28696810 02
 VE 2.61451670 04 PTF-2.05467230 00 AZE-8.98071760 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 8 HRS., 23 MIN., 14.665 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-1.34356350 07 YSC-4.50312860 07 ZSC-2.33763790 07
 DXSC-3.94080390 02 DYSC-9.91044430 02 DZSC-4.97304370 02
 PSC 5.24850750 07 DESC-2.54478110 01 RASC-1.06613110 02
 VSC 1.17676700 03 PTSC 8.52071320 01 AZSC-7.35192080 01

SELENOGRAPHIC REFERENCE

XSG 3.80709000 07 YSG 3.58270690 07 ZSG-4.67073520 06
 DXSG 1.01333940 03 DYSG 6.29919630 02 DZSG-8.58517830 01
 HSG 5.07479860 07 LTSG-5.10550420 00 LNSG 4.32608090 01
 VSG 1.19625500 03 PTSG 7.85994740 01 AZSG-8.54942010 01
 LTS-1.42284180 00 LNS 1.03562720 02 LTE-1.37216000 00
 LNF 1.19799490 00 DSMP 4.62872700 00 RSMP 1.02463610 02
 LIN 1.68011770 02 LAN 1.83783540 01 LAP-1.51359640 02

GEOCENTRIC REFERENCE

X 3.24808140 08 Y 1.53746880 08 Z 7.09987450 07
 DX-9.07787440 02 DY-2.75311840 02 DZ-9.50439120 01
 R 3.66304860 08 DEC 1.11760440 01 RA 2.53303320 01
 V 9.53366660 02 PTH-8.00148590 01 AZ 5.75805260 01
 ALT 3.59927500 08 LTGD 1.11773140 01 LON 1.24956440 02
 VE 2.60823380 04 PTE-2.06300510 00 AZE-8.98051420 01

TIME 5 FEB. 1968 8 HRS., 38 MIN., 14.665 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-1.37903620 07 YSC-4.59226330 07 ZSC-2.38236380 07
 DXSC-3.94205750 02 DYSC-9.89735790 02 DZSC-4.95608750 02
 PSC 5.35409000 07 DESC-2.64208720 01 RASC-1.06714770 02
 VSC 1.17541280 03 PTSC 8.52722600 01 AZSC-7.35109440 01

SELENOGRAPHIC REFERENCE

XSG 3.89840560 07 YSG 3.63913180 07 ZSG-4.74798980 06
 DXSG 1.01591580 03 DYSG 6.23971470 02 DZSG-8.55947390 01
 HSG 5.18028110 07 LTSG-5.08765420 00 LNSG 4.30299320 01
 VSG 1.19531120 03 PTSG 7.85237340 01 AZSG-8.55970120 01
 LTS-1.42279600 00 LNS 1.03535950 02 LTE-1.38615120 00
 LNF 1.18371350 00 DSMP 4.62835610 00 RSMP 1.02350380 02
 LIN 1.68045160 02 LAN 1.81647200 01 LAP-1.51259760 02

GEOCENTRIC REFERENCE

X 3.23990230 08 Y 1.53499200 08 Z 7.09132830 07
 DX-9.09786000 02 DY-2.75117240 02 DZ-9.48771140 01
 R 3.65459120 08 DEC 1.11885830 01 RA 2.53505270 01
 V 9.55197220 02 PTH-7.99415250 01 AZ 5.75300390 01
 ALT 3.59081760 08 LTGD 1.11898580 01 LON 1.21216320 02
 VE 2.60194440 04 PTE-2.07149760 00 AZE-8.98031400 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 8 HRS., 53 MIN., 14.665 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-1.41452140 07 YSC-4.58128270 07 ZSC-2.42702830 07
 DXSC-3.94356930 02 DYSC-9.88482170 02 DZSC-4.95941820 02
 RSC 5.45946380 07 DESC-2.63948270 01 RASC-1.06812990 02
 VSC 1.17412640 03 PTSC 8.53339390 01 AZSC-7.35055520 01

SELENOGRAPHIC REFERENCE

XSG 3.98905430 07 YSG 3.69502270 07 ZSG-4.82510700 06
 DXSG 1.01852160 03 DYSG 6.18054440 02 DZSG-8.55434180 01
 HSG 5.28555480 07 LTSG-5.07045090 00 LNSG 4.28021970 01
 VSG 1.19444350 03 PTSG 7.84448600 01 AZSG-8.56967520 01
 LTS-1.42275020 00 LNS 1.03409180 02 LTF-1.40013500 00
 LNE 1.16942370 00 DSMP 4.62798470 00 RSMP 1.02237170 02
 LIN 1.68079730 02 LAN 1.79482330 01 LAP-1.51156460 02

GEOCENTRIC REFERENCE

X 3.23170520 08 Y 1.53251660 08 Z 7.08279570 07
 DX-9.11808270 02 DY-2.74981070 02 DZ-9.47409410 01
 R 3.64611920 08 DEC 1.12012480 01 RA 2.53709140 01
 V 9.57070920 02 PTH-7.08714380 01 AZ 5.76771660 01
 ALT 3.58234560 08 LTGD 1.12025270 01 LON 1.17476440 02
 VE 2.59564780 04 PTE-2.08014670 00 AZE-8.98011700 01

FLIGHT TIME 3.21346060 05

TIME 5 FEB. 1968 9 HRS., 8 MIN., 14.665 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-1.45002130 07 YSC-4.77019170 07 ZSC-2.47163410 07
 DXSC-3.94534000 02 DYSC-9.87280610 02 DZSC-4.95302000 02
 RSC 5.56473400 07 DESC-2.63596280 01 RASC-1.06907980 02
 VSC 1.17290420 03 PTSC 8.53923370 01 AZSC-7.35029300 01

SELENOGRAPHIC REFERENCE

XSG 4.09173890 07 YSG 3.75038230 07 ZSG-4.90209180 06
 DXSG 1.02115500 03 DYSG 6.12165570 02 DZSG-8.53974650 01
 HSG 5.32092510 07 LTSG-5.05385690 00 LNSG 4.25774080 01
 VSG 1.19364860 03 PTSG 7.83630230 01 AZSG-8.57934930 01
 LTS-1.42270430 00 LNS 1.03282410 02 LTF-1.41411150 00
 LNE 1.15512550 00 DSMP 4.62761280 00 RSMP 1.02123960 02
 LIN 1.63115470 02 LAN 1.77288620 01 LAP-1.51049750 02

GEOCENTRIC REFERENCE

X 3.22348970 08 Y 1.53004210 08 Z 7.07427400 07
 DX-9.13853690 02 DY-2.74900350 02 DZ-9.46338000 01
 R 3.63763220 08 DEC 1.12140370 01 RA 2.53915370 01
 V 9.58996090 02 PTH-7.08044070 01 AZ 5.77220930 01
 ALT 3.57385870 08 LTGD 1.12153200 01 LON 1.13736800 02
 VE 2.58934350 04 PTE-2.08894970 00 AZE-8.97992270 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 9 HRS., 23 MIN., 14.665 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-1.48553820 07 YSC-4.85899470 07 ZSC-2.51618350 07
 DXSC-3.94736440 02 DYSC-9.86128350 02 DZSC-4.94687820 02
 RSC 5.65990580 07 DECS-2.63452250 01 RASC-1.06999930 02
 VSC 1.17174320 03 PTSC 8.54476110 01 A7SC-7.35029820 01
 SELENOGRAPHIC REFERENCE
 XSG 4.17376160 07 YSG 3.30521320 07 ZSG-4.97894980 06
 DXSG 1.02381420 03 DYSG 6.06302110 02 DZSG-8.52565530 01
 HSG 5.49609690 07 LTSG-5.03783760 00 LNSG 4.23553880 01
 VRSG 1.19292340 03 PTSG 7.82783820 01 AZSG-8.58873060 01
 LTS-1.42265830 00 LNS 1.03155650 02 LTF-1.42808040 00
 LNE 1.14081900 00 DSMP 4.62724030 00 RSMP 1.02010770 02
 LIN 1.68152380 02 LAN 1.75065780 01 LAP-1.50939610 02
 GEOCENTRIC REFERENCE FLIGHT TIME 3.23146060 05
 X 3.21525570 08 Y 1.52756820 08 Z 7.06576080 07
 DX-9.15921750 02 DY-2.74872340 02 DZ-9.45542220 01
 R 3.62912990 08 DEC 1.12269490 01 RA 2.54123940 01
 V 9.60941180 02 PTH-7.07402540 01 AZ 5.77649890 01
 ALT 3.56535630 08 LTGD 1.12282360 01 LON 1.09947300 02
 VE 2.58303100 04 PTE-2.09790400 00 AZE-8.97973100 01

TIME 5 FEB. 1968 9 HRS., 38 MIN., 14.665 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 3.24046050 05
 X 3.20700300 08 Y 1.52507430 08 Z 7.05725350 07
 DX-9.18011960 02 DY-2.74894490 02 DZ-9.45008570 01
 R 3.62061170 08 DEC 1.12399800 01 RA 2.54334810 01
 V 9.62934760 02 PTH-7.96788160 01 AZ 5.78060030 01
 ALT 3.55683820 08 LTGD 1.12412720 01 LON 1.06258210 02
 VE 2.57670980 04 PTE-2.10700740 00 AZE-8.97954170 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 10 HRS., 8 MIN., 14.665 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 3.25846060 05
 X 3.19044080 08 Y 1.52014480 08 Z 7.04024770 07
 DX-9.22257100 02 DY-2.75080160 02 DZ-9.44678770 01
 R 3.60352650 08 DEC 1.12664000 01 RA 2.54763310 01
 V 9.67032280 02 PTH-7.95634910 01 AZ 5.78829240 01
 ALT 3.53975300 08 LTGD 1.12677010 01 LON 9.87805250 01
 VE 2.56403970 04 PTE-2.12565390 00 AZE-8.97916930 01

TIME 5 FEB. 1968 10 HRS., 38 MIN., 14.665 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 3.27646060 05
 X 3.17330130 08 Y 1.51519030 08 Z 7.02323960 07
 DX-9.26535980 02 DY-2.75440630 02 DZ-9.45259490 01
 R 3.58637360 08 DEC 1.12932850 01 RA 2.55200670 01
 V 9.71269420 02 PTH-7.94573360 01 AZ 5.79538090 01
 ALT 3.52260010 08 LTGD 1.12945950 01 LON 9.13037230 01
 VE 2.55132970 04 PTE-2.14487640 00 AZE-8.97880390 01

TIME 5 FEB. 1968 11 HRS., 8 MIN., 14.665 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 3.29446060 05
 X 3.15708320 08 Y 1.51022800 08 Z 7.00621340 07
 DX-9.30995950 02 DY-2.75961530 02 DZ-9.46674350 01
 R 3.56915020 08 DEC 1.13206290 01 RA 2.55646690 01
 V 9.75638330 02 PTH-7.93594020 01 AZ 5.80194460 01
 ALT 3.50537670 08 LTGD 1.13219480 01 LON 9.38277970 01
 VE 2.53857670 04 PTE-2.16466530 00 AZE-8.97844440 01

TIME 5 FEB. 1968 11 HRS., 38 MIN., 14.665 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 3.31246060 05
 X 3.14028500 08 Y 1.50525480 08 Z 6.98915470 07
 DX-9.35484730 02 DY-2.76630470 02 DZ-9.48857500 01
 R 3.55185370 08 DEC 1.13484230 01 RA 2.55101240 01
 V 9.80132340 02 PTH-7.92688620 01 AZ 5.80804940 01
 ALT 3.48808030 08 LTGD 1.13497520 01 LON 7.63527180 01
 VE 2.52577800 04 PTE-2.18501370 00 AZE-8.97808950 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	5	FEB. 1968	12 HRS.,	8 MIN.,	14.665 SEC.,GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 3.33046060 05		
X	3.12340530	08	Y	1.50026840	08
			Z	6.97205020	07
DX	-9.40050450	02	DY	-2.77436680	02
			DZ	-9.51751950	01
R	3.53448170	08	DEC	1.13766630	01
			RA	2.56564170	01
V	9.84745790	02	PTH	-7.91849910	01
			AZ	5.81375100	01
ALT	3.47070830	08	LTGD	1.13780020	01
			LON	6.83784780	01
VE	2.51293100	04	PTE	-2.20591740	00
			AZE	-8.97773830	01

TIME	5	FEB. 1968	12 HRS.,	38 MIN.,	14.665 SEC.,GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 3.34846060 05		
X	3.10644270	08	Y	1.49526630	08
			Z	6.75488760	07
DX	-9.44691500	02	DY	-2.78370830	02
			DZ	-9.55308200	01
R	3.51703170	08	DEC	1.14053440	01
			RA	2.57035390	01
V	9.89473850	02	PTH	-7.91071470	01
			AZ	5.81909670	01
ALT	3.45325850	08	LTGD	1.14066930	01
			LON	6.14050680	01
VE	2.50003320	04	PTE	-2.22737410	00
			AZE	-8.97738980	01

TIME	5	FEB. 1968	13 HRS.,	8 MIN.,	14.665 SEC.,GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 3.35646060 05		
X	3.08939590	08	Y	1.49024640	08
			Z	6.93765540	07
DX	-9.49406610	02	DY	-2.79424740	02
			DZ	-9.59483130	01
R	3.49950170	08	DEC	1.14344640	01
			RA	2.57514830	01
V	9.94312410	02	PTH	-7.90347670	01
			AZ	5.82412690	01
ALT	3.43572840	08	LTGD	1.14358220	01
			LON	5.30324780	01
VE	2.48708250	04	PTE	-2.24938350	00
			AZE	-8.97704320	01

TIME	5	FEB. 1968	13 HRS.,	38 MIN.,	14.665 SEC.,GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 3.38446060 05		
X	3.07226360	08	Y	1.48520640	08
			Z	6.92034280	07
DX	-9.54194710	02	DY	-2.80591300	02
			DZ	-9.64239100	01
R	3.48188930	08	DEC	1.14640190	01
			RA	2.58002420	01
V	9.99258020	02	PTH	-7.89673480	01
			AZ	5.82887640	01
ALT	3.41811610	08	LTGD	1.14653870	01
			LON	4.64607050	01
VE	2.47407680	04	PTE	-2.27194720	00
			AZE	-8.97669780	01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	5	FEB. 1968	14 HRS.,	8 MIN.,	14.665 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	3.40246060	05	
X	3.05504450	08	Y	1.48014440	08	Z	6.90293950	07
DX	-9.59054980	02	DY	-2.81864270	02	DZ	-9.69543180	01
P	3.45419260	08	DEC	1.14940080	01	RA	2.58498130	01
V	1.00430780	03	PTH	-7.99044420	01	AZ	5.83337530	01
ALT	3.40041940	08	LTGD	1.14953870	01	LON	3.89897420	01
VE	2.45101400	04	PTE	-2.29506810	00	AZE	-8.97635280	01

TIME	5	FEB. 1968	14 HRS.,	38 MIN.,	14.665 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	3.42046060	05	
X	3.03773720	08	Y	1.47505870	08	Z	6.89543510	07
DX	-9.63986800	02	DY	-2.83238150	02	DZ	-9.75366520	01
P	3.44540940	08	DEC	1.15244320	01	RA	2.59001930	01
V	1.00945920	03	PTH	-7.88456500	01	AZ	5.83765010	01
ALT	3.38263630	08	LTGD	1.15258220	01	LON	3.15195890	01
VE	2.44739230	04	PTE	-2.31875070	00	AZE	-8.97600780	01

TIME	5	FEB. 1968	15 HRS.,	9 MIN.,	14.665 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	3.43846060	05	
X	3.02034050	08	Y	1.46994730	08	Z	6.86782340	07
DX	-9.68989730	02	DY	-2.84708160	02	DZ	-9.81683920	01
P	3.42853790	08	DEC	1.15552900	01	RA	2.59513810	01
V	1.01471020	03	PTH	-7.87906110	01	AZ	5.84172350	01
ALT	3.36476480	08	LTGD	1.15556910	01	LON	2.40502440	01
VE	2.43470980	04	PTE	-2.34300090	00	AZE	-8.97566200	01

TIME	5	FEB. 1968	15 HRS.,	38 MIN.,	14.665 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	3.45646060	05	
X	3.00285320	08	Y	1.46480860	08	Z	6.85000270	07
DX	-9.74063470	02	DY	-2.86270070	02	DZ	-9.83472890	01
P	3.41057610	08	DEC	1.15865840	01	RA	2.60033780	01
V	1.02005930	03	PTH	-7.37390020	01	AZ	5.84561600	01
ALT	3.34680300	08	LTGD	1.15874950	01	LON	1.65817030	01
VE	2.42146500	04	PTE	-2.36782550	00	AZE	-8.97531490	01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	5	FEB. 1968	16 HRS.,	8 MIN.,	14.665 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	3.4744606D	05	
X	2.9852738D	08	Y	1.4595410D	08	Z	6.8322356D	07
DX	-9.7920797D	02	DY	-2.8792018D	02	DZ	-9.9571429D	01
R	3.3925221D	08	DEC	1.1618315D	01	RA	2.6056187D	01
V	1.0255051D	03	PTH	-7.8690532D	01	AZ	5.8493453D	01
ALT	3.3287491D	08	LTGD	1.1619737D	01	LON	9.1139835D	00
VE	2.4081561D	04	PTE	-2.3932331D	00	AZE	-8.9749660D	01

TIME	5	FEB. 1968	16 HRS.,	38 MIN.,	14.665 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	3.4924606D	05	
X	2.9676012D	08	Y	1.4544430D	08	Z	6.8142443D	07
DX	-9.8442309D	02	DY	-2.8965523D	02	DZ	-1.0033910D	02
R	3.3743741D	08	DEC	1.1650485D	01	RA	2.6109809D	01
V	1.0310465D	03	PTH	-7.8644935D	01	AZ	5.8529273D	01
ALT	3.3106012D	08	LTGD	1.1651919D	01	LON	1.6470729D	00
VE	2.3947815D	04	PTE	-2.4192328D	00	AZE	-8.9746149D	01

TIME	5	FEB. 1968	17 HRS.,	8 MIN.,	14.665 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	3.5104606D	05	
X	2.9498342D	08	Y	1.4492130D	08	Z	6.7961110D	07
DX	-9.8970912D	02	DY	-2.9147240D	02	DZ	-1.0114381D	02
R	3.3561304D	08	DEC	1.1683097D	01	RA	2.6154250D	01
V	1.0366829D	03	PTH	-7.8601971D	01	AZ	5.8563762D	01
ALT	3.2923575D	08	LTGD	1.1684543D	01	LON	3.5413094D	02
VE	2.3813397D	04	PTE	-2.4458351D	00	AZE	-8.9742610D	01

TIME	5	FEB. 1968	17 HRS.,	38 MIN.,	14.665 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	3.5284606D	05	
X	2.9319713D	08	Y	1.4439495D	08	Z	6.7779283D	07
DX	-9.9506627D	02	DY	-2.9336921D	02	DZ	-1.0199926D	02
R	3.3377890D	08	DEC	1.1716155D	01	RA	2.5219516D	01
V	1.0424137D	03	PTH	-7.8561421D	01	AZ	5.8597046D	01
ALT	3.2740162D	08	LTGD	1.1717613D	01	LON	3.4671558D	02
VE	2.3678292D	04	PTE	-2.4730517D	00	AZE	-8.9739040D	01

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TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 18 HRS., 8 MIN., 14.665 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 3.54646060 05
 X 2.91401130 08 Y 1.43865120 08 Z 6.75938890 07
 DX-1.00049490 03 DY-2.95343510 02 DZ-1.02889330 02
 R 3.31934820 03 DEC 1.17496640 01 RA 2.62756120 01
 V 1.04923860 03 PTH-7.85230840 01 AZ 5.86292390 01
 ALT 3.25557550 08 LTGD 1.17511340 01 LON 3.39251240 02
 VE 2.35424850 04 PTE-2.50089500 00 AZE-8.97354330 01

TIME 5 FEB. 1968 19 HRS., 38 MIN., 14.665 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 3.56446060 05
 X 2.89595300 08 Y 1.43331670 08 Z 6.74078580 07
 DX-1.00599560 03 DY-2.97393440 02 DZ-1.03818040 02
 R 3.30080640 03 DEC 1.17836270 01 RA 2.63325470 01
 V 1.05415760 03 PTH-7.84867790 01 AZ 5.86504440 01
 ALT 3.23703360 08 LTGD 1.17851090 01 LON 3.31787640 02
 VE 2.34059610 04 PTE-2.52937870 00 AZE-8.97317850 01

TIME 5 FEB. 1968 19 HRS., 8 MIN., 14.665 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 3.58246060 05
 X 2.87779510 08 Y 1.42794460 08 Z 6.72201220 07
 DX-1.01156880 03 DY-2.99517420 02 DZ-1.04784580 02
 R 3.28216160 03 DEC 1.18180500 01 RA 2.63903290 01
 V 1.05017070 03 PTH-7.84523350 01 AZ 5.86907530 01
 ALT 3.21338890 08 LTGD 1.18195440 01 LON 3.24324890 02
 VE 2.32687060 04 PTE-2.55851750 00 AZE-8.97280940 01

TIME 5 FEB. 1968 19 HRS., 38 MIN., 14.665 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 3.60046060 05
 X 2.85953610 08 Y 1.42253360 08 Z 6.70306120 07
 DX-1.01721540 03 DY-3.01714090 02 DZ-1.05788230 02
 R 3.26341220 08 DEC 1.18529380 01 RA 2.64489590 01
 V 1.06627840 03 PTH-7.84196000 01 AZ 5.87202520 01
 ALT 3.19963950 08 LTGD 1.18544450 01 LON 3.16863000 02
 VE 2.31307060 04 PTE-2.58832690 00 AZE-8.97242530 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 20 HRS., 8 MIN., 14.665 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 3.61846060 05
 X 2.84117490 08 Y 1.41708250 08 Z 6.68392620 07
 DX-1.02293600 03 DY-3.03982330 02 DZ-1.04828400 02
 R 3.24455640 08 DEC 1.18882970 01 RA 2.65084760 01
 V 1.07248100 03 PTH-7.83884290 01 AZ 5.87490160 01
 ALT 3.18078380 08 LTGD 1.18898170 01 LON 3.09401970 02
 VF 2.29919460 04 PTE-2.61882380 00 AZE-8.97205600 01

TIME 5 FEB. 1968 20 HRS., 38 MIN., 14.665 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 3.63646060 05
 X 2.82271000 08 Y 1.41158980 08 Z 6.66460080 07
 DX-1.02873150 03 DY-3.06321230 02 DZ-1.07904630 02
 R 3.22559240 08 DEC 1.19241330 01 RA 2.65688630 01
 V 1.07877920 03 PTH-7.83586910 01 AZ 5.87771160 01
 ALT 3.16181990 08 LTGD 1.19256670 01 LON 3.01941830 02
 VF 2.28524140 04 PTE-2.65002590 00 AZE-8.97167100 01

TIME 5 FEB. 1968 21 HRS., 8 MIN., 14.665 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 3.65446060 05
 X 2.80414010 08 Y 1.40605450 08 Z 6.64507840 07
 DX-1.03460290 03 DY-3.08730050 02 DZ-1.09016520 02
 R 3.20651860 08 DEC 1.19604550 01 RA 2.66301420 01
 V 1.08517380 03 PTH-7.83302630 01 AZ 5.88046170 01
 ALT 3.14274610 08 LTGD 1.19620020 01 LON 2.94482570 02
 VF 2.27120950 04 PTE-2.68195200 00 AZE-8.97127990 01

TIME 5 FEB. 1968 21 HRS., 38 MIN., 14.665 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 3.67246060 05
 X 2.78546380 08 Y 1.40047510 08 Z 6.62535270 07
 DX-1.04055130 03 DY-3.11208240 02 DZ-1.10163800 02
 R 3.18733310 08 DEC 1.19972700 01 RA 2.66923280 01
 V 1.09166560 03 PTH-7.83030310 01 AZ 5.83315780 01
 ALT 3.12356070 08 LTGD 1.19988300 01 LON 2.87024220 02
 VF 2.25709760 04 PTE-2.71462220 00 AZE-8.97083240 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968		22 HRS., 8 MIN., 14.665 SEC., GMT	
GEOCENTRIC REFERENCE		FLIGHT TIME 3.59046060 05	
X 2.76657980 08	Y 1.39485060 08	Z 6.60541730 07	
DX-1.04657790 03	DY-3.13755410 02	DZ-1.11346260 02	
R 3.16803420 08	DEC 1.20345840 01	RA 2.67554340 01	
V 1.09825570 03	PTH-7.82768890 01	AZ 5.88580540 01	
ALT 3.10426180 08	LTGD 1.20361590 01	LON 2.79566900 02	
VF 2.24290420 04	PTF-2.74805760 00	AZF-8.97047800 01	

TIME 5 FEB. 1968		22 HRS., 38 MIN., 14.665 SEC., GMT	
GEOCENTRIC REFERENCE		FLIGHT TIME 3.70846060 05	
X 2.74778650 08	Y 1.38917950 08	Z 6.58526590 07	
DX-1.05258370 03	DY-3.16371310 02	DZ-1.12563780 02	
R 3.14852000 08	DEC 1.20724090 01	RA 2.68194760 01	
V 1.10494540 03	PTH-7.82517390 01	AZ 5.88840960 01	
ALT 3.08484770 08	LTGD 1.20739980 01	LON 2.72110310 02	
VF 2.22852790 04	PTF-2.78228030 00	AZF-8.97005630 01	

TIME 5 FEB. 1968		23 HRS., 8 MIN., 14.665 SEC., GMT	
GEOCENTRIC REFERENCE		FLIGHT TIME 3.72646060 05	
X 2.72878270 08	Y 1.38346080 08	Z 6.56489230 07	
DX-1.05887020 03	DY-3.19055870 02	DZ-1.13816320 02	
R 3.12908880 08	DEC 1.21107510 01	RA 2.68844720 01	
V 1.11173600 03	PTH-7.82274880 01	AZ 5.89097520 01	
ALT 3.06531660 08	LTGD 1.21123550 01	LON 2.64654770 02	
VF 2.21426750 04	PTF-2.81731400 00	AZF-8.96964590 01	

TIME 5 FEB. 1968		23 HRS., 38 MIN., 14.665 SEC., GMT	
GEOCENTRIC REFERENCE		FLIGHT TIME 3.74446060 05	
X 2.70966670 08	Y 1.37769310 08	Z 6.54420000 07	
DX-1.06513880 03	DY-3.21800120 02	DZ-1.15103910 02	
R 3.10943870 08	DEC 1.21496210 01	RA 2.69504380 01	
V 1.11862890 03	PTH-7.82040480 01	AZ 5.89350660 01	
ALT 3.04566660 08	LTGD 1.21512400 01	LON 2.57200200 02	
VF 2.19932140 04	PTF-2.85318340 00	AZF-8.96921930 01	

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	6	FEB.	1968	0	HRS.,	8	MIN.,	14.665	SEC.,	GMT
GEOCENTRIC REFERENCE				FLIGHT TIME 3.7624606D 05						
X	2.6904372D	08		Y	1.3718752D	08		Z	6.5234527D	07
DX	-1.0714909D	03		DY	-3.2463126D	02		DZ	-1.1642666D	02
R	3.0896680D	08		DEC	1.2189030D	01		RA	2.7017393D	01
V	1.1256258D	03		PTH	-7.9181338D	01		AZ	5.8960079D	01
ALT	3.0258959D	08		LTGD	1.2130664D	01		LON	2.4974662D	02
VF	2.1852883D	04		PTE	-2.8899146D	00		AZE	-8.9687832D	01

TIME	6	FEB.	1968	0	HRS.,	38	MIN.,	14.665	SEC.,	GMT
GEOCENTRIC REFERENCE				FLIGHT TIME 3.7804606D 05						
X	2.6710925D	08		Y	1.3660060D	08		Z	6.5023743D	07
DX	-1.0779282D	03		DY	-3.2752260D	02		DZ	-1.1778471D	02
R	3.0697746D	08		DEC	1.2228987D	01		RA	2.7085358D	01
V	1.1327283D	03		PTH	-7.8159281D	01		AZ	5.8984830D	01
ALT	3.0060026D	08		LTGD	1.2230637D	01		LON	2.4229406D	02
VF	2.1706668D	04		PTE	-2.9275351D	00		AZE	-8.9683381D	01

TIME	6	FEB.	1968	1	HRS.,	8	MIN.,	14.665	SEC.,	GMT
GEOCENTRIC REFERENCE				FLIGHT TIME 3.7984606D 05						
X	2.6516312D	08		Y	1.3600840D	08		Z	6.4810481D	07
DX	-1.0844522D	03		DY	-3.3048356D	02		DZ	-1.1917832D	02
R	3.0497568D	08		DEC	1.2269504D	01		RA	2.7154353D	01
V	1.1399384D	03		PTH	-7.8137804D	01		AZ	5.9009357D	01
ALT	2.9859848D	08		LTGD	1.2271170D	01		LON	2.3484252D	02
VF	2.1559554D	04		PTE	-2.9660737D	00		AZE	-8.9678835D	01

TIME	6	FEB.	1968	1	HRS.,	38	MIN.,	14.665	SEC.,	GMT
GEOCENTRIC REFERENCE				FLIGHT TIME 3.8164606D 05						
X	2.6320517D	08		Y	1.3541081D	08		Z	6.4594679D	07
DX	-1.0910648D	03		DY	-3.3351471D	02		DZ	-1.2060778D	02
R	3.0296126D	08		DEC	1.2310592D	01		RA	2.7224397D	01
V	1.1472579D	03		PTH	-7.8116837D	01		AZ	5.9033693D	01
ALT	2.9558406D	08		LTGD	1.2312275D	01		LON	2.2739203D	02
VF	2.1411527D	04		PTE	-3.0055610D	00		AZE	-8.9674189D	01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 6 FEB. 1968 2 HRS., 3 MIN., 14.665 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 3.83446060 05
 X 2.61235240 02 Y 1.34807710 08 Z 6.43762710 07
 DX-1.09776790 03 DY-3.36616720 02 DZ-1.22073440 02
 P 3.00934000 08 DEC 1.23522650 01 RA 2.72955210 01
 V 1.15468920 03 PTH-7.80963160 01 AZ 5.90578730 01
 ALT 2.94556810 08 LTGD 1.23539640 01 LON 2.19942620 02
 VE 2.12625720 04 PTE-3.04602900 00 AZE-8.96694390 01

TIME 6 FEB. 1968 2 HRS., 38 MIN., 14.665 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 3.85246060 05
 X 2.59253150 08 Y 1.34198950 08 Z 6.41551930 07
 DX-1.10456330 03 DY-3.39790370 02 DZ-1.23575720 02
 P 2.98893700 08 DEC 1.23945340 01 RA 2.73677410 01
 V 1.16223430 03 PTH-7.80761770 01 AZ 5.90819270 01
 ALT 2.92516520 08 LTGD 1.23962510 01 LON 2.12494310 02
 VE 2.11126750 04 PTE-3.08751130 00 AZE-8.96645790 01

TIME 6 FEB. 1968 3 HRS., 8 MIN., 14.665 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 3.87046060 05
 X 2.57258750 08 Y 1.33584420 08 Z 6.39313770 07
 DX-1.11145310 03 DY-3.43036580 02 DZ-1.25115110 02
 P 2.96840160 08 DEC 1.24374150 01 RA 2.74410870 01
 V 1.15989570 03 PTH-7.80563610 01 AZ 5.91058850 01
 ALT 2.90462990 08 LTGD 1.24391480 01 LON 2.05047120 02
 VE 2.09618190 04 PTE-3.13004350 00 AZE-8.96596050 01

TIME 6 FEB. 1968 3 HRS., 38 MIN., 14.665 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 3.88846060 05
 X 2.55251860 08 Y 1.32963970 08 Z 6.37047560 07
 DX-1.11843950 03 DY-3.46356370 02 DZ-1.26692150 02
 P 2.94773180 08 DEC 1.24809220 01 RA 2.75155850 01
 V 1.17767590 03 PTH-7.80368110 01 AZ 5.91297780 01
 ALT 2.88396010 08 LTGD 1.24826710 01 LON 1.97601080 02
 VE 2.08099900 04 PTE-3.17366290 00 AZE-8.96545100 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	6	FEB. 1968	4	HRS.,	8	MIN.,	14.665	SEC.,	GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 3.9064606D 05						
X	2.5323231D	08	Y	1.3233749D	08	Z	6.3475262D	07	
DX	-1.1255247D	03	DY	-3.4975088D	02	DZ	-1.2830744D	02	
R	2.9269254D	08	DEC	1.2525064D	01	RA	2.7591262D	01	
V	1.1855776D	03	PTH	-7.8017471D	01	AZ	5.9153633D	01	
ALT	2.8631538D	08	LTGD	1.2526834D	01	LON	1.9015623D	02	
VE	2.0657172D	04	PTE	-3.2194088D	00	AZE	-8.9649289D	01	

TIME	6	FEB. 1968	4	HRS.,	38	MIN.,	14.665	SEC.,	GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 3.9244606D 05						
X	2.5119991D	03	Y	1.3170482D	08	Z	6.3242826D	07	
DX	-1.1327110D	03	DY	-3.5322135D	02	DZ	-1.2996165D	02	
R	2.9059803D	08	DEC	1.2569864D	01	RA	2.7568148D	01	
V	1.1936036D	03	PTH	-7.7998288D	01	AZ	5.9177476D	01	
ALT	2.8422087D	08	LTGD	1.2571653D	01	LON	1.8271258D	02	
VE	2.0503349D	04	PTE	-3.2643227D	00	AZE	-8.9643935D	01	

TIME	6	FEB. 1968	5	HRS.,	8	MIN.,	14.665	SEC.,	GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 3.9424606D 05						
X	2.4915449D	08	Y	1.3106585D	08	Z	6.3007376D	07	
DX	-1.1400011D	03	DY	-3.5676917D	02	DZ	-1.3165550D	02	
R	2.8848942D	08	DEC	1.2615336D	01	RA	2.7746275D	01	
V	1.2017570D	03	PTH	-7.7979211D	01	AZ	5.9201335D	01	
ALT	2.8211227D	08	LTGD	1.2617144D	01	LON	1.7527017D	02	
VE	2.0348505D	04	PTE	-3.3114482D	00	AZE	-8.9638444D	01	

TIME	6	FEB. 1968	5	HRS.,	38	MIN.,	14.665	SEC.,	GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 3.9604606D 05						
X	2.4709585D	08	Y	1.3042041D	08	Z	6.2768841D	07	
DX	-1.1473974D	03	DY	-3.6039582D	02	DZ	-1.3338979D	02	
R	2.8636649D	08	DEC	1.2661496D	01	RA	2.7825675D	01	
V	1.2100408D	03	PTH	-7.7960191D	01	AZ	5.9225235D	01	
ALT	2.7998935D	08	LTGD	1.2663324D	01	LON	1.6782904D	02	
VE	2.0192623D	04	PTE	-3.3593130D	00	AZE	-8.9632807D	01	

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	6	FEB. 1968	6 HRS.,	8 MIN.,	14.665 SEC.,	GMT		
GEOCENTRIC REFERENCE				FLIGHT TIME	3.9784606D	05		
X	2.4502379D	08	Y	1.2976837D	08	Z	6.2527148D	07
DX	-1.1549027D	03	DY	-3.6410290D	02	DZ	-1.3516536D	02
R	2.8422902D	08	DEC	1.2708364D	01	RA	2.7906382D	01
V	1.2184584D	03	PTH	-7.7941179D	01	AZ	5.9249202D	01
ALT	2.7785188D	08	LTGD	1.2710211D	01	LON	1.6038922D	02
VE	2.0035686D	04	PTE	-3.4095204D	00	AZF	-8.9627019D	01

TIME	6	FEB. 1968	6 HRS.,	38 MIN.,	14.665 SEC.,	GMT		
GEOCENTRIC REFERENCE				FLIGHT TIME	3.9964606D	05		
X	2.4293813D	08	Y	1.2910959D	08	Z	6.2282221D	07
DX	-1.1625198D	03	DY	-3.6789217D	02	DZ	-1.3698314D	02
R	2.8207675D	08	DEC	1.2755956D	01	RA	2.7988431D	01
V	1.2270132D	03	PTH	-7.7922128D	01	AZ	5.9273259D	01
ALT	2.7569963D	08	LTGD	1.2757824D	01	LON	1.5295073D	02
VE	1.9877678D	04	PTE	-3.4605668D	00	AZF	-8.9621072D	01

TIME	6	FEB. 1968	7 HRS.,	8 MIN.,	14.665 SEC.,	GMT		
GEOCENTRIC REFERENCE				FLIGHT TIME	4.0144606D	05		
X	2.4083865D	08	Y	1.2844391D	08	Z	6.2033983D	07
DX	-1.1702517D	03	DY	-3.7176549D	02	DZ	-1.3984413D	02
R	2.7990947D	08	DEC	1.2804294D	01	RA	2.8071861D	01
V	1.2357088D	03	PTH	-7.7902091D	01	AZ	5.9297433D	01
ALT	2.7353235D	08	LTGD	1.2806183D	01	LON	1.4551363D	02
VE	1.9718579D	04	PTE	-3.5130245D	00	AZF	-8.9614958D	01

TIME	6	FEB. 1968	7 HRS.,	38 MIN.,	14.665 SEC.,	GMT		
GEOCENTRIC REFERENCE				FLIGHT TIME	4.0324606D	05		
X	2.3872515D	08	Y	1.2777119D	08	Z	6.1782355D	07
DX	-1.1781016D	03	DY	-3.7572485D	02	DZ	-1.4074937D	02
R	2.7772690D	08	DEC	1.2853398D	01	RA	2.8156710D	01
V	1.2445493D	03	PTH	-7.7883724D	01	AZ	5.9321746D	01
ALT	2.7134980D	08	LTGD	1.2855309D	01	LON	1.3807794D	02
VE	1.9558373D	04	PTE	-3.5669504D	00	AZF	-8.9608669D	01

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	6	FEB. 1968	8	HRS.,	8	MIN.,	14.665	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	4.05046060	05
X	2.36597410	08	Y	1.27091250	08	Z	6.15272580	07	
DX	-1.18607260	03	DY	-3.79772390	02	DZ	-1.42700010	02	
R	2.75528810	08	DEC	1.29032890	01	RA	2.82430210	01	
V	1.25353940	03	PTH	-7.78642820	01	AZ	5.93462240	01	
ALT	2.69151710	08	LTGD	1.29052220	01	LON	1.30643720	02	
VE	1.93970410	04	PTE	-3.62240500	00	AZE	-8.96021970	01	

TIME	6	FEB. 1968	9	HRS.,	38	MIN.,	14.665	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	4.06846060	05
X	2.34455220	08	Y	1.26403950	08	Z	6.12686070	07	
DX	-1.19416830	03	DY	-3.83910390	02	DZ	-1.44697270	02	
R	2.73314920	08	DEC	1.29539890	01	RA	2.83308360	01	
V	1.26268060	03	PTH	-7.78446190	01	AZ	5.93708900	01	
ALT	2.66937830	08	LTGD	1.29559450	01	LON	1.23211000	02	
VE	1.92345630	04	PTE	-3.67945180	00	AZE	-8.95955330	01	

TIME	6	FEB. 1968	9	HRS.,	8	MIN.,	14.665	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	4.08646060	05
X	2.32298330	08	Y	1.25709110	08	Z	6.10063190	07	
DX	-1.20239220	03	DY	-3.38141290	02	DZ	-1.46742420	02	
R	2.71084980	08	DEC	1.30055240	01	RA	2.84202010	01	
V	1.27198030	03	PTH	-7.78246940	01	AZ	5.93957690	01	
ALT	2.64707900	08	LTGD	1.30075030	01	LON	1.15779840	02	
VE	1.90709200	04	PTE	-3.73315830	00	AZE	-8.95886680	01	

TIME	6	FEB. 1968	9	HRS.,	38	MIN.,	14.665	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	4.10446060	05
X	2.30126520	08	Y	1.25006580	08	Z	6.07403050	07	
DX	-1.21074800	03	DY	-3.92467660	02	DZ	-1.48836840	02	
R	2.68838700	08	DEC	1.30579160	01	RA	2.85111640	01	
V	1.28144220	03	PTH	-7.78044610	01	AZ	5.94208850	01	
ALT	2.62461630	08	LTGD	1.30599190	01	LON	1.03350270	02	
VE	1.89060920	04	PTE	-3.79859590	00	AZE	-8.95815910	01	

TABLE 10-1 TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	6	FEB. 1968	10 HRS.,	8 MIN.,	14.665 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	4.1224606D 05	
X	2.2793956D	08	Y	1.2429617D	08	Z	6.0470476D 07
DX	-1.2192398D	03	DY	-3.9689226D	02	DZ	-1.5098200D 02
R	2.6657580D	08	DEC	1.3111193D	01	RA	2.8603775D 01
V	1.2910712D	03	PTH	-7.7793878D	01	AZ	5.9446262D 01
ALT	2.6019874D	08	LTGD	1.3113220D	01	LON	1.0092234D 02
VE	1.8740059D	04	PTE	-3.8608402D	00	AZE	-8.9574292D 01
TIME	6	FEB. 1968	10 HRS.,	38 MIN.,	14.665 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	4.1404606D 05	
X	2.2573718D	08	Y	1.2357771D	08	Z	6.0196739D 07
DX	-1.2278717D	03	DY	-4.0141800D	02	DZ	-1.5317946D 02
R	2.6429599D	08	DEC	1.3155381D	01	RA	2.8698087D 01
V	1.3008725D	03	PTH	-7.7762900D	01	AZ	5.9471926D 01
ALT	2.5791893D	08	LTGD	1.3167434D	01	LON	9.3496123D 01
VE	1.8572799D	04	PTE	-3.9249714D	00	AZE	-8.9566760D 01
TIME	6	FEB. 1968	11 HRS.,	8 MIN.,	14.665 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	4.1584606D 05	
X	2.2351913D	08	Y	1.2285100D	08	Z	5.9918998D 07
DX	-1.2366479D	03	DY	-4.0604799D	02	DZ	-1.5543086D 02
R	2.6199897D	08	DEC	1.3220509D	01	RA	2.8794156D 01
V	1.3108515D	03	PTH	-7.7741485D	01	AZ	5.9497902D 01
ALT	2.5562192D	08	LTGD	1.3222589D	01	LON	8.6071659D 01
VE	1.8404290D	04	PTE	-3.9910746D	00	AZE	-8.9558982D 01
TIME	6	FEB. 1968	11 HRS.,	38 MIN.,	14.665 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	4.1764606D 05	
X	2.2128516D	08	Y	1.2211587D	08	Z	5.9637154D 07
DX	-1.2455731D	03	DY	-4.1078552D	02	DZ	-1.5773797D 02
R	2.5968442D	08	DEC	1.3276608D	01	PA	2.8892040D 01
V	1.3210141D	03	PTH	-7.7719587D	01	AZ	5.9524216D 01
ALT	2.5330738D	08	LTGD	1.3278714D	01	LON	7.8649010D 01
VE	1.8234511D	04	PTE	-4.0592401D	00	AZE	-8.9550947D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	6	FEB. 1968	12 HRS.,	8 MIN.,	14.665 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	4.1944606D 05	
X	2.1903498D	08	Y	1.2137211D	08	Z	5.9351106D 07
DX	-1.2546520D	03	DY	-4.1563409D	02	DZ	-1.6010264D 02
R	2.5735207D	08	DEC	1.3333709D	01	RA	2.8991802D 01
V	1.3313663D	03	PTH	-7.7697162D	01	AZ	5.9550894D 01
ALT	2.5097499D	08	LTGD	1.3335843D	01	LON	7.1228238D 01
VE	1.8063438D	04	PTE	-4.1295639D	00	AZE	-8.9542640D 01

TIME	6	FEB. 1968	12 HRS.,	38 MIN.,	14.665 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	4.2124606D 05	
X	2.1676831D	08	Y	1.2061957D	08	Z	5.9060749D 07
DX	-1.2638897D	03	DY	-4.2059741D	02	DZ	-1.6252687D 02
R	2.5500145D	08	DEC	1.3301845D	01	RA	2.9093505D 01
V	1.3419144D	03	PTH	-7.7674164D	01	AZ	5.9577963D 01
ALT	2.4862444D	08	LTGD	1.3394007D	01	LON	6.3309409D 01
VE	1.7891046D	04	PTE	-4.2021482D	00	AZE	-8.9534048D 01

TIME	6	FEB. 1968.	13 HRS.,	8 MIN.,	14.665 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	4.2304606D 05	
X	2.1448488D	08	Y	1.1985739D	08	Z	5.8765973D 07
DX	-1.2732914D	03	DY	-4.2567942D	02	DZ	-1.6501275D 02
R	2.5263237D	08	DEC	1.3451051D	01	RA	2.9197218D 01
V	1.3526652D	03	PTH	-7.7650547D	01	AZ	5.9605453D 01
ALT	2.4625536D	08	LTGD	1.3453242D	01	LON	5.6392589D 01
VE	1.7717313D	04	PTE	-4.2771018D	00	AZE	-8.9525155D 01

TIME	6	FEB. 1968	13 HRS.,	38 MIN.,	14.665 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	4.2484606D 05	
X	2.1218436D	08	Y	1.1908700D	08	Z	5.8466665D 07
DX	-1.2828627D	03	DY	-4.3088430D	02	DZ	-1.6756252D 02
R	2.5024442D	08	DEC	1.3511364D	01	RA	2.9303015D 01
V	1.3636257D	03	PTH	-7.7626264D	01	AZ	5.9633391D 01
ALT	2.4386742D	08	LTGD	1.3513586D	01	LON	4.8977852D 01
VE	1.7542212D	04	PTE	-4.3546405D	00	AZE	-8.9515945D 01

TABLE 10- I TRANSUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 6 FEB. 1968 14 HRS., 3 MIN., 14.665 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 4.2664606D 05
 X 2.0986646D 08 Y 1.1830663D 08 Z 5.8162708D 07
 DX-1.2926094D 03 DY-4.3621649D 02 DZ-1.7017857D 02
 R 2.4783723D 08 DEC 1.3572823D 01 RA 2.9410970D 01
 V 1.3748035D 03 PTH-7.7601267D 01 AZ 5.9661807D 01
 ALT 2.4146024D 08 LTGD 1.3575076D 01 LON 4.1565274D 01
 VE 1.7365718D 04 PTE-4.4345880D 00 AZE-8.9506399D 01

TIME 6 FEB. 1968 14 HRS., 38 MIN., 14.665 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 4.2344606D 05
 X 2.0753096D 08 Y 1.1751654D 08 Z 5.7853980D 07
 DX-1.3025378D 03 DY-4.4168072D 02 DZ-1.7286342D 02
 R 2.4541043D 08 DEC 1.3635469D 01 RA 2.9521165D 01
 V 1.3862064D 03 PTH-7.7575505D 01 AZ 5.9690733D 01
 ALT 2.3903345D 08 LTGD 1.3637753D 01 LON 3.4154936D 01
 VE 1.7187803D 04 PTE-4.5173763D 00 AZE-8.9496501D 01

TIME 6 FEB. 1968 15 HRS., 8 MIN., 14.665 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 4.3024606D 05
 X 2.0517722D 08 Y 1.1671650D 08 Z 5.7540357D 07
 DX-1.3126542D 03 DY-4.4728199D 02 DZ-1.7561975D 02
 R 2.4296362D 08 DEC 1.3699344D 01 RA 2.9633685D 01
 V 1.3978428D 03 PTH-7.7548927D 01 AZ 5.9720201D 01
 ALT 2.3658666D 08 LTGD 1.3701662D 01 LON 2.6746923D 01
 VE 1.7008439D 04 PTE-4.6030465D 00 AZE-8.9486229D 01

TIME 6 FEB. 1968 15 HRS., 38 MIN., 14.665 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 4.3204606D 05
 X 2.0280519D 08 Y 1.1590624D 08 Z 5.7221705D 07
 DX-1.3229655D 03 DY-4.5302565D 02 DZ-1.7845044D 02
 R 2.4049641D 08 DEC 1.3764495D 01 RA 2.9748620D 01
 V 1.4097215D 03 PTH-7.7521480D 01 AZ 5.9750245D 01
 ALT 2.3411946D 08 LTGD 1.3766846D 01 LON 1.9341325D 01
 VE 1.6827599D 04 PTE-4.6917496D 00 AZE-8.9475560D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	6	FEB. 1968	16 HRS.,	8 MIN.,	14.665 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	4.3384606D 05	
X	2.0041442D	08	Y	1.1508551D	08	Z	5.6897889D 07
DX	-1.3334791D	03	DY	-4.5891735D	02	DZ	-1.8135853D 02
R	2.3800837D	08	DEC	1.3830969D	01	RA	2.9866065D 01
V	1.4218518D	03	PTH	-7.7493110D	01	AZ	5.9780901D 01
ALT	2.3163143D	08	LTGD	1.3833356D	01	LON	1.1938237D 01
VE	1.6645251D	04	PTE	-4.7836475D	00	AZE	-8.9464474D 01

TIME	6	FEB. 1968	16 HRS.,	38 MIN.,	14.665 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	4.3564606D 05	
X	1.9800454D	08	Y	1.1425405D	08	Z	5.6568766D 07
DX	-1.3442024D	03	DY	-4.6496316D	02	DZ	-1.8434727D 02
R	2.3549906D	08	DEC	1.3898818D	01	RA	2.9986123D 01
V	1.4342436D	03	PTH	-7.7463759D	01	AZ	5.9812205D 01
ALT	2.2912213D	08	LTGD	1.3901241D	01	LON	4.5377616D 00
VE	1.6461365D	04	PTE	-4.8789135D	00	AZE	-8.9452945D 01

TIME	6	FEB. 1968	17 HRS.,	8 MIN.,	14.665 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	4.3744606D 05	
X	1.9557516D	08	Y	1.1341155D	08	Z	5.6234188D 07
DX	-1.3551436D	03	DY	-4.7116950D	02	DZ	-1.8742013D 02
R	2.3296804D	08	DEC	1.3968095D	01	RA	3.0108899D 01
V	1.4469074D	03	PTH	-7.7433367D	01	AZ	5.9844197D 01
ALT	2.2659112D	08	LTGD	1.3970555D	01	LON	3.5713997D 02
VE	1.6275910D	04	PTE	-4.9777341D	00	AZE	-8.9440946D 01

TIME	6	FEB. 1968	17 HRS.,	38 MIN.,	14.665 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	4.3924606D 05	
X	1.9312588D	08	Y	1.1255773D	08	Z	5.5894000D 07
DX	-1.3563112D	03	DY	-4.7754324D	02	DZ	-1.9058080D 02
R	2.3041482D	08	DEC	1.4038857D	01	RA	3.0234510D 01
V	1.4598544D	03	PTH	-7.7401874D	01	AZ	5.9876917D 01
ALT	2.2403791D	08	LTGD	1.4041356D	01	LON	3.4974505D 02
VE	1.6088851D	04	PTE	-5.0803094D	00	AZE	-8.9428447D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	6	FEB. 1968	18 HRS.,	8 MIN.,	14.665 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	4.4104606D 05		
X	1.9065630D	08	Y	1.1169229D	08	Z	5.5548042D	07
DX	-1.3777142D	03	DY	-4.8409171D	02	DZ	-1.9383324D	02
R	2.2783893D	08	DEC	1.4111164D	01	RA	3.0363075D	01
V	1.4730963D	03	PTH	-7.7369212D	01	AZ	5.9910410D	01
ALT	2.2146203D	08	LTGD	1.4113704D	01	LON	3.4235308D	02
VE	1.5900155D	04	PTE	-5.1868552D	00	AZE	-8.9415418D	01

TIME	6	FEB. 1968	18 HRS.,	38 MIN.,	14.665 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	4.4284606D 05		
X	1.8816597D	08	Y	1.1081489D	08	Z	5.5196143D	07
DX	-1.3893623D	03	DY	-4.9082273D	02	DZ	-1.9718168D	02
R	2.2523984D	08	DEC	1.4185082D	01	RA	3.0494724D	01
V	1.4866456D	03	PTH	-7.7335316D	01	AZ	5.9944721D	01
ALT	2.1886296D	08	LTGD	1.4187663D	01	LON	3.3496419D	02
VE	1.5709786D	04	PTE	-5.2976038D	00	AZE	-8.9401825D	01

TIME	6	FEB. 1968	19 HRS.,	8 MIN.,	14.665 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	4.4464606D 05		
X	1.8565444D	08	Y	1.0992521D	08	Z	5.4838128D	07
DX	-1.4012657D	03	DY	-4.9774468D	02	DZ	-2.0063063D	02
R	2.2261703D	08	DEC	1.4260677D	01	RA	3.0629595D	01
V	1.5005159D	03	PTH	-7.7300111D	01	AZ	5.9979898D	01
ALT	2.1624017D	08	LTGD	1.4263302D	01	LON	3.2757853D	02
VE	1.5517706D	04	PTE	-5.4128062D	00	AZE	-8.9387630D	01

TIME	6	FEB. 1968	19 HRS.,	38 MIN.,	14.665 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	4.4644606D 05		
X	1.8312125D	08	Y	1.0902289D	08	Z	5.4473810D	07
DX	-1.4134351D	03	DY	-5.0486651D	02	DZ	-2.0418495D	02
R	2.1996995D	08	DEC	1.4338024D	01	RA	3.0767835D	01
V	1.5147212D	03	PTH	-7.7263524D	01	AZ	6.0015995D	01
ALT	2.1359310D	08	LTGD	1.4340693D	01	LON	3.2019624D	02
VE	1.5323878D	04	PTE	-5.5327335D	00	AZE	-8.9372795D	01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	6	FEB. 1968	20 HRS.,	8 MIN.,	14.665 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	4.4824606D 05		
X	1.8056591D	08	Y	1.0810757D	08	Z	5.4102995D	07
DX	-1.4258820D	03	DY	-5.1219782D	02	DZ	-2.0784984D	02
R	2.1729801D	08	DEC	1.4417198D	01	RA	3.0909600D	01
V	1.5292768D	03	PTH	-7.7225473D	01	AZ	6.0053065D	01
ALT	2.1092117D	08	LTGD	1.4419914D	01	LON	3.1281747D	02
VE	1.5128261D	04	PTE	-5.6576796D	00	AZE	-8.9357275D	01

TIME	6	FEB. 1968	20 HRS.,	38 MIN.,	14.665 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	4.5004606D 05		
X	1.7798790D	08	Y	1.0717885D	08	Z	5.3725481D	07
DX	-1.4386188D	03	DY	-5.1974893D	02	DZ	-2.1163090D	02
R	2.1460062D	08	DEC	1.4498283D	01	RA	3.1055058D	01
V	1.5441990D	03	PTH	-7.7185874D	01	AZ	6.0091168D	01
ALT	2.0822379D	08	LTGD	1.4501047D	01	LON	3.0544240D	02
VE	1.4930814D	04	PTE	-5.7979628D	00	AZE	-8.9341023D	01

TIME	6	FEB. 1968	21 HRS.,	8 MIN.,	14.665 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	4.5184606D 05		
X	1.7538670D	08	Y	1.0623633D	08	Z	5.3341051D	07
DX	-1.4516584D	03	DY	-5.2753089D	02	DZ	-2.1553412D	02
R	2.1187713D	08	DEC	1.4581366D	01	RA	3.1204390D	01
V	1.5595050D	03	PTH	-7.7144637D	01	AZ	6.0130368D	01
ALT	2.0550032D	08	LTGD	1.4584180D	01	LON	2.9807119D	02
VE	1.4731492D	04	PTE	-5.9239289D	00	AZE	-8.9323988D	01

TIME	6	FEB. 1968	21 HRS.,	38 MIN.,	14.665 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	4.5364606D 05		
X	1.7276174D	08	Y	1.0527959D	08	Z	5.2949481D	07
DX	-1.4650147D	03	DY	-5.3555561D	02	DZ	-2.1956598D	02
R	2.0912690D	08	DEC	1.4666541D	01	RA	3.1357787D	01
V	1.5752134D	03	PTH	-7.7101666D	01	AZ	6.0170730D	01
ALT	2.0275010D	08	LTGD	1.4669408D	01	LON	2.9070406D	02
VE	1.4530252D	04	PTE	-6.0659543D	00	AZE	-8.9306113D	01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	6	FEB. 1968	22 HRS.,	8 MIN.,	14.665 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	4.5544606D 05	
X	1.7011245D	08	Y	1.0430818D	08	Z	5.2550532D 07
DX	-1.4787028D	03	DY	-5.4383592D	02	DZ	-2.2373348D 02
R	2.0634922D	08	DEC	1.4753910D	01	RA	3.1515456D 01
V	1.5913442D	03	PTH	-7.7056859D	01	AZ	6.0212329D 01
ALT	1.9997244D	08	LTGD	1.4756830D	01	LON	2.8334119D 02
VE	1.4327045D	04	PTE	-6.2144491D	00	AZE	-8.9287336D 01

TIME	6	FEB. 1968	22 HRS.,	38 MIN.,	14.665 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	4.5724606D 05	
X	1.6743820D	08	Y	1.0332162D	08	Z	5.2143954D 07
DX	-1.4927385D	03	DY	-5.5238567D	02	DZ	-2.2804414D 02
R	2.0354336D	08	DEC	1.4843579D	01	RA	3.1677620D 01
V	1.6079187D	03	PTH	-7.7010106D	01	AZ	6.0255241D 01
ALT	1.9715660D	08	LTGD	1.4846556D	01	LON	2.7598283D 02
VE	1.4121823D	04	PTE	-6.3698611D	00	AZE	-8.9267589D 01

TIME	6	FEB. 1968	23 HRS.,	8 MIN.,	14.665 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	4.5904606D 05	
X	1.6473837D	08	Y	1.0231942D	08	Z	5.1729482D 07
DX	-1.5071390D	03	DY	-5.6121980D	02	DZ	-2.3250615D 02
R	2.0070858D	08	DEC	1.4935664D	01	RA	3.1844520D 01
V	1.6249599D	03	PTH	-7.6961292D	01	AZ	6.0299551D 01
ALT	1.9433183D	08	LTGD	1.4938700D	01	LON	2.6862919D 02
VE	1.3914535D	04	PTE	-6.5326801D	00	AZE	-8.9246798D 01

TIME	6	FEB. 1968	23 HRS.,	38 MIN.,	14.665 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	4.6084606D 05	
X	1.6201227D	08	Y	1.0130105D	08	Z	5.1306836D 07
DX	-1.5219224D	03	DY	-5.7035450D	02	DZ	-2.3712834D 02
R	1.9784406D	08	DEC	1.5030291D	01	RA	3.2016412D 01
V	1.6424926D	03	PTH	-7.6910289D	01	AZ	6.0345351D 01
ALT	1.9146733D	08	LTGD	1.5033389D	01	LON	2.6128055D 02
VE	1.3705126D	04	PTE	-6.7034432D	00	AZE	-8.9224879D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	7	FEB. 1968	0	HRS.,	8	MIN.,	14.665	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	4.6264606D	05
X	1.5925921D	08	Y	1.0026595D	08	Z	5.0875718D	07	
DX-	1.5371086D	03	DY-	5.7980732D	02	DZ-	2.4192031D	02	
R	1.9494895D	08	DEC	1.5127592D	01	RA	3.2193578D	01	
V	1.6605436D	03	PTH-	7.6856963D	01	AZ	6.0392737D	01	
ALT	1.8857224D	08	LTGD	1.5130754D	01	LON	2.5393718D	02	
VE	1.3493541D	04	PTE-	6.8827403D	00	AZE-	8.9201743D	01	

TIME	7	FEB. 1968	0	HRS.,	38	MIN.,	14.665	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	4.6444606D	05
X	1.5647843D	08	Y	9.9213542D	07	Z	5.0435815D	07	
DX-	1.5527188D	03	DY-	5.8959733D	02	DZ-	2.4689253D	02	
R	1.9202238D	08	DEC	1.5227712D	01	RA	3.2376320D	01	
V	1.6791417D	03	PTH-	7.6801169D	01	AZ	6.0441819D	01	
ALT	1.8564569D	08	LTGD	1.5230942D	01	LON	2.4659939D	02	
VE	1.3279723D	04	PTE-	7.0712209D	00	AZE-	8.9177288D	01	

TIME	7	FEB. 1968	1	HRS.,	8	MIN.,	14.665	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	4.6624606D	05
X	1.5366915D	08	Y	9.8143189D	07	Z	4.9986790D	07	
DX-	1.5687759D	03	DY-	5.9974526D	02	DZ-	2.5205637D	02	
R	1.8906341D	08	DEC	1.5330808D	01	RA	3.2564966D	01	
V	1.6983181D	03	PTH-	7.6742748D	01	AZ	6.0492711D	01	
ALT	1.8268674D	08	LTGD	1.5334108D	01	LON	2.3926751D	02	
VE	1.3063608D	04	PTE-	7.2696014D	00	AZE-	8.9151401D	01	

TIME	7	FEB. 1968	1	HRS.,	38	MIN.,	14.665	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	4.6804606D	05
X	1.5083055D	08	Y	9.7054231D	07	Z	4.9528289D	07	
DX-	1.5853045D	03	DY-	6.1027374D	02	DZ-	2.5742427D	02	
R	1.8607104D	08	DEC	1.5437048D	01	RA	3.2759875D	01	
V	1.7181070D	03	PTH-	7.6681529D	01	AZ	6.0545540D	01	
ALT	1.7969438D	08	LTGD	1.5440422D	01	LON	2.3194188D	02	
VE	1.2845135D	04	PTE-	7.4786747D	00	AZE-	8.9123958D	01	

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 7 FEB. 1968 2 HRS., 8 MIN., 14.665 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 4.6984606D 05
 X 1.4796175D 08 Y 9.5945961D 07 Z 4.9059932D 07
 DX-1.6023314D 03 DY-6.2120750D 02 DZ-2.6300985D 02
 R 1.8304422D 08 DEC 1.5546615D 01 RA 3.2961434D 01
 V 1.7385451D 03 PTH-7.6617328D 01 AZ 6.0600446D 01
 ALT 1.7666759D 08 LTGD 1.5550067D 01 LON 2.2462291D 02
 VE 1.2624235D 04 PTE-7.6993196D 00 AZE-8.9094819D 01

TIME 7 FEB. 1968 2 HRS., 38 MIN., 14.665 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 4.7164606D 05
 X 1.4506184D 08 Y 9.4817625D 07 Z 4.8581314D 07
 DX-1.6198857D 03 DY-6.3257361D 02 DZ-2.6882803D 02
 R 1.7998184D 08 DEC 1.5659709D 01 RA 3.3170069D 01
 V 1.7596726D 03 PTH-7.6549941D 01 AZ 6.0657581D 01
 ALT 1.7360523D 08 LTGD 1.5663243D 01 LON 2.1731101D 02
 VE 1.2400839D 04 PTE-7.9325133D 00 AZE-8.9063829D 01

TIME 7 FEB. 1968 3 HRS., 8 MIN., 14.665 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 4.7344606D 05
 X 1.4212983D 08 Y 9.3668418D 07 Z 4.8092002D 07
 DX-1.6379989D 03 DY-6.4440180D 02 DZ-2.7489524D 02
 R 1.7688274D 08 DEC 1.5776546D 01 RA 3.3386246D 01
 V 1.7815335D 03 PTH-7.6479149D 01 AZ 6.0717113D 01
 ALT 1.7050615D 08 LTGD 1.5780166D 01 LON 2.1000665D 02
 VE 1.2174874D 04 PTE-8.1793456D 00 AZE-8.9030810D 01

TIME 7 FEB. 1968 3 HRS., 38 MIN., 14.665 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 4.7524606D 05
 X 1.3916469D 08 Y 9.2497481D 07 Z 4.7591531D 07
 DX-1.6567054D 03 DY-6.5672480D 02 DZ-2.8122959D 02
 R 1.7374564D 08 DEC 1.5897363D 01 RA 3.3610475D 01
 V 1.8041758D 03 PTH-7.6404710D 01 AZ 6.0779224D 01
 ALT 1.6736908D 08 LTGD 1.5901073D 01 LON 2.0271035D 02
 VE 1.1946263D 04 PTE-8.4410347D 00 AZE-8.8995566D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	7	FEB. 1968	4	HRS.,	8	MIN.,	14.665	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	4.7704606D	05
X	1.3616531D	08	Y	9.1303891D	07	Z	4.7079403D	07	
DX-	1.6760425D	03	DY-	6.6957871D	02	DZ-	2.8785107D	02	
R	1.7056923D	08	DEC	1.6022418D	01	RA	3.3843316D	01	
V	1.8276522D	03	PTH-	7.6326357D	01	AZ	6.0844121D	01	
ALT	1.6419270D	08	LTGD	1.6026224D	01	LON	1.9542266D	02	
VE	1.1714926D	04	PTE-	8.7189473D	00	AZE-	8.8957872D	01	

TIME	7	FEB. 1968	4	HRS.,	38	MIN.,	14.665	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	4.7884606D	05
X	1.3313053D	08	Y	9.0086655D	07	Z	4.6555082D	07	
DX-	1.6960514D	03	DY-	6.8300350D	02	DZ-	2.9478189D	02	
R	1.6735208D	08	DEC	1.6151995D	01	RA	3.4085391D	01	
V	1.8520207D	03	PTH-	7.5243800D	01	AZ	6.0912028D	01	
ALT	1.6097557D	08	LTGD	1.6155903D	01	LON	1.8814420D	02	
VE	1.1480780D	04	PTE-	9.0146214D	00	AZE-	8.8917473D	01	

TIME	7	FEB. 1968	5	HRS.,	8	MIN.,	14.665	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	4.8064606D	05
X	1.3005910D	08	Y	8.8844709D	07	Z	4.6017988D	07	
DX-	1.7167771D	03	DY-	6.9704354D	02	DZ-	3.0204671D	02	
R	1.6409268D	08	DEC	1.6286407D	01	RA	3.4337383D	01	
V	1.8773453D	03	PTH-	7.6156714D	01	AZ	6.0983199D	01	
ALT	1.5771619D	08	LTGD	1.6290422D	01	LON	1.8087566D	02	
VE	1.1243736D	04	PTE-	9.3297934D	00	AZE-	8.8874080D	01	

TIME	7	FEB. 1968	5	HRS.,	38	MIN.,	14.665	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	4.8244606D	05
X	1.2694958D	08	Y	8.7576900D	07	Z	4.5467497D	07	
DX-	1.7382690D	03	DY-	7.1174821D	02	DZ-	3.0967305D	02	
R	1.6078939D	08	DEC	1.6425998D	01	RA	3.4600055D	01	
V	1.9036969D	03	PTH-	7.6064743D	01	AZ	6.1057914D	01	
ALT	1.5441293D	08	LTGD	1.6430126D	01	LON	1.7361780D	02	
VE	1.1003703D	04	PTE-	9.6664317D	00	AZE-	8.8827360D	01	

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	7	FEB. 1968	6	HRS.,	8	MIN.,	14.665	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	4.8424606D	05
X	1.2380084D	08	Y	8.6281984D	07	Z	4.4902930D	07	
DX	-1.7605817D	03	DY	-7.2717272D	02	DZ	-3.1769174D	02	
R	1.5744047D	08	DEC	1.6571148D	01	RA	3.4874252D	01	
V	1.9311541D	03	PTH	-7.5967487D	01	AZ	6.1136488D	01	
ALT	1.5106404D	08	LTGD	1.6575397D	01	LON	1.6637146D	02	
VE	1.0760587D	04	PTE	-1.0026775D	01	AZE	-8.8776930D	01	

TIME	7	FEB. 1968	6	HRS.,	38	MIN.,	14.665	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	4.8604606D	05
X	1.2061105D	08	Y	8.4958609D	07	Z	4.4323551D	07	
DX	-1.7837757D	03	DY	-7.4337894D	02	DZ	-3.2613737D	02	
R	1.5404405D	08	DEC	1.6722280D	01	RA	3.5160923D	01	
V	1.9598044D	03	PTH	-7.5864503D	01	AZ	6.1219276D	01	
ALT	1.4766765D	08	LTGD	1.6726658D	01	LON	1.5913760D	02	
VE	1.0514288D	04	PTE	-1.0413382D	01	AZE	-8.8722349D	01	

TIME	7	FEB. 1968	7	HRS.,	8	MIN.,	14.665	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	4.8784606D	05
X	1.1737868D	08	Y	8.3605309D	07	Z	4.3728556D	07	
DX	-1.8079179D	03	DY	-7.6043654D	02	DZ	-3.3504901D	02	
R	1.5059810D	08	DEC	1.6879863D	01	RA	3.5461128D	01	
V	1.9897459D	03	PTH	-7.5755293D	01	AZ	6.1306680D	01	
ALT	1.4422174D	08	LTGD	1.6884379D	01	LON	1.5191727D	02	
VE	1.0264704D	04	PTE	-1.0829187D	01	AZE	-8.8663104D	01	

TIME	7	FEB. 1968	7	HRS.,	38	MIN.,	14.665	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	4.8964606D	05
X	1.1410193D	08	Y	8.2220480D	07	Z	4.3117068D	07	
DX	-1.8330830D	03	DY	-7.7842426D	02	DZ	-3.4447087D	02	
R	1.4710044D	08	DEC	1.7044425D	01	RA	3.5776065D	01	
V	2.0210882D	03	PTH	-7.5639296D	01	AZ	6.1399153D	01	
ALT	1.4072411D	08	LTGD	1.7049087D	01	LON	1.4471167D	02	
VE	1.0011729D	04	PTE	-1.1277573D	01	AZE	-8.8598595D	01	

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	7	FEB. 1968	8 HRS.,	8 MIN.,	14.665 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	4.9144606D 05
X	1.1077891D	08	Y	8.0802370D	07	Z 4.2488125D 07
DX	-1.8593544D	03	DY	-7.9743148D	02	DZ -3.5445327D 02
R	1.4354871D	08	DEC	1.7216552D	01	RA 3.6107087D 01
V	2.0539555D	03	PTH	-7.5515881D	01	AZ 6.1497214D 01
ALT	1.3717241D	08	LTGD	1.7221373D	01	LON 1.3752216D 02
VE	9.7552556D	03	PTE	-1.1762458D	01	AZE -8.8528119D 01

TIME	7	FEB. 1968	8 HRS.,	38 MIN.,	14.665 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	4.9324606D 05
X	1.0740754D	08	Y	7.9349054D	07	Z 4.1840666D 07
DX	-1.8868259D	03	DY	-8.1756016D	02	DZ -3.6505373D 02
R	1.3994032D	08	DEC	1.7396910D	01	RA 3.6455732D 01
V	2.0884877D	03	PTH	-7.5384328D	01	AZ 6.1601458D 01
ALT	1.3356406D	08	LTGD	1.7401900D	01	LON 1.3035028D 02
VE	9.4951740D	03	PTE	-1.2288402D	01	AZE -8.8450841D 01

TIME	7	FEB. 1968	9 HRS.,	8 MIN.,	14.665 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	4.9504606D 05
X	1.0398556D	08	Y	7.7858411D	07	Z 4.1173521D 07
DX	-1.9156028D	03	DY	-8.3892719D	02	DZ -3.7633836D 02
R	1.3627247D	08	DEC	1.7586250D	01	RA 3.6823758D 01
V	2.1248444D	03	PTH	-7.5243817D	01	AZ 6.1712569D 01
ALT	1.2989626D	08	LTGD	1.7591422D	01	LON 1.2319777D 02
VE	9.2313745D	03	PTE	-1.2860749D	01	AZE -8.8365771D 01

TIME	7	FEB. 1968	9 HRS.,	38 MIN.,	14.665 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	4.9684606D 05
X	1.0051051D	08	Y	7.6328093D	07	Z 4.0485392D 07
DX	-1.9458047D	03	DY	-8.6166734D	02	DZ -3.8838356D 02
R	1.3254210D	08	DEC	1.7785423D	01	RA 3.7213182D 01
V	2.1632079D	03	PTH	-7.5093409D	01	AZ 6.1831340D 01
ALT	1.2616593D	08	LTGD	1.7790794D	01	LON 1.1606666D 02
VE	8.9637495D	03	PTE	-1.3485788D	01	AZE -8.8271717D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME 7 FEB. 1968 10 HRS., 8 MIN., 14.665 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 4.9864606D 05
 X 9.6979725D 07 Y 7.4755491D 07 Z 3.9774831D 07
 DX-1.9775673D 03 DY-8.8593688D 02 DZ-4.0127814D 02
 R 1.2874583D 08 DEC 1.7995405D 01 RA 3.7526338D 01
 V 2.2037878D 03 PTH-7.4932017D 01 AZ 6.1958697D 01
 ALT 1.2236970D 08 LTGD 1.8000991D 01 LON 1.0895928D 02
 VE 8.6921965D 03 PTE-1.4170975D 01 AZE-8.8167239D 01

TIME 7 FEB. 1968 10 HRS., 38 MIN., 14.665 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.0044606D 05
 X 9.3390243D 07 Y 7.3137694D 07 Z 3.9040219D 07
 DX-2.0110459D 03 DY-9.1191825D 02 DZ-4.1512606D 02
 R 1.2487994D 08 DEC 1.8217316D 01 RA 3.8065937D 01
 V 2.2468266D 03 PTH-7.4758384D 01 AZ 6.2095724D 01
 ALT 1.1850386D 08 LTGD 1.8223136D 01 LON 1.0187835D 02
 VE 8.4166226D 03 PTE-1.4925209D 01 AZE-8.8050579D 01

TIME 7 FEB. 1968 11 HRS., 8 MIN., 14.665 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.0224606D 05
 X 8.9738823D 07 Y 7.1471431D 07 Z 3.8279732D 07
 DX-2.0464189D 03 DY-9.3982591D 02 DZ-4.3004987D 02
 R 1.2094031D 08 DEC 1.8452450D 01 RA 3.8535154D 01
 V 2.2926068D 03 PTH-7.4571035D 01 AZ 6.2243709D 01
 ALT 1.1456429D 08 LTGD 1.8458526D 01 LON 9.4827033D 01
 VE 8.1369512D 03 PTE-1.5759187D 01 AZE-8.7919567D 01

TIME 7 FEB. 1968 11 HRS., 38 MIN., 14.665 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.0404606D 05
 X 8.6021875D 07 Y 6.9753013D 07 Z 3.7491307D 07
 DX-2.0838929D 03 DY-9.6991395D 02 DZ-4.4619520D 02
 R 1.1692238D 08 DEC 1.8702312D 01 RA 3.9037740D 01
 V 2.3414596D 03 PTH-7.4358237D 01 AZ 6.2404182D 01
 ALT 1.1054642D 08 LTGD 1.8708670D 01 LON 8.7809085D 01
 VE 7.8531311D 03 PTE-1.6685866D 01 AZE-8.7771496D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	7	FEB. 1968	12 HRS.,	8 MIN.,	14.665 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	5.0584606D 05		
X	8.2235405D	07	Y	6.7978251D	07	Z	3.6672592D	07
DX	-2.1237084D	03	DY	-1.0024860D	03	DZ	-4.6373658D	02
R	1.1282102D	08	DEC	1.8968667D	01	RA	3.9578154D	01
V	2.3937767D	03	PTH	-7.4147927D	01	AZ	6.2578988D	01
ALT	1.0644512D	08	LTGD	1.8975336D	01	LON	8.0828966D	01
VE	7.5651503D	03	PTE	-1.7721075D	01	AZE	-8.7602950D	01

TIME	7	FEB. 1968	12 HRS.,	38 MIN.,	14.665 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	5.0764606D 05		
X	7.8374952D	07	Y	6.6142355D	07	Z	3.5820892D	07
DX	-2.1661472D	03	DY	-1.0379083D	03	DZ	-4.8288526D	02
R	1.0863048D	08	DEC	1.9253597D	01	RA	4.0161757D	01
V	2.4500256D	03	PTH	-7.3907637D	01	AZ	6.2770372D	01
ALT	1.0225463D	08	LTGD	1.9260611D	01	LON	7.3892036D	01
VE	7.2730560D	03	PTE	-1.8884317D	01	AZE	-8.7409553D	01

TIME	7	FEB. 1968	13 HRS.,	8 MIN.,	14.665 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	5.0944606D 05		
X	7.4435502D	07	Y	6.4239805D	07	Z	3.4933087D	07
DX	-2.2115427D	03	DY	-1.0766275D	03	DZ	-5.0389959D	02
R	1.0434422D	08	DEC	1.9559583D	01	RA	4.0795059D	01
V	2.5107693D	03	PTH	-7.3644376D	01	AZ	6.2981088D	01
ALT	9.7968454D	07	LTGD	1.9566984D	01	LON	6.7004804D	01
VE	6.9769842D	03	PTE	-2.0199849D	01	AZE	-8.7185611D	01

TIME	7	FEB. 1968	13 HRS.,	38 MIN.,	14.665 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	5.1124606D 05		
X	7.0411387D	07	Y	6.2264190D	07	Z	3.4005543D	07
DX	-2.2602925D	03	DY	-1.1191941D	03	DZ	-5.2709944D	02
R	9.9954839D	07	DEC	1.9899612D	01	RA	4.1486053D	01
V	2.5766939D	03	PTH	-7.3354480D	01	AZ	6.3214569D	01
ALT	9.3579147D	07	LTGD	1.9897446D	01	LON	6.0175266D	01
VE	6.6772036D	03	PTE	-2.1698138D	01	AZE	-8.6923581D	01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	7	FEB. 1968	14 HRS.,	8 MIN.,	14.665 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.1304606D 05
X	6.6296151D	07	Y	6.0207989D	07	Z 3.3033979D 07
DX	-2.3128754D	03	DY	-1.1662966D	03	DZ -5.5288611D 02
R	9.5453786D	07	DEC	2.0247309D	01	RA 4.2244696D 01
V	2.6486455D	03	PTH	-7.3033406D	01	AZ 6.3475145D 01
ALT	8.9078180D	07	LTGD	2.0255635D	01	LON 5.3413375D 01
VE	6.3741822D	03	PTE	-2.3417828D	01	AZE -8.6613262D 01

TIME	7	FEB. 1968	14 HRS.,	38 MIN.,	14.665 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.1484606D 05
X	6.2082389D	07	Y	5.8062282D	07	Z 3.2013297D 07
DX	-2.3698736D	03	DY	-1.2188082D	03	DZ -5.8177081D 02
R	9.0831178D	07	DEC	2.0637138D	01	RA 4.3083564D 01
V	2.7276825D	03	PTH	-7.2675434D	01	AZ 6.3768368D 01
ALT	8.4455667D	07	LTGD	2.0646028D	01	LON 4.6731711D 01
VE	6.0686892D	03	PTE	-2.5408429D	01	AZE -8.6240514D 01

TIME	7	FEB. 1968	15 HRS.,	8 MIN.,	14.665 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.1664606D 05
X	5.7761530D	07	Y	5.5816364D	07	Z 3.0937352D 07
DX	-2.4320045D	03	DY	-1.2778560D	03	DZ -6.1441629D 02
R	8.6075436D	07	DEC	2.1064664D	01	RA 4.4018830D 01
V	2.8151500D	03	PTH	-7.2273245D	01	AZ 6.4101489D 01
ALT	7.9700031D	07	LTGD	2.1074203D	01	LON 4.0146444D 01
VE	5.7619527D	03	PTE	-2.7733975D	01	AZF -8.5785171D 01

TIME	7	FEB. 1968	15 HRS.,	38 MIN.,	14.665 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.1844606D 05
X	5.3323561D	07	Y	5.3457199D	07	Z 2.9798623D 07
DX	-2.5001625D	03	DY	-1.3449236D	03	DZ -6.5169910D 02
R	8.1172854D	07	DEC	2.1536928D	01	RA 4.5071704D 01
V	2.9127897D	03	PTH	-7.1817293D	01	AZ 6.4484177D 01
ALT	7.4797568D	07	LTGD	2.1547226D	01	LON 3.3678784D 01
VE	5.4559095D	03	PTE	-3.0477935D	01	AZE -8.5217453D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	7	FEB. 1968	16 HRS.,	8 MIN.,	14.665 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	5.2024606D 05		
X	4.8756656D	07	Y	5.0968643D	07	Z	2.8587750D	07
DX	-2.5754792D	03	DY	-1.4220095D	03	DZ	-6.9480616D	02
R	7.6106988D	07	DEC	2.2062996D	01	RA	4.6270655D	01
V	3.0229059D	03	PTH	-7.1294842D	01	AZ	6.4929641D	01
ALT	6.9731838D	07	LTGD	2.2074195D	01	LON	2.7357203D	01
VE	5.1536048D	03	PTE	-3.3749604D	01	AZE	-8.4491477D	01

TIME	7	FEB. 1968	16 HRS.,	38 MIN.,	14.665 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	5.2204606D 05		
X	4.4046677D	07	Y	4.8330317D	07	Z	2.7292848D	07
DX	-2.6594093D	03	DY	-1.5118797D	03	DZ	-7.4538982D	02
R	7.0857807D	07	DEC	2.2654772D	01	RA	4.7654974D	01
V	3.1486257D	03	PTH	-7.0688450D	01	AZ	6.5456463D	01
ALT	6.4482813D	07	LTGD	2.2667054D	01	LON	2.1220989D	01
VE	4.8598421D	03	PTE	-3.7691781D	01	AZE	-8.3532645D	01

TIME	7	FEB. 1968	17 HRS.,	8 MIN.,	14.665 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	5.2384606D 05		
X	3.9176487D	07	Y	4.5515870D	07	Z	2.5898456D	07
DX	-2.7538529D	03	DY	-1.6184899D	03	DZ	-8.0582828D	02
R	6.5400471D	07	DEC	2.3328231D	01	RA	4.9280712D	01
V	3.2943246D	03	PTH	-6.9973448D	01	AZ	6.6091703D	01
ALT	5.9025657D	07	LTGD	2.3341844D	01	LON	1.5326193D	01
VE	4.5822483D	03	PTE	-4.2488115D	01	AZE	-8.2210913D	01

TIME	7	FEB. 1968	17 HRS.,	38 MIN.,	14.665 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	5.2564606D 05		
X	3.4125001D	07	Y	4.2490240D	07	Z	2.4383854D	07
DX	-2.8613346D	03	DY	-1.7477272D	03	DZ	-8.7968659D	02
R	5.9703505D	07	DEC	2.4105354D	01	RA	5.1231157D	01
V	3.4663575D	03	PTH	-6.9113563D	01	AZ	6.6876483D	01
ALT	5.3328905D	07	LTGD	2.4120644D	01	LON	9.7561051D	00
VE	4.3330279D	03	PTE	-4.8364555D	01	AZE	-8.0277039D	01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	7	FEB. 1968	18 HRS.,	8 MIN.,	14.665 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	5.2744606D 05	
X	2.8865845D	07	Y	3.9205066D	07	Z	2.2720231D 07
DX	-2.9852515D	03	DY	-1.9088002D	03	DZ	-9.7258795D 02
R	5.3726000D	07	DEC	2.5017229D	01	RA	5.3636582D 01
V	3.6743941D	03	PTH	-6.8052772D	01	AZ	6.7876712D 01
ALT	4.7351657D	07	LTGD	2.5034696D	01	LON	4.6409968D 00
VE	4.1318195D	03	PTE	-5.5568775D	01	AZE	-7.7183686D 01

TIME	7	FEB. 1968	18 HRS.,	38 MIN.,	14.665 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	5.2924606D 05	
X	2.3365521D	07	Y	3.5590475D	07	Z	2.0865575D 07
DX	-3.1301729D	03	DY	-2.1170642D	03	DZ	-1.0940020D 03
R	4.7413096D	07	DEC	2.6109010D	01	RA	5.6714678D 01
V	3.9340544D	03	PTH	-6.6698885D	01	AZ	6.9205520D 01
ALT	4.1039071D	07	LTGD	2.6129422D	01	LON	1.9855956D-01
VE	4.0102675D	03	PTE	-6.4281254D	01	AZE	-7.1445939D 01

TIME	7	FEB. 1968	19 HRS.,	8 MIN.,	14.665 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3104606D 05	
X	1.7581128D	07	Y	3.1539108D	07	Z	1.8754605D 07
DX	-3.3019306D	03	DY	-2.4004001D	03	DZ	-1.2613317D 03
R	4.0688409D	07	DEC	2.7447287D	01	RA	6.0862997D 01
V	4.2726601D	03	PTH	-6.4886662D	01	AZ	7.1075651D 01
ALT	3.4314785D	07	LTGD	2.7471910D	01	LON	3.5682631D 02
VE	4.0193810D	03	PTE	-7.4252010D	01	AZE	-5.7273182D 01

TIME	7	FEB. 1968	19 HRS.,	38 MIN.,	14.665 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3284606D 05	
X	1.1459111D	07	Y	2.6871154D	07	Z	1.6276436D 07
DX	-3.5058180D	03	DY	-2.8158140D	03	DZ	-1.5107224D 03
R	3.3440881D	07	DEC	2.9125400D	01	RA	6.6904339D 01
V	4.7436116D	03	PTH	-6.2281687D	01	AZ	7.3941499D 01
ALT	2.7067781D	07	LTGD	2.9156546D	01	LON	3.5534712D 02
VE	4.2433909D	03	PTE	-8.1698263D	01	AZE	-9.2865892D-01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	7	FEB. 1968	20 HRS.,	8 MIN.,	14.665 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3464606D 05
X	4.9456655D	06	Y	2.1244123D	07	Z 1.3215773D 07
DX	-3.7310710D	03	DY	-3.5023257D	03	DZ -1.9323314D 03
R	2.5503511D	07	DEC	3.1211204D	01	RA 7.6894871D 01
V	5.4700165D	03	PTH	-5.8067560D	01	AZ 7.8973785D 01
ALT	1.9131088D	07	LTGD	3.1253782D	01	LON 3.5781712D 02
VE	4.8391356D	03	PTE	-7.3582772D	01	AZE 6.5976644D 01

TIME	7	FEB. 1968	20 HRS.,	10 MIN.,	7.165 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3475856D 05
X	4.5251743D	06	Y	2.0846835D	07	Z 1.2996346D 07
DX	-3.7442711D	03	DY	-3.5610119D	03	DZ -1.9688863D 03
R	2.4979446D	07	DEC	3.1351140D	01	RA 7.7752928D 01
V	5.5296370D	03	PTH	-5.7710808D	01	AZ 7.9419453D 01
ALT	1.8607070D	07	LTGD	3.1394722D	01	LON 3.5820514D 02
VE	4.8951957D	03	PTE	-7.2715496D	01	AZE 6.7953345D 01

TIME	7	FEB. 1968	20 HRS.,	11 MIN.,	59.665 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3487106D 05
X	4.1032192D	06	Y	2.0442797D	07	Z 1.2772709D 07
DX	-3.7570805D	03	DY	-3.6223347D	03	DZ -2.0071670D 03
R	2.4451717D	07	DEC	3.1490991D	01	RA 7.8650561D 01
V	5.5915724D	03	PTH	-5.7338337D	01	AZ 7.9887552D 01
ALT	1.8079387D	07	LTGD	3.1535627D	01	LON 3.5863274D 02
VE	4.9541567D	03	PTE	-7.1824606D	01	AZE 6.9803737D 01

TIME	7	FEB. 1968	20 HRS.,	13 MIN.,	52.165 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3498356D 05
X	3.6798491D	06	Y	2.0031703D	07	Z 1.2544663D 07
DX	-3.7694099D	03	DY	-3.6864830D	03	DZ -2.0473023D 03
R	2.3920264D	07	DEC	3.1630326D	01	RA 7.9590744D 01
V	5.6559751D	03	PTH	-5.6948980D	01	AZ 8.0379797D 01
ALT	1.7547981D	07	LTGD	3.1676067D	01	LON 3.5910289D 02
VE	5.0161781D	03	PTE	-7.0910821D	01	AZE 7.1545964D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	7	FEB. 1968	20 HRS.,	15 MIN.,	44.665 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3509606D 05
X	3.2551238D	06	Y	1.9613225D	07	Z 1.2311991D 07
DX	-3.7811548D	03	DY	-3.7536638D	03	DZ -2.0894341D 03
R	2.3385028D	07	DEC	3.1768625D	01	RA 8.0576751D 01
V	5.7230113D	03	PTH	-5.6541451D	01	AZ 8.0898073D 01
ALT	1.7012792D	07	LTGD	3.1815526D	01	LON 3.5961886D 02
VE	5.0814333D	03	PTE	-6.9974513D	01	AZE 7.3196220D 01

TIME	7	FEB. 1968	20 HRS.,	17 MIN.,	37.165 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3520856D 05
X	2.8291158D	06	Y	1.9187007D	07	Z 1.2074460D 07
DX	-3.7921929D	03	DY	-3.8241046D	03	DZ -2.1337187D 03
R	2.2845956D	07	DEC	3.1905260D	01	RA 8.1612197D 01
V	5.7928628D	03	PTH	-5.6114324D	01	AZ 8.1444451D 01
ALT	1.6473765D	07	LTGD	3.1953382D	01	LON 1.8431292D-01
VE	5.1501112D	03	PTE	-6.9015734D	01	AZE 7.4769030D 01

TIME	7	FEB. 1968	20 HRS.,	19 MIN.,	29.665 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3532106D 05
X	2.4019123D	06	Y	1.8752669D	07	Z 1.1831818D 07
DX	-3.8023804D	03	DY	-3.8980553D	03	DZ -2.1803288D 03
R	2.2302998D	07	DEC	3.2039477D	01	RA 8.2701078D 01
V	5.8657281D	03	PTH	-5.5666017D	01	AZ 8.2021216D 01
ALT	1.5930852D	07	LTGD	3.2088885D	01	LON 8.0316060D-01
VE	5.2224174D	03	PTE	-6.8034223D	01	AZE 7.6277507D 01

TIME	7	FEB. 1968	20 HRS.,	21 MIN.,	22.165 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3543356D 05
X	1.9736184D	06	Y	1.8309802D	07	Z 1.1583792D 07
DX	-3.8115479D	03	DY	-3.9757912D	03	DZ -2.2294556D 03
R	2.1756109D	07	DEC	3.2170367D	01	RA 8.3847822D 01
V	5.9418251D	03	PTH	-5.5194769D	01	AZ 8.2630886D 01
ALT	1.5384007D	07	LTGD	3.2221130D	01	LON 1.4798713D 00
VE	5.2985770D	03	PTE	-6.7029414D	01	AZE 7.7733593D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	7	FEB. 1968	20 HRS.,	23 MIN.,	14.665 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3554606D 05
X	1.5443597D	06	Y	1.7857963D	07	Z 1.1330088D 07
DX	-3.8194956D	03	DY	-4.0576158D	03	DZ -2.2813111D 03
R	2.1205254D	07	DEC	3.2296836D	01	RA 8.5057344D 01
V	6.0213930D	03	PTH	-5.4698615D	01	AZ 8.3276238D 01
ALT	1.4833195D	07	LTGD	3.2349028D	01	LON 2.2193599D 00
VE	5.3788361D	03	PTE	-6.6000435D	01	AZF 7.9148275D 01

TIME	7	FEB. 1968	20 HRS.,	25 MIN.,	7.165 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3565856D 05
X	1.1142864D	06	Y	1.7396673D	07	Z 1.1070386D 07
DX	-3.8259870D	03	DY	-4.1438647D	03	DZ -2.3361305D 03
R	2.0650407D	07	DEC	3.2417562D	01	RA 8.6335110D 01
V	6.1046947D	03	PTH	-5.4175354D	01	AZ 8.3960340D 01
ALT	1.4278389D	07	LTGD	3.2471265D	01	LON 3.0270926D 00
VF	5.4634646D	03	PTE	-6.4946092D	01	AZE 8.0531781D 01

TIME	7	FEB. 1968	20 HRS.,	26 MIN.,	59.665 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3577106D 05
X	6.8357771D	05	Y	1.6925414D	07	Z 1.0804337D 07
DX	-3.8307412D	03	DY	-4.2349087D	03	DZ -2.3941759D 03
R	2.0091556D	07	DEC	3.2530950D	01	RA 8.7687210D 01
V	6.1920197D	03	PTH	-5.3622512D	01	AZ 8.4686581D 01
ALT	1.3719577D	07	LTGD	3.2586250D	01	LON 3.9091597D 00
VE	5.5527589D	03	PTE	-6.3864853D	01	AZE 8.1893754D 01

TIME	7	FEB. 1968	20 HRS.,	28 MIN.,	52.165 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3588356D 05
X	2.5244725D	05	Y	1.6443623D	07	Z 1.0531564D 07
DX	-3.8334239D	03	DY	-4.3311582D	03	DZ -2.4557394D 03
R	1.9528705D	07	DEC	3.2635069D	01	RA 8.9120443D 01
V	6.2836873D	03	PTH	-5.3037305D	01	AZ 8.5458704D 01
ALT	1.3156762D	07	LTGD	3.2692061D	01	LON 4.8723591D 00
VE	5.6470447D	03	PTE	-6.2754817D	01	AZF 8.3243408D 01

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	7	FEB. 1968	20 HRS.,	30 MIN.,	44.665 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3599606D 05
X-1.7885009D	05	Y 1.5950691D	07	Z 1.0251652D	07	
DX-3.8336354D	03	DY-4.4330680D	03	DZ-2.5211467D	03	
R 1.8961880D	07	DEC 3.2727578D	01	RA 9.0642408D	01	
V 6.3800496D	03	PTH-5.2416583D	01	AZ 8.6280842D	01	
ALT 1.2589968D	07	LTGD 3.2786362D	01	LON 5.9242906D	00	
VE 5.7466810D	03	PTE-6.1613678D	01	AZE 8.4589665D	01	

TIME	7	FEB. 1968	20 HRS.,	32 MIN.,	37.165 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3610856D 05
X-6.1001020D	05	Y 1.5445952D	07	Z 9.9641484D	06	
DX-3.8308965D	03	DY-4.5411421D	03	DZ-2.5907623D	03	
R 1.8391134D	07	DEC 3.2805633D	01	RA 9.2261614D	01	
V 6.4814959D	03	PTH-5.1756770D	01	AZ 8.7157549D	01	
ALT 1.2019249D	07	LTGD 3.2866318D	01	LON 7.0734633D	00	
VE 5.8520629D	03	PTE-6.0438675D	01	AZE 8.5941285D	01	

TIME	7	FEB. 1968	20 HRS.,	34 MIN.,	29.665 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3622106D 05
X-1.0406697D	06	Y 1.4928682D	07	Z 9.6685574D	06	
DX-3.8246304D	03	DY-4.6559388D	03	DZ-2.6649937D	03	
R 1.7816552D	07	DEC 3.2865768D	01	RA 9.3987599D	01	
V 6.5884562D	03	PTH-5.1053798D	01	AZ 8.8093837D	01	
ALT 1.1444688D	07	LTGD 3.2928471D	01	LON 8.3294156D	00	
VE 5.9636263D	03	PTE-5.9226529D	01	AZE 8.7306976D	01	

TIME	7	FEB. 1968	20 HRS.,	36 MIN.,	22.165 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3633356D 05
X-1.4703938D	06	Y 1.4398091D	07	Z 9.3643347D	06	
DX-3.8141399D	03	DY-4.7780758D	03	DZ-2.7442968D	03	
R 1.7238267D	07	DEC 3.2903754D	01	RA 9.5831066D	01	
V 6.7014055D	03	PTH-5.0303013D	01	AZ 8.9095200D	01	
ALT 1.0866416D	07	LTGD 3.2968601D	01	LON 9.7028493D	00	
VE 6.0818512D	03	PTE-5.7973368D	01	AZE 8.8695482D	01	

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	7	FEB. 1968	20 HRS.,	38 MIN.,	14.665 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3644606D 05
X-1.8985613D	06	Y	1.3853314D	07	Z	9.0508814D 06
DX-3.7985789D	03	DY-4.9082354D	03	DZ-2.8291816D	03	
R 1.6656461D	07	DEC 3.2914410D	01	RA 9.7904027D	01	
V 6.8208683D	03	PTH-4.9499079D	01	AZ 9.0167631D	01	
ALT 1.0284614D	07	LTGD 3.2981536D	01	LON 1.1205777D	01	
VE 6.2072663D	03	PTE-5.6674630D	01	AZE 9.0115663D	01	

TIME	7	FEB. 1968	20 HRS.,	40 MIN.,	7.165 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3655856D 05
X-2.3248455D	06	Y 1.3293409D	07	Z 8.7275382D	06	
DX-3.7769165D	03	DY-5.0471682D	03	DZ-2.9202178D	03	
R 1.6071389D	07	DEC 3.2891380D	01	RA 9.9919963D	01	
V 6.9474223D	03	PTH-4.8635850D	01	AZ 9.1317615D	01	
ALT 9.6995348D	06	LTGD 3.2960928D	01	LON 1.2951679D	01	
VE 6.3404524D	03	PTE-5.5324950D	01	AZE 9.1576539D	01	

TIME	7	FEB. 1968	20 HRS.,	41 MIN.,	59.665 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3667106D 05
X-2.7481917D	06	Y 1.2717342D	07	Z 8.3935780D	06	
DX-3.7478913D	03	DY-5.1956952D	03	DZ-3.0180399D	03	
R 1.5483394D	07	DEC 3.2826841D	01	RA 1.0219399D	02	
V 7.0817019D	03	PTH-4.7706219D	01	AZ 9.2552095D	01	
ALT 9.1115182D	06	LTGD 3.2898959D	01	LON 1.4655674D	01	
VE 6.4820448D	03	PTE-5.3918015D	01	AZE 9.3087298D	01	

TIME	7	FEB. 1968	20 HRS.,	43 MIN.,	52.165 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3678356D 05
X-3.1677873D	06	Y 1.2123984D	07	Z 8.0481985D	06	
DX-3.7099528D	03	DY-5.3547060D	03	DZ-3.1233509D	03	
R 1.4892930D	07	DEC 3.2711141D	01	RA 1.0464303D	02	
V 7.2243995D	03	PTH-4.6701942D	01	AZ 9.3878385D	01	
ALT 8.5210156D	06	LTGD 3.2785984D	01	LON 1.6634678D	01	
VE 6.6327348D	03	PTE-5.2446395D	01	AZE 9.4657259D	01	

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	7	FEB. 1968	20 HRS.,	45 MIN.,	44.665 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3689606D 05
X-3.5825257D	06	Y 1.1512104D	07	Z 7.6905143D	06	
DX-3.6611884D	03	DY-5.5251510D	03	DZ-3.2369240D	03	
R 1.4300596D	07	DEC 3.2532354D	01	RA 1.0728595D	02	
V 7.3762641D	03	PTH-4.5613424D	01	AZ 9.5304010D	01	
ALT 7.9286212D	06	LTGD 3.2610078D	01	LON 1.8807566D	01	
VE 6.7932671D	03	PTE-5.0901334D	01	AZE 9.6295738D	01	

TIME	7	FEB. 1968	20 HRS.,	47 MIN.,	37.165 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3700856D 05
X-3.9910606D	06	Y 1.0880359D	07	Z 7.3195494D	06	
DX-3.5992296D	03	DY-5.7080229D	03	DZ-3.3595981D	03	
R 1.3707173D	07	DEC 3.2275718D	01	RA 1.1014370D	02	
V 7.5380952D	03	PTH-4.4429455D	01	AZ 9.6836426D	01	
ALT 7.3351120D	06	LTGD 3.2356471D	01	LON 2.1195286D	01	
VE 6.9644322D	03	PTE-4.9272500D	01	AZE 9.8011820D	01	

TIME	7	FEB. 1968	20 HRS.,	49 MIN.,	29.665 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3712106D 05
X-4.3917482D	06	Y 1.0227295D	07	Z 6.9342300D	06	
DX-3.5211345D	03	DY-5.9043215D	03	DZ-3.4922655D	03	
R 1.3113679D	07	DEC 3.1922952D	01	RA 1.1323938D	02	
V 7.7107275D	03	PTH-4.3136919D	01	AZ 9.8482580D	01	
ALT 6.7414999D	06	LTGD 3.2006865D	01	LON 2.3820927D	01	
VE 7.1470495D	03	PTE-4.7547688D	01	AZE 9.9813947D	01	

TIME	7	FEB. 1968	20 HRS.,	51 MIN.,	22.165 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3723356D 05
X-4.7825746D	06	Y 9.5513478D	06	Z 6.5333805D	06	
DX-3.4232419D	03	DY-6.1149909D	03	DZ-3.6358440D	03	
R 1.2521435D	07	DEC 3.1451437D	01	RA 1.1659815D	02	
V 7.8950023D	03	PTH-4.1720442D	01	AZ 1.0024823D	02	
ALT 6.1490991D	06	LTGD 3.1538605D	01	LON 2.6709668D	01	
VE 7.3419366D	03	PTE-4.5712474D	01	AZE 1.0170929D	02	

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	7	FEB. 1968	20 HRS.,	53 MIN.,	14.665 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3734606D 05
X-5.1610656D	06	Y 8.8508537D	06	Z 6.1157224D	06	
DX-3.3009934D	03	DY-6.3408153D	03	DZ-3.7912251D	03	
R 1.1932153D	07	DEC 3.0833259D	01	RA 1.2024710D	02	
V 8.0917170D	03	PTH-4.0162009D	01	AZ 1.0213693D	02	
ALT 5.5596135D	06	LTGD 3.0923711D	01	LON 2.9888580D	01	
VE 7.5498559D	03	PTE-4.3749831D	01	AZE 1.0370276D	02	

TIME	7	FEB. 1968	20 HRS.,	55 MIN.,	7.165 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3745856D 05
X-5.5241740D	06	Y 8.1240783D	06	Z 5.6798829D	06	
DX-3.1487248D	03	DY-6.5822484D	03	DZ-3.9591817D	03	
R 1.1348049D	07	DEC 3.0034159D	01	RA 1.2421473D	02	
V 8.3015409D	03	PTH-3.8440563D	01	AZ 1.0414859D	02	
ALT 4.9752498D	06	LTGD 3.0127813D	01	LON 3.3386184D	01	
VE 7.7714253D	03	PTE-4.1639709D	01	AZE 1.0579564D	02	

TIME	7	FEB. 1968	20 HRS.,	56 MIN.,	59.665 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3757106D 05
X-5.8681425D	06	Y 7.3692667D	05	Z 5.2244155D	06	
DX-2.9594389D	03	DY-6.8391449D	03	DZ-4.1402154D	03	
R 1.0771987D	07	DEC 2.9012482D	01	RA 1.2853028D	02	
V 8.5248792D	03	PTH-3.6531648D	01	AZ 1.0627745D	02	
ALT 4.3988613D	06	LTGD 2.9109072D	01	LON 3.7231698D	01	
VE 8.0069774D	03	PTE-3.9358652D	01	AZE 1.0798360D	02	

TIME	7	FEB. 1968	20 HRS.,	58 MIN.,	52.165 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3768356D 05
X-6.1883413D	06	Y 6.5847322D	06	Z 4.7478436D	06	
DX-2.7245911D	03	DY-7.1103493D	03	DZ-4.3343096D	03	
R 1.0207658D	07	DEC 2.7718352D	01	RA 1.3322248D	02	
V 8.7616610D	03	PTH-3.4407187D	01	AZ 1.0850939D	02	
ALT 3.8341290D	06	LTGD 2.7817326D	01	LON 4.1453868D	01	
VE 8.2563393D	03	PTE-3.6879521D	01	AZE 1.1025408D	02	

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	7	FEB. 1968	21 HRS.,	0 MIN.,	44.665 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3779606D 05
X-6.4790857D	06	Y 5.7690026D	06	Z 4.2487386D	06	
DX-2.4339616D	03	DY-7.3930863D	03	DZ-4.5405488D	03	
R 9.6597993D	06	DEC 2.6093490D	01	RA 1.3831800D	02	
V 9.0110198D	03	PTH-3.2035601D	01	AZ 1.1081847D	02	
ALT 3.2857808D	06	LTGD 2.6193851D	01	LON 4.6079352D	01	
VE 8.5185041D	03	PTE-3.4171533D	01	AZE 1.1258290D	02	

TIME	7	FEB. 1968	21 HRS.,	2 MIN.,	37.165 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3790856D 05
X-6.7334500D	06	Y 4.9210477D	06	Z 3.7258509D	06	
DX-2.0757570D	03	DY-7.6821051D	03	DZ-4.7565586D	03	
R 9.1344417D	06	DEC 2.4072380D	01	RA 1.4383931D	02	
V 9.2708336D	03	PTH-2.9382596D	01	AZ 1.1316295D	02	
ALT 2.7598439D	06	LTGD 2.4172474D	01	LON 5.1130629D	01	
VE 8.7911581D	03	PTE-3.1200916D	01	AZE 1.1493028D	02	

TIME	7	FEB. 1968	21 HRS.,	4 MIN.,	29.665 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3802106D 05
X-6.9431171D	06	Y 4.0406187D	06	Z 3.1783150D	06	
DX-1.6371909D	03	DY-7.9685686D	03	DZ-4.9777409D	03	
R 8.6391644D	06	DEC 2.1585923D	01	RA 1.4980228D	02	
V 9.5371057D	03	PTH-2.6413127D	01	AZ 1.1548096D	02	
ALT 2.2639025D	06	LTGD 2.1683176D	01	LON 5.6623568D	01	
VE 9.0700486D	03	PTE-2.7932705D	01	AZE 1.1723664D	02	

TIME	7	FEB. 1968	21 HRS.,	6 MIN.,	22.165 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3813356D 05
X-7.0983378D	06	Y 3.1287207D	06	Z 2.6059506D	06	
DX-1.1059196D	03	DY-8.2388099D	03	DZ-5.1963500D	03	
R 8.1832922D	06	DEC 1.8569074D	01	RA 1.5621364D	02	
V 9.8032189D	03	PTH-2.3095239D	01	AZ 1.1768696D	02	
ALT 1.8073034D	06	LTGD 1.8659713D	01	LON 6.2564887D	01	
VE 9.3482256D	03	PTE-2.4334380D	01	AZE 1.1941895D	02	

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	7	FEB. 1968	21 HRS.,	8 MIN.,	14.665 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3824606D 05
X-7.1881196D	06	Y	2.1882178D	06	Z	2.0096682D 06
DX-4.7277417D	02	DY-8.4733476D	03	DZ-5.4006246D	03	
R 7.7779257D	06	DEC	1.4974017D	01	RA	1.6306862D 02
V 1.0059219D	04	PTH-1.9406519D	01	AZ	1.1967035D	02
ALT 1.4011942D	06	LTGD	1.5052908D	01	LON	6.8949834D 01
VE 9.6153176D	03	PTE-2.0382159D	01	AZE	1.2136927D	02

TIME	7	FEB. 1968	21 HRS.,	10 MIN.,	7.165 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3835856D 05
X-7.2008107D	06	Y	1.2244970D	06	Z	1.3919465D 06
DX 2.6398059D	02	DY-8.6469726D	03	DZ-5.5744790D	03	
R 7.4356292D	06	DEC	1.0789398D	01	RA	1.7034917D 02
V 1.0291484D	04	PTH-1.5343405D	01	AZ	1.2129861D	02
ALT 1.0582174D	06	LTGD	1.0850223D	01	LON	7.5760351D 01
VE 9.8572092D	03	PTE-1.6070285D	01	AZE	1.2295763D	02

TIME	7	FEB. 1968	21 HRS.,	11 MIN.,	59.665 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3847106D 05
X-7.1252266D	06	Y	2.4600793D	05	Z	7.5727638D 05
DX 1.0934221D	03	DY-8.7310851D	03	DZ-5.6985637D	03	
R 7.1695775D	06	DEC	6.0630941D	00	RA	1.7802256D 02
V 1.0483370D	04	PTH-1.0932232D	01	AZ	1.2242712D	02
ALT 7.9165298D	05	LTGD	6.0991394D	00	LON	8.2963713D 01
VE 1.0056718D	04	PTE-1.1422296D	01	AZE	1.2404156D	02

TIME	7	FEB. 1968	21 HRS.,	13 MIN.,	52.165 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3858356D 05
X-6.9523329D	06	Y-7.3563415D	05	Z	1.1237067D	05
DX 1.9878229D	03	DY-8.6991889D	03	DZ-5.7534557D	03	
R 6.9920468D	06	DEC	9.2085225D-01	RA-1.7395993D	02	
V 1.0617419D	04	PTH-6.2384336D	00	AZ	1.2291742D	02
ALT 6.1388826D	05	LTGD	9.2650830D-01	LON	9.0511145D	01
VE 1.0195868D	04	PTE-6.5006547D	00	AZE	1.2448399D	02

TABLE 10- I TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TIME	7	FEB. 1968	21 HRS.,	15 MIN.,	44.665 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3869606D 05	
X	-6.6771776D	06	Y	-1.7063203D	06	Z	-5.3410524D 05
DX	2.9029243D	03	DY	-8.5348407D	03	DZ	-5.7248114D 03
R	6.9124162D	06	DEC	-4.4315195D	00	RA	-1.6566512D 02
V	1.0679136D	04	PTH	-1.3681424D	00	AZ	1.2266227D 02
ALT	5.3438041D	05	LTGD	-4.4589478D	00	LON	9.8335931D 01
VE	1.0259763D	04	PTE	-1.4086689D	00	AZE	1.2417811D 02

FREE-RETURN VACUUM PERIGEE

TIME	7	FEB. 1968	21 HRS.,	16 MIN.,	15.511 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3872690D 05	
X	-6.5838099D	06	Y	-1.9685527D	06	Z	-7.1034994D 05
DX	3.1503864D	03	DY	-8.4662628D	03	DZ	-5.7015242D 03
R	6.9084259D	06	DEC	-5.9017949D	00	RA	-1.6335338D 02
V	1.0682224D	04	PTH	-1.9551887D	-02	AZ	1.2245376D 02
ALT	5.3048896D	05	LTGD	-5.9382303D	00	LON	1.0051879D 02
VE	1.0262907D	04	PTE	-6.9950796D	-13	AZE	1.2395515D 02

TABLE 10-II TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 81 DEGREES - FIRST OPPORTUNITY

LAUNCH TIME = 16 HRS., 53 MIN., 48.910 SEC. G. M. T.

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -4.733936E 06	YYY -8.058947E 04	ZZZ -4.563325E 06	8.900000E 03
DXX 5.401354E 03	DYY -5.903934E C1	DZZ -5.610250E 03	
R 6.575757E 06	WT 2.985686E 05	F 1.581537E 01	
V 7.788004E 03	PTH 4.082578E-02	AZ 7.458667E 01	
ALT 2.015496E 05	LAT -2.542858E C1	LON 1.117693E 02	
VE 7.371421E 03	PTE 4.313327E-C2	AZE 7.369201E 01	
ANG 3.974173E 00	NFA 7.625044E C1	IAC 9.224621E 00	
CPA 4.221701E 01	VPA 4.221701E 01	CYA -3.859894E-01	
VYA -3.859894E-01	CRA -0.000000E-39	VRA -0.000000E-39	

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -1.684724E 06	YYY -9.571114E C4	ZZZ -6.357937E 06	9.360000E 03
DXX 7.532691E 03	DYY -4.717561E 00	DZZ -1.999904E 03	
R 6.578056E 06	WT 2.974363E 05	F 2.073030E 05	
V 7.793655E 03	PTH 2.817458E-02	AZ 6.380713E 01	
ALT 2.011565E 05	LAT -1.404925E 01	LON 1.408359E 02	
VE 7.378967E 03	PTE 2.975781E-C2	AZE 6.221209E 01	
ANG 4.186837E 00	NFA 6.675437E C1	IAC 1.184991E 01	
CPA 1.099922E 01	VPA 1.099922E 01	CYA 2.166230E-02	
VYA 2.166230E-02	CRA -0.000000E-39	VRA -0.000000E-39	

TRANSLUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX 1.350479E 06	YYY -5.812238E 04	ZZZ -6.584812E 06	9.694900E 03
DXX 1.079389E 04	DYY 4.178946E C2	DZZ 7.449704E 02	
R 6.722122E 06	WT 1.389974E C5	F 2.060472E 05	
V 1.082763E 04	PTH 7.616606E C0	AZ 6.250379E 01	
ALT 3.439775E 05	LAT -1.767147E C0	LON 1.631175E 02	
VE 1.039948E 04	PTE 7.932164E C0	AZF 6.124537E 01	
ANG 1.211136E 01	NFA 6.223478E C0	IAC 1.615387E 01	
CPA -4.951037E 00	VPA -4.951592E 00	CYA 1.300335E 01	
VYA 1.300351E 01	CRA -0.000000E-39	VRA 0.000000E-39	

TABLE 10- II TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 81 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TRANSLUNAR INJECTION

TIME 1 FEB. 1968 19 HRS., 35 MIN., 23.810 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 9.6948997D 03
 X-4.4917595D 06 Y-4.9967941D 06 Z-2.0753698D 05
 DX 6.0186168D 03 DY-7.5448256D 03 DZ 4.9081070D 03
 R 6.7221221D 06 DEC-1.7692154D 00 RA-1.3195326D 02
 V 1.0827634D 04 PTH 7.6166043D 00 AZ 6.2504553D 01
 ALT 3.4397856D 05 LTGD-1.7805161D 00 LON 1.6311711D 02
 VE 1.0399478D 04 PTE 7.9267284D 00 AZE 6.1244788D 01

PERISELENUM

TIME 4 FEB. 1968 22 HRS., 6 MIN., 47.463 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC 1.6945626D 06 YSC 8.2739818D 05 ZSC 1.5214936D 05
 DXSC 1.0486908D 03 DYSC-1.9155957D 03 DZSC-1.2626526D 03
 RSC 1.8918984D 06 DESC 4.6127953D 00 RASC 2.6024707D 01
 VSC 2.5226080D 03 PTSC 3.0073989D-12 AZSC-1.2014308D 02
 SELENOGRAPHIC REFERENCE
 XSG-1.8827459D 06 YSG 6.3356774D 03 ZSG-1.8576120D 05
 DXSG 5.4089964D 01 DYSG 2.4840846D 03 DZSG-4.6349452D 02
 HSG 1.5380888D 05 LTSG-5.6348211D 00 LNSG 1.7980718D 02
 VRSG 2.5275342D 03 PTSG 3.0664962D-08 AZSG-1.0061848D 02
 LTS-1.4246668D 00 LNS 1.0887311D 02 LTE-7.9147117D-01
 LNE 1.7762248D 00 DSMP 4.6434989D 00 RSMP 1.0712711D 02
 LIN 1.6797584D 02 LAN 2.7402264D 01 LAP-1.5187982D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.7797855D 05
 X 3.5748622D 08 Y 1.7232327D 08 Z 7.9268004D 07
 DX 6.1425802D 02 DY-1.1570888D 03 DZ-8.4036124D 02
 R 4.0469139D 08 DEC 1.1295709D 01 RA 2.5736004D 01
 V 1.5563979D 03 PTH-4.2263084D 00 AZ-1.2250317D 02
 ALT 3.9831405D 08 LTGD 1.1296871D 01 LON 2.7989733D 02
 VE 3.0259674D 04 PTE-2.1721445D-01 AZE-9.1579452D 01

FREE-RETURN VACUUM PERIGEE

TIME 7 FEB. 1968 22 HRS., 35 MIN., 33.559 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.3890465D 05
 X-6.4130084D 06 Y-2.0177787D 06 Z-6.9067743D 05
 DX 3.2570906D 03 DY-8.2105555D 03 DZ-6.2161772D 03
 R 6.7583388D 06 DEC-5.8656588D 00 RA-1.6253441D 02
 V 1.0801052D 04 PTH-2.1421874D-02 AZ 1.2535097D 02
 ALT 3.8039904D 05 LTGD-5.9026835D 00 LON 8.1458280D 01
 VE 1.0405063D 04 PTE 6.1328079D-13 AZE 1.2691308D 02

TABLE 10-III TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 90 DEGREES - FIRST OPPORTUNITY

LAUNCH TIME = 18 HRS..12 MIN..16.360 SEC. G. M. T.

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-5.853591E 06	YYY	-3.295328E 04
DXX	3.537610E 03	DYY	-3.325502E 01
R	6.572605E 06	WT	2.990841E 05
V	7.791113E 03	PTH	4.598043E-02
ALT	1.982638E 05	LAT	-2.496334E 01
VE	7.370540E 03	PTE	4.860393E-02
ANG	3.959481E 00	NFA	7.765732E 01
CPA	5.912547E 01	VPA	5.912547E 01
VYA	-2.246253E-01	CRA	-0.000000E-39
		ZZZ	-2.988901E 06
		DZZ	-6.941589E 03
		F	1.658276E 01
		AZ	7.585816E 01
		LON	9.337065E 01
		AZE	7.503288E 01
		IAC	9.233743E 00
		CYA	-2.246253E-01
		VRA	-0.000000E-39

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-3.456907E 06	YYY	-4.368079E 04
DXX	6.628684E 03	DYY	-1.189461E 01
R	6.575492E 06	WT	2.979511E 05
V	7.795965E 03	PTH	4.139361E-02
ALT	1.986255E 05	LAT	-1.423483E 01
VE	7.377120E 03	PTE	4.374393E-02
ANG	4.160324E 00	NFA	6.813809E 01
CPA	2.788881E 01	VPA	2.788881E 01
VYA	-6.153461E-02	CRA	-0.000000E-39
		ZZZ	-5.593298E 06
		DZZ	-4.103350E 03
		F	2.073030E 05
		AZ	6.506504E 01
		LON	1.226929E 02
		AZE	6.354304E 01
		IAC	1.184703E 01
		CYA	-6.153461E-02
		VRA	-0.000000E-39

TRANSLUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-6.082741E 05	YYY	-1.446607E 04
DXX	1.055304E 04	DYY	3.660410E 02
R	6.719062E 06	WT	1.393072E 05
V	1.083024E 04	PTH	7.645738E 00
ALT	3.409337E 05	LAT	-2.376009E 00
VE	1.039863E 04	PTE	7.965105E 00
ANG	1.160754E 01	NFA	4.067918E 00
CPA	1.234205E 01	VPA	1.234355E 01
VYA	1.230870E 01	CRA	-0.000000E-39
		ZZZ	-6.691456E 06
		DZZ	-2.406978E 03
		F	2.060472E 05
		AZ	6.346388E 01
		LON	1.453168E 02
		AZE	6.224698E 01
		IAC	1.604714E 01
		CYA	1.230882E 01
		VRA	0.000000E-39

TABLE 10- III TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 90 DEGREES - FIRST OPPORTUNITY
(CONTINUED)

TRANSLUNAR INJECTION

TIME 1 FEB. 1968 20 HRS., 49 MIN., 40.263 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 9.44390270 03

X-4.4161947D 06	Y-5.0562126D 06	Z-2.7879705D 05
DX 6.1548593D 03	DY-7.5514883D 03	DZ 4.7314800D 03
R 6.7190617D 06	DEC-2.3780822D 00	RA-1.3113459D 02
V 1.0830243D 04	PTH 7.6457368D 00	AZ 6.3464619D 01
ALT 3.4093461D 05	LTGD-2.3932710D 00	LON 1.4531640D 02
VE 1.0398630D 04	PTE 7.9580323D 00	AZE 6.2245875D 01

PERISELENUM

TIME 4 FEB. 1968 23 HRS., 18 MIN., 0.332 SEC., GMT
SELENOCENTRIC REFERENCE

XSC 1.6929894D 06	YSC 8.5416824D 05	ZSC 1.6550785D 05
DXSC 1.0801719D 03	DYSC-1.8993741D 03	DZSC-1.2466747D 03
RSC 1.9034729D 06	DESC 4.9881932D 00	RASC 2.6772430D 01
VSC 2.5156691D 03	PTSC 3.0007575D-12	AZSC-1.1983129D 02

SELENOGRAPHIC REFERENCE

XSG-1.8946178D 06	YSG 4.2913324D 02	ZSG-1.8339087D 05
DXSG 4.4611128D 01	DYSG 2.4788069D 03	DZSG-4.5507883D 02
HSG 1.6538344D 05	LTSG-5.5287607D 00	LNSG 1.7998701D 02
VRSG 2.5206290D 03	PTSG 5.7053013D-09	AZSG-1.0045047D 02
LTS-1.4244612D 00	LNS 1.0827114D 02	LTE-8.5906371D-01
LNE 1.7104083D 00	DSMP 4.6418384D 00	RSMP 1.0658724D 02
LIN 1.6817328D 02	LAN 2.7519947D 01	LAP-1.5196006D 02

GEOCENTRIC REFERENCE FLIGHT TIME 2.7754397D 05

X 3.5560832D 08	Y 1.7558116D 08	Z 8.1081200D 07
DX 6.3636267D 02	DY-1.1455029D 03	DZ-8.2652493D 02
R 4.0479647D 08	DEC 1.1554569D 01	RA 2.6277798D 01
V 1.5492830D 03	PTH-3.8261134D 00	AZ-1.2214524D 02
ALT 3.9841917D 08	LTGD 1.1555756D 01	LON 2.6258676D 02
VE 3.0240241D 04	PTE-1.9590832D-01	AZE-9.1558545D 01

FREE-RETURN VACUUM PERIGEE

TIME 7 FEB. 1968 23 HRS., 57 MIN., 24.516 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 5.3910816D 05

X-6.1652805D 06	Y-2.0282735D 06	Z-7.0061963D 05
DX 3.4413201D 03	DY-8.2253583D 03	DZ-6.4282817D 03
R 6.5280506D 06	DEC-6.1611060D 00	RA-1.6178966D 02
V 1.0991907D 04	PTH-2.3672100D-02	AZ 1.2603374D 02
ALT 1.5013402D 05	LTGD-6.2013468D 00	LON 6.1684698D 01
VE 1.0612829D 04	PTE 4.0647930D-12	AZE 1.2753701D 02

TABLE 10-IV TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 99 DEGREES - FIRST OPPORTUNITY

LAUNCH TIME = 19 HRS., 20 MIN., 37.930 SEC. G. M. T.

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-6.415471E 06	YYY	-5.621178E 03
DXX	1.674714E 03	DYY	1.685825E 01
R	6.570094E 06	WT	2.987644E 05
V	7.793331E 03	PTH	4.564348E-02
ALT	1.960313E 05	LAT	-2.592479E 01
VE	7.378341E 03	PTE	4.821052E-02
ANG	3.970316E 00	NFA	7.720054E 01
CPA	7.372085E 01	VPA	7.372085E 01
VYA	1.269728E-01	CRA	-0.000000E-39
		ZZZ	-1.416978E 06
		DZZ	-7.611245E 03
		F	1.732312E 01
		AZ	7.482052E 01
		LON	7.785827E 01
		AZF	7.394436E 01
		IAC	9.240258E 00
		CYA	1.269728E-01
		VRA	-0.000000E-39

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-4.751594E 06	YYY	1.599173E 03
DXX	5.383550E 03	DYY	1.411882E 01
R	6.573191E 06	WT	2.976307E 05
V	7.798064E 03	PTH	4.818052E-02
ALT	1.963835E 05	LAT	-1.456288E 01
VE	7.384954E 03	PTE	5.087557E-02
ANG	4.187456E 00	NFA	6.762898E 01
CPA	4.247049E 01	VPA	4.247049E 01
VYA	1.025656E-01	CRA	-0.000000E-39
		ZZZ	-4.541937E 06
		DZZ	-5.641542E 03
		F	2.073030E 05
		AZ	6.371815E 01
		LON	1.070873E 02
		AZE	6.212421E 01
		IAC	1.185635E 01
		CYA	1.025656E-01
		VRA	-0.000000E-39

TRANSLUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-2.269990E 06	YYY	3.731719E 04
DXX	9.606765E 03	DYY	3.799132E 02
R	6.720212E 06	WT	1.391474E 05
V	1.082916E 04	PTH	7.682640E 00
ALT	3.420765E 05	LAT	-2.137188E 00
VE	1.040272E 04	PTE	7.999603E 00
ANG	1.183630E 01	NFA	8.036788E 00
CPA	2.609553E 01	VPA	2.609509E 01
VYA	1.247450E 01	CRA	-0.000000E-39
		ZZZ	-6.325108E 06
		DZZ	-4.983627E 03
		F	2.060472E 05
		AZ	6.215679E 01
		LON	1.294519E 02
		AZE	6.088458E 01
		IAC	1.615456E 01
		CYA	1.247440E 01
		VRA	0.000000E-39

TABLE 10- IV TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH OF 99 DEGREES - FIRST OPPORTUNITY (CONTINUED)

TRANSLUNAR INJECTION

TIME 1 FEB. 1968 21 HRS., 54 MIN., 26.202 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 9.2282717D 03
 X-4.3848425D 06 Y-5.0864007D 06 Z-2.5085520D 05
 DX 6.1207131D 03 DY-7.4335837D 03 DZ 4.9547461D 03
 R 6.7202116D 06 DEC-2.1392606D 00 RA-1.3076369D 02
 V 1.0829165D 04 PTH 7.6826409D 00 AZ 6.2157513D 01
 ALT 3.4207744D 05 LTGD-2.1529247D 00 LON 1.2945155D 02
 VE 1.0402714D 04 PTE 7.9929571D 00 AZE 6.0883656D 01

PERISELENUM

TIME 5 FEB. 1968 0 HRS., 31 MIN., 57.986 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC 1.7012217D 06 YSC 8.7979117D 05 ZSC 1.7815242D 05
 DXSC 1.1003482D 03 DYSC-1.8757546D 03 DZSC-1.2442375D 03
 RSC 1.9235192D 06 DESC 5.3142341D 00 RASC 2.7345859D 01
 VSC 2.5054637D 03 PTSC 3.5671288D-12 AZSC-1.1991756D 02

SELENOGRAPHIC REFERENCE

XSG-1.9149508D 06 YSG 1.3377692D 03 ZSG-1.8135041D 05
 DXSG 4.5464337D 01 DYSG 2.4672012D 03 DZSG-4.6187611D 02
 HSG 1.8542973D 05 LTSG-5.4099109D 00 LNSG 1.7995996D 02
 VRSG 2.5104737D 03 PTSG-1.1945634D-08 AZSG-1.0064963D 02
 LTS-1.4242463D 00 LNS 1.0764597D 02 LTE-9.2913571D-01
 LNE 1.6417551D 00 DSMP 4.6401013D 00 RSMP 1.0602689D 02
 LIN 1.6805016D 02 LAN 2.6541174D 01 LAP-1.5291317D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.7788006D 05

X 3.5362558D 08 Y 1.7894137D 08 Z 8.2953300D 07
 DX 6.4685965D 02 DY-1.1267837D 03 DZ-8.2636020D 02
 R 4.0491026D 08 DEC 1.1821792D 01 RA 2.6840289D 01
 V 1.5397858D 03 PTH-3.8102490D 00 AZ-1.2238303D 02
 ALT 3.9853299D 08 LTGD 1.1823004D 01 LON 2.4460841D 02
 VE 3.0209087D 04 PTE-1.9410226D-01 AZE-9.1560845D 01

FREE-RETURN VACUUM PERIGEE

TIME 8 FEB. 1968 1 HRS., 13 MIN., 13.831 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.3955590D 05
 X-5.8068234D 06 Y-1.9849736D 06 Z-7.2178959D 05
 DX 3.7185432D 03 DY-8.5293940D 03 DZ-6.4147376D 03
 R 6.1790209D 06 DEC-6.7082033D 00 RA-1.6112778D 02
 V 1.1301636D 04 PTH-2.6428030D-02 AZ 1.2485911D 02
 ALT-1.9884993D 05 LTGD-6.7544417D 00 LON 4.3339194D 01
 VE 1.0937430D 04 PTE-5.6366527D-13 AZE 1.2619911D 02

TABLE 10-V TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 108 DEGREES - FIRST OPPORTUNITY

LAUNCH TIME = 20 HRS., 12 MIN., 31.680 SEC. G. M. T.

RESTART SEQUENCE INITIATION
 GEOCENTRIC REFERENCE

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -6.565736E 06	YYY 2.943820E 03	ZZZ 8.274000E 03	03
DXX 2.219771E 02	DYY 7.635023E 01	DZZ -1.921137E 05	05
R 6.568547E 06	WT 2.976143E 05	DZZ -7.790773E 03	03
V 7.794309E 03	PTH 4.420142E-02	F 1.792368E 01	01
ALT 1.951438E 05	LAT -2.810284E 01	AZ 7.169903E 01	01
VE 7.394355E 03	PTE 4.659224E-02	LON 6.664252E 01	01
ANG 4.006355E 00	NFA 7.518221E 01	AZE 7.067094E 01	01
CPA 8.449777E 01	VPA 8.449777E 01	IAC 9.243307E 00	00
VYA 5.582740E-01	CRA -0.000000E-39	CYA 5.582740E-01	01
		VRA -0.000000E-39	39

S-IVB STAGE AT OPERATING THRUST LEVEL
 GEOCENTRIC REFERENCE

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -5.515172E 06	YYY 3.492447E 04	ZZZ 8.734000E 03	03
DXX 4.235257E 03	DYY 5.966879E 01	DZZ -3.573348E 06	06
R 6.571694E 06	WT 2.964801E 05	DZZ -6.548943E 03	03
V 7.799334E 03	PTH 5.093210E-02	F 2.073030E 05	05
ALT 1.949667E 05	LAT -1.499681E 01	AZ 6.009022E 01	01
VE 7.401692E 03	PTE 5.366825E-02	LON 9.538897E 01	01
ANG 4.264612E 00	NFA 6.553930E 01	AZE 5.830321E 01	01
CPA 5.323886E 01	VPA 5.323886E 01	IAC 1.187638E 01	01
VYA 4.168217E-01	CRA -0.000000E-39	CYA 4.168217E-01	01
		VRA -0.000000E-39	39

TRANSLUNAR INJECTION (S-IVB CUTOFF)
 GEOCENTRIC REFERENCE

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -3.414646E 06	YYY 8.585441E 04	ZZZ 9.069786E 03	03
DXX 8.502013E 03	DYY 4.306028E 02	DZZ -5.785987E 06	06
R 6.718990E 06	WT 1.385880E 05	DZZ -6.694389E 03	03
V 1.082980E 04	PTH 7.691819E 00	F 2.060472E 05	05
ALT 3.408341E 05	LAT -1.168402E 00	AZ 5.880876E 01	01
VE 1.041776E 04	PTE 7.997990E 00	LON 1.168992E 02	02
ANG 1.217919E 01	NFA 7.296834E 00	AZE 5.739965E 01	01
CPA 3.699815E 01	VPA 3.699988E 01	IAC 1.618019E 01	01
VYA 1.296944E 01	CRA -0.000000E-39	CYA 1.296957E 01	01
		VRA 0.000000E-39	39

TABLE 10- V TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 108 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TRANSLUNAR INJECTION

TIME 1 FEB. 1968 22 HRS., 43 MIN., 41.466 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 9.0697860D 03
 X-4.4044045D 06 Y-5.0721999D 06 Z-1.3724948D 05
 DX 5.9076070D 03 DY-7.1995125D 03 DZ 5.5273584D 03
 R 6.7189901D 06 DEC-1.1704679D 00 RA-1.3096915D 02
 V 1.0829796D 04 PTH 7.6918184D 00 AZ 5.8809493D 01
 ALT 3.4083502D 05 LTGD-1.1779504D 00 LON 1.1689878D 02
 VE 1.0417781D 04 PTE 7.9939606D 00 AZE 5.7399521D 01

PERISELENUM

TIME 5 FEB. 1968 1 HRS., 41 MIN., 16.651 SEC.,GMT
 SELENOCENTRIC REFERENCE
 XSC 1.7196365D 06 YSC 9.0418551D 05 ZSC 1.8802231D 05
 DXSC 1.1087123D 03 DYSC-1.8484088D 03 DZSC-1.2513286D 03
 RSC 1.9519358D 06 DESC 5.5276478D 00 RASC 2.7735408D 01
 VSC 2.4923244D 03 PTSC 4.0959035D-12 AZSC-1.2029275D 02
 SELENOGRAPHIC REFERENCE
 XSG-1.9434605D 06 YSG 8.0022009D 03 ZSG-1.8152352D 05
 DXSG 5.4809379D 01 DYSG 2.4504641D 03 DZSG-4.7878508D 02
 HSG 2.1384636D 05 LTSG-5.3360264D 00 LNSG 1.7976408D 02
 VRSG 2.4974014D 03 PTSG-1.7882844D-08 AZSG-1.0110150D 02
 LTS-1.4240437D 00 LNS 1.0706011D 02 LTE-9.9467888D-01
 LNE 1.5771533D 00 DSMP 4.6384617D 00 RSMP 1.0550206D 02
 LIN 1.6767671D 02 LAN 2.5075820D 01 LAP-1.5416824D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.7892497D 05
 X 3.5173933D 08 Y 1.8207079D 08 Z 8.4696476D 07
 DX 6.4620785D 02 DY-1.1041090D 03 DZ-8.3562529D 02
 R 4.0502324D 08 DEC 1.2070499D 01 RA 2.7367434D 01
 V 1.5280415D 03 PTH-4.1236290D 00 AZ-1.2304233D 02
 ALT 3.9864600D 08 LTGD 1.2071735D 01 LON 2.2776034D 02
 VE 3.0171016D 04 PTE-2.0869958D-01 AZE-9.1578337D 01

FREE-RETURN VACUUM PERIGEE

TIME 8 FEB. 1968 2 HRS., 17 MIN., 9.455 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4027777D 05
 X-5.3543481D 06 Y-1.8929731D 06 Z-7.3785156D 05
 DX 4.0750078D 03 DY-9.0744998D 03 DZ-6.2433022D 03
 R 5.7268504D 06 DEC-7.4026070D 00 RA-1.6052948D 02
 V 1.1744405D 04 PTH-2.9471792D-02 AZ 1.2242076D 02
 ALT-6.5095669D 05 LTGD-7.4575780D 00 LON 2.7911976D 01
 VE 1.1396989D 04 PTE 3.5304082D-12 AZE 1.2353704D 02

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY

LAUNCH TIME = 15 HRS., 37 MIN., 28.610 SEC. G. M. T.

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-3.246660E 06	YYY	-1.531897E 05
DXX	6.767541E 03	DYY	-8.032106E 01
R	6.584387E 06	WT	2.962214E 05
V	7.781299E 03	PTH	3.009653E-C2
ALT	2.106190E 05	LAT	-2.691103E 01
VF	7.377991E 03	PTE	3.174164E-C2
ANG	4.021053E 00	NFA	7.293850E 01
CPA	2.569956E 01	VPA	2.569956E 01
VYA	-5.001355E-01	CRA	-0.000000E-39
		ZZZ	-5.726246E 06
		DZZ	-3.839604E 03
		F	1.311652E 01
		AZ	7.092401E 01
		LON	1.083249E 02
		AZE	6.983730E 01
		IAC	9.199571E 00
		CYA	-5.001355E-01
		VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-3.219554E 06	YYY	-1.535093E 05
DXX	6.785624E 03	DYY	-7.950695E 01
R	6.584404E 06	WT	2.962208E 05
V	7.781296E 03	PTH	2.998599E-C2
ALT	2.106086E 05	LAT	-2.682223E 01
VE	7.378007E 03	PTE	3.162541E-02
ANG	4.023226E 00	NFA	7.282651E 01
CPA	2.542867E 01	VPA	2.542867E 01
VYA	-4.939661E-01	CRA	-0.000000E-39
		ZZZ	-5.741540E 06
		DZZ	-3.807566E 03
		F	1.310485E 01
		AZ	7.079407E 01
		LON	1.085950E 02
		AZE	6.969937E 01
		IAC	9.199577E 00
		CYA	-4.939661E-01
		VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-3.185570E 06	YYY	-1.539043E 05
DXX	6.808015E 03	DYY	-7.848663E 01
R	6.584424E 06	WT	2.962201E 05
V	7.781293E 03	PTH	2.984340E-C2
ALT	2.105953E 05	LAT	-2.671040E 01
VE	7.378028E 03	PTE	3.147457E-02
ANG	4.025914E 00	NFA	7.268722E 01
CPA	2.509005E 01	VPA	2.509005E 01
VYA	-4.862378E-01	CRA	-0.000000E-39
		ZZZ	-5.760477E 06
		DZZ	-3.767399E 03
		F	1.309027E 01
		AZ	7.063250E 01
		LON	1.089320E 02
		AZE	6.952785E 01
		IAC	9.199586E 00
		CYA	-4.862378E-01
		VRA	-0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-3.151474E 06	YYY	-1.542942F 05	ZZZ	-5.779214E 06
DXX	6.830169E 03	DYY	-7.746337F 01	DZZ	-3.727100E 03
R	6.584444E 06	WT	2.962194E 05	F	1.307569F 01
V	7.781290E 03	PTH	2.970177E-02	AZ	7.047186E 01
ALT	2.105816E 05	LAT	-2.659768F 01	LON	1.092683E 02
VE	7.378050E 03	PTE	3.132474E-02	AZE	6.935732E 01
ANG	4.028644E 00	NFA	7.254870F 01	IAC	9.199597E 00
CPA	2.475143E 01	VPA	2.475143E 01	CYA	-4.784923E-01
VYA	-4.784923E-01	CRA	-0.000000E-39	VRA	-0.000000F-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-3.117268E 06	YYY	-1.546790E 05	ZZZ	-5.797748E 06
DXX	6.852083E 03	DYY	-7.643718E 01	DZZ	-3.686671E 03
R	6.584464E 06	WT	2.962186E 05	F	1.306110E 01
V	7.781287E 03	PTH	2.955672E-02	AZ	7.031218E 01
ALT	2.105678E 05	LAT	-2.648407E 01	LON	1.096039E 02
VE	7.378071E 03	PTE	3.117201E-02	AZE	6.918777E 01
ANG	4.031353E 00	NFA	7.241094F 01	IAC	9.199607E 00
CPA	2.441281E 01	VPA	2.441281E 01	CYA	-4.707281E-01
VYA	-4.707281E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-3.082954E 06	YYY	-1.550586E 05	ZZZ	-5.816080E 06
DXX	6.873759E 03	DYY	-7.540812E 01	DZZ	-3.646113E 03
R	6.584484E 06	WT	2.962179E 05	F	1.304652E 01
V	7.781285E 03	PTH	2.940989E-02	AZ	7.015346E 01
ALT	2.105537E 05	LAT	-2.636957E 01	LON	1.099388E 02
VE	7.378094E 03	PTE	3.101690E-02	AZE	6.901921E 01
ANG	4.034109E 00	NFA	7.227393E 01	IAC	9.199618E 00
CPA	2.407419E 01	VPA	2.407419E 01	CYA	-4.629434E-01
VYA	-4.629434E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -3.048531E 06	YYY -1.554330E 05	ZZZ -5.834209E 06	04
DXX 6.895195E 03	DYY -7.437621E 01	DZZ -3.605428E 03	
R 6.584504E 06	WT 2.962172E 05	F 1.303194E 01	
V 7.781282E 03	PTH 2.926305E-02	AZ 6.999568E 01	
ALT 2.105392E 05	LAT -2.625420E 01	LON 1.102730E 02	
VE 7.378116E 03	PTE 3.086223E-02	AZE 6.885165E 01	
ANG 4.036862E 00	NFA 7.213771E 01	IAC 9.199630E 00	
CPA 2.373558E 01	VPA 2.373558E 01	CYA -4.551433E-01	
VYA -4.551433E-01	CRA -0.000000E-39	VRA -0.000000E-39	

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -3.014002E 06	YYY -1.558023E 05	ZZZ -5.852134E 06	04
DXX 6.916389E 03	DYY -7.334148E 01	DZZ -3.564617E 03	
R 6.584524E 06	WT 2.962165E 05	F 1.301735E 01	
V 7.781280E 03	PTH 2.911238E-02	AZ 6.983887E 01	
ALT 2.105246E 05	LAT -2.613795E 01	LON 1.106064E 02	
VE 7.378139E 03	PTE 3.070300E-02	AZE 6.868508E 01	
ANG 4.039639E 00	NFA 7.200225E 01	IAC 9.199642E 00	
CPA 2.339696E 01	VPA 2.339696E 01	CYA -4.473245E-01	
VYA -4.473245E-01	CRA -0.000000E-39	VRA -0.000000E-39	

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.979368E 06	YYY -1.561664E 05	ZZZ -5.869855E 06	04
DXX 6.937343E 03	DYY -7.230398E 01	DZZ -3.523682E 03	
R 6.584544E 06	WT 2.962157E 05	F 1.300277E 01	
V 7.781278E 03	PTH 2.896150E-02	AZ 6.968301E 01	
ALT 2.105097E 05	LAT -2.602083E 01	LON 1.109392E 02	
VE 7.378162E 03	PTE 3.054363E-02	AZE 6.851952E 01	
ANG 4.042395E 00	NFA 7.186757E 01	IAC 9.199655E 00	
CPA 2.305834E 01	VPA 2.305834E 01	CYA -4.394885E-01	
VYA -4.394885E-01	CRA -0.000000E-39	VRA -0.000000E-39	

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME 1.450000E 04		
XXX	-2.944629E 06	YYY	-1.565254E 05	ZZZ	-5.887371E 06
DXX	6.558054E 03	DYY	-7.126373E 01	DZZ	-3.482623E 03
R	6.584563E 06	WT	2.962150E 05	F	1.298819E 01
V	7.781276E 03	PTH	2.880774E-02	AZ	6.952812E 01
ALT	2.104945E 05	LAT	-2.590285E 01	LON	1.112713E 02
VE	7.378185E 03	PTE	3.038152E-02	AZE	6.835496E 01
ANG	4.045174E 00	NFA	7.173367E 01	IAC	9.199668E 00
CPA	2.271972E 01	VPA	2.271972E 01	CYA	-4.316355E-01
VYA	-4.316355E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME 1.450500E 04		
XXX	-2.909787E 06	YYY	-1.568791E 05	ZZZ	-5.904681E 06
DXX	6.578522E 03	DYY	-7.022077E 01	DZZ	-3.441443E 03
R	6.584583E 06	WT	2.962143E 05	F	1.297360E 01
V	7.781275E 03	PTH	2.865302E-02	AZ	6.937420E 01
ALT	2.104791E 05	LAT	-2.578402E 01	LON	1.116026E 02
VE	7.378209E 03	PTE	3.021810E-02	AZE	6.819141E 01
ANG	4.047950E 00	NFA	7.160056E 01	IAC	9.199682E 00
CPA	2.238111E 01	VPA	2.238111E 01	CYA	-4.237654E-01
VYA	-4.237654E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME 1.451000E 04		
XXX	-2.874844E 06	YYY	-1.572276E 05	ZZZ	-5.921785E 06
DXX	6.598747E 03	DYY	-6.917513E 01	DZZ	-3.400143E 03
R	6.584602E 06	WT	2.962136E 05	F	1.295902E 01
V	7.781273E 03	PTH	2.849742E-02	AZ	6.922125E 01
ALT	2.104635E 05	LAT	-2.566434E 01	LON	1.119332E 02
VE	7.378233E 03	PTE	3.005425E-02	AZE	6.802888E 01
ANG	4.050761E 00	NFA	7.146822E 01	IAC	9.199697E 00
CPA	2.204249E 01	VPA	2.204249E 01	CYA	-4.158783E-01
VYA	-4.158783E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.639800E 06	YYY -1.575708E 05	ZZZ -5.938682E 06	04
DXX 7.018727E 03	DYY -6.812685E 01	DZZ -3.358723E 03	06
R 6.584622E 06	WT 2.962128E C5	F 1.294444E 01	03
V 7.781272E 03	PTH 2.833975E-C2	AZ 6.906927E 01	01
ALT 2.104475E 05	LAT -2.554382E C1	LON 1.122631E 02	02
VE 7.378257E 03	PTE 2.988780E-C2	AZE 6.786735E 01	01
ANG 4.053576E 00	NFA 7.133669E 01	IAC 9.199712E 00	00
CPA 2.170387E 01	VPA 2.170387E 01	CYA -4.079757E-01	01
VYA -4.079757E-01	CRA -0.000000E-39	VRA -0.000000E-39	01

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.804657E 06	YYY -1.579088E 05	ZZZ -5.955372E 06	04
DXX 7.038462E 03	DYY -6.707597E 01	DZZ -3.317187E 03	06
R 6.584641E 06	WT 2.962121E C5	F 1.292985E 01	03
V 7.781271E 03	PTH 2.818017E-C2	AZ 6.891826E 01	01
ALT 2.104315E 05	LAT -2.542246E 01	LON 1.125924E 02	02
VE 7.378282E 03	PTE 2.971918E-C2	AZE 6.770685E 01	01
ANG 4.056402E 00	NFA 7.120596E 01	IAC 9.199727E 00	00
CPA 2.136525E 01	VPA 2.136525E C1	CYA -4.000570E-01	01
VYA -4.000570E-01	CRA -0.000000E-39	VRA -0.000000E-39	01

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.769416E 06	YYY -1.582416E 05	ZZZ -5.971854E 06	04
DXX 7.057951E 03	DYY -6.602251E 01	DZZ -3.275534E 03	06
R 6.584660E 06	WT 2.962114E C5	F 1.291527E 01	03
V 7.781270E 03	PTH 2.801874E-C2	AZ 6.876823E 01	01
ALT 2.104152E 05	LAT -2.530028E 01	LON 1.129209E 02	02
VE 7.378306E 03	PTE 2.954897E-C2	AZE 6.754736E 01	01
ANG 4.059207E 00	NFA 7.107601E 01	IAC 9.199744E 00	00
CPA 2.102664E 01	VPA 2.102664E C1	CYA -3.921220E-01	01
VYA -3.921220E-01	CRA -0.000000E-39	VRA -0.000000E-39	01

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME		1.453000E 04
XXX	-2.734078E 06	YYY	-1.585690E 05	ZZZ -5.988127E 06
DXX	7.077194E 03	DYY	-6.496652E 01	DZZ -3.233768E 03
R	6.584679E 06	WT	2.962107E 05	F 1.290069E 01
V	7.781269E 03	PTH	2.785601E-02	AZ 6.861919E 01
ALT	2.103987E 05	LAT	-2.517727E 01	LON 1.132487E 02
VE	7.378332E 03	PTE	2.937725E-02	AZE 6.738890E 01
ANG	4.062028E 00	NFA	7.094687E 01	IAC 9.199760E 00
CPA	2.068802E 01	VPA	2.068802E 01	CYA -3.841717E-01
VYA	-3.841717E-01	CRA	-0.000000E-39	VRA -0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME		1.453500E 04
XXX	-2.698645E 06	YYY	-1.588912E 05	ZZZ -6.004192E 06
DXX	7.096190E 03	DYY	-6.390802E 01	DZZ -3.191888E 03
R	6.584698E 06	WT	2.962100E 05	F 1.288610E 01
V	7.781269E 03	PTH	2.769149E-02	AZ 6.847112E 01
ALT	2.103820E 05	LAT	-2.505344E 01	LON 1.135757E 02
VE	7.378357E 03	PTE	2.920379E-02	AZE 6.723146E 01
ANG	4.064860E 00	NFA	7.081852E 01	IAC 9.199777E 00
CPA	2.034940E 01	VPA	2.034940E 01	CYA -3.762060E-01
VYA	-3.762060E-01	CRA	-0.000000E-39	VRA -0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME		1.454000E 04
XXX	-2.663117E 06	YYY	-1.592081E 05	ZZZ -6.020046E 06
DXX	7.114938E 03	DYY	-6.284706E 01	DZZ -3.149896E 03
R	6.584716E 06	WT	2.962093E 05	F 1.287152E 01
V	7.781269E 03	PTH	2.752492E-02	AZ 6.832403E 01
ALT	2.103650E 05	LAT	-2.492880E 01	LON 1.139021E 02
VE	7.378383E 03	PTE	2.902773E-02	AZE 6.707504E 01
ANG	4.067713E 00	NFA	7.069098E 01	IAC 9.199795E 00
CPA	2.001079E 01	VPA	2.001079E 01	CYA -3.682249E-01
VYA	-3.682249E-01	CRA	-0.000000E-39	VRA -0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.65600E 06	YYY -1.592709E 05	ZZZ -6.023192E 06	04
DXX 7.118658E 03	DYY -6.263458E 01	DZZ -3.141485E 03	
R 6.584720E 06	WT 2.962086E 05	F 1.500000F 01	
V 7.781269E 03	PTH 2.749061E-02	AZ 6.829474E 01	
ALT 2.103615E 05	LAT -2.490378E 01	LON 1.139673E 02	
VE 7.378388E 03	PTE 2.899174E-02	AZE 6.704389E 01	
ANG 4.068285E 00	NFA 7.066558E 01	IAC 9.199803E 00	
CPA 1.594306E 01	VPA 1.994306E 01	CYA -3.666275E-01	
VYA -3.666275E-01	CRA -0.000000E-39	VRA -0.000000E-39	

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.627496E 06	YYY -1.595197E 05	ZZZ -6.035690E 06	04
DXX 7.133438E 03	DYY -6.178367E 01	DZZ -3.107795E 03	
R 6.584735E 06	WT 2.961967E 05	F 1.545734E 01	
V 7.781269E 03	PTH 2.735691E-02	AZ 6.817794E 01	
ALT 2.103478E 05	LAT -2.480336E 01	LON 1.142278E 02	
VE 7.378409E 03	PTE 2.885059E-02	AZE 6.691966E 01	
ANG 4.070565E 00	NFA 7.056425E 01	IAC 9.199819E 00	
CPA 1.967217E 01	VPA 1.967217E 01	CYA -3.602293E-01	
VYA -3.602293E-01	CRA -0.000000E-39	VRA -0.000000E-39	

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.591783E 06	YYY -1.598260E 05	ZZZ -6.051124E 06	04
DXX 7.151689E 03	DYY -6.071788E 01	DZZ -3.065585E 03	
R 6.584754E 06	WT 2.961818E 05	F 1.602901E 01	
V 7.781269E 03	PTH 2.718698E-02	AZ 6.803283E 01	
ALT 2.103303E 05	LAT -2.467712E 01	LON 1.145528E 02	
VE 7.378436E 03	PTE 2.867107E-02	AZE 6.676531E 01	
ANG 4.073408E 00	NFA 7.043834E 01	IAC 9.199840E 00	
CPA 1.933355E 01	VPA 1.933355E 01	CYA -3.522192E-01	
VYA -3.522192E-01	CRA -0.000000E-39	VRA -0.000000E-39	

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME		1.455500E 04
XXX	-2.555979E 06	YYY	-1.601269E 05	ZZZ -6.066346F 06
DXX	7.169690E 03	DYY	-5.964973E 01	DZZ -3.023268E 03
R	6.584772E 06	WT	2.961669E 05	F 1.660069E 01
V	7.781270E 03	PTH	2.701513E-02	AZ 6.788871E 01
ALT	2.103128E 05	LAT	-2.455009E 01	LON 1.148770E 02
VE	7.378463E 03	PTE	2.849024E-02	AZE 6.661199E 01
ANG	4.076280E 00	NFA	7.031323E 01	IAC 9.199860E 00
CPA	1.899493E 01	VPA	1.899493E 01	CYA -3.441946E-01
VYA	-3.441946E-01	CRA	-0.000000E-39	VRA -0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME		1.456000E 04
XXX	-2.520086E 06	YYY	-1.604224E 05	ZZZ -6.081356E 06
DXX	7.187442E 03	DYY	-5.857926E 01	DZZ -2.980845F 03
R	6.584790E 06	WT	2.961520E 05	F 1.717236E 01
V	7.781271E 03	PTH	2.684198E-02	AZ 6.774558E 01
ALT	2.102950E 05	LAT	-2.442227E 01	LON 1.152006E 02
VE	7.378490E 03	PTE	2.830768E-02	AZE 6.645971E 01
ANG	4.079125E 00	NFA	7.018897E 01	IAC 9.199881E 00
CPA	1.865632E 01	VPA	1.865632E 01	CYA -3.361580E-01
VYA	-3.361580E-01	CRA	-0.000000E-39	VRA -0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME		1.456500E 04
XXX	-2.484105E 06	YYY	-1.607127E 05	ZZZ -6.096154E 06
DXX	7.204942E 03	DYY	-5.750650E 01	DZZ -2.938318F 03
R	6.584809E 06	WT	2.961372E 05	F 1.774404E 01
V	7.781273E 03	PTH	2.666856E-02	AZ 6.760344E 01
ALT	2.102770E 05	LAT	-2.429367E 01	LON 1.155235E 02
VE	7.378518E 03	PTE	2.812425E-02	AZE 6.630847E 01
ANG	4.081999E 00	NFA	7.006550E 01	IAC 9.199902E 00
CPA	1.831770E 01	VPA	1.831770E 01	CYA -3.281061E-01
VYA	-3.281061E-01	CRA	-0.000000E-39	VRA -0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.448037E 06	YYY -1.609975E 05	ZZZ -6.110739E 06	04
DXX 7.222190E 03	DYY -5.643148E 01	DZZ -2.895689E 03	03
R 6.584827E 06	WT 2.961223E 05	F 1.831571E 01	01
V 7.781274E 03	PTH 2.649184E-02	AZ 6.746230E 01	01
ALT 2.102588E 05	LAT -2.416430E 01	LON 1.158456E 02	02
VE 7.378546E 03	PTE 2.793779E-02	AZE 6.615826E 01	01
ANG 4.084864E 00	NFA 6.994286E 01	IAC 9.199924E 00	00
CPA 1.797908E 01	VPA 1.797908E 01	CYA -3.200405E-01	01
VYA -3.200405E-01	CRA -0.000000E-39	VRA -0.000000E-39	39

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.411884E 06	YYY -1.612770E 05	ZZZ -6.125111E 06	04
DXX 7.239187E 03	DYY -5.535425E 01	DZZ -2.852958E 03	03
R 6.584845E 06	WT 2.961074E 05	F 1.888739E 01	01
V 7.781276E 03	PTH 2.631396E-02	AZ 6.732215E 01	01
ALT 2.102404E 05	LAT -2.403416E 01	LON 1.161671E 02	02
VE 7.378574E 03	PTE 2.775011E-02	AZE 6.600910E 01	01
ANG 4.087740E 00	NFA 6.982105E 01	IAC 9.199947E 00	00
CPA 1.764046E 01	VPA 1.764046E 01	CYA -3.119629E-01	01
VYA -3.119629E-01	CRA -0.000000E-39	VRA -0.000000E-39	39

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.375646E 06	YYY -1.615511E 05	ZZZ -6.139269E 06	04
DXX 7.255931E 03	DYY -5.427483E 01	DZZ -2.810127E 03	03
R 6.584862E 06	WT 2.960925E 05	F 1.945906E 01	01
V 7.781279E 03	PTH 2.613533E-02	AZ 6.718300E 01	01
ALT 2.102218E 05	LAT -2.390326E 01	LON 1.164879E 02	02
VE 7.378603E 03	PTE 2.756198E-02	AZE 6.586098E 01	01
ANG 4.090625E 00	NFA 6.970005E 01	IAC 9.199970E 00	00
CPA 1.730185E 01	VPA 1.730185E 01	CYA -3.038708E-01	01
VYA -3.038708E-01	CRA -0.000000E-39	VRA -0.000000E-39	39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.339325E 06	YYY -1.618197E 05	ZZZ -6.153212E 06	04
DXX 7.272422E 03	DYY -5.319327E 01	DZZ -2.767199E 03	06
R 6.584880E 06	WT 2.960776E 05	F 2.003074E 01	03
V 7.781281E 03	PTH 2.595307E-02	AZ 6.704485E 01	01
ALT 2.102030E 05	LAT -2.377161E 01	LON 1.168080E 02	01
VE 7.378632E 03	PTE 2.736939E-02	AZE 6.571391E 01	02
ANG 4.093503E 00	NFA 6.957990E 01	IAC 9.199993E 00	01
CPA 1.696323E 01	VPA 1.696323E 01	CYA -2.957677E-01	00
VYA -2.557677E-01	CRA -0.000000E-39	VRA -0.000000E-39	01

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.302922E 06	YYY -1.620830E 05	ZZZ -6.166941E 06	04
DXX 7.288659E 03	DYY -5.210960E 01	DZZ -2.724173E 03	06
R 6.584898E 06	WT 2.960627E 05	F 2.060241E 01	03
V 7.781284E 03	PTH 2.577258E-02	AZ 6.690770E 01	01
ALT 2.101840E 05	LAT -2.363920E 01	LON 1.171273E 02	01
VE 7.378662E 03	PTE 2.717888E-02	AZE 6.556788E 01	02
ANG 4.096372E 00	NFA 6.946056E 01	IAC 9.200017E 00	01
CPA 1.662461E 01	VPA 1.662461E 01	CYA -2.876509E-01	00
VYA -2.876509E-01	CRA -0.000000E-39	VRA -0.000000E-39	01

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.266439E 06	YYY -1.623408E 05	ZZZ -6.180454E 06	04
DXX 7.304641E 03	DYY -5.102385E 01	DZZ -2.681053E 03	06
R 6.584915E 06	WT 2.960478E 05	F 2.117409E 01	03
V 7.781287E 03	PTH 2.558847E-02	AZ 6.677155E 01	01
ALT 2.101651E 05	LAT -2.350606E 01	LON 1.174460E 02	01
VE 7.378691E 03	PTE 2.698469E-02	AZE 6.542290E 01	02
ANG 4.099269E 00	NFA 6.934207E 01	IAC 9.200041E 00	01
CPA 1.628599E 01	VPA 1.628599E 01	CYA -2.795229E-01	00
VYA -2.795229E-01	CRA -0.000000E-39	VRA -0.000000E-39	01

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	-2.229876E 06	YYY	-1.625932E 05	ZZZ	-6.193751E 06
DXX	7.320368E 03	DYY	-4.993606E C1	DZZ	-2.637838E 03
R	6.584932E 06	WT	2.960329E 05	F	2.174576E 01
V	7.781290E 03	PTH	2.540195E-02	AZ	6.663640E 01
ALT	2.101457E 05	LAT	-2.337218E 01	LON	1.177640E 02
VE	7.378721E 03	PTE	2.678798E-02	AZE	6.527896E 01
ANG	4.102147E 00	NFA	6.922441E C1	IAC	9.200066E 00
CPA	1.594737E 01	VPA	1.594737E C1	CYA	-2.713831E-01
VYA	-2.713831E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	-2.193235E 06	YYY	-1.628402E 05	ZZZ	-6.206832E 06
DXX	7.335840E 03	DYY	-4.884627E C1	DZZ	-2.594532E 03
R	6.584949E 06	WT	2.960180E 05	F	2.231744E 01
V	7.781294E 03	PTH	2.521496E-02	AZ	6.650225E 01
ALT	2.101263E 05	LAT	-2.323756E 01	LON	1.180813E 02
VE	7.378752E 03	PTE	2.659069E-02	AZE	6.513608E 01
ANG	4.105034E 00	NFA	6.910759E 01	IAC	9.200091E 00
CPA	1.560875E 01	VPA	1.560875E 01	CYA	-2.632312E-01
VYA	-2.632312E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	-2.156518E 06	YYY	-1.630817E 05	ZZZ	-6.219696E 06
DXX	7.351056E 03	DYY	-4.775452E C1	DZZ	-2.551134E 03
R	6.584967E 06	WT	2.960031E 05	F	2.288911E 01
V	7.781298E 03	PTH	2.502721E-02	AZ	6.636911E 01
ALT	2.101066E 05	LAT	-2.310223E C1	LON	1.183980E 02
VE	7.378782E 03	PTE	2.639246E-C2	AZE	6.499425E 01
ANG	4.107925E 00	NFA	6.899161E 01	IAC	9.200116E 00
CPA	1.527013E 01	VPA	1.527013E 01	CYA	-2.550683E-01
VYA	-2.550683E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.119725E 06	YYY -1.633177E 05	ZZZ -6.232343E 06	04
DXX 7.366015E 03	DYY -4.666083E 01	DZZ -2.507648E 03	
R 6.584983E 06	WT 2.959882E 05	F 2.346079E 01	
V 7.781302E 03	PTH 2.483727E-02	AZ 6.623697E 01	
ALT 2.100869E 05	LAT -2.296617E 01	LON 1.187139E 02	
VE 7.378813E 03	PTE 2.619221E-02	AZE 6.485347E 01	
ANG 4.110808E 00	NFA 6.887648E 01	IAC 9.200142E 00	
CPA 1.493152E 01	VPA 1.493152E 01	CYA -2.468951E-01	
VYA -2.468951E-01	CRA -0.000000E-39	VRA -0.000000E-39	

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.082858E 06	YYY -1.635483E 05	ZZZ -6.244772E 06	04
DXX 7.380717E 03	DYY -4.556526E 01	DZZ -2.464073E 03	
R 6.585000E 06	WT 2.959733E 05	F 2.403246E 01	
V 7.781306E 03	PTH 2.464754E-02	AZ 6.610583E 01	
ALT 2.100670E 05	LAT -2.282941E 01	LON -2.409708E 02	
VE 7.378844E 03	PTE 2.599181E-02	AZE 6.471375E 01	
ANG 4.113684E 00	NFA 6.876218E 01	IAC 9.200169E 00	
CPA 1.459290E 01	VPA 1.459290E 01	CYA -2.387108E-01	
VYA -2.387108E-01	CRA -0.000000E-39	VRA -0.000000E-39	

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.045919E 06	YYY -1.637734E 05	ZZZ -6.256984E 06	04
DXX 7.395162E 03	DYY -4.446782E 01	DZZ -2.420413E 03	
R 6.585017E 06	WT 2.959584E 05	F 2.460414E 01	
V 7.781311E 03	PTH 2.445397E-02	AZ 6.597571E 01	
ALT 2.100470E 05	LAT -2.269194E 01	LON -2.406562E 02	
VE 7.378876E 03	PTE 2.578780E-02	AZE 6.457508E 01	
ANG 4.116569E 00	NFA 6.864874E 01	IAC 9.200196E 00	
CPA 1.425428E 01	VPA 1.425428E 01	CYA -2.305163E-01	
VYA -2.305163E-01	CRA -0.000000E-39	VRA -0.000000E-39	

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-2.008907E 06	YYY	-1.639930E 05
DXX	7.409348E 03	DYY	-4.336857E 01
R	6.585033E 06	WT	2.959435E C5
V	7.781315E 03	PTH	2.426081E-02
ALT	2.100268E 05	LAT	-2.255377E 01
VE	7.378907E 03	PTE	2.558380E-02
ANG	4.119446E 00	NFA	6.853613E C1
CPA	1.391565E 01	VPA	1.391565E 01
VYA	-2.223107E-01	CRA	-0.000000E-39
		ZZZ	-6.268976E 06
		DZZ	-2.376668E 03
		F	2.517581E J1
		AZ	6.584658E 01
		LON	-2.403423E 02
		AZE	6.443746E 01
		IAC	9.200223E 00
		CYA	-2.223107E-01
		VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-1.571825E 06	YYY	-1.642070E 05
DXX	7.423276E 03	DYY	-4.226753E 01
R	6.585050E 06	WT	2.959287E 05
V	7.781321E 03	PTH	2.406470E-02
ALT	2.100065E 05	LAT	-2.241491E 01
VF	7.378939E 03	PTE	2.537705E-02
ANG	4.122339E 00	NFA	6.842438E C1
CPA	1.357703E 01	VPA	1.357703E C1
VYA	-2.140957E-01	CRA	-0.000000E-39
		ZZZ	-6.280750E 06
		DZZ	-2.332840E 03
		F	2.574749E 01
		AZ	6.571847E 01
		LON	-2.400291E 02
		AZE	6.430091E 01
		IAC	9.200250E 00
		CYA	-2.140957E-01
		VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-1.534675E 06	YYY	-1.644156E 05
DXX	7.436944E 03	DYY	-4.116475E 01
R	6.585066E 06	WT	2.959138E 05
V	7.781326E 03	PTH	2.386688E-02
ALT	2.099860E 05	LAT	-2.227536E 01
VE	7.378972E 03	PTE	2.516835E-02
ANG	4.125206E 00	NFA	6.831348E 01
CPA	1.323841E 01	VPA	1.323841E 01
VYA	-2.058713E-01	CRA	-0.000000E-39
		ZZZ	-6.292305E 06
		DZZ	-2.288930E 03
		F	2.631916E 01
		AZ	6.559136E 01
		LON	-2.397165E 02
		AZE	6.416541E 01
		IAC	9.200278E 00
		CYA	-2.058713E-01
		VRA	-0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -1.897456E 06	YYY -1.646187E 05	ZZZ -6.303639E 06	04
DXX 7.450353E 03	DYY -4.006026E 01	DZZ -2.244940E 03	06
R 6.585082E 06	WT 2.958989E 05	F 2.689084F 01	03
V 7.781332E 03	PTH 2.366900E-02	AZ 6.546526E 01	01
ALT 2.099654E 05	LAT -2.213513E 01	LON -2.394046E 02	01
VE 7.379004E 03	PTE 2.495943E-02	AZE 6.403096E 01	02
ANG 4.128089E 00	NFA 6.820343E 01	IAC 9.200306E 00	01
CPA 1.289979E 01	VPA 1.289979E 01	CYA -1.976375E-01	00
VYA -1.976375E-01	CRA -0.000000E-39	VRA -0.000000E-39	01

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -1.860172E 06	YYY -1.648162E 05	ZZZ -6.314754E 06	04
DXX 7.463502E 03	DYY -3.895409E 01	DZZ -2.200872E 03	06
R 6.585098E 06	WT 2.958840E 05	F 2.746251E 01	03
V 7.781337E 03	PTH 2.346898E-02	AZ 6.534017E 01	01
ALT 2.099446E 05	LAT -2.199422E 01	LON -2.390934E 02	01
VE 7.379037E 03	PTE 2.474864E-02	AZE 6.389758E 01	02
ANG 4.130953E 00	NFA 6.809424E 01	IAC 9.200335E 00	01
CPA 1.256117E 01	VPA 1.256117E 01	CYA -1.893952E-01	00
VYA -1.893952E-01	CRA -0.000000E-39	VRA -0.000000E-39	01

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -1.822822E 06	YYY -1.650082E 05	ZZZ -6.325648E 06	04
DXX 7.476390E 03	DYY -3.784629E 01	DZZ -2.156726E 03	06
R 6.585114E 06	WT 2.958691E 05	F 2.803419E 01	03
V 7.781344E 03	PTH 2.326746E-02	AZ 6.521609E 01	01
ALT 2.099237E 05	LAT -2.185265E 01	LON -2.387828E 02	01
VE 7.379070E 03	PTE 2.453583E-02	AZE 6.376525E 01	02
ANG 4.133838E 00	NFA 6.798590E 01	IAC 9.200364E 00	01
CPA 1.222255E 01	VPA 1.222255E 01	CYA -1.811431E-01	00
VYA -1.811431E-01	CRA -0.000000E-39	VRA -0.000000E-39	01

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -1.785408E 06	YYY -1.651947E 05	ZZZ -6.336321E 06	04
DXX 7.489017E 03	DYY -3.673689E 01	DZZ -2.112505E 03	
R 6.585130E 06	WT 2.958542E 05	F 2.860586E 01	
V 7.781350E 03	PTH 2.306464E-02	AZ 6.509301E 01	
ALT 2.099027E 05	LAT -2.171041E 01	LON -2.384729E 02	
VE 7.379103E 03	PTF 2.432201E-02	AZE 6.363399E 01	
ANG 4.136691E 00	NFA 6.787842E 01	IAC 9.200393E 00	
CPA 1.188392E 01	VPA 1.188392E 01	CYA -1.728832E-01	
VYA -1.728832E-01	CRA -0.000000E-39	VRA -0.000000E-39	

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -1.747932E 06	YYY -1.653756E 05	ZZZ -6.346773E 06	04
DXX 7.501383E 03	DYY -3.562593E 01	DZZ -2.068210E 03	
R 6.585145E 06	WT 2.958393E 05	F 2.917754E 01	
V 7.781357E 03	PTH 2.286045E-02	AZ 6.497095E 01	
ALT 2.098817E 05	LAT -2.156752E 01	LON -2.381636E 02	
VE 7.379137E 03	PTF 2.410645E-02	AZE 6.350378E 01	
ANG 4.139554E 00	NFA 6.777180E 01	IAC 9.200423E 00	
CPA 1.154530E 01	VPA 1.154530E 01	CYA -1.646151E-01	
VYA -1.646151E-01	CRA -0.000000E-39	VRA -0.000000E-39	

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -1.710395E 06	YYY -1.655509E 05	ZZZ -6.357003E 06	04
DXX 7.513487E 03	DYY -3.451345E 01	DZZ -2.023843E 03	
R 6.585161E 06	WT 2.958244E 05	F 2.974921E 01	
V 7.781363E 03	PTH 2.265489E-02	AZ 6.484989E 01	
ALT 2.098606E 05	LAT -2.142397E 01	LON -2.378550E 02	
VE 7.379170E 03	PTF 2.388982E-02	AZE 6.337464E 01	
ANG 4.142427E 00	NFA 6.766604E 01	IAC 9.200453E 00	
CPA 1.120668E 01	VPA 1.120668E 01	CYA -1.563391E-01	
VYA -1.563391E-01	CRA -0.000000E-39	VRA -0.000000E-39	

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -1.672798E 06	YYY -1.657207F 05	ZZZ -6.367011E 06	04
DXX 7.525328E 03	DYY -3.339948E 01	DZZ -1.979405E 03	06
R 6.585176E 06	WT 2.958095E 05	F 3.032089E 01	03
V 7.781370E 03	PTH 2.244858E-02	AZ 6.472984E 01	01
ALT 2.098391E 05	LAT -2.127978E 01	LON -2.375471E 02	02
VE 7.379204E 03	PTF 2.367217E-02	AZE 6.324655E 01	01
ANG 4.145280E 00	NFA 6.756114E 01	IAC 9.200483E 00	00
CPA 1.086805E 01	VPA 1.086805E 01	CYA -1.480554E-01	01
VYA -1.480554E-01	CRA -0.000000E-39	VRA -0.000000E-39	01

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -1.635142E 06	YYY -1.658849E 05	ZZZ -6.376797E 06	04
DXX 7.536907E 03	DYY -3.228405E 01	DZZ -1.934898E 03	06
R 6.585191E 06	WT 2.957946E 05	F 3.089256E 01	03
V 7.781378E 03	PTH 2.224076E-02	AZ 6.461080E 01	01
ALT 2.098179E 05	LAT -2.113496E 01	LON -2.372397E 02	02
VE 7.379238E 03	PTE 2.345279E-02	AZE 6.311952E 01	01
ANG 4.148132E 00	NFA 6.745711E 01	IAC 9.200514E 00	00
CPA 1.052943E 01	VPA 1.052943E 01	CYA -1.397643E-01	01
VYA -1.397643E-01	CRA -0.000000E-39	VRA -0.000000E-39	01

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -1.597429E 06	YYY -1.660436E 05	ZZZ -6.386360E 06	04
DXX 7.548223E 03	DYY -3.116722E 01	DZZ -1.890322E 03	06
R 6.585206E 06	WT 2.957797E 05	F 3.146424E 01	03
V 7.781385E 03	PTH 2.203252E-02	AZ 6.449277E 01	01
ALT 2.097963E 05	LAT -2.098950E 01	LON -2.369331E 02	02
VE 7.379273E 03	PTE 2.323312E-02	AZE 6.299356E 01	01
ANG 4.150964E 00	NFA 6.735394E 01	IAC 9.200545E 00	00
CPA 1.019080E 01	VPA 1.019080E 01	CYA -1.314662E-01	01
VYA -1.314662E-01	CRA -0.000000E-39	VRA -0.000000E-39	01

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-1.559660E 06	YYY	-1.661966E 05
DXX	7.559275E 03	DYY	-3.004901E 01
R	6.585221E 06	WT	2.957648E 05
V	7.781393E 03	PTH	2.182217E-02
ALT	2.097747E 05	LAT	-2.084341E 01
VE	7.379307E 03	PTE	2.301108E-02
ANG	4.153799E 00	NFA	6.725163E 01
CPA	9.852175E 00	VPA	9.852175E 00
VYA	-1.231613E-01	CRA	-0.000000E-39
		ZZZ	-6.395700E 06
		DZZ	-1.845681E 03
		F	3.203591E 01
		AZ	6.437575E 01
		LON	-2.366271E 02
		AZE	6.286866E 01
		IAC	9.200576E 00
		CYA	-1.231613E-01
		VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-1.521837E 06	YYY	-1.663441E 05
DXX	7.570063E 03	DYY	-2.892946E 01
R	6.585236E 06	WT	2.957499E 05
V	7.781401E 03	PTH	2.160962E-02
ALT	2.097530E 05	LAT	-2.069671E 01
VE	7.379342E 03	PTE	2.278701E-02
ANG	4.156645E 00	NFA	6.715019E 01
CPA	9.513548E 00	VPA	9.513548E 00
VYA	-1.148498E-01	CRA	-0.000000E-39
		ZZZ	-6.404817E 06
		DZZ	-1.800975E 03
		F	3.260759E 01
		AZ	6.425974E 01
		LON	-2.363217E 02
		AZE	6.274482E 01
		IAC	9.200608E 00
		CYA	-1.148498E-01
		VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-1.483960E 06	YYY	-1.664859E 05
DXX	7.580587E 03	DYY	-2.780862E 01
R	6.585251E 06	WT	2.957351E 05
V	7.781409E 03	PTH	2.139755E-02
ALT	2.097312E 05	LAT	-2.054938E 01
VE	7.379377E 03	PTE	2.256330E-02
ANG	4.159471E 00	NFA	6.704962E 01
CPA	9.174921E 00	VPA	9.174921E 00
VYA	-1.065321E-01	CRA	-0.000000E-39
		ZZZ	-6.413710E 06
		DZZ	-1.756206E 03
		F	3.317926E 01
		AZ	6.414473E 01
		LON	-2.360169E 02
		AZE	6.262204E 01
		IAC	9.200639E 00
		CYA	-1.065321E-01
		VRA	-0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME 1.470500F 04		
XXX	-1.446031E 06	YYY	-1.666221E 05	ZZZ	-6.422379E 06
DXX	7.590846E 03	DYY	-2.668651E 01	DZZ	-1.711375E 03
R	6.585265E 06	WT	2.957202E C5	F	3.375094E 01
V	7.781418E 03	PTH	2.118322E-02	AZ	6.403074E 01
ALT	2.097093E 05	LAT	-2.040146E C1	LON	-2.357128E 02
VE	7.379412E 03	PTE	2.233728E-C2	AZE	6.250032E 01
ANG	4.162271E 00	NFA	6.694992E C1	IAC	9.200672E 00
CPA	8.836293E 00	VPA	8.836293E C0	CYA	-9.820836E-02
VYA	-9.820836E-02	CRA	-0.000000F-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME 1.471000E 04		
XXX	-1.408052E 06	YYY	-1.667528E 05	ZZZ	-6.430823E 06
DXX	7.600841E 03	DYY	-2.556317E 01	DZZ	-1.666485E 03
R	6.585279E 06	WT	2.957053E 05	F	3.432261E 01
V	7.781427E 03	PTH	2.096779F-02	AZ	6.391775E 01
ALT	2.096874E 05	LAT	-2.025292E C1	LON	-2.354093E 02
VE	7.379448E 03	PTE	2.210990F-02	AZE	6.237966E 01
ANG	4.165082E 00	NFA	6.685109E 01	IAC	9.200704E 00
CPA	8.497665E 00	VPA	8.497665E 00	CYA	-8.987898E-02
VYA	-8.987898E-02	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME 1.471500F 04		
XXX	-1.370023E 06	YYY	-1.668778E 05	ZZZ	-6.439043E 06
DXX	7.610569E 03	DYY	-2.443865E C1	DZZ	-1.621536E 03
R	6.585294E 06	WT	2.956904E 05	F	3.489429E 01
V	7.781436E 03	PTH	2.075175E-C2	AZ	6.380576E 01
ALT	2.096654E 05	LAT	-2.010379E 01	LON	-2.351064E 02
VE	7.379483F 03	PTE	2.188186E-02	AZE	6.226007E 01
ANG	4.167896E 00	NFA	6.675312E 01	IAC	9.200736E 00
CPA	8.159036E 00	VPA	8.159036E 00	CYA	-8.154419E-02
VYA	-8.154419E-02	CRA	-0.000000E-39	VRA	-0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -1.331947E 06	YYY -1.669971E 05	ZZZ -6.447039E 06	04
DXX 7.620032E 03	DYY -2.331298E 01	DZZ -1.576530E 03	06
R 6.585308E 06	WT 2.956755E C5	F 3.546596E 01	03
V 7.781445E 03	PTH 2.053482E-C2	AZ 6.369479E 01	01
ALT 2.096433E 05	LAT -1.995407E 01	LON -2.348041E 02	02
VE 7.379519E 03	PTE 2.165311E-02	AZE 6.214153E 01	01
ANG 4.170697E 00	NFA 6.665603E 01	IAC 9.200770E 00	00
CPA 7.820407E 00	VPA 7.820407E C0	CYA -7.320428E-02	00
VYA -7.320428E-02	CRA -0.000000E-39	VRA -0.000000E-39	00

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -1.293824E 06	YYY -1.671109E 05	ZZZ -6.454809E 06	04
DXX 7.629229E 03	DYY -2.218620E 01	DZZ -1.531469E 03	06
R 6.585322E 06	WT 2.956606E C5	F 3.603764E 01	03
V 7.781454E 03	PTH 2.031611E-02	AZ 6.358482E 01	01
ALT 2.096213E 05	LAT -1.980377E 01	LON -2.345025E 02	02
VE 7.379555E 03	PTE 2.142255E-02	AZE 6.202406E 01	01
ANG 4.173472E 00	NFA 6.655982E C1	IAC 9.200802E 00	00
CPA 7.481777E 00	VPA 7.481777E 00	CYA -6.485952E-02	00
VYA -6.485952E-02	CRA -0.000000E-39	VRA -0.000000E-39	00

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -1.255655E 06	YYY -1.672190E 05	ZZZ -6.462353E 06	04
DXX 7.638160E 03	DYY -2.105834E 01	DZZ -1.486354E 03	06
R 6.585335E 06	WT 2.956457E C5	F 3.660931E 01	03
V 7.781464E 03	PTH 2.009698E-02	AZ 6.347586E 01	01
ALT 2.095991E 05	LAT -1.965288E 01	LON -2.342015E 02	02
VE 7.379591E 03	PTE 2.119141E-02	AZE 6.190765E 01	01
ANG 4.176252E 00	NFA 6.646447E C1	IAC 9.200836E 00	00
CPA 7.143146E 00	VPA 7.143146E C0	CYA -5.651021E-02	00
VYA -5.651021E-02	CRA -0.000000E-39	VRA -0.000000E-39	00

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-1.217442E 06	YYY	-1.673215E 05	ZZZ	-6.469672E 06
DXX	7.646824E 03	DYY	-1.992945E 01	DZZ	-1.441187E 03
R	6.585349E 06	WT	2.956308E 05	F	3.718099E 01
V	7.781474E 03	PTH	1.987526E-02	AZ	6.336790E 01
ALT	2.095767E 05	LAT	-1.950143E 01	LON	-2.339010E 02
VE	7.379627E 03	PTE	2.095753E-02	AZF	6.179229E 01
ANG	4.179006E 00	NFA	6.637000E 01	IAC	9.200870E 00
CPA	6.804515E 00	VPA	6.804515E 00	CYA	-4.815662E-02
VYA	-4.815662E-02	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-1.179187E 06	YYY	-1.674183E 05	ZZZ	-6.476765E 06
DXX	7.655221E 03	DYY	-1.879956E 01	DZZ	-1.395970E 03
R	6.585362E 06	WT	2.956159E 05	F	3.775266E 01
V	7.781484E 03	PTH	1.965346E-02	AZ	6.326095E 01
ALT	2.095544E 05	LAT	-1.934940E 01	LON	-2.336012E 02
VE	7.379663E 03	PTE	2.072351E-02	AZE	6.167800E 01
ANG	4.181770E 00	NFA	6.627640E 01	IAC	9.200903E 00
CPA	6.465883E 00	VPA	6.465883E 00	CYA	-3.979904E-02
VYA	-3.979904E-02	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-1.140891E 06	YYY	-1.675095E 05	ZZZ	-6.483632E 06
DXX	7.663350E 03	DYY	-1.766871E 01	DZZ	-1.350703E 03
R	6.585375E 06	WT	2.956010E 05	F	3.832434E 01
V	7.781494E 03	PTH	1.943112E-02	AZ	6.315500E 01
ALT	2.095321E 05	LAT	-1.919682E 01	LON	-2.333020E 02
VE	7.379700E 03	PTE	2.048885E-02	AZE	6.156477E 01
ANG	4.184515E 00	NFA	6.618368E 01	IAC	9.200938E 00
CPA	6.127250E 00	VPA	6.127250E 00	CYA	-3.143774E-02
VYA	-3.143774E-02	CRA	-0.000000E-39	VRA	-0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-1.102554E 06	YYY	-1.675950E 05
DXX	7.671212E 03	ZZZ	-6.490272E 06
R	6.585389E 06	DYY	-1.653694E 01
V	7.781504E 03	WT	2.955861E 05
ALT	2.095098E 05	PTH	1.920720E-02
VE	7.379736E 03	LAT	-1.904367E 01
ANG	4.187246E 00	PTE	2.025281E-02
CPA	5.788616E 00	NFA	6.609184E 01
VYA	-2.307302E-02	VPA	5.788616E 00
		CRA	-0.000000E-39
		FLIGHT TIME	1.475000E 04
		F	3.889601E 01
		AZ	6.305006E 01
		LON	-2.330034E 02
		AZE	6.145260E 01
		IAC	9.200971E 00
		CYA	-2.307302E-02
		VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-1.064179E 06	YYY	-1.676748E 05
DXX	7.678806E 03	ZZZ	-6.496686E 06
R	6.585402E 06	DYY	-1.540429E 01
V	7.781515E 03	WT	2.955712E 05
ALT	2.094872E 05	PTH	1.898171E-02
VE	7.379773E 03	LAT	-1.888998E 01
ANG	4.189987E 00	PTE	2.001496E-02
CPA	5.449982E 00	NFA	6.600087E 01
VYA	-1.470515E-02	VPA	5.449982E 00
		CRA	-0.000000E-39
		FLIGHT TIME	1.475500E 04
		F	3.946769E 01
		AZ	6.294612E 01
		LON	-2.327053E 02
		AZE	6.134148E 01
		IAC	9.201006E 00
		CYA	-1.470515E-02
		VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-1.025766E 06	YYY	-1.677490E 05
DXX	7.686132E 03	ZZZ	-6.502872E 06
R	6.585414E 06	DYY	-1.427079E 01
V	7.781526E 03	WT	2.955563E 05
ALT	2.094649E 05	PTH	1.875539E-02
VE	7.379810E 03	LAT	-1.873575E 01
ANG	4.192697E 00	PTE	1.977633E-02
CPA	5.111348E 00	NFA	6.591078E 01
VYA	-6.334421E-03	VPA	5.111348E 00
		CRA	-0.000000E-39
		FLIGHT TIME	1.476000E 04
		F	4.003936E 01
		AZ	6.284318E 01
		LON	-2.324079E 02
		AZE	6.123143E 01
		IAC	9.201040E 00
		CYA	-6.334421E-03
		VRA	-0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME 1.476500E 04		
XXX	-9.873180E 05	YYY	-1.678175E 05	ZZZ	-6.508832E 06
DXX	7.693190E 03	DYY	-1.313648E 01	DZZ	-1.169179E 03
R	6.585427E 06	WT	2.955414E 05	F	4.061104E 01
V	7.781537E 03	PTH	1.852908E-02	AZ	6.274124E 01
ALT	2.094424E 05	LAT	-1.858097E 01	LON	-2.321110E 02
VE	7.379847E 03	PTE	1.953755E-02	AZE	6.112243E 01
ANG	4.195411E 00	NFA	6.582157E 01	IAC	9.201075E 00
CPA	4.772712E 00	VPA	4.772712E 00	CYA	2.038887E-03
VYA	2.038887E-03	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME 1.477000E 04		
XXX	-9.488350E 05	YYY	-1.678804E 05	ZZZ	-6.514564E 06
DXX	7.699979E 03	DYY	-1.200140E 01	DZZ	-1.123692E 03
R	6.585440E 06	WT	2.955266E 05	F	4.118271E 01
V	7.781548E 03	PTH	1.830255E-02	AZ	6.264030E 01
ALT	2.094199E 05	LAT	-1.842566E 01	LON	-2.318147E 02
VE	7.379884E 03	PTE	1.929849E-02	AZE	6.101449E 01
ANG	4.198106E 00	NFA	6.573324E 01	IAC	9.201110E 00
CPA	4.434075E 00	VPA	4.434075E 00	CYA	1.041449E-02
VYA	1.041449E-02	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME 1.477500E 04		
XXX	-9.103187E 05	YYY	-1.679376E 05	ZZZ	-6.520069E 06
DXX	7.706499E 03	DYY	-1.086560E 01	DZZ	-1.078165E 03
R	6.585452E 06	WT	2.955117E 05	F	4.175439E 01
V	7.781560E 03	PTH	1.807193E-02	AZ	6.254037E 01
ALT	2.093973E 05	LAT	-1.826983E 01	LON	-2.315190E 02
VE	7.379921E 03	PTE	1.905553E-02	AZE	6.090761E 01
ANG	4.200764E 00	NFA	6.564579E 01	IAC	9.201146E 00
CPA	4.095438E 00	VPA	4.095438E 00	CYA	1.879210E-02
VYA	1.879210E-02	CRA	-0.000000E-39	VRA	-0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-8.717705E 05	YYY	-1.679890E 05
DXX	7.712749E 03	DYY	-9.729100E 00
R	6.585464E 06	WT	2.954968E 05
V	7.781572E 03	PTH	1.784356E-02
ALT	2.093748E 05	LAT	-1.811348E 01
VE	7.379958E 03	PTE	1.881438E-02
ANG	4.203433E 00	NFA	6.555921E 01
CPA	3.756801E 00	VPA	3.756801E 00
VYA	2.717144E-02	CRA	-0.000000E-39
		TIME	1.478000E 04
		ZZZ	-6.525345E 06
		DZZ	-1.032600E 03
		F	4.232606E 01
		AZ	6.244143E 01
		LON	-2.312239E 02
		AZE	6.080178E 01
		IAC	9.201181E 00
		CYA	2.717144E-02
		VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-8.331917E 05	YYY	-1.680348E 05
DXX	7.718731E 03	DYY	-8.591947E 00
R	6.585476E 06	WT	2.954819E 05
V	7.781584E 03	PTH	1.761300E-02
ALT	2.093522E 05	LAT	-1.795660E 01
VE	7.379996E 03	PTE	1.857142E-02
ANG	4.206088E 00	NFA	6.547352E 01
CPA	3.418162E 00	VPA	3.418162E 00
VYA	3.555221E-02	CRA	-0.000000E-39
		TIME	1.478500E 04
		ZZZ	-6.530394E 06
		DZZ	-9.869986E 02
		F	4.289774E 01
		AZ	6.234349E 01
		LON	-2.309293E 02
		AZE	6.069701E 01
		IAC	9.201216E 00
		CYA	3.555221E-02
		VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-7.545836E 05	YYY	-1.680750E 05
DXX	7.724443E 03	DYY	-7.454179E 00
R	6.585488E 06	WT	2.954670E 05
V	7.781596E 03	PTH	1.738072E-02
ALT	2.093297E 05	LAT	-1.779922E 01
VE	7.380033E 03	PTE	1.832637E-02
ANG	4.208729E 00	NFA	6.538871E 01
CPA	3.079523E 00	VPA	3.079523E 00
VYA	4.393415E-02	CRA	-0.000000E-39
		TIME	1.479000E 04
		ZZZ	-6.535215E 06
		DZZ	-9.413627E 02
		F	4.346941E 01
		AZ	6.224655E 01
		LON	-2.306353E 02
		AZE	6.059330E 01
		IAC	9.201252E 00
		CYA	4.393415E-02
		VRA	-0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	-7.559477E 05	YYY	-1.681094E 05	ZZZ	-6.539808E 06
DXX	7.729885E 03	DYY	-6.315834E 00	DZZ	-8.956936E 02
R	6.585500E 06	WT	2.954521E 05	F	4.404109E 01
V	7.781608E 03	PTH	1.714824E-02	AZ	6.215061E 01
ALT	2.093071E 05	LAT	-1.764134E 01	LON	-2.303418E 02
VE	7.380071E 03	PTE	1.808140E-02	AZE	6.049064E 01
ANG	4.211358E 00	NFA	6.530478E 01	IAC	9.201287E 00
CPA	2.740883E 00	VPA	2.740883E 00	CYA	5.231695E-02
VYA	5.231695E-02	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	-7.172852E 05	YYY	-1.681381E 05	ZZZ	-6.544172E 06
DXX	7.735057E 03	DYY	-5.176950E 00	DZZ	-8.499930E 02
R	6.585511E 06	WT	2.954372E 05	F	4.461276E 01
V	7.781621E 03	PTH	1.691495E-02	AZ	6.205566E 01
ALT	2.092844E 05	LAT	-1.748296E 01	LON	-2.300489E 02
VE	7.380109E 03	PTE	1.783505E-02	AZE	6.038903E 01
ANG	4.213973E 00	NFA	6.522173E 01	IAC	9.201324E 00
CPA	2.402241E 00	VPA	2.402241E 00	CYA	6.070035E-02
VYA	6.070035E-02	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	-6.785975E 05	YYY	-1.681612E 05	ZZZ	-6.548308E 06
DXX	7.739971E 03	DYY	-4.037551E 00	DZZ	-8.042629E 02
R	6.585523E 06	WT	2.954223E 05	F	1.400000E 02
V	7.781645E 03	PTH	1.667676E-02	AZ	6.196171E 01
ALT	2.092619E 05	LAT	-1.732408E 01	LON	-2.297565E 02
VE	7.380158E 03	PTE	1.758377E-02	AZE	6.028848E 01
ANG	4.216575E 00	NFA	6.513960E 01	IAC	9.201573E 00
CPA	2.063594E 00	VPA	2.063594E 00	CYA	6.908419E-02
VYA	6.908419E-02	CRA	-0.000000E-39	VRA	-0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
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GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-6.398860E 05	YYY	-1.681785E C5	ZZZ	-6.552215E 06
DXX	7.744618E 03	DYY	-2.897685E 00	DZZ	-7.585045E 02
R	6.585534E 06	WT	2.954074E 05	F	1.400000E 02
V	7.781674E 03	PTH	1.643445E-02	AZ	6.186875E 01
ALT	2.092394E 05	LAT	-1.716471E 01	LON	-2.294647E 02
VE	7.380212E 03	PTE	1.732822E-02	AZE	6.018898E 01
ANG	4.219157E 00	NFA	6.505836E 01	IAC	9.201608E 00
CPA	1.724944E 00	VPA	1.724944E 00	CYA	7.746808E-02
VYA	7.746808E-02	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-6.011518E 05	YYY	-1.681901E 05	ZZZ	-6.555893E 06
DXX	7.748995E 03	DYY	-1.757393E 00	DZZ	-7.127193E 02
R	6.585545E 06	WT	2.953925E C5	F	1.400000E 02
V	7.781702E 03	PTH	1.619441E-02	AZ	6.177678E 01
ALT	2.092169E 05	LAT	-1.700487E 01	LON	-2.291734E 02
VE	7.380265E 03	PTE	1.707535E-02	AZE	6.009054E 01
ANG	4.221727E 00	NFA	6.497800E 01	IAC	9.201643E 00
CPA	1.386295E 00	VPA	1.386295E C0	CYA	8.585168E-02
VYA	8.585168E-02	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-5.623965E 05	YYY	-1.681961E 05	ZZZ	-6.559342E 06
DXX	7.753101E 03	DYY	-6.167148E-01	DZZ	-6.669088E 02
R	6.585556E 06	WT	2.953776E C5	F	1.400000E 02
V	7.781731E 03	PTH	1.595499E-02	AZ	6.168580E 01
ALT	2.091942E 05	LAT	-1.684455E 01	LON	-2.288827E 02
VE	7.380319E 03	PTE	1.682285E-02	AZE	5.999314E 01
ANG	4.224272E 00	NFA	6.489852E 01	IAC	9.201678E 00
CPA	1.047645E 00	VPA	1.047645E 00	CYA	9.423472E-02
VYA	9.423472E-02	CRA	-0.000000E-39	VRA	-0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
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 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE

XXX	-5.236213E 05	YYY	-1.681963E 05	FLIGHT TIME	1.482500E 04	ZZZ	-6.562562E 06
DXX	7.756936E 03	DYY	5.243117E-C1			DZZ	-6.210747E 02
R	6.585567E 06	WT	2.953627E C5			F	1.400000F 07
V	7.781760E 03	PTH	1.571605E-C2			AZ	6.159582E 01
ALT	2.091718E 05	LAT	-1.668375E C1			LON	-2.285925E 02
VE	7.380372E 03	PTE	1.657056E-C2			AZF	5.989679E 01
ANG	4.226810E 00	NFA	6.481993E 01			IAC	9.201713E 00
CPA	7.089948E-01	VPA	7.089948E-01			CYA	1.026169E-01
VYA	1.026169E-01	CRA	-0.000000E-39			VRA	-0.000000E-39

GEOCENTRIC REFERENCE

XXX	-4.848276E 05	YYY	-1.681908E C5	FLIGHT TIME	1.483000F 04	ZZZ	-6.565553E 06
DXX	7.760500E 03	DYY	1.665648E 00			DZZ	-5.752186E 02
R	6.585577E 06	WT	2.953478E C5			F	1.400000E 02
V	7.781789E 03	PTH	1.547765E-02			AZ	6.150682E 01
ALT	2.091491E 05	LAT	-1.652249E 01			LON	-2.283028E 02
VE	7.380425E 03	PTE	1.631936E-C2			AZF	5.980150E 01
ANG	4.229340E 00	NFA	6.474222E 01			IAC	9.201749E 00
CPA	3.703447E-C1	VPA	3.703447E-01			CYA	1.109979E-01
VYA	1.109979E-01	CRA	-0.000000E-39			VRA	-0.000000E-39

GEOCENTRIC REFERENCE

XXX	-4.460167E 05	YYY	-1.681796E C5	FLIGHT TIME	1.483500E 04	ZZZ	-6.568314E 06
DXX	7.763793E 03	DYY	2.807255E 00			DZZ	-5.293420E 02
R	6.585588E 06	WT	2.953330E 05			F	1.400000E 02
V	7.781818E 03	PTH	1.524111E-C2			AZ	6.141891E 01
ALT	2.091267E 05	LAT	-1.636077E 01			LON	-2.280136E 02
VE	7.380479E 03	PTE	1.606975E-C2			AZE	5.970725E 01
ANG	4.231834E 00	NFA	6.466540E 01			IAC	9.201784E 00
CPA	3.169444E-02	VPA	3.169444E-02			CYA	1.193775E-01
VYA	1.193775E-01	CRA	-0.000000E-39			VRA	-0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME					
XXX	-4.071901E 05	YYY	-1.681627E 05	ZZZ	1.484000E 04		
DXX	7.766814E 03	DYY	3.949094E 00	DZZ	-6.570846E 06		
R	6.585598E 06	WT	2.953181E 05	F	-4.834466E 02		
V	7.781847E 03	PTH	1.500320E-02	A7	1.400000E 02		
ALT	2.091044E 05	LAT	-1.619860E 01	LON	6.133179E 01		
VE	7.280532E 03	PTE	1.581907E-02	AZE	-2.277249E 02		
ANG	4.234321E 00	NFA	6.458946E 01	IAC	5.961405E 01		
CPA	-3.069560E-01	VPA	-3.069560E-01	CYA	9.201819E 00		
VYA	1.277554E-01	CRA	-0.000000E-39	VRA	1.277554E-01		
					-0.000000E-39		

GEOCENTRIC REFERENCE		FLIGHT TIME					
XXX	-3.683490E 05	YYY	-1.681402E 05	ZZZ	1.484500E 04		
DXX	7.769565E 03	DYY	5.091126E 00	DZZ	-6.573149E 06		
R	6.585608E 06	WT	2.953032E 05	F	-4.375340E 02		
V	7.781876E 03	PTH	1.476748E-02	AZ	1.400000E 02		
ALT	2.090821E 05	LAT	-1.603598E 01	LON	6.124576E 01		
VE	7.380585E 03	PTE	1.557012E-02	AZE	-2.274368E 02		
ANG	4.236800E 00	NFA	6.451440E 01	IAC	5.952189E 01		
CPA	-6.456067E-01	VPA	-6.456067E-01	CYA	9.201854E 00		
VYA	1.361313E-01	CRA	-0.000000E-39	VRA	1.361313E-01		
					-0.000000E-39		

GEOCENTRIC REFERENCE		FLIGHT TIME					
XXX	-3.294949E 05	YYY	-1.681118E 05	ZZZ	1.485000E 04		
DXX	7.772043E 03	DYY	6.233313E 00	DZZ	-6.575221E 06		
R	6.585618E 06	WT	2.952883E 05	F	-3.916057E 02		
V	7.781905E 03	PTH	1.453163E-02	AZ	1.400000E 02		
ALT	2.090596E 05	LAT	-1.587291E 01	LON	6.116071E 01		
VE	7.380638E 03	PTE	1.532161E-02	AZE	-2.271491E 02		
ANG	4.239238E 00	NFA	6.444023E 01	IAC	5.943079E 01		
CPA	-9.842575E-01	VPA	-9.842575E-01	CYA	9.201890E 00		
VYA	1.445049E-01	CRA	-0.000000E-39	VRA	1.445049E-01		
					-0.000000E-39		

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.906290E 05	YYY -1.680778E 05	ZZZ -6.577065E 06	04
DXX 7.774250E 03	DYY 7.375616E 00	DZZ -3.456634E 02	06
R 6.585628E 06	WT 2.952734E 05	F 1.400000E 02	02
V 7.781935E 03	PTH 1.429646E-02	AZ 6.107665E 01	01
ALT 2.090373E 05	LAT -1.570941E 01	LON -2.268620E 02	02
VE 7.380691E 03	PTE 1.507368E-02	AZE 5.934072E 01	01
ANG 4.241692E 00	NFA 6.436694E 01	IAC 9.201925E 00	00
CPA -1.322909E 00	VPA -1.322909E 00	CYA 1.528760E-01	01
VYA 1.528760E-01	CRA -0.000000E-39	VRA -0.000000E-39	39

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.517528E 05	YYY -1.680381E 05	ZZZ -6.578678E 06	05
DXX 7.776186E 03	DYY 8.517996E 00	DZZ -2.997087E 02	02
R 6.585638E 06	WT 2.952585E 05	F 1.400000E 02	02
V 7.781964E 03	PTH 1.406356E-02	AZ 6.099357E 01	01
ALT 2.090151E 05	LAT -1.554547E 01	LON -2.265753E 02	02
VE 7.380744E 03	PTE 1.482828E-02	AZE 5.925170E 01	01
ANG 4.244098E 00	NFA 6.429454E 01	IAC 9.201950E 00	00
CPA -1.661560E 00	VPA -1.661560E 00	CYA 1.612442E-01	01
VYA 1.612442E-01	CRA -0.000000E-39	VRA -0.000000E-39	39

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.128676E 05	YYY -1.679926E 05	ZZZ -6.580062E 06	05
DXX 7.777850E 03	DYY 9.660414E 00	DZZ -2.537431E 02	02
R 6.585647E 06	WT 2.952436E 05	F 1.400000E 02	02
V 7.781994E 03	PTH 1.383031E-02	AZ 6.091147E 01	01
ALT 2.089929E 05	LAT -1.538111E 01	LON -2.262892E 02	02
VE 7.380797E 03	PTE 1.458209E-02	AZE 5.916372E 01	01
ANG 4.246502E 00	NFA 6.422302E 01	IAC 9.201996E 00	00
CPA -2.000212E 00	VPA -2.000212E 00	CYA 1.596092E-01	01
VYA 1.696092E-01	CRA -0.000000E-39	VRA -0.000000E-39	39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	-1.739748E 05	YYY	-1.679415E 05	ZZZ	-6.581215E 06
DXX	7.779241E 03	DYY	1.080283E 01	DZZ	-2.077684E 02
R	6.585656E 06	WT	2.952287E 05	F	1.400000E 02
V	7.782023E 03	PTH	1.359728E-02	AZ	6.083035E 01
ALT	2.089708E 05	LAT	-1.521632E 01	LON	-2.260035E 02
VE	7.380850E 03	PTE	1.433619E-02	AZE	5.907679E 01
ANG	4.248888E 00	NFA	6.415239E 01	IAC	9.202031E 00
CPA	-2.338863E 00	VPA	-2.338863E 00	CYA	1.779709E-01
VYA	1.779709E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	-1.350757E 05	YYY	-1.678846E 05	ZZZ	-6.582139E 06
DXX	7.780362E 03	DYY	1.194521E 01	DZZ	-1.617860E 02
R	6.585665E 06	WT	2.952138E 05	F	1.400000E 02
V	7.782052E 03	PTH	1.336636E-02	AZ	6.075021E 01
ALT	2.089489E 05	LAT	-1.505112E 01	LON	-2.257183E 02
VE	7.380903E 03	PTE	1.409282E-02	AZE	5.899089E 01
ANG	4.251250E 00	NFA	6.408263E 01	IAC	9.202067E 00
CPA	-2.677515E 00	VPA	-2.677515E 00	CYA	1.863293E-01
VYA	1.863293E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	-9.617163E 04	YYY	-1.678220E 05	ZZZ	-6.582833E 06
DXX	7.781210E 03	DYY	1.308751E 01	DZZ	-1.157977E 02
R	6.585674E 06	WT	2.951989E 05	F	1.400000E 02
V	7.782082E 03	PTH	1.313449E-02	AZ	6.067105E 01
ALT	2.089268E 05	LAT	-1.488551E 01	LON	-2.254336E 02
VE	7.380955E 03	PTE	1.384845E-02	AZE	5.890604E 01
ANG	4.253582E 00	NFA	6.401375E 01	IAC	9.202103E 00
CPA	-3.016168E 00	VPA	-3.016168E 00	CYA	1.946843E-01
VYA	1.946843E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-5.726403E 04	YYY	-1.677537E 05	ZZZ	-6.583297E 06
DXX	7.781786E 03	DYY	1.422969E 01	DZZ	-6.980492E 01
R	6.585683E 06	WT	2.951840E 05	F	1.400000E 02
V	7.782112E 03	PTH	1.290413E-C2	AZ	6.059287E 01
ALT	2.089048E 05	LAT	-1.471949E 01	LON	-2.251493E 02
VE	7.381007E 03	PTE	1.360523F-C2	AZE	5.882222E 01
ANG	4.255923E 00	NFA	6.394578E C1	IAC	9.202138E 00
CPA	-3.354820E 00	VPA	-3.354820E C0	CYA	2.030333E-01
VYA	2.030333E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-1.835423E 04	YYY	-1.676797E 05	ZZZ	-6.583531E 06
DXX	7.782090E 03	DYY	1.537172E 01	DZZ	-2.380939E 01
R	6.585692E 06	WT	2.951691E 05	F	1.400000E 02
V	7.782142E 03	PTH	1.267500E-02	AZ	6.051566E 01
ALT	2.088831E 05	LAT	-1.455307E 01	LON	-2.248655E 02
VE	7.381060E 03	PTE	1.336368E-C2	AZE	5.873945E 01
ANG	4.258224E 00	NFA	6.387869E 01	IAC	9.202173E 00
CPA	-3.693473E 00	VPA	-3.693473E 00	CYA	2.113781E-01
VYA	2.113781E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.055642E 04	YYY	-1.676000E 05	ZZZ	-6.583535E 06
DXX	7.782122E 03	DYY	1.651355E C1	DZZ	2.218732E 01
R	6.585701E 06	WT	2.951542E 05	F	1.400000E 02
V	7.782171E 03	PTH	1.244683E-C2	AZ	6.043943E 01
ALT	2.088614E 05	LAT	-1.438626E 01	LON	-2.245822E 02
VE	7.381112E 03	PTE	1.312314E-02	AZE	5.865771E 01
ANG	4.260511E 00	NFA	6.381247E 01	IAC	9.202208E 00
CPA	-4.032126E 00	VPA	-4.032126E 00	CYA	2.197186E-01
VYA	2.197186E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH CN 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	5.546654E 04	YYY	-1.675146E 05	ZZZ	-6.583310E 06
DXX	7.781883E 03	DYY	1.765515E 01	DZZ	6.818360E 01
R	6.585709E 06	WT	2.951393E 05	F	1.400000E 02
V	7.782201E 03	PTH	1.221949E-02	AZ	6.036417E 01
ALT	2.088397E 05	LAT	-1.421905E 01	LON	-2.242993E 02
VE	7.381164E 03	PTE	1.288333E-02	AZE	5.857700E 01
ANG	4.262769E 00	NFA	6.374714E 01	IAC	9.202244E 00
CPA	-4.370780E 00	VPA	-4.370780E 00	CYA	2.280540E-01
VYA	2.280540E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	9.837475E 04	YYY	-1.674235E 05	ZZZ	-6.582854E 06
DXX	7.781371E 03	DYY	1.879648E 01	DZZ	1.141778E 02
R	6.585717E 06	WT	2.951245E 05	F	1.400000E 02
V	7.782231E 03	PTH	1.199352E-02	AZ	6.028988E 01
ALT	2.088182E 05	LAT	-1.405147E 01	LON	-2.240169E 02
VE	7.381216E 03	PTE	1.264519E-02	AZE	5.849734E 01
ANG	4.265020E 00	NFA	6.368270E 01	IAC	9.202279E 00
CPA	-4.709434E 00	VPA	-4.709434E 00	CYA	2.363835E-01
VYA	2.363835E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	1.372850E 05	YYY	-1.673266E 05	ZZZ	-6.582167E 06
DXX	7.783085E 03	DYY	1.994805E 01	DZZ	1.603830E 02
R	6.585725E 06	WT	2.951096E 05	F	1.825100E 04
V	7.784763E 03	PTH	1.061198E-02	AZ	6.021656E 01
ALT	2.087964E 05	LAT	-1.388348E 01	LON	-2.237349E 02
VE	7.383769E 03	PTE	1.118807E-02	AZE	5.841930E 01
ANG	4.266936E 00	NFA	6.362621E 01	IAC	9.262820E 00
CPA	-5.049288E 00	VPA	-5.049288E 00	CYA	2.447375E-01
VYA	2.447376E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.762054E 05	YYY	-1.672240E 05	ZZZ	-6.581250E 06
DXX	7.785026E 03	DYY	2.110179E 01	DZZ	2.066420E 02
R	6.585732E 06	WT	2.950947E 05	F	1.825100E 04
V	7.787797E 03	PTH	9.241762E-03	AZ	6.014418E 01
ALT	2.087740E 05	LAT	-1.371505E 01	LON	-2.234532E 02
VE	7.386823E 03	PTE	9.743426E-03	AZE	5.834239E 01
ANG	4.268760E 00	NFA	6.357210E 01	IAC	9.262874E 00
CPA	-5.389263E 00	VPA	-5.389263E 00	CYA	2.530892E-01
VYA	2.530892E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.839906E 05	YYY	-1.672028E 05	ZZZ	-6.581038E 06
DXX	7.785382E 03	DYY	2.133254E 01	DZZ	2.158952E 02
R	6.585733E 06	WT	2.950917E 05	F	1.825100E 04
V	7.788404E 03	PTH	8.998324E-03	AZ	6.012981E 01
ALT	2.087694E 05	LAT	-1.368131E 01	LON	-2.233969E 02
VE	7.387434E 03	PTE	9.486657E-03	AZE	5.832713E 01
ANG	4.269133E 00	NFA	6.356139E 01	IAC	9.262885E 00
CPA	-5.457242E 00	VPA	-5.457242E 00	CYA	2.547584E-01
VYA	2.547584E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

S-IVB STAGE AT OPERATING THRUST LEVEL			GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.839906E 05	YYY	-1.672028E 05	ZZZ	-6.581038E 06			
DXX	7.785382E 03	DYY	2.133254E 01	DZZ	2.158952E 02			
R	6.585733E 06	WT	2.950917E 05	F	2.073030E 05			
V	7.788404E 03	PTH	8.998324E-03	AZ	6.012981E 01			
ALT	2.087694E 05	LAT	-1.368131E 01	LON	1.366032E 02			
VE	7.387434E 03	PTE	9.486657E-03	AZE	5.832713E 01			
ANG	4.269133E 00	NFA	6.356139E 01	IAC	1.186870E 01			
CPA	-5.457242E 00	VPA	-5.457242E 00	CYA	2.547584E-01			
VYA	2.547584E-01	CRA	-0.000000E-39	VRA	-0.000000E-39			

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME		1.491860E 04
XXX	2.042547E 05	YYY	-1.671464E 05	ZZZ -6.580444E 06
DXX	7.802551E 03	DYY	2.200525E 01	DZZ 2.415347E 02
R	6.585734E 06	WT	2.938314E 05	F 2.333470E 05
V	7.806320E 03	PTH	6.960992E-04	AZ 6.009260E 01
ALT	2.087559E 05	LAT	-1.359342E 01	LON 1.367496E 02
VE	7.405352E 03	PTE	7.335741E-04	AZE 5.829158E 01
ANG	4.132386E 00	NFA	6.271324E 01	IAC 1.243788E 01
CPA	-5.457242E 00	VPA	-5.492131E 00	CYA 2.547584E-01
VYA	2.547584E-01	CRA	-0.000000E-39	VRA 0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME		1.492000E 04
XXX	2.151858E 05	YYY	-1.671154E 05	ZZZ -6.580096E 06
DXX	7.813013E 03	DYY	2.237300E 01	DZZ 2.554492E 02
R	6.585734E 06	WT	2.930632E 05	F 2.333470E 05
V	7.817220E 03	PTH	-3.749577E-03	AZ 6.007264E 01
ALT	2.087474E 05	LAT	-1.354597E 01	LON 1.368286E 02
VE	7.416253E 03	PTE	-3.952014E-03	AZE 5.827282E 01
ANG	4.017509E 00	NFA	6.192523E 01	IAC 1.243735E 01
CPA	-5.457242E 00	VPA	-5.464112E 00	CYA 2.547584E-01
VYA	2.547584E-01	CRA	-0.000000E-39	VRA 0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME		1.492200E 04
XXX	2.308268E 05	YYY	-1.670701E 05	ZZZ -6.579565E 06
DXX	7.827972E 03	DYY	2.289852E 01	DZZ 2.753220E 02
R	6.585732E 06	WT	2.919658E 05	F 2.333470E 05
V	7.832845E 03	PTH	-9.350275E-03	AZ 6.004421E 01
ALT	2.087341E 05	LAT	-1.347801E 01	LON 1.369416E 02
VE	7.431879E 03	PTE	-9.855101E-03	AZE 5.824611E 01
ANG	3.877845E 00	NFA	6.090854E 01	IAC 1.252190E 01
CPA	-4.457242E 00	VPA	-5.449867E 00	CYA 1.254758E 00
VYA	2.547584E-01	CRA	-0.000000E-39	VRA 0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.543444E 05	YYY	-1.670002E 05	ZZZ	-6.578695E 06
DXX	7.850445E 03	DYY	2.395231E 01	DZZ	3.049406E 02
R	6.585727E 06	WT	2.903197E 05	F	2.333470E 05
V	7.856402E 03	PTH	-1.483213E-C2	AZ	6.000372E 01
ALT	2.087116E 05	LAT	-1.337571E C1	LON	1.371114E 02
VE	7.455430E 03	PTE	-1.562970E-02	AZE	5.820834E 01
ANG	4.653931E 00	NFA	3.904546E C1	IAC	1.243753F 01
CPA	-5.555991E 00	VPA	-5.201706E C0	CYA	1.770539E 00
VYA	1.595385E 00	CRA	-0.000000E-39	VRA	0.000000F-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.536903E 05	YYY	-1.668738F 05	ZZZ	-6.577045E 06
DXX	7.887925E 03	DYY	2.645653E C1	DZZ	3.548290E 02
R	6.585714E 06	WT	2.875763E 05	F	2.333470E 05
V	7.895946E 03	PTH	-2.372643E-C2	AZ	5.994204E 01
ALT	2.086694E 05	LAT	-1.320426E 01	LON	1.373953E 02
VE	7.494939E 03	PTE	-2.499616E-02	AZE	5.815154E 01
ANG	4.418058E 00	NFA	4.441662E 01	IAC	1.249571E 01
CPA	-5.742820E 00	VPA	-5.714006E C0	CYA	1.576828E 00
VYA	1.558498E 00	CRA	-0.000000F-39	VRA	0.000000F-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	3.332238E 05	YYY	-1.667360E 05	ZZZ	-6.575146E 06
DXX	7.525512E 03	DYY	2.864792E 01	DZZ	4.047968E 02
R	6.585696E 06	WT	2.848328F 05	F	2.333470E 05
V	7.535894E 03	PTH	-2.785071E-02	AZ	5.987864E 01
ALT	2.086227E 05	LAT	-1.303163E 01	LON	1.376804E 02
VE	7.534864E 03	PTE	-2.933323E-02	AZE	5.809298E 01
ANG	4.209270E 00	NFA	4.394491E C1	IAC	1.253360F 01
CPA	-5.936927E 00	VPA	-5.891392E 00	CYA	1.400926E 00
VYA	1.453048E 00	CRA	-0.000000E-39	VRA	0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONT INUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	3.729455E 05	YYY	-1.665875E 05	ZZZ	1.494000E 04
DXX	7.963193E 03	DYY	3.074086E 01	DZZ	-6.572997E 06
R	6.585676E 06	WT	2.820894E 05	F	4.549404E 02
V	7.976237E 03	PTH	-2.792921E-02	AZ	2.333470E 05
ALT	2.085747E 05	LAT	-1.285778E 01	LON	5.981509E 01
VE	7.575186E 03	PTE	-2.940779E-02	AZE	1.379665E 02
ANG	3.956549E 00	NFA	4.442953E 01	IAC	5.803430E 01
CPA	-6.134875E 00	VPA	-6.085918E 00	CYA	1.257023E 01
VYA	1.266420E 00	CRA	-0.000000E-39	VRA	1.226155E 00
					0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	4.128559E 05	YYY	-1.664288E 05	ZZZ	1.494500E 04
DXX	8.000977E 03	DYY	3.271839E 01	DZZ	-6.570597E 06
R	6.585658E 06	WT	2.793459E 05	F	5.052500E 02
V	8.016980E 03	PTH	-2.386268E-02	AZ	2.333470E 05
ALT	2.085281E 05	LAT	-1.268272E 01	LON	5.975128E 01
VE	7.615912E 03	PTE	-2.511934E-02	AZE	1.382539E 02
ANG	3.725985E 00	NFA	4.494658E 01	IAC	5.797540E 01
CPA	-6.343264E 00	VPA	-6.291734E 00	CYA	1.260959E 01
VYA	1.095901E 00	CRA	-0.000000E-39	VRA	1.055705E 00
					0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	4.529555E 05	YYY	-1.662605E 05	ZZZ	1.495000E 04
DXX	8.038866E 03	DYY	3.458163E 01	DZZ	-6.567944E 06
R	6.585644E 06	WT	2.766025E 05	F	5.557368E 02
V	8.058127E 03	PTH	-1.570740E-02	AZ	2.333470E 05
ALT	2.084859E 05	LAT	-1.250641E 01	LON	5.968725E 01
VE	7.657044E 03	PTE	-1.653024E-02	AZE	1.385423E 02
ANG	3.491268E 00	NFA	4.550568E 01	IAC	5.791631E 01
CPA	-6.527974E 00	VPA	-6.490693E 00	CYA	1.264938E 01
VYA	9.224448E-01	CRA	-0.000000E-39	VRA	8.765915E-01
					0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	4.93244E 05	YYY	-1.660832E 05	ZZZ	-6.565039E 06
DXX	8.076870E 03	DYY	3.631863E 01	DZZ	6.063767E 02
R	6.585637E 06	WT	2.738590E 05	F	2.333470E 05
V	8.099681E 03	PTH	-3.269819E-03	AZ	5.962294E 01
ALT	2.084509E 05	LAT	-1.232887E 01	LON	1.388320E 02
VE	7.698588E 03	PTE	-3.440244E-03	AZE	5.785698E 01
ANG	3.229754E 00	NFA	4.593333E 01	IAC	1.268658E 01
CPA	-6.700027E 00	VPA	-6.659057E 00	CYA	6.945158E-01
VYA	7.377713E-01	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	5.337244E 05	YYY	-1.658975E 05	ZZZ	-6.561880E 06
DXX	8.114994E 03	DYY	3.792770E 01	DZZ	6.571686E 02
R	6.585640E 06	WT	2.711156E 05	F	2.333470E 05
V	8.141648E 03	PTH	1.348258E-C2	AZ	5.955837E 01
ALT	2.084266E 05	LAT	-1.215006E 01	LON	1.391229E 02
VE	7.740548E 03	PTE	1.418129E-02	AZE	5.779742E 01
ANG	2.973482E 00	NFA	4.641617E 01	IAC	1.272484E 01
CPA	-6.867304E 00	VPA	-6.827642E 00	CYA	5.129870E-01
VYA	5.563592E-01	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	5.743949E 05	YYY	-1.657042E 05	ZZZ	-6.558467E 06
DXX	8.153245E 03	DYY	3.940631E 01	DZZ	7.081102E 02
R	6.585657E 06	WT	2.683721E 05	F	2.333470E 05
V	8.184032E 03	PTH	3.458746E-02	AZ	5.949355E 01
ALT	2.084158E 05	LAT	-1.196998E 01	LON	1.394149E 02
VE	7.782927E 03	PTE	3.637025E-02	AZE	5.773763E 01
ANG	2.717709E 00	NFA	4.695479E 01	IAC	1.276376E 01
CPA	-7.031369E 00	VPA	-6.992527E 00	CYA	3.320471E-01
VYA	3.753520E-01	CRA	-0.000000E-39	VRA	0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	6.152570E 05	YYY -1.655037E 05	ZZZ	1.497000E 04	04
DXX	8.191630E 03	DYY 4.075220E 01	DZZ	-6.554799E 06	06
R	6.585690E 06	WT 2.656286E C5	F	7.592005E 02	02
V	8.226837E 03	PTH 6.007512E-02	AZ	2.333470E 05	05
ALT	2.084221E 05	LAT -1.178861E 01	LON	5.942848E 01	01
VE	7.825731E 03	PTE 6.315440E-02	AZE	1.397082E 02	02
ANG	2.462664E 00	NFA 4.757522E 01	IAC	5.767763E 01	01
CPA	-7.192316E 00	VPA -7.154130E 00	CYA	1.280336E 01	01
VYA	1.946105E-01	CRA -0.000000E-39	VRA	1.513645E-01	01
				0.000000E-39	39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	6.563115E 05	YYY -1.652969E 05	ZZZ	1.497500E 04	04
DXX	8.230156E 03	DYY 4.196273E 01	DZZ	-6.550875E 06	06
R	6.585744E 06	WT 2.628852E 05	F	8.104387E 02	02
V	8.270068E 03	PTH 8.997332E-C2	AZ	2.333470E 05	05
ALT	2.084487E 05	LAT -1.160594E 01	LON	5.936318E 01	01
VE	7.868964E 03	PTE 9.455959E-02	AZE	1.400027E 02	02
ANG	2.208705E 00	NFA 4.831463E 01	IAC	5.761742E 01	01
CPA	-7.350365E 00	VPA -7.312925E 00	CYA	1.284374E 01	01
VYA	1.407343E-02	CRA -0.000000E-39	VRA	-2.915204E-02	02
				0.000000E-39	39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	6.575588E 05	YYY -1.650843E C5	ZZZ	1.498000E 04	04
DXX	8.268829E 03	DYY 4.303514E C1	DZZ	-6.546694E 06	06
R	6.585822E 06	WT 2.601417E 05	F	8.618239E 02	02
V	8.313731E 03	PTH 1.243115E-C1	AZ	2.333470E 05	05
ALT	2.084989E 05	LAT -1.142196E C1	LON	5.929766E 01	01
VE	7.912631E 03	PTE 1.306130E-01	AZE	1.402984E 02	02
ANG	1.955860E 00	NFA 4.921973E 01	IAC	5.755702E 01	01
CPA	-7.505763E 00	VPA -7.468853E 00	CYA	1.288490E 01	01
VYA	-1.663784E-01	CRA -0.000000E-39	VRA	-2.095812E-01	01
				0.000000E-39	39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	7.390000E 05	YYY -1.648667E 05	ZZZ	-6.542256E 06	04
DXX	8.307658E 03	DYY 4.396654E 01	DZZ	9.133554E 02	06
R	6.585926E 06	WT 2.573983E C5	F	2.333470E 05	02
V	8.357830E 03	PTH 1.631157E-C1	AZ	5.923192E 01	05
ALT	2.085765E 05	LAT -1.123665E 01	LON	1.405953E 02	01
VE	7.956737E 03	PTE 1.713381E-C1	AZF	5.749644E 01	02
ANG	1.704447E 00	NFA 5.036942E 01	IAC	1.292693E 01	01
CPA	-7.658512E 00	VPA -7.622199E C0	CYA	-3.899788E-C1	01
VYA	-3.467737E-01	CRA -0.000000E-39	VRA	0.000000E-39	01

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	7.686689E 05	YYY -1.647089E C5	ZZZ	-6.538934E 06	04
DXX	8.335444E 03	DYY 4.454289E 01	DZZ	9.501895E 02	06
R	6.586019E 06	WT 2.554420E C5	F	2.060472E 05	02
V	8.389545E 03	PTH 1.935317E-01	AZ	5.918492E 01	05
ALT	2.086504E 05	LAT -1.110369E 01	LON	1.408079E 02	01
VE	7.988458E 03	PTE 2.032494E-01	AZE	5.745312E 01	02
ANG	1.526317E 00	NFA 5.140773E 01	IAC	1.224214E 01	01
CPA	-7.765819E 00	VPA -7.730110E 00	CYA	-5.185971E-C1	01
VYA	-4.753923E-01	CRA -0.000000E-39	VRA	0.000000E-39	01

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	7.806346E 05	YYY -1.646449E 05	ZZZ	-6.537560E 06	04
DXX	8.345155E 03	DYY 4.476846E 01	DZZ	9.648330E 02	06
R	6.586061E 06	WT 2.547506E 05	F	2.060472E 05	02
V	8.400864E 03	PTH 2.065859E-01	AZ	5.916613E 01	05
ALT	2.086847E 05	LAT -1.105000E 01	LON	1.408936E 02	01
VE	7.999779E 03	PTE 2.169430E-01	AZE	5.743551E 01	02
ANG	1.439246E 00	NFA 5.167112E 01	IAC	1.224725E 01	01
CPA	-7.764535E 00	VPA -7.757205E C0	CYA	-5.875336E-01	01
VYA	-5.325847E-01	CRA -0.000000E-39	VRA	0.000000E-39	01

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	8.224451E 05	YYY	-1.644193E 05	ZZZ	-6.532609E 06
DXX	8.379043E 03	DYY	4.546278E 01	DZZ	1.015907E 03
R	6.586230E 06	WT	2.523411E 05	F	2.060472E 05
V	8.440527E 03	PTH	2.548907E-01	AZ	5.910060E 01
ALT	2.088279E 05	LAT	-1.086208E 01	LON	1.411929E 02
VE	8.039455E 03	PTE	2.676060E-01	AZE	5.737407E 01
ANG	1.472779E 00	NFA	3.986490E 01	IAC	1.227455E 01
CPA	-7.657147E 00	VPA	-7.887574E 00	CYA	-2.393895E-01
VYA	-2.873346E-01	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	8.644252E 05	YYY	-1.641894E 05	ZZZ	-6.527401E 06
DXX	8.413014E 03	DYY	4.644156E 01	DZZ	1.067048E 03
R	6.586437E 06	WT	2.499316E 05	F	2.060472E 05
V	8.480539E 03	PTH	3.074721E-01	AZ	5.903785E 01
ALT	2.090091E 05	LAT	-1.067294E 01	LON	1.414933E 02
VE	8.079467E 03	PTE	3.227358E-01	AZE	5.731559E 01
ANG	1.186570E 00	NFA	3.970590E 01	IAC	1.229936E 01
CPA	-8.066151E 00	VPA	-8.014186E 00	CYA	-5.116889E-01
VYA	-4.955590E-01	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	9.065753E 05	YYY	-1.639553E 05	ZZZ	-6.521938E 06
DXX	8.447052E 03	DYY	4.715655E 01	DZZ	1.118359E 03
R	6.586686E 06	WT	2.475221E 05	F	2.060472E 05
V	8.520894E 03	PTH	3.637289E-01	AZ	5.897416E 01
ALT	2.092322E 05	LAT	-1.048254E 01	LON	1.417949E 02
VE	8.119829E 03	PTE	3.816957E-01	AZE	5.725615E 01
ANG	9.931026E-01	NFA	4.012718E 01	IAC	1.233090E 01
CPA	-8.254125E 00	VPA	-8.206805E 00	CYA	-7.028262E-01
VYA	-6.415200E-01	CRA	-0.000000E-39	VRA	0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	9.488959E 05	YYY	-1.637180E C5	ZZZ	-6.516218E 06
DXX	8.481170E 03	DYY	4.773950E C1	DZZ	1.169811E 03
R	6.586979E 06	WT	2.451126E 05	F	2.060472E 05
V	8.561599E 03	PTH	4.238542E-01	AZ	5.891047E 01
ALT	2.095000E 05	LAT	-1.029090E 01	LON	1.420975E 02
VE	8.160541E 03	PTE	4.446854E-01	AZE	5.719673E 01
ANG	7.517668E-01	NFA	4.434744E 01	IAC	1.236461E 01
CPA	-8.445284E 00	VPA	-8.400495E 00	CYA	-9.019854E-01
VYA	-8.567161E-01	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	9.913872E 05	YYY	-1.634782E C5	ZZZ	-6.510240E 06
DXX	8.515370E 03	DYY	4.817160F 01	DZZ	1.221411E 03
R	6.587321E 06	WT	2.427031E 05	F	2.060472E 05
V	8.602656E 03	PTH	4.878215F-01	AZ	5.884667E 01
ALT	2.098160E 05	LAT	-1.009800E C1	LON	1.424012E 02
VE	8.201608E 03	PTE	5.116751E-01	AZE	5.713722E 01
ANG	5.280922E-01	NFA	5.067815E 01	IAC	1.239835E 01
CPA	-8.634993E C0	VPA	-8.589620E C0	CYA	-1.102004E 00
VYA	-1.054065E 00	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	1.034050E 06	YYY	-1.632366E 05	ZZZ	-6.504003E 06
DXX	8.549660E 03	DYY	4.844900E 01	DZZ	1.273159E 03
R	6.587713E 06	WT	2.402936E 05	F	2.060472E 05
V	8.644071E 03	PTH	5.556495E-01	AZ	5.878276E 01
ALT	2.101835E 05	LAT	-9.903820E 00	LON	1.427061E 02
VE	8.243035E 03	PTE	5.826826E-01	AZE	5.707763F 01
ANG	3.215775E-01	NFA	6.602437E 01	IAC	1.243299E 01
CPA	-8.823816E 00	VPA	-8.778704E 00	CYA	-1.301239E 00
VYA	-1.253469E 00	CRA	-0.000000E-39	VRA	0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.076884E 06	YYY	-1.629940E 05	ZZZ	-6.497508E 06
DXX	8.584045E 03	DYY	4.856963E 01	DZZ	1.325054E 03
R	6.588160E 06	WT	2.378841E 05	F	2.060472E 05
V	8.685848E 03	PTH	6.273546E-01	AZ	5.871876E 01
ALT	2.106058E 05	LAT	-9.708363E 00	LON	1.430121E 02
VE	8.284825E 03	PTE	6.577225E-01	AZE	5.701797E 01
ANG	1.943307E-01	NFA	1.118203E 02	IAC	1.246844E 01
CPA	-9.011917E 00	VPA	-8.967001E 00	CYA	-1.500398E 00
VYA	-1.452747E 00	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.119890E 06	YYY	-1.627511E 05	ZZZ	-6.490752E 06
DXX	8.618531E 03	DYY	4.853027E 01	DZZ	1.377098E 03
R	6.588665E 06	WT	2.354746E 05	F	2.060472E 05
V	8.727991E 03	PTH	7.029511E-01	AZ	5.865468E 01
ALT	2.110868E 05	LAT	-9.511613E 00	LON	1.433192E 02
VE	8.326983E 03	PTE	7.368041E-01	AZE	5.695824E 01
ANG	2.822888E-01	NFA	1.658817E 02	IAC	1.250476E 01
CPA	-9.199865E 00	VPA	-9.154891E 00	CYA	-1.699313E 00
VYA	-1.651700E 00	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.163069E 06	YYY	-1.625089E 05	ZZZ	-6.483736E 06
DXX	8.653124E 03	DYY	4.832785E 01	DZZ	1.429291E 03
R	6.589232E 06	WT	2.330651E 05	F	2.060472E 05
V	8.770505E 03	PTH	7.824494E-01	AZ	5.859053E 01
ALT	2.116296E 05	LAT	-9.313564E 00	LON	1.436275E 02
VE	8.369515E 03	PTE	8.199386E-01	AZE	5.689846E 01
ANG	4.757039E-01	NFA	-1.750851E 02	IAC	1.254204E 01
CPA	-9.387321E 00	VPA	-9.342495E 00	CYA	-1.897969E 00
VYA	-1.850417E 00	CRA	-0.000000E-39	VRA	0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	1.206422E 06	YYY	-1.622681E 05
DXX	8.687832E 03	DYY	4.795920E 01
R	6.589864E 06	WT	2.306556E 05
V	8.813396E 03	PTH	8.658656E-01
ALT	2.122381E 05	LAT	-9.114204E 00
VE	8.412424E 03	PTE	9.071388E-01
ANG	6.889509E-01	NFA	-1.675630E 02
CPA	-9.574756E 00	VPA	-9.529843E 00
VYA	-2.048878E 00	CRA	-0.000000E-39
		ZZZ	-6.476459E 06
		DZZ	1.481633E 03
		F	2.060472E 05
		AZ	5.852631E 01
		LON	1.439370E 02
		AZE	5.683863E 01
		IAC	1.258030E 01
		CYA	-2.096354E 00
		VRA	0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	1.249948E 06	YYY	-1.620296E 05
DXX	8.722661E 03	DYY	4.742108E 01
R	6.590565E 06	WT	2.282461E 05
V	8.856670E 03	PTH	9.532101E-01
ALT	2.129159E 05	LAT	-8.913524E 00
VE	8.455718E 03	PTE	9.984131E-01
ANG	9.063343E-01	NFA	-1.637672E 02
CPA	-9.762615E 00	VPA	-9.717583E 00
VYA	-2.247034E 00	CRA	-0.000000E-39
		ZZZ	-6.468920E 06
		DZZ	1.534127E 03
		F	2.060472E 05
		AZ	5.846204E 01
		LON	1.442476E 02
		AZE	5.677876E 01
		IAC	1.261966E 01
		CYA	-2.294437E 00
		VRA	0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	1.293649E 06	YYY	-1.617942E 05
DXX	8.757618E 03	DYY	4.671017E 01
R	6.591339E 06	WT	2.258366E 05
V	8.900332E 03	PTH	1.044494E 00
ALT	2.136665E 05	LAT	-8.711516E 00
VE	8.499401E 03	PTE	1.093770E 00
ANG	1.124157E 00	NFA	-1.615413E 02
CPA	-9.950656E 00	VPA	-9.905529E 00
VYA	-2.444875E 00	CRA	-0.000000E-39
		ZZZ	-6.461118E 06
		DZZ	1.586773E 03
		F	2.060472E 05
		AZ	5.839772E 01
		LON	1.445594E 02
		AZE	5.671887E 01
		IAC	1.266017E 01
		CYA	-2.492191E 00
		VRA	0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.337524E 06	YYY	-1.615628E 05	ZZZ	-6.453052E 06
DXX	8.792712E 03	DYY	4.582308E 01	DZZ	1.639573E 03
R	6.592189E 06	WT	2.234271E 05	F	2.060472E 05
V	8.544388E 03	PTH	1.139725E 00	AZ	5.833336E 01
ALT	2.144941E 05	LAT	-8.508170E 00	LON	1.448723E 02
VE	8.543480E 03	PTE	1.193215E 00	AZE	5.665896E 01
ANG	1.340640E 00	NFA	-1.601452E 02	IAC	1.270192E 01
CPA	-1.013982E 01	VPA	-1.009441E 01	CYA	-2.689588E 00
VYA	-2.642357E 00	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.381576E 06	YYY	-1.613363E 05	ZZZ	-6.444722E 06
DXX	8.827948E 03	DYY	4.475632E 01	DZZ	1.692529E 03
R	6.593119E 06	WT	2.210176E 05	F	2.060472E 05
V	8.588845E 03	PTH	1.238914E 00	AZ	5.826898E 01
ALT	2.154023E 05	LAT	-8.303479E 00	LON	1.451865E 02
VE	8.587962E 03	PTE	1.296756E 00	AZE	5.659904E 01
ANG	1.555417E 00	NFA	-1.592179E 02	IAC	1.274500E 01
CPA	-1.032958E 01	VPA	-1.028396E 01	CYA	-2.886630E 00
VYA	-2.839486E 00	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.425804E 06	YYY	-1.611156E 05	ZZZ	-6.436126E 06
DXX	8.863337E 03	DYY	4.350632E 01	DZZ	1.745642E 03
R	6.594134E 06	WT	2.186081E 05	F	2.060472E 05
V	9.033709E 03	PTH	1.342069E 00	AZ	5.820459E 01
ALT	2.163949E 05	LAT	-8.097431E 00	LON	1.455018E 02
VE	8.632852E 03	PTE	1.404398E 00	AZE	5.653911E 01
ANG	1.767797E 00	NFA	-1.586080E 02	IAC	1.278951E 01
CPA	-1.052090E 01	VPA	-1.047496E 01	CYA	-3.083245E 00
VYA	-3.036205E 00	CRA	-0.000000E-39	VRA	0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.470210E 06	YYY	-1.609015E 05	ZZZ	-6.427265E 06
DXX	8.898885E 03	DYY	4.206941E 01	DZZ	1.798917E 03
R	6.595236E 06	WT	2.161986E 05	F	2.060472E 05
V	9.078989E 03	PTH	1.449190E 00	AZ	5.814019E 01
ALT	2.174761E 05	LAT	-7.890019E 00	LON	1.458184E 02
VE	8.678159E 03	PTE	1.516141E 00	AZE	5.647920E 01
ANG	1.977615E 00	NFA	-1.582057E 02	IAC	1.283548E 01
CPA	-1.071364E 01	VPA	-1.066721E 01	CYA	-3.279445E 00
VYA	-3.232522E 00	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.514793E 06	YYY	-1.606952E 05	ZZZ	-6.418137E 06
DXX	8.934603E 03	DYY	4.044185E 01	DZZ	1.852355E 03
R	6.596431E 06	WT	2.137891E 05	F	2.060472E 05
V	9.124690E 03	PTH	1.560288E 00	AZ	5.807579E 01
ALT	2.186499E 05	LAT	-7.681234E 00	LON	1.461361E 02
VE	8.723889E 03	PTE	1.631992E 00	AZE	5.641930E 01
ANG	2.184491E 00	NFA	-1.579683E 02	IAC	1.288311E 01
CPA	-1.090862E 01	VPA	-1.086153E 01	CYA	-3.475178E 00
VYA	-3.428365E 00	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	1.559556E 06	YYY	-1.604974E 05	ZZZ	-6.408741E 06
DXX	8.970497E 03	DYY	3.861979E 01	DZZ	1.905959E 03
R	6.597722E 06	WT	2.113796E 05	F	2.060472E 05
V	9.170823E 03	PTH	1.675361E 00	AZ	5.801140E 01
ALT	2.199204E 05	LAT	-7.471068E 00	LON	1.464551E 02
VE	8.770051E 03	PTE	1.751944E 00	AZE	5.635944E 01
ANG	2.388250E 00	NFA	-1.578548E 02	IAC	1.293250E 01
CPA	-1.110560E 01	VPA	-1.105805E 01	CYA	-3.670427E 00
VYA	-3.623726E 00	CRA	-0.000000E-39	VRA	0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	1.604499E 06	YYY	-1.603093E 05	ZZZ	-6.399077E 06
DXX	9.006578E 03	DYY	3.659926E 01	DZZ	1.959735E 03
R	6.599114E 06	WT	2.089701E 05	F	2.060472E 05
V	9.217394E 03	PTH	1.794411E 00	AZ	5.794703E 01
ALT	2.212918E 05	LAT	-7.259513E 00	LON	1.467753E 02
VE	8.816653E 03	PTE	1.876000E 00	AZE	5.629960E 01
ANG	2.588855E 00	NFA	-1.578381E 02	IAC	1.298370E 01
CPA	-1.130526E 01	VPA	-1.125691E 01	CYA	-3.865149E 00
VYA	-3.818581E 00	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	1.649622E 06	YYY	-1.601318E 05	ZZZ	-6.389144E 06
DXX	9.042855E 03	DYY	3.437621E 01	DZZ	2.013685E 03
R	6.600610E 06	WT	2.065606E 05	F	2.060472E 05
V	9.264412E 03	PTH	1.917438E 00	AZ	5.788270E 01
ALT	2.227683E 05	LAT	-7.046559E 00	LON	1.470968E 02
VE	8.863704E 03	PTE	2.004155E 00	AZE	5.623982E 01
ANG	2.785855E 00	NFA	-1.579150E 02	IAC	1.303694E 01
CPA	-1.150803E 01	VPA	-1.145909E 01	CYA	-4.059327E 00
VYA	-4.012893E 00	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	1.694927E 06	YYY	-1.599659E 05	ZZZ	-6.378940E 06
DXX	9.079338E 03	DYY	3.194648E 01	DZZ	2.067815E 03
R	6.602215E 06	WT	2.041510E 05	F	2.060472E 05
V	9.311888E 03	PTH	2.044437E 00	AZ	5.781841E 01
ALT	2.243541E 05	LAT	-6.832201E 00	LON	1.474195E 02
VE	8.911214E 03	PTE	2.136402E 00	AZE	5.618008E 01
ANG	2.979344E 00	NFA	-1.580622E 02	IAC	1.309230E 01
CPA	-1.171412E 01	VPA	-1.166434E 01	CYA	-4.252896E 00
VYA	-4.206603E 00	CRA	-0.000000E-39	VRA	0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECT CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALO LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTY
 (CONT INUED)

GEOCENTRIC REFERENCE

XXX	1.740416E 06	YYY	-1.591E 05	LIGHT TIME	1.510000E 04
DXX	9.116037E 03	DYY	2.930E 01	ZZZ	-6.368465E 06
R	6.603933E 06	WT	2.017E 05	DZZ	2.122130F 03
V	9.359831E 03	PTH	2.175E 00	F	2.060472E 05
ALT	2.260536E 05	LAT	-6.616E 00	AZ	5.775417E 01
VE	8.559192E 03	PTE	2.272E 00	LON	1.477434E 02
ANG	3.168969E 00	NFA	-1.582E 02	AZF	5.612042E 01
CPA	-1.192461E 01	VPA	-1.187E 01	IAC	1.314990E 01
VYA	-4.399702E 00	CRA	-0.000E-39	CYA	-4.445842E 00
				VRA	0.000000E-39

GEOCENTRIC REFERENCE

XXX	1.786088E 06	YYY	-1.5961E 05	LIGHT TIME	1.510500E 04
DXX	9.152963E 03	DYY	2.644E 01	ZZZ	-6.357718E 06
R	6.605769E 06	WT	1.993E 05	DZZ	2.176637E 03
V	9.408251E 03	PTH	2.310E 00	F	2.060472E 05
ALT	2.278712E 05	LAT	-6.399E 00	AZ	5.768999E 01
VE	9.007648E 03	PTE	2.413E 00	LON	1.480686E 02
ANG	3.354716E 00	NFA	-1.585E 02	AZE	5.606082E 01
CPA	-1.213909E 01	VPA	-1.208E 01	IAC	1.320992E 01
VYA	-4.592151E 00	CRA	-0.0000E-39	CYA	-4.638117E 00
				VRA	0.000000E-39

GEOCENTRIC REFERENCE

XXX	1.831946E 06	YYY	-1.59545E 05	LIGHT TIME	1.511000E 04
DXX	9.190127E 03	DYY	2.33736E 01	ZZZ	-6.346698E 06
R	6.607727E 06	WT	1.96922E 05	DZZ	2.231341E 03
V	9.457159E 03	PTH	2.449197E 00	F	2.060472E 05
ALT	2.298114E 05	LAT	-6.180610E 00	AZ	5.762588E 01
VE	9.056593E 03	PTE	2.557594E 00	LON	1.483951E 02
ANG	3.536229E 00	NFA	-1.589148E 02	AZE	5.600131E 01
CPA	-1.235852E 01	VPA	-1.230532E 01	IAC	1.327261E 01
VYA	-4.783886E 00	CRA	-0.000000E-39	CYA	-4.829682E 00
				VRA	0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	1.877990E 06	YYY	-1.594398E 05
DXX	9.227539E 03	DYY	2.007346E 01
R	6.609812E 06	WT	1.945130E 05
V	9.506567E 03	PTH	2.592004E 00
ALT	2.318789E 05	LAT	-5.960549E 00
VE	9.106040E 03	PTE	2.706096E 00
ANG	3.713529E 00	NFA	-1.593270E 02
CPA	-1.258361E 01	VPA	-1.252906E 01
VYA	-4.974878E 00	CRA	-0.000000E-39
		ZZZ	1.511500E 04
		DZZ	-6.335405E 03
		F	2.286251E 03
		AZ	2.060472E 05
		LON	5.756185E 01
		AZE	1.487228E 02
		IAC	5.594190E 01
		CYA	1.333812E 01
		VRA	-5.020481E 00
			0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	1.924222E 06	YYY	-1.593482E 05
DXX	9.265211E 03	DYY	1.654382E 01
R	6.612028E 06	WT	1.921035E 05
V	9.556487E 03	PTH	2.738726E 00
ALT	2.340780E 05	LAT	-5.739046E 00
VE	9.156000E 03	PTE	2.858615E 00
ANG	3.886515E 00	NFA	-1.597982E 02
CPA	-1.281455E 01	VPA	-1.275848E 01
VYA	-5.165091E 00	CRA	-0.000000E-39
		ZZZ	1.512000E 04
		DZZ	-6.323836E 03
		F	2.341375E 03
		AZ	2.060472E 05
		LON	5.749792E 01
		AZE	1.490518E 02
		IAC	5.588258E 01
		CYA	1.340648E 01
		VRA	-5.210492E 00
			0.000000E-39

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	1.970642E 06	YYY	-1.592748E 05
DXX	9.303155E 03	DYY	1.278005E 01
R	6.614380E 06	WT	1.896940E 05
V	9.606932E 03	PTH	2.889343E 00
ALT	2.364137E 05	LAT	-5.516089E 00
VE	9.206485E 03	PTE	3.015132E 00
ANG	4.054790E 00	NFA	-1.603402E 02
CPA	-1.305248E 01	VPA	-1.299498E 01
VYA	-5.354422E 00	CRA	-0.000000E-39
		ZZZ	1.512500E 04
		DZZ	-6.311990E 06
		F	2.396722E 03
		AZ	2.060472E 05
		LON	5.743408E 01
		AZE	1.493821E 02
		IAC	5.582338E 01
		CYA	1.347824E 01
		VRA	-5.399637E 00
			0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONT INUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.017254E 06	YYY	-1.592208E 05	ZZZ	-6.299868E 06
DXX	9.341384E 03	DYY	8.777098E 00	DZZ	2.452303E 03
R	6.616872E 06	WT	1.872845E 05	F	2.060472E 05
V	9.657915E 03	PTH	3.043830E 00	AZ	5.737035E 01
ALT	2.388901E 05	LAT	-5.291675E 00	LON	1.497138E 02
VE	9.257511E 03	PTE	3.175612E 00	AZE	5.576430E 01
ANG	4.218705E 00	NFA	-1.609403E 02	IAC	1.355326E 01
CPA	-1.329753E 01	VPA	-1.323812E 01	CYA	-5.587865E 00
VYA	-5.542891E 00	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.064057E 06	YYY	-1.591874E 05	ZZZ	-6.287467E 06
DXX	9.379909E 03	DYY	4.529836E 00	DZZ	2.508129E 03
R	6.619510E 06	WT	1.848750E 05	F	2.060472E 05
V	9.709450E 03	PTH	3.202159E 00	AZ	5.730674E 01
ALT	2.415126E 05	LAT	-5.065793E 00	LON	1.500467E 02
VE	9.309090E 03	PTE	3.340029E 00	AZE	5.570535E 01
ANG	4.377804E 00	NFA	-1.616124E 02	IAC	1.363190E 01
CPA	-1.355118E 01	VPA	-1.348947E 01	CYA	-5.775101E 00
VYA	-5.730380E 00	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.111053E 06	YYY	-1.591759E 05	ZZZ	-6.274786E 06
DXX	9.418744E 03	DYY	3.295370E-02	DZZ	2.564212E 03
R	6.622298E 06	WT	1.824655E 05	F	2.060472E 05
V	9.761554E 03	PTH	3.364296E 00	AZ	5.724325E 01
ALT	2.442854E 05	LAT	-4.838440E 00	LON	1.503809E 02
VE	9.361238E 03	PTE	3.508339E 00	AZE	5.564654E 01
ANG	4.532061E 00	NFA	-1.623615E 02	IAC	1.371464E 01
CPA	-1.381366E 01	VPA	-1.374996E 01	CYA	-5.961309E 00
VYA	-5.916841E 00	CRA	-0.000000E-39	VRA	0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.158245E 06	YYY	-1.591875E 05	ZZZ	1.514500E 04
DXX	9.457902E 03	DYY	-4.718980E 00	DZZ	-6.261824E 06
R	6.625240E 06	WT	1.800560E 05	F	2.620568E 03
V	9.814240E 03	PTH	3.530197E 00	AZ	2.060472E 05
ALT	2.472139E 05	LAT	-4.609608E 00	LON	5.717991E 01
VE	9.413970E 03	PTE	3.680498E 00	AZE	1.507165E 02
ANG	4.681665E 00	NFA	-1.631830E 02	IAC	5.558787E 01
CPA	-1.408665E 01	VPA	-1.401973E 01	CYA	1.380138E 01
VYA	-6.102208E 00	CRA	-0.000000E-39	VRA	-6.146409E 00
					0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.205633E 06	YYY	-1.592235E 05	ZZZ	1.515000E 04
DXX	9.497396E 03	DYY	-9.731544E 00	DZZ	-6.248580E 06
R	6.628342E 06	WT	1.776465E 05	F	2.677211E 03
V	9.867527E 03	PTH	3.699819E 00	AZ	2.060472E 05
ALT	2.503026E 05	LAT	-4.379288E 00	LON	5.711671E 01
VE	9.467304E 03	PTE	3.856457E 00	AZE	1.510534E 02
ANG	4.826265E 00	NFA	-1.640962E 02	IAC	5.552938E 01
CPA	-1.437043E 01	VPA	-1.430092E 01	CYA	1.389291E 01
VYA	-6.286372E 00	CRA	-0.000000E-39	VRA	-6.330291E 00
					0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.253219E 06	YYY	-1.592853E 05	ZZZ	1.515500E 04
DXX	9.537240E 03	DYY	-1.501045E 01	DZZ	-6.235052E 06
R	6.631609E 06	WT	1.752370E 05	F	2.734160E 03
V	9.921431E 03	PTH	3.873105E 00	AZ	2.060472E 05
ALT	2.535565E 05	LAT	-4.147476E 00	LON	5.705367E 01
VE	9.521257E 03	PTE	4.036155E 00	AZE	1.513916E 02
ANG	4.966173E 00	NFA	-1.651005E 02	IAC	5.547105E 01
CPA	-1.466652E 01	VPA	-1.459401E 01	CYA	1.398917E 01
VYA	-6.469275E 00	CRA	-0.000000E-39	VRA	-6.512880E 00
					0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.301006E 06	YYY	-1.593741E 05	ZZZ	-6.221238E 06
DXX	9.577447E 03	DYY	-2.056154E 01	DZZ	2.791434E 03
R	6.635046E 06	WT	1.728275E 05	F	2.060472E 05
V	9.975972E 03	PTH	4.049996E 00	AZ	5.699079E 01
ALT	2.569807E 05	LAT	-3.914164E 00	LON	1.517312E 02
VE	9.575847E 03	PTE	4.219524E 00	AZE	5.541289E 01
ANG	5.101530E 00	NFA	-1.662040E 02	IAC	1.409068E 01
CPA	-1.497596E 01	VPA	-1.490028E 01	CYA	-6.694089E 00
VYA	-6.650827E 00	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.348994E 06	YYY	-1.594914E 05	ZZZ	-6.207137E 06
DXX	9.618032E 03	DYY	-2.639085E 01	DZZ	2.849053E 03
R	6.638656E 06	WT	1.704180E 05	F	2.060472E 05
V	1.003117E 04	PTH	4.230421E 00	AZ	5.692809E 01
ALT	2.605800E 05	LAT	-3.679347E 00	LON	1.520721E 02
VE	9.631095E 03	PTE	4.406492E 00	AZE	5.535493E 01
ANG	5.232475E 00	NFA	-1.674180E 02	IAC	1.419783E 01
CPA	-1.530095E 01	VPA	-1.522132E 01	CYA	-6.873757E 00
VYA	-6.830865E 00	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.397187E 06	YYY	-1.596385E 05	ZZZ	-6.192747E 06
DXX	9.659008E 03	DYY	-3.250447E 01	DZZ	2.907045E 03
R	6.642447E 06	WT	1.680085E 05	F	2.060472E 05
V	1.008704E 04	PTH	4.414296E 00	AZ	5.686557E 01
ALT	2.643596E 05	LAT	-3.443015E 00	LON	1.524144E 02
VE	9.687020E 03	PTE	4.596967E 00	AZE	5.529717E 01
ANG	5.359444E 00	NFA	-1.687507E 02	IAC	1.431108E 01
CPA	-1.564168E 01	VPA	-1.555850E 01	CYA	-7.051744E 00
VYA	-7.009283E 00	CRA	-0.000000E-39	VRA	0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	2.445585E 06	YYY	-1.598169E 05	ZZZ	-6.178066E 06
DXX	9.700390E 03	DYY	-3.890860E 01	DZZ	2.965433E 03
R	6.646422E 06	WT	1.655990E 05	F	2.060472E 05
V	1.014361E 04	PTH	4.601534E 00	AZ	5.680325E 01
ALT	2.683242E 05	LAT	-3.205164E 00	LON	1.527581E 02
VE	9.743644E 03	PTE	4.790856E 00	AZE	5.523962E 01
ANG	5.482889E 00	NFA	-1.702189E 02	IAC	1.443085E 01
CPA	-1.600311E 01	VPA	-1.591405E 01	CYA	-7.227900E 00
VYA	-7.185932E 00	CRA	-0.000000E -39	VRA	0.000000E -39

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	2.494191E 06	YYY	-1.600281E 05	ZZZ	-6.163092E 06
DXX	9.742191E 03	DYY	-4.560955E 01	DZZ	3.024251E 03
R	6.650586E 06	WT	1.631895E 05	F	2.060472E 05
V	1.020090E 04	PTH	4.792017E 00	AZ	5.674113E 01
ALT	2.724790E 05	LAT	-2.965789E 00	LON	1.531031E 02
VE	9.800990E 03	PTE	4.988033E 00	AZE	5.518229E 01
ANG	5.603557E 00	NFA	-1.718295E 02	IAC	1.455759E 01
CPA	-1.638452E 01	VPA	-1.628939E 01	CYA	-7.402077E 00
VYA	-7.360574E 00	CRA	-0.000000E -39	VRA	0.000000E -39

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	2.543008E 06	YYY	-1.602735E 05	ZZZ	-6.147822E 06
DXX	9.784424E 03	DYY	-5.261371E 01	DZZ	3.083531E 03
R	6.654945E 06	WT	1.607800E 05	F	2.060472E 05
V	1.025894E 04	PTH	4.985627E 00	AZ	5.667923E 01
ALT	2.768289E 05	LAT	-2.724881E 00	LON	1.534496E 02
VE	9.859083E 03	PTE	5.188375E 00	AZE	5.512520E 01
ANG	5.722049E 00	NFA	-1.736281E 02	IAC	1.469263E 01
CPA	-1.679041E 01	VPA	-1.668987E 01	CYA	-7.573845E 00
VYA	-7.532966E 00	CRA	-0.000000E -39	VRA	0.000000E -39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.592036E 06	YYY	-1.605547E 05	ZZZ	-6.132256E 06
DXX	9.827102E 03	DYY	-5.992737E 01	DZZ	3.143315E 03
R	6.659504E 06	WT	1.583705E 05	F	2.060472E 05
V	1.031775E 04	PTH	5.182211E 00	AZ	5.661756E 01
ALT	2.813791E 05	LAT	-2.482434E 00	LON	1.537974E 02
VE	9.917947E 03	PTE	5.391718E 00	AZE	5.506836E 01
ANG	5.840044E 00	NFA	-1.756206E 02	IAC	1.483597E 01
CPA	-1.722392E 01	VPA	-1.711717E 01	CYA	-7.743055E 00
VYA	-7.702860E 00	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.641279E 06	YYY	-1.608733E 05	ZZZ	-6.116388E 06
DXX	9.870237E 03	DYY	-6.755679E 01	DZZ	3.203646E 03
R	6.664266E 06	WT	1.559610E 05	F	2.060472E 05
V	1.037735E 04	PTH	5.381598E 00	AZ	5.655612E 01
ALT	2.861340E 05	LAT	-2.238442E 00	LON	1.541467E 02
VE	9.977610E 03	PTE	5.597882E 00	AZE	5.501177E 01
ANG	5.959577E 00	NFA	-1.777946E 02	IAC	1.498786E 01
CPA	-1.768729E 01	VPA	-1.757121E 01	CYA	-7.909437E 00
VYA	-7.869911E 00	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.690739E 06	YYY	-1.612308E 05	ZZZ	-6.100218E 06
DXX	9.913838E 03	DYY	-7.550812E 01	DZZ	3.264576E 03
R	6.669238E 06	WT	1.535515E 05	F	2.060472E 05
V	1.043778E 04	PTH	5.583588E 00	AZ	5.649494E 01
ALT	2.910991E 05	LAT	-1.992896E 00	LON	1.544974E 02
VE	1.003810E 04	PTE	5.806660E 00	AZE	5.495547E 01
ANG	6.082535E 00	NFA	1.797453E 02	IAC	1.515125E 01
CPA	-1.818740E 01	VPA	-1.806445E 01	CYA	-8.071929E 00
VYA	-8.033405E 00	CRA	-0.000000E-39	VRA	0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.740415E 06	YYY	-1.616289E 05	ZZZ	-6.083742E 06
DXX	9.957913E 03	DYY	-8.378686E 01	DZZ	3.326165E 03
R	6.674424E 06	WT	1.511420E 05	F	2.060472E 05
V	1.049907E 04	PTH	5.787936E 00	AZ	5.643404E 01
ALT	2.562785E 05	LAT	-1.745791E 00	LON	1.548495E 02
VE	1.009944E 04	PTE	6.017791E 00	AZF	5.489947E 01
ANG	6.213080E 00	NFA	1.769806E 02	IAC	1.532629E 01
CPA	-1.873409E 01	VPA	-1.860124E 01	CYA	-8.230399E 00
VYA	-8.192942E 00	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.790319E 06	YYY	-1.620692E 05	ZZZ	-6.066955E 06
DXX	1.000247E 04	DYY	-9.239805E 01	DZZ	3.388485E 03
R	6.679827E 06	WT	1.487324E 05	F	2.060472E 05
V	1.056124E 04	PTH	5.994342E 00	AZ	5.637342E 01
ALT	3.016772E 05	LAT	-1.497119E 00	LON	1.552031E 02
VE	1.016167E 04	PTE	6.230962E 00	AZF	5.484379E 01
ANG	6.355345E 00	NFA	1.739109E 02	IAC	1.551352E 01
CPA	-1.933182E 01	VPA	-1.918467E 01	CYA	-8.382896E 00
VYA	-8.346976E 00	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.840444E 06	YYY	-1.625534E 05	ZZZ	-6.049855E 06
DXX	1.004750E 04	DYY	-1.013449E 02	DZZ	3.451624E 03
R	6.685454E 06	WT	1.463229E 05	F	2.060472E 05
V	1.062432E 04	PTH	6.202417E 00	AZ	5.631313E 01
ALT	3.072993E 05	LAT	-1.246874E 00	LON	1.555582E 02
VE	1.022481E 04	PTE	6.445770E 00	AZE	5.478846E 01
ANG	6.516417E 00	NFA	1.704506E 02	IAC	1.571419E 01
CPA	-1.999544E 01	VPA	-1.982855E 01	CYA	-8.527750E 00
VYA	-8.494147E 00	CRA	-0.000000E-39	VRA	0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.890795E 06	YYY	-1.630833E C5	ZZZ	-6.032437E 06
DXX	1.009280E 04	DYY	-1.107013E 02	DZZ	3.516161E 03
R	6.691307E 06	WT	1.439134E C5	F	2.060472E 05
V	1.068832E 04	PTH	6.408965E C0	AZ	5.625275E 01
ALT	3.131485E 05	LAT	-9.950450E-C1	LON	1.559147E 02
VF	1.028887E 04	PTE	6.658889E 00	AZE	5.473307E 01
ANG	7.074698E 00	NFA	1.593238E 02	IAC	1.606643E 01
CPA	-2.135301E 01	VPA	-2.148460E 01	CYA	-8.714969E 00
VYA	-8.733538E 00	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.941373E 06	YYY	-1.636609E 05	ZZZ	-6.014692E 06
DXX	1.013857E 04	DYY	-1.203456E C2	DZZ	3.581733E 03
R	6.697386E 06	WT	1.415039E 05	F	2.060472E 05
V	1.075332E 04	PTH	6.616276E C0	AZ	5.619304E 01
ALT	3.192250E 05	LAT	-7.416228E-C1	LON	1.562728E 02
VE	1.035393E 04	PTE	6.872703E 00	AZF	5.467841E 01
ANG	6.899544E 00	NFA	1.620586E 02	IAC	1.617362E 01
CPA	-2.135693E 01	VPA	-2.135563E 01	CYA	-8.720020E 00
VYA	-8.719113E 00	CRA	-0.000000E-39	VRA	0.000000E-39

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	2.992182E 06	YYY	-1.642871E 05	ZZZ	-5.996619E 06
DXX	1.018518E 04	DYY	-1.301778E C2	DZZ	3.647500E 03
R	6.703700E 06	WT	1.390944E 05	F	2.060472E 05
V	1.081939E 04	PTH	6.829282E 00	AZ	5.613472E 01
ALT	3.255361E 05	LAT	-4.866015E-01	LON	1.566323E 02
VE	1.042004E 04	PTE	7.092330E 00	AZF	5.462521E 01
ANG	6.796272E 00	NFA	1.638273E C2	IAC	1.631296E 01
CPA	-2.136754E 01	VPA	-2.136297E 01	CYA	-8.724458E 00
VYA	-8.723982E 00	CRA	-0.000000E-39	VRA	0.000000E-39

TABLE 10-VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TRANSLUNAR INJECTION (S-IVB CUTOFF)		GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	3.08409E 06	YYY	-1.644969E 05	ZZZ	1.523159E 04
DXX	1.020020E 04	DYY	-1.333493E 02	DZZ	-5.990796E 06
R	6.705760E 06	WT	1.383272E 05	F	3.668492E 03
V	1.084065E 04	PTH	6.898261E 00	AZ	2.060472E 05
ALT	3.275963E 05	LAT	-4.050669E-01	LON	5.611644E 01
VE	1.044133E 04	PTE	7.163441E 00	AZE	1.567471E 02
ANG	6.764766E 00	NFA	1.643693E 02	IAC	5.460858E 01
CPA	-2.136754E 01	VPA	-2.136826E 01	CYA	1.635767E 01
VYA	-8.724589E 00	CRA	-0.000000E-39	VRA	-8.724458E 00
					0.000000E-39

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TRANSLUNAR INJECTION TIME 1 FEB. 1968 GEOCENTRIC REFERENCE	19 HRS., 51 MIN., 20.202 SEC., GMT FLIGHT TIME 1.5231592D 04
X-4.6856097D 06	Y-4.7968752D 06 Z-4.7646435D 04
DX 5.4517932D 03	DY-7.2050104D 03 DZ 5.9904533D 03
R 6.7057602D 06	DEC-4.0710708D-01 RA-1.3432773D 02
V 1.0840653D 04	PTH 6.8982617D 00 AZ 5.6117285D 01
ALT 3.2759719D 05	LTGD-4.0971542D-01 LON 1.5674677D 02
VE 1.0441323D 04	PTE 7.1619332D 00 AZE 5.4609190D 01

TIME 1 FEB. 1968 GEOCENTRIC REFERENCE	19 HRS., 53 MIN., 12.702 SEC., GMT FLIGHT TIME 1.5344092D 04
X-4.0357108D 06	Y-5.5661392D 06 Z 6.2485599D 05
DX 6.0773792D 03	DY-6.4632725D 03 DZ 5.9496780D 03
R 6.9035724D 06	DEC 5.1930612D 00 RA-1.2594386D 02
V 1.0682092D 04	PTH 1.1868381D 01 AZ 5.6468915D 01
ALT 5.2558430D 05	LTGD 5.2251959D 00 LON 1.6466061D 02
VE 1.0277199D 04	PTE 1.2361667D 01 AZE 5.4893984D 01

TIME 1 FEB. 1968 GEOCENTRIC REFERENCE	19 HRS., 55 MIN., 5.202 SEC., GMT FLIGHT TIME 1.5456592D 04
X-3.3238766D 06	Y-6.2504341D 06 Z 1.2879533D 06
DX 6.5523553D 03	DY-5.7030912D 03 DZ 5.8270338D 03
R 7.1954782D 06	DEC 1.0311216D 01 RA-1.1800329D 02
V 1.0460064D 04	PTH 1.6496873D 01 AZ 5.7544283D 01
ALT 8.1800199D 05	LTGD 1.0371422D 01 LON 1.7213114D 02
VE 1.0046980D 04	PTE 1.7229567D 01 AZE 5.5905715D 01

TIME 1 FEB. 1968 GEOCENTRIC REFERENCE	19 HRS., 56 MIN., 57.702 SEC., GMT FLIGHT TIME 1.5569092D 04
X-2.5668327D 06	Y-6.8503465D 06 Z 1.9337824D 06
DX 6.8837412D 03	DY-4.9693243D 03 DZ 5.6468519D 03
R 7.5667292D 06	DEC 1.4806997D 01 RA-1.1054103D 02
V 1.0196422D 04	PTH 2.0715973D 01 AZ 5.9172503D 01
ALT 1.1899669D 06	LTGD 1.4887280D 01 LON 1.7912337D 02
VE 9.7731245D 03	PTE 2.1700637D 01 AZE 5.7474764D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 1 FEB. 1968	19 HRS., 58 MIN., 50.202 SEC., GMT		
GEOCENTRIC REFERENCE		FLIGHT TIME	1.5681592D 04
X-1.7796421D 06	Y-7.3706202D 06	Z	2.5572273D 06
DX 7.0924123D 03	DY-4.2907274D 03	DZ	5.4326956D 03
R 8.0020359D 06	DEC 1.8637047D 01	RA-	1.0357430D 02
V 9.9109452D 03	PTH 2.4506049D 01	AZ	6.1182822D 01
ALT 1.6260627D 06	LTGD 1.8730038D 01	LON	1.8562007D 02
VE 9.4760189D 03	PTE 2.5758003D 01	AZE	5.9432583D 01
TIME 1 FEB. 1968	20 HRS., 0 MIN., 42.702 SEC., GMT		
GEOCENTRIC REFERENCE		FLIGHT TIME	1.5794092D 04
X-9.7467770D 05	Y-7.8183572D 06	Z	3.1555800D 06
DX 7.2040227D 03	DY-3.6810260D 03	DZ	5.2034398D 03
R 8.4873076D 06	DEC 2.1826662D 01	RA-	9.7106127D 01
V 9.6189231D 03	PTH 2.7881447D 01	AZ	6.3425033D 01
ALT 2.1121079D 06	LTGD 2.1926544D 01	LON	1.9161820D 02
VE 9.1714858D 03	PTE 2.9418180D 01	AZE	6.1631677D 01
TIME 1 FEB. 1968	20 HRS., 2 MIN., 35.202 SEC., GMT		
GEOCENTRIC REFERENCE		FLIGHT TIME	1.5906592D 04
X-1.6145495D 05	Y-8.2015518D 06	Z	3.7279378D 06
DX 7.2430149D 03	DY-3.1431376D 03	DZ	4.9723274D 03
R 9.0104961D 06	DEC 2.4439539D 01	RA-	9.1127768D 01
V 9.3308423D 03	PTH 3.0875751D 01	AZ	6.5778460D 01
ALT 2.6360014D 06	LTGD 2.4542169D 01	LON	1.9712653D 02
VE 8.8704464D 03	PTE 3.2716030D 01	AZE	6.3954180D 01
TIME 1 FEB. 1968	20 HRS., 4 MIN., 27.702 SEC., GMT		
GEOCENTRIC REFERENCE		FLIGHT TIME	1.6019092D 04
X 6.5305200D 05	Y-8.5281292D 06	Z	4.2746013D 06
DX 7.2298885D 03	DY-2.6735780D 03	DZ	4.7476975D 03
R 9.5617823D 06	DEC 2.6554614D 01	RA-	8.5621046D 01
V 9.0531728D 03	PTH 3.3530558D 01	AZ	6.8152912D 01
ALT 3.1879010D 06	LTGD 2.6657256D 01	LON	2.0216322D 02
VE 8.5797040D 03	PTE 3.5693575D 01	AZE	6.6312526D 01

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TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	1	FEB. 1968	20 HRS.,	6 MIN.,	20.202 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.6131592D 04
X	1.4639195D	06	Y	-8.8054238D	06	Z 4.7965920D 06
DX	7.1806139D	03	DY	-2.2657732D	03	DZ 4.5342467D 03
R	1.0133402D	07	DEC	2.8251625D	01	RA-8.0560790D 01
V	8.7894446D	03	PTH	3.5888445D	01	AZ 7.0485224D 01
ALT	3.7600384D	06	LTGD	2.8352583D	01	LON 2.0675344D 02
VE	8.3030359D	03	PTE	3.8393154D	01	AZE 6.8645876D 01

TIME	1	FEB. 1968	20 HRS.,	8 MIN.,	12.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.6244092D 04
X	2.2677847D	06	Y	-9.0399593D	06	Z 5.2953120D 06
DX	7.1070850D	03	DY	-1.9121389D	03	DZ 4.3342203D 03
R	1.0719330D	07	DEC	2.9603601D	01	RA-7.5917264D 01
V	8.5412176D	03	PTH	3.7989248D	01	AZ 7.2734089D 01
ALT	4.3463931D	06	LTGD	2.9701893D	01	LON 2.1092693D 02
VE	8.0421808D	03	PTE	4.0853936D	01	AZE 7.0914923D 01

TIME	1	FEB. 1968	20 HRS.,	10 MIN.,	5.202 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.6356592D 04
X	3.0624301D	06	Y	-9.2374058D	06	Z 5.7723226D 06
DX	7.0179120D	03	DY	-1.6052157D	03	DZ 4.1483264D 03
R	1.1314939D	07	DEC	3.0673857D	01	RA-7.1658352D 01
V	8.3088157D	03	PTH	3.9868459D	01	AZ 7.4874770D 01
ALT	4.9423486D	06	LTGD	3.0768966D	01	LON 2.1471581D 02
VE	7.7975897D	03	PTE	4.3110499D	01	AZE 7.3096661D 01

TIME	1	FEB. 1968	20 HRS.,	11 MIN.,	57.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.6469092D 04
X	3.8464599D	06	Y	-9.4026284D	06	Z 6.2292087D 06
DX	6.9192126D	03	DY	-1.3382027D	03	DZ 3.9763694D 03
R	1.1916699D	07	DEC	3.1515510D	01	RA-6.7751337D 01
V	8.0918356D	03	PTH	4.1556847D	01	AZ 7.6894481D 01
ALT	5.5443855D	06	LTGD	3.1607213D	01	LON 2.1815279D 02
VE	7.5689478D	03	PTE	4.5192583D	01	AZE 7.5179828D 01

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TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME	1	FEB. 1968	20 HRS.,	13 MIN.,	50.202 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.6581592D 04
X	4.6190581D	06	Y-9.5397738D	06	Z	6.6675028D 06
DX	6.8152753D	03	DY-1.1051477D	03	DZ	3.8176612D 03
R	1.2521924D	07	DEC	3.2172245D 01	RA-6.4164219D	01
V	7.8894782D	03	PTH	4.3080680D 01	AZ	7.8788678D 01
ALT	6.1498294D	06	LTGD	3.2260501D 01	LON	2.2126988D 02
VE	7.3555168D	03	PTE	4.7125394D 01	AZE	7.7161275D 01

TIME	1	FEB. 1968	20 HRS.,	15 MIN.,	42.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.6694092D 04
X	5.3798131D	06	Y-9.6523681D	06	Z	7.0886447D 06
DX	6.7090728D	03	DY-9.0096000D	02	DZ	3.6712757D 03
R	1.3128575D	07	DEC	3.2679562D 01	RA-6.0866589D	01
V	7.7007566D	03	PTH	4.4462208D 01	AZ	8.0558256D 01
ALT	6.7566515D	06	LTGD	3.2764435D 01	LON	2.2409748D 02
VE	7.1563505D	03	PTE	4.8930135D 01	AZE	7.9043231D 01

TIME	1	FEB. 1968	20 HRS.,	17 MIN.,	35.202 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.6806592D 04
X	6.1285917D	06	Y-9.7434102D	06	Z	7.4939640D 06
DX	6.6026416D	03	DY-7.2134017D	02	DZ	3.5362009D 03
R	1.3735107D	07	DEC	3.3066118D 01	RA-5.7830160D	01
V	7.5246212D	03	PTH	4.5720215D 01	AZ	8.2207518D 01
ALT	7.3633148D	06	LTGD	3.3147731D 01	LON	2.2666387D 02
VE	6.9704258D	03	PTE	5.0624582D 01	AZE	8.0831333D 01

TIME	1	FEB. 1968	20 HRS.,	19 MIN.,	27.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.6919092D 04
X	6.8654510D	06	Y-9.8154550D	06	Z	7.8846761D 06
DX	6.4973563D	03	DY-5.6268117D	02	DZ	3.4114259D 03
R	1.4340352D	07	DEC	3.3354969D 01	RA-5.5029010D	01
V	7.3600323D	03	PTH	4.6870556D 01	AZ	8.3742750D 01
ALT	7.9686575D	06	LTGD	3.3433477D 01	LON	2.2899499D 02
VE	6.7967193D	03	PTE	5.2223629D 01	AZE	8.2533256D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	1	FEB. 1968	20 HRS.,	21 MIN.,	20.202 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.7031592D 04
X	7.5905744D	06	Y-	9.8706857D	06	Z 8.2618849D 06
DX	6.3941256D	03	DY-	4.2196456D	02	DZ 3.2959878D 03
R	1.4943427D	07	DEC	3.3564647D	01	RA-5.2439651D 01
V	7.2059997D	03	PTH	4.7926632D	01	AZ 8.5171259D 01
ALT	8.5718037D	06	LTGD	3.3640218D	01	LON 2.3111431D 02
VE	6.6342498D	03	PTE	5.3739766D	01	AZE 8.4157791D 01

TIME	1	FEB. 1968	20 HRS.,	23 MIN.,	12.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.7144092D 04
X	8.3042283D	06	Y-	9.9109746D	06	Z 8.6265899D 06
DX	6.2935309D	03	DY-	2.9666478D	02	DZ 3.1889940D 03
R	1.5543670D	07	DEC	3.3710062D	01	RA-5.0040958D 01
V	7.0616021D	03	PTH	4.8899806D	01	AZ 8.6500727D 01
ALT	9.1720968D	06	LTGD	3.3782865D	01	LON 2.3304297D 02
VE	6.4820999D	03	PTE	5.5183488D	01	AZE 8.5714250D 01

TIME	1	FEB. 1968	20 HRS.,	25 MIN.,	5.202 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.7256592D 04
X	9.0067311D	06	Y-	9.9379336D	06	Z 8.9796946D 06
DX	6.1959245D	03	DY-	1.8466537D	02	DZ 3.0896314D 03
R	1.6140590D	07	DEC	3.3803224D	01	RA-4.7814039D 01
V	6.9259948D	03	PTH	4.9799743D	01	AZ 8.7738809D 01
ALT	9.7690483D	06	LTGD	3.3873427D	01	LON 2.3479986D 02
VE	6.3394250D	03	PTE	5.6563634D	01	AZE 8.7212097D 01

TIME	1	FEB. 1968	20 HRS.,	26 MIN.,	57.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.7369092D 04
X	9.6984308D	06	Y-	9.9529561D	06	Z 9.3220155D 06
DX	6.1014989D	03	DY-	8.4188168D	01	DZ 2.9971663D 03
R	1.6733824D	07	DEC	3.3853837D	01	RA-4.5742052D 01
V	6.7984103D	03	PTH	5.0634698D	01	AZ 8.8892884D 01
ALT	1.0362299D	07	LTGD	3.3921598D	01	LON 2.3640181D 02
VE	6.2054554D	03	PTE	5.7887661D	01	AZE 8.8660743D 01

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TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME	1	FEB. 1968	20 HRS.,	28 MIN.,	50.202 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	1.7481592D	04	
X	1.0379691D	07	Y-9.9572515D	06	Z	9.6542909D	06	
DX	6.0103356D	03	DY	6.2656819D	00	DZ	2.9109415D	03
R	1.7323111D	07	DEC	3.3869761D	01	RA-	4.3810020D	01
V	6.6781550D	03	PTH	5.1411753D	01	AZ	8.9969911D	01
ALT	1.0951591D	07	LTGD	3.3935229D	01	LON	2.3786381D	02
VE	6.0794932D	03	PTE	5.9161878D	01	AZE	9.0069444D	01

TIME	1	FEB. 1968	20 HRS.,	30 MIN.,	42.702 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	1.7594092D	04	
X	1.1050879D	07	Y-9.9518744D	06	Z	9.9771893D	06	
DX	5.9224401D	03	DY	8.7964219D	01	DZ	2.8303702D	03
R	1.7908267D	07	DEC	3.3857380D	01	RA-	4.2004631D	01
V	6.5646043D	03	PTH	5.2137009D	01	AZ	9.0976364D	01
ALT	1.1536743D	07	LTGD	3.3920696D	01	LON	2.3919917D	02
VE	5.9609086D	03	PTE	6.0391627D	01	AZE	9.1447275D	01

TIME	1	FEB. 1968	20 HRS.,	32 MIN.,	35.202 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	1.7706592D	04	
X	1.1712361D	07	Y-9.9377473D	06	Z	1.0291317D	07	
DX	5.8377661D	03	DY	1.6198441D	02	DZ	2.7549291D	03
R	1.8489170D	07	DEC	3.3821900D	01	RA-	4.0314060D	01
V	6.4571965D	03	PTH	5.2815743D	01	AZ	9.1918205D	01
ALT	1.2117633D	07	LTGD	3.3883194D	01	LON	2.4041970D	02
VE	5.8491334D	03	PTE	6.1581433D	01	AZE	9.2803158D	01

TIME	1	FEB. 1968	20 HRS.,	34 MIN.,	27.702 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	1.7819092D	04	
X	1.2364494D	07	Y-9.9156812D	06	Z	1.0597223D	07	
DX	5.7562332D	03	DY	2.2924462D	02	DZ	2.6841525D	03
R	1.9065744D	07	DEC	3.3767578D	01	RA-	3.8727797D	01
V	6.3554267D	03	PTH	5.3452541D	01	AZ	9.2800887D	01
ALT	1.2694188D	07	LTGD	3.3826970D	01	LON	2.4153593D	02
VE	5.7436560D	03	PTE	6.2735128D	01	AZE	9.4145921D	01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 1 FEB. 1968 20 HRS., 36 MIN., 20.202 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.7931592D 04
 X 1.3007627D 07 Y-9.8863912D 06 Z 1.0895410D 07
 DX 5.6777391D 03 DY 2.9053112D 02 DZ 2.6176252D 03
 R 1.9637949D 07 DEC 3.3697906D 01 RA-3.7236492D 01
 V 6.2588410D 03 PTH 5.4051404D 01 AZ 9.3629376D 01
 ALT 1.3266369D 07 LTGD 3.3755508D 01 LON 2.4255721D 02
 VE 5.6440155D 03 PTE 6.3855946D 01 AZE 9.5484380D 01

TIME 1 FEB. 1968 20 HRS., 38 MIN., 12.702 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.8044092D 04
 X 1.3642095D 07 Y-9.8505103D 06 Z 1.1186334D 07
 DX 5.6021683D 03 DY 3.4651979D 02 DZ 2.5549770D 03
 R 2.0205776D 07 DEC 3.3615757D 01 RA-3.5831816D 01
 V 6.1670311D 03 PTH 5.4615838D 01 AZ 9.4408178D 01
 ALT 1.3834167D 07 LTGD 3.3671672D 01 LON 2.4349185D 02
 VE 5.5497962D 03 PTE 6.4946606D 01 AZE 9.6827449D 01

TIME 1 FEB. 1968 20 HRS., 40 MIN., 5.202 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.8156592D 04
 X 1.4268220D 07 Y-9.8086009D 06 Z 1.1470413D 07
 DX 5.5293985D 03 DY 3.9779394D 02 DZ 2.4958776D 03
 R 2.0769235D 07 DEC 3.3523503D 01 RA-3.4506339D 01
 V 6.0796293D 03 PTH 5.5148925D 01 AZ 9.5141380D 01
 ALT 1.4397594D 07 LTGD 3.3577826D 01 LON 2.4434729D 02
 VE 5.4606228D 03 PTE 6.6009374D 01 AZE 9.8184262D 01

TIME 1 FEB. 1968 20 HRS., 41 MIN., 57.702 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.8269092D 04
 X 1.4886310D 07 Y-9.7611644D 06 Z 1.1748029D 07
 DX 5.4593047D 03 DY 4.4485886D 02 DZ 2.4400313D 03
 R 2.1328355D 07 DEC 3.3423105D 01 RA-3.3253422D 01
 V 5.9963039D 03 PTH 5.5653387D 01 AZ 9.5832681D 01
 ALT 1.4956680D 07 LTGD 3.3475924D 01 LON 2.4513018D 02
 VE 5.3761560D 03 PTE 6.7046112D 01 AZE 9.9564309D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	1	FEB. 1968	20 HRS.,	43 MIN.,	50.202 SEC.,	GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 1.8381592D 04			
X	1.5496659D	07	Y-9.7086490D	06	Z	1.2019532D 07
DX	5.3917620D	03	DY 4.8815397D	02	DZ	2.3871736D 03
R	2.1883178D	07	DEC 3.3316190D	01	RA-3.2067121D	01
V	5.9167550D	03	PTH 5.6131635D	01	AZ	9.6485429D 01
ALT	1.5511465D	07	LTGD 3.3367586D	01	LON	2.4584644D 02
VE	5.2960886D	03	PTE 6.8058317D	01	AZE	1.0097760D 02

TIME	1	FEB. 1968	20 HRS.,	45 MIN.,	42.702 SEC.,	GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 1.8494092D 04			
X	1.6099548D	07	Y-9.6514567D	06	Z	1.2285246D 07
DX	5.3266480D	03	DY 5.2806270D	02	DZ	2.3370668D 03
R	2.2433754D	07	DEC 3.3204110D	01	RA-3.0942104D	01
V	5.8407114D	03	PTH 5.6585811D	01	AZ	9.7102652D 01
ALT	1.6062003D	07	LTGD 3.3254160D	01	LON	2.4650143D 02
VE	5.2201417D	03	PTE 6.9047148D	01	AZE	1.0243483D 02

TIME	1	FEB. 1968	20 HRS.,	47 MIN.,	35.202 SEC.,	GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 1.8606592D 04			
X	1.6695242D	07	Y-9.5899492D	06	Z	1.2545467D 07
DX	5.2638438D	03	DY 5.6492086D	02	DZ	2.2894973D 03
R	2.2980143D	07	DEC 3.3087993D	01	RA-2.9873580D	01
V	5.7679273D	03	PTH 5.7017829D	01	AZ	9.7687096D 01
ALT	1.6608352D	07	LTGD 3.3136765D	01	LON	2.4709992D 02
VE	5.1480620D	03	PTE 7.0013447D	01	AZE	1.0394760D 02

TIME	1	FEB. 1968	20 HRS.,	49 MIN.,	27.702 SEC.,	GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 1.8719092D 04			
X	1.7283995D	07	Y-9.5244528D	06	Z	1.2800471D 07
DX	5.2032353D	03	DY 5.9902349D	02	DZ	2.2442724D 03
R	2.3522409D	07	DEC 3.2968778D	01	RA-2.8857233D	01
V	5.6981791D	03	PTH 5.7429398D	01	AZ	9.8241248D 01
ALT	1.7150577D	07	LTGD 3.3016336D	01	LON	2.4764623D 02
VE	5.0796184D	03	PTE 7.0957745D	01	AZE	1.0552862D 02

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TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 1 FEB. 1968 20 HRS., 51 MIN., 20.202 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.8831592D 04
 X 1.7866048D 07 Y-9.4552625D 06 Z 1.3050510D 07
 DX 5.1447131D 03 DY 6.3063067D 02 DZ 2.2012185D 03
 R 2.4060621D 07 DEC 3.2847249D 01 RA-2.7889169D 01
 V 5.6312637D 03 PTH 5.7822053D 01 AZ 9.8767364D 01
 ALT 1.7688747D 07 LTGD 3.2893654D 01 LON 2.4814426D 02
 VE 5.0146003D 03 PTE 7.1880270D 01 AZE 1.0719201D 02

TIME 1 FEB. 1968 20 HRS., 53 MIN., 12.702 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.8944092D 04
 X 1.8441630D 07 Y-9.3826458D 06 Z 1.3295820D 07
 DX 5.0881732D 03 DY 6.5997237D 02 DZ 2.1601781D 03
 R 2.4594849D 07 DEC 3.2724062D 01 RA-2.6965867D 01
 V 5.5669955D 03 PTH 5.8197177D 01 AZ 9.9267494D 01
 ALT 1.8222933D 07 LTGD 3.2769370D 01 LON 2.4859753D 02
 VE 4.9528149D 03 PTE 7.2780931D 01 AZE 1.0895352D 02

TIME 1 FEB. 1968 20 HRS., 55 MIN., 5.202 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.9056592D 04
 X 1.9010957D 07 Y-9.3068460D 06 Z 1.3536620D 07
 DX 5.0335168D 03 DY 6.8725255D 02 DZ 2.1210087D 03
 R 2.5125166D 07 DEC 3.2599767D 01 RA-2.6084135D 01
 V 5.5052053D 03 PTH 5.8556017D 01 AZ 9.9743500D 01
 ALT 1.8753209D 07 LTGD 3.2644030D 01 LON 2.4900923D 02
 VE 4.8940855D 03 PTE 7.3659305D 01 AZE 1.1083096D 02

TIME 1 FEB. 1968 20 HRS., 56 MIN., 57.702 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.9169092D 04
 X 1.9574238D 07 Y-9.2280845D 06 Z 1.3773113D 07
 DX 4.9806508D 03 DY 7.1265256D 02 DZ 2.0835807D 03
 R 2.5651646D 07 DEC 3.2474824D 01 RA-2.5241077D 01
 V 5.4457382D 03 PTH 5.8899700D 01 AZ 1.0019708D 02
 ALT 1.9279646D 07 LTGD 3.2518090D 01 LON 2.4938225D 02
 VE 4.8382498D 03 PTE 7.4514610D 01 AZE 1.1284443D 02

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	1	FEB. 1968	21 HRS.,	26 MIN.,	57.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	2.0969092D 04
X	2.7899290D	07	Y	-7.6896100D	06	Z 1.7094458D 07
DX	4.3196338D	03	DY	9.5684212D	02	DZ 1.6496983D 03
R	3.3611322D	07	DEC	3.0570105D	01	RA-1.5409286D 01
V	4.7218945D	03	PTH	6.2957733D	01	AZ 1.0534887D 02
ALT	2.7238687D	07	LTGD	3.0602020D	01	LON 2.5169351D 02
VE	4.2440615D	03	PTE	8.2254337D	01	AZE-1.7598168D 02

TIME	1	FEB. 1968	21 HRS.,	56 MIN.,	57.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	2.2769092D 04
X	3.5254220D	07	Y	-5.8676189D	06	Z 1.9813804D 07
DX	3.8783866D	03	DY	1.0539046D	03	DZ 1.3906985D 03
R	4.0864114D	07	DEC	2.9003988D	01	RA-9.4495374D 00
V	4.2528390D	03	PTH	6.5468063D	01	AZ 1.0831278D 02
ALT	3.4490974D	07	LTGD	2.9029406D	01	LON 2.5013273D 02
VE	4.0175849D	03	PTE	7.4352410D	01	AZE-1.2090293D 02

TIME	1	FEB. 1968	22 HRS.,	26 MIN.,	57.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	2.4569092D 04
X	4.1932526D	07	Y	-3.9278325D	06	Z 2.2150405D 07
DX	3.5571173D	03	DY	1.0955601D	03	DZ 1.2155940D 03
R	4.7585766D	07	DEC	2.7741539D	01	RA-5.3512982D 00
V	3.9154826D	03	PTH	6.7215042D	01	AZ 1.1026189D 02
ALT	4.1212232D	07	LTGD	2.7762742D	01	LON 2.4671043D 02
VE	4.0031708D	03	PTE	6.4385203D	01	AZE-1.0771031D 02

TIME	1	FEB. 1968	22 HRS.,	56 MIN.,	57.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	2.6369092D 04
X	4.8103479D	07	Y	-1.9383560D	06	Z 2.4217947D 07
DX	3.3092412D	03	DY	1.1121162D	03	DZ 1.0877235D 03
R	5.3890731D	07	DEC	2.6704543D	01	RA-2.3075163D 00
V	3.6566409D	03	PTH	6.8520289D	01	AZ 1.1165548D 02
ALT	4.7516882D	07	LTGD	2.6722785D	01	LON 2.4223368D 02
VE	4.1179860D	03	PTE	5.5716261D	01	AZE-1.0232632D 02

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	1	FEB. 1968	23	HRS.,	26	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 2.8169092D 04						
X	5.3874809D	07	Y	6.8288232D	04	Z	2.6083756D	07	
DX	3.1100423D	03	DY	1.1159797D	03	DZ	9.8934271D	02	
R	5.9857013D	07	DEC	2.5834156D	01	RA	7.2624391D	-02	
V	3.4491409D	03	PTH	6.9542837D	01	AZ	1.1271006D	02	
ALT	5.3482906D	07	LTGD	2.5850201D	01	LON	2.3709329D	02	
VE	4.3119680D	03	PTE	4.8540383D	01	AZE	-9.9400544D	01	

TIME	1	FEB. 1968	23	HRS.,	56	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 2.9969092D 04						
X	5.9320075D	07	Y	2.0751012D	06	Z	2.7791380D	07	
DX	2.9450871D	03	DY	1.1129738D	03	DZ	9.1074992D	02	
R	6.5540355D	07	DEC	2.5089572D	01	RA	2.0034713D	00	
V	3.2774554D	03	PTH	7.0371476D	01	AZ	1.1354137D	02	
ALT	5.9166033D	07	LTGD	2.5103919D	01	LON	2.3150361D	02	
VE	4.5539793D	03	PTE	4.2675493D	01	AZE	-9.7560323D	01	

TIME	2	FEB. 1968	0	HRS.,	26	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 3.1769092D 04						
X	6.4492175D	07	Y	4.0726998D	06	Z	2.9370817D	07	
DX	2.8053177D	03	DY	1.1061021D	03	DZ	8.4615952D	02	
R	7.0982198D	07	DEC	2.4442335D	01	RA	3.6134467D	00	
V	3.1319730D	03	PTH	7.1060195D	01	AZ	1.1421718D	02	
ALT	6.4607692D	07	LTGD	2.4455328D	01	LON	2.2559305D	02	
VE	4.8246061D	03	PTE	3.7879377D	01	AZE	-9.6296710D	01	

TIME	2	FEB. 1968	0	HRS.,	56	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 3.3569092D 04						
X	6.9430690D	07	Y	6.0557566D	06	Z	3.0843723D	07	
DX	2.6847263D	03	DY	1.0970215D	03	DZ	7.9188932D	02	
R	7.6214357D	07	DEC	2.3872141D	01	RA	4.9847327D	00	
V	3.0063766D	03	PTH	7.1643969D	01	AZ	1.1477992D	02	
ALT	6.9839691D	07	LTGD	2.3884030D	01	LON	2.1944380D	02	
VE	5.1117192D	03	PTE	3.3930893D	01	AZE	-9.5376636D	01	

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	2	FEB. 1968	1	HRS.,	26	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	3.5369092D	04
X	7.4166176D	07	Y	8.0212361D	06	Z	3.2226317D	07	
DX	2.5791494D	03	DY	1.0866934D	03	DZ	7.4547463D	02	
R	8.1261906D	07	DEC	2.3364143D	01	RA	6.1726726D	00	
V	2.8963160D	03	PTH	7.2146595D	01	AZ	1.1525761D	02	
ALT	7.4887102D	07	LTGD	2.3375111D	01	LON	2.1311121D	02	
VE	5.4076971D	03	PTE	3.0649579D	01	AZE	-9.4677903D	01	

TIME	2	FEB. 1968	1	HRS.,	56	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	3.7169092D	04
X	7.8722827D	07	Y	9.9674556D	06	Z	3.3531105D	07	
DX	2.4855969D	03	DY	1.0756960D	03	DZ	7.0519759D	02	
R	8.6145044D	07	DEC	2.2907223D	01	RA	7.2160817D	00	
V	2.7986814D	03	PTH	7.2584907D	01	AZ	1.1566956D	02	
ALT	7.9770117D	07	LTGD	2.2917412D	01	LON	2.0663408D	02	
VE	5.7077134D	03	PTE	2.7894550D	01	AZE	-9.4130120D	01	

TIME	2	FEB. 1968	2	HRS.,	26	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	3.8969092D	04
X	8.3120203D	07	Y	1.1893557D	07	Z	3.4767963D	07	
DX	2.4018584D	03	DY	1.0643862D	03	DZ	6.6982071D	02	
R	9.0880339D	07	DEC	2.2492876D	01	RA	8.1431000D	00	
V	2.7111808D	03	PTH	7.2971201D	01	AZ	1.1602953D	02	
ALT	8.4505301D	07	LTGD	2.2502398D	01	LON	2.0004057D	02	
VE	6.0086903D	03	PTE	2.5557596D	01	AZE	-9.3689836D	01	

TIME	2	FEB. 1968	2	HRS.,	56	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	4.0769092D	04
X	8.7374393D	07	Y	1.3799195D	07	Z	3.5944846D	07	
DX	2.3262583D	03	DY	1.0529885D	03	DZ	6.3842763D	02	
R	9.5481591D	07	DEC	2.2114477D	01	RA	8.9746978D	00	
V	2.6320814D	03	PTH	7.3314695D	01	AZ	1.1634761D	02	
ALT	8.9106454D	07	LTGD	2.2123419D	01	LON	1.9335163D	02	
VE	6.3086577D	03	PTE	2.3555836D	01	AZE	-9.3328763D	01	

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 2 FEB. 1968 3 HRS., 26 MIN., 57.702 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 4.2569092D 04
 X 9.1498832D 07 Y 1.5684349D 07 Z 3.7068272D 07
 DX 2.2575004D 03 DY 1.0416450D 03 DZ 6.1032390D 02
 R 9.9960452D 07 DEC 2.1766775D 01 RA 9.7268692D 00
 V 2.5600444D 03 PTH 7.3622460D 01 AZ 1.1663140D 02
 ALT 9.3585225D 07 LTGD 2.1775209D 01 LON 1.8658327D 02
 VE 6.6063569D 03 PTE 2.1825534D 01 AZE-9.3027693D 01

TIME 2 FEB. 1968 3 HRS., 56 MIN., 57.702 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 4.4369092D 04
 X 9.5504882D 07 Y 1.7549204D 07 Z 3.8143661D 07
 DX 2.1945630D 03 DY 1.0304457D 03 DZ 5.8497253D 02
 R 1.0432687D 08 DEC 2.1445548D 01 RA 1.0412058D 01
 V 2.4940165D 03 PTH 7.3900022D 01 AZ 1.1688674D 02
 ALT 9.7951562D 07 LTGD 2.1453533D 01 LON 1.7974793D 02
 VE 6.9009917D 03 PTE 2.0317312D 01 AZE-9.2773127D 01

TIME 2 FEB. 1968 4 HRS., 26 MIN., 57.702 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 4.6169092D 04
 X 9.9402258D 07 Y 1.9394074D 07 Z 3.9175570D 07
 DX 2.1366288D 03 DY 1.0194469D 03 DZ 5.6195114D 02
 R 1.0858943D 08 DEC 2.1147356D 01 RA 1.1040113D 01
 V 2.4331551D 03 PTH 7.4151770D 01 AZ 1.1711817D 02
 ALT 1.0221405D 08 LTGD 2.1154940D 01 LON 1.7285545D 02
 VE 7.1920710D 03 PTE 1.8992566D 01 AZE-9.2555302D 01

TIME 2 FEB. 1968 4 HRS., 56 MIN., 57.702 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 4.7969092D 04
 X 1.0319935D 08 Y 2.1219354D 07 Z 4.0167879D 07
 DX 2.0830345D 03 DY 1.0086825D 03 DZ 5.4092239D 02
 R 1.1275560D 08 DEC 2.0869364D 01 RA 1.1618948D 01
 V 2.3767772D 03 PTH 7.4381247D 01 AZ 1.1732931D 02
 ALT 1.0638014D 08 LTGD 2.0876590D 01 LON 1.6591375D 02
 VE 7.4793060D 03 PTE 1.7820821D 01 AZE-9.2366990D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 2 FEB. 1968 5 HRS., 26 MIN., 57.702 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 4.9769092D 04
 X 1.0690346D 08 Y 2.3025484D 07 Z 4.1123921D 07
 DX 2.0332351D 03 DY 9.9817166D 02 DZ 5.2161326D 02
 R 1.1683193D 08 DEC 2.0609211D 01 RA 1.2155004D 01
 V 2.3243219D 03 PTH 7.4591341D 01 AZ 1.1752308D 02
 ALT 1.1045641D 08 LTGD 2.0616114D 01 LON 1.5892927D 02
 VE 7.7625440D 03 PTE 1.6777782D 01 AZE-9.2202722D 01

TIME 2 FEB. 1968 5 HRS., 56 MIN., 57.702 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.1569092D 04
 X 1.1052100D 08 Y 2.4812930D 07 Z 4.2046584D 07
 DX 1.9867785D 03 DY 9.8792374D 02 DZ 5.0380012D 02
 R 1.2082420D 08 DEC 2.0364913D 01 RA 1.2653589D 01
 V 2.2753234D 03 PTH 7.4784442D 01 AZ 1.1770185D 02
 ALT 1.1444862D 08 LTGD 2.0371522D 01 LON 1.5190733D 02
 VE 8.0417232D 03 PTE 1.5843900D 01 AZE-9.2058290D 01

TIME 2 FEB. 1968 6 HRS., 26 MIN., 57.702 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.3369092D 04
 X 1.1405764D 08 Y 2.6582168D 07 Z 4.2938388D 07
 DX 1.9432853D 03 DY 9.7794142D 02 DZ 4.8729790D 02
 R 1.2473757D 08 DEC 2.0134785D 01 RA 1.3119119D 01
 V 2.2293915D 03 PTH 7.4962540D 01 AZ 1.1786759D 02
 ALT 1.1836194D 08 LTGD 2.0141127D 01 LON 1.4485232D 02
 VE 8.3168433D 03 PTE 1.5003293D 01 AZE-9.1930403D 01

TIME 2 FEB. 1968 6 HRS., 56 MIN., 57.702 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.5169092D 04
 X 1.1751841D 08 Y 2.8333677D 07 Z 4.3801549D 07
 DX 1.9024350D 03 DY 9.6822294D 02 DZ 4.7195192D 02
 R 1.2857663D 08 DEC 1.9917390D 01 RA 1.3555305D 01
 V 2.1861960D 03 PTH 7.5127313D 01 AZ 1.1802193D 02
 ALT 1.2220094D 08 LTGD 1.9923487D 01 LON 1.3776798D 02
 VE 8.5879448D 03 PTE 1.4242953D 01 AZE-9.1816452D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	2	FEB. 1968	7	HRS.,	26	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 5.6969092D 04						
X	1.2090782D	08	Y	3.0067927D	07	Z	4.4638030D	07	
DX	1.8639539D	03	DY	9.5876362D	02	DZ	4.5763179D	02	
R	1.3234552D	08	DEC	1.9711488D	01	RA	1.3965293D	01	
V	2.1454554D	03	PTH	7.5280184D	01	AZ	1.1816623D	02	
ALT	1.2596978D	08	LTGD	1.9717360D	01	LON	1.3065743D	02	
VE	8.8550953D	03	PTE	1.3552135D	01	AZE	-9.1714341D	01	

TIME	2	FEB. 1968	7	HRS.,	56	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 5.8769092D 04						
X	1.2422992D	08	Y	3.1785378D	07	Z	4.5449573D	07	
DX	1.8276076D	03	DY	9.4955687D	02	DZ	4.4422676D	02	
R	1.3604796D	08	DEC	1.9516007D	01	RA	1.4351768D	01	
V	2.1069279D	03	PTH	7.5422370D	01	AZ	1.1830167D	02	
ALT	1.2967218D	08	LTGD	1.9521672D	01	LON	1.2352337D	02	
VE	9.1183798D	03	PTE	1.2921895D	01	AZE	-9.1622372D	01	

TIME	2	FEB. 1968	8	HRS.,	26	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 6.0569092D 04						
X	1.2748837D	08	Y	3.3486478D	07	Z	4.6237738D	07	
DX	1.7931929D	03	DY	9.4059495D	02	DZ	4.3164204D	02	
R	1.3968735D	08	DEC	1.9330014D	01	RA	1.4717040D	01	
V	2.0704044D	03	PTH	7.5554919D	01	AZ	1.1842923D	02	
ALT	1.3331153D	08	LTGD	1.9335486D	01	LON	1.1636811D	02	
VE	9.3778937D	03	PTE	1.2344734D	01	AZE	-9.1539150D	01	

TIME	2	FEB. 1968	8	HRS.,	56	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 6.2369092D 04						
X	1.3068647D	08	Y	3.5171661D	07	Z	4.7003927D	07	
DX	1.7605335D	03	DY	9.3186939D	02	DZ	4.1979601D	02	
R	1.4326678D	08	DEC	1.9152687D	01	RA	1.5063108D	01	
V	2.0357032D	03	PTH	7.5678741D	01	AZ	1.1854977D	02	
ALT	1.3689091D	08	LTGD	1.9157982D	01	LON	1.0919365D	02	
VE	9.6337387D	03	PTE	1.1814326D	01	AZE	-9.1463523D	01	

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	2	FEB. 1968	9	HRS.,	26	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	6.4169092D	04
X	1.3382725D	08	Y	3.6841345D	07	Z	4.7749404D	07	
DX	1.7294752D	03	DY	9.2337142D	02	DZ	4.0861792D	02	
R	1.4678904D	08	DEC	1.8983308D	01	RA	1.5391713D	01	
V	2.0026652D	03	PTH	7.5794626D	01	AZ	1.1866402D	02	
ALT	1.4041314D	08	LTGD	1.8988437D	01	LON	1.0200172D	02	
VE	9.8860192D	03	PTE	1.1325296D	01	AZE	-9.1394528D	01	

TIME	2	FEB. 1968	9	HRS.,	56	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	6.5969092D	04
X	1.3691346D	08	Y	3.8495930D	07	Z	4.8475315D	07	
DX	1.6998823D	03	DY	9.1509215D	02	DZ	3.9804615D	02	
R	1.5025674D	08	DEC	1.8821237D	01	RA	1.5704378D	01	
V	1.9711505D	03	PTH	7.5903268D	01	AZ	1.1877264D	02	
ALT	1.4388080D	08	LTGD	1.8826211D	01	LON	9.4793850D	01	
VE	1.0134840D	04	PTE	1.0873051D	01	AZE	-9.1331359D	01	

TIME	2	FEB. 1968	10	HRS.,	26	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	6.7769092D	04
X	1.3994763D	08	Y	4.0135802D	07	Z	4.9182702D	07	
DX	1.6716350D	03	DY	9.0702276D	02	DZ	3.8802670D	02	
R	1.5367225D	08	DEC	1.8665907D	01	RA	1.6002444D	01	
V	1.9410355D	03	PTH	7.6005279D	01	AZ	1.1887619D	02	
ALT	1.4729627D	08	LTGD	1.8670736D	01	LON	8.7571384D	01	
VE	1.0380305D	04	PTE	1.0453647D	01	AZE	-9.1273331D	01	

TIME	2	FEB. 1968	10	HRS.,	56	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	6.9569092D	04
X	1.4293209D	08	Y	4.1761332D	07	Z	4.9872514D	07	
DX	1.6446273D	03	DY	8.9915461D	02	DZ	3.7851207D	02	
R	1.5703776D	08	DEC	1.8516813D	01	RA	1.6287097D	01	
V	1.9122106D	03	PTH	7.6101198D	01	AZ	1.1897516D	02	
ALT	1.5066175D	08	LTGD	1.8521506D	01	LON	8.0335503D	01	
VE	1.0622516D	04	PTE	1.0063677D	01	AZE	-9.1219863D	01	

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	2	FEB. 1968	11 HRS.,	26 MIN.,	57.702 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	7.1369092D	04
X	1.4586898D	08	Y	4.3372875D	07	Z	5.0545623D 07
DX	1.6187644D	03	DY	8.9147930D	02	DZ	3.6946024D 02
R	1.6035531D	08	DEC	1.8373500D	01	RA	1.6559388D 01
V	1.8845780D	03	PTH	7.6191505D	01	AZ	1.1907000D 02
ALT	1.5397927D	08	LTGD	1.8378066D	01	LON	7.3087261D 01
VE	1.0861572D	04	PTE	9.7001857D	00	AZE	-9.1170454D 01

TIME	2	FEB. 1968	11 HRS.,	56 MIN.,	57.702 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	7.3169092D	04
X	1.4876028D	08	Y	4.4970769D	07	Z	5.1202826D 07
DX	1.5939618D	03	DY	8.8398873D	02	DZ	3.6083395D 02
R	1.6362677D	08	DEC	1.8235562D	01	RA	1.6820255D 01
V	1.8580504D	03	PTH	7.6276628D	01	AZ	1.1916110D 02
ALT	1.5725070D	08	LTGD	1.8240008D	01	LON	6.5827595D 01
VE	1.1097569D	04	PTE	9.3605952D	00	AZE	-9.1124677D 01

TIME	2	FEB. 1968	12 HRS.,	26 MIN.,	57.702 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	7.4969092D	04
X	1.5160783D	08	Y	4.6555340D	07	Z	5.1844860D 07
DX	1.5701435D	03	DY	8.7667512D	02	DZ	3.5259995D 02
R	1.6685390D	08	DEC	1.8102631D	01	RA	1.7070538D 01
V	1.8325492D	03	PTH	7.6356952D	01	AZ	1.1924880D 02
ALT	1.6047780D	08	LTGD	1.8106963D	01	LON	5.8557345D 01
VE	1.1330599D	04	PTE	9.0426494D	00	AZE	-9.1082157D 01

TIME	2	FEB. 1968	12 HRS.,	56 MIN.,	57.702 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	7.6769092D	04
X	1.5441334D	08	Y	4.8126901D	07	Z	5.2472403D 07
DX	1.5472412D	03	DY	8.6953102D	02	DZ	3.4472853D 02
R	1.7003833D	08	DEC	1.7974375D	01	RA	1.7310991D 01
V	1.8080037D	03	PTH	7.6432819D	01	AZ	1.1933343D 02
ALT	1.6366220D	08	LTGD	1.7978599D	01	LON	5.1277265D 01
VE	1.1560752D	04	PTE	8.7443649D	00	AZE	-9.1042573D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	2	FEB. 1968	13	HRS.,	26	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	7.8569092D	04
X	1.5717841D	08	Y	4.9685749D	07	Z	5.3086084D	07	
DX	1.5251932D	03	DY	8.6254933D	02	DZ	3.3719302D	02	
R	1.7318158D	08	DEC	1.7850491D	01	RA	1.7542292D	01	
V	1.7843499D	03	PTH	7.6504540D	01	AZ	1.1941526D	02	
ALT	1.6680542D	08	LTGD	1.7854614D	01	LON	4.3988033D	01	
VE	1.1788112D	04	PTE	8.4639913D	00	AZE	-9.1005641D	01	

TIME	2	FEB. 1968	13	HRS.,	56	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	8.0369092D	04
X	1.5990452D	08	Y	5.1232172D	07	Z	5.3686485D	07	
DX	1.5039435D	03	DY	8.5572327D	02	DZ	3.2996939D	02	
R	1.7628508D	08	DEC	1.7730704D	01	RA	1.7765056D	01	
V	1.7615300D	03	PTH	7.6572396D	01	AZ	1.1949455D	02	
ALT	1.6990890D	08	LTGD	1.7734731D	01	LON	3.6690264D	01	
VE	1.2012761D	04	PTE	8.1999782D	00	AZE	-9.0971113D	01	

TIME	2	FEB. 1968	14	HRS.,	26	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	8.2169092D	04
X	1.6259306D	08	Y	5.2766443D	07	Z	5.4274148D	07	
DX	1.4834413D	03	DY	8.4904641D	02	DZ	3.2303596D	02	
R	1.7935017D	08	DEC	1.7614766D	01	RA	1.7979838D	01	
V	1.7394913D	03	PTH	7.6636641D	01	AZ	1.1957154D	02	
ALT	1.7297396D	08	LTGD	1.7618701D	01	LON	2.9384513D	01	
VE	1.2234779D	04	PTE	7.9509478D	00	AZE	-9.0938771D	01	

TIME	2	FEB. 1968	14	HRS.,	56	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	8.3969092D	04
X	1.6524533D	08	Y	5.4288825D	07	Z	5.4849577D	07	
DX	1.4636403D	03	DY	8.4251262D	02	DZ	3.1637308D	02	
R	1.8237810D	08	DEC	1.7502445D	01	RA	1.8187145D	01	
V	1.7181858D	03	PTH	7.6697508D	01	AZ	1.1964644D	02	
ALT	1.7600187D	08	LTGD	1.7506294D	01	LON	2.2071287D	01	
VE	1.2454239D	04	PTE	7.7156719D	00	AZE	-9.0908421D	01	

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	2	FEB. 1968	15 HRS.,	26 MIN.,	57.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	8.5769092D 04
X	1.6786256D	08	Y	5.5799570D	07	Z 5.5413243D 07
DX	1.4444983D	03	DY	8.3611609D	02	DZ 3.0996289D 02
R	1.8537006D	08	DEC	1.7393532D	01	RA 1.8387438D 01
V	1.6975696D	03	PTH	7.6755206D	01	AZ 1.1971945D 02
ALT	1.7899380D	08	LTGD	1.7397298D	01	LON 1.4751046D 01
VE	1.2671213D	04	PTE	7.4930516D	00	AZE-9.0879892D 01

TIME	2	FEB. 1968	15 HRS.,	56 MIN.,	57.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	8.7569092D 04
X	1.7044589D	08	Y	5.7298922D	07	Z 5.5965585D 07
DX	1.4259766D	03	DY	8.2985130D	02	DZ 3.0378916D 02
R	1.8832715D	08	DEC	1.7287834D	01	RA 1.8581137D 01
V	1.6776025D	03	PTH	7.6809928D	01	AZ 1.1979073D 02
ALT	1.8195087D	08	LTGD	1.7291521D	01	LON 7.4242124D 00
VE	1.2885770D	04	PTE	7.2821016D	00	AZE-9.0853031D 01

TIME	2	FEB. 1968	16 HRS.,	26 MIN.,	57.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	8.9369092D 04
X	1.7299642D	08	Y	5.8787111D	07	Z 5.6507017D 07
DX	1.4080396D	03	DY	8.2371301D	02	DZ 2.9783704D 02
R	1.9125044D	08	DEC	1.7185173D	01	RA 1.8768629D 01
V	1.6582478D	03	PTH	7.6861852D	01	AZ 1.1986047D 02
ALT	1.8487414D	08	LTGD	1.7188785D	01	LON 9.1170814D-02
VE	1.3097975D	04	PTE	7.0819354D	00	AZE-9.0827701D 01

TIME	2	FEB. 1968	16 HRS.,	56 MIN.,	57.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	9.1169092D 04
X	1.7551517D	08	Y	6.0264361D	07	Z 5.7037924D 07
DX	1.3906548D	03	DY	8.1769625D	02	DZ 2.9209296D 02
R	1.9414091D	08	DEC	1.7085385D	01	RA 1.8950267D 01
V	1.6394713D	03	PTH	7.6911141D	01	AZ 1.1992880D 02
ALT	1.8776459D	08	LTGD	1.7088925D	01	LON 3.5275224D 02
VE	1.3307891D	04	PTE	6.8917535D	00	AZE-9.0803782D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 2 FEB. 1968 17 HRS., 26 MIN., 57.702 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 9.2969092D 04
 X 1.7800309D 08 Y 6.1730887D 07 Z 5.7558669D 07
 DX 1.3737920D 03 DY 8.1179628D 02 DZ 2.8654448D 02
 R 1.9699950D 08 DEC 1.6988317D 01 RA 1.9126377D 01
 V 1.6212420D 03 PTH 7.6957942D 01 AZ 1.1999588D 02
 ALT 1.9062316D 08 LTGD 1.6991788D 01 LON 3.4540782D 02
 VE 1.3515577D 04 PTE 6.7108333D 00 AZE-9.0781163D 01

TIME 2 FEB. 1968 17 HRS., 56 MIN., 57.702 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 9.4769092D 04
 X 1.8046112D 08 Y 6.3186895D 07 Z 5.8069594D 07
 DX 1.3574236D 03 DY 8.0600862D 02 DZ 2.8118016D 02
 R 1.9982712D 08 DEC 1.6893830D 01 RA 1.9297259D 01
 V 1.6035308D 03 PTH 7.7002395D 01 AZ 1.2006184D 02
 ALT 1.9345075D 08 LTGD 1.6897235D 01 LON 3.3805816D 02
 VE 1.3721092D 04 PTE 6.5385195D 00 AZE-9.0759746D 01

TIME 2 FEB. 1968 18 HRS., 26 MIN., 57.702 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 9.6569092D 04
 X 1.8289010D 08 Y 6.4632583D 07 Z 5.8571022D 07
 DX 1.3415238D 03 DY 8.0032901D 02 DZ 2.7598947D 02
 R 2.0262459D 08 DEC 1.6801793D 01 RA 1.9463190D 01
 V 1.5863111D 03 PTH 7.7044627D 01 AZ 1.2012680D 02
 ALT 1.9624821D 08 LTGD 1.6805135D 01 LON 3.3070356D 02
 VE 1.3924490D 04 PTE 6.3742173D 00 AZE-9.0739442D 01

TIME 2 FEB. 1968 18 HRS., 56 MIN., 57.702 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 9.8369092D 04
 X 1.8529087D 08 Y 6.6068142D 07 Z 5.9063255D 07
 DX 1.3260689D 03 DY 7.9475340D 02 DZ 2.7096269D 02
 R 2.0539273D 08 DEC 1.6712084D 01 RA 1.9624428D 01
 V 1.5695580D 03 PTH 7.7084755D 01 AZ 1.2019088D 02
 ALT 1.9901633D 08 LTGD 1.6715365D 01 LON 3.2334427D 02
 VE 1.4125824D 04 PTE 6.2173848D 00 AZE-9.0720169D 01

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TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 2 FEB. 1968 19 HRS., 26 MIN., 57.702 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 1.0016909D 05
X 1.8766420D 08 Y 6.7493756D 07 Z 5.9546580D 07
DX 1.3110368D 03 DY 7.8927793D 02 DZ 2.6609083D 02
R 2.0813230D 08 DEC 1.6624591D 01 RA 1.9781208D 01
V 1.5532487D 03 PTH 7.7122890D 01 AZ 1.2025418D 02
ALT 2.0175589D 08 LTGD 1.6627814D 01 LON 3.1598052D 02
VE 1.4325143D 04 PTE 6.0675279D 00 AZE-9.0701855D 01

TIME 2 FEB. 1968 19 HRS., 56 MIN., 57.702 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 1.0196909D 05
X 1.9001084D 08 Y 6.8909601D 07 Z 6.0021270D 07
DX 1.2964070D 03 DY 7.8389895D 02 DZ 2.6136558D 02
R 2.1084403D 08 DEC 1.6539208D 01 RA 1.9933753D 01
V 1.5373616D 03 PTH 7.7159134D 01 AZ 1.2031682D 02
ALT 2.0446760D 08 LTGD 1.6542375D 01 LON 3.0861253D 02
VE 1.4522497D 04 PTE 5.9241948D 00 AZE-9.0684434D 01

TIME 2 FEB. 1968 20 HRS., 26 MIN., 57.702 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 1.0376909D 05
X 1.9233150D 08 Y 7.0315848D 07 Z 6.0487580D 07
DX 1.2821605D 03 DY 7.7861295D 02 DZ 2.5677923D 02
R 2.1352862D 08 DEC 1.6455837D 01 RA 2.0082267D 01
V 1.5218769D 03 PTH 7.7193580D 01 AZ 1.2037889D 02
ALT 2.0715217D 08 LTGD 1.6458950D 01 LON 3.0124051D 02
VE 1.4717932D 04 PTE 5.7869717D 00 AZE-9.0667845D 01

TIME 2 FEB. 1968 20 HRS., 56 MIN., 57.702 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 1.0556909D 05
X 1.9462684D 08 Y 7.1712661D 07 Z 6.0945754D 07
DX 1.2682794D 03 DY 7.7341663D 02 DZ 2.5232461D 02
R 2.1618672D 08 DEC 1.6374385D 01 RA 2.0226941D 01
V 1.5067759D 03 PTH 7.7226319D 01 AZ 1.2044049D 02
ALT 2.0981025D 08 LTGD 1.6377447D 01 LON 2.9386465D 02
VE 1.4911491D 04 PTE 5.6554790D 00 AZE-9.0652033D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	2	FEB. 1968	21 HRS.,	26 MIN.,	57.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.0736909D 05
X	1.9689751D	08	Y	7.3100199D	07	Z 6.1396023D 07
DX	1.2547471D	03	DY	7.6830682D	02	DZ 2.4799505D 02
R	2.1881897D	08	DEC	1.6294768D	01	RA 2.0367954D 01
V	1.4920413D	03	PTH	7.7257432D	01	AZ 1.2050171D 02
ALT	2.1244249D	08	LTGD	1.6297779D	01	LON 2.8648513D 02
VE	1.5103219D	04	PTE	5.5293677D	00	AZE-9.0636946D 01

TIME	2	FEB. 1968	21 HRS.,	56 MIN.,	57.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.0916909D 05
X	1.9914413D	08	Y	7.4478616D	07	Z 6.1838607D 07
DX	1.2415482D	03	DY	7.6328051D	02	DZ 2.4378432D 02
R	2.2142597D	08	DEC	1.6216903D	01	RA 2.0505470D 01
V	1.4776569D	03	PTH	7.7286997D	01	AZ 1.2056263D 02
ALT	2.1504947D	08	LTGD	1.6219867D	01	LON 2.7910211D 02
VE	1.5293155D	04	PTE	5.4083165D	00	AZE-9.0622540D 01

TIME	2	FEB. 1968	22 HRS.,	26 MIN.,	57.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.1096909D 05
X	2.0136728D	08	Y	7.5848058D	07	Z 6.2273715D 07
DX	1.2286682D	03	DY	7.5833480D	02	DZ 2.3968664D 02
R	2.2400831D	08	DEC	1.6140715D	01	RA 2.0639647D 01
V	1.4636075D	03	PTH	7.7315088D	01	AZ 1.2062333D 02
ALT	2.1763180D	08	LTGD	1.6143632D	01	LON 2.7171576D 02
VE	1.5481340D	04	PTE	5.2920292D	00	AZE-9.0608772D 01

TIME	2	FEB. 1968	22 HRS.,	56 MIN.,	57.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.1276909D 05
X	2.0356752D	08	Y	7.7208668D	07	Z 6.2701544D 07
DX	1.2160933D	03	DY	7.5346697D	02	DZ 2.3569657D 02
R	2.2656654D	08	DEC	1.6066133D	01	RA 2.0770630D 01
V	1.4498787D	03	PTH	7.7341771D	01	AZ 1.2068391D 02
ALT	2.2019001D	08	LTGD	1.6069005D	01	LON 2.6432621D 02
VE	1.5667811D	04	PTE	5.1802319D	00	AZE-9.0595602D 01

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TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 2 FEB. 1968 23 HRS., 26 MIN., 57.702 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 1.1456909D 05
X 2.0574539D 08 Y 7.8560584D 07 Z 6.3122284D 07
DX 1.2038109D 03 DY 7.4867438D 02 DZ 2.3180905D 02
R 2.2910118D 08 DEC 1.5993089D 01 RA 2.0898555D 01
V 1.4364573D 03 PTH 7.7367113D 01 AZ 1.2074444D 02
ALT 2.2272464D 08 LTGD 1.5995918D 01 LON 2.5693360D 02
VE 1.5852604D 04 PTE 5.0726715D 00 AZE-9.0582994D 01

TIME 2 FEB. 1968 23 HRS., 56 MIN., 57.702 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 1.1636909D 05
X 2.0790141D 08 Y 7.9903939D 07 Z 6.3536115D 07
DX 1.1918090D 03 DY 7.4395453D 02 DZ 2.2801930D 02
R 2.3161276D 08 DEC 1.5921520D 01 RA 2.1023551D 01
V 1.4233305D 03 PTH 7.7391172D 01 AZ 1.2080499D 02
ALT 2.2523621D 08 LTGD 1.5924307D 01 LON 2.4953806D 02
VE 1.6035756D 04 PTE 4.9691135D 00 AZE-9.0570917D 01

TIME 3 FEB. 1968 0 HRS., 26 MIN., 57.702 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 1.1816909D 05
X 2.1003606D 08 Y 8.1238862D 07 Z 6.3943209D 07
DX 1.1800763D 03 DY 7.3930502D 02 DZ 2.2432288D 02
R 2.3410176D 08 DEC 1.5851367D 01 RA 2.1145737D 01
V 1.4104867D 03 PTH 7.7414007D 01 AZ 1.2086564D 02
ALT 2.2772519D 08 LTGD 1.5854113D 01 LON 2.4213971D 02
VE 1.6217299D 04 PTE 4.8693401D 00 AZE-9.0559338D 01

TIME 3 FEB. 1968 0 HRS., 56 MIN., 57.702 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 1.1996909D 05
X 2.1214983D 08 Y 8.2565478D 07 Z 6.4343731D 07
DX 1.1686021D 03 DY 7.3472356D 02 DZ 2.2071557D 02
R 2.3656865D 08 DEC 1.5782572D 01 RA 2.1265227D 01
V 1.3979145D 03 PTH 7.7435671D 01 AZ 1.2092646D 02
ALT 2.3019207D 08 LTGD 1.5785279D 01 LON 2.3473867D 02
VE 1.6397266D 04 PTE 4.7731493D 00 AZE-9.0548230D 01

TABLE 10- VI . TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	3	FEB. 1968	1	HRS.,	26	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 1.2176909D 05						
X	2.1424318D	08	Y	8.3883907D	07	Z	6.4737836D	07	
DX	1.1573767D	03	DY	7.3020795D	02	DZ	2.1719344D	02	
R	2.3901388D	08	DEC	1.5715083D	01	RA	2.1382128D	01	
V	1.3856036D	03	PTH	7.7456216D	01	AZ	1.2098754D	02	
ALT	2.3263729D	08	LTGD	1.5717752D	01	LON	2.2733504D	02	
VE	1.6575690D	04	PTE	4.6803530D	00	AZE	-9.0537567D	01	

TIME	3	FEB. 1968	1	HRS.,	56	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 1.2356909D 05						
X	2.1631653D	08	Y	8.5194265D	07	Z	6.5125676D	07	
DX	1.1463904D	03	DY	7.2575608D	02	DZ	2.1375277D	02	
R	2.4143790D	08	DEC	1.5648849D	01	RA	2.1496540D	01	
V	1.3735440D	03	PTH	7.7475691D	01	AZ	1.2104893D	02	
ALT	2.3506129D	08	LTGD	1.5651481D	01	LON	2.1992892D	02	
VE	1.6752600D	04	PTE	4.5907761D	00	AZE	-9.0527324D	01	

TIME	3	FEB. 1968	2	HRS.,	26	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 1.2536909D 05						
X	2.1837032D	08	Y	8.6496666D	07	Z	6.5507393D	07	
DX	1.1356346D	03	DY	7.2136593D	02	DZ	2.1039004D	02	
R	2.4384112D	08	DEC	1.5583821D	01	RA	2.1608558D	01	
V	1.3617263D	03	PTH	7.7494142D	01	AZ	1.2111072D	02	
ALT	2.3746449D	08	LTGD	1.5586418D	01	LON	2.1252040D	02	
VE	1.6928025D	04	PTE	4.5042553D	00	AZE	-9.0517479D	01	

TIME	3	FEB. 1968	2	HRS.,	56	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 1.2716909D 05						
X	2.2040495D	08	Y	8.7791218D	07	Z	6.5883125D	07	
DX	1.1251007D	03	DY	7.1703557D	02	DZ	2.0710196D	02	
R	2.4622394D	08	DEC	1.5519956D	01	RA	2.1718272D	01	
V	1.3501417D	03	PTH	7.7511612D	01	AZ	1.2117296D	02	
ALT	2.3984730D	08	LTGD	1.5522518D	01	LON	2.0510958D	02	
VE	1.7101995D	04	PTE	4.4206382D	00	AZE	-9.0508011D	01	

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	3	FEB. 1968	3	HRS.,	26	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	1.2896909D	05
X	2.2242081D	08	Y	8.9078028D	07	Z	6.6253003D	07	
DX	1.1147808D	03	DY	7.1276314D	02	DZ	2.0388538D	02	
R	2.4858675D	08	DEC	1.5457209D	01	RA	2.1825766D	01	
V	1.3387818D	03	PTH	7.7528145D	01	AZ	1.2123574D	02	
ALT	2.4221011D	08	LTGD	1.5459738D	01	LON	1.9769654D	02	
VE	1.7274536D	04	PTE	4.3397823D	00	AZE	-9.0498901D	01	

TIME	3	FEB. 1968	3	HRS.,	56	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	1.3076909D	05
X	2.2441829D	08	Y	9.0357199D	07	Z	6.6617154D	07	
DX	1.1046675D	03	DY	7.0854685D	02	DZ	2.0073734D	02	
R	2.5092994D	08	DEC	1.5395540D	01	RA	2.1931120D	01	
V	1.3276387D	03	PTH	7.7543779D	01	AZ	1.2129913D	02	
ALT	2.4455328D	08	LTGD	1.5398036D	01	LON	1.9028136D	02	
VE	1.7445675D	04	PTE	4.2615542D	00	AZE	-9.0490129D	01	

TIME	3	FEB. 1968	4	HRS.,	26	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	1.3256909D	05
X	2.2639774D	08	Y	9.1628830D	07	Z	6.6975697D	07	
DX	1.0947537D	03	DY	7.0438498D	02	DZ	1.9765505D	02	
R	2.5325387D	08	DEC	1.5334910D	01	RA	2.2034410D	01	
V	1.3167048D	03	PTH	7.7558554D	01	AZ	1.2136320D	02	
ALT	2.4687720D	08	LTGD	1.5337374D	01	LON	1.8286412D	02	
VE	1.7615437D	04	PTE	4.1858292D	00	AZE	-9.0481681D	01	

TIME	3	FEB. 1968	4	HRS.,	56	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	1.3436909D	05
X	2.2835952D	08	Y	9.2893017D	07	Z	6.7328750D	07	
DX	1.0850327D	03	DY	7.0027588D	02	DZ	1.9463583D	02	
R	2.5555888D	08	DEC	1.5275281D	01	RA	2.2135708D	01	
V	1.3059730D	03	PTH	7.7572506D	01	AZ	1.2142801D	02	
ALT	2.4918220D	08	LTGD	1.5277714D	01	LON	1.7544489D	02	
VE	1.7783849D	04	PTE	4.1124902D	00	AZE	-9.0473538D	01	

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	3	FEB. 1968	5	HRS.,	26	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	1.3616909D	05
X	2.3030397D	08	Y	9.4149854D	07	Z	6.7676422D	07	
DX	1.0754981D	03	DY	6.9621795D	02	DZ	1.9167716D	02	
R	2.5784532D	08	DEC	1.5216618D	01	RA	2.2235082D	01	
V	1.2954365D	03	PTH	7.7585671D	01	AZ	1.2149365D	02	
ALT	2.5146863D	08	LTGD	1.5219021D	01	LON	1.6802373D	02	
VE	1.7950933D	04	PTF	4.0414274D	00	AZE	-9.0465688D	01	

TIME	3	FEB. 1968	5	HRS.,	56	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	1.3796909D	05
X	2.3223142D	08	Y	9.5399431D	07	Z	6.8018822D	07	
DX	1.0661439D	03	DY	6.9220967D	02	DZ	1.8877664D	02	
R	2.6011352D	08	DEC	1.5158888D	01	RA	2.2332597D	01	
V	1.2850890D	03	PTH	7.7598082D	01	AZ	1.2156019D	02	
ALT	2.5373682D	08	LTGD	1.5161262D	01	LON	1.6060071D	02	
VE	1.8116713D	04	PTE	3.9725375D	00	AZE	-9.0458116D	01	

TIME	3	FEB. 1968	6	HRS.,	26	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	1.3976909D	05
X	2.3414219D	08	Y	9.6641837D	07	Z	6.8356052D	07	
DX	1.0569644D	03	DY	6.8824954D	02	DZ	1.8593198D	02	
R	2.6236379D	08	DEC	1.5102058D	01	RA	2.2428313D	01	
V	1.2749243D	03	PTH	7.7609774D	01	AZ	1.2162771D	02	
ALT	2.5598708D	08	LTGD	1.5104404D	01	LCN	1.5317589D	02	
VE	1.8281212D	04	PTE	3.9057236D	00	AZE	-9.0450810D	01	

TIME	3	FEB. 1968	6	HRS.,	56	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	1.4156909D	05
X	2.3603659D	08	Y	9.7877158D	07	Z	6.8688210D	07	
DX	1.0479542D	03	DY	6.8433615D	02	DZ	1.8314100D	02	
R	2.6459645D	08	DEC	1.5046097D	01	RA	2.2522289D	01	
V	1.2649366D	03	PTH	7.7620777D	01	AZ	1.2169628D	02	
ALT	2.5821972D	08	LTGD	1.5048416D	01	LON	1.4574934D	02	
VE	1.8444452D	04	PTE	3.8408944D	00	AZE	-9.0443756D	01	

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	3	FEB. 1968	7	HRS.,	26	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	1.4336909D	05
X	2.3791492D	08	Y	9.9105475D	07	Z	6.9015390D	07	
DX	1.0391081D	03	DY	6.8046810D	02	DZ	1.8040162D	02	
R	2.6681179D	08	DEC	1.4990977D	01	RA	2.2614581D	01	
V	1.2551204D	03	PTH	7.7631122D	01	AZ	1.2176599D	02	
ALT	2.6043505D	08	LTGD	1.4993269D	01	LON	1.3832109D	02	
VE	1.8606454D	04	PTE	3.7779639D	00	AZE	-9.0436944D	01	

TIME	3	FEB. 1968	7	HRS.,	56	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	1.4516909D	05
X	2.3977748D	08	Y	1.0032687D	08	Z	6.9337685D	07	
DX	1.0304213D	03	DY	6.7664408D	02	DZ	1.7771187D	02	
R	2.6901010D	08	DEC	1.4936669D	01	RA	2.2705241D	01	
V	1.2454705D	03	PTH	7.7640840D	01	AZ	1.2183691D	02	
ALT	2.6263335D	08	LTGD	1.4938935D	01	LON	1.3089122D	02	
VE	1.8767239D	04	PTE	3.7168510D	00	AZE	-9.0430364D	01	

TIME	3	FEB. 1968	8	HRS.,	26	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	1.4696909D	05
X	2.4162453D	08	Y	1.0154142D	08	Z	6.9655182D	07	
DX	1.0218892D	03	DY	6.7286278D	02	DZ	1.7506984D	02	
R	2.7119166D	08	DEC	1.4883146D	01	RA	2.2794319D	01	
V	1.2359819D	03	PTH	7.7649959D	01	AZ	1.2190914D	02	
ALT	2.6481491D	08	LTGD	1.4885386D	01	LON	1.2345977D	02	
VE	1.8926828D	04	PTE	3.6574792D	00	AZE	-9.0424005D	01	

TIME	3	FEB. 1968	8	HRS.,	56	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	1.4876909D	05
X	2.4345637D	08	Y	1.0274920D	08	Z	6.9967964D	07	
DX	1.0135072D	03	DY	6.6912295D	02	DZ	1.7247372D	02	
R	2.7335676D	08	DEC	1.4830383D	01	RA	2.2881864D	01	
V	1.2266497D	03	PTH	7.7658507D	01	AZ	1.2198275D	02	
ALT	2.6697999D	08	LTGD	1.4832598D	01	LON	1.1602678D	02	
VE	1.9085239D	04	PTE	3.5997765D	00	AZE	-9.0417858D	01	

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 3 FEB. 1968 9 HRS., 26 MIN., 57.702 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.5056909D 05
 X 2.4527325D 08 Y 1.0395029D 08 Z 7.0276114D 07
 DX 1.0052714D 03 DY 6.6542339D 02 DZ 1.6992177D 02
 R 2.7550564D 08 DEC 1.4778354D 01 RA 2.2967920D 01
 V 1.2174696D 03 PTH 7.7666514D 01 AZ 1.2205784D 02
 ALT 2.6912887D 08 LTGD 1.4780544D 01 LON 1.0859230D 02
 VE 1.9242492D 04 PTE 3.5436745D 00 AZE-9.0411914D 01

TIME 3 FEB. 1968 9 HRS., 56 MIN., 57.702 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.5236909D 05
 X 2.4707543D 08 Y 1.0514475D 08 Z 7.0579708D 07
 DX 9.9717759D 02 DY 6.6176292D 02 DZ 1.6741232D 02
 R 2.7763858D 08 DEC 1.4727035D 01 RA 2.3052530D 01
 V 1.2084371D 03 PTH 7.7674004D 01 AZ 1.2213451D 02
 ALT 2.7126180D 08 LTGD 1.4729202D 01 LON 1.0115638D 02
 VE 1.9398605D 04 PTE 3.4891088D 00 AZE-9.0406165D 01

TIME 3 FEB. 1968 10 HRS., 26 MIN., 57.702 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.5416909D 05
 X 2.4886317D 08 Y 1.0633266D 08 Z 7.0878822D 07
 DX 9.8922217D 02 DY 6.5814039D 02 DZ 1.6494377D 02
 R 2.7975582D 08 DEC 1.4676405D 01 RA 2.3135737D 01
 V 1.1995481D 03 PTH 7.7681007D 01 AZ 1.2221285D 02
 ALT 2.7337902D 08 LTGD 1.4678548D 01 LON 9.3719051D 01
 VE 1.9553598D 04 PTE 3.4360184D 00 AZE-9.0400604D 01

TIME 3 FEB. 1968 10 HRS., 56 MIN., 57.702 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.5596909D 05
 X 2.5063671D 08 Y 1.0751408D 08 Z 7.1173529D 07
 DX 9.8140151D 02 DY 6.5455469D 02 DZ 1.6251458D 02
 R 2.8185760D 08 DEC 1.4626440D 01 RA 2.3217579D 01
 V 1.1907988D 03 PTH 7.7687547D 01 AZ 1.2229295D 02
 ALT 2.7548080D 08 LTGD 1.4628561D 01 LON 8.6280361D 01
 VE 1.9707487D 04 PTE 3.3843455D 00 AZE-9.0395222D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	3	FEB. 1968	11 HRS.,	26 MIN.,	57.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.5776909D 05
X	2.5239629D	08	Y	1.0868907D	08	Z 7.1463898D 07
DX	9.7371223D	02	DY	6.5100474D	02	DZ 1.6012327D 02
R	2.8394417D	08	DEC	1.4577120D	01	RA 2.3298095D 01
V	1.1821853D	03	PTH	7.7693651D	01	AZ 1.2237494D 02
ALT	2.7756736D	08	LTGD	1.4579219D	01	LON 7.8840343D 01
VE	1.9860289D	04	PTE	3.3340353D	00	AZE-9.0390013D 01

TIME	3	FEB. 1968	11 HRS.,	56 MIN.,	57.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.5956909D 05
X	2.5414215D	08	Y	1.0985771D	08	Z 7.1749995D 07
DX	9.6615112D	02	DY	6.4748949D	02	DZ 1.5776840D 02
R	2.8601575D	08	DEC	1.4528425D	01	RA 2.3377319D 01
V	1.1737042D	03	PTH	7.7699344D	01	AZ 1.2245892D 02
ALT	2.7963893D	08	LTGD	1.4530502D	01	LCN 7.1399034D 01
VE	2.0012023D	04	PTE	3.2850360D	00	AZE-9.0384971D 01

TIME	3	FEB. 1968	12 HRS.,	26 MIN.,	57.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.6136909D 05
X	2.5587451D	08	Y	1.1102006D	08	Z 7.2031885D 07
DX	9.5871513D	02	DY	6.4400791D	02	DZ 1.5544858D 02
R	2.8807258D	08	DEC	1.4480334D	01	RA 2.3455287D 01
V	1.1653519D	03	PTH	7.7704653D	01	AZ 1.2254500D 02
ALT	2.8169575D	08	LTGD	1.4482390D	01	LON 6.3956469D 01
VE	2.0162703D	04	PTE	3.2372985D	00	AZE-9.0380090D 01

TIME	3	FEB. 1968	12 HRS.,	56 MIN.,	57.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.6316909D 05
X	2.5759360D	08	Y	1.1217616D	08	Z 7.2309630D 07
DX	9.5140138D	02	DY	6.4055899D	02	DZ 1.5316249D 02
R	2.9011487D	08	DEC	1.4432829D	01	RA 2.3532030D 01
V	1.1571254D	03	PTH	7.7709601D	01	AZ 1.2263331D 02
ALT	2.8373803D	08	LTGD	1.4434865D	01	LON 5.6512679D 01
VE	2.0312347D	04	PTE	3.1907759D	00	AZE-9.0375363D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	3	FEB. 1968	13 HRS.,	26 MIN.,	57.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.6496909D 05
X	2.5929963D	08	Y	1.1332609D	08	Z 7.2583289D 07
DX	9.4420714D	02	DY	6.3714174D	02	DZ 1.5090883D 02
R	2.9214283D	08	DEC	1.4385891D	01	RA 2.3607581D 01
V	1.1490214D	03	PTH	7.7714216D	01	AZ 1.2272397D 02
ALT	2.8576598D	08	LTGD	1.4387907D	01	LON 4.9067697D 01
VE	2.0460970D	04	PTE	3.1454239D	00	AZE-9.0370786D 01

TIME	3	FEB. 1968	13 HRS.,	56 MIN.,	57.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.6676909D 05
X	2.6099281D	08	Y	1.1446989D	08	Z 7.2852920D 07
DX	9.3712983D	02	DY	6.3375520D	02	DZ 1.4868633D 02
R	2.9415668D	08	DEC	1.4339503D	01	RA 2.3681968D 01
V	1.1410371D	03	PTH	7.7718523D	01	AZ 1.2281712D 02
ALT	2.8777983D	08	LTGD	1.4341499D	01	LON 4.1621551D 01
VF	2.0608588D	04	PTE	3.1012004D	00	AZE-9.0366353D 01

TIME	3	FEB. 1968	14 HRS.,	26 MIN.,	57.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.6856909D 05
X	2.6267336D	08	Y	1.1560762D	08	Z 7.3118578D 07
DX	9.3016702D	02	DY	6.3039844D	02	DZ 1.4649378D 02
R	2.9615662D	08	DEC	1.4293647D	01	RA 2.3755221D 01
V	1.1331696D	03	PTH	7.7722546D	01	AZ 1.2291290D 02
ALT	2.8977976D	08	LTGD	1.4295624D	01	LON 3.4174271D 01
VE	2.0755215D	04	PTE	3.0580654D	00	AZE-9.0362060D 01

TIME	3	FEB. 1968	14 HRS.,	56 MIN.,	57.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.7036909D 05
X	2.6434148D	08	Y	1.1673934D	08	Z 7.3380315D 07
DX	9.2331642D	02	DY	6.2707050D	02	DZ 1.4432998D 02
R	2.9814286D	08	DEC	1.4248308D	01	RA 2.3827366D 01
V	1.1254163D	03	PTH	7.7726311D	01	AZ 1.2301146D 02
ALT	2.9176599D	08	LTGD	1.4250266D	01	LON 2.6725883D 01
VE	2.0900867D	04	PTE	3.0159808D	00	AZE-9.0357902D 01

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TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME	3	FEB. 1968	15 HRS.,	26 MIN.,	57.702 SEC.,	GMT		
GEOCENTRIC REFERENCE			FLIGHT TIME			1.7216909D 05		
X	2.6599737D	08	Y	1.1786509D	08	Z	7.3638183D	07
DX	9.1657588D	02	DY	6.2377048D	02	DZ	1.4219377D	02
R	3.0011558D	08	DEC	1.4203468D	01	RA	2.3898430D	01
V	1.1177746D	03	PTH	7.7729846D	01	AZ	1.2311297D	02
ALT	2.9373870D	08	LTGD	1.4205407D	01	LON	1.9276413D	01
VE	2.1045558D	04	PTE	2.9749104D	00	AZE	-9.0353875D	01

TIME	3	FEB. 1968	15 HRS.,	56 MIN.,	57.702 SEC.,	GMT		
GEOCENTRIC REFERENCE			FLIGHT TIME			1.7396909D 05		
X	2.6764122D	08	Y	1.1898493D	08	Z	7.3892229D	07
DX	9.0994337D	02	DY	6.2049748D	02	DZ	1.4008401D	02
R	3.0207499D	08	DEC	1.4159112D	01	RA	2.3968436D	01
V	1.1102421D	03	PTH	7.7733175D	01	AZ	1.2321758D	02
ALT	2.9569810D	08	LTGD	1.4161033D	01	LON	1.1825887D	01
VE	2.1189303D	04	PTE	2.9348197D	00	AZE	-9.0349975D	01

TIME	3	FEB. 1968	16 HRS.,	26 MIN.,	57.702 SEC.,	GMT		
GEOCENTRIC REFERENCE			FLIGHT TIME			1.7576909D 05		
X	2.6927323D	08	Y	1.2009890D	08	Z	7.4142500D	07
DX	9.0341703D	02	DY	6.1725059D	02	DZ	1.3799959D	02
R	3.0402126D	08	DEC	1.4115226D	01	RA	2.4037410D	01
V	1.1028166D	03	PTH	7.7736326D	01	AZ	1.2332548D	02
ALT	2.9764437D	08	LTGD	1.4117129D	01	LON	4.3743271D	00
VE	2.1332115D	04	PTE	2.8956758D	00	AZE	-9.0346198D	01

TIME	3	FEB. 1968	16 HRS.,	56 MIN.,	57.702 SEC.,	GMT		
GEOCENTRIC REFERENCE			FLIGHT TIME			1.7756909D 05		
X	2.7089358D	08	Y	1.2120705D	08	Z	7.4389042D	07
DX	8.9699508D	02	DY	6.1402894D	02	DZ	1.3593941D	02
R	3.0595459D	08	DEC	1.4071793D	01	RA	2.4105372D	01
V	1.0954959D	03	PTH	7.7739325D	01	AZ	1.2343685D	02
ALT	2.9957769D	08	LTGD	1.4073679D	01	LON	3.5692172D	02
VE	2.1474009D	04	PTE	2.8574476D	00	AZE	-9.0342542D	01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	3	FEB. 1968	17 HRS.,	26 MIN.,	57.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.7936909D 05
X	2.7250247D	08	Y	1.2230942D	08	Z 7.4631896D 07
DX	8.9067591D	02	DY	6.1083163D	02	DZ 1.3390240D 02
R	3.0787516D	08	DEC	1.4028800D	01	RA 2.4172346D 01
V	1.0882779D	03	PTH	7.7742201D	01	AZ 1.2355190D 02
ALT	3.0149825D	08	LTGD	1.4030669D	01	LON 3.4946816D 02
VE	2.1614998D	04	PTE	2.8201054D	00	AZE-9.0339002D 01

TIME	3	FEB. 1968	17 HRS.,	56 MIN.,	57.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.8116909D 05
X	2.7410008D	08	Y	1.2340606D	08	Z 7.4871104D 07
DX	8.8445803D	02	DY	6.0765780D	02	DZ 1.3188749D 02
R	3.0978313D	08	DEC	1.3986233D	01	RA 2.4238351D 01
V	1.0811606D	03	PTH	7.7744981D	01	AZ 1.2367085D 02
ALT	3.0340622D	08	LTGD	1.3988086D	01	LON 3.4201363D 02
VE	2.1755095D	04	PTE	2.7836206D	00	AZE-9.0335577D 01

TIME	3	FEB. 1968	18 HRS.,	26 MIN.,	57.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.8296909D 05
X	2.7568658D	08	Y	1.2449700D	08	Z 7.5106704D 07
DX	8.7834007D	02	DY	6.0450658D	02	DZ 1.2989362D 02
R	3.1167870D	08	DEC	1.3944079D	01	RA 2.4303406D 01
V	1.0741424D	03	PTH	7.7747696D	01	AZ 1.2379391D 02
ALT	3.0530178D	08	LTGD	1.3945915D	01	LON 3.3455815D 02
VE	2.1894314D	04	PTE	2.7479665D	00	AZE-9.0332262D 01

TIME	3	FEB. 1968	18 HRS.,	56 MIN.,	57.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	1.8476909D 05
X	2.7726216D	08	Y	1.2558229D	08	Z 7.5338733D 07
DX	8.7232079D	02	DY	6.0137707D	02	DZ 1.2791974D 02
R	3.1356203D	08	DEC	1.3902322D	01	RA 2.4367530D 01
V	1.0672213D	03	PTH	7.7750374D	01	AZ 1.2392135D 02
ALT	3.0718509D	08	LTGD	1.3904142D	01	LON 3.2710175D 02
VE	2.2032669D	04	PTE	2.7131172D	00	AZE-9.0329056D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	3	FEB. 1968	19	HRS.,	26	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	1.8656909D	05
X	2.7882700D	08	Y	1.2666197D	08	Z	7.5567226D	07	
DX	8.6639908D	02	DY	5.9826841D	02	DZ	1.2596482D	02	
R	3.1543328D	08	DEC	1.3860952D	01	RA	2.4430741D	01	
V	1.0603960D	03	PTH	7.7753048D	01	AZ	1.2405342D	02	
ALT	3.0905634D	08	LTGD	1.3862756D	01	LON	3.1964442D	02	
VE	2.2170172D	04	PTE	2.6790482D	00	AZE	-9.0325956D	01	

TIME	3	FEB. 1968	19	HRS.,	56	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	1.8836909D	05
X	2.8038126D	08	Y	1.2773607D	08	Z	7.5792217D	07	
DX	8.6057398D	02	DY	5.9517971D	02	DZ	1.2402781D	02	
R	3.1729263D	08	DEC	1.3819954D	01	RA	2.4493056D	01	
V	1.0536647D	03	PTH	7.7755747D	01	AZ	1.2419041D	02	
ALT	3.1091568D	08	LTGD	1.3821742D	01	LON	3.1218620D	02	
VE	2.2306835D	04	PTE	2.6457362D	00	AZE	-9.0322961D	01	

TIME	3	FEB. 1968	20	HRS.,	26	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	1.9016909D	05
X	2.8192512D	08	Y	1.2880463D	08	Z	7.6013736D	07	
DX	8.5484464D	02	DY	5.9211008D	02	DZ	1.2210766D	02	
R	3.1914024D	08	DEC	1.3779315D	01	RA	2.4554490D	01	
V	1.0470263D	03	PTH	7.7758507D	01	AZ	1.2433261D	02	
ALT	3.1276329D	08	LTGD	1.3781089D	01	LON	3.0472711D	02	
VE	2.2442673D	04	PTE	2.6131589D	00	AZE	-9.0320067D	01	

TIME	3	FEB. 1968	20	HRS.,	56	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	1.9196909D	05
X	2.8345875D	08	Y	1.2986768D	08	Z	7.6231814D	07	
DX	8.4921036D	02	DY	5.8905862D	02	DZ	1.2020332D	02	
R	3.2097627D	08	DEC	1.3739025D	01	RA	2.4615058D	01	
V	1.0404793D	03	PTH	7.7761361D	01	AZ	1.2448036D	02	
ALT	3.1459932D	08	LTGD	1.3740784D	01	LON	2.9726714D	02	
VE	2.2577697D	04	PTE	2.5812952D	00	AZE	-9.0317275D	01	

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	3	FEB. 1968	21	HRS.,	26	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	1.9376909D	05
X	2.8498233D	08	Y	1.3092525D	08	Z	7.6446477D	07	
DX	8.4367058D	02	DY	5.8602440D	02	DZ	1.1831373D	02	
R	3.2280089D	08	DEC	1.3699070D	01	RA	2.4674774D	01	
V	1.0340226D	03	PTH	7.7764344D	01	AZ	1.2463401D	02	
ALT	3.1642392D	08	LTGD	1.3700814D	01	LON	2.8980632D	02	
VE	2.2711920D	04	PTE	2.5501248D	00	AZE	-9.0314581D	01	

TIME	3	FEB. 1968	21	HRS.,	56	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	1.9556909D	05
X	2.8649603D	08	Y	1.3197738D	08	Z	7.6657751D	07	
DX	8.3822488D	02	DY	5.8300649D	02	DZ	1.1643781D	02	
R	3.2461425D	08	DEC	1.3659438D	01	RA	2.4733651D	01	
V	1.0276552D	03	PTH	7.7767494D	01	AZ	1.2479393D	02	
ALT	3.1823728D	08	LTGD	1.3661167D	01	LON	2.8234467D	02	
VE	2.2845356D	04	PTE	2.5196287D	00	AZE	-9.0311985D	01	

TIME	3	FEB. 1968	22	HRS.,	26	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	1.9736909D	05
X	2.8800000D	08	Y	1.3302408D	08	Z	7.6865661D	07	
DX	8.3287302D	02	DY	5.8000393D	02	DZ	1.1457447D	02	
R	3.2641651D	08	DEC	1.3620117D	01	RA	2.4791703D	01	
V	1.0213762D	03	PTH	7.7770850D	01	AZ	1.2496055D	02	
ALT	3.2003953D	08	LTGD	1.3621833D	01	LON	2.7488219D	02	
VE	2.2978015D	04	PTE	2.4897886D	00	AZE	-9.0309486D	01	

TIME	3	FEB. 1968	22	HRS.,	56	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	1.9916909D	05
X	2.8949442D	08	Y	1.3406540D	08	Z	7.7070226D	07	
DX	8.2761488D	02	DY	5.7701572D	02	DZ	1.1272257D	02	
R	3.2820782D	08	DEC	1.3581096D	01	RA	2.4848940D	01	
V	1.0151847D	03	PTH	7.7774452D	01	AZ	1.2513430D	02	
ALT	3.2183083D	08	LTGD	1.3582797D	01	LON	2.6741889D	02	
VE	2.3109912D	04	PTE	2.4605871D	00	AZE	-9.0307082D	01	

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	3	FEB. 1968	23 HRS.,	26 MIN.,	57.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	2.0096909D 05
X	2.9097947D	08	Y	1.3510135D	08	Z 7.7271468D 07
DX	8.2245055D	02	DY	5.7404086D	02	DZ 1.1088097D 02
R	3.2998834D	08	DEC	1.3542362D	01	RA 2.4905373D 01
V	1.0090800D	03	PTH	7.7778344D	01	AZ 1.2531566D 02
ALT	3.2361135D	08	LTGD	1.3544050D	01	LON 2.5995479D 02
VE	2.3241059D	04	PTE	2.4320079D	00	AZE-9.0304774D 01

TIME	3	FEB. 1968	23 HRS.,	56 MIN.,	57.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	2.0276909D 05
X	2.9245530D	08	Y	1.3613195D	08	Z 7.7469403D 07
DX	8.1738027D	02	DY	5.7107828D	02	DZ 1.0904848D 02
R	3.3175823D	08	DEC	1.3503904D	01	RA 2.4961012D 01
V	1.0030616D	03	PTH	7.7782569D	01	AZ 1.2550518D 02
ALT	3.2538123D	08	LTGD	1.3505578D	01	LON 2.5248990D 02
VE	2.3371469D	04	PTE	2.4040353D	00	AZE-9.0302561D 01

TIME	4	FEB. 1968	0 HRS.,	26 MIN.,	57.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	2.0456909D 05
X	2.9392209D	08	Y	1.3715724D	08	Z 7.7664047D 07
DX	8.1240448D	02	DY	5.6812688D	02	DZ 1.0722387D 02
R	3.3351763D	08	DEC	1.3465710D	01	RA 2.5015866D 01
V	9.9712896D	02	PTH	7.7787175D	01	AZ 1.2570341D 02
ALT	3.2714062D	08	LTGD	1.3467371D	01	LON 2.4502422D 02
VE	2.3501154D	04	PTE	2.3766547D	00	AZE-9.0300442D 01

TIME	4	FEB. 1968	0 HRS.,	56 MIN.,	57.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	2.0636909D 05
X	2.9538002D	08	Y	1.3817722D	08	Z 7.7855413D 07
DX	8.0752384D	02	DY	5.6518553D	02	DZ 1.0540586D 02
R	3.3526670D	08	DEC	1.3427768D	01	RA 2.5069944D 01
V	9.9128191D	02	PTH	7.7792211D	01	AZ 1.2591099D 02
ALT	3.2888969D	08	LTGD	1.3429417D	01	LON 2.3755776D 02
VE	2.3630127D	04	PTE	2.3498522D	00	AZE-9.0298417D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME	4	FEB. 1968	1	HRS.,	26	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 2.0816909D 05						
X	2.9682924D	08	Y	1.3919191D	08	Z	7.8043512D	07	
DX	8.0273920D	02	DY	5.6225300D	02	DZ	1.0359311D	02	
R	3.3700560D	08	DEC	1.3390067D	01	RA	2.5123253D	01	
V	9.8552026D	02	PTH	7.7797728D	01	AZ	1.2612860D	02	
ALT	3.3062858D	08	LTGD	1.3391703D	01	LON	2.3009054D	02	
VE	2.3758402D	04	PTE	2.3236146D	00	AZE	-9.0296488D	01	

TIME	4	FEB. 1968	1	HRS.,	56	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 2.0996909D 05						
X	2.9826994D	08	Y	1.4020133D	08	Z	7.8228351D	07	
DX	7.9805168D	02	DY	5.5932802D	02	DZ	1.0178422D	02	
R	3.3873447D	08	DEC	1.3352595D	01	RA	2.5175799D	01	
V	9.7984404D	02	PTH	7.7803783D	01	AZ	1.2635699D	02	
ALT	3.3235745D	08	LTGD	1.3354218D	01	LON	2.2262255D	02	
VE	2.3885992D	04	PTE	2.2979298D	00	AZE	-9.0294654D	01	

TIME	4	FEB. 1968	2	HRS.,	26	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 2.1176909D 05						
X	2.9970228D	08	Y	1.4120549D	08	Z	7.8409936D	07	
DX	7.9346264D	02	DY	5.5640925D	02	DZ	9.9977707D	01	
R	3.4045347D	08	DEC	1.3315339D	01	RA	2.5227587D	01	
V	9.7425343D	02	PTH	7.7810432D	01	AZ	1.2659698D	02	
ALT	3.3407644D	08	LTGD	1.3316950D	01	LON	2.1515381D	02	
VE	2.4012910D	04	PTE	2.2727862D	00	AZE	-9.0292917D	01	

TIME	4	FEB. 1968	2	HRS.,	56	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 2.1356909D 05						
X	3.0112646D	08	Y	1.4220441D	08	Z	7.8588271D	07	
DX	7.8897373D	02	DY	5.5349525D	02	DZ	9.8171988D	01	
R	3.4216276D	08	DEC	1.3278288D	01	RA	2.5278623D	01	
V	9.6874882D	02	PTH	7.7817737D	01	AZ	1.2684949D	02	
ALT	3.3578572D	08	LTGD	1.3279887D	01	LON	2.0768431D	02	
VE	2.4139171D	04	PTE	2.2481733D	00	AZE	-9.0291278D	01	

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	4	FEB. 1968	3	HRS.,	26	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 2.1536909D 05						
X	3.0254265D	08	Y	1.4319808D	08	Z	7.8763355D	07	
DX	7.8458693D	02	DY	5.5058447D	02	DZ	9.6365391D	01	
R	3.4386249D	08	DEC	1.3241430D	01	RA	2.5328911D	01	
V	9.6333078D	02	PTH	7.7825763D	01	AZ	1.2711552D	02	
ALT	3.3748544D	08	LTGD	1.3243016D	01	LON	2.0021406D	02	
VE	2.4264788D	04	PTE	2.2240812D	00	AZE	-9.0289737D	01	

TIME	4	FEB. 1968	3	HRS.,	56	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 2.1716909D 05						
X	3.0395104D	08	Y	1.4418651D	08	Z	7.8935185D	07	
DX	7.8030454D	02	DY	5.4767527D	02	DZ	9.4556118D	01	
R	3.4555281D	08	DEC	1.3204751D	01	RA	2.5378452D	01	
V	9.5800013D	02	PTH	7.7834576D	01	AZ	1.2739618D	02	
ALT	3.3917576D	08	LTGD	1.3206326D	01	LON	1.9274307D	02	
VE	2.4389776D	04	PTE	2.2005009D	00	AZE	-9.0288298D	01	

TIME	4	FEB. 1968	4	HRS.,	26	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 2.1896909D 05						
X	3.0535181D	08	Y	1.4516971D	08	Z	7.9103754D	07	
DX	7.7612927D	02	DY	5.4476586D	02	DZ	9.2742236D	01	
R	3.4723389D	08	DEC	1.3168239D	01	RA	2.5427249D	01	
V	9.5275790D	02	PTH	7.7844248D	01	AZ	1.2769270D	02	
ALT	3.4085684D	08	LTGD	1.3169802D	01	LON	1.8527134D	02	
VE	2.4514151D	04	PTE	2.1774244D	00	AZE	-9.0286963D	01	

TIME	4	FEB. 1968	4	HRS.,	56	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE			FLIGHT TIME 2.2076909D 05						
X	3.0674517D	08	Y	1.4614767D	08	Z	7.9269053D	07	
DX	7.7206424D	02	DY	5.4185430D	02	DZ	9.0921653D	01	
R	3.4890589D	08	DEC	1.3131880D	01	RA	2.5475301D	01	
V	9.4760541D	02	PTH	7.7854856D	01	AZ	1.2800645D	02	
ALT	3.4252883D	08	LTGD	1.3133432D	01	LON	1.7779885D	02	
VE	2.4637927D	04	PTE	2.1548443D	00	AZE	-9.0285735D	01	

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	4	FEB. 1968	5	HRS.,	26	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	2.2256909D	05
X	3.0813131D	08	Y	1.4712038D	08	Z	7.9431067D	07	
DX	7.6811307D	02	DY	5.3893846D	02	DZ	8.9092094D	01	
R	3.5056897D	08	DEC	1.3095662D	01	RA	2.5522609D	01	
V	9.4254430D	02	PTH	7.7866478D	01	AZ	1.2833896D	02	
ALT	3.4419191D	08	LTGD	1.3097202D	01	LON	1.7032563D	02	
VE	2.4761122D	04	PTE	2.1327544D	00	AZE	-9.0284617D	01	

TIME	4	FEB. 1968	5	HRS.,	56	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	2.2436909D	05
X	3.0951045D	08	Y	1.4808784D	08	Z	7.9589778D	07	
DX	7.6427992D	02	DY	5.3601602D	02	DZ	8.7251073D	01	
R	3.5222331D	08	DEC	1.3059569D	01	RA	2.5569169D	01	
V	9.3757651D	02	PTH	7.7879197D	01	AZ	1.2869194D	02	
ALT	3.4584623D	08	LTGD	1.3061098D	01	LON	1.6285166D	02	
VE	2.4883752D	04	PTE	2.1111492D	00	AZE	-9.0283613D	01	

TIME	4	FEB. 1968	6	HRS.,	26	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	2.2616909D	05
X	3.1088279D	08	Y	1.4905004D	08	Z	7.9745162D	07	
DX	7.6056955D	02	DY	5.3308442D	02	DZ	8.5395859D	01	
R	3.5386906D	08	DEC	1.3023587D	01	RA	2.5614980D	01	
V	9.3270440D	02	PTH	7.7893100D	01	AZ	1.2906731D	02	
ALT	3.4749198D	08	LTGD	1.3025105D	01	LON	1.5537693D	02	
VE	2.5005836D	04	PTE	2.0900246D	00	AZE	-9.0282728D	01	

TIME	4	FEB. 1968	6	HRS.,	56	MIN.,	57.702	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	2.2796909D	05
X	3.1224857D	08	Y	1.5000694D	08	Z	7.9897192D	07	
DX	7.5698745D	02	DY	5.3014081D	02	DZ	8.3523437D	01	
R	3.5550642D	08	DEC	1.2987701D	01	RA	2.5660035D	01	
V	9.2793074D	02	PTH	7.7908277D	01	AZ	1.2946724D	02	
ALT	3.4912933D	08	LTGD	1.2989209D	01	LON	1.4790146D	02	
VE	2.5127391D	04	PTE	2.0693773D	00	AZE	-9.0281967D	01	

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	4	FEB. 1968	7 HRS.,	26 MIN.,	57.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	2.2976909D 05
X	3.1360803D	08	Y	1.5095853D	08	Z 8.0045834D 07
DX	7.5353990D	02	DY	5.2718203D	02	DZ 8.1630461D 01
R	3.5713556D	08	DEC	1.2951895D	01	RA 2.5704327D 01
V	9.2325880D	02	PTH	7.7924822D	01	AZ 1.2989418D 02
ALT	3.5075847D	08	LTGD	1.2953391D	01	LON 1.4042522D 02
VE	2.5248439D	04	PTE	2.0492052D	00	AZE-9.0281337D 01

TIME	4	FEB. 1968	7 HRS.,	56 MIN.,	57.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	2.3156909D 05
X	3.1496140D	08	Y	1.5190478D	08	Z 8.0191047D 07
DX	7.5023412D	02	DY	5.2420453D	02	DZ 7.9713195D 01
R	3.5875668D	08	DEC	1.2916151D	01	RA 2.5747850D 01
V	9.1869245D	02	PTH	7.7942829D	01	AZ 1.3035089D 02
ALT	3.5237958D	08	LTGD	1.2917637D	01	LON 1.3294820D 02
VE	2.5369001D	04	PTE	2.0295078D	00	AZE-9.0280846D 01

TIME	4	FEB. 1968	8 HRS.,	26 MIN.,	57.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	2.3336909D 05
X	3.1630896D	08	Y	1.5284566D	08	Z 8.0332785D 07
DX	7.4707837D	02	DY	5.2120429D	02	DZ 7.7767449D 01
R	3.6036996D	08	DEC	1.2880451D	01	RA 2.5790591D 01
V	9.1423618D	02	PTH	7.7962395D	01	AZ 1.3084053D 02
ALT	3.5399286D	08	LTGD	1.2881927D	01	LON 1.2547041D 02
VE	2.5489099D	04	PTE	2.0102858D	00	AZE-9.0280501D 01

TIME	4	FEB. 1968	8 HRS.,	56 MIN.,	57.702 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	2.3516909D 05
X	3.1765098D	08	Y	1.5378110D	08	Z 8.0470990D 07
DX	7.4408220D	02	DY	5.1817679D	02	DZ 7.5788493D 01
R	3.6197562D	08	DEC	1.2844777D	01	RA 2.5832538D 01
V	9.0989527D	02	PTH	7.7983615D	01	AZ 1.3136671D 02
ALT	3.5559852D	08	LTGD	1.2846242D	01	LON 1.1799183D 02
VE	2.5608758D	04	PTE	1.9915416D	00	AZE-9.0280313D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 9 HRS., 26 MIN., 57.702 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 2.3696909D 05
 X 3.1898776D 08 Y 1.5471107D 08 Z 8.0605600D 07
 DX 7.4125658D 02 DY 5.1511685D 02 DZ 7.3770960D 01
 R 3.6357388D 08 DEC 1.2809106D 01 RA 2.5873676D 01
 V 9.0567590D 02 PTH 7.8006578D 01 AZ 1.3193358D 02
 ALT 3.5719677D 08 LTGD 1.2810561D 01 LON 1.1051243D 02
 VE 2.5728006D 04 PTE 1.9732794D 00 AZE-9.0280294D 01

TIME 4 FEB. 1968 9 HRS., 56 MIN., 57.702 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-5.2345373D 07 YSC 1.8321914D 07 ZSC 2.0552438D 07
 DXSC 1.0739492D 03 DYSC-2.8919785D 02 DZSC-3.6983925D 02
 RSC 5.9145019D 07 DESC 2.0334007D 01 RASC 1.6070894D 02
 VSC 1.1720850D 03 PTSC-8.5571510D 01 AZSC-6.4723394D 01
 SELENOGRAPHIC REFERENCE
 XSG 4.1004318D 07 YSG-4.0684373D 07 ZSG 1.2710662D 07
 DXSG-9.8302540D 02 DYSG 6.3153530D 02 DZSG-2.4500065D 02
 HSG 5.7406930D 07 LTSG 1.2410054D 01 LNSG-4.4775592D 01
 VRSG 1.1938179D 03 PTSG-7.8199139D 01 AZSG-8.8525345D 01
 LTS-1.4267054D 00 LNS 1.1504306D 02 LTE-9.3245771D-02
 LNE 2.4318276D 00 DSMP 4.6598567D 00 RSMP 1.1268041D 02
 LIN 1.6701734D 02 LAN 2.7865031D 01 LAP 1.9829418D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.3876909D 05
 X 3.2031961D 08 Y 1.5563550D 08 Z 8.0736539D 07
 DX 7.3861423D 02 DY 5.1201851D 02 DZ 7.1708718D 01
 R 3.6516497D 08 DEC 1.2773418D 01 RA 2.5913987D 01
 V 9.0158531D 02 PTH 7.8031369D 01 AZ 1.3254591D 02
 ALT 3.5878785D 08 LTGD 1.2774863D 01 LON 1.0303221D 02
 VE 2.5846871D 04 PTE 1.9555057D 00 AZE-9.0280457D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 10 HRS., 11 MIN., 57.702 SEC.,GMT

SELENOCENTRIC REFERENCE

XSC-5.1378444D 07 YSC 1.8061287D 07 ZSC 2.0219266D 07
 DXSC 1.0747899D 03 DYSC-2.8997579D 02 DZSC-3.7054386D 02
 RSC 5.8092799D 07 DESC 2.0368160D 01 RASC 1.6063167D 02
 VSC 1.1732698D 03 PTSC-8.5522296D 01 AZSC-6.4795973D 01

SELENOGRAPHIC REFERENCE

XSG 4.0120908D 07 YSG-4.0113464D 07 ZSG 1.2489840D 07
 DXSG-9.8018588D 02 DYSG 6.3718876D 02 DZSG-2.4537541D 02
 HSG 5.6354710D 07 LTSG 1.2415414D 01 LNSG-4.4994682D 01
 VRSG 1.1945639D 03 PTSG-7.8286884D 01 AZSG-8.8522813D 01
 LTS-1.4266647D 00 LNS 1.1491623D 02 LTE-1.0767368D-01
 LNE 2.4187433D 00 DSMP 4.6595322D 00 RSMP 1.1256586D 02
 LIN 1.6703052D 02 LAN 2.7922601D 01 LAP 1.9868013D 02

GEOCENTRIC REFERENCE

X 3.2098380D 08 Y 1.5609561D 08 Z 8.0800605D 07
 DX 7.3736630D 02 DY 5.1045286D 02 DZ 7.0658676D 01
 R 3.6595789D 08 DEC 1.2755559D 01 RA 2.5933825D 01
 V 8.9959093D 02 PTH 7.8044473D 01 AZ 1.3287082D 02
 ALT 3.5958077D 08 LTGD 1.2756999D 01 LON 9.9291782D 01
 VE 2.5906170D 04 PTE 1.9468046D 00 AZE-9.0280612D 01

FLIGHT TIME 2.3966909D 05

TIME 4 FEB. 1968 10 HRS., 26 MIN., 57.702 SEC.,GMT

SELENOCENTRIC REFERENCE

XSC-5.0410737D 07 YSC 1.7799955D 07 ZSC 1.9885455D 07
 DXSC 1.0756802D 03 DYSC-2.9076213D 02 DZSC-3.7126022D 02
 RSC 5.7039566D 07 DESC 2.0403275D 01 RASC 1.6055194D 02
 VSC 1.1745061D 03 PTSC-8.5470231D 01 AZSC-6.4867912D 01

SELENOGRAPHIC REFERENCE

XSG 3.9240044D 07 YSG-3.9537457D 07 ZSG 1.2268681D 07
 DXSG-9.7736435D 02 DYSG 6.4286152D 02 DZSG-2.4575842D 02
 HSG 5.5301476D 07 LTSG 1.2420848D 01 LNSG-4.5216309D 01
 VRSG 1.1953699D 03 PTSG-7.8372068D 01 AZSG-8.8519832D 01
 LTS-1.4266239D 00 LNS 1.1478941D 02 LTE-1.2209924D-01
 LNE 2.4056411D 00 DSMP 4.6592073D 00 RSMP 1.1245133D 02
 LIN 1.6704305D 02 LAN 2.7974059D 01 LAP 1.9905381D 02

GEOCENTRIC REFERENCE

X 3.2164689D 08 Y 1.5655431D 08 Z 8.0863720D 07
 DX 7.3616990D 02 DY 5.0887495D 02 DZ 6.9594735D 01
 R 3.6674912D 08 DEC 1.2737687D 01 RA 2.5953449D 01
 V 8.9763203D 02 PTH 7.8058057D 01 AZ 1.3320924D 02
 ALT 3.6037199D 08 LTGD 1.2739122D 01 LON 9.5551138D 01
 VE 2.5965386D 04 PTE 1.9382292D 00 AZE-9.0280818D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 10 HRS., 41 MIN., 57.702 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-4.9442204D 07 YSC 1.7537912D 07 ZSC 1.9550994D 07
 DXSC 1.0766221D 03 DYSC-2.9155790D 02 DZSC-3.7198939D 02
 RSC 5.5985277D 07 DESC 2.0439411D 01 RASC 1.6046961D 02
 VSC 1.1757964D 03 PTSC-8.5415181D 01 AZSC-6.4939271D 01
 SELENOGRAPHIC REFERENCE
 XSG 3.8361710D 07 YSG-3.8956335D 07 ZSG 1.2047175D 07
 DXSG-9.7456218D 02 DYSG 6.4855592D 02 DZSG-2.4615029D 02
 HSG 5.4247188D 07 LTSG 1.2426363D 01 LNSG-4.5440630D 01
 VRSG 1.1962383D 03 PTSG-7.8454559D 01 AZSG-8.8516416D 01
 LTS-1.4265830D 00 LNS 1.1466259D 02 LTE-1.3652239D-01
 LNE 2.3925210D 00 DSMP 4.6588818D 00 RSMP 1.1233682D 02
 LIN 1.6705496D 02 LAN 2.8019371D 01 LAP 1.9941524D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.4146909D 05
 X 3.2230892D 08 Y 1.5701159D 08 Z 8.0925871D 07
 DX 7.3502725D 02 DY 5.0728376D 02 DZ 6.8515839D 01
 R 3.6753867D 08 DEC 1.2719798D 01 RA 2.5972854D 01
 V 8.9570994D 02 PTH 7.8072129D 01 AZ 1.3356201D 02
 ALT 3.6116154D 08 LTGD 1.2721227D 01 LON 9.1810277D 01
 VE 2.6024524D 04 PTE 1.9297809D 00 AZE-9.0281079D 01

TIME 4 FEB. 1968 10 HRS., 56 MIN., 57.702 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-4.8472800D 07 YSC 1.7275148D 07 ZSC 1.9215870D 07
 DXSC 1.0776181D 03 DYSC-2.9236424D 02 DZSC-3.7273251D 02
 RSC 5.4929890D 07 DESC 2.0476634D 01 RASC 1.6038451D 02
 VSC 1.1771437D 03 PTSC-8.5357004D 01 AZSC-6.5010118D 01
 SELENOGRAPHIC REFERENCE
 XSG 3.7485888D 07 YSG-3.8370078D 07 ZSG 1.1825316D 07
 DXSG-9.7178084D 02 DYSG 6.5427450D 02 DZSG-2.4655168D 02
 HSG 5.3191800D 07 LTSG 1.2431964D 01 LNSG-4.5667816D 01
 VRSG 1.1971720D 03 PTSG-7.8534211D 01 AZSG-8.8512583D 01
 LTS-1.4265421D 00 LNS 1.1453577D 02 LTE-1.5094307D-01
 LNE 2.3793831D 00 DSMP 4.6585559D 00 RSMP 1.122232D 02
 LIN 1.6706626D 02 LAN 2.8058516D 01 LAP 1.9976443D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.4236909D 05
 X 3.2296995D 08 Y 1.5746742D 08 Z 8.0987044D 07
 DX 7.3394075D 02 DY 5.0567815D 02 DZ 6.7420849D 01
 R 3.6832659D 08 DEC 1.2701887D 01 RA 2.5992037D 01
 V 8.9382604D 02 PTH 7.8086691D 01 AZ 1.3393002D 02
 ALT 3.6194946D 08 LTGD 1.2703312D 01 LON 8.8069193D 01
 VE 2.6083588D 04 PTE 1.9214614D 00 AZE-9.0281396D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 11 HRS., 11 MIN., 57.702 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-4.7502475D 07 YSC 1.7011653D 07 ZSC 1.8880071D 07
 DXSC 1.0786708D 03 DYSC-2.9318235D 02 DZSC-3.7349081D 02
 RSC 5.3873356D 07 DESC 2.0515014D 01 RASC 1.6029646D 02
 VSC 1.1785508D 03 PTSC-8.5295545D 01 AZSC-6.5080526D 01

SELENOGRAPHIC REFERENCE

XSG 3.6612559D 07 YSG-3.7778661D 07 ZSG 1.1603094D 07
 DXSG-9.6902192D 02 DYSG 6.6001998D 02 DZSG-2.4696330D 02
 HSG 5.2135267D 07 LTSG 1.2437658D 01 LNSG-4.5898050D 01
 VRSG 1.1981739D 03 PTSG-7.8610871D 01 AZSG-8.8508353D 01
 LTS-1.4265012D 00 LNS 1.1440895D 02 LTE-1.6536122D-01
 LNF 2.3662275D 00 DSMP 4.6582295D 00 RSMP 1.1210785D 02
 LIN 1.6707696D 02 LAN 2.8091481D 01 LAP 2.0010141D 02

GEOCENTRIC REFERENCE

X 3.2363003D 08 Y 1.5792180D 08 Z 8.1047224D 07
 DX 7.3291302D 02 DY 5.0405692D 02 DZ 6.6308536D 01
 R 3.6911292D 08 DEC 1.2683953D 01 RA 2.6010994D 01
 V 8.9198190D 02 PTH 7.8101744D 01 AZ 1.3431426D 02
 ALT 3.6273578D 08 LTGD 1.2685373D 01 LON 8.4327884D 01
 VE 2.6142583D 04 PTE 1.9132728D 00 AZE-9.0281773D 01

FLIGHT TIME 2.4326909D 05

TIME 4 FEB. 1968 11 HRS., 26 MIN., 57.702 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-4.6531175D 07 YSC 1.6747416D 07 ZSC 1.8543582D 07
 DXSC 1.0797830D 03 DYSC-2.9401358D 02 DZSC-3.7426563D 02
 RSC 5.2815628D 07 DESC 2.0554626D 01 RASC 1.6020527D 02
 VSC 1.1800212D 03 PTSC-8.5230636D 01 AZSC-6.5150578D 01

SELENOGRAPHIC REFERENCE

XSG 3.5741702D 07 YSG-3.7182060D 07 ZSG 1.1380499D 07
 DXSG-9.6628713D 02 DYSG 6.6579534D 02 DZSG-2.4738591D 02
 HSG 5.1077539D 07 LTSG 1.2443453D 01 LNSG-4.6131532D 01
 VRSG 1.1992473D 03 PTSG-7.8684371D 01 AZSG-8.8503751D 01
 LTS-1.4264602D 00 LNS 1.1428213D 02 LTE-1.7977679D-01
 LNE 2.3530544D 00 DSMP 4.6579026D 00 RSMP 1.1199339D 02
 LIN 1.6708709D 02 LAN 2.8118265D 01 LAP 2.0042625D 02

GEOCENTRIC REFERENCE

X 3.2428921D 08 Y 1.5837472D 08 Z 8.1106394D 07
 DX 7.3194689D 02 DY 5.0241875D 02 DZ 6.5177566D 01
 R 3.6989768D 08 DEC 1.2665990D 01 RA 2.6029721D 01
 V 8.9017917D 02 PTH 7.8117285D 01 AZ 1.3471578D 02
 ALT 3.6352054D 08 LTGD 1.2667405D 01 LON 8.0586345D 01
 VE 2.6201515D 04 PTE 1.9052172D 00 AZE-9.0282212D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 11 HRS., 41 MIN., 57.702 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-4.5558847D 07 YSC 1.6482424D 07 ZSC 1.8206387D 07
 DXSC 1.0809577D 03 DYSC-2.9485936D 02 DZSC-3.7505841D 02
 RSC 5.1756655D 07 DESC 2.0595553D 01 RASC 1.6011072D 02
 VSC 1.1815585D 03 PTSC-8.5162096D 01 AZSC-6.5220365D 01
 SELENOGRAPHIC REFERENCE
 XSG 3.4873293D 07 YSG-3.6580247D 07 ZSG 1.1157522D 07
 DXSG-9.6357834D 02 DYSG 6.7160377D 02 DZSG-2.4782037D 02
 HSG 5.0018566D 07 LTSG 1.2449355D 01 LNSG-4.6368476D 01
 VRSG 1.2003957D 03 PTSG-7.8754531D 01 AZSG-8.8498808D 01
 LTS-1.4264191D 00 LNS 1.1415531D 02 LTE-1.9418971D-01
 LNE 2.3398638D 00 DSMP 4.6575753D 00 RSMP 1.1187896D 02
 LIN 1.6709667D 02 LAN 2.8138880D 01 LAP 2.0073900D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.4506909D 05
 X 3.2494756D 08 Y 1.5882615D 08 Z 8.1164538D 07
 DX 7.3104541D 02 DY 5.0076219D 02 DZ 6.4026491D 01
 R 3.7068092D 08 DEC 1.2647994D 01 RA 2.6048214D 01
 V 8.8841969D 02 PTH 7.8133310D 01 AZ 1.3513575D 02
 ALT 3.6430378D 08 LTGD 1.2649404D 01 LON 7.6844571D 01
 VE 2.6260390D 04 PTE 1.8972971D 00 AZE-9.0282718D 01

TIME 4 FEB. 1968 11 HRS., 56 MIN., 57.702 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-4.4585432D 07 YSC 1.6216664D 07 ZSC 1.7868471D 07
 DXSC 1.0821984D 03 DYSC-2.9572126D 02 DZSC-3.7587074D 02
 RSC 5.0696382D 07 DESC 2.0637881D 01 RASC 1.6001259D 02
 VSC 1.1831666D 03 PTSC-8.5089727D 01 AZSC-6.5289986D 01
 SELENOGRAPHIC REFERENCE
 XSG 3.4007310D 07 YSG-3.5973189D 07 ZSG 1.0934151D 07
 DXSG-9.6089756D 02 DYSG 6.7744877D 02 DZSG-2.4826756D 02
 HSG 4.8958292D 07 LTSG 1.2455372D 01 LNSG-4.6609117D 01
 VRSG 1.2016230D 03 PTSG-7.8821153D 01 AZSG-8.8493558D 01
 LTS-1.4263781D 00 LNS 1.1402849D 02 LTE-2.0859993D-01
 LNE 2.3266559D 00 DSMP 4.6572474D 00 RSMP 1.1176454D 02
 LIN 1.6710570D 02 LAN 2.8153346D 01 LAP 2.0103976D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.4596909D 05
 X 3.2560512D 08 Y 1.5927608D 08 Z 8.1221636D 07
 DX 7.3021192D 02 DY 4.9908567D 02 DZ 6.2853740D 01
 R 3.7146267D 08 DEC 1.2629962D 01 RA 2.6066467D 01
 V 8.8670545D 02 PTH 7.8149807D 01 AZ 1.3557541D 02
 ALT 3.6508553D 08 LTGD 1.2631367D 01 LON 7.3102558D 01
 VE 2.6319213D 04 PTE 1.8895153D 00 AZE-9.0283293D 01

D5-15481-1

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 4 FEB. 1968 12 HRS., 11 MIN., 57.702 SEC.,GMT

SELENOCENTRIC REFERENCE

XSC-4.3610869D 07 YSC 1.5950120D 07 ZSC 1.7529814D 07
DXSC 1.0835085D 03 DYSC-2.9660101D 02 DZSC-3.7670432D 02
RSC 4.9634752D 07 DESC 2.0681709D 01 RASC 1.5991064D 02
VSC 1.1848498D 03 PTSC-8.5013315D 01 AZSC-6.5359553D 01

SELENOGRAPHIC REFERENCE

XSG 3.3143725D 07 YSG-3.5360853D 07 ZSG 1.0710374D 07
DXSG-9.5824696D 02 DYSG 6.8333411D 02 DZSG-2.4872848D 02
HSG 4.7896662D 07 LTSG 1.2461513D 01 LNSG-4.6853710D 01
VRSG 1.2029333D 03 PTSG-7.8884024D 01 AZSG-8.8488043D 01
LTS-1.4263369D 00 LNS 1.1390167D 02 LTE-2.2300739D-01
LNE 2.3134306D 00 DSMP 4.6569191D 00 RSMP 1.1165013D 02
LIN 1.6711422D 02 LAN 2.8161693D 01 LAP 2.0132862D 02

GEOCENTRIC REFERENCE

X 3.2626196D 08 Y 1.5972450D 08 Z 8.1277667D 07
DX 7.2945008D 02 DY 4.9738749D 02 DZ 6.1657597D 01
R 3.7224299D 08 DEC 1.2611888D 01 RA 2.6084476D 01
V 8.8503864D 02 PTH 7.8166760D 01 AZ 1.3603613D 02
ALT 3.6586584D 08 LTGD 1.2613288D 01 LON 6.9360300D 01
VE 2.6377993D 04 PTE 1.8818748D 00 AZE-9.0283942D 01

FLIGHT TIME 2.4686909D 05

TIME 4 FEB. 1968 12 HRS., 26 MIN., 57.702 SEC.,GMT

SELENOCENTRIC REFERENCE

XSC-4.2635094D 07 YSC 1.5682776D 07 ZSC 1.7190396D 07
DXSC 1.0848921D 03 DYSC-2.9750049D 02 DZSC-3.7756104D 02
RSC 4.8571704D 07 DESC 2.0727139D 01 RASC 1.5980459D 02
VSC 1.1866128D 03 PTSC-8.4932626D 01 AZSC-6.5429184D 01

SELENOGRAPHIC REFERENCE

XSG 3.2282511D 07 YSG-3.4743201D 07 ZSG 1.0486179D 07
DXSG-9.5562892D 02 DYSG 6.8926395D 02 DZSG-2.4920419D 02
HSG 4.6833615D 07 LTSG 1.2467788D 01 LNSG-4.7102532D 01
VRSG 1.2043314D 03 PTSG-7.8942913D 01 AZSG-8.8482312D 01
LTS-1.4262958D 00 LNS 1.1377485D 02 LTE-2.3741202D-01
LNE 2.3001882D 00 DSMP 4.6565903D 00 RSMP 1.1153575D 02
LIN 1.6712223D 02 LAN 2.8163962D 01 LAP 2.0160569D 02

GEOCENTRIC REFERENCE

X 3.2691815D 08 Y 1.6017137D 08 Z 8.1332612D 07
DX 7.2876383D 02 DY 4.9566576D 02 DZ 6.0436189D 01
R 3.7302190D 08 DEC 1.2593768D 01 RA 2.6102235D 01
V 8.8342164D 02 PTH 7.8184148D 01 AZ 1.3651941D 02
ALT 3.6664475D 08 LTGD 1.2595163D 01 LON 6.5617792D 01
VE 2.6436734D 04 PTE 1.8743791D 00 AZE-9.0284669D 01

FLIGHT TIME 2.4776909D 05

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 4 FEB. 1968 12 HRS., 41 MIN., 57.702 SEC., GMT
SELENOCENTRIC REFERENCE

XSC-4.1658040D 07 YSC 1.5414613D 07 ZSC 1.6850196D 07
DXSC 1.0863536D 03 DYSC-2.9842178D 02 DZSC-3.7844294D 02
RSC 4.7507175D 07 DESC 2.0774286D 01 RASC 1.5969414D 02
VSC 1.1884606D 03 PTSC-8.4847406D 01 AZSC-6.5499014D 01

SELENOGRAPHIC REFERENCE

XSG 3.1423636D 07 YSG-3.4120189D 07 ZSG 1.0261552D 07
DXSG-9.5304602D 02 DYSG 6.9524280D 02 DZSG-2.4969586D 02
HSG 4.5769085D 07 LTSG 1.2474204D 01 LNSG-4.7355887D 01
VRSG 1.2058222D 03 PTSG-7.8997567D 01 AZSG-8.8476422D 01
LTS-1.4262546D 00 LNS 1.1364803D 02 LTE-2.5181378D-01
LNE 2.2869288D 00 DSMP 4.6562610D 00 RSMP 1.1142138D 02
LIN 1.6712975D 02 LAN 2.8160205D 01 LAP 2.0187110D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.4866909D 05
X 3.2757376D 08 Y 1.6061669D 08 Z 8.1386444D 07
DX 7.2815751D 02 DY 4.9391841D 02 DZ 5.9187466D 01
R 3.7379947D 08 DEC 1.2575596D 01 RA 2.6119737D 01
V 8.8185708D 02 PTH 7.8201941D 01 AZ 1.3702687D 02
ALT 3.6742231D 08 LTGD 1.2576987D 01 LON 6.1875028D 01
VE 2.6495446D 04 PTE 1.8670320D 00 AZE-9.0285480D 01

TIME 4 FEB. 1968 12 HRS., 56 MIN., 57.702 SEC., GMT
SELENOCENTRIC REFERENCE

XSC-4.0679633D 07 YSC 1.5145610D 07 ZSC 1.6509190D 07
DXSC 1.0878975D 03 DYSC-2.9936715D 02 DZSC-3.7935229D 02
RSC 4.6441096D 07 DESC 2.0823273D 01 RASC 1.5957897D 02
VSC 1.1903991D 03 PTSC-8.4757375D 01 AZSC-6.5569186D 01

SELENOGRAPHIC REFERENCE

XSG 3.0567069D 07 YSG-3.3491772D 07 ZSG 1.0036477D 07
DXSG-9.5050107D 02 DYSG 7.0127562D 02 DZSG-2.5020478D 02
HSG 4.4703006D 07 LTSG 1.2480773D 01 LNSG-4.7614108D 01
VRSG 1.2074114D 03 PTSG-7.9047709D 01 AZSG-8.8470439D 01
LTS-1.4262133D 00 LNS 1.1352122D 02 LTE-2.6621260D-01
LNE 2.2736523D 00 DSMP 4.6559312D 00 RSMP 1.1130704D 02
LIN 1.6713680D 02 LAN 2.8150480D 01 LAP 2.0212500D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.4956909D 05
X 3.2822886D 08 Y 1.6106042D 08 Z 8.1439140D 07
DX 7.2763587D 02 DY 4.9214317D 02 DZ 5.7909176D 01
R 3.7457573D 08 DEC 1.2557367D 01 RA 2.6136977D 01
V 8.8034785D 02 PTH 7.8220098D 01 AZ 1.3756029D 02
ALT 3.6819857D 08 LTGD 1.2558753D 01 LON 5.8132001D 01
VE 2.6554137D 04 PTE 1.8598377D 00 AZE-9.0286378D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 13 HRS., 11 MIN., 57.702 SEC.,GMT

SELENOCENTRIC REFERENCE

XSC-3.9699798D 07 YSC 1.4875744D 07 ZSC 1.6167353D 07
 DXSC 1.0895292D 03 DYSC-3.0033913D 02 DZSC-3.8029155D 02
 RSC 4.5373395D 07 DESC 2.0874236D 01 RASC 1.5945873D 02
 VSC 1.1924342D 03 PTSC-8.4662228D 01 AZSC-6.5639863D 01

SELENOGRAPHIC REFERENCE

XSG 2.9712773D 07 YSG-3.2857900D 07 ZSG 9.8109395D 06
 DXSG-9.4799715D 02 DYSG 7.0736786D 02 DZSG-2.5073235D 02
 HSG 4.3635306D 07 LTSG 1.2487504D 01 LNSG-4.7877559D 01
 VRSG 1.2091049D 03 PTSG-7.9093036D 01 AZSG-8.8464438D 01
 LTS-1.4261720D 00 LNS 1.1339440D 02 LTE-2.8060844D-01
 LNE 2.2603591D 00 DSMP 4.6556010D 00 RSMP 1.1119271D 02
 LIN 1.6714340D 02 LAN 2.8134858D 01 LAP 2.0236753D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.5046909D 05

X 3.2888353D 08 Y 1.6150254D 08 Z 8.1490671D 07
 DX 7.2720412D 02 DY 4.9033752D 02 DZ 5.6598847D 01
 R 3.7535074D 08 DEC 1.2539075D 01 RA 2.6153946D 01
 V 8.7889712D 02 PTH 7.8238569D 01 AZ 1.3812164D 02
 ALT 3.6897358D 08 LTGD 1.2540457D 01 LON 5.4388703D 01
 VE 2.6612814D 04 PTE 1.8528009D 00 AZE-9.0287372D 01

TIME 4 FEB. 1968 13 HRS., 26 MIN., 57.702 SEC.,GMT

SELENOCENTRIC REFERENCE

XSC-3.8718452D 07 YSC 1.4604990D 07 ZSC 1.5824656D 07
 DXSC 1.0912544D 03 DYSC-3.0134050D 02 DZSC-3.8126346D 02
 RSC 4.4303995D 07 DESC 2.0927324D 01 RASC 1.5933301D 02
 VSC 1.1945728D 03 PTSC-8.4561631D 01 AZSC-6.5711219D 01

SELENOGRAPHIC REFERENCE

XSG 2.8860710D 07 YSG-3.2218515D 07 ZSG 9.5849208D 06
 DXSG-9.4553762D 02 DYSG 7.1352550D 02 DZSG-2.5128012D 02
 HSG 4.2565906D 07 LTSG 1.2494411D 01 LNSG-4.8146641D 01
 VRSG 1.2109095D 03 PTSG-7.9133217D 01 AZSG-8.8458508D 01
 LTS-1.4261306D 00 LNS 1.1326758D 02 LTE-2.9500122D-01
 LNE 2.2470490D 00 DSMP 4.6552702D 00 RSMP 1.1107839D 02
 LIN 1.6714956D 02 LAN 2.8113416D 01 LAP 2.0259886D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.5136909D 05

X 3.2953786D 08 Y 1.6194302D 08 Z 8.1541007D 07
 DX 7.2686798D 02 DY 4.8849868D 02 DZ 5.5253747D 01
 R 3.7612455D 08 DEC 1.2520714D 01 RA 2.6170637D 01
 V 8.7750840D 02 PTH 7.8257290D 01 AZ 1.3871304D 02
 ALT 3.6974739D 08 LTGD 1.2522091D 01 LON 5.0645128D 01
 VE 2.6671488D 04 PTE 1.8459269D 00 AZE-9.0288465D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 4 FEB. 1968 13 HRS., 41 MIN., 57.702 SEC., GMT
SELENOCENTRIC REFERENCE
XSC-3.7735510D 07 YSC 1.4333321D 07 ZSC 1.5481068D 07
DXSC 1.0930793D 03 DYSC-3.0237436D 02 DZSC-3.8227104D 02
RSC 4.3232815D 07 DESC 2.0982699D 01 RASC 1.5920139D 02
VSC 1.1968224D 03 PTSC-8.4455213D 01 AZSC-6.5783449D 01
SELENOGRAPHIC REFERENCE
XSG 2.8010839D 07 YSG-3.1573556D 07 ZSG 9.3584022D 06
DXSG-9.4312619D 02 DYSG 7.1975516D 02 DZSG-2.5184979D 02
HSG 4.1494725D 07 LTSG 1.2501504D 01 LNSG-4.8421797D 01
VRSG 1.2128326D 03 PTSG-7.9167887D 01 AZSG-8.8452749D 01
LTS-1.4260892D 00 LNS 1.1314077D 02 LTE-3.0939089D-01
LNE 2.2337224D 00 DSMP 4.6549390D 00 RSMP 1.1096410D 02
LIN 1.6715530D 02 LAN 2.8086240D 01 LAP 2.0281917D 02
GEOCENTRIC REFERENCE FLIGHT TIME 2.5226909D 05
X 3.3019192D 08 Y 1.6238182D 08 Z 8.1590116D 07
DX 7.2663375D 02 DY 4.8662355D 02 DZ 5.3870861D 01
R 3.7689721D 08 DEC 1.2502277D 01 RA 2.6187041D 01
V 8.7618557D 02 PTH 7.8276178D 01 AZ 1.3933688D 02
ALT 3.7052005D 08 LTGD 1.2503649D 01 LON 4.6901265D 01
VE 2.6730169D 04 PTE 1.8392216D 00 AZE-9.0289667D 01

TIME 4 FEB. 1968 13 HRS., 56 MIN., 57.702 SEC., GMT
SELENOCENTRIC REFERENCE
XSC-3.6750878D 07 YSC 1.4060706D 07 ZSC 1.5136556D 07
DXSC 1.0950109D 03 DYSC-3.0344416D 02 DZSC-3.8331763D 02
RSC 4.2159765D 07 DESC 2.1040542D 01 RASC 1.5906339D 02
VSC 1.1991913D 03 PTSC-8.4342567D 01 AZSC-6.5856767D 01
SELENOGRAPHIC REFERENCE
XSG 2.7163115D 07 YSG-3.0922955D 07 ZSG 9.1313634D 06
DXSG-9.4076690D 02 DYSG 7.2606417D 02 DZSG-2.5244324D 02
HSG 4.0421675D 07 LTSG 1.2508797D 01 LNSG-4.8703516D 01
VRSG 1.2148824D 03 PTSG-7.9196642D 01 AZSG-8.8447278D 01
LTS-1.4260478D 00 LNS 1.1301395D 02 LTE-3.2377740D-01
LNE 2.2203792D 00 DSMP 4.6546072D 00 RSMP 1.1084982D 02
LIN 1.6716064D 02 LAN 2.8053424D 01 LAP 2.0302865D 02
GEOCENTRIC REFERENCE FLIGHT TIME 2.5316909D 05
X 3.3084583D 08 Y 1.6281893D 08 Z 8.1637963D 07
DX 7.2650839D 02 DY 4.8470870D 02 DZ 5.2446839D 01
R 3.7766880D 08 DEC 1.2483757D 01 RA 2.6203149D 01
V 8.7493293D 02 PTH 7.8295133D 01 AZ 1.3999573D 02
ALT 3.7129163D 08 LTGD 1.2485124D 01 LON 4.3157107D 01
VE 2.6788868D 04 PTE 1.8326913D 00 AZE-9.0290985D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 14 HRS., 11 MIN., 57.702 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-3.5764456D 07 YSC 1.3787110D 07 ZSC 1.4791084D 07
 DXSC 1.0970570D 03 DYSC-3.0455375D 02 DZSC-3.8440697D 02
 RSC 4.1084752D 07 DESC 2.1101051D 01 RASC 1.5891846D 02
 VSC 1.2016887D 03 PTSC-8.4223243D 01 AZSC-6.5931411D 01

SELENOGRAPHIC REFERENCE

XSG 2.6317488D 07 YSG-3.0266637D 07 ZSG 8.9037820D 06
 DXSG-9.3846423D 02 DYSG 7.3246067D 02 DZSG-2.5306256D 02
 HSG 3.9346662D 07 LTSG 1.2516304D 01 LNSG-4.8992341D 01
 VRSG 1.2170680D 03 PTSG-7.9219036D 01 AZSG-8.8442227D 01
 LTS-1.4260063D 00 LNS 1.1288714D 02 LTE-3.3816068D-01
 LNE 2.2070195D 00 DSMP 4.6542750D 00 RSMP 1.1073556D 02
 LIN 1.6716560D 02 LAN 2.8015069D 01 LAP 2.0322749D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.5406909D 05
 X 3.3149967D 08 Y 1.6325429D 08 Z 8.1684507D 07
 DX 7.2649963D 02 DY 4.8275027D 02 DZ 5.0977961D 01
 R 3.7843937D 08 DEC 1.2465146D 01 RA 2.6218951D 01
 V 8.7375528D 02 PTH 7.8314027D 01 AZ 1.4069248D 02
 ALT 3.7206220D 08 LTGD 1.2466509D 01 LON 3.9412642D 01
 VE 2.6847597D 04 PTE 1.8263433D 00 AZE-9.0292428D 01

TIME 4 FEB. 1968 14 HRS., 26 MIN., 57.702 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-3.4776138D 07 YSC 1.3512496D 07 ZSC 1.4444610D 07
 DXSC 1.0992259D 03 DYSC-3.0570745D 02 DZSC-3.8554321D 02
 RSC 4.0007675D 07 DESC 2.1164445D 01 RASC 1.5876603D 02
 VSC 1.2043248D 03 PTSC-8.4096742D 01 AZSC-6.6007644D 01

SELENOGRAPHIC REFERENCE

XSG 2.5473906D 07 YSG-2.9604519D 07 ZSG 8.6756336D 06
 DXSG-9.3622312D 02 DYSG 7.3895371D 02 DZSG-2.5371008D 02
 HSG 3.8269585D 07 LTSG 1.2524040D 01 LNSG-4.9288873D 01
 VRSG 1.2193995D 03 PTSG-7.9234576D 01 AZSG-8.8437750D 01
 LTS-1.4259648D 00 LNS 1.1276033D 02 LTE-3.5254069D-01
 LNE 2.1936436D 00 DSMP 4.6539423D 00 RSMP 1.1062132D 02
 LIN 1.6717018D 02 LAN 2.7971284D 01 LAP 2.0341592D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.5496909D 05
 X 3.3215357D 08 Y 1.6368786D 08 Z 8.1729708D 07
 DX 7.2661600D 02 DY 4.8074396D 02 DZ 4.9460073D 01
 R 3.7920898D 08 DEC 1.2446436D 01 RA 2.6234435D 01
 V 8.7265793D 02 PTH 7.8332707D 01 AZ 1.4143028D 02
 ALT 3.7283181D 08 LTGD 1.2447794D 01 LON 3.5667860D 01
 VE 2.6906371D 04 PTE 1.8201858D 00 AZE-9.0294005D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 4 FEB. 1968 14 HRS., 41 MIN., 57.702 SEC., GMT
SELENOCENTRIC REFERENCE

XSC-3.3785809D 07 YSC 1.3236822D 07 ZSC 1.4097090D 07
DXSC 1.1015274D 03 DYSC-3.0691011D 02 DZSC-3.8673099D 02
RSC 3.8928425D 07 DESC 2.1230968D 01 RASC 1.5860542D 02
VSC 1.2071111D 03 PTSC-8.3962507D 01 AZSC-6.6085758D 01

SELENOGRAPHIC REFERENCE

XSG 2.4632310D 07 YSG-2.8936510D 07 ZSG 8.4468918D 06
DXSG-9.3404904D 02 DYSG 7.4555341D 02 DZSG-2.5438837D 02
HSG 3.7190336D 07 LTSG 1.2532019D 01 LNSG-4.9593786D 01
VRSG 1.2218883D 03 PTSG-7.9242712D 01 AZSG-8.8434021D 01
LTS-1.4259232D 00 LNS 1.1263351D 02 LTE-3.6691735D-01
LNE 2.1802514D 00 DSMP 4.6536091D 00 RSMP 1.1050709D 02
LIN 1.6717442D 02 LAN 2.7922184D 01 LAP 2.0359413D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.5586909D 05
X 3.3280762D 08 Y 1.6411961D 08 Z 8.1773519D 07
DX 7.2686705D 02 DY 4.7868490D 02 DZ 4.7888525D 01
R 3.7997772D 08 DEC 1.2427618D 01 RA 2.6249590D 01
V 8.7164686D 02 PTH 7.8350979D 01 AZ 1.4221265D 02
ALT 3.7360055D 08 LTGD 1.2428971D 01 LON 3.1922749D 01
VE 2.6965203D 04 PTE 1.8142276D 00 AZE-9.0295728D 01

TIME 4 FEB. 1968 14 HRS., 56 MIN., 57.702 SEC., GMT
SELENOCENTRIC REFERENCE

XSC-3.2793346D 07 YSC 1.2960041D 07 ZSC 1.3748477D 07
DXSC 1.1039720D 03 DYSC-3.0816722D 02 DZSC-3.8797556D 02
RSC 3.7846886D 07 DESC 2.1300890D 01 RASC 1.5843589D 02
VSC 1.2100604D 03 PTSC-8.3819919D 01 AZSC-6.6166082D 01

SELENOGRAPHIC REFERENCE

XSG 2.3792638D 07 YSG-2.8262509D 07 ZSG 8.2175275D 06
DXSG-9.3194808D 02 DYSG 7.5227112D 02 DZSG-2.5510034D 02
HSG 3.6108797D 07 LTSG 1.2540260D 01 LNSG-4.9907832D 01
VRSG 1.2245470D 03 PTSG-7.9242832D 01 AZSG-8.8431241D 01
LTS-1.4258815D 00 LNS 1.1250670D 02 LTE-3.8129062D-01
LNE 2.1668430D 00 DSMP 4.6532754D 00 RSMP 1.1039288D 02
LIN 1.6717831D 02 LAN 2.7867890D 01 LAP 2.0376237D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.5676909D 05
X 3.3346197D 08 Y 1.6454948D 08 Z 8.1815890D 07
DX 7.2726339D 02 DY 4.7656763D 02 DZ 4.6258093D 01
R 3.8074566D 08 DEC 1.2408681D 01 RA 2.6264403D 01
V 8.7072875D 02 PTH 7.8368609D 01 AZ 1.4304345D 02
ALT 3.7436848D 08 LTGD 1.2410030D 01 LON 2.8177294D 01
VE 2.7024109D 04 PTE 1.8084789D 00 AZE-9.0297609D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 15 HRS., 11 MIN., 57.702 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-3.1798613D 07 YSC 1.2682103D 07 ZSC 1.3398716D 07
 DXSC 1.1065715D 03 DYSC-3.0948500D 02 DZSC-3.8928279D 02
 RSC 3.6762931D 07 DESC 2.1374516D 01 RASC 1.5825661D 02
 VSC 1.2131870D 03 PTSC-8.3668284D 01 AZSC-6.6248980D 01

SELENOGRAPHIC REFERENCE

XSG 2.2954821D 07 YSG-2.7582404D 07 ZSG 7.9875091D 06
 DXSG-9.2992698D 02 DYSG 7.5911962D 02 DZSG-2.5584924D 02
 HSG 3.5024842D 07 LTSG 1.2548780D 01 LNSG-5.0231857D 01
 VRSG 1.2273898D 03 PTSG-7.9234248D 01 AZSG-8.8429639D 01
 LTS-1.4258399D 00 LNS 1.1237989D 02 LTE-3.9566044D-01
 LNE 2.1534187D 00 DSMP 4.6529412D 00 RSMP 1.1027869D 02
 LIN 1.6718188D 02 LAN 2.7808529D 01 LAP 2.0392087D 02

GEOCENTRIC REFERENCE

X 3.3411675D 08 Y 1.6497741D 08 Z 8.1856764D 07
 DX 7.2781695D 02 DY 4.7438593D 02 DZ 4.4562887D 01
 R 3.8151288D 08 DEC 1.2389616D 01 RA 2.6278857D 01
 V 8.6991113D 02 PTH 7.8385308D 01 AZ 1.4392702D 02
 ALT 3.7513570D 08 LTGD 1.2390960D 01 LON 2.4431483D 01
 VE 2.7083108D 04 PTE 1.8029509D 00 AZE-9.0299662D 01

TIME 4 FEB. 1968 15 HRS., 26 MIN., 57.702 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-3.0801467D 07 YSC 1.2402948D 07 ZSC 1.3047747D 07
 DXSC 1.1093395D 03 DYSC-3.1087051D 02 DZSC-3.9065936D 02
 RSC 3.5676423D 07 DESC 2.1452184D 01 RASC 1.5806663D 02
 VSC 1.2165070D 03 PTSC-8.3506822D 01 AZSC-6.6334867D 01

SELENOGRAPHIC REFERENCE

XSG 2.2118783D 07 YSG-2.6896071D 07 ZSG 7.7568017D 06
 DXSG-9.2799332D 02 DYSG 7.6611332D 02 DZSG-2.5663874D 02
 HSG 3.3938333D 07 LTSG 1.2557597D 01 LNSG-5.0566811D 01
 VRSG 1.2304327D 03 PTSG-7.9216190D 01 AZSG-8.8429477D 01
 LTS-1.4257981D 00 LNS 1.1225308D 02 LTE-4.1002674D-01
 LNE 2.1399784D 00 DSMP 4.6526065D 00 RSMP 1.1016452D 02
 LIN 1.6718515D 02 LAN 2.7744234D 01 LAP 2.0406986D 02

GEOCENTRIC REFERENCE

X 3.3477209D 08 Y 1.6540335D 08 Z 8.1896081D 07
 DX 7.2854109D 02 DY 4.7213274D 02 DZ 4.2796240D 01
 R 3.8227947D 08 DEC 1.2370410D 01 RA 2.6292939D 01
 V 8.6920248D 02 PTH 7.8400720D 01 AZ 1.4486812D 02
 ALT 3.7590228D 08 LTGD 1.2371750D 01 LON 2.0685297D 01
 VE 2.7142220D 04 PTE 1.7976564D 00 AZE-9.0301903D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 4 FEB. 1968 15 HRS., 41 MIN., 57.702 SEC., GMT
SELENOCENTRIC REFERENCE
XSC-2.9801747D 07 YSC 1.2122513D 07 ZSC 1.2695506D 07
DXSC 1.1122908D 03 DYSC-3.1233185D 02 DZSC-3.9211285D 02
RSC 3.4587213D 07 DESC 2.1534276D 01 RASC 1.5786488D 02
VSC 1.2200388D 03 PTSC-8.3334655D 01 AZSC-6.6424207D 01
SELENOGRAPHIC REFERENCE
XSG 2.1284443D 07 YSG-2.6203371D 07 ZSG 7.5253669D 06
DXSG-9.2615556D 02 DYSG 7.7326860D 02 DZSG-2.5747299D 02
HSG 3.2849124D 07 LTSG 1.2566732D 01 LNSG-5.0913774D 01
VRSG 1.2336940D 03 PTSG-7.9187788D 01 AZSG-8.8431056D 01
LTS-1.4257563D 00 LNS 1.1212627D 02 LTE-4.2438948D-01
LNE 2.1265223D 00 DSMP 4.6522713D 00 RSMP 1.1005036D 02
LIN 1.6718813D 02 LAN 2.7675141D 01 LAP 2.0420960D 02
GEOCENTRIC REFERENCE FLIGHT TIME 2.5946909D 05
X 3.3542818D 08 Y 1.6582723D 08 Z 8.1933774D 07
DX 7.2945091D 02 DY 4.6979996D 02 DZ 4.0950571D 01
R 3.8304552D 08 DEC 1.2351052D 01 RA 2.6306628D 01
V 8.6861245D 02 PTH 7.8414411D 01 AZ 1.4587208D 02
ALT 3.7666834D 08 LTGD 1.2352386D 01 LON 1.6938721D 01
VE 2.7201467D 04 PTE 1.7926095D 00 AZE-9.0304350D 01

TIME 4 FEB. 1968 15 HRS., 56 MIN., 57.702 SEC., GMT
SELENOCENTRIC REFERENCE
XSC-2.8799283D 07 YSC 1.1840725D 07 ZSC 1.2341918D 07
DXSC 1.1154427D 03 DYSC-3.1387830D 02 DZSC-3.9365192D 02
RSC 3.3495140D 07 DESC 2.1621222D 01 RASC 1.5765015D 02
VSC 1.2238031D 03 PTSC-8.3150788D 01 AZSC-6.6517531D 01
SELENOGRAPHIC REFERENCE
XSG 2.0451709D 07 YSG-2.5504152D 07 ZSG 7.2931624D 06
DXSG-9.2442320D 02 DYSG 7.8060409D 02 DZSG-2.5835671D 02
HSG 3.1757050D 07 LTSG 1.2576205D 01 LNSG-5.1273968D 01
VRSG 1.2371941D 03 PTSG-7.9148059D 01 AZSG-8.8434721D 01
LTS-1.4257145D 00 LNS 1.1199946D 02 LTE-4.3874860D-01
LNE 2.1130505D 00 DSMP 4.6519356D 00 RSMP 1.0993622D 02
LIN 1.6719082D 02 LAN 2.7601393D 01 LAP 2.0434035D 02
GEOCENTRIC REFERENCE FLIGHT TIME 2.6036909D 05
X 3.3608517D 08 Y 1.6624896D 08 Z 8.1969766D 07
DX 7.3056349D 02 DY 4.6737832D 02 DZ 3.9017223D 01
R 3.8381115D 08 DEC 1.2331526D 01 RA 2.6319907D 01
V 8.6815197D 02 PTH 7.8425846D 01 AZ 1.4694484D 02
ALT 3.7743396D 08 LTGD 1.2332856D 01 LON 1.3191733D 01
VE 2.7260873D 04 PTE 1.7878263D 00 AZE-9.0307024D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 4 FEB. 1968 16 HRS., 11 MIN., 57.702 SEC., GMT
SELENOCENTRIC REFERENCE

XSC-2.7793884D 07 YSC 1.1557503D 07 ZSC 1.1986904D 07
DXSC 1.1188146D 03 DYSC-3.1552060D 02 DZSC-3.9528651D 02
RSC 3.2400027D 07 DESC 2.1713510D 01 RASC 1.5742103D 02
VSC 1.2278236D 03 PTSC-8.2954091D 01 AZSC-6.6615442D 01

SELENOGRAPHIC REFERENCE

XSG 1.9620482D 07 YSG-2.4798242D 07 ZSG 7.0601413D 06
DXSG-9.2280700D 02 DYSG 7.8814114D 02 DZSG-2.5929529D 02
HSG 3.0661937D 07 LTSG 1.2586037D 01 LNSG-5.1648792D 01
VRSG 1.2409566D 03 PTSG-7.9095884D 01 AZSG-8.8440866D 01
LTS-1.4256726D 00 LNS 1.1187265D 02 LTE-4.5310403D-01
LNE 2.0995631D 00 DSMP 4.6515994D 00 RSMP 1.0982210D 02
LIN 1.6719326D 02 LAN 2.7523135D 01 LAP 2.0446237D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.6126909D 05
X 3.3674326D 08 Y 1.6666848D 08 Z 8.2003975D 07
DX 7.3189824D 02 DY 4.6485710D 02 DZ 3.6986263D 01
R 3.8457646D 08 DEC 1.2311818D 01 RA 2.6332753D 01
V 8.6783359D 02 PTH 7.8434366D 01 AZ 1.4809298D 02
ALT 3.7819927D 08 LTGD 1.2313143D 01 LON 9.4443117D 00
VE 2.7320467D 04 PTE 1.7833251D 00 AZE-9.0309947D 01

TIME 4 FEB. 1968 16 HRS., 26 MIN., 57.702 SEC., GMT
SELENOCENTRIC REFERENCE

XSC-2.6785344D 07 YSC 1.1272756D 07 ZSC 1.1630370D 07
DXSC 1.1224285D 03 DYSC-3.1727118D 02 DZSC-3.9702807D 02
RSC 3.1301680D 07 DESC 2.1811696D 01 RASC 1.5717594D 02
VSC 1.2321275D 03 PTSC-8.2743273D 01 AZSC-6.6718634D 01

SELENOGRAPHIC REFERENCE

XSG 1.8790653D 07 YSG-2.4085449D 07 ZSG 6.8262516D 06
DXSG-9.2131910D 02 DYSG 7.9590430D 02 DZSG-2.6029490D 02
HSG 2.9563591D 07 LTSG 1.2596251D 01 LNSG-5.2039847D 01
VRSG 1.2450084D 03 PTSG-7.9029985D 01 AZSG-8.8449946D 01
LTS-1.4256307D 00 LNS 1.1174584D 02 LTE-4.6745573D-01
LNE 2.0860602D 00 DSMP 4.6512627D 00 RSMP 1.0970799D 02
LIN 1.6719545D 02 LAN 2.7440516D 01 LAP 2.0457592D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.6216909D 05
X 3.3740266D 08 Y 1.6708567D 08 Z 8.2036309D 07
DX 7.3347732D 02 DY 4.6222384D 02 DZ 3.4846235D 01
R 3.8534158D 08 DEC 1.2291910D 01 RA 2.6345141D 01
V 8.6767167D 02 PTH 7.8439163D 01 AZ 1.4932386D 02
ALT 3.7896438D 08 LTGD 1.2293231D 01 LON 5.6964331D 00
VE 2.7380279D 04 PTE 1.7791265D 00 AZE-9.0313147D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 4 FEB. 1968 16 HRS., 41 MIN., 57.702 SEC., GMT
SELENOCENTRIC REFERENCE
XSC-2.5773433D 07 YSC 1.0986378D 07 ZSC 1.1272217D 07
DXSC 1.1263100D 03 DYSC-3.1914460D 02 DZSC-3.9888990D 02
RSC 3.0199888D 07 DESC 2.1916415D 01 RASC 1.5691301D 02
VSC 1.2367460D 03 PTSC-8.2516853D 01 AZSC-6.6827908D 01
SELENOGRAPHIC REFERENCE
XSG 1.7962099D 07 YSG-2.3365556D 07 ZSG 6.5914350D 06
DXSG-9.1997333D 02 DYSG 8.0392196D 02 DZSG-2.6136268D 02
HSG 2.8461798D 07 LTSG 1.2606869D 01 LNSG-5.2448981D 01
VRSG 1.2493806D 03 PTSG-7.8948894D 01 AZSG-8.8462485D 01
LTS-1.4255887D 00 LNS 1.1161903D 02 LTE-4.8180362D-01
LNE 2.0725419D 00 DSMP 4.6509255D 00 RSMP 1.0959390D 02
LIN 1.6719740D 02 LAN 2.7353690D 01 LAP 2.0468127D 02
GEOCENTRIC REFERENCE FLIGHT TIME 2.6306909D 05
X 3.3806360D 08 Y 1.6750044D 08 Z 8.2066662D 07
DX 7.3532617D 02 DY 4.5946402D 02 DZ 3.2583851D 01
R 3.8610663D 08 DEC 1.2271784D 01 RA 2.6357044D 01
V 8.6768282D 02 PTH 7.8439233D 01 AZ 1.5064565D 02
ALT 3.7972943D 08 LTGD 1.2273100D 01 LON 1.9480697D 00
VE 2.7440347D 04 PTE 1.7752538D 00 AZE-9.0316655D 01

TIME 4 FEB. 1968 16 HRS., 56 MIN., 57.702 SEC., GMT
SELENOCENTRIC REFERENCE
XSC-2.4757897D 07 YSC 1.0698253D 07 ZSC 1.0912328D 07
DXSC 1.1304882D 03 DYSC-3.2115793D 02 DZSC-4.0088750D 02
RSC 2.9094415D 07 DESC 2.2028395D 01 RASC 1.5663010D 02
VSC 1.2417153D 03 PTSC-8.2273124D 01 AZSC-6.6944196D 01
SELENOGRAPHIC REFERENCE
XSG 1.7134686D 07 YSG-2.2638320D 07 ZSG 6.3556268D 06
DXSG-9.1878547D 02 DYSG 8.1222719D 02 DZSG-2.6250690D 02
HSG 2.7356326D 07 LTSG 1.2617912D 01 LNSG-5.2878335D 01
VRSG 1.2541091D 03 PTSG-7.8850920D 01 AZSG-8.8479088D 01
LTS-1.4255467D 00 LNS 1.1149222D 02 LTE-4.9614767D-01
LNE 2.0590083D 00 DSMP 4.6505878D 00 RSMP 1.0947983D 02
LIN 1.6719914D 02 LAN 2.7262812D 01 LAP 2.0477871D 02
GEOCENTRIC REFERENCE FLIGHT TIME 2.6396909D 05
X 3.3872633D 08 Y 1.6791266D 08 Z 8.2094918D 07
DX 7.3747409D 02 DY 4.5656055D 02 DZ 3.0183608D 01
R 3.8687177D 08 DEC 1.2251419D 01 RA 2.6368431D 01
V 8.6788629D 02 PTH 7.8433339D 01 AZ 1.5206746D 02
ALT 3.8049457D 08 LTGD 1.2252730D 01 LON 3.5819915D 02
VE 2.7500712D 04 PTE 1.7717340D 00 AZE-9.0320507D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 17 HRS.: 11 MIN.: 57.702 SEC.,GMT

SELENOCENTRIC REFERENCE

XSC-2.3738455D 07 YSC 1.0408246D 07 ZSC 1.0550573D 07
 DXSC 1.1349973D 03 DYSC-3.2333140D 02 DZSC-4.0303908D 02
 RSC 2.7985003D 07 DESC 2.2148479D 01 RASC 1.5632470D 02
 VSC 1.2470776D 03 PTSC-8.2010103D 01 AZSC-6.7068588D 01

SELENOGRAPHIC REFERENCE

XSG 1.6308263D 07 YSG-2.1903466D 07 ZSG 6.1187538D 06
 DXSG-9.1777362D 02 DYSG 8.2085866D 02 DZSG-2.6373720D 02
 HSG 2.6246914D 07 LTSG 1.2629402D 01 LNSG-5.3330407D 01
 VRSG 1.2592358D 03 PTSG-7.8734098D 01 AZSG-8.8500457D 01
 LTS-1.4255046D 00 LNS 1.1136542D 02 LTE-5.1048781D-01
 LNE 2.0454596D 00 DSMP 4.6502496D 00 RSMP 1.0936577D 02
 LIN 1.6720067D 02 LAN 2.7168039D 01 LAP 2.0486851D 02

GEOCENTRIC REFERENCE

X 3.3939115D 08 Y 1.6832220D 08 Z 8.2120946D 07
 DX 7.3995506D 02 DY 4.5349323D 02 DZ 2.7627300D 01
 R 3.8763716D 08 DEC 1.2230790D 01 RA 2.6379268D 01
 V 8.6830459D 02 PTH 7.8419941D 01 AZ 1.5359938D 02
 ALT 3.8125995D 08 LTGD 1.2232097D 01 LON 3.5444972D 02
 VE 2.7561420D 04 PTE 1.7685978D 00 AZE-9.0324745D 01

FLIGHT TIME 2.6486909D 05

TIME 4 FEB. 1968 17 HRS.: 26 MIN.: 57.702 SEC.,GMT

SELENOCENTRIC REFERENCE

XSC-2.2714791D 07 YSC 1.0116202D 07 ZSC 1.0186805D 07
 DXSC 1.1398767D 03 DYSC-3.2568909D 02 DZSC-4.0536617D 02
 RSC 2.6871365D 07 DESC 2.2277646D 01 RASC 1.5599383D 02
 VSC 1.2528823D 03 PTSC-8.1725478D 01 AZSC-6.7202373D 01

SELENOGRAPHIC REFERENCE

XSG 1.5482664D 07 YSG-2.1160679D 07 ZSG 5.8807337D 06
 DXSG-9.1695864D 02 DYSG 8.2986201D 02 DZSG-2.6506493D 02
 HSG 2.5133275D 07 LTSG 1.2641355D 01 LNSG-5.3808129D 01
 VRSG 1.2648097D 03 PTSG-7.8596132D 01 AZSG-8.8527408D 01
 LTS-1.4254625D 00 LNS 1.1123861D 02 LTE-5.2482398D-01
 LNE 2.0318957D 00 DSMP 4.6499109D 00 RSMP 1.0925173D 02
 LIN 1.6720200D 02 LAN 2.7069533D 01 LAP 2.0495095D 02

GEOCENTRIC REFERENCE

X 3.4005836D 08 Y 1.6872890D 08 Z 8.2144594D 07
 DX 7.4280869D 02 DY 4.5023797D 02 DZ 2.4893396D 01
 R 3.8840297D 08 DEC 1.2209872D 01 RA 2.6389516D 01
 V 8.6896413D 02 PTH 7.8397122D 01 AZ 1.5525258D 02
 ALT 3.8202576D 08 LTGD 1.2211175D 01 LON 3.5069971D 02
 VE 2.7622526D 04 PTE 1.7658805D 00 AZE-9.0329420D 01

FLIGHT TIME 2.6576909D 05

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 4 FEB. 1968 17 HRS., 41 MIN., 57.702 SEC., GMT
SELENOCENTRIC REFERENCE

XSC-2.1686552D 07 YSC 9.8219418D 06 ZSC 9.8208539D 06
DXSC 1.1451730D 03 DYSC-3.2825996D 02 DZSC-4.0789444D 02
RSC 2.5753179D 07 DESC 2.2417037D 01 RASC 1.5563399D 02
VSC 1.2591877D 03 PTSC-8.1416529D 01 AZSC-6.7347082D 01

SELENOGRAPHIC REFERENCE

XSG 1.4657700D 07 YSG-2.0409602D 07 ZSG 5.6414729D 06
DXSG-9.1636468D 02 DYSG 8.3929143D 02 DZSG-2.6650348D 02
HSG 2.4015090D 07 LTSG 1.2653785D 01 LNSG-5.4314971D 01
VRSG 1.2708888D 03 PTSG-7.8434324D 01 AZSG-8.8560896D 01
LTS-1.4254203D 00 LNS 1.1111180D 02 LTE-5.3915613D-01
LNE 2.0183169D 00 DSMP 4.6495717D 00 RSMP 1.0913770D 02
LIN 1.6720316D 02 LAN 2.6967456D 01 LAP 2.0502631D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.6666909D 05
X 3.4072833D 08 Y 1.6913257D 08 Z 8.2165693D 07
DX 7.4608151D 02 DY 4.4676581D 02 DZ 2.1956236D 01
R 3.8916940D 08 DEC 1.2188634D 01 RA 2.6399129D 01
V 8.6989619D 02 PTH 7.8362482D 01 AZ 1.5703936D 02
ALT 3.8279219D 08 LTGD 1.2189932D 01 LON 3.4694905D 02
VE 2.7684096D 04 PTE 1.7636230D 00 AZE-9.0334590D 01

TIME 4 FEB. 1968 17 HRS., 56 MIN., 57.702 SEC., GMT
SELENOCENTRIC REFERENCE

XSC-2.0653338D 07 YSC 9.5252594D 06 ZSC 9.4525254D 06
DXSC 1.1509412D 03 DYSC-3.3107911D 02 DZSC-4.1065471D 02
RSC 2.4630087D 07 DESC 2.2567997D 01 RASC 1.5524098D 02
VSC 1.2660633D 03 PTSC-8.1080035D 01 AZSC-6.7504554D 01

SELENOGRAPHIC REFERENCE

XSG 1.3833160D 07 YSG-1.9649822D 07 ZSG 5.4008647D 06
DXSG-9.1601988D 02 DYSG 8.4921183D 02 DZSG-2.6806884D 02
HSG 2.2891997D 07 LTSG 1.2666697D 01 LNSG-5.4855064D 01
VRSG 1.2775422D 03 PTSG-7.8245476D 01 AZSG-8.8602045D 01
LTS-1.4253780D 00 LNS 1.1098500D 02 LTE-5.5348420D-01
LNE 2.0047231D 00 DSMP 4.6492320D 00 RSMP 1.0902369D 02
LIN 1.6720414D 02 LAN 2.6861971D 01 LAP 2.0509490D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.6756909D 05
X 3.4140145D 08 Y 1.6953300D 08 Z 8.2184045D 07
DX 7.4982846D 02 DY 4.4304165D 02 DZ 1.8784987D 01
R 3.8993667D 08 DEC 1.2167042D 01 RA 2.6408056D 01
V 8.7113805D 02 PTH 7.8313009D 01 AZ 1.5897320D 02
ALT 3.8355946D 08 LTGD 1.2168335D 01 LON 3.4319771D 02
VE 2.7746203D 04 PTE 1.7618727D 00 AZE-9.0340327D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 18 HRS., 11 MIN., 57.702 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-1.9614697D 07 YSC 9.2259122D 06 ZSC 9.0815946D 06
 DXSC 1.1572466D 03 DYSC-3.3418952D 02 DZSC-4.1368440D 02
 RSC 2.3501684D 07 DESC 2.2732118D 01 RASC 1.5480971D 02
 VSC 1.2735922D 03 PTSC-8.0712154D 01 AZSC-6.7677021D 01

SELENOGRAPHIC REFERENCE

XSG 1.3008806D 07 YSG-1.8880864D 07 ZSG 5.1587866D 06
 DXSG-9.1595717D 02 DYSG 8.5970167D 02 DZSG-2.6978026D 02
 HSG 2.1763594D 07 LTSG 1.2680084D 01 LNSG-5.5433380D 01
 VRSG 1.2848525D 03 PTSG-7.8025768D 01 AZSG-8.8652187D 01
 LTS-1.4253358D 00 LNS 1.1085820D 02 LTE-5.6780814D-01
 LNE 1.9911146D 00 DSMP 4.6488918D 00 RSMP 1.0890970D 02
 LIN 1.6720498D 02 LAN 2.6753243D 01 LAP 2.0515699D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.6846909D 05
 X 3.4207819D 08 Y 1.6992995D 08 Z 8.2199424D 07
 DX 7.5411501D 02 DY 4.3902254D 02 DZ 1.5342249D 01
 R 3.9070503D 08 DEC 1.2145057D 01 RA 2.6416238D 01
 V 8.7273457D 02 PTH 7.8244903D 01 AZ 1.6106868D 02
 ALT 3.8432781D 08 LTGD 1.2146345D 01 LON 3.3944563D 02
 VE 2.7808938D 04 PTE 1.7606849D 00 AZE-9.0346715D 01

TIME 4 FEB. 1968 18 HRS., 26 MIN., 57.702 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-1.8570110D 07 YSC 8.9236150D 06 ZSC 8.7077991D 06
 DXSC 1.1641680D 03 DYSC-3.3764437D 02 DZSC-4.1702933D 02
 RSC 2.2367513D 07 DESC 2.2911300D 01 RASC 1.5433401D 02
 VSC 1.2818753D 03 PTSC-8.0308253D 01 AZSC-6.7867220D 01

SELENOGRAPHIC REFERENCE

XSG 1.2184366D 07 YSG-1.8102173D 07 ZSG 4.9150971D 06
 DXSG-9.1621537D 02 DYSG 8.7085670D 02 DZSG-2.7166107D 02
 HSG 2.0629423D 07 LTSG 1.2693919D 01 LNSG-5.6055950D 01
 VRSG 1.2929198D 03 PTSG-7.7770595D 01 AZSG-8.8712913D 01
 LTS-1.4252934D 00 LNS 1.1073139D 02 LTE-5.8212788D-01
 LNE 1.9774915D 00 DSMP 4.6485511D 00 RSMP 1.0879572D 02
 LIN 1.6720567D 02 LAN 2.6641440D 01 LAP 2.0521288D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.6936909D 05
 X 3.4275905D 08 Y 1.7032314D 08 Z 8.2211566D 07
 DX 7.5901979D 02 DY 4.3465528D 02 DZ 1.1582196D 01
 R 3.9147474D 08 DEC 1.2122631D 01 RA 2.6423607D 01
 V 8.7474019D 02 PTH 7.8153344D 01 AZ 1.6334144D 02
 ALT 3.8509752D 08 LTGD 1.2123915D 01 LON 3.3569273D 02
 VE 2.7872409D 04 PTE 1.7601245D 00 AZE-9.0353859D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 4 FEB. 1968 18 HRS., 41 MIN., 57.702 SEC., GMT
SELENOCENTRIC REFERENCE

XSC-1.7518981D 07 YSC 8.6180292D 06 ZSC 8.3308304D 06
DXSC 1.1718006D 03 DYSC-3.4151028D 02 DZSC-4.2074629D 02
RSC 2.1227055D 07 DESC 2.3107830D 01 RASC 1.5380625D 02
VSC 1.2910358D 03 PTSC-7.9862695D 01 AZSC-6.8078548D 01

SELENOGRAPHIC REFERENCE

XSG 1.1359532D 07 YSG-1.7313100D 07 ZSG 4.6696311D 06
DXSG-9.1684048D 02 DYSG 8.8279512D 02 DZSG-2.7373993D 02
HSG 1.9488965D 07 LTSG 1.2708144D 01 LNSG-5.6730175D 01
VRSG 1.3018668D 03 PTSG-7.7474350D 01 AZSG-8.8786143D 01
LTS-1.4252510D 00 LNS 1.1060459D 02 LTE-5.9644337D-01
LNE 1.9638538D 00 DSMP 4.6482099D 00 RSMP 1.0868176D 02
LIN 1.6720623D 02 LAN 2.6526727D 01 LAP 2.0526286D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.7026909D 05
X 3.4344463D 08 Y 1.7071221D 08 Z 8.2220160D 07
DX 7.6463809D 02 DY 4.2987328D 02 DZ 7.4480406D 00
R 3.9224613D 08 DEC 1.2099714D 01 RA 2.6430080D 01
V 8.7722170D 02 PTH 7.8032191D 01 AZ 1.6580792D 02
ALT 3.8586891D 08 LTGD 1.2100992D 01 LON 3.3193894D 02
VE 2.7936745D 04 PTE 1.7602676D 00 AZE-9.0361887D 01

TIME 4 FEB. 1968 18 HRS., 56 MIN., 57.702 SEC., GMT
SELENOCENTRIC REFERENCE

XSC-1.6460621D 07 YSC 8.3087481D 06 ZSC 7.9503229D 06
DXSC 1.1802611D 03 DYSC-3.4587177D 02 DZSC-4.2490655D 02
RSC 2.0079715D 07 DESC 2.3324488D 01 RASC 1.5321694D 02
VSC 1.3012260D 03 PTSC-7.9368544D 01 AZSC-6.8315277D 01

SELENOGRAPHIC REFERENCE

XSG 1.0533949D 07 YSG-1.6512875D 07 ZSG 4.4221952D 06
DXSG-9.1788740D 02 DYSG 8.9566463D 02 DZSG-2.7605241D 02
HSG 1.8341625D 07 LTSG 1.2722657D 01 LNSG-5.7465242D 01
VRSG 1.3118450D 03 PTSG-7.7130124D 01 AZSG-8.8874216D 01
LTS-1.4252086D 00 LNS 1.1047778D 02 LTE-6.1075456D-01
LNE 1.9502016D 00 DSMP 4.6478681D 00 RSMP 1.0856781D 02
LIN 1.6720667D 02 LAN 2.6409274D 01 LAP 2.0530722D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.7116909D 05
X 3.4413564D 08 Y 1.7109676D 08 Z 8.2224839D 07
DX 7.7108663D 02 DY 4.2459199D 02 DZ 2.8685199D 00
R 3.9301955D 08 DEC 1.2076241D 01 RA 2.6435564D 01
V 8.8026199D 02 PTH 7.7873567D 01 AZ 1.6848497D 02
ALT 3.8664232D 08 LTGD 1.2077515D 01 LON 3.2818415D 02
VE 2.8002107D 04 PTE 1.7612046D 00 AZE-9.0370958D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 19 HRS., 11 MIN., 57.702 SEC.,GMT
 SELENOCENTRIC REFERENCE

XSC-1.5394220D 07 YSC 7.9952790D 06 ZSC 7.5658386D 06
 DXSC 1.1896941D 03 DYSC-3.5083779D 02 DZSC-4.2960081D 02
 RSC 1.8924809D 07 DESC 2.3564684D 01 RASC 1.5255403D 02
 VSC 1.3126370D 03 PTSC-7.8817152D 01 AZSC-6.8582866D 01

SELENOGRAPHIC REFERENCE

XSG 9.7072096D 06 YSG-1.5700580D 07 ZSG 4.1725597D 06
 DXSG-9.1942205D 02 DYSG 9.0965236D 02 DZSG-2.7864325D 02
 HSG 1.7186720D 07 LTSG 1.2737282D 01 LNSG-5.8272708D 01
 VRSG 1.3230444D 03 PTSG-7.6729305D 01 AZSG-8.8980026D 01
 LTS-1.4251661D 00 LNS 1.1035098D 02 LTE-6.2506139D-01
 LNE 1.9365351D 00 DSMP 4.6475259D 00 RSMP 1.0845388D 02
 LIN 1.6720701D 02 LAN 2.6289248D 01 LAP 2.0534628D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.7206909D 05
 X 3.4483288D 08 Y 1.7147629D 08 Z 8.2225163D 07
 DX 7.7850997D 02 DY 4.1870250D 02 DZ-2.2470755D 00
 R 3.9379539D 08 DEC 1.2052140D 01 RA 2.6439945D 01
 V 8.8396527D 02 PTH 7.7667308D 01 AZ 1.7138926D 02
 ALT 3.8741816D 08 LTGD 1.2053408D 01 LON 3.2442827D 02
 VE 2.8068695D 04 PTE 1.7630424D 00 AZE-9.0381274D 01

TIME 4 FEB. 1968 19 HRS., 26 MIN., 57.702 SEC.,GMT
 SELENOCENTRIC REFERENCE

XSC-1.4318826D 07 YSC 7.6770164D 06 ZSC 7.1768464D 06
 DXSC 1.2002808D 03 DYSC-3.5655108D 02 DZSC-4.3494641D 02
 RSC 1.7761545D 07 DESC 2.3832645D 01 RASC 1.5180208D 02
 VSC 1.3255116D 03 PTSC-7.8197586D 01 AZSC-6.8888402D 01

SELENOGRAPHIC REFERENCE

XSG 8.8788394D 06 YSG-1.4875105D 07 ZSG 3.9204494D 06
 DXSG-9.2152410D 02 DYSG 9.2499915D 02 DZSG-2.8156956D 02
 HSG 1.6023455D 07 LTSG 1.2751726D 01 LNSG-5.9167334D 01
 VRSG 1.3357064D 03 PTSG-7.6260992D 01 AZSG-8.9107203D 01
 LTS-1.4251235D 00 LNS 1.1022418D 02 LTE-6.3936380D-01
 LNE 1.9228543D 00 DSMP 4.6471831D 00 RSMP 1.0833997D 02
 LIN 1.6720726D 02 LAN 2.6166819D 01 LAP 2.0538031D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.7296909D 05
 X 3.4553731D 08 Y 1.7185020D 08 Z 8.2220599D 07
 DX 7.8708940D 02 DY 4.1206206D 02 DZ-8.0160703D 00
 R 3.9457414D 08 DEC 1.2027320D 01 RA 2.6443084D 01
 V 8.8846447D 02 PTH 7.7400186D 01 AZ 1.7453639D 02
 ALT 3.8819690D 08 LTGD 1.2028583D 01 LON 3.2067114D 02
 VE 2.8136761D 04 PTE 1.7659089D 00 AZE-9.0393091D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 4 FEB. 1968 19 HRS., 41 MIN., 57.702 SEC., GMT
SELENOCENTRIC REFERENCE
XSC-1.3233300D 07 YSC 7.3532063D 06 ZSC 6.7826939D 06
DXSC 1.2122519D 03 DYSC-3.6320237D 02 DZSC-4.4109790D 02
RSC 1.6588996D 07 DESC 2.4133683D 01 RASC 1.5094084D 02
VSC 1.3401634D 03 PTSC-7.7495793D 01 AZSC-6.9241274D 01
SELENOGRAPHIC REFERENCE
XSG 8.0482858D 06 YSG-1.4035091D 07 ZSG 3.6655307D 06
DXSG-9.2429033D 02 DYSG 9.4202056D 02 DZSG-2.8490548D 02
HSG 1.4850907D 07 LTSG 1.2765516D 01 LNSG-6.0168303D 01
VRSG 1.3501431D 03 PTSG-7.5711166D 01 AZSG-8.9260382D 01
LTS-1.4250809D 00 LNS 1.1009738D 02 LTE-6.5366174D-01
LNE 1.9091594D 00 DSMP 4.6468398D 00 RSMP 1.0822607D 02
LIN 1.6720742D 02 LAN 2.6042157D 01 LAP 2.0540962D 02
GEOCENTRIC REFERENCE FLIGHT TIME 2.7386909D 05
X 3.4625006D 08 Y 1.7221772D 08 Z 8.2210492D 07
DX 7.9705555D 02 DY 4.0447994D 02 DZ-1.4593015D 01
R 3.9535631D 08 DEC 1.2001673D 01 RA 2.6444814D 01
V 8.9393206D 02 PTH 7.7054838D 01 AZ 1.7793972D 02
ALT 3.8897907D 08 LTGD 1.2002931D 01 LON 3.1691260D 02
VE 2.8206629D 04 PTE 1.7699561D 00 AZE-9.0406748D 01

TIME 4 FEB. 1968 19 HRS., 56 MIN., 57.702 SEC., GMT
SELENOCENTRIC REFERENCE
XSC-1.2136268D 07 YSC 7.0228935D 06 ZSC 6.3825668D 06
DXSC 1.2259054D 03 DYSC-3.7105227D 02 DZSC-4.4826319D 02
RSC 1.5406077D 07 DESC 2.4474543D 01 RASC 1.4994332D 02
VSC 1.3570054D 03 PTSC-7.6693367D 01 AZSC-6.9654188D 01
SELENOGRAPHIC REFERENCE
XSG 7.2148997D 06 YSG-1.3178850D 07 ZSG 3.4073929D 06
DXSG-9.2783879D 02 DYSG 9.6113860D 02 DZSG-2.8874912D 02
HSG 1.3667987D 07 LTSG 1.2777879D 01 LNSG-6.1301034D 01
VRSG 1.3667656D 03 PTSG-7.5061452D 01 AZSG-8.9445604D 01
LTS-1.4250383D 00 LNS 1.0997058D 02 LTE-6.6795515D-01
LNE 1.8954505D 00 DSMP 4.6464960D 00 RSMP 1.0811218D 02
LIN 1.6720751D 02 LAN 2.5915432D 01 LAP 2.0543452D 02
GEOCENTRIC REFERENCE FLIGHT TIME 2.7476909D 05
X 3.4697251D 08 Y 1.7257790D 08 Z 8.2194027D 07
DX 8.0870644D 02 DY 3.9569555D 02 DZ-2.2185827D 01
R 3.9614254D 08 DEC 1.1975065D 01 RA 2.6444926D 01
V 9.0059607D 02 PTH 7.6608210D 01 AZ-1.7839117D 02
ALT 3.8976530D 08 LTGD 1.1976318D 01 LON 3.1315245D 02
VE 2.8278727D 04 PTE 1.7753650D 00 AZE-9.0422691D 01

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TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 4 FEB. 1968 20 HRS., 11 MIN., 57.702 SEC., GMT
SELENOCENTRIC REFERENCE
XSC-1.1026049D 07 YSC 6.6848446D 06 ZSC 5.9754311D 06
DXSC 1.2416333D 03 DYSC-3.8046622D 02 DZSC-4.5672893D 02
RSC 1.4211498D 07 DESC 2.4863918D 01 RASC 1.4877250D 02
VSC 1.3765933D 03 PTSC-7.5765660D 01 AZSC-7.0144798D 01
SELENOGRAPHIC REFERENCE
XSG 6.3779144D 06 YSG-1.2304250D 07 ZSG 3.1455225D 06
DXSG-9.3231341D 02 DYSG 9.8293129D 02 DZSG-2.9323326D 02
HSG 1.2473409D 07 LTSG 1.2787540D 01 LNSG-6.2600008D 01
VRSG 1.3861270D 03 PTSG-7.4287231D 01 AZSG-8.9670928D 01
LTS-1.4249956D 00 LNS 1.0984378D 02 LTE-6.8224397D-01
LNE 1.8817276D 00 DSMP 4.6461517D 00 RSMP 1.0799831D 02
LIN 1.6720755D 02 LAN 2.5786817D 01 LAP 2.0545530D 02
GEOCENTRIC REFERENCE FLIGHT TIME 2.7566909D 05
X 3.4770635D 08 Y 1.7292950D 08 Z 8.2170168D 07
DX 8.2243410D 02 DY 3.8534344D 02 DZ-3.1081139D 01
R 3.9693357D 08 DEC 1.1947327D 01 RA 2.6443157D 01
V 9.0876479D 02 PTH 7.6029256D 01 AZ-1.7445227D 02
ALT 3.9055632D 08 LTGD 1.1948576D 01 LON 3.0939041D 02
VE 2.8353628D 04 PTE 1.7823481D 00 AZE-9.0441529D 01

TIME 4 FEB. 1968 20 HRS., 26 MIN., 57.702 SEC., GMT
SELENOCENTRIC REFERENCE
XSC-9.9005501D 06 YSC 6.3374292D 06 ZSC 5.5599445D 06
DXSC 1.2599617D 03 DYSC-3.9197259D 02 DZSC-4.6690179D 02
RSC 1.3003726D 07 DESC 2.5313158D 01 RASC 1.4737633D 02
VSC 1.3996940D 03 PTSC-7.4678805D 01 AZSC-7.0738370D 01
SELENOGRAPHIC REFERENCE
XSG 5.5364206D 06 YSG-1.1408539D 07 ZSG 2.8792647D 06
DXSG-9.3788817D 02 DYSG 1.0082128D 03 DZSG-2.9854227D 02
HSG 1.1265636D 07 LTSG 1.2792358D 01 LNSG-6.4113281D 01
VRSG 1.4089907D 03 PTSG-7.3354646D 01 AZSG-8.9947408D 01
LTS-1.4249528D 00 LNS 1.0971698D 02 LTE-6.9652815D-01
LNE 1.8679909D 00 DSMP 4.6458069D 00 RSMP 1.0788446D 02
LIN 1.6720753D 02 LAN 2.5656484D 01 LAP 2.0547228D 02
GEOCENTRIC REFERENCE FLIGHT TIME 2.7656909D 05
X 3.4845367D 08 Y 1.7327089D 08 Z 8.2137570D 07
DX 8.3876460D 02 DY 3.7289525D 02 DZ-4.1685633D 01
R 3.9773024D 08 DEC 1.1918245D 01 RA 2.6439164D 01
V 9.1886594D 02 PTH 7.5275379D 01 AZ-1.7024684D 02
ALT 3.9135299D 08 LTGD 1.1919488D 01 LON 3.0562616D 02
VE 2.8432127D 04 PTE 1.7911478D 00 AZE-9.0464111D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 4 FEB. 1968 20 HRS., 30 MIN., 42.702 SEC., GMT
SELENOCENTRIC REFERENCE
XSC-9.6164926D 06 YSC 6.2488689D 06 ZSC 5.4545710D 06
DXSC 1.2650292D 03 DYSC-3.9526104D 02 DZSC-4.6977607D 02
RSC 1.2699513D 07 DESC 2.5436481D 01 RASC 1.4698388D 02
VSC 1.4061365D 03 PTSC-7.4377008D 01 AZSC-7.0906879D 01
SELENOGRAPHIC REFERENCE
XSG 5.3252202D 06 YSG-1.1180911D 07 ZSG 2.8119202D 06
DXSG-9.3947714D 02 DYSG 1.0152063D 03 DZSG-3.0002702D 02
HSG 1.0961424D 07 LTSG 1.2792422D 01 LNSG-6.4532571D 01
VRSG 1.4153718D 03 PTSG-7.3091539D 01 AZSG-9.0026222D 01
LTS-1.4249421D 00 LNS 1.0968528D 02 LTE-7.0009846D-01
LNE 1.8645546D 00 DSMP 4.6457206D 00 RSMP 1.0785600D 02
LIN 1.6720752D 02 LAN 2.5623653D 01 LAP 2.0547597D 02
GEOCENTRIC REFERENCE FLIGHT TIME 2.7679409D 05
X 3.4864290D 08 Y 1.7335440D 08 Z 8.2127858D 07
DX 8.4333302D 02 DY 3.6937078D 02 DZ-4.4668141D 01
R 3.9793041D 08 DEC 1.1910733D 01 RA 2.6437769D 01
V 9.2175951D 02 PTH 7.5053056D 01 AZ-1.6915505D 02
ALT 3.9155315D 08 LTGD 1.1911975D 01 LON 3.0468469D 02
VE 2.8452437D 04 PTE 1.7936619D 00 AZE-9.0470474D 01

TIME 4 FEB. 1968 20 HRS., 34 MIN., 27.702 SEC., GMT
SELENOCENTRIC REFERENCE
XSC-9.3312705D 06 YSC 6.1595471D 06 ZSC 5.3485337D 06
DXSC 1.2703167D 03 DYSC-3.9874352D 02 DZSC-4.7280468D 02
RSC 1.2394331D 07 DESC 2.5564737D 01 RASC 1.4657129D 02
VSC 1.4128854D 03 PTSC-7.4061441D 01 AZSC-7.1084815D 01
SELENOGRAPHIC REFERENCE
XSG 5.1136527D 06 YSG-1.0951675D 07 ZSG 2.7442338D 06
DXSG-9.4115102D 02 DYSG 1.0225123D 03 DZSG-3.0158436D 02
HSG 1.0656241D 07 LTSG 1.2791885D 01 LNSG-6.4970769D 01
VRSG 1.4220583D 03 PTSG-7.2814710D 01 AZSG-9.0109479D 01
LTS-1.4249314D 00 LNS 1.0965358D 02 LTE-7.0366848D-01
LNE 1.8611174D 00 DSMP 4.6456343D 00 RSMP 1.0782754D 02
LIN 1.6720751D 02 LAN 2.5590728D 01 LAP 2.0547944D 02
GEOCENTRIC REFERENCE FLIGHT TIME 2.7701909D 05
X 3.4883319D 08 Y 1.7343710D 08 Z 8.2117458D 07
DX 8.4812152D 02 DY 3.6565205D 02 DZ-4.7805100D 01
R 3.9813100D 08 DEC 1.1903114D 01 RA 2.6436199D 01
V 9.2482261D 02 PTH 7.4815032D 01 AZ-1.6804760D 02
ALT 3.9175375D 08 LTGD 1.1904354D 01 LON 3.0374306D 02
VE 2.8473062D 04 PTE 1.7963097D 00 AZE-9.0477169D 01

05-15481-1

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 4 FEB. 1968 20 HRS., 38 MIN., 12.702 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-9.0448325D 06 YSC 6.0694184D 06 ZSC 5.2417963D 06
DXSC 1.2758390D 03 DYSC-4.0243776D 02 DZSC-4.7600073D 02
RSC 1.2088145D 07 DESC 2.5698222D 01 RASC 1.4613691D 02
VSC 1.4199641D 03 PTSC-7.3731077D 01 AZSC-7.1273010D 01

SELENOGRAPHIC REFERENCE

XSG 4.9016988D 06 YSG-1.0720757D 07 ZSG 2.6761884D 06
DXSG-9.4291335D 02 DYSG 1.0301568D 03 DZSG-3.0321996D 02
HSG 1.0350056D 07 LTSG 1.2790657D 01 LNSG-6.5429371D 01
VRSG 1.4290735D 03 PTSG-7.2523132D 01 AZSG-9.0197515D 01
LTS-1.4249207D 00 LNS 1.0962188D 02 LTE-7.0723820D-01
LNE 1.8576794D 00 DSMP 4.6455480D 00 RSMP 1.0779908D 02
LIN 1.6720750D 02 LAN 2.5557713D 01 LAP 2.0548270D 02

GEOCENTRIC REFERENCE

X 3.4902458D 08 Y 1.7351893D 08 Z 8.2106334D 07
DX 8.5314502D 02 DY 3.6172132D 02 DZ-5.1109638D 01
R 3.9833205D 08 DEC 1.1895383D 01 RA 2.6434446D 01
V 9.2806838D 02 PTH 7.4560040D 01 AZ-1.6692480D 02
ALT 3.9195480D 08 LTGD 1.1896622D 01 LON 3.0280124D 02
VE 2.8494028D 04 PTE 1.7990949D 00 AZE-9.0484222D 01

FLIGHT TIME 2.7724409D 05

TIME 4 FEB. 1968 20 HRS., 41 MIN., 57.702 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-8.7571241D 06 YSC 5.9784328D 06 ZSC 5.1343197D 06
DXSC 1.2816124D 03 DYSC-4.0636370D 02 DZSC-4.7937890D 02
RSC 1.1780922D 07 DESC 2.5837257D 01 RASC 1.4567889D 02
VSC 1.4273983D 03 PTSC-7.3384783D 01 AZSC-7.1472396D 01

SELENOGRAPHIC REFERENCE

XSG 4.6893379D 06 YSG-1.0488078D 07 ZSG 2.6077659D 06
DXSG-9.4476768D 02 DYSG 1.0381686D 03 DZSG-3.0494012D 02
HSG 1.0042832D 07 LTSG 1.2788630D 01 LNSG-6.5910040D 01
VRSG 1.4364430D 03 PTSG-7.2215670D 01 AZSG-9.0290699D 01
LTS-1.4249100D 00 LNS 1.0959018D 02 LTE-7.1080763D-01
LNE 1.8542405D 00 DSMP 4.6454616D 00 RSMP 1.0777062D 02
LIN 1.6720748D 02 LAN 2.5524610D 01 LAP 2.0548576D 02

GEOCENTRIC REFERENCE

X 3.4921712D 08 Y 1.7359985D 08 Z 8.2094445D 07
DX 8.5841979D 02 DY 3.5755867D 02 DZ-5.4596422D 01
R 3.9853357D 08 DEC 1.1887534D 01 RA 2.6432498D 01
V 9.3151142D 02 PTH 7.4286686D 01 AZ-1.6578702D 02
ALT 3.9215631D 08 LTGD 1.1888771D 01 LON 3.0185922D 02
VE 2.8515360D 04 PTE 1.8020210D 00 AZE-9.0491663D 01

FLIGHT TIME 2.7746909D 05

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 4 FEB. 1968 20 HRS., 45 MIN., 42.702 SEC., GMT
SELENOCENTRIC REFERENCE
XSC-8.4680868D 06 YSC 5.8865357D 06 ZSC 5.0260609D 06
DXSC 1.2876548D 03 DYSC-4.1054381D 02 DZSC-4.8295562D 02
RSC 1.1472623D 07 DESC 2.5982185D 01 RASC 1.4519515D 02
VSC 1.4352168D 03 PTSC-7.3021302D 01 AZSC-7.1684020D 01
SELENOGRAPHIC REFERENCE
XSG 4.4765491D 06 YSG-1.0253553D 07 ZSG 2.5389464D 06
DXSG-9.4671757D 02 DYSG 1.0465800D 03 DZSG-3.0675183D 02
HSG 9.7345337D 06 LTSG 1.2785680D 01 LNSG-6.6414628D 01
VRSG 1.4441955D 03 PTSG-7.1891066D 01 AZSG-9.0389440D 01
LTS-1.4248993D 00 LNS 1.0955848D 02 LTE-7.1437676D-01
LNE 1.8508007D 00 DSMP 4.6453752D 00 RSMP 1.0774217D 02
LIN 1.6720746D 02 LAN 2.5491422D 01 LAP 2.0548863D 02
GEOCENTRIC REFERENCE FLIGHT TIME 2.7769409D 05
X 3.4941089D 08 Y 1.7367981D 08 Z 8.2081750D 07
DX 8.6396366D 02 DY 3.5314162D 02 DZ-5.8281883D 01
R 3.9873557D 08 DEC 1.1879560D 01 RA 2.6430347D 01
V 9.3516789D 02 PTH 7.3993427D 01 AZ-1.6463466D 02
ALT 3.9235831D 08 LTGD 1.1880796D 01 LON 3.0091700D 02
VE 2.8537089D 04 PTE 1.8050911D 00 AZE-9.0499525D 01

TIME 4 FEB. 1968 20 HRS., 49 MIN., 27.702 SEC., GMT
SELENOCENTRIC REFERENCE
XSC-8.1776578D 06 YSC 5.7936671D 06 ZSC 4.9169734D 06
DXSC 1.2939856D 03 DYSC-4.1500355D 02 DZSC-4.8674937D 02
RSC 1.1163212D 07 DESC 2.6133377D 01 RASC 1.4468337D 02
VSC 1.4434513D 03 PTSC-7.2639233D 01 AZSC-7.1909067D 01
SELENOGRAPHIC REFERENCE
XSG 4.2633105D 06 YSG-1.0017086D 07 ZSG 2.4697085D 06
DXSG-9.4876649D 02 DYSG 1.0554271D 03 DZSG-3.0866289D 02
HSG 9.4251220D 06 LTSG 1.2781661D 01 LNSG-6.6945205D 01
VRSG 1.4523625D 03 PTSG-7.1547917D 01 AZSG-9.0494193D 01
LTS-1.4248885D 00 LNS 1.0952678D 02 LTE-7.1794559D-01
LNE 1.8473602D 00 DSMP 4.6452887D 00 RSMP 1.0771371D 02
LIN 1.6720745D 02 LAN 2.5458151D 01 LAP 2.0549130D 02
GEOCENTRIC REFERENCE FLIGHT TIME 2.7791909D 05
X 3.4960593D 08 Y 1.7375875D 08 Z 8.2068202D 07
DX 8.6979612D 02 DY 3.4844472D 02 DZ-6.2184499D 01
R 3.9893809D 08 DEC 1.1871453D 01 RA 2.6427979D 01
V 9.3905587D 02 PTH 7.3678553D 01 AZ-1.6346813D 02
ALT 3.9256083D 08 LTGD 1.1872688D 01 LON 2.9997457D 02
VE 2.8559250D 04 PTE 1.8083076D 00 AZE-9.0507844D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 4 FEB. 1968 20 HRS., 53 MIN., 12.702 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-7.8857700D 06 YSC 5.6997610D 06 ZSC 4.8070059D 06
DXSC 1.3006263D 03 DYSC-4.1977181D 02 DZSC-4.9078099D 02
RSC 1.0852647D 07 DESC 2.6291228D 01 RASC 1.4414094D 02
VSC 1.4521374D 03 PTSC-7.2237013D 01 AZSC-7.2148873D 01

SELENOGRAPHIC REFERENCE

XSG 4.0495994D 06 YSG-9.7785763D 06 ZSG 2.4000288D 06
DXSG-9.5091773D 02 DYSG 1.0647505D 03 DZSG-3.1068199D 02
HSG 9.1145575D 06 LTSG 1.2776402D 01 LNSG-6.7504095D 01
VRSG 1.4609796D 03 PTSG-7.1184660D 01 AZSG-9.0605469D 01
LTS-1.4248778D 00 LNS 1.0949508D 02 LTE-7.2151413D-01
LNE 1.8439187D 00 DSMP 4.6452023D 00 RSMP 1.0768525D 02
LIN 1.6720743D 02 LAN 2.5424801D 01 LAP 2.0549378D 02

GEOCENTRIC REFERENCE

X 3.4980232D 08 Y 1.7383659D 08 Z 8.2053749D 07
DX 8.7593856D 02 DY 3.4343906D 02 DZ-6.6325114D 01
R 3.9914113D 08 DEC 1.1863206D 01 RA 2.6425383D 01
V 9.4319551D 02 PTH 7.3340165D 01 AZ-1.6228792D 02
ALT 3.9276386D 08 LTGD 1.1864439D 01 LON 2.9903191D 02
VE 2.8581879D 04 PTE 1.8116718D 00 AZE-9.0516661D 01

FLIGHT TIME 2.7814409D 05

TIME 4 FEB. 1968 20 HRS., 56 MIN., 57.702 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-7.5923510D 06 YSC 5.6047442D 06 ZSC 4.6961023D 06
DXSC 1.3076002D 03 DYSC-4.2488157D 02 DZSC-4.9507408D 02
RSC 1.0540888D 07 DESC 2.6456161D 01 RASC 1.4356490D 02
VSC 1.4613148D 03 PTSC-7.1812894D 01 AZSC-7.2404963D 01

SELENOGRAPHIC REFERENCE

XSG 3.8353924D 06 YSG-9.5379108D 06 ZSG 2.3298819D 06
DXSG-9.5317430D 02 DYSG 1.0745961D 03 DZSG-3.1281892D 02
HSG 8.8027988D 06 LTSG 1.2769700D 01 LNSG-6.8093910D 01
VRSG 1.4700863D 03 PTSG-7.0799543D 01 AZSG-9.0723835D 01
LTS-1.4248671D 00 LNS 1.0946338D 02 LTE-7.2508236D-01
LNE 1.8404764D 00 DSMP 4.6451158D 00 RSMP 1.0765680D 02
LIN 1.6720741D 02 LAN 2.5391375D 01 LAP 2.0549607D 02

GEOCENTRIC REFERENCE

X 3.5000013D 08 Y 1.7391327D 08 Z 8.2038336D 07
DX 8.8241448D 02 DY 3.3809168D 02 DZ-7.0727331D 01
R 3.9934471D 08 DEC 1.1854811D 01 RA 2.6422544D 01
V 9.4760945D 02 PTH 7.2976145D 01 AZ-1.6109451D 02
ALT 3.9296745D 08 LTGD 1.1856043D 01 LON 2.9808900D 02
VE 2.8605019D 04 PTE 1.8151842D 00 AZE-9.0526022D 01

FLIGHT TIME 2.7836909D 05

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 21 HRS., 0 MIN., 42.702 SEC.,GMT
 SELENOCENTRIC REFERENCE
 XSC-7.2973230D 06 YSC 5.5085358D 06 ZSC 4.5842009D 06
 DXSC 1.3149334D 03 DYSC-4.3037057D 02 DZSC-4.9965547D 02
 RSC 1.0227893D 07 DESC 2.6628628D 01 RASC 1.4295190D 02
 VSC 1.4710283D 03 PTSC-7.1364907D 01 AZSC-7.2679072D 01
 SELENOGRAPHIC REFERENCE
 XSG 3.6206656D 06 YSG-9.2949664D 06 ZSG 2.2592402D 06
 DXSG-9.5553872D 02 DYSG 1.0850161D 03 DZSG-3.1508466D 02
 HSG 8.4898031D 06 LTSG 1.2761318D 01 LNSG-6.8717605D 01
 VRSG 1.4797272D 03 PTSG-7.0390593D 01 AZSG-9.0849930D 01
 LTS-1.4248564D 00 LNS 1.0943168D 02 LTE-7.2865030D-01
 LNE 1.8370333D 00 DSMP 4.6450292D 00 RSMP 1.0762835D 02
 LIN 1.6720738D 02 LAN 2.5357875D 01 LAP 2.0549819D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.7859409D 05
 X 3.5019943D 08 Y 1.7398870D 08 Z 8.2021901D 07
 DX 8.8924974D 02 DY 3.3236482D 02 DZ-7.5417981D 01
 R 3.9954887D 08 DEC 1.1846257D 01 RA 2.6419448D 01
 V 9.5232313D 02 PTH 7.2584119D 01 AZ-1.5988842D 02
 ALT 3.9317161D 08 LTGD 1.1847488D 01 LON 2.9714584D 02
 VE 2.8628718D 04 PTE 1.8188432D 00 AZE-9.0535981D 01

TIME 4 FEB. 1968 21 HRS., 4 MIN., 27.702 SEC.,GMT
 SELENOCENTRIC REFERENCE
 XSC-7.0006019D 06 YSC 5.4110457D 06 ZSC 4.4712335D 06
 DXSC 1.3226542D 03 DYSC-4.3628228D 02 DZSC-5.0455581D 02
 RSC 9.9136154D 06 DESC 2.6809109D 01 RASC 1.4229812D 02
 VSC 1.4813281D 03 PTSC-7.0890832D 01 AZSC-7.2973192D 01
 SELENOGRAPHIC REFERENCE
 XSG 3.4053943D 06 YSG-9.0496075D 06 ZSG 2.1880733D 06
 DXSG-9.5801282D 02 DYSG 1.0960696D 03 DZSG-3.1749161D 02
 HSG 8.1755259D 06 LTSG 1.2750970D 01 LNSG-6.9378527D 01
 VRSG 1.4899523D 03 PTSG-6.9955588D 01 AZSG-9.0984475D 01
 LTS-1.4248456D 00 LNS 1.0939998D 02 LTE-7.3221793D-01
 LNE 1.8335894D 00 DSMP 4.6449426D 00 RSMP 1.0759989D 02
 LIN 1.6720736D 02 LAN 2.5324305D 01 LAP 2.0550014D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.7881909D 05
 X 3.5040032D 08 Y 1.7406280D 08 Z 8.2004374D 07
 DX 8.9647280D 02 DY 3.2621504D 02 DZ-8.0427693D 01
 R 3.9975362D 08 DEC 1.1837535D 01 RA 2.6416076D 01
 V 9.5736531D 02 PTH 7.2161423D 01 AZ-1.5867022D 02
 ALT 3.9337636D 08 LTGD 1.1838764D 01 LON 2.9620240D 02
 VE 2.8653031D 04 PTE 1.8226454D 00 AZE-9.0546595D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 21 HRS., 8 MIN., 12.702 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-6.7020971D 06 YSC 5.3121733D 06 ZSC 4.3571243D 06
 DXSC 1.3307941D 03 DYSC-4.4266689D 02 DZSC-5.0981018D 02
 RSC 9.5980114D 06 DESC 2.6998111D 01 RASC 1.4159917D 02
 VSC 1.4922712D 03 PTSC-7.0388152D 01 AZSC-7.3289615D 01

SELENOGRAPHIC REFERENCE

XSG 3.1895540D 06 YSG-8.8016839D 06 ZSG 2.1163479D 06
 DXSG-9.6059745D 02 DYSG 1.1078241D 03 DZSG-3.2005384D 02
 HSG 7.8599219D 06 LTSG 1.2738318D 01 LNSG-7.0080494D 01
 VRSG 1.5008185D 03 PTSG-6.9492006D 01 AZSG-9.1128284D 01
 LTS-1.4248349D 00 LNS 1.0936828D 02 LTE-7.3578526D-01
 LNE 1.8301446D 00 DSMP 4.6448560D 00 RSMP 1.0757144D 02
 LIN 1.6720734D 02 LAN 2.5290667D 01 LAP 2.0550192D 02
 FLIGHT TIME 2.7904409D 05

GEOCENTRIC REFERENCE

X 3.5060288D 08 Y 1.7413546D 08 Z 8.1985682D 07
 DX 9.0411504D 02 DY 3.1959213D 02 DZ-8.5791581D 01
 R 3.9995898D 08 DEC 1.1828633D 01 RA 2.6412412D 01
 V 9.6276858D 02 PTH 7.1705049D 01 AZ-1.5744047D 02
 ALT 3.9358172D 08 LTGD 1.1829861D 01 LON 2.9525867D 02
 VE 2.8678018D 04 PTE 1.8265840D 00 AZE-9.0557932D 01

TIME 4 FEB. 1968 21 HRS., 11 MIN., 57.702 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-6.4017106D 06 YSC 5.2118058D 06 ZSC 4.2417893D 06
 DXSC 1.3393876D 03 DYSC-4.4958275D 02 DZSC-5.1545906D 02
 RSC 9.2810341D 06 DESC 2.7196166D 01 RASC 1.4085002D 02
 VSC 1.5039222D 03 PTSC-6.9854002D 01 AZSC-7.3630994D 01

SELENOGRAPHIC REFERENCE

XSG 2.9731197D 06 YSG-8.5510295D 06 ZSG 2.0440272D 06
 DXSG-9.6329200D 02 DYSG 1.1203575D 03 DZSG-3.2278734D 02
 HSG 7.5429446D 06 LTSG 1.2722953D 01 LNSG-7.0827871D 01
 VRSG 1.5123902D 03 PTSG-6.8996978D 01 AZSG-9.1282282D 01
 LTS-1.4248242D 00 LNS 1.0933658D 02 LTE-7.3935228D-01
 LNE 1.8266989D 00 DSMP 4.6447694D 00 RSMP 1.0754299D 02
 LIN 1.6720732D 02 LAN 2.5256966D 01 LAP 2.0550354D 02
 FLIGHT TIME 2.7926909D 05

GEOCENTRIC REFERENCE

X 3.5080720D 08 Y 1.7420658D 08 Z 8.1965738D 07
 DX 9.1221112D 02 DY 3.1243773D 02 DZ-9.1550091D 01
 R 4.0016498D 08 DEC 1.1819539D 01 RA 2.6408433D 01
 V 9.6857002D 02 PTH 7.1211590D 01 AZ-1.5619975D 02
 ALT 3.9378771D 08 LTGD 1.1820765D 01 LON 2.9431462D 02
 VE 2.8703751D 04 PTE 1.8306486D 00 AZE-9.0570068D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 4 FEB. 1968 21 HRS., 15 MIN., 42.702 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-6.0993358D 06	YSC 5.1098162D 06	ZSC 4.1251346D 06
DXSC 1.3484730D 03	DYSC-4.5709799D 02	DZSC-5.2154924D 02
RSC 8.9626365D 06	DESC 2.7403823D 01	RASC 1.4004486D 02
VSC 1.5163548D 03	PTSC-6.9285107D 01	AZSC-7.4000410D 01

SELENOGRAPHIC REFERENCE

XSG 2.7560669D 06	YSG-8.2974592D 06	ZSG 1.9710707D 06
DXSG-9.6609390D 02	DYSG 1.1337591D 03	DZSG-3.2571036D 02
HSG 7.2245471D 06	LTSG 1.2704384D 01	LNSG-7.1625680D 01
VRSG 1.5247407D 03	PTSG-6.8467219D 01	AZSG-9.1447522D 01
LTS-1.4248134D 00	LNS 1.0930489D 02	LTE-7.4291901D-01
LNE 1.8232524D 00	DSMP 4.6446827D 00	RSMP 1.0751454D 02
LIN 1.6720729D 02	LAN 2.5223203D 01	LAP 2.0550500D 02

GEOCENTRIC REFERENCE

X 3.5101341D 08	Y 1.7427601D 08	Z 8.1944451D 07	FLIGHT TIME 2.7949409D 05
DX 9.2079924D 02	DY 3.0468373D 02	DZ-9.7750041D 01	
R 4.0037162D 08	DEC 1.1810238D 01	RA 2.6404117D 01	
V 9.7481203D 02	PTH 7.0677162D 01	AZ-1.5494865D 02	
ALT 3.9399435D 08	LTGD 1.1811463D 01	LON 2.9337024D 02	
VE 2.8730311D 04	PTE 1.8348231D 00	AZE-9.0583092D 01	

TIME 4 FEB. 1968 21 HRS., 19 MIN., 27.702 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-5.7948576D 06	YSC 5.0060608D 06	ZSC 4.0070550D 06
DXSC 1.3580925D 03	DYSC-4.6529267D 02	DZSC-5.2813522D 02
RSC 8.6427720D 06	DESC 2.7621642D 01	RASC 1.3917692D 02
VSC 1.5296534D 03	PTSC-6.8677698D 01	AZSC-7.4401471D 01

SELENOGRAPHIC REFERENCE

XSG 2.5383720D 06	YSG-8.0407663D 06	ZSG 1.8974335D 06
DXSG-9.6899777D 02	DYSG 1.1481327D 03	DZSG-3.2884386D 02
HSG 6.9046826D 06	LTSG 1.2682011D 01	LNSG-7.2479724D 01
VRSG 1.5379544D 03	PTSG-6.7898955D 01	AZSG-9.1625212D 01
LTS-1.4248027D 00	LNS 1.0927319D 02	LTE-7.4648542D-01
LNE 1.8198051D 00	DSMP 4.6445960D 00	RSMP 1.0748609D 02
LIN 1.6720727D 02	LAN 2.5189382D 01	LAP 2.0550632D 02

GEOCENTRIC REFERENCE

X 3.5122160D 08	Y 1.7434363D 08	Z 8.1921714D 07	FLIGHT TIME 2.7971909D 05
DX 9.2992157D 02	DY 2.9625007D 02	DZ-1.0444591D 02	
R 4.0057894D 08	DEC 1.1800716D 01	RA 2.6399438D 01	
V 9.8154326D 02	PTH 7.0097325D 01	AZ-1.5368779D 02	
ALT 3.9420166D 08	LTGD 1.1801938D 01	LON 2.9242550D 02	
VE 2.8757790D 04	PTE 1.8390847D 00	AZE-9.0597105D 01	

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TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 4 FEB. 1968 21 HRS., 23 MIN., 12.702 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-5.4881507D 06	YSC 4.9003765D 06	ZSC 3.8874319D 06
DXSC 1.3682925D 03	DYSC-4.7426138D 02	DZSC-5.3528074D 02
RSC 8.3213949D 06	DESC 2.7850172D 01	RASC 1.3823829D 02
VSC 1.5439151D 03	PTSC-6.8027424D 01	AZSC-7.4838415D 01

SELENOGRAPHIC REFERENCE

XSG 2.3200130D 06	YSG-7.7807187D 06	ZSG 1.8230656D 06
DXSG-9.7199440D 02	DYSG 1.1635992D 03	DZSG-3.3221195D 02
HSG 6.5833054D 06	LTSG 1.2655104D 01	LNSG-7.3396750D 01
VRSG 1.5521279D 03	PTSG-6.7287824D 01	AZSG-9.1816739D 01
LTS-1.4247919D 00	LNS 1.0924149D 02	LTE-7.5005153D-01
LNE 1.8163570D 00	DSMP 4.6445093D 00	RSMP 1.0745764D 02
LIN 1.6720724D 02	LAN 2.5155507D 01	LAP 2.0550749D 02

GEOCENTRIC REFERENCE

X 3.5143192D 08	Y 1.7440927D 08	Z 8.1897408D 07
DX 9.3962457D 02	DY 2.8704214D 02	DZ-1.1170145D 02
R 4.0078694D 08	DEC 1.1790954D 01	RA 2.6394367D 01
V 9.8881987D 02	PTH 6.9466963D 01	AZ-1.5241774D 02
ALT 3.9440967D 08	LTGD 1.1792175D 01	LON 2.9148036D 02
VE 2.8786297D 04	PTE 1.8434008D 00	AZE-9.0612223D 01

FLIGHT TIME 2.7994409D 05

TIME 4 FEB. 1968 21 HRS., 26 MIN., 57.702 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-5.1790786D 06	YSC 4.7925768D 06	ZSC 3.7661311D 06
DXSC 1.3791241D 03	DYSC-4.8411670D 02	DZSC-5.4306085D 02
RSC 7.9984617D 06	DESC 2.8089934D 01	RASC 1.3721967D 02
VSC 1.5592522D 03	PTSC-6.7329221D 01	AZSC-7.5316257D 01

SELENOGRAPHIC REFERENCE

XSG 2.1009707D 06	YSG-7.5170552D 06	ZSG 1.7479112D 06
DXSG-9.7506922D 02	DYSG 1.1803003D 03	DZSG-3.3584256D 02
HSG 6.2603722D 06	LTSG 1.2622761D 01	LNSG-7.4384645D 01
VRSG 1.5673733D 03	PTSG-6.6628751D 01	AZSG-9.2023705D 01
LTS-1.4247812D 00	LNS 1.0920979D 02	LTE-7.5361734D-01
LNE 1.8129080D 00	DSMP 4.6444225D 00	RSMP 1.0742920D 02
LIN 1.6720722D 02	LAN 2.5121581D 01	LAP 2.0550852D 02

GEOCENTRIC REFERENCE

X 3.5164448D 08	Y 1.7447274D 08	Z 8.1871401D 07
DX 9.4995930D 02	DY 2.7694738D 02	DZ-1.1959170D 02
R 4.0099564D 08	DEC 1.1780933D 01	RA 2.6388873D 01
V 9.9670692D 02	PTH 6.8780158D 01	AZ-1.5113910D 02
ALT 3.9461837D 08	LTGD 1.1782152D 01	LON 2.9053480D 02
VE 2.8815959D 04	PTE 1.8477260D 00	AZE-9.0628583D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 4 FEB. 1968 21 HRS., 30 MIN., 42.702 SEC., GMT
SELENOCENTRIC REFERENCE
XSC-4.8674933D 06 YSC 4.6824474D 06 ZSC 3.6430003D 06
DXSC 1.3906432D 03 DYSC-4.9499347D 02 DZSC-5.5156444D 02
RSC 7.6739335D 06 DESC 2.8341378D 01 RASC 1.3611005D 02
VSC 1.5757951D 03 PTSC-6.6577167D 01 AZSC-7.5840965D 01
SELENOGRAPHIC REFERENCE
XSG 1.8812296D 06 YSG-7.2494796D 06 ZSG 1.6719075D 06
DXSG-9.7820026D 02 DYSG 1.1984027D 03 DZSG-3.3976815D 02
HSG 5.9358440D 06 LTSG 1.2583863D 01 LNSG-7.5452693D 01
VRSG 1.5838205D 03 PTSG-6.5915801D 01 AZSG-9.2247970D 01
LTS-1.4247704D 00 LNS 1.0917809D 02 LTE-7.5718284D-01
LNE 1.8094582D 00 DSMP 4.6443357D 00 RSMP 1.0740075D 02
LIN 1.6720720D 02 LAN 2.5087608D 01 LAP 2.0550942D 02
GEOCENTRIC REFERENCE FLIGHT TIME 2.8039409D 05
X 3.5185945D 08 Y 1.7453382D 08 Z 8.1843538D 07
DX 9.6098160D 02 DY 2.6583094D 02 DZ-1.2820557D 02
R 4.0120505D 08 DEC 1.1770631D 01 RA 2.6382917D 01
V 1.0052803D 03 PTH 6.8030011D 01 AZ-1.4985241D 02
ALT 3.9482777D 08 LTGD 1.1771849D 01 LON 2.8958878D 02
VE 2.8846923D 04 PTE 1.8519974D 00 AZE-9.0646345D 01

TIME 4 FEB. 1968 21 HRS., 34 MIN., 27.702 SEC., GMT
SELENOCENTRIC REFERENCE
XSC-4.5532331D 06 YSC 4.5697410D 06 ZSC 3.5178649D 06
DXSC 1.4029103D 03 DYSC-5.0705450D 02 DZSC-5.6089755D 02
RSC 7.3477777D 06 DESC 2.8604826D 01 RASC 1.3489632D 02
VSC 1.5936962D 03 PTSC-6.5764286D 01 AZSC-7.6419696D 01
SELENOGRAPHIC REFERENCE
XSG 1.6607806D 06 YSG-6.9776551D 06 ZSG 1.5949841D 06
DXSG-9.8135521D 02 DYSG 1.2181047D 03 DZSG-3.4402665D 02
HSG 5.6096882D 06 LTSG 1.2537014D 01 LNSG-7.6611895D 01
VRSG 1.6016215D 03 PTSG-6.5141979D 01 AZSG-9.2491700D 01
LTS-1.4247597D 00 LNS 1.0914639D 02 LTE-7.6074803D-01
LNE 1.8060075D 00 DSMP 4.6442489D 00 RSMP 1.0737231D 02
LIN 1.6720718D 02 LAN 2.5053591D 01 LAP 2.0551019D 02
GEOCENTRIC REFERENCE FLIGHT TIME 2.8061909D 05
X 3.5207698D 08 Y 1.7459227D 08 Z 8.1813646D 07
DX 9.7275214D 02 DY 2.5353001D 02 DZ-1.3764909D 02
R 4.0141516D 08 DEC 1.1760024D 01 RA 2.6376459D 01
V 1.0146287D 03 PTH 6.7208432D 01 AZ-1.4855821D 02
ALT 3.9503789D 08 LTGD 1.1761240D 01 LON 2.8864225D 02
VE 2.8879365D 04 PTE 1.8561288D 00 AZE-9.0665695D 01

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TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 21 HRS., 38 MIN., 12.702 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-4.2361227D 06 YSC 4.4541693D 06 ZSC 3.3905247D 06
 DXSC 1.4159905D 03 DYSC-5.2049791D 02 DZSC-5.7118756D 02
 RSC 7.0199727D 06 DESC 2.8880380D 01 RASC 1.3356270D 02
 VSC 1.6131343D 03 PTSC-6.4882298D 01 AZSC-7.7061086D 01

SELENOGRAPHIC REFERENCE

XSG 1.4396232D 06 YSG-6.7011959D 06 ZSG 1.5170613D 06
 DXSG-9.8448726D 02 DYSG 1.2396425D 03 DZSG-3.4866257D 02
 HSG 5.2818832D 06 LTSG 1.2480447D 01 LNSG-7.7875382D 01
 VRSG 1.6209548D 03 PTSG-6.4298984D 01 AZSG-9.2757433D 01
 LTS-1.4247489D 00 LNS 1.0911469D 02 LTE-7.6431291D-01
 LNE 1.8025561D 00 DSMP 4.6441620D 00 RSMP 1.0734386D 02

GEOCENTRIC REFERENCE

X 3.5229725D 08 Y 1.7464780D 08 Z 8.1781524D 07
 DX 9.8533598D 02 DY 2.3984648D 02 DZ-1.4804963D 02
 R 4.0162598D 08 DEC 1.1749082D 01 RA 2.6369449D 01
 V 1.0248571D 03 PTH 6.6305858D 01 AZ-1.4725699D 02
 ALT 3.9524870D 08 LTGD 1.1750297D 01 LON 2.8769517D 02
 VE 2.8913493D 04 PTE 1.8600012D 00 AZE-9.0686855D 01

FLIGHT TIME 2.8084409D 05

TIME 4 FEB. 1968 21 HRS., 41 MIN., 57.702 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-3.9159713D 06 YSC 4.3353951D 06 ZSC 3.2607473D 06
 DXSC 1.4299523D 03 DYSC-5.3556686D 02 DZSC-5.8258864D 02
 RSC 6.6905123D 06 DESC 2.9167788D 01 RASC 1.3209010D 02
 VSC 1.6343210D 03 PTSC-6.3921298D 01 AZSC-7.7775638D 01

SELENOGRAPHIC REFERENCE

XSG 1.2177697D 06 YSG-6.4196580D 06 ZSG 1.4380483D 06
 DXSG-9.8752919D 02 DYSG 1.2633008D 03 DZSG-3.5372846D 02
 HSG 4.9524228D 06 LTSG 1.2411915D 01 LNSG-7.9258959D 01
 VRSG 1.6420312D 03 PTSG-6.3376888D 01 AZSG-9.3048157D 01
 LTS-1.4247381D 00 LNS 1.0908299D 02 LTE-7.6787747D-01
 LNE 1.7991038D 00 DSMP 4.6440751D 00 RSMP 1.0731542D 02

GEOCENTRIC REFERENCE

X 3.5252045D 08 Y 1.7470008D 08 Z 8.1746940D 07
 DX 9.9880156D 02 DY 2.2453718D 02 DZ-1.5956136D 02
 R 4.0183746D 08 DEC 1.1737774D 01 RA 2.6361833D 01
 V 1.0360894D 03 PTH 6.5310898D 01 AZ-1.4594917D 02
 ALT 3.9546018D 08 LTGD 1.1738987D 01 LON 2.8674749D 02
 VE 2.8949554D 04 PTE 1.8634506D 00 AZE-9.0710089D 01

FLIGHT TIME 2.8106909D 05

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 4 FEB. 1968 21 HRS., 45 MIN., 42.702 SEC., GMT
SELENOCENTRIC REFERENCE
XSC-3.5925728D 06 YSC 4.2130199D 06 ZSC 3.1282624D 06
DXSC 1.4448654D 03 DYSC-5.5256263D 02 DZSC-5.9528890D 02
RSC 6.3594136D 06 DESC 2.9466230D 01 RASC 1.3045525D 02
VSC 1.6575072D 03 PTSC-6.2869336D 01 AZSC-7.8576220D 01
SELENOGRAPHIC REFERENCE
XSG 9.9525056D 05 YSG-6.1325267D 06 ZSG 1.3578416D 06
DXSG-9.9038475D 02 DYSG 1.2894238D 03 DZSG-3.5928654D 02
HSG 4.6213241D 06 LTSG 1.2328524D 01 LNSG-8.0781807D 01
VRSG 1.6651014D 03 PTSG-6.2363708D 01 AZSG-9.3367397D 01
LTS-1.4247274D 00 LNS 1.0905129D 02 LTE-7.7144173D-01
LNE 1.7956506D 00 DSMP 4.6439882D 00 RSMP 1.0728698D 02
LIN 1.6720711D 02 LAN 2.4951321D 01 LAP 2.0551183D 02
GEOCENTRIC REFERENCE FLIGHT TIME 2.8129409D 05
X 3.5274678D 08 Y 1.7474870D 08 Z 8.1709624D 07
DX 1.0132185D 03 DY 2.0730082D 02 DZ-1.7237241D 02
R 4.0204958D 08 DEC 1.1726062D 01 RA 2.6353546D 01
V 1.0484739D 03 PTH 6.4209866D 01 AZ-1.4463513D 02
ALT 3.9567229D 08 LTGD 1.1727273D 01 LON 2.8579914D 02
VE 2.8987851D 04 PTE 1.8662502D 00 AZE-9.0735711D 01

TIME 4 FEB. 1968 21 HRS., 49 MIN., 27.702 SEC., GMT
SELENOCENTRIC REFERENCE
XSC-3.2657055D 06 YSC 4.0865694D 06 ZSC 2.9927526D 06
DXSC 1.4607962D 03 DYSC-5.7186215D 02 DZSC-6.0951982D 02
RSC 6.0267280D 06 DESC 2.9773990D 01 RASC 1.2862944D 02
VSC 1.6829932D 03 PTSC-6.1711860D 01 AZSC-7.9478722D 01
SELENOGRAPHIC REFERENCE
XSG 7.7212227D 05 YSG-5.8392019D 06 ZSG 1.2763223D 06
DXSG-9.9291593D 02 DYSG 1.3184322D 03 DZSG-3.6541090D 02
HSG 4.2886385D 06 LTSG 1.2226508D 01 LNSG-8.2467429D 01
VRSG 1.6904646D 03 PTSG-6.1244854D 01 AZSG-9.3719336D 01
LTS-1.4247166D 00 LNS 1.0901959D 02 LTE-7.7500568D-01
LNE 1.7921967D 00 DSMP 4.6439012D 00 RSMP 1.0725853D 02
LIN 1.6720709D 02 LAN 2.4917172D 01 LAP 2.0551218D 02
GEOCENTRIC REFERENCE FLIGHT TIME 2.8151909D 05
X 3.5297647D 08 Y 1.7479319D 08 Z 8.1669258D 07
DX 1.0286533D 03 DY 1.8776051D 02 DZ-1.8671424D 02
R 4.0226225D 08 DEC 1.1713903D 01 RA 2.6344513D 01
V 1.0621882D 03 PTH 6.2986168D 01 AZ-1.4331516D 02
ALT 3.9588496D 08 LTGD 1.1715112D 01 LON 2.8485004D 02
VE 2.9028746D 04 PTE 1.8680843D 00 AZE-9.0764100D 01

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TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 4 FEB. 1968 21 HRS., 53 MIN., 12.702 SEC., GMT

SELENOCENTRIC REFERENCE		
XSC-2.9351339D 06	YSC 3.9554738D 06	ZSC 2.8538424D 06
DXSC 1.4778007D 03	DYSC-5.9394191D 02	DZSC-6.2556865D 02
RSC 5.6925565D 06	DESC 3.0087948D 01	RASC 1.2657702D 02
VSC 1.7111394D 03	PTSC-6.0430966D 01	AZSC-8.0502911D 01
SELENOGRAPHIC REFERENCE		
XSG 5.4847881D 05	YSG-5.5389781D 06	ZSG 1.1933535D 06
DXSG-9.9492409D 02	DYSG 1.3508430D 03	DZSG-3.7218991D 02
HSG 3.9544670D 06	LTSG 1.2100905D 01	LNSG-8.4344907D 01
VRSG 1.7184808D 03	PTSG-6.0002374D 01	AZSG-9.4108946D 01
LTS-1.4247058D 00	LNS 1.0898789D 02	LTE-7.7856931D-01
LNE 1.7887419D 00	DSMP 4.6438142D 00	RSMP 1.0723009D 02
LIN 1.6720707D 02	LAN 2.4883003D 01	LAP 2.0551243D 02
GEOCENTRIC REFERENCE		
X 3.5320975D 08	Y 1.7483299D 08	Z 8.1625467D 07
DX 1.0451620D 03	DY 1.6543972D 02	DZ-2.0287412D 02
R 4.0247537D 08	DEC 1.1701246D 01	RA 2.6334647D 01
V 1.0774469D 03	PTH 6.1619476D 01	AZ-1.4198945D 02
ALT 3.9609808D 08	LTGD 1.1702453D 01	LON 2.8390011D 02
VE 2.9072686D 04	PTE 1.8685100D 00	AZE-9.0795715D 01

TIME 4 FEB. 1968 21 HRS., 56 MIN., 57.702 SEC., GMT

SELENOCENTRIC REFERENCE		
XSC-2.6006122D 06	YSC 3.8190418D 06	ZSC 2.7110837D 06
DXSC 1.4959109D 03	DYSC-6.1941091D 02	DZSC-6.4379501D 02
RSC 5.3570736D 06	DESC 3.0402770D 01	RASC 1.2425326D 02
VSC 1.7423809D 03	PTSC-5.9004392D 01	AZSC-8.1673551D 01
SELENOGRAPHIC REFERENCE		
XSG 3.2446822D 05	YSG-5.2310203D 06	ZSG 1.1087763D 06
DXSG-9.9612138D 02	DYSG 1.3872968D 03	DZSG-3.7972917D 02
HSG 3.6189842D 06	LTSG 1.1945094D 01	LNSG-8.6450616D 01
VRSG 1.7495841D 03	PTSG-5.8613946D 01	AZSG-9.4542132D 01
LTS-1.4246950D 00	LNS 1.0895620D 02	LTE-7.8213263D-01
LNF 1.7852863D 00	DSMP 4.6437272D 00	RSMP 1.0720165D 02
LIN 1.6720705D 02	LAN 2.4848820D 01	LAP 2.0551261D 02
GEOCENTRIC REFERENCE		
X 3.5344688D 08	Y 1.7486739D 08	Z 8.1577802D 07
DX 1.0627766D 03	DY 1.3972945D 02	DZ-2.2121164D 02
R 4.0268876D 08	DEC 1.1688032D 01	RA 2.6323843D 01
V 1.0945104D 03	PTH 6.0084631D 01	AZ-1.4065812D 02
ALT 3.9631147D 08	LTGD 1.1689238D 01	LON 2.8294923D 02
VE 2.9120220D 04	PTE 1.8668998D 00	AZE-9.0831113D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 22 HRS., 0 MIN., 42.702 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-2.2618921D 06 YSC 3.6764262D 06 ZSC 2.5639375D 06
 DXSC 1.5151110D 03 DYSC-6.4905626D 02 DZSC-6.6465284D 02
 RSC 5.0205618D 06 DESC 3.0709625D 01 RASC 1.2160157D 02
 VSC 1.7772447D 03 PTSC-5.7404132D 01 AZSC-8.3021842D 01
 SELENOGRAPHIC REFERENCE
 XSG 1.0031729D 05 YSG-4.9143325D 06 ZSG 1.0224059D 06
 DXSG-9.9608679D 02 DYSG 1.4285922D 03 DZSG-3.8815453D 02
 HSG 3.2824723D 06 LTSG 1.1750115D 01 LNSG-8.8830567D 01
 VRSG 1.7843006D 03 PTSG-5.7051491D 01 AZSG-9.5025893D 01
 LTS-1.4246843D 00 LNS 1.0892450D 02 LTE-7.8569564D-01
 LNE 1.7818299D 00 DSMP 4.6436401D 00 RSMP 1.0717321D 02
 LIN 1.6720703D 02 LAN 2.4814628D 01 LAP 2.0551272D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.8219409D 05
 X 3.5368809D 08 Y 1.7489555D 08 Z 8.1525724D 07
 DX 1.0814812D 03 DY 1.0984262D 02 DZ-2.4218076D 02
 R 4.0290217D 08 DEC 1.1674192D 01 RA 2.6311977D 01
 V 1.1136959D 03 PTH 5.8350132D 01 AZ-1.3932117D 02
 ALT 3.9652488D 08 LTGD 1.1675395D 01 LON 2.8199730D 02
 VE 2.9172026D 04 PTE 1.8623550D 00 AZE-9.0870970D 01

TIME 4 FEB. 1968 22 HRS., 4 MIN., 27.702 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-1.9187379D 06 YSC 3.5265769D 06 ZSC 2.4117496D 06
 DXSC 1.5352961D 03 DYSC-6.8390661D 02 DZSC-6.8871937D 02
 RSC 4.6834641D 06 DESC 3.0994108D 01 RASC 1.1854970D 02
 VSC 1.8163691D 03 PTSC-5.5594527D 01 AZSC-8.4587213D 01
 SELENOGRAPHIC REFERENCE
 XSG-1.2363140D 05 YSG-4.5877168D 06 ZSG 9.3402658D 05
 DXSG-9.9419763D 02 DYSG 1.4757297D 03 DZSG-3.9761480D 02
 HSG 2.9453746D 06 LTSG 1.1503670D 01 LNSG-9.1543648D 01
 VRSG 1.8232676D 03 PTSG-5.5279254D 01 AZSG-9.5568433D 01
 LTS-1.4246735D 00 LNS 1.0889280D 02 LTE-7.8925833D-01
 LNE 1.7783727D 00 DSMP 4.6435530D 00 RSMP 1.0714478D 02
 LIN 1.6720700D 02 LAN 2.4780434D 01 LAP 2.0551277D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.8241909D 05
 X 3.5393362D 08 Y 1.7491643D 08 Z 8.1468580D 07
 DX 1.1011710D 03 DY 7.4750566D 01 DZ-2.6635872D 02
 R 4.0311523D 08 DEC 1.1659641D 01 RA 2.6298898D 01
 V 1.1353907D 03 PTH 5.6376068D 01 AZ-1.3797850D 02
 ALT 3.9673794D 08 LTGD 1.1660843D 01 LON 2.8104416D 02
 VE 2.9228953D 04 PTE 1.8535715D 00 AZE-9.0916112D 01

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TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 4 FEB. 1968 22 HRS., 8 MIN., 12.702 SEC.,GMT

SELENOCENTRIC REFERENCE

XSC-1.5709542D 06 YSC 3.3681771D 06 ZSC 2.2537184D 06
DXSC 1.5561991D 03 DYSC-7.2532014D 02 DZSC-7.1673235D 02
RSC 4.3464653D 06 DESC 3.1232859D 01 RASC 1.1500485D 02
VSC 1.8605242D 03 PTSC-5.3529605D 01 AZSC-8.6419425D 01

SELENOGRAPHIC REFERENCE

XSG-3.4686277D 05 YSG-4.2497230D 06 ZSG 8.4338658D 05
DXSG-9.8952104D 02 DYSG 1.5299644D 03 DZSG-4.0828247D 02
HSG 2.6083758D 06 LTSG 1.1188627D 01 LNSG-9.4666138D 01
VRSG 1.8672540D 03 PTSG-5.3251145D 01 AZSG-9.6179160D 01
LTS-1.4246627D 00 LNS 1.0886110D 02 LTE-7.9282070D-01
LNE 1.7749147D 00 DSMP 4.6434659D 00 RSMP 1.0711634D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.8264409D 05
X 3.5418367D 08 Y 1.7492870D 08 Z 8.1405567D 07
DX 1.1215787D 03 DY 3.3095095D 01 DZ-2.9448325D 02
R 4.0332739D 08 DEC 1.1644282D 01 RA 2.6284425D 01
V 1.1600666D 03 PTH 5.4111258D 01 AZ-1.3662998D 02
ALT 3.9695010D 08 LTGD 1.1645481D 01 LON 2.8008962D 02
VE 2.9292052D 04 PTE 1.8386312D 00 AZE-9.0967533D 01

TIME 4 FEB. 1968 22 HRS., 11 MIN., 57.702 SEC.,GMT

SELENOCENTRIC REFERENCE

XSC-1.2184352D 06 YSC 3.1995565D 06 ZSC 2.0888540D 06
DXSC 1.5772606D 03 DYSC-7.7510465D 02 DZSC-7.4963497D 02
RSC 4.0106180D 06 DESC 3.1388004D 01 RASC 1.1084752D 02
VSC 1.9106258D 03 PTSC-5.1149377D 01 AZSC-8.8580617D 01

SELENOGRAPHIC REFERENCE

XSG-5.6860150D 05 YSG-3.8985844D 06 ZSG 7.5019290D 05
DXSG-9.8063998D 02 DYSG 1.5928626D 03 DZSG-4.2034928D 02
HSG 2.2725286D 06 LTSG 1.0780774D 01 LNSG-9.8297973D 01
VRSG 1.9171749D 03 PTSG-5.0907022D 01 AZSG-9.6868355D 01
LTS-1.4246519D 00 LNS 1.0882940D 02 LTE-7.9638276D-01
LNE 1.7714558D 00 DSMP 4.6433787D 00 RSMP 1.0708790D 02
LIN 1.6720695D 02 LAN 2.4712073D 01 LAP 2.0551272D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.8286909D 05
X 3.5443834D 08 Y 1.7493069D 08 Z 8.1335697D 07
DX 1.1421452D 03 DY-1.6931575D 01 DZ-3.2749755D 02
R 4.0353783D 08 DEC 1.1627997D 01 RA 2.6268336D 01
V 1.1882916D 03 PTH 5.1489289D 01 AZ-1.3527546D 02
ALT 3.9716053D 08 LTGD 1.1629193D 01 LON 2.7913346D 02
VE 2.9362624D 04 PTE 1.8146717D 00 AZE-9.1026409D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 22 HRS., 15 MIN., 42.702 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-8.6125407D 05 YSC 3.0185732D 06 ZSC 1.9159270D 06
 DXSC 1.5973973D 03 DYSC-8.3567375D 02 DZSC-7.8862259D 02
 RSC 3.6775424D 06 DESC 3.1398025D 01 RASC 1.0592441D 02
 VSC 1.9677282D 03 PTSC-4.8374738D 01 AZSC-9.1146285D 01
 SELENOGRAPHIC REFERENCE
 XSG-7.8767395D 05 YSG-3.5321424D 06 ZSG 6.5410874D 05
 DXSG-9.6537235D 02 DYSG 1.6663429D 03 DZSG-4.3400850D 02
 HSG 1.9394530D 06 LTSG 1.0245468D 01 LNSG-1.0257136D 02
 VRSG 1.9740835D 03 PTSG-4.8167585D 01 AZSG-9.7646076D 01
 LTS-1.4246411D 00 LNS 1.0879770D 02 LTE-7.9994450D-01
 LNE 1.7679962D 00 DSMP 4.6432915D 00 RSMP 1.0705947D 02
 LIN 1.6720691D 02 LAN 2.4677920D 01 LAP 2.0551264D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.8309409D 05
 X 3.5469757D 08 Y 1.7492027D 08 Z 8.1257738D 07
 DX 1.1617870D 03 DY-7.7743068D 01 DZ-3.6659698D 02
 R 4.0374532D 08 DEC 1.1610643D 01 RA 2.6250361D 01
 V 1.2207319D 03 PTH 4.8423113D 01 AZ-1.3391495D 02
 ALT 3.9736802D 08 LTGD 1.1611837D 01 LON 2.7817542D 02
 VE 2.9442243D 04 PTE 1.7773621D 00 AZE-9.1094070D 01

TIME 4 FEB. 1968 22 HRS., 19 MIN., 27.702 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-4.9982341D 05 YSC 2.8224569D 06 ZSC 1.7334076D 06
 DXSC 1.6145869D 03 DYSC-9.1022645D 02 DZSC-8.3516814D 02
 RSC 3.3497445D 06 DESC 3.1163000D 01 RASC 1.0004228D 02
 VSC 2.0329557D 03 PTSC-4.5100703D 01 AZSC-9.4202476D 01
 SELENOGRAPHIC REFERENCE
 XSG-1.0022893D 06 YSG-3.1477688D 06 ZSG 5.5475762D 05
 DXSG-9.4032055D 02 DYSG 1.7526481D 03 DZSG-4.4940724D 02
 HSG 1.6116550D 06 LTSG 9.5327834D 00 LNSG-1.0766212D 02
 VRSG 2.0391040D 03 PTSG-4.4927599D 01 AZSG-9.8519353D 01
 LTS-1.4246303D 00 LNS 1.0876600D 02 LTE-8.0350592D-01
 LNE 1.7645357D 00 DSMP 4.6432043D 00 RSMP 1.0703103D 02
 LIN 1.6720687D 02 LAN 2.4643791D 01 LAP 2.0551251D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.8331909D 05
 X 3.5496093D 08 Y 1.7489466D 08 Z 8.1170162D 07
 DX 1.1784818D 03 DY-1.5253838D 02 DZ-4.1325445D 02
 R 4.0394801D 08 DEC 1.1592055D 01 RA 2.6230169D 01
 V 1.2581203D 03 PTH 4.4797951D 01 AZ-1.3254892D 02
 ALT 3.9757071D 08 LTGD 1.1593247D 01 LON 2.7721516D 02
 VE 2.9532712D 04 PTE 1.7200799D 00 AZE-9.1171865D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 22 HRS., 23 MIN., 12.702 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-1.3518071D 05 YSC 2.6076159D 06 ZSC 1.5394077D 06
 DXSC 1.6251395D 03 DYSC-1.0028792D 03 DZSC-8.9096020D 02
 RSC 3.0311237D 06 DESC 3.0521855D 01 RASC 9.2967593D 01
 VSC 2.1072862D 03 PTSC-4.1188310D 01 AZSC-9.7833041D 01

SELENOGRAPHIC REFERENCE

XSG-1.2096927D 06 YSG-2.7423130D 06 ZSG 4.5174493D 05
 DXSG-9.0017349D 02 DYSG 1.8541071D 03 DZSG-4.6653223D 02
 HSG 1.2930342D 06 LTSG 8.5710341D 00 LNSG-1.1380329D 02
 VRSG 2.1132150D 03 PTSG-4.1047794D 01 AZSG-9.9485706D 01
 LTS-1.4246195D 00 LNS 1.0873430D 02 LTE-8.0706702D-01
 LNE 1.7610744D 00 DSMP 4.6431171D 00 RSMP 1.0700260D 02
 LIN 1.6720681D 02 LAN 2.4609682D 01 LAP 2.0551235D 02

GEOCENTRIC REFERENCE

X 3.5522739D 08 Y 1.7485027D 08 Z 8.1071080D 07
 DX 1.1885398D 03 DY-2.4543397D 02 DZ-4.6915857D 02
 R 4.0414309D 08 DEC 1.1572043D 01 RA 2.6207364D 01
 V 1.3011435D 03 PTH 4.0462959D 01 AZ-1.3117890D 02
 ALT 3.9776579D 08 LTGD 1.1573233D 01 LON 2.7625229D 02
 VE 2.9635829D 04 PTE 1.6326685D 00 AZE-9.1260768D 01

FLIGHT TIME 2.8354409D 05

TIME 4 FEB. 1968 22 HRS., 26 MIN., 57.702 SEC., GMT

SELENOCENTRIC REFERENCE

XSC 2.3051001D 05 YSC 2.3694374D 06 ZSC 1.3316608D 06
 DXSC 1.6224802D 03 DYSC-1.1185150D 03 DZSC-9.5758412D 02
 RSC 2.7277627D 06 DESC 2.9221548D 01 RASC 8.4443478D 01
 VSC 2.1910009D 03 PTSC-3.6457721D 01 AZSC-1.0208480D 02

SELENOGRAPHIC REFERENCE

XSG-1.4056298D 06 YSG-2.3121555D 06 ZSG 3.4471872D 05
 DXSG-8.3673344D 02 DYSG 1.9723560D 03 DZSG-4.8495863D 02
 HSG 9.8967318D 05 LTSG 7.2601185D 00 LNSG-1.2129669D 02
 VRSG 2.1967012D 03 PTSG-3.6347953D 01 AZSG-1.0051930D 02
 LTS-1.4246087D 00 LNS 1.0870261D 02 LTE-8.1062780D-01
 LNE 1.7576124D 00 DSMP 4.6430298D 00 RSMP 1.0697417D 02
 LIN 1.6720675D 02 LAN 2.4575574D 01 LAP 2.0551215D 02

GEOCENTRIC REFERENCE

X 3.5549479D 08 Y 1.7478249D 08 Z 8.0958226D 07
 DX 1.1853861D 03 DY-3.6131283D 02 DZ-5.3589468D 02
 R 4.0432623D 08 DEC 1.1550406D 01 RA 2.6181489D 01
 V 1.3501371D 03 PTH 3.5224448D 01 AZ-1.2980857D 02
 ALT 3.9794892D 08 LTGD 1.1551593D 01 LON 2.7528635D 02
 VE 2.9752683D 04 PTE 1.4997771D 00 AZE-9.1360420D 01

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TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 4 FEB. 1968 22 HRS., 30 MIN., 42.702 SEC., GMT

SELENOCENTRIC REFERENCE

XSC 5.9312032D 05 YSC 2.1022090D 06 ZSC 1.1076351D 06
DXSC 1.5954056D 03 DYSC-1.2617154D 03 DZSC-1.0355704D 03
RSC 2.4490671D 06 DESC 2.6889299D 01 RASC 7.4244036D 01
VSC 2.2824660D 03 PTSC-3.0691249D 01 AZSC-1.0689281D 02

SELENOGRAPHIC REFERENCE

XSG-1.5835822D 06 YSG-1.8535558D 06 ZSG 2.3351276D 05
DXSG-7.3795885D 02 DYSG 2.1063493D 03 DZSG-5.0335042D 02
HSG 7.1097765D 05 LTSG 5.4713283D 00 LNSG-1.3050886D 02
VRSG 2.2879363D 03 PTSG-3.0609973D 01 AZSG-1.0154414D 02
LTS-1.4245979D 00 LNS 1.0867091D 02 LTE-8.1418826D-01
LNE 1.7541495D 00 DSMP 4.6429425D 00 RSMP 1.0694574D 02
LIN 1.6720667D 02 LAN 2.4541424D 01 LAP 2.0551199D 02

GEOCENTRIC REFERENCE

X 3.5575900D 08 Y 1.7468561D 08 Z 8.0829067D 07
DX 1.1578172D 03 DY-5.0475657D 02 DZ-6.1399332D 02
R 4.0449087D 08 DEC 1.1526968D 01 RA 2.6152067D 01
V 1.4043887D 03 PTH 2.8850138D 01 AZ-1.2844576D 02
ALT 3.9811356D 08 LTGD 1.1528152D 01 LON 2.7431686D 02
VE 2.9881903D 04 PTE 1.2994046D 00 AZE-9.1467055D 01

FLIGHT

TIME 2.8399409D 05

TIME 4 FEB. 1968 22 HRS., 34 MIN., 27.702 SEC., GMT

SELENOCENTRIC REFERENCE

XSC 9.4532775D 05 YSC 1.7994991D 06 ZSC 8.6498844D 05
DXSC 1.5266312D 03 DYSC-1.4334624D 03 DZSC-1.1222037D 03
RSC 2.2090827D 06 DESC 2.3051601D 01 RASC 6.2285781D 01
VSC 2.3758700D 03 PTSC-2.3669248D 01 AZSC-1.1195899D 02

SELENOGRAPHIC REFERENCE

XSG-1.7339007D 06 YSG-1.3636742D 06 ZSG 1.1843781D 05
DXSG-5.8840655D 02 DYSG 2.2482287D 03 DZSG-5.1865000D 02
HSG 4.7099325D 05 LTSG 3.0733306D 00 LNSG-1.4181573D 02
VRSG 2.3811241D 03 PTSG-2.3613843D 01 AZSG-1.0239162D 02
LTS-1.4245870D 00 LNS 1.0863921D 02 LTE-8.1774840D-01
LNE 1.7506858D 00 DSMP 4.6428551D 00 RSMP 1.0691731D 02
LIN 1.6720662D 02 LAN 2.4507175D 01 LAP 2.0551217D 02

GEOCENTRIC REFERENCE

X 3.5601269D 08 Y 1.7455319D 08 Z 8.0681263D 07
DX 1.0885486D 03 DY-6.7674705D 02 DZ-7.0073897D 02
R 4.0462738D 08 DEC 1.1501667D 01 RA 2.6118733D 01
V 1.4608079D 03 PTH 2.1108760D 01 AZ-1.2710563D 02
ALT 3.9825007D 08 LTGD 1.1502848D 01 LON 2.7334346D 02
VE 3.0016113D 04 PTE 1.0042463D 00 AZE-9.1569801D 01

FLIGHT

TIME 2.8421909D 05

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TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 4 FEB. 1968 22 HRS., 38 MIN., 12.702 SEC., GMT

SELENOCENTRIC REFERENCE

XSC 1.2753764D 06	YSC 1.4556723D 06	ZSC 6.0268375D 05
DXSC 1.3950477D 03	DYSC -1.6242839D 03	DZSC -1.2079713D 03
RSC 2.0270162D 06	DESC 1.7297041D 01	RASC 4.8777016D 01
VSC 2.4583838D 03	PTSC -1.5279866D 01	AZSC -1.1664281D 02

SELENOGRAPHIC REFERENCE

XSG -1.8435144D 06	YSG -8.4276246D 05	ZSG 7.6047341D 02
DXSG -3.7470649D 02	DYSG 2.3774387D 03	DZSG -5.2537605D 02
HSG 2.8892667D 05	LTSG 2.1495594D -02	LNSG -1.5543249D 02
VRSG 2.4634609D 03	PTSG -1.5247609D 01	AZSG -1.0276463D 02
LTS -1.4245762D 00	LNS 1.0860751D 02	LTE -8.2130821D -01
LNE 1.7472213D 00	DSMP 4.6427677D 00	RSMP 1.0688888D 02
LIN 1.6720666D 02	LAN 2.4472840D 01	LAP 2.0551353D 02

GEOCENTRIC REFERENCE

X 3.5624412D 08	Y 1.7437959D 08	Z 8.0513775D 07
DX 9.5647113D 02	DY -8.6781234D 02	DZ -7.8661915D 02
R 4.0472285D 08	DEC 1.1474721D 01	RA 2.6081500D 01
V 1.5121855D 03	PTH 1.1887994D 01	AZ -1.2581450D 02
ALT 3.9834553D 08	LTGD 1.1475900D 01	LON 2.7236616D 02
VE 3.0136977D 04	PTE 5.9221079D -01	AZE -9.1646546D 01

FLIGHT TIME 2.8444409D 05

TIME 4 FEB. 1968 22 HRS., 41 MIN., 57.702 SEC., GMT

SELENOCENTRIC REFERENCE

XSC 1.5673608D 06	YSC 1.0691411D 06	ZSC 3.2282313D 05
DXSC 1.1879777D 03	DYSC -1.8070013D 03	DZSC -1.2746829D 03
RSC 1.9245512D 06	DESC 9.6564106D 00	RASC 3.4299003D 01
VSC 2.5102512D 03	PTSC -5.7193391D 00	AZSC -1.2004134D 02

SELENOGRAPHIC REFERENCE

XSG -1.8978483D 06	YSG -2.9735954D 05	ZSG -1.1681727D 05
DXSG -9.9882197D 01	DYSG 2.4595472D 03	DZSG -5.1671870D 02
HSG 1.8646168D 05	LTSG -3.4799037D 00	LNSG -1.7109515D 02
VRSG 2.5152230D 03	PTSG -5.7079959D 00	AZSG -1.0229351D 02
LTS -1.4245654D 00	LNS 1.0857581D 02	LTE -8.2486770D -01
LNE 1.7437560D 00	DSMP 4.6426803D 00	RSMP 1.0686045D 02
LIN 1.6720685D 02	LAN 2.4438668D 01	LAP -1.5448290D 02

GEOCENTRIC REFERENCE

X 3.5643737D 08	Y 1.7416324D 08	Z 8.0328706D 07
DX 7.4890728D 02	DY -1.0507736D 03	DZ -8.5344343D 02
R 4.0476306D 08	DEC 1.1446835D 01	RA 2.6041164D 01
V 1.5470466D 03	PTH 1.4070723D 00	AZ -1.2461079D 02
ALT 3.9838573D 08	LTGD 1.1448011D 01	LON 2.7138576D 02
VE 3.0214375D 04	PTE 7.2003981D -02	AZE -9.1666056D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

PERISELENUM

TIME 4 FEB. 1968 22 HRS., 44 MIN., 5.502 SEC., GMT

SELENOCENTRIC REFERENCE

XSC 1.7099863D 06 YSC 8.3256792D 05 ZSC 1.5839389D 05
DXSC 1.0412821D 03 DYSC-1.8920636D 03 DZSC-1.2961775D 03
RSC 1.9084840D 06 DESC 4.7607168D 00 RASC 2.5960788D 01
VSC 2.5187793D 03 PTSC 2.2058760D-12 AZSC-1.2109020D 02

SELENOGRAPHIC REFERENCE

XSG-1.8996941D 06 YSG 1.8065140D 04 ZSG-1.8206307D 05
DXSG 7.1744845D 01 DYSG 2.4719940D 03 DZSG-5.0332199D 02
HSG 1.7039450D 05 LTSG-5.4741522D 00 LNSG 1.7945515D 02
VRSG 2.5237343D 03 PTSG 1.4676285D-08 AZSG-1.0155737D 02
LTS-1.4245593D 00 LNS 1.0855781D 02 LTE-8.2688935D-01

GEOCENTRIC REFERENCE

LNE 1.7417874D 00 DSMP 4.6426306D 00 RSMP 1.0684430D 02
LIN 1.6720704D 02 LAN 2.4419509D 01 LAP-1.5448013D 02
X 3.5652386D 08 Y 1.7402331D 08 Z 8.0218107D 07
DX 6.0193125D 02 DY-1.1359747D 03 DZ-8.7500211D 02
R 4.0475711D 08 DEC 1.1431033D 01 RA 2.6017522D 01
V 1.5551168D 03 PTH-4.8551441D 00 AZ-1.2398244D 02
ALT 3.9837979D 08 LTGD 1.1432207D 01 LON 2.7082815D 02
VE 3.0227474D 04 PTE-2.4951885D-01 AZE-9.1641905D 01

TIME 4 FEB. 1968 22 HRS., 47 MIN., 50.502 SEC., GMT

SELENOCENTRIC REFERENCE

XSC 1.9128519D 06 YSC 3.9468866D 05 ZSC-1.3433457D 05
DXSC 7.6034301D 02 DYSC-1.9877333D 03 DZSC-1.2983092D 03
RSC 1.9577608D 06 DESC-3.9345237D 00 RASC 1.1658522D 01
VSC 2.4929524D 03 PTSC 9.9617072D 00 AZSC-1.2119368D 02

SELENOGRAPHIC REFERENCE

XSG-1.8499176D 06 YSG 5.7069260D 05 ZSG-2.9144841D 05
DXSG 3.6571480D 02 DYSG 2.4265770D 03 DZSG-4.6666333D 02
HSG 2.1967129D 05 LTSG-8.5613448D 00 LNSG 1.6285519D 02
VRSG 2.4979588D 03 PTSG 9.9415390D 00 AZSG-9.9521404D 01
LTS-1.4245484D 00 LNS 1.0852611D 02 LTE-8.3044833D-01

GEOCENTRIC REFERENCE

LNE 1.7383208D 00 DSMP 4.6425432D 00 RSMP 1.0681587D 02
LIN 1.6720742D 02 LAN 2.4386388D 01 LAP-1.5447499D 02
X 3.5662782D 08 Y 1.7375552D 08 Z 8.0020131D 07
DX 3.2049860D 02 DY-1.2318886D 03 DZ-8.7724671D 02
R 4.0469446D 08 DEC 1.1404231D 01 RA 2.5976179D 01
V 1.5459077D 03 PTH-1.5762129D 01 AZ-1.2299572D 02
ALT 3.9831713D 08 LTGD 1.1405403D 01 LON 2.6984675D 02
VE 3.0189753D 04 PTE-7.9703648D-01 AZE-9.1537972D 01

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TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 4 FEB. 1968 22 HRS., 51 MIN., 35.502 SEC., GMT

SELENOCENTRIC REFERENCE

XSC 2.0533036D 06 YSC-5.6444609D 04 ZSC-4.2289241D 05
DXSC 4.9415147D 02 DYSC-2.0114944D 03 DZSC-1.2615007D 03
RSC 2.0971599D 06 DESC-1.1633466D 01 RASC-1.5746446D 00
VSC 2.4252174D 03 PTSC 1.9069094D 01 AZSC-1.1938895D 02

SELENOGRAPHIC REFERENCE

XSG-1.7389386D 06 YSG 1.1049858D 06 ZSG-3.9138059D 05
DXSG 6.0997303D 02 DYSG 2.3145999D 03 DZSG-4.2098599D 02
HSG 3.5907042D 05 LTSG-1.0755835D 01 LNSG 1.4756661D 02
VRSG 2.4303640D 03 PTSG 1.9027158D 01 AZSG-9.6949653D 01
LTS-1.4245376D 00 LNS 1.0849441D 02 LTE-8.3400698D-01
LNE 1.7348535D 00 DSMP 4.6424556D 00 RSMP 1.0678745D 02
LIN 1.6720774D 02 LAN 2.4353825D 01 LAP-1.5447116D 02

GEOCENTRIC REFERENCE

X 3.5666925D 08 Y 1.7347442D 08 Z 7.9826299D 07
DX 5.3813622D 01 DY-1.2558943D 03 DZ-8.4055125D 02
R 4.0457208D 08 DEC 1.1379725D 01 RA 2.5937053D 01
V 1.5121815D 03 PTH-2.5748155D 01 AZ-1.2216979D 02
ALT 3.9819475D 08 LTGD 1.1380895D 01 LON 2.6886755D 02
VE 3.0090731D 04 PTE-1.2509621D 00 AZE-9.1381270D 01

FLIGHT TIME 2.8524689D 05

TIME 4 FEB. 1968 22 HRS., 55 MIN., 20.502 SEC., GMT

SELENOCENTRIC REFERENCE

XSC 2.1388122D 06 YSC-5.0656487D 05 ZSC-7.0041795D 05
DXSC 2.7488948D 02 DYSC-1.9831285D 03 DZSC-1.2033555D 03
RSC 2.3068834D 06 DESC-1.7675210D 01 RASC-1.3324634D 01
VSC 2.3358997D 03 PTSC 2.6868533D 01 AZSC-1.1640197D 02

SELENOGRAPHIC REFERENCE

XSG-1.5805521D 06 YSG 1.6100575D 06 ZSG-4.8091686D 05
DXSG 7.8683946D 02 DYSG 2.1728531D 03 DZSG-3.7552095D 02
HSG 5.6879393D 05 LTSG-1.2032727D 01 LNSG 1.3447016D 02
VRSG 2.3412439D 03 PTSG 2.6802292D 01 AZSG-9.4361770D 01
LTS-1.4245268D 00 LNS 1.0846271D 02 LTE-8.3756531D-01
LNE 1.7313854D 00 DSMP 4.6423681D 00 RSMP 1.0675902D 02
LIN 1.6720792D 02 LAN 2.4321302D 01 LAP-1.5446892D 02

GEOCENTRIC REFERENCE

X 3.5665563D 08 Y 1.7319428D 08 Z 7.9643475D 07
DX-1.6594166D 02 DY-1.2277732D 03 DZ-7.8251922D 02
R 4.0440398D 08 DEC 1.1358097D 01 RA 2.5901509D 01
V 1.4653669D 03 PTH-3.4323905D 01 AZ-1.2149160D 02
ALT 3.9802664D 08 LTGD 1.1359265D 01 LON 2.6789194D 02
VE 2.9962083D 04 PTE-1.5802956D 00 AZE-9.1209401D 01

FLIGHT TIME 2.8547189D 05

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 22 HRS., 59 MIN., 5.502 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC 2.1809912D 06 YSC-9.4686471D 05 ZSC-9.6400665D 05
 DXSC 1.0834275D 02 DYSC-1.9279551D 03 DZSC-1.1396715D 03
 RSC 2.5656547D 06 DESC-2.2069755D 01 RASC-2.3467795D 01
 VSC 2.2422310D 03 PTSC 3.3324367D 01 AZSC-1.1294316D 02
 SELENOGRAPHIC REFERENCE
 XSG-1.3893341D 06 YSG 2.0827534D 06 ZSG-5.6077927D 05
 DXSG 9.0430242D 02 DYSG 2.0303420D 03 DZSG-3.3548777D 02
 HSG 8.2756526D 05 LTSG-1.2625149D 01 LNSG 1.2370590D 02
 VRSG 2.2477997D 03 PTSG 3.3231091D 01 AZSG-9.2069123D 01
 LTS-1.4245159D 00 LNS 1.0843101D 02 LTE-8.4112331D-01
 LNE 1.7279164D 00 DSMP 4.6422805D 00 RSMP 1.0673060D 02
 LIN 1.6720800D 02 LAN 2.4288483D 01 LAP-1.5446765D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.8569689D 05
 X 3.5659856D 08 Y 1.7292391D 08 Z 7.9474561D 07
 DX-3.3298153D 02 DY-1.1728447D 03 DZ-7.1894850D 02
 R 4.0420468D 08 DEC 1.1339351D 01 RA 2.5869951D 01
 V 1.4153898D 03 PTH-4.1446807D 01 AZ-1.2093472D 02
 ALT 3.9782734D 08 LTGD 1.1340518D 01 LON 2.6692032D 02
 VE 2.9829438D 04 PTE-1.7998596D 00 AZE-9.1048099D 01

TIME 4 FEB. 1968 23 HRS., 2 MIN., 50.502 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC 2.1909036D 06 YSC-1.3734902D 06 ZSC-1.2135247D 06
 DXSC-1.3775427D 01 DYSC-1.8637646D 03 DZSC-1.0791999D 03
 RSC 2.8564271D 06 DESC-2.5140539D 01 RASC-3.2083837D 01
 VSC 2.1537132D 03 PTSC 3.8614981D 01 AZSC-1.0948606D 02
 SELENOGRAPHIC REFERENCE
 XSG-1.1768428D 06 YSG 2.5247357D 06 ZSG-6.3239761D 05
 DXSG 9.7865707D 02 DYSG 1.9011491D 03 DZSG-3.0225298D 02
 HSG 1.1183376D 06 LTSG-1.2790959D 01 LNSG 1.1499140D 02
 VRSG 2.1595125D 03 PTSG 3.8492189D 01 AZSG-9.0162570D 01
 LTS-1.4245051D 00 LNS 1.0839932D 02 LTE-8.4468098D-01
 LNE 1.7244467D 00 DSMP 4.6421929D 00 RSMP 1.0670217D 02
 LIN 1.6720801D 02 LAN 2.4255300D 01 LAP-1.5446687D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.8592189D 05
 X 3.5650912D 08 Y 1.7266716D 08 Z 7.9319693D 07
 DX-4.5559270D 02 DY-1.1088995D 03 DZ-6.5859026D 02
 R 4.0398554D 08 DEC 1.1323182D 01 RA 2.5842180D 01
 V 1.3678318D 03 PTH-4.7304646D 01 AZ-1.2047159D 02
 ALT 3.9760820D 08 LTGD 1.1324348D 01 LON 2.6595248D 02
 VE 2.9705837D 04 PTE-1.9394115D 00 AZE-9.0907729D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 4 FEB. 1968 23 HRS., 6 MIN., 35.502 SEC., GMT

SELENOCENTRIC REFERENCE

XSC 2.1772819D 06 YSC-1.7855995D 06 ZSC-1.4501435D 06
DXSC-1.0262826D 02 DYSC-1.7999423D 03 DZSC-1.0252658D 03
RSC 3.1673077D 06 DESC-2.7248288D 01 RASC-3.9355343D 01
VSC 2.0740046D 03 PTSC 4.2967251D 01 AZSC-1.0627209D 02

SELENOGRAPHIC REFERENCE

XSG-9.5107559D 05 YSG 2.9395784D 06 ZSG-6.9726031D 05
DXSG 1.0243752D 03 DYSG 1.7892462D 03 DZSG-2.7527259D 02
HSG 1.4292182D 06 LTSG-1.2717426D 01 LNSG 1.0792854D 02
VRSG 2.0800292D 03 PTSG 4.2812869D 01 AZSG-8.8617092D 01
LTS-1.4244942D 00 LNS 1.0836762D 02 LTE-8.4823832D-01
LNE 1.7209762D 00 DSMP 4.6421053D 00 RSMP 1.0667375D 02
LIN 1.6720799D 02 LAN 2.4221808D 01 LAP-1.5446635D 02

GEOCENTRIC REFERENCE

X 3.5639604D 08 Y 1.7242487D 08 Z 7.9177699D 07
DX-5.4493836D 02 DY-1.0453227D 03 DZ-6.0476973D 02
R 4.0375435D 08 DEC 1.1309202D 01 RA 2.5817756D 01
V 1.3249165D 03 PTH-5.2139157D 01 AZ-1.2007915D 02
ALT 3.9737701D 08 LTGD 1.1310367D 01 LON 2.6498799D 02
VE 2.9595513D 04 PTE-2.0255051D 00 AZE-9.0789480D 01

FLIGHT TIME 2.8614689D 05

TIME 4 FEB. 1968 23 HRS., 10 MIN., 20.502 SEC., GMT

SELENOCENTRIC REFERENCE

XSC 2.1464988D 06 YSC-2.1838009D 06 ZSC-1.6754277D 06
DXSC-1.6768798D 02 DYSC-1.7405218D 03 DZSC-9.7840963D 02
RSC 3.4904873D 06 DESC-2.8685284D 01 RASC-4.5493543D 01
VSC 2.0037017D 03 PTSC 4.6584241D 01 AZSC-1.0339101D 02

SELENOGRAPHIC REFERENCE

XSG-7.1724364D 05 YSG 3.3311467D 06 ZSG-7.5665345D 05
DXSG 1.0517219D 03 DYSG 1.6939627D 03 DZSG-2.5344227D 02
HSG 1.7523978D 06 LTSG-1.2519735D 01 LNSG 1.0215109D 02
VRSG 2.0099407D 03 PTSG 4.6396598D 01 AZSG-8.7371159D 01
LTS-1.4244834D 00 LNS 1.0833592D 02 LTE-8.5179533D-01
LNE 1.7175050D 00 DSMP 4.6420176D 00 RSMP 1.0664533D 02
LIN 1.6720796D 02 LAN 2.4188083D 01 LAP-1.5446598D 02

GEOCENTRIC REFERENCE

X 3.5626568D 08 Y 1.7219643D 08 Z 7.9047013D 07
DX-6.1049076D 02 DY-9.8614779D 02 DZ-5.5802718D 02
R 4.0351614D 08 DEC 1.1297043D 01 RA 2.5796201D 01
V 1.2870823D 03 PTH-5.6168199D 01 AZ-1.1973974D 02
ALT 3.9713879D 08 LTGD 1.1298208D 01 LON 2.6402637D 02
VE 2.9498480D 04 PTE-2.0771067D 00 AZE-9.0690870D 01

FLIGHT TIME 2.8637189D 05

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 23 HRS., 21 MIN., 35.502 SEC., GMT

SELENOCENTRIC REFERENCE

XSC 1.9902304D 06 YSC-3.3071210D 06 ZSC-2.2977551D 06
 DXSC-2.7988473D 02 DYSC-1.5960978D 03 DZSC-8.7325578D 02
 RSC 4.4919644D 06 DESC-3.0765505D 01 RASC-5.8960405D 01
 VSC 1.8407714D 03 PTSC 5.4456120D 01 AZSC-9.6688964D 01

SELENOGRAPHIC REFERENCE

XSG 5.0013813D 03 YSG 4.3985562D 06 ZSG-9.1127551D 05
 DXSG 1.0790889D 03 DYSG 1.4850751D 03 DZSG-2.0893561D 02
 HSG 2.7538749D 06 LTSG-1.1704717D 01 LNSG 8.9934847D 01
 VRSG 1.8475755D 03 PTSG 5.4161839D 01 AZSG-8.4859033D 01
 LTS-1.4244508D 00 LNS 1.0824082D 02 LTE-8.6246436D-01
 LNE 1.7070864D 00 DSMP 4.6417544D 00 RSMP 1.0656006D 02
 LIN 1.6720787D 02 LAN 2.4086071D 01 LAP-1.5446524D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.8704689D 05
 X 3.5581002D 08 Y 1.7158206D 08 Z 7.8708329D 07
 DX-7.2416463D 02 DY-8.4246219D 02 DZ-4.5321505D 02
 R 4.0278552D 08 DEC 1.1268677D 01 RA 2.5744731D 01
 V 1.1998170D 03 PTH-6.4971355D 01 AZ-1.1892449D 02
 ALT 3.9640817D 08 LTGD 1.1269841D 01 LON 2.6115470D 02
 VE 2.9270861D 04 PTE-2.1285234D 00 AZE-9.0480855D 01

TIME 4 FEB. 1968 23 HRS., 25 MIN., 20.502 SEC., GMT

SELENOCENTRIC REFERENCE

XSC 1.9247474D 06 YSC-3.6618844D 06 ZSC-2.4912309D 06
 DXSC-3.0129317D 02 DYSC-1.5580844D 03 DZSC-8.4712268D 02
 RSC 4.8291077D 06 DESC-3.1056165D 01 RASC-6.2272834D 01
 VSC 1.7988945D 03 PTSC 5.6404252D 01 AZSC-9.4986970D 01

SELENOGRAPHIC REFERENCE

XSG 2.4788797D 05 YSG 4.7268152D 06 ZSG-9.5710505D 05
 DXSG 1.0795042D 03 DYSG 1.4339855D 03 DZSG-1.9873357D 02
 HSG 3.0910182D 06 LTSG-1.1431427D 01 LNSG 8.6997988D 01
 VRSG 1.8058623D 03 PTSG 5.6072895D 01 AZSG-8.4292792D 01
 LTS-1.4244399D 00 LNS 1.0820913D 02 LTE-8.6602004D-01
 LNE 1.7036120D 00 DSMP 4.6416666D 00 RSMP 1.0653165D 02
 LIN 1.6720784D 02 LAN 2.4051890D 01 LAP-1.5446503D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.8727189D 05
 X 3.5564452D 08 Y 1.7139684D 08 Z 7.8609349D 07
 DX-7.4606514D 02 DY-8.0469535D 02 DZ-4.2719611D 02
 R 4.0254109D 08 DEC 1.1261244D 01 RA 2.5730951D 01
 V 1.1775586D 03 PTH-6.7156426D 01 AZ-1.1869544D 02
 ALT 3.9616374D 08 LTGD 1.1262408D 01 LON 2.6020085D 02
 VE 2.9210604D 04 PTE-2.1290891D 00 AZE-9.0430799D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 4 FEB. 1968 23 HRS., 29 MIN., 5.502 SEC., GMT

SELENOCENTRIC REFERENCE

XSC 1.8549961D 06 YSC-4.0085651D 06 ZSC-2.6792040D 06
DXSC-3.1805103D 02 DYSC-1.5241545D 03 DZSC-8.2424383D 02
RSC 5.1660177D 06 DESC-3.1239779D 01 RASC-6.5167273D 01
VSC 1.7616984D 03 PTSC 5.8118405D 01 AZSC-9.3489566D 01

SELENOGRAPHIC REFERENCE

XSG 4.9063138D 05 YSG 5.0443416D 06 ZSG-1.0008183D 06
DXSG 1.0779620D 03 DYSG 1.3894585D 03 DZSG-1.9006523D 02
HSG 3.4279282D 06 LTSG-1.1170607D 01 LNSG 8.4444670D 01
VRSG 1.7688194D 03 PTSG 5.7749469D 01 AZSG-8.3816438D 01
LTS-1.4244291D 00 LNS 1.0817743D 02 LTE-8.6957539D-01
LNE 1.7001368D 00 DSMP 4.6415788D 00 RSMP 1.0650323D 02
LIN 1.6720782D 02 LAN 2.4017647D 01 LAP-1.5446480D 02
GEOCENTRIC REFERENCE FLIGHT TIME 2.8749689D 05

X 3.5547464D 08 Y 1.7121964D 08 Z 7.8515847D 07
DX-7.6331491D 02 DY-7.7101225D 02 DZ-4.0443154D 02
R 4.0229730D 08 DEC 1.1254579D 01 RA 2.5718481D 01
V 1.1578750D 03 PTH-6.9080715D 01 AZ-1.1847939D 02
ALT 3.9591995D 08 LTGD 1.1255743D 01 LON 2.5924831D 02
VE 2.9155969D 04 PTE-2.1259064D 00 AZE-9.0387625D 01

TIME 4 FEB. 1968 23 HRS., 32 MIN., 50.502 SEC., GMT

SELENOCENTRIC REFERENCE

XSC 1.7818861D 06 YSC-4.3480185D 06 ZSC-2.8623440D 06
DXSC-3.3130968D 02 DYSC-1.4937557D 03 DZSC-8.0407977D 02
RSC 5.5021265D 06 DESC-3.1347346D 01 RASC-6.7715410D 01
VSC 1.7284723D 03 PTSC 5.9639709D 01 AZSC-9.2165839D 01

SELENOGRAPHIC REFERENCE

XSG 7.3287730D 05 YSG 5.3524772D 06 ZSG-1.0427245D 06
DXSG 1.0751780D 03 DYSG 1.3503415D 03 DZSG-1.8262588D 02
HSG 3.7640370D 06 LTSG-1.0924364D 01 LNSG 8.2203367D 01
VRSG 1.7357368D 03 PTSG 5.9232798D 01 AZSG-8.3412206D 01
LTS-1.4244182D 00 LNS 1.0814573D 02 LTE-8.7313039D-01
LNE 1.6966608D 00 DSMP 4.6414909D 00 RSMP 1.0647481D 02
LIN 1.6720781D 02 LAN 2.3983352D 01 LAP-1.5446454D 02
GEOCENTRIC REFERENCE FLIGHT TIME 2.8772189D 05

X 3.5530129D 08 Y 1.7104962D 08 Z 7.8427152D 07
DX-7.7706531D 02 DY-7.4086054D 02 DZ-3.8438190D 02
R 4.0205447D 08 DEC 1.1248578D 01 RA 2.5707154D 01
V 1.1403746D 03 PTH-7.0789554D 01 AZ-1.1827288D 02
ALT 3.9567712D 08 LTGD 1.1249742D 01 LON 2.5829692D 02
VE 2.9106008D 04 PTE-2.1203406D 00 AZE-9.0350068D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 4 FEB. 1968 23 HRS., 36 MIN., 35.502 SEC., GMT

SELENOCENTRIC REFERENCE

XSC 1.7061065D 06 YSC-4.6809836D 06 ZSC-3.0412105D 06
DXSC-3.4189798D 02 DYSC-1.4664057D 03 DZSC-7.8619292D 02
RSC 5.8370685D 06 DESC-3.1400477D 01 RASC-6.9974409D 01
VSC 1.6986286D 03 PTSC 6.1000239D 01 AZSC-9.0989652D 01

SELENOGRAPHIC REFERENCE

XSG 9.7440307D 05 YSG 5.6523323D 06 ZSG-1.0830727D 06
DXSG 1.0716243D 03 DYSG 1.3157175D 03 DZSG-1.7618233D 02
HSG 4.0989790D 06 LTSG-1.0693246D 01 LNSG 8.0218937D 01
VRSG 1.7060279D 03 PTSG 6.0555042D 01 AZSG-8.3066510D 01
LTS-1.4244073D 00 LNS 1.0811403D 02 LTE-8.7668507D-01
LNE 1.6931841D 00 DSMP 4.6414030D 00 RSMP 1.0644640D 02
LIN 1.6720780D 02 LAN 2.3949008D 01 LAP-1.5446426D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.8794689D 05
X 3.5512516D 08 Y 1.7088603D 08 Z 7.8342705D 07
DX-7.8814522D 02 DY-7.1375774D 02 DZ-3.6660958D 02
R 4.0181276D 08 DEC 1.1243155D 01 RA 2.5696832D 01
V 1.1247336D 03 PTH-7.2318402D 01 AZ-1.1807305D 02
ALT 3.9543540D 08 LTGD 1.1244320D 01 LON 2.5734653D 02
VE 2.9059958D 04 PTE-2.1132953D 00 AZE-9.0317133D 01

TIME 4 FEB. 1968 23 HRS., 40 MIN., 20.502 SEC., GMT

SELENOCENTRIC REFERENCE

XSC 1.6281864D 06 YSC-5.0080986D 06 ZSC-3.2162748D 06
DXSC-3.5042170D 02 DYSC-1.4416915D 03 DZSC-7.7022851D 02
RSC 6.1706131D 06 DESC-3.1414423D 01 RASC-7.1990098D 01
VSC 1.6716823D 03 PTSC 6.2225322D 01 AZSC-8.9939175D 01

SELENOGRAPHIC REFERENCE

XSG 1.2150732D 06 YSG 5.9448323D 06 ZSG-1.1220660D 06
DXSG 1.0676152D 03 DYSG 1.2848544D 03 DZSG-1.7055427D 02
HSG 4.4325236D 06 LTSG-1.0476969D 01 LNSG 7.8448332D 01
VRSG 1.6792087D 03 PTSG 6.1741595D 01 AZSG-8.2768861D 01
LTS-1.4243965D 00 LNS 1.0808233D 02 LTE-8.8023940D-01
LNE 1.6897066D 00 DSMP 4.6413151D 00 RSMP 1.0641798D 02
LIN 1.6720780D 02 LAN 2.3914619D 01 LAP-1.5446394D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.8817189D 05
X 3.5494678D 08 Y 1.7072823D 08 Z 7.8262034D 07
DX-7.9716039D 02 DY-6.8929102D 02 DZ-3.5075984D 02
R 4.0157227D 08 DEC 1.1238241D 01 RA 2.5687400D 01
V 1.1106841D 03 PTH-7.3695334D 01 AZ-1.1787745D 02
ALT 3.9519492D 08 LTGD 1.1239406D 01 LON 2.5639703D 02
VE 2.9017204D 04 PTE-2.1053746D 00 AZE-9.0288038D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 23 HRS., 44 MIN., 5.502 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC 1.5485376D 06 YSC-5.3299161D 06 ZSC-3.3879358D 06
 DXSC-3.5733003D 02 DYSC-1.4192632D 03 DZSC-7.5589803D 02
 RSC 6.5026212D 06 DESC-3.1400075D 01 RASC-7.3799463D 01
 VSC 1.6472324D 03 PTSC 6.3335190D 01 AZSC-8.8996256D 01
 SELENOGRAPHIC REFERENCE
 XSG 1.4548106D 06 YSG 6.2307550D 06 ZSG-1.1598713D 06
 DXSG 1.0633618D 03 DYSG 1.2571643D 03 DZSG-1.6560085D 02
 HSG 4.7645318D 06 LTSG-1.0274820D 01 LNSG 7.6857534D 01
 VRSG 1.6548789D 03 PTSG 6.2812744D 01 AZSG-8.2511069D 01
 LTS-1.4243856D 00 LNS 1.0805064D 02 LTE-8.8379339D-01
 LNE 1.6862283D 00 DSMP 4.6412271D 00 RSMP 1.0638957D 02
 LIN 1.6720781D 02 LAN 2.3880187D 01 LAP-1.5446357D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.8839689D 05
 X 3.5476656D 08 Y 1.7057567D 08 Z 7.8184740D 07
 DX-8.0456001D 02 DY-6.6711040D 02 DZ-3.3654415D 02
 R 4.0133306D 08 DEC 1.1233776D 01 RA 2.5678760D 01
 V 1.0980050D 03 PTH-7.4942837D 01 AZ-1.1768394D 02
 ALT 3.9495570D 08 LTGD 1.1234941D 01 LON 2.5544833D 02
 VE 2.8977250D 04 PTE-2.0969849D 00 AZE-9.0262160D 01

TIME 4 FEB. 1968 23 HRS., 47 MIN., 50.502 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC 1.4674836D 06 YSC-5.6469162D 06 ZSC-3.5565337D 06
 DXSC-3.6296061D 02 DYSC-1.3988250D 03 DZSC-7.4296565D 02
 RSC 6.8330156D 06 DESC-3.1365294D 01 RASC-7.5432572D 01
 VSC 1.6249461D 03 PTSC 6.4346193D 01 AZSC-8.8145813D 01
 SELENOGRAPHIC REFERENCE
 XSG 1.6935773D 06 YSG 6.5107589D 06 ZSG-1.1966274D 06
 DXSG 1.0590061D 03 DYSG 1.2321717D 03 DZSG-1.6121085D 02
 HSG 5.0949261D 06 LTSG-1.0085894D 01 LNSG 7.5419351D 01
 VRSG 1.6327064D 03 PTSG 6.3784882D 01 AZSG-8.2286671D 01
 LTS-1.4243747D 00 LNS 1.0801894D 02 LTE-8.8734705D-01
 LNE 1.6827492D 00 DSMP 4.6411392D 00 RSMP 1.0636115D 02
 LIN 1.6720783D 02 LAN 2.3845714D 01 LAP-1.5446316D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.8862189D 05
 X 3.5458482D 08 Y 1.7042788D 08 Z 7.8110484D 07
 DX-8.1068174D 02 DY-6.4692013D 02 DZ-3.2372669D 02
 R 4.0109513D 08 DEC 1.1229712D 01 RA 2.5670830D 01
 V 1.0865125D 03 PTH-7.6079121D 01 AZ-1.1749059D 02
 ALT 3.9471778D 08 LTGD 1.1230877D 01 LON 2.5450033D 02
 VE 2.8939692D 04 PTE-2.0884007D 00 AZE-9.0239000D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 4 FEB. 1968 23 HRS., 51 MIN., 35.502 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC 1.3852817D 06 YSC-5.9595178D 06 ZSC-3.7223605D 06
 DXSC-3.6757051D 02 DYSC-1.3801270D 03 DZSC-7.3123743D 02
 RSC 7.1617613D 06 DESC-3.1315810D 01 RASC-7.6914056D 01
 VSC 1.6045457D 03 PTSC 6.5271680D 01 AZSC-8.7375282D 01

SELENOGRAPHIC REFERENCE

XSG 1.9313617D 06 YSG 6.7854058D 06 ZSG-1.2324508D 06
 DXSG 1.0546439D 03 DYSG 1.2094891D 03 DZSG-1.5729554D 02
 HSG 5.4236719D 06 LTSG-9.9092218D 00 LNSG 7.4111806D 01
 VRSG 1.6124142D 03 PTSG 6.4671393D 01 AZSG-8.2090516D 01
 LTS-1.4243638D 00 LNS 1.0798724D 02 LTE-8.9090037D-01
 LNE 1.6792694D 00 DSMP 4.6410511D 00 RSMP 1.0633274D 02
 LIN 1.6720785D 02 LAN 2.3811198D 01 LAP-1.5446269D 02

GEOCENTRIC REFERENCE

X 3.5440183D 08 Y 1.7028443D 08 Z 7.8038973D 07
 DX-8.1578262D 02 DY-6.2847027D 02 DZ-3.1211351D 02
 R 4.0085848D 08 DEC 1.1226007D 01 RA 2.5663541D 01
 V 1.0760534D 03 PTH-7.7119083D 01 AZ-1.1729556D 02
 ALT 3.9448113D 08 LTGD 1.1227173D 01 LON 2.5355297D 02
 VE 2.8904200D 04 PTE-2.0798075D 00 AZE-9.0218154D 01

FLIGHT TIME 2.8884689D 05

TIME 4 FEB. 1968 23 HRS., 55 MIN., 20.502 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC 1.3021384D 06 YSC-6.2680879D 06 ZSC-3.8856687D 06
 DXSC-3.7135775D 02 DYSC-1.3629574D 03 DZSC-7.2055283D 02
 RSC 7.4888525D 06 DESC-3.1255836D 01 RASC-7.8264241D 01
 VSC 1.5857982D 03 PTSC 6.6122659D 01 AZSC-8.6674165D 01

SELENOGRAPHIC REFERENCE

XSG 2.1681701D 06 YSG 7.0551787D 06 ZSG-1.2674398D 06
 DXSG 1.0503391D 03 DYSG 1.1887980D 03 DZSG-1.5378343D 02
 HSG 5.7507630D 06 LTSG-9.7438386D 00 LNSG 7.2916959D 01
 VRSG 1.5937698D 03 PTSG 6.5483311D 01 AZSG-8.1918452D 01
 LTS-1.4243529D 00 LNS 1.0795554D 02 LTE-8.9445334D-01
 LNE 1.6757888D 00 DSMP 4.6409631D 00 RSMP 1.0630433D 02
 LIN 1.6720789D 02 LAN 2.3776641D 01 LAP-1.5446217D 02

GEOCENTRIC REFERENCE

X 3.5421778D 08 Y 1.7014495D 08 Z 7.7969955D 07
 DX-8.2006069D 02 DY-6.1154907D 02 DZ-3.0154408D 02
 R 4.0062308D 08 DEC 1.1222626D 01 RA 2.5656833D 01
 V 1.0664992D 03 PTH-7.8075030D 01 AZ-1.1709706D 02
 ALT 3.9424573D 08 LTGD 1.1223792D 01 LON 2.5260620D 02
 VE 2.8870500D 04 PTE-2.0713296D 00 AZE-9.0199294D 01

FLIGHT TIME 2.8907189D 05

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 4 FEB. 1968 23 HRS., 59 MIN., 5.502 SEC., GMT
SELENOCENTRIC REFERENCE

XSC 1.2182208D 06 YSC-6.5729497D 06 ZSC-4.0466775D 06
DXSC-3.7447656D 02 DYSC-1.3471363D 03 DZSC-7.1077809D 02
RSC 7.8143028D 06 DESC-3.1188492D 01 RASC-7.9500025D 01
VSC 1.5685071D 03 PTSC 6.6908286D 01 AZSC-8.6033651D 01

SELENOGRAPHIC REFERENCE

XSG 2.4040206D 06 YSG 7.3204949D 06 ZSG-1.3016786D 06
DXSG 1.0461340D 03 DYSG 1.1698351D 03 DZSG-1.5061638D 02
HSG 6.0762133D 06 LTSG-9.5888235D 00 LNSG 7.1820028D 01
VRSG 1.5765773D 03 PTSG 6.6229818D 01 AZSG-8.1767106D 01
LTS-1.4243420D 00 LNS 1.0792385D 02 LTE-8.9800598D-01
LNE 1.6723074D 00 DSMP 4.6408750D 00 RSMP 1.0627592D 02
LIN 1.6720793D 02 LAN 2.3742042D 01 LAP-1.5446160D 02

GEOCENTRIC REFERENCE

X 3.5403285D 08 Y 1.7000913D 08 Z 7.7903210D 07
DX-8.2367018D 02 DY-5.9597660D 02 DZ-2.9188464D 02
R 4.0038890D 08 DEC 1.1219538D 01 RA 2.5650653D 01
V 1.0577416D 03 PTH-7.8957215D 01 AZ-1.1689332D 02
ALT 3.9401155D 08 LTGD 1.1220704D 01 LON 2.5165995D 02
VE 2.8838364D 04 PTE-2.0630494D 00 AZE-9.0182147D 01

FLIGHT TIME 2.8929689D 05

TIME 5 FEB. 1968 0 HRS., 2 MIN., 50.502 SEC., GMT
SELENOCENTRIC REFERENCE

XSC 1.1336649D 06 YSC-6.8743888D 06 ZSC-4.2055786D 06
DXSC-3.7704827D 02 DYSC-1.3325102D 03 DZSC-7.0180104D 02
RSC 8.1381392D 06 DESC-3.1116103D 01 RASC-8.0635554D 01
VSC 1.5525056D 03 PTSC 6.7636243D 01 AZSC-8.5446307D 01

SELENOGRAPHIC REFERENCE

XSG 2.6389387D 06 YSG 7.5817181D 06 ZSG-1.3352391D 06
DXSG 1.0420558D 03 DYSG 1.1523810D 03 DZSG-1.4774669D 02
HSG 6.4000497D 06 LTSG-9.4433167D 00 LNSG 7.0808724D 01
VRSG 1.5606702D 03 PTSG 6.6918614D 01 AZSG-8.1633706D 01
LTS-1.4243311D 00 LNS 1.0789215D 02 LTE-9.0155827D-01
LNE 1.6688253D 00 DSMP 4.6407868D 00 RSMP 1.0624751D 02
LIN 1.6720798D 02 LAN 2.3707400D 01 LAP-1.5446096D 02

GEOCENTRIC REFERENCE

X 3.5384717D 08 Y 1.6987667D 08 Z 7.7838547D 07
DX-8.2673241D 02 DY-5.8159929D 02 DZ-2.8302301D 02
R 4.0015590D 08 DEC 1.1216716D 01 RA 2.5644957D 01
V 1.0496886D 03 PTH-7.9774253D 01 AZ-1.1668244D 02
ALT 3.9377854D 08 LTGD 1.1217883D 01 LON 2.5071419D 02
VE 2.8807601D 04 PTE-2.0550203D 00 AZE-9.0166490D 01

FLIGHT TIME 2.8952189D 05

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 0 HRS., 6 MIN., 35.502 SEC., GMT

SELENOCENTRIC REFERENCE

XSC 1.0485828D 06 YSC-7.1726590D 06 ZSC-4.3625406D 06
 DXSC-3.7916920D 02 DYSC-1.3189475D 03 DZSC-6.9352699D 02
 RSC 8.4603974D 06 DESC-3.1040410D 01 RASC-8.1682749D 01
 VSC 1.5376513D 03 PTSC 6.8313025D 01 AZSC-8.4905835D 01

SELENOGRAPHIC REFERENCE

XSG 2.8729552D 06 YSG 7.8391661D 06 ZSG-1.3681837D 06
 DXSG 1.0381213D 03 DYSG 1.1362513D 03 DZSG-1.4513491D 02
 HSG 6.7223079D 06 LTSG-9.3065268D 00 LNSG 6.9872750D 01
 VRSG 1.5459065D 03 PTSG 6.7556208D 01 AZSG-8.1515961D 01
 LTS-1.4243202D 00 LNS 1.0786045D 02 LTE-9.0511021D-01
 LNE 1.6653424D 00 DSMP 4.6406987D 00 RSMP 1.0621910D 02
 LIN 1.6720805D 02 LAN 2.3672714D 01 LAP-1.5446027D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.8974689D 05
 X 3.5366085D 08 Y 1.6974733D 08 Z 7.7775797D 07
 DX-8.2934372D 02 DY-5.6828559D 02 DZ-2.7486451D 02
 R 3.9992403D 08 DEC 1.1214139D 01 RA 2.5639704D 01
 V 1.0422620D 03 PTH-8.0533434D 01 AZ-1.1646244D 02
 ALT 3.9354667D 08 LTGD 1.1215306D 01 LON 2.4976887D 02
 VF 2.8778051D 04 PTE-2.0472752D 00 AZE-9.0152136D 01

TIME 5 FEB. 1968 0 HRS., 10 MIN., 20.502 SEC., GMT

SELENOCENTRIC REFERENCE

XSC 9.6306678D 05 YSC-7.4679864D 06 ZSC-4.5177124D 06
 DXSC-3.8091650D 02 DYSC-1.3063349D 03 DZSC-6.8587555D 02
 RSC 8.7811186D 06 DESC-3.0962721D 01 RASC-8.2651724D 01
 VSC 1.5238220D 03 PTSC 6.8944161D 01 AZSC-8.4406869D 01

SELENOGRAPHIC REFERENCE

XSG 3.1061035D 06 YSG 8.0931192D 06 ZSG-1.4005667D 06
 DXSG 1.0343399D 03 DYSG 1.1212904D 03 DZSG-1.4274817D 02
 HSG 7.0430291D 06 LTSG-9.1777312D 00 LNSG 6.9003414D 01
 VRSG 1.5321645D 03 PTSG 6.8148145D 01 AZSG-8.1411957D 01
 LTS-1.4243093D 00 LNS 1.0782875D 02 LTE-9.0866182D-01
 LNE 1.6618587D 00 DSMP 4.6406105D 00 RSMP 1.0619069D 02
 LIN 1.6720813D 02 LAN 2.3637985D 01 LAP-1.5445951D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.8997189D 05
 X 3.5347399D 08 Y 1.6962088D 08 Z 7.7714811D 07
 DX-8.3158123D 02 DY-5.5592225D 02 DZ-2.6732874D 02
 R 3.9969325D 08 DEC 1.1211785D 01 RA 2.5634860D 01
 V 1.0353944D 03 PTH-8.1240972D 01 AZ-1.1623110D 02
 ALT 3.9331590D 08 LTGD 1.1212953D 01 LON 2.4882396D 02
 VE 2.8749578D 04 PTE-2.0398329D 00 AZE-9.0138926D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 0 HRS., 14 MIN., 5.502 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC 8.7719370D 05 YSC-7.7605736D 06 ZSC-4.6712262D 06
 DXSC-3.8235243D 02 DYSC-1.2945745D 03 DZSC-6.7877806D 02
 RSC 9.1003475D 06 DESC-3.0884021D 01 RASC-8.3551106D 01
 VSC 1.5109124D 03 PTSC 6.9534390D 01 AZSC-8.3944819D 01
 SELENOGRAPHIC REFERENCE
 XSG 3.3384186D 06 YSG 8.3438250D 06 ZSG-1.4324354D 06
 DXSG 1.0307160D 03 DYSG 1.1073658D 03 DZSG-1.4055886D 02
 HSG 7.3622580D 06 LTSG-9.0562738D 00 LNSG 6.8193327D 01
 VRSG 1.5193391D 03 PTSG 6.8699172D 01 AZSG-8.1320088D 01
 LTS-1.4242984D 00 LNS 1.0779706D 02 LTE-9.1221308D-01
 LNE 1.6583743D 00 DSMP 4.6405223D 00 RSMP 1.0616228D 02
 LIN 1.6720821D 02 LAN 2.3603211D 01 LAP-1.5445868D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.9019689D 05
 X 3.5328666D 08 Y 1.6949710D 08 Z 7.7655457D 07
 DX-8.3350722D 02 DY-5.4441137D 02 DZ-2.6034706D 02
 R 3.9946352D 08 DEC 1.1209638D 01 RA 2.5630393D 01
 V 1.0290280D 03 PTH-8.1902197D 01 AZ-1.1598594D 02
 ALT 3.9308616D 08 LTGD 1.1210806D 01 LON 2.4787943D 02
 VE 2.8722065D 04 PTE-2.0327021D 00 AZE-9.0126727D 01

TIME 5 FEB. 1968 0 HRS., 17 MIN., 50.502 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC 7.9102772D 05 YSC-8.0506025D 06 ZSC-4.8231997D 06
 DXSC-3.8352761D 02 DYSC-1.2835814D 03 DZSC-6.7217557D 02
 RSC 9.4181304D 06 DESC-3.0805050D 01 RASC-8.4388299D 01
 VSC 1.4988311D 03 PTSC 7.0087800D 01 AZSC-8.3515733D 01
 SELENOGRAPHIC REFERENCE
 XSG 3.5699361D 06 YSG 8.5915035D 06 ZSG-1.4638316D 06
 DXSG 1.0272504D 03 DYSG 1.0943645D 03 DZSG-1.3854366D 02
 HSG 7.6800409D 06 LTSG-8.9415601D 00 LNSG 6.7436165D 01
 VRSG 1.5073392D 03 PTSG 6.9213386D 01 AZSG-8.1238992D 01
 LTS-1.4242875D 00 LNS 1.0776536D 02 LTE-9.1576399D-01
 LNE 1.6548891D 00 DSMP 4.6404340D 00 RSMP 1.0613388D 02
 LIN 1.6720831D 02 LAN 2.3568391D 01 LAP-1.5445780D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.9042189D 05
 X 3.5309893D 08 Y 1.6937583D 08 Z 7.7597618D 07
 DX-8.3517230D 02 DY-5.3366795D 02 DZ-2.5386050D 02
 R 3.9923479D 08 DEC 1.1207681D 01 RA 2.5626277D 01
 V 1.0231126D 03 PTH-8.2521706D 01 AZ-1.1572413D 02
 ALT 3.9285743D 08 LTGD 1.1208850D 01 LON 2.4693524D 02
 VE 2.8695412D 04 PTE-2.0258850D 00 AZE-9.0115427D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH UN 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 0 HRS., 21 MIN., 35.502 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC 7.0462270D 05 YSC-8.3382372D 06 ZSC-4.9737385D 06
 DXSC-3.8448347D 02 DYSC-1.2732814D 03 DZSC-6.6601718D 02
 RSC 9.7345142D 06 DESC-3.0726364D 01 RASC-8.5169692D 01
 VSC 1.4874985D 03 PTSC 7.0607934D 01 AZSC-8.3116197D 01
 SELENOGRAPHIC REFERENCE
 XSG 3.8006916D 06 YSG 8.8363514D 06 ZSG-1.4947922D 06
 DXSG 1.0239416D 03 DYSG 1.0821891D 03 DZSG-1.3668273D 02
 HSG 7.9964247D 06 LTSG-8.8330527D 00 LNSG 6.6726488D 01
 VRSG 1.4960855D 03 PTSG 6.9694338D 01 AZSG-8.1167511D 01
 LTS-1.4242766D 00 LNS 1.0773366D 02 LTE-9.1931455D-01
 LNE 1.6514032D 00 DSMP 4.6403457D 00 RSMP 1.0610547D 02
 LIN 1.6720843D 02 LAN 2.3533524D 01 LAP-1.5445684D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.9064689D 05
 X 3.5291085D 08 Y 1.6925690D 08 Z 7.7541187D 07
 DX-8.3661791D 02 DY-5.2361786D 02 DZ-2.4781816D 02
 R 3.9900702D 08 DEC 1.1205901D 01 RA 2.5622488D 01
 V 1.0176046D 03 PTH-8.3103488D 01 AZ-1.1544231D 02
 ALT 3.9262966D 08 LTGD 1.1207070D 01 LON 2.4599139D 02
 VE 2.8669532D 04 PTE-2.0193785D 00 AZE-9.0104926D 01

TIME 5 FEB. 1968 0 HRS., 25 MIN., 20.502 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC 6.1802403D 05 YSC-8.6236262D 06 ZSC-5.1229374D 06
 DXSC-3.8525415D 02 DYSC-1.2636096D 03 DZSC-6.6025874D 02
 RSC 1.0049546D 07 DESC-3.0648380D 01 RASC-8.5900823D 01
 VSC 1.4768451D 03 PTSC 7.1097882D 01 AZSC-8.2743249D 01
 SELENOGRAPHIC REFERENCE
 XSG 4.0307199D 06 YSG 9.0785447D 06 ZSG-1.5253499D 06
 DXSG 1.0207862D 03 DYSG 1.0707554D 03 DZSG-1.3495912D 02
 HSG 8.3114562D 06 LTSG-8.7302658D 00 LNSG 6.6059587D 01
 VRSG 1.4855086D 03 PTSG 7.0145123D 01 AZSG-8.1104649D 01
 LTS-1.4242656D 00 LNS 1.0770196D 02 LTE-9.2286477D-01
 LNE 1.6479165D 00 DSMP 4.6402574D 00 RSMP 1.0607707D 02
 LIN 1.6720856D 02 LAN 2.3498610D 01 LAP-1.5445581D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.9087189D 05
 X 3.5272247D 08 Y 1.6914016D 08 Z 7.7486070D 07
 DX-8.3787818D 02 DY-5.1419621D 02 DZ-2.4217589D 02
 R 3.9878017D 08 DEC 1.1204285D 01 RA 2.5619002D 01
 V 1.0124657D 03 PTH-8.3651021D 01 AZ-1.1513653D 02
 ALT 3.9240281D 08 LTGD 1.1205455D 01 LON 2.4504784D 02
 VE 2.8644350D 04 PTE-2.0131768D 00 AZE-9.0095143D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 5 FEB. 1968 0 HRS., 29 MIN., 5.502 SEC., GMT
SELENOCENTRIC REFERENCE
XSC 5.3127009D 05 YSC-8.9069043D 06 ZSC-5.2708820D 06
DXSC-3.8586792D 02 DYSC-1.2545089D 03 DZSC-6.5486176D 02
RSC 1.0363271D 07 DESC-3.0571405D 01 RASC-8.6586518D 01
VSC 1.4668097D 03 PTSC 7.1560351D 01 AZSC-8.2394306D 01
SELENOGRAPHIC REFERENCE
XSG 4.2600552D 06 YSG 9.3182419D 06 ZSG-1.5555339D 06
DXSG 1.0177801D 03 DYSG 1.0599904D 03 DZSG-1.3335822D 02
HSG 8.6251817D 06 LTSG-8.6327601D 00 LNSG 6.5431363D 01
VRSG 1.4755475D 03 PTSG 7.0568455D 01 AZSG-8.1049549D 01
LTS-1.4242547D 00 LNS 1.0767027D 02 LTE-9.2641464D-01
LNE 1.6444291D 00 DSMP 4.6401690D 00 RSMP 1.0604866D 02
LIN 1.6720870D 02 LAN 2.3463646D 01 LAP-1.5445471D 02
GEOCENTRIC REFERENCE FLIGHT TIME 2.9109689D 05
X 3.5253382D 08 Y 1.6902547D 08 Z 7.7432181D 07
DX-8.3898138D 02 DY-5.0534597D 02 DZ-2.3689521D 02
R 3.9855419D 08 DEC 1.1202823D 01 RA 2.5615801D 01
V 1.0076625D 03 PTH-8.4167347D 01 AZ-1.1480195D 02
ALT 3.9217684D 08 LTGD 1.1203993D 01 LON 2.4410457D 02
VE 2.8619802D 04 PTE-2.0072714D 00 AZE-9.0086003D 01

TIME 5 FEB. 1968 0 HRS., 32 MIN., 50.502 SEC., GMT
SELENOCENTRIC REFERENCE
XSC 4.4439346D 05 YSC-9.1881943D 06 ZSC-5.4176498D 06
DXSC-3.8634832D 02 DYSC-1.2459292D 03 DZSC-6.4979256D 02
RSC 1.0675735D 07 DESC-3.0495666D 01 RASC-8.7231002D 01
VSC 1.4573383D 03 PTSC 7.1997725D 01 AZSC-8.2067106D 01
SELENOGRAPHIC REFERENCE
XSG 4.4887303D 06 YSG 9.5555862D 06 ZSG-1.5853705D 06
DXSG 1.0149181D 03 DYSG 1.0498304D 03 DZSG-1.3186743D 02
HSG 8.9376460D 06 LTSG-8.5401379D 00 LNSG 6.4838236D 01
VRSG 1.4661485D 03 PTSG 7.0966719D 01 AZSG-8.1001468D 01
LTS-1.4242438D 00 LNS 1.0763857D 02 LTE-9.2996416D-01
LNE 1.6409409D 00 DSMP 4.6400806D 00 RSMP 1.0602026D 02
LIN 1.6720886D 02 LAN 2.3428633D 01 LAP-1.5445354D 02
GEOCENTRIC REFERENCE FLIGHT TIME 2.9132189D 05
X 3.5234494D 08 Y 1.6891271D 08 Z 7.7379442D 07
DX-8.3995106D 02 DY-4.9701681D 02 DZ-2.3194244D 02
R 3.9832906D 08 DEC 1.1201503D 01 RA 2.5612866D 01
V 1.0031654D 03 PTH-8.4655144D 01 AZ-1.1443268D 02
ALT 3.9195170D 08 LTGD 1.1202674D 01 LON 2.4316157D 02
VE 2.8595828D 04 PTE-2.0016529D 00 AZE-9.0077444D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 0 HRS., 36 MIN., 35.502 SEC., GMT

SELENOCENTRIC REFERENCE

XSC 3.5742187D 05 YSC-9.4676081D 06 ZSC-5.5633110D 06
 DXSC-3.8671507D 02 DYSC-1.2378257D 03 DZSC-6.4502152D 02
 RSC 1.0986982D 07 DESC-3.0421325D 01 RASC-8.7837987D 01
 VSC 1.4483831D 03 PTSC 7.2412110D 01 AZSC-8.1759662D 01

SELENOGRAPHIC REFERENCE

XSG 4.7167772D 06 YSG 9.7907073D 06 ZSG-1.6148831D 06
 DXSG 1.0121949D 03 DYSG 1.0402193D 03 DZSG-1.3047578D 02
 HSG 9.2488929D 06 LTSG-8.4520394D 00 LNSG 6.4277061D 01
 VRSG 1.4572641D 03 PTSG 7.1342026D 01 AZSG-8.0959758D 01
 LTS-1.4242329D 00 LNS 1.0760687D 02 LTE-9.3351332D-01
 LNE 1.6374520D 00 DSMP 4.6399922D 00 RSMP 1.0599186D 02
 LIN 1.6720903D 02 LAN 2.3393570D 01 LAP-1.5445230D 02

GEOCENTRIC REFERENCE

X 3.5215585D 08 Y 1.6880178D 08 Z 7.7327784D 07
 DX-8.4080694D 02 DY-4.8916415D 02 DZ-2.2728796D 02
 R 3.9810472D 08 DEC 1.1200318D 01 RA 2.5610182D 01
 V 9.9894829D 02 PTH-8.5116769D 01 AZ-1.1402130D 02
 ALT 3.9172736D 08 LTGD 1.1201489D 01 LON 2.4221882D 02
 VE 2.8572380D 04 PTE-1.9963107D 00 AZE-9.0069411D 01

FLIGHT TIME 2.9154689D 05

TIME 5 FEB. 1968 0 HRS., 40 MIN., 20.502 SEC., GMT

SELENOCENTRIC REFERENCE

XSC 2.7037896D 05 YSC-9.7452485D 06 ZSC-5.7079298D 06
 DXSC-3.8698474D 02 DYSC-1.2301589D 03 DZSC-6.4052251D 02
 RSC 1.1297054D 07 DESC-3.0348495D 01 RASC-8.8410749D 01
 VSC 1.4399018D 03 PTSC 7.2805375D 01 AZSC-8.1470221D 01

SELENOGRAPHIC REFERENCE

XSG 4.9442264D 06 YSG 1.0023723D 07 ZSG-1.6440929D 06
 DXSG 1.0096048D 03 DYSG 1.0311080D 03 DZSG-1.2917372D 02
 HSG 9.5589648D 06 LTSG-8.3681379D 00 LNSG 6.3745062D 01
 VRSG 1.4488517D 03 PTSG 7.1696248D 01 AZSG-8.0923850D 01
 LTS-1.4242219D 00 LNS 1.0757517D 02 LTE-9.3706214D-01
 LNE 1.6339623D 00 DSMP 4.6399037D 00 RSMP 1.0596345D 02
 LIN 1.6720922D 02 LAN 2.3358454D 01 LAP-1.5445098D 02

GEOCENTRIC REFERENCE

X 3.5196658D 08 Y 1.6869256D 08 Z 7.7277142D 07
 DX-8.4156558D 02 DY-4.8174841D 02 DZ-2.2290563D 02
 R 3.9788115D 08 DEC 1.1199259D 01 RA 2.5607733D 01
 V 9.9498798D 02 PTH-8.5554310D 01 AZ-1.1355841D 02
 ALT 3.9150379D 08 LTGD 1.1200430D 01 LON 2.4127630D 02
 VE 2.8549411D 04 PTE-1.9912342D 00 AZE-9.0061856D 01

FLIGHT TIME 2.9177189D 05

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 0 HRS., 44 MIN., 5.502 SEC.,GMT
 SELENOCENTRIC REFERENCE
 XSC 1.8328496D 05 YSC-1.0021210D 07 ZSC-5.8515648D 06
 DXSC-3.8717134D 02 DYSC-1.2228935D 03 DZSC-6.3627237D 02
 RSC 1.1605992D 07 DESC-3.0277251D 01 RASC-8.8952189D 01
 VSC 1.4318564D 03 PTSC 7.3179186D 01 AZSC-8.1197230D 01
 SELENOGRAPHIC REFERENCE
 XSG 5.1711073D 06 YSG 1.0254741D 07 ZSG-1.6730191D 06
 DXSG 1.0071422D 03 DYSG 1.0224530D 03 DZSG-1.2795286D 02
 HSG 9.8679024D 06 LTSG-8.2881368D 00 LNSG 6.3239783D 01
 VRSG 1.4408739D 03 PTSG 7.2031052D 01 AZSG-8.0893244D 01
 LTS-1.4242110D 00 LNS 1.0754348D 02 LTE-9.4061061D-01
 LNE 1.6304719D 00 DSMP 4.6398152D 00 RSMP 1.0593505D 02
 LIN 1.6720943D 02 LAN 2.3323285D 01 LAP-1.5444959D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.9199689D 05
 X 3.5177715D 08 Y 1.6858496D 08 Z 7.7227458D 07
 DX-8.4224099D 02 DY-4.7473429D 02 DZ-2.1877230D 02
 R 3.9765831D 08 DEC 1.1198318D 01 RA 2.5605507D 01
 V 9.9126377D 02 PTH-8.5969613D 01 AZ-1.1303183D 02
 ALT 3.9128095D 08 LTGD 1.1199490D 01 LON 2.4033401D 02
 VE 2.8526883D 04 PTE-1.9864123D 00 AZE-9.0054735D 01

TIME 5 FEB. 1968 0 HRS., 47 MIN., 50.502 SEC.,GMT
 SELENOCENTRIC REFERENCE
 XSC 9.6157188D 04 YSC-1.0295578D 07 ZSC-5.9942695D 06
 DXSC-3.8728674D 02 DYSC-1.2159979D 03 DZSC-6.3225054D 02
 RSC 1.1913834D 07 DESC-3.0207640D 01 RASC-8.9464888D 01
 VSC 1.4242130D 03 PTSC 7.3535032D 01 AZSC-8.0939312D 01
 SELENOGRAPHIC REFERENCE
 XSG 5.3974480D 06 YSG 1.0483859D 07 ZSG-1.7016791D 06
 DXSG 1.0048015D 03 DYSG 1.0142158D 03 DZSG-1.2680584D 02
 HSG 1.0175745D 07 LTSG-8.2117662D 00 LNSG 6.2759042D 01
 VRSG 1.4332967D 03 PTSG 7.2347930D 01 AZSG-8.0867498D 01
 LTS-1.4242000D 00 LNS 1.0751178D 02 LTE-9.4415872D-01
 LNE 1.6269807D 00 DSMP 4.6397267D 00 RSMP 1.0590665D 02
 LIN 1.6720966D 02 LAN 2.3288063D 01 LAP-1.5444811D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.9222189D 05
 X 3.5158758D 08 Y 1.6847890D 08 Z 7.7178678D 07
 DX-8.4284505D 02 DY-4.6809020D 02 DZ-2.1486740D 02
 R 3.9743617D 08 DEC 1.1197489D 01 RA 2.5603492D 01
 V 9.8775716D 02 PTH-8.6364313D 01 AZ-1.1242549D 02
 ALT 3.9105882D 08 LTGD 1.1198662D 01 LON 2.3939193D 02
 VE 2.8504761D 04 PTE-1.9818341D 00 AZE-9.0048012D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 0 HRS., 51 MIN., 35.502 SEC.,GMT

SELENOCENTRIC REFERENCE

XSC 9.0105027D 03 YSC-1.0568434D 07 ZSC-6.1360933D 06
 DXSC-3.8734104D 02 DYSC-1.2094438D 03 DZSC-6.2843864D 02
 RSC 1.2220619D 07 DE SC-3.0139684D 01 RASC-8.9951145D 01
 VSC 1.4169413D 03 PTSC 7.3874250D 01 AZSC-8.0695237D 01

SELENOGRAPHIC REFERENCE

XSG 5.6232751D 06 YSG 1.0711167D 07 ZSG-1.7300889D 06
 DXSG 1.0025771D 03 DYSG 1.0063620D 03 DZSG-1.2572614D 02
 HSG 1.0482529D 07 LTSG-8.1387803D 00 LNSG 6.2300891D 01
 VRSG 1.4260899D 03 PTSG 7.2648218D 01 AZSG-8.0846220D 01
 LTS-1.4241891D 00 LNS 1.0748008D 02 LTE-9.4770648D-01
 LNE 1.6234888D 00 DSMP 4.6396382D 00 RSMP 1.0587826D 02
 LIN 1.6720990D 02 LAN 2.3252786D 01 LAP-1.5444656D 02

GEOCENTRIC REFERENCE

X 3.5139788D 08 Y 1.6837429D 08 Z 7.7130752D 07
 DX-8.4338784D 02 DY-4.6178785D 02 DZ-2.1117256D 02
 R 3.9721471D 08 DEC 1.1196766D 01 RA 2.5601675D 01
 V 9.8445159D 02 PTH-8.6739854D 01 AZ-1.1171768D 02
 ALT 3.9083735D 08 LTGD 1.1197939D 01 LON 2.3845004D 02
 VE 2.8483012D 04 PTE-1.9774889D 00 AZE-9.0041652D 01

FLIGHT TIME 2.9244689D 05

TIME 5 FEB. 1968 0 HRS., 55 MIN., 20.502 SEC.,GMT

SELENOCENTRIC REFERENCE

XSC-7.8142347D 04 YSC-1.0839852D 07 ZSC-6.2770814D 06
 DXSC-3.8734287D 02 DYSC-1.2032058D 03 DZSC-6.2482027D 02
 RSC 1.2526382D 07 DE SC-3.0073390D 01 RASC-9.0413022D 01
 VSC 1.4100138D 03 PTSC 7.4198041D 01 AZSC-8.0463908D 01

SELENOGRAPHIC REFERENCE

XSG 5.8486144D 06 YSG 1.0936748D 07 ZSG-1.7582628D 06
 DXSG 1.0004638D 03 DYSG 9.9886102D 02 DZSG-1.2470799D 02
 HSG 1.0788292D 07 LTSG-8.0689545D 00 LNSG 6.1863586D 01
 VRSG 1.4192263D 03 PTSG 7.2933121D 01 AZSG-8.0829059D 01
 LTS-1.4241781D 00 LNS 1.0744838D 02 LTE-9.5125388D-01
 LNE 1.6199961D 00 DSMP 4.6395496D 00 RSMP 1.0584986D 02
 LIN 1.6721016D 02 LAN 2.3217452D 01 LAP-1.5444493D 02

GEOCENTRIC REFERENCE

X 3.5120806D 08 Y 1.6827107D 08 Z 7.7083635D 07
 DX-8.4387802D 02 DY-4.5580174D 02 DZ-2.0767137D 02
 R 3.9699388D 08 DEC 1.1196143D 01 RA 2.5600047D 01
 V 9.8133212D 02 PTH-8.7097501D 01 AZ-1.1087841D 02
 ALT 3.9061652D 08 LTGD 1.1197317D 01 LON 2.3750835D 02
 VE 2.8461608D 04 PTE-1.9733664D 00 AZE-9.0035626D 01

FLIGHT TIME 2.9267189D 05

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 0 HRS., 59 MIN., 5.502 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-1.6529041D 05 YSC-1.1109899D 07 ZSC-6.4172758D 06
 DXSC-3.8729962D 02 DYSC-1.1972608D 03 DZSC-6.2138066D 02
 RSC 1.2831158D 07 DESC-3.0008749D 01 RASC-9.0852365D 01
 VSC 1.4034060D 03 PTSC 7.4507492D 01 AZSC-8.0244338D 01

SELENOGRAPHIC REFERENCE

XSG 6.0734901D 06 YSG 1.1160679D 07 ZSG-1.7862142D 06
 DXSG 9.9845631D 02 DYSG 9.9168539D 02 DZSG-1.2374625D 02
 HSG 1.1093068D 07 LTSG-8.0020839D 00 LNSG 6.1445564D 01
 VRSG 1.4126812D 03 PTSG 7.3203725D 01 AZSG-8.0815701D 01
 LTS-1.4241672D 00 LNS 1.0741669D 02 LTE-9.5480093D-01
 LNE 1.6165028D 00 DSMP 4.6394610D 00 RSMP 1.0582146D 02
 LIN 1.6721044D 02 LAN 2.3182062D 01 LAP-1.5444322D 02

GEOCENTRIC REFERENCE FLIGHT TIME 2.9289689D 05

X 3.5101813D 08 Y 1.6816916D 08 Z 7.7037286D 07
 DX-8.4432296D 02 DY-4.5010892D 02 DZ-2.0434907D 02
 R 3.9677366D 08 DEC 1.1195614D 01 RA 2.5598598D 01
 V 9.7838532D 02 PTH-8.7438343D 01 AZ-1.0986497D 02
 ALT 3.9039631D 08 LTGD 1.1196789D 01 LON 2.3656683D 02
 VE 2.8440524D 04 PTE-1.9694565D 00 AZE-9.0029907D 01

TIME 5 FEB. 1968 1 HRS., 14 MIN., 5.502 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-5.1366547D 05 YSC-1.2177593D 07 ZSC-6.9708489D 06
 DXSC-3.8679061D 02 DYSC-1.1760236D 03 DZSC-6.0916311D 02
 RSC 1.4041024D 07 DESC-2.9766267D 01 RASC-9.2415368D 01
 VSC 1.3797529D 03 PTSC 7.5620231D 01 AZSC-7.9467203D 01

SELENOGRAPHIC REFERENCE

XSG 6.9688073D 06 YSG 1.2041228D 07 ZSG-1.8960236D 06
 DXSG 9.9138973D 02 DYSG 9.6577830D 02 DZSG-1.2037869D 02
 HSG 1.2302934D 07 LTSG-7.7606184D 00 LNSG 5.9940074D 01
 VRSG 1.3892704D 03 PTSG 7.4161502D 01 AZSG-8.0795073D 01
 LTS-1.4241233D 00 LNS 1.0728990D 02 LTE-9.6898555D-01
 LNE 1.6025218D 00 DSMP 4.6391061D 00 RSMP 1.0570788D 02
 LIN 1.6721177D 02 LAN 2.3039910D 01 LAP-1.5443554D 02

GEOCENTRIC REFERENCE FLIGHT TIME 2.9379689D 05

X 3.5025756D 08 Y 1.6777345D 08 Z 7.6858830D 07
 DX-8.4576513D 02 DY-4.2988261D 02 DZ-1.9260201D 02
 R 3.9589843D 08 DEC 1.1194357D 01 RA 2.5594430D 01
 V 9.6809775D 02 PTH-8.8648016D 01 AZ-1.0213423D 02
 ALT 3.8952107D 08 LTGD 1.1195534D 01 LON 2.3280240D 02
 VE 2.8358960D 04 PTE-1.9557574D 00 AZE-9.0009661D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 1 HRS., 29 MIN., 5.502 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-8.6141180D 05 YSC-1.3227737D 07 ZSC-7.5143670D 06
 DXSC-3.8593857D 02 DYSC-1.1581147D 03 DZSC-5.9894435D 02
 RSC 1.5237479D 07 DESC-2.9547850D 01 RASC-9.3725928D 01
 VSC 1.3597473D 03 PTSC 7.6568007D 01 AZSC-7.8820866D 01

SELENOGRAPHIC REFERENCE

XSG 7.8583856D 06 YSG 1.2900161D 07 ZSG-2.0030919D 06
 DXSG 9.8566149D 02 DYSG 9.4348145D 02 DZSG-1.1762087D 02
 HSG 1.3499389D 07 LTSG-7.5538652D 00 LNSG 5.8651496D 01
 VRSG 1.3694964D 03 PTSG 7.4954998D 01 AZSG-8.0817024D 01
 LTS-1.4240794D 00 LNS 1.0716311D 02 LTE-9.8316442D-01
 LNE 1.5885293D 00 DSMP 4.6387508D 00 RSMP 1.0559431D 02
 LIN 1.6721346D 02 LAN 2.2896765D 01 LAP-1.5442647D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.9469689D 05

X 3.4949586D 08 Y 1.6739437D 08 Z 7.6690004D 07
 DX-8.4686177D 02 DY-4.1298818D 02 DZ-1.8285575D 02
 R 3.9503113D 08 DEC 1.1194291D 01 RA 2.5592534D 01
 V 9.5977618D 02 PTH-8.9550338D 01 AZ-6.2023547D 01
 ALT 3.8865377D 08 LTGD 1.1195470D 01 LON 2.2904023D 02
 VE 2.8281015D 04 PTE-1.9447669D 00 AZE-8.9992792D 01

TIME 5 FEB. 1968 1 HRS., 44 MIN., 5.502 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-1.2083029D 06 YSC-1.4262972D 07 ZSC-8.0494079D 06
 DXSC-3.8491096D 02 DYSC-1.1427898D 03 DZSC-5.9026049D 02
 RSC 1.6422099D 07 DESC-2.9350903D 01 RASC-9.4842306D 01
 VSC 1.3425842D 03 PTSC 7.7386336D 01 AZSC-7.8274596D 01

SELENOGRAPHIC REFERENCE

XSG 8.7433233D 06 YSG 1.3740321D 07 ZSG-2.1078946D 06
 DXSG 9.8104366D 02 DYSG 9.2394140D 02 DZSG-1.1531990D 02
 HSG 1.4684010D 07 LTSG-7.3746709D 00 LNSG 5.7530340D 01
 VRSG 1.3525580D 03 PTSG 7.5619719D 01 AZSG-8.0871641D 01
 LTS-1.4240354D 00 LNS 1.0703633D 02 LTE-9.9733747D-01
 LNE 1.5745251D 00 DSMP 4.6383949D 00 RSMP 1.0548076D 02
 LIN 1.6721554D 02 LAN 2.2752560D 01 LAP-1.5441593D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.9559689D 05

X 3.4873326D 08 Y 1.6702930D 08 Z 7.6529230D 07
 DX-8.4778030D 02 DY-3.9868124D 02 DZ-1.7464639D 02
 R 3.9417052D 08 DEC 1.1195224D 01 RA 2.5592557D 01
 V 9.5298454D 02 PTH-8.9249570D 01 AZ 3.2186094D 01
 ALT 3.8779316D 08 LTGD 1.1196407D 01 LON 2.2527999D 02
 VE 2.8205874D 04 PTE-1.9360394D 00 AZE-8.9978485D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 5 FEB. 1968 1 HRS., 59 MIN., 5.502 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-1.5542286D 06 YSC-1.5285372D 07 ZSC-8.5771966D 06
DXSC-3.8380569D 02 DYSC-1.1295134D 03 DZSC-5.8278214D 02
RSC 1.7596207D 07 DESC-2.9172835D 01 RASC-9.5805920D 01
VSC 1.3276831D 03 PTSC 7.8100961D 01 AZSC-7.7806677D 01

SELENOGRAPHIC REFERENCE

XSG 9.6245345D 06 YSG 1.4563902D 07 ZSG-2.2107926D 06
DXSG 9.7735332D 02 DYSG 9.0655526D 02 DZSG-1.1336997D 02
HSG 1.5858118D 07 LTSG-7.2177328D 00 LNSG 5.6541330D 01
VRSG 1.3378769D 03 PTSG 7.6181381D 01 AZSG-8.0951763D 01
LTS-1.4239914D 00 LNS 1.0690954D 02 LTE-1.0115047D 00
LNE 1.5605094D 00 DSMP 4.6380385D 00 RSMP 1.0536722D 02
LIN 1.6721804D 02 LAN 2.2607231D 01 LAP-1.5440386D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.9649689D 05
X 3.4796988D 08 Y 1.6667613D 08 Z 7.6375280D 07
DX-8.4861866D 02 DY-3.8642636D 02 DZ-1.6764454D 02
R 3.9331559D 08 DEC 1.1197012D 01 RA 2.5594227D 01
V 9.4740892D 02 PTH-8.8515803D 01 AZ 4.7493847D 01
ALT 3.8693823D 08 LTGD 1.1198197D 01 LON 2.2152139D 02
VE 2.8132951D 04 PTE-1.9292165D 00 AZE-8.9966169D 01

TIME 5 FEB. 1968 2 HRS., 14 MIN., 5.502 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-1.8991475D 06 YSC-1.6296592D 07 ZSC-9.0987046D 06
DXSC-3.8268104D 02 DYSC-1.1178902D 03 DZSC-5.7626878D 02
RSC 1.8760919D 07 DESC-2.9011280D 01 RASC-9.6647061D 01
VSC 1.3146136D 03 PTSC 7.8731041D 01 AZSC-7.7401334D 01

SELENOGRAPHIC REFERENCE

XSG 1.0502785D 07 YSG 1.5372636D 07 ZSG-2.3120658D 06
DXSG 9.7444366D 02 DYSG 8.9088472D 02 DZSG-1.1169560D 02
HSG 1.7022829D 07 LTSG-7.0790373D 00 LNSG 5.5658598D 01
VRSG 1.3250253D 03 PTSG 7.6659112D 01 AZSG-8.1052020D 01
LTS-1.4239473D 00 LNS 1.0678275D 02 LTE-1.0256659D 00
LNE 1.5464824D 00 DSMP 4.6376815D 00 RSMP 1.0525369D 02
LIN 1.6722101D 02 LAN 2.2460715D 01 LAP-1.5439018D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.9739689D 05
X 3.4720576D 08 Y 1.6633323D 08 Z 7.6227180D 07
DX-8.4943510D 02 DY-3.7582825D 02 DZ-1.6160968D 02
R 3.9246549D 08 DEC 1.1199538D 01 RA 2.5597329D 01
V 9.4281735D 02 PTH-8.7840690D 01 AZ 5.2153449D 01
ALT 3.8608813D 08 LTGD 1.1200726D 01 LON 2.1776423D 02
VE 2.8061812D 04 PTE-1.9240103D 00 AZE-8.9955429D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 2 HRS., 29 MIN., 5.502 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-2.2430593D 06 YSC-1.7297980D 07 ZSC-9.6147156D 06
 DXSC-3.8157189D 02 DYSC-1.1076217D 03 DZSC-5.7054054D 02
 RSC 1.9917183D 07 DESC-2.8864162D 01 RASC-9.7388411D 01
 VSC 1.3030501D 03 PTSC 7.9291159D 01 AZSC-7.7046825D 01

SELENOGRAPHIC REFERENCE

XSG 1.1378723D 07 YSG 1.6167912D 07 ZSG-2.4119363D 06
 DXSG 9.7219620D 02 DYSG 8.7660324D 02 DZSG-1.1024148D 02
 HSG 1.8179093D 07 LTSG-6.9554906D 00 LNSG 5.4862714D 01
 VRSG 1.3136788D 03 PTSG 7.7067464D 01 AZSG-8.1168262D 01
 LTS-1.4239031D 00 LNS 1.0665597D 02 LTE-1.0398212D 00
 LNE 1.5324442D 00 DSMP 4.6373240D 00 RSMP 1.0514017D 02
 LIN 1.6722448D 02 LAN 2.2312949D 01 LAP-1.5437482D 02

GEOCENTRIC REFERENCE

X 3.4644089D 08 Y 1.6599924D 08 Z 7.6084146D 07
 DX-8.5026450D 02 DY-3.6658843D 02 DZ-1.5636193D 02
 R 3.9161950D 08 DEC 1.1202712D 01 RA 2.5601690D 01
 V 9.3903453D 02 PTH-8.7236124D 01 AZ 5.4390767D 01
 ALT 3.8524215D 08 LTGD 1.1203902D 01 LON 2.1400832D 02
 VE 2.7992130D 04 PTE-1.9201882D 00 AZE-8.9945960D 01

FLIGHT TIME 2.9829689D 05

TIME 5 FEB. 1968 2 HRS., 44 MIN., 5.502 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-2.5859879D 06 YSC-1.8290648D 07 ZSC-1.0125872D 07
 DXSC-3.8049898D 02 DYSC-1.0984783D 03 DZSC-5.6546014D 02
 RSC 2.1065811D 07 DESC-2.8729690D 01 RASC-9.8047311D 01
 VSC 1.2927410D 03 PTSC 7.9792634D 01 AZSC-7.6734232D 01

SELENOGRAPHIC REFERENCE

XSG 1.2252900D 07 YSG 1.6950865D 07 ZSG-2.5105827D 06
 DXSG 9.7051471D 02 DYSG 8.6346238D 02 DZSG-1.0896619D 02
 HSG 1.9327722D 07 LTSG-6.8446687D 00 LNSG 5.4138786D 01
 VRSG 1.3035872D 03 PTSG 7.7417724D 01 AZSG-8.1297202D 01
 LTS-1.4238589D 00 LNS 1.0652918D 02 LTE-1.0539705D 00
 LNE 1.5183948D 00 DSMP 4.6369660D 00 RSMP 1.0502667D 02
 LIN 1.6722847D 02 LAN 2.2163869D 01 LAP-1.5435770D 02

GEOCENTRIC REFERENCE

X 3.4567527D 08 Y 1.6567303D 08 Z 7.5945534D 07
 DX-8.5112760D 02 DY-3.5847717D 02 DZ-1.5176402D 02
 R 3.9077701D 08 DEC 1.1206459D 01 RA 2.5607169D 01
 V 9.3592542D 02 PTH-8.6694252D 01 AZ 5.5709863D 01
 ALT 3.8439965D 08 LTGD 1.1207652D 01 LON 2.1025354D 02
 VE 2.7923649D 04 PTE-1.9175611D 00 AZE-8.9937532D 01

FLIGHT TIME 2.9919689D 05

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 5 FEB. 1968 2 HRS., 59 MIN., 5.502 SEC., GMT
SELENOCENTRIC REFERENCE
XSC-2.9279720D 06 YSC-1.9275524D 07 ZSC-1.0632706D 07
DXSC-3.7947436D 02 DYSC-1.0902801D 03 DZSC-5.6092090D 02
RSC 2.2207505D 07 DESC-2.8606329D 01 RASC-9.8637255D 01
VSC 1.2834889D 03 PTSC 8.0244398D 01 AZSC-7.6456660D 01
SELENOGRAPHIC REFERENCE
XSG 1.3125787D 07 YSG 1.7722430D 07 ZSG-2.6081511D 06
DXSG 9.6932034D 02 DYSG 8.5126965D 02 DZSG-1.0783807D 02
HSG 2.0469415D 07 LTSG-6.7446445D 00 LNSG 5.3475190D 01
VRSG 1.2945544D 03 PTSG 7.7718794D 01 AZSG-8.1436179D 01
LTS-1.4238146D 00 LNS 1.0640240D 02 LTE-1.0681137D 00
LNE 1.5043343D 00 DSMP 4.6366074D 00 RSMP 1.0491318D 02
LIN 1.6723303D 02 LAN 2.2013413D 01 LAP-1.5433877D 02
GEOCENTRIC REFERENCE FLIGHT TIME 3.0009689D 05
X 3.4490885D 08 Y 1.6535369D 08 Z 7.5810808D 07
DX-8.5203643D 02 DY-3.5131464D 02 DZ-1.4770926D 02
R 3.8993748D 08 DEC 1.1210718D 01 RA 2.5613651D 01
V 9.3338421D 02 PTH-8.6206493D 01 AZ 5.6583806D 01
ALT 3.8356012D 08 LTGD 1.1211914D 01 LON 2.0649975D 02
VE 2.7856171D 04 PTE-1.9159742D 00 AZE-8.9929965D 01

TIME 5 FEB. 1968 3 HRS., 14 MIN., 5.502 SEC., GMT
SELENOCENTRIC REFERENCE
XSC-3.2690582D 06 YSC-2.0253392D 07 ZSC-1.1135666D 07
DXSC-3.7850462D 02 DYSC-1.0828842D 03 DZSC-5.5683865D 02
RSC 2.3342872D 07 DESC-2.8492765D 01 RASC-9.9168909D 01
VSC 1.2751366D 03 PTSC 8.0653604D 01 AZSC-7.6208692D 01
SELENOGRAPHIC REFERENCE
XSG 1.3997794D 07 YSG 1.8483390D 07 ZSG-2.7047624D 06
DXSG 9.6854802D 02 DYSG 8.3987346D 02 DZSG-1.0683254D 02
HSG 2.1604783D 07 LTSG-6.6538662D 00 LNSG 5.2862716D 01
VRSG 1.2864237D 03 PTSG 7.7977799D 01 AZSG-8.1583005D 01
LTS-1.4237703D 00 LNS 1.0627562D 02 LTE-1.0822507D 00
LNE 1.4902629D 00 DSMP 4.6362484D 00 RSMP 1.0479971D 02
LIN 1.6723819D 02 LAN 2.1861520D 01 LAP-1.5431795D 02
GEOCENTRIC REFERENCE FLIGHT TIME 3.0099689D 05
X 3.4414159D 08 Y 1.6504043D 08 Z 7.5679520D 07
DX-8.5299757D 02 DY-3.4495795D 02 DZ-1.4411347D 02
R 3.8910046D 08 DEC 1.1215438D 01 RA 2.5621038D 01
V 9.3132676D 02 PTH-8.5765371D 01 AZ 5.7208078D 01
ALT 3.8272310D 08 LTGD 1.1216638D 01 LON 2.0274687D 02
VE 2.7789534D 04 PTE-1.9152996D 00 AZE-8.9923121D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 5 FEB. 1968 3 HRS., 29 MIN., 5.502 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-3.6092977D 06 YSC-2.1224921D 07 ZSC-1.1635132D 07
DXSC-3.7759293D 02 DYSC-1.0761756D 03 DZSC-5.5314601D 02
RSC 2.4472446D 07 DESC-2.8387874D 01 RASC-9.9650824D 01
VSC 1.2675570D 03 PTSC 8.1026053D 01 AZSC-7.5986012D 01

SELENOGRAPHIC REFERENCE

XSG 1.4869274D 07 YSG 1.9234406D 07 ZSG-2.8005178D 06
DXSG 9.6814361D 02 DYSG 8.2915280D 02 DZSG-1.0593019D 02
HSG 2.2734356D 07 LTSG-6.5710692D 00 LNSG 5.2293963D 01
VRSG 1.2790690D 03 PTSG 7.8200516D 01 AZSG-8.1735858D 01
LTS-1.4237259D 00 LNS 1.0614883D 02 LTE-1.0963816D 00
LNE 1.4761807D 00 DSMP 4.6358887D 00 RSMP 1.0468624D 02
LIN 1.6724398D 02 LAN 2.1708129D 01 LAP-1.5429516D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 3.0189689D 05
X 3.4337344D 08 Y 1.6473256D 08 Z 7.5551287D 07
DX-8.5401420D 02 DY-3.3929205D 02 DZ-1.4090929D 02
R 3.8826554D 08 DEC 1.1220577D 01 RA 2.5629247D 01
V 9.2968531D 02 PTH-8.5364621D 01 AZ 5.7678069D 01
ALT 3.8188819D 08 LTGD 1.1221779D 01 LON 1.9899482D 02
VE 2.7723610D 04 PTE-1.9154308D 00 AZE-8.9916887D 01

TIME 5 FEB. 1968 3 HRS., 44 MIN., 5.502 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-3.9487433D 06 YSC-2.2190686D 07 ZSC-1.2131429D 07
DXSC-3.7674031D 02 DYSC-1.0700606D 03 DZSC-5.4978842D 02
RSC 2.5596693D 07 DESC-2.8290691D 01 RASC-1.0008993D 02
VSC 1.2606467D 03 PTSC 8.1366506D 01 AZSC-7.5785144D 01

SELENOGRAPHIC REFERENCE

XSG 1.5740539D 07 YSG 1.9976040D 07 ZSG-2.8955031D 06
DXSG 9.6806170D 02 DYSG 8.1900979D 02 DZSG-1.0511552D 02
HSG 2.3858604D 07 LTSG-6.4952127D 00 LNSG 5.1762914D 01
VRSG 1.2723874D 03 PTSG 7.8391682D 01 AZSG-8.1893207D 01
LTS-1.4236814D 00 LNS 1.0602205D 02 LTE-1.1105062D 00
LNE 1.4620878D 00 DSMP 4.6355286D 00 RSMP 1.0457279D 02
LIN 1.6725043D 02 LAN 2.1553178D 01 LAP-1.5427035D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 3.0279689D 05
X 3.4260435D 08 Y 1.6442952D 08 Z 7.5425782D 07
DX-8.5508731D 02 DY-3.3422326D 02 DZ-1.3804213D 02
R 3.8743239D 08 DEC 1.1226097D 01 RA 2.5638209D 01
V 9.2840461D 02 PTH-8.4999017D 01 AZ 5.8045887D 01
ALT 3.8105503D 08 LTGD 1.1227303D 01 LON 1.9524351D 02
VE 2.7658290D 04 PTE-1.9162788D 00 AZE-8.9911176D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 3 HRS., 59 MIN., 5.502 SEC.,GMT

SELENOCENTRIC REFERENCE

XSC-4.2874479D 06 YSC-2.3151185D 07 ZSC-1.2624838D 07
 DXSC-3.7594641D 02 DYSC-1.0644620D 03 DZSC-5.4672117D 02
 RSC 2.6716027D 07 DESC-2.8200386D 01 RASC-1.0049193D 02
 VSC 1.2543202D 03 PTSC 8.1678907D 01 AZSC-7.5603251D 01

SELENOGRAPHIC REFERENCE

XSG 1.6611861D 07 YSG 2.0708775D 07 ZSG-2.9897912D 06
 DXSG 9.6826399D 02 DYSG 8.0936439D 02 DZSG-1.0437598D 02
 HSG 2.4977938D 07 LTSG-6.4254313D 00 LNSG 5.1264620D 01
 VRSG 1.2662939D 03 PTSG 7.8555222D 01 AZSG-8.2053755D 01
 LTS-1.4236368D 00 LNS 1.0589527D 02 LTE-1.1246245D 00
 LNE 1.4479843D 00 DSMP 4.6351679D 00 RSMP 1.0445935D 02
 LIN 1.6725757D 02 LAN 2.1396607D 01 LAP-1.5424343D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 3.0369689D 05
 X 3.4183426D 08 Y 1.6413080D 08 Z 7.5302723D 07
 DX-8.5621657D 02 DY-3.2967443D 02 DZ-1.3546730D 02
 R 3.8660068D 08 DEC 1.1231969D 01 RA 2.5647864D 01
 V 9.2743918D 02 PTH-8.4664190D 01 AZ 5.8342430D 01
 ALT 3.8022332D 08 LTGD 1.1233178D 01 LON 1.9149290D 02
 VE 2.7593487D 04 PTE-1.9177682D 00 AZE-8.9905912D 01

TIME 5 FEB. 1968 4 HRS., 14 MIN., 5.502 SEC.,GMT

SELENOCENTRIC REFERENCE

XSC-4.6254641D 06 YSC-2.4106853D 07 ZSC-1.3115603D 07
 DXSC-3.7521007D 02 DYSC-1.0593158D 03 DZSC-5.4390730D 02
 RSC 2.7830816D 07 DESC-2.8116239D 01 RASC-1.0086152D 02
 VSC 1.2485062D 03 PTSC 8.1966557D 01 AZSC-7.5437998D 01

SELENOGRAPHIC REFERENCE

XSG 1.7483480D 07 YSG 2.1433027D 07 ZSG-3.0834450D 06
 DXSG 9.6871791D 02 DYSG 8.0015048D 02 DZSG-1.0370132D 02
 HSG 2.6092727D 07 LTSG-6.3609999D 00 LNSG 5.0794973D 01
 VRSG 1.2607177D 03 PTSG 7.8694419D 01 AZSG-8.2216399D 01
 LTS-1.4235922D 00 LNS 1.0576849D 02 LTE-1.1387364D 00
 LNE 1.4338702D 00 DSMP 4.6348066D 00 RSMP 1.0434593D 02
 LIN 1.6726544D 02 LAN 2.1238356D 01 LAP-1.5421436D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 3.0459689D 05
 X 3.4106314D 08 Y 1.6383597D 08 Z 7.5181864D 07
 DX-8.5740079D 02 DY-3.2558149D 02 DZ-1.3314781D 02
 R 3.8577014D 08 DEC 1.1238164D 01 RA 2.5658159D 01
 V 9.2675119D 02 PTH-8.4356469D 01 AZ 5.8587195D 01
 ALT 3.7939279D 08 LTGD 1.1239376D 01 LON 1.8774293D 02
 VE 2.7529126D 04 PTE-1.9198354D 00 AZE-8.9901038D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 5 FEB. 1968 4 HRS., 29 MIN., 5.502 SEC., GMT
SELENOCENTRIC REFERENCE
XSC-4.9628428D 06 YSC-2.5058073D 07 ZSC-1.3603938D 07
DXSC-3.7452963D 02 DYSC-1.0545683D 03 DZSC-5.4131593D 02
RSC 2.8941388D 07 DESC-2.8037627D 01 RASC-1.0120266D 02
VSC 1.2431451D 03 PTSC 8.2232242D 01 AZSC-7.5287448D 01
SELENOGRAPHIC REFERENCE
XSG 1.8355610D 07 YSG 2.2149160D 07 ZSG-3.1765190D 06
DXSG 9.6939561D 02 DYSG 7.9131294D 02 DZSG-1.0308305D 02
HSG 2.7203299D 07 LTSG-6.3013056D 00 LNSG 5.0350533D 01
VRSG 1.2555995D 03 PTSG 7.8812042D 01 AZSG-8.2380199D 01
LTS-1.4235476D 00 LNS 1.0564171D 02 LTE-1.1528420D 00
LNE 1.4197458D 00 DSMP 4.6344448D 00 RSMP 1.0423251D 02
LIN 1.6727407D 02 LAN 2.1078367D 01 LAP-1.5418305D 02
GEOCENTRIC REFERENCE FLIGHT TIME 3.0549689D 05
X 3.4029093D 08 Y 1.6354464D 08 Z 7.5062990D 07
DX-8.5863832D 02 DY-3.2189070D 02 DZ-1.3105282D 02
R 3.8494053D 08 DEC 1.1244660D 01 RA 2.5669050D 01
V 9.2630893D 02 PTH-8.4072744D 01 AZ 5.8793108D 01
ALT 3.7856318D 08 LTGD 1.1245876D 01 LON 1.8399355D 02
VE 2.7465142D 04 PTE-1.9224256D 00 AZE-8.9896503D 01

TIME 5 FEB. 1968 4 HRS., 44 MIN., 5.502 SEC., GMT
SELENOCENTRIC REFERENCE
XSC-5.2996336D 06 YSC-2.6005182D 07 ZSC-1.4090031D 07
DXSC-3.7390316D 02 DYSC-1.0501741D 03 DZSC-5.3892111D 02
RSC 3.0048038D 07 DESC-2.7964008D 01 RASC-1.0151865D 02
VSC 1.2381862D 03 PTSC 8.2478327D 01 AZSC-7.5149975D 01
SELENOGRAPHIC REFERENCE
XSG 1.9228441D 07 YSG 2.2857491D 07 ZSG-3.2690606D 06
DXSG 9.7027313D 02 DYSG 7.8280542D 02 DZSG-1.0251413D 02
HSG 2.8309948D 07 LTSG-6.2458268D 00 LNSG 4.9928393D 01
VRSG 1.2508891D 03 PTSG 7.8910442D 01 AZSG-8.2544351D 01
LTS-1.4235029D 00 LNS 1.0551493D 02 LTE-1.1669410D 00
LNE 1.4056110D 00 DSMP 4.6340825D 00 RSMP 1.0411911D 02
LIN 1.6728348D 02 LAN 2.0916581D 01 LAP-1.5414943D 02
GEOCENTRIC REFERENCE FLIGHT TIME 3.0639689D 05
X 3.3951758D 08 Y 1.6325646D 08 Z 7.4945910D 07
DX-8.5992722D 02 DY-3.1855667D 02 DZ-1.2915634D 02
R 3.8411163D 08 DEC 1.1251436D 01 RA 2.5680496D 01
V 9.2608560D 02 PTH-8.3810368D 01 AZ 5.8969082D 01
ALT 3.7773428D 08 LTGD 1.1252655D 01 LON 1.8024473D 02
VE 2.7401483D 04 PTE-1.9254922D 00 AZE-8.9892265D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 5 FEB. 1968 4 HRS., 59 MIN., 5.502 SEC., GMT
SELENOCENTRIC REFERENCE
XSC-5.6358841D 06 YSC-2.6948481D 07 ZSC-1.4574049D 07
DXSC-3.7332862D 02 DYSC-1.0460945D 03 DZSC-5.3670081D 02
RSC 3.1151030D 07 DESC-2.7894905D 01 RASC-1.0181233D 02
VSC 1.2335865D 03 PTSC 8.2706837D 01 AZSC-7.5024211D 01
SELENOGRAPHIC REFERENCE
XSG 2.0102144D 07 YSG 2.3558298D 07 ZSG-3.3611115D 06
DXSG 9.7132978D 02 DYSG 7.7458864D 02 DZSG-1.0198863D 02
HSG 2.9412941D 07 LTSG-6.1941168D 00 LNSG 4.9526084D 01
VRSG 1.2465435D 03 PTSG 7.8991634D 01 AZSG-8.2708170D 01
LTS-1.4234581D 00 LNS 1.0538815D 02 LTE-1.1810336D 00
LNE 1.3914661D 00 DSMP 4.6337196D 00 RSMP 1.0400572D 02
LIN 1.6729370D 02 LAN 2.0752939D 01 LAP-1.5411346D 02
GEOCENTRIC REFERENCE FLIGHT TIME 3.0729689D 05
X 3.3874304D 08 Y 1.6297114D 08 Z 7.4830456D 07
DX-8.6126543D 02 DY-3.1554079D 02 DZ-1.2743636D 02
R 3.8328323D 08 DEC 1.1258475D 01 RA 2.5692462D 01
V 9.2605839D 02 PTH-8.3567073D 01 AZ 5.9121473D 01
ALT 3.7690588D 08 LTGD 1.1259697D 01 LON 1.7649643D 02
VE 2.7338102D 04 PTE-1.9289947D 00 AZE-8.9888289D 01

TIME 5 FEB. 1968 5 HRS., 14 MIN., 5.502 SEC., GMT
SELENOCENTRIC REFERENCE
XSC-5.9716401D 06 YSC-2.7888237D 07 ZSC-1.5056139D 07
DXSC-3.7280391D 02 DYSC-1.0422965D 03 DZSC-5.3463625D 02
RSC 3.2250605D 07 DESC-2.7829903D 01 RASC-1.0208609D 02
VSC 1.2293090D 03 PTSC 8.2919518D 01 AZSC-7.4908993D 01
SELENOGRAPHIC REFERENCE
XSG 2.0976872D 07 YSG 2.4251829D 07 ZSG-3.4527084D 06
DXSG 9.7254755D 02 DYSG 7.6662913D 02 DZSG-1.0150153D 02
HSG 3.0512516D 07 LTSG-6.1457907D 00 LNSG 4.9141489D 01
VRSG 1.2425263D 03 PTSG 7.9057351D 01 AZSG-8.2871072D 01
LTS-1.4234132D 00 LNS 1.0526137D 02 LTE-1.1951196D 00
LNE 1.3773111D 00 DSMP 4.6333562D 00 RSMP 1.0389234D 02
LIN 1.6730476D 02 LAN 2.0587384D 01 LAP-1.5407505D 02
GEOCENTRIC REFERENCE FLIGHT TIME 3.0819689D 05
X 3.3796728D 08 Y 1.6268840D 08 Z 7.4716477D 07
DX-8.6265085D 02 DY-3.1280998D 02 DZ-1.2587408D 02
R 3.8245516D 08 DEC 1.1265759D 01 RA 2.5704917D 01
V 9.2620778D 02 PTH-8.3340905D 01 AZ 5.9254935D 01
ALT 3.7607781D 08 LTGD 1.1266985D 01 LON 1.7274862D 02
VE 2.7274958D 04 PTE-1.9328981D 00 AZE-8.9884546D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 5 HRS., 29 MIN., 5.502 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-6.3069454D 06 YSC-2.8824690D 07 ZSC-1.5536436D 07
 DXSC-3.7232697D 02 DYSC-1.0387516D 03 DZSC-5.3271129D 02
 RSC 3.3346981D 07 DESC-2.7768632D 01 RASC-1.0234201D 02
 VSC 1.2253218D 03 PTSC 8.3117880D 01 AZSC-7.4803326D 01

SELENOGRAPHIC REFERENCE

XSG 2.1852762D 07 YSG 2.4938300D 07 ZSG-3.5438839D 06
 DXSG 9.7391071D 02 DYSG 7.5889812D 02 DZSG-1.0104856D 02
 HSG 3.1608892D 07 LTSG-6.1005145D 00 LNSG 4.8772785D 01
 VRSG 1.2388056D 03 PTSG 7.9109094D 01 AZSG-8.3032560D 01
 LTS-1.4233683D 00 LNS 1.0513459D 02 LTE-1.2091989D 00
 LNE 1.3631462D 00 DSMP 4.6329923D 00 RSMP 1.0377897D 02
 LIN 1.6731668D 02 LAN 2.0419860D 01 LAP-1.5403415D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 3.0909689D 05
 X 3.3719026D 08 Y 1.6240800D 08 Z 7.4603840D 07
 DX-8.6408142D 02 DY-3.1033575D 02 DZ-1.2445336D 02
 R 3.8162726D 08 DEC 1.1273276D 01 RA 2.5717834D 01
 V 9.2651693D 02 PTH-8.3130168D 01 AZ 5.9372959D 01
 ALT 3.7524991D 08 LTGD 1.1274506D 01 LON 1.6900127D 02
 VE 2.7212016D 04 PTE-1.9371718D 00 AZE-8.9881009D 01

TIME 5 FEB. 1968 5 HRS., 44 MIN., 5.502 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-6.6418423D 06 YSC-2.9758058D 07 ZSC-1.6015057D 07
 DXSC-3.7189583D 02 DYSC-1.0354351D 03 DZSC-5.3091197D 02
 RSC 3.4440356D 07 DESC-2.7710768D 01 RASC-1.0258189D 02
 VSC 1.2215973D 03 PTSC 8.3303240D 01 AZSC-7.4706355D 01

SELENOGRAPHIC REFERENCE

XSG 2.2729939D 07 YSG 2.5617908D 07 ZSG-3.6346671D 06
 DXSG 9.7540548D 02 DYSG 7.5137077D 02 DZSG-1.0062606D 02
 HSG 3.2702267D 07 LTSG-6.0579977D 00 LNSG 4.8418392D 01
 VRSG 1.2353540D 03 PTSG 7.9148173D 01 AZSG-8.3192216D 01
 LTS-1.4233233D 00 LNS 1.0500782D 02 LTE-1.2232716D 00
 LNE 1.3489714D 00 DSMP 4.6326278D 00 RSMP 1.0366562D 02
 LIN 1.6732950D 02 LAN 2.0250310D 01 LAP-1.5399069D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 3.0999689D 05
 X 3.3641192D 08 Y 1.6212973D 08 Z 7.4492423D 07
 DX-8.6555515D 02 DY-3.0809340D 02 DZ-1.2316026D 02
 R 3.8079936D 08 DEC 1.1281013D 01 RA 2.5731188D 01
 V 9.2697126D 02 PTH-8.2933386D 01 AZ 5.9478217D 01
 ALT 3.7442201D 08 LTGD 1.1282246D 01 LON 1.6525436D 02
 VE 2.7149245D 04 PTE-1.9417893D 00 AZE-8.9877656D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 5 HRS., 59 MIN., 5.502 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-6.9763711D 06	YSC-3.0688536D 07	ZSC-1.6492111D 07
DXSC-3.7150857D 02	DYSC-1.0323255D 03	DZSC-5.2922620D 02
RSC 3.5530912D 07	DESC-2.7656022D 01	RASC-1.0280729D 02
VSC 1.2181112D 03	PTSC 8.3476749D 01	AZSC-7.4617343D 01

SELENOGRAPHIC REFERENCE

XSG 2.3608516D 07	YSG 2.6290824D 07	ZSG-3.7250840D 06
DXSG 9.7701970D 02	DYSG 7.4402551D 02	DZSG-1.0023088D 02
HSG 3.3792822D 07	LTSG-6.0179856D 00	LNSG 4.8076935D 01
VRSG 1.2321476D 03	PTSG 7.9175732D 01	AZSG-8.3349689D 01
LTS-1.4232782D 00	LNS 1.0488104D 02	LTE-1.2373376D 00
LNE 1.3347868D 00	DSMP 4.6322628D 00	RSMP 1.0355228D 02
LIN 1.6734324D 02	LAN 2.0078680D 01	LAP-1.5394461D 02

GEOCENTRIC REFERENCE

X 3.3563225D 08	Y 1.6185337D 08	Z 7.4382117D 07
DX-8.6707013D 02	DY-3.0606142D 02	DZ-1.2198266D 02
R 3.7997134D 08	DEC 1.1288959D 01	RA 2.5744957D 01
V 9.2755807D 02	PTH-8.2749267D 01	AZ 5.9572792D 01
ALT 3.7359399D 08	LTGD 1.1290195D 01	LON 1.6150786D 02
VE 2.7086618D 04	PTE-1.9467269D 00	AZE-8.9874469D 01

FLIGHT TIME 3.1089689D 05

TIME 5 FEB. 1968 6 HRS., 14 MIN., 5.502 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-7.3105704D 06	YSC-3.1616301D 07	ZSC-1.6967695D 07
DXSC-3.7116340D 02	DYSC-1.0294041D 03	DZSC-5.2764339D 02
RSC 3.6618814D 07	DESC-2.7604136D 01	RASC-1.0301956D 02
VSC 1.2148426D 03	PTSC 8.3639421D 01	AZSC-7.4535648D 01

SELENOGRAPHIC REFERENCE

XSG 2.4488595D 07	YSG 2.6957204D 07	ZSG-3.8151577D 06
DXSG 9.7874263D 02	DYSG 7.3684351D 02	DZSG-9.9860287D 01
HSG 3.4880725D 07	LTSG-5.9802544D 00	LNSG 4.7747208D 01
VRSG 1.2291654D 03	PTSG 7.9192778D 01	AZSG-8.3504684D 01
LTS-1.4232331D 00	LNS 1.0475426D 02	LTE-1.2513967D 00
LNE 1.3205926D 00	DSMP 4.6318972D 00	RSMP 1.0343895D 02
LIN 1.6735792D 02	LAN 1.9904915D 01	LAP-1.5389585D 02

GEOCENTRIC REFERENCE

X 3.3485119D 08	Y 1.6157876D 08	Z 7.4272822D 07
DX-8.6862455D 02	DY-3.0422100D 02	DZ-1.2090998D 02
R 3.7914307D 08	DEC 1.1297102D 01	RA 2.5759121D 01
V 9.2826625D 02	PTH-8.2576674D 01	AZ 5.9658329D 01
ALT 3.7276572D 08	LTGD 1.1298342D 01	LON 1.5776176D 02
VE 2.7024110D 04	PTE-1.9519642D 00	AZE-8.9871430D 01

FLIGHT TIME 3.1179689D 05

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 6 HRS., 29 MIN., 5.502 SEC., GMT

SELENOCENTRIC REFERENCE					
XSC-7.6444773D	06	YSC-3.2541514D	07	ZSC-1.7441898D	07
DXSC-3.7085861D	02	DYSC-1.0266541D	03	DZSC-5.2615428D	02
RSC 3.7704217D	07	DESC-2.7554881D	01	RASC-1.0321991D	02
VSC 1.2117727D	03	PTSC 8.3792149D	01	AZSC-7.4460711D	01
SELENOGRAPHIC REFERENCE					
XSG 2.5370270D	07	YSG 2.7617187D	07	ZSG-3.9049094D	06
DXSG 9.8056473D	02	DYSG 7.2980825D	02	DZSG-9.9511892D	01
HSG 3.5966127D	07	LTSG-5.9446064D	00	LNSG 4.7428153D	01
VRSG 1.2263890D	03	PTSG 7.9200201D	01	AZSG-8.3656960D	01
LTS-1.4231879D	00	LNS 1.0462749D	02	LTE-1.2654490D	00
LNE 1.3063889D	00	DSMP 4.6315311D	00	RSMP 1.0332563D	02
LIN 1.6737356D	02	LAN 1.9728962D	01	LAP-1.5384436D	02
GEOCENTRIC REFERENCE			FLIGHT TIME 3.1269689D 05		
X 3.3406871D	08	Y 1.6130572D	08	Z 7.4164450D	07
DX-8.7021669D	02	DY-3.0255558D	02	DZ-1.1993295D	02
R 3.7831443D	08	DEC 1.1305435D	01	RA 2.5773662D	01
V 9.2908605D	02	PTH-8.2414604D	01	AZ 5.9736150D	01
ALT 3.7193708D	08	LTGD 1.1306679D	01	LON 1.5401603D	02
VE 2.6961701D	04	PTE-1.9574829D	00	AZE-8.9868525D	01

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SELENOCENTRIC REFERENCE					
XSC-7.9781275D	06	YSC-3.3464325D	07	ZSC-1.7914799D	07
DXSC-3.7059262D	02	DYSC-1.0240611D	03	DZSC-5.2475070D	02
RSC 3.8787260D	07	DESC-2.7508051D	01	RASC-1.0340939D	02
VSC 1.2088852D	03	PTSC 8.3935728D	01	AZSC-7.4392040D	01
SELENOGRAPHIC REFERENCE					
XSG 2.6253626D	07	YSG 2.8270899D	07	ZSG-3.9943581D	06
DXSG 9.8247751D	02	DYSG 7.2290519D	02	DZSG-9.9183615D	01
HSG 3.7049171D	07	LTSG-5.9108662D	00	LNSG 4.7118834D	01
VRSG 1.2238020D	03	PTSG 7.9198790D	01	AZSG-8.3806322D	01
LTS-1.4231427D	00	LNS 1.0450071D	02	LTE-1.2794945D	00
LNE 1.2921757D	00	DSMP 4.6311644D	00	RSMP 1.0321232D	02
LIN 1.6739019D	02	LAN 1.9550769D	01	LAP-1.5379006D	02
GEOCENTRIC REFERENCE			FLIGHT TIME 3.1359689D 05		
X 3.3328478D	08	Y 1.6103411D	08	Z 7.4056917D	07
DX-8.7184498D	02	DY-3.0105056D	02	DZ-1.1904341D	02
R 3.7748531D	08	DEC 1.1313950D	01	RA 2.5788564D	01
V 9.3000884D	02	PTH-8.2262167D	01	AZ 5.9807325D	01
ALT 3.7110797D	08	LTGD 1.1315197D	01	LON 1.5027067D	02
VE 2.6899369D	04	PTE-1.9632670D	00	AZE-8.9865741D	01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 6 HRS., 59 MIN., 5.502 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-8.3115552D 06 YSC-3.4384868D 07 ZSC-1.8386472D 07
 DXSC-3.7036395D 02 DYSC-1.0216122D 03 DZSC-5.2342543D 02
 RSC 3.9868075D 07 DESC-2.7463459D 01 RASC-1.0358894D 02
 VSC 1.2061654D 03 PTSC 8.4070863D 01 AZSC-7.4329203D 01
 SELENOGRAPHIC REFERENCE
 XSG 2.7138742D 07 YSG 2.8918454D 07 ZSG-4.0835210D 06
 DXSG 9.8447338D 02 DYSG 7.1612145D 02 DZSG-9.8873622D 01
 HSG 3.8129986D 07 LTSG-5.8788779D 00 LNSG 4.6818421D 01
 VRSG 1.2213901D 03 PTSG 7.9189247D 01 AZSG-8.3952612D 01
 LTS-1.4230974D 00 LNS 1.0437394D 02 LTE-1.2935329D 00
 LNE 1.2779532D 00 DSMP 4.6307972D 00 RSMP 1.0309902D 02
 LIN 1.6740782D 02 LAN 1.9370283D 01 LAP-1.5373292D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 3.1449689D 05
 X 3.3249938D 08 Y 1.6076379D 08 Z 7.3950148D 07
 DX-8.7350791D 02 DY-2.9969300D 02 DZ-1.1823413D 02
 R 3.7665562D 08 DEC 1.1322638D 01 RA 2.5803813D 01
 V 9.3102701D 02 PTH-8.2118570D 01 AZ 5.9872735D 01
 ALT 3.7027828D 08 LTGD 1.1323888D 01 LON 1.4652565D 02
 VE 2.6837099D 04 PTE-1.9693020D 00 AZE-8.9863067D 01

TIME 5 FEB. 1968 7 HRS., 14 MIN., 5.502 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-8.6447934D 06 YSC-3.5303267D 07 ZSC-1.8856986D 07
 DXSC-3.7017121D 02 DYSC-1.0192957D 03 DZSC-5.2217208D 02
 RSC 4.0946782D 07 DESC-2.7420939D 01 RASC-1.0375939D 02
 VSC 1.2036005D 03 PTSC 8.4198185D 01 AZSC-7.4271819D 01
 SELENOGRAPHIC REFERENCE
 XSG 2.8025688D 07 YSG 2.9559952D 07 ZSG-4.1724139D 06
 DXSG 9.8654553D 02 DYSG 7.0944560D 02 DZSG-9.8580299D 01
 HSG 3.9208693D 07 LTSG-5.8485021D 00 LNSG 4.6526177D 01
 VRSG 1.2191404D 03 PTSG 7.9172199D 01 AZSG-8.4095708D 01
 LTS-1.4230520D 00 LNS 1.0424717D 02 LTE-1.3075644D 00
 LNE 1.2637216D 00 DSMP 4.6304295D 00 RSMP 1.0298573D 02
 LIN 1.6742648D 02 LAN 1.9187457D 01 LAP-1.5367286D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 3.1539689D 05
 X 3.3171246D 08 Y 1.6049462D 08 Z 7.3844073D 07
 DX-8.7520411D 02 DY-2.9847139D 02 DZ-1.1749871D 02
 R 3.7582526D 08 DEC 1.1331493D 01 RA 2.5819394D 01
 V 9.3213376D 02 PTH-8.1983107D 01 AZ 5.9933109D 01
 ALT 3.6944792D 08 LTGD 1.1332747D 01 LON 1.4278096D 02
 VE 2.6774874D 04 PTE-1.9755752D 00 AZE-8.9860494D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 5 FEB. 1968 7 HRS., 29 MIN., 5.502 SEC., GMT
SELENOCENTRIC REFERENCE
XSC-8.97787380 06 YSC-3.62196370 07 ZSC-1.93264020 07
DXSC-3.70013120 02 DYSC-1.01710150 03 DZSC-5.20984920 02
RSC 4.20234940 07 DESC-2.73803410 01 RASC-1.03921490 02
VSC 1.20117880 03 PTSC 8.43182580 01 AZSC-7.42195470 01
SELENOGRAPHIC REFERENCE
XSG 2.89145320 07 YSG 3.01954860 07 ZSG-4.26105100 06
DXSG 9.88687850 02 DYSG 7.02867450 02 DZSG-9.83022140 01
HSG 4.02854050 07 LTSG-5.81961410 00 LNSG 4.62414420 01
VRSG 1.21704130 03 PTSG 7.91482100 01 AZSG-8.42355200 01
LTS-1.42300650 00 LNS 1.04120390 02 LTE-1.32158880 00
LNE 1.24948080 00 DSMP 4.63006120 00 RSMP 1.02872460 02
LIN 1.67446180 02 LAN 1.90022390 01 LAP-1.53609850 02
GEOCENTRIC REFERENCE FLIGHT TIME 3.16296890 05
X 3.30924000 08 Y 1.60226500 08 Z 7.37386300 07
DX-8.76932270 02 DY-2.97375450 02 DZ-1.16831440 02
R 3.74994150 08 DEC 1.13405090 01 RA 2.58352970 01
V 9.33323070 02 PTH-8.18551450 01 AZ 5.99890570 01
ALT 3.68616810 08 LTGD 1.13417670 01 LON 1.39036600 02
VE 2.67126800 04 PTE-1.98207530 00 AZE-8.98580110 01

TIME 5 FEB. 1968 7 HRS., 44 MIN., 5.502 SEC., GMT
SELENOCENTRIC REFERENCE
XSC-9.31082710 06 YSC-3.71340830 07 ZSC-1.97947770 07
DXSC-3.69888480 02 DYSC-1.01502030 03 DZSC-5.19858860 02
RSC 4.30983160 07 DESC-2.73415270 01 RASC-1.04075880 02
VSC 1.19888990 03 PTSC 8.44315900 01 AZSC-7.41720860 01
SELENOGRAPHIC REFERENCE
XSG 2.98053320 07 YSG 3.08251410 07 ZSG-4.34944550 06
DXSG 9.90894810 02 DYSG 6.96377880 02 DZSG-9.80380940 01
HSG 4.13602260 07 LTSG-5.79210150 00 LNSG 4.59636250 01
VRSG 1.21508280 03 PTSG 7.91177860 01 AZSG-8.43719810 01
LTS-1.42296100 00 LNS 1.03993620 02 LTE-1.33560610 00
LNE 1.23523100 00 DSMP 4.62969230 00 RSMP 1.02759190 02
LIN 1.67466930 02 LAN 1.88145830 01 LAP-1.53543830 02
GEOCENTRIC REFERENCE FLIGHT TIME 3.17196890 05
X 3.30133970 08 Y 1.59959310 08 Z 7.36337580 07
DX-8.78691200 02 DY-2.96395990 02 DZ-1.16227210 02
R 3.74162200 08 DEC 1.13496800 01 RA 2.58515090 01
V 9.34589520 02 PTH-8.17341130 01 AZ 6.00410930 01
ALT 3.67784860 08 LTGD 1.13509420 01 LON 1.35292550 02
VE 2.66505040 04 PTE-1.98879200 00 AZE-8.98556100 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 7 HRS., 59 MIN., 5.502 SEC.,GMT
 SELENOCENTRIC REFERENCE

XSC-9.6436828D 06 YSC-3.8046705D 07 ZSC-2.0262165D 07
 DXSC-3.6979619D 02 DYSC-1.0130440D 03 DZSC-5.1878933D 02
 RSC 4.4171344D 07 DESC-2.7304374D 01 RASC-1.0422318D 02
 VSC 1.1967246D 03 PTSC 8.4538638D 01 AZSC-7.4129165D 01

SELENOGRAPHIC REFERENCE

XSG 3.0698146D 07 YSG 3.1448992D 07 ZSG-4.4376095D 06
 DXSG 9.9316145D 02 DYSG 6.8996871D 02 DZSG-9.7786803D 01
 HSG 4.2433255D 07 LTSG-5.7658634D 00 LNSG 4.5692196D 01
 VRSG 1.2132554D 03 PTSG 7.9081382D 01 AZSG-8.4505049D 01
 LTS-1.4229154D 00 LNS 1.0386685D 02 LTE-1.3496163D 00
 LNE 1.2209723D 00 DSMP 4.6293229D 00 RSMP 1.0264594D 02
 LIN 1.6748876D 02 LAN 1.8624442D 01 LAP-1.5347475D 02

GEOCENTRIC REFERENCE

X 3.2934235D 08 Y 1.5969296D 08 Z 7.3529403D 07
 DX-8.8047978D 02 DY-2.9552474D 02 DZ-1.1568145D 02
 R 3.7332934D 08 DEC 1.1359002D 01 RA 2.5868020D 01
 V 9.3592826D 02 PTH-8.1619498D 01 AZ 6.0089653D 01
 ALT 3.6695200D 08 LTGD 1.1360267D 01 LON 1.3154879D 02
 VE 2.6588334D 04 PTE-1.9957164D 00 AZE-8.9853286D 01

FLIGHT TIME 3.1809689D 05

TIME 5 FEB. 1968 8 HRS., 14 MIN., 5.502 SEC.,GMT
 SELENOCENTRIC REFERENCE

XSC-9.9764696D 06 YSC-3.8957592D 07 ZSC-2.0728614D 07
 DXSC-3.6973523D 02 DYSC-1.0111649D 03 DZSC-5.1777223D 02
 RSC 4.5242671D 07 DESC-2.7268767D 01 RASC-1.0436392D 02
 VSC 1.1946743D 03 PTSC 8.4639818D 01 AZSC-7.4090540D 01

SELENOGRAPHIC REFERENCE

XSG 3.1593025D 07 YSG 3.2067108D 07 ZSG-4.5255540D 06
 DXSG 9.9548324D 02 DYSG 6.8363258D 02 DZSG-9.7547328D 01
 HSG 4.3504582D 07 LTSG-5.7408082D 00 LNSG 4.5426676D 01
 VRSG 1.2115510D 03 PTSG 7.9039411D 01 AZSG-8.4634702D 01
 LTS-1.4228697D 00 LNS 1.0374008D 02 LTE-1.3636192D 00
 LNE 1.2067049D 00 DSMP 4.6289530D 00 RSMP 1.0253270D 02
 LIN 1.6751167D 02 LAN 1.8431771D 01 LAP-1.5340257D 02

GEOCENTRIC REFERENCE

X 3.2854910D 08 Y 1.5942734D 08 Z 7.3425515D 07
 DX-8.8229698D 02 DY-2.9475426D 02 DZ-1.1519005D 02
 R 3.7249549D 08 DEC 1.1368469D 01 RA 2.5884822D 01
 V 9.3733494D 02 PTH-8.1510836D 01 AZ 6.0135112D 01
 ALT 3.6611816D 08 LTGD 1.1369738D 01 LON 1.2780533D 02
 VE 2.6526159D 04 PTE-2.0028403D 00 AZE-8.9851031D 01

FLIGHT TIME 3.1899689D 05

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 8 HRS., 29 MIN., 5.502 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-1.0309215D 07 YSC-3.9866829D 07 ZSC-2.1194169D 07
 DXSC-3.6970464D 02 DYSC-1.0093766D 03 DZSC-5.1680383D 02
 RSC 4.6312382D 07 DESC-2.7234605D 01 RASC-1.0449858D 02
 VSC 1.1927316D 03 PTSC 8.4735502D 01 AZSC-7.4055991D 01

SELENOGRAPHIC REFERENCE

XSG 3.2490017D 07 YSG 3.2679551D 07 ZSG-4.6132893D 06
 DXSG 9.9785608D 02 DYSG 6.7736283D 02 DZSG-9.7318755D 01
 HSG 4.4574293D 07 LTSG-5.7168531D 00 LNSG 4.5166632D 01
 VRSG 1.2099620D 03 PTSG 7.8992249D 01 AZSG-8.4760934D 01
 LTS-1.4228240D 00 LNS 1.0361331D 02 LTE-1.3776149D 00
 LNE 1.1924288D 00 DSMP 4.6285825D 00 RSMP 1.0241947D 02
 LIN 1.6753567D 02 LAN 1.8236528D 01 LAP-1.5332723D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 3.1989689D 05
 X 3.2775420D 08 Y 1.5916237D 08 Z 7.3322046D 07
 DX-8.8414185D 02 DY-2.9407784D 02 DZ-1.1474929D 02
 R 3.7166060D 08 DEC 1.1378078D 01 RA 2.5901905D 01
 V 9.3880562D 02 PTH-8.1407708D 01 AZ 6.0177790D 01
 ALT 3.6528327D 08 LTGD 1.1379351D 01 LON 1.2406214D 02
 VE 2.6463969D 04 PTE-2.0101563D 00 AZE-8.9848840D 01

TIME 5 FEB. 1968 8 HRS., 44 MIN., 5.502 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC-1.0641947D 07 YSC-4.0774495D 07 ZSC-2.1658874D 07
 DXSC-3.6970355D 02 DYSC-1.0076727D 03 DZSC-5.1588081D 02
 RSC 4.7380558D 07 DESC-2.7201792D 01 RASC-1.0462761D 02
 VSC 1.1908896D 03 PTSC 8.4826033D 01 AZSC-7.4025320D 01

SELENOGRAPHIC REFERENCE

XSG 3.3389166D 07 YSG 3.3286380D 07 ZSG-4.7008247D 06
 DXSG 1.0002762D 03 DYSG 6.7115344D 02 DZSG-9.7100266D 01
 HSG 4.5642468D 07 LTSG-5.6939228D 00 LNSG 4.4911671D 01
 VRSG 1.2084817D 03 PTSG 7.8940235D 01 AZSG-8.4883754D 01
 LTS-1.4227782D 00 LNS 1.0348654D 02 LTE-1.3916032D 00
 LNE 1.1781441D 00 DSMP 4.6282114D 00 RSMP 1.0230625D 02
 LIN 1.6756078D 02 LAN 1.8038669D 01 LAP-1.5324871D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 3.2079689D 05
 X 3.2695764D 08 Y 1.5889797D 08 Z 7.3218952D 07
 DX-8.8601350D 02 DY-2.9348940D 02 DZ-1.1435584D 02
 R 3.7082459D 08 DEC 1.1387824D 01 RA 2.5919263D 01
 V 9.4033676D 02 PTH-8.1309730D 01 AZ 6.0217967D 01
 ALT 3.6444726D 08 LTGD 1.1389101D 01 LON 1.2031923D 02
 VE 2.6401755D 04 PTE-2.0176579D 00 AZE-8.9846706D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 5 FEB. 1968 8 HRS., 59 MIN., 5.502 SEC., GMT
SELENOCENTRIC REFERENCE

XSC-1.0974690D 07 YSC-4.1680663D 07 ZSC-2.2122768D 07
DXSC-3.6973113D 02 DYSC-1.0060480D 03 DZSC-5.1500011D 02
RSC 4.8447274D 07 DESC-2.7170243D 01 RASC-1.0475139D 02
VSC 1.1891420D 03 PTSC 8.4911720D 01 AZSC-7.3998345D 01

SELENOGRAPHIC REFERENCE

XSG 3.4290513D 07 YSG 3.3887645D 07 ZSG-4.7881690D 06
DXSG 1.0027403D 03 DYSG 6.6499895D 02 DZSG-9.6891119D 01
HSG 4.6709184D 07 LTSG-5.6719489D 00 LNSG 4.4661438D 01
VRSG 1.2071038D 03 PTSG 7.8883681D 01 AZSG-8.5003186D 01
LTS-1.4227323D 00 LNS 1.0335977D 02 LTE-1.4055842D 00
LNE 1.1638510D 00 DSMP 4.6278398D 00 RSMP 1.0219304D 02
LIN 1.6758700D 02 LAN 1.7838154D 01 LAP-1.5316697D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 3.2169689D 05
X 3.2615937D 08 Y 1.5863406D 08 Z 7.3116192D 07
DX-8.8791111D 02 DY-2.9298342D 02 DZ-1.1400664D 02
R 3.6998740D 08 DEC 1.1397703D 01 RA 2.5936887D 01
V 9.4192512D 02 PTH-8.1216555D 01 AZ 6.0255883D 01
ALT 3.6361007D 08 LTGD 1.1398984D 01 LON 1.1657659D 02
VE 2.6339508D 04 PTE-2.0253392D 00 AZE-8.9844627D 01

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SELENOCENTRIC REFERENCE

XSC-1.1307471D 07 YSC-4.2585403D 07 ZSC-2.2585886D 07
DXSC-3.6978664D 02 DYSC-1.0044973D 03 DZSC-5.1415899D 02
RSC 4.9512602D 07 DESC-2.7139877D 01 RASC-1.0487030D 02
VSC 1.1874832D 03 PTSC 8.4992846D 01 AZSC-7.3974900D 01

SELENOGRAPHIC REFERENCE

XSG 3.5194096D 07 YSG 3.4483394D 07 ZSG-4.8753304D 06
DXSG 1.0052452D 03 DYSG 6.5889438D 02 DZSG-9.6690645D 01
HSG 4.7774512D 07 LTSG-5.6508687D 00 LNSG 4.4415608D 01
VRSG 1.2058229D 03 PTSG 7.8822868D 01 AZSG-8.5119260D 01
LTS-1.4226864D 00 LNS 1.0323300D 02 LTE-1.4195577D 00
LNE 1.1495495D 00 DSMP 4.6274677D 00 RSMP 1.0207984D 02
LIN 1.6761434D 02 LAN 1.7634945D 01 LAP-1.5308196D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 3.2259689D 05
X 3.2535939D 08 Y 1.5837058D 08 Z 7.3013727D 07
DX-8.8983391D 02 DY-2.9255488D 02 DZ-1.1369895D 02
R 3.6914899D 08 DEC 1.1407714D 01 RA 2.5954772D 01
V 9.4356780D 02 PTH-8.1127865D 01 AZ 6.0291751D 01
ALT 3.6277166D 08 LTGD 1.1408999D 01 LON 1.1283421D 02
VE 2.6277221D 04 PTE-2.0331950D 00 AZE-8.9842596D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 5 FEB. 1968 9 HRS., 29 MIN., 5.502 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-1.1640314D 07 YSC-4.3488779D 07 ZSC-2.3048265D 07
DXSC-3.6986938D 02 DYSC-1.0030161D 03 DZSC-5.1335493D 02
RSC 5.0576609D 07 DESC-2.7110623D 01 RASC-1.0498467D 02
VSC 1.1859080D 03 PTSC 8.5069670D 01 AZSC-7.3954834D 01

SELENOGRAPHIC REFERENCE

XSG 3.6099951D 07 YSG 3.5073670D 07 ZSG-4.9623162D 06
DXSG 1.0077880D 03 DYSG 6.5283519D 02 DZSG-9.6498237D 01
HSG 4.8838519D 07 LTSG-5.6306250D 00 LNSG 4.4173884D 01
VRSG 1.2046337D 03 PTSG 7.8758058D 01 AZSG-8.5232020D 01
LTS-1.4226404D 00 LNS 1.0310623D 02 LTE-1.4335238D 00
LNE 1.1352398D 00 DSMP 4.6270950D 00 RSMP 1.0196665D 02
LIN 1.6764281D 02 LAN 1.7429006D 01 LAP-1.5299365D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 3.2349689D 05
X 3.2455766D 08 Y 1.5810744D 08 Z 7.2911522D 07
DX-8.9178121D 02 DY-2.9219920D 02 DZ-1.1343025D 02
R 3.6830929D 08 DEC 1.1417851D 01 RA 2.5972910D 01
V 9.4526214D 02 PTH-8.1043369D 01 AZ 6.0325757D 01
ALT 3.6193196D 08 LTGD 1.1419140D 01 LON 1.0909208D 02
VF 2.6214885D 04 PTE-2.0412204D 00 AZE-8.9840611D 01

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SELENOCENTRIC REFERENCE

XSC-1.1973244D 07 YSC-4.4390852D 07 ZSC-2.3509936D 07
DXSC-3.6997870D 02 DYSC-1.0016001D 03 DZSC-5.1258565D 02
RSC 5.1639358D 07 DESC-2.7082412D 01 RASC-1.0509479D 02
VSC 1.1844117D 03 PTSC 8.5142429D 01 AZSC-7.3938007D 01

SELENOGRAPHIC REFERENCE

XSG 3.7008110D 07 YSG 3.5658511D 07 ZSG-5.0491336D 06
DXSG 1.0103662D 03 DYSG 6.4681723D 02 DZSG-9.6313344D 01
HSG 4.9901269D 07 LTSG-5.6111654D 00 LNSG 4.3935996D 01
VRSG 1.2035318D 03 PTSG 7.8689489D 01 AZSG-8.5341513D 01
LTS-1.4225943D 00 LNS 1.0297946D 02 LTE-1.4474823D 00
LNE 1.1209220D 00 DSMP 4.6267217D 00 RSMP 1.0185347D 02
LIN 1.6767239D 02 LAN 1.7220300D 01 LAP-1.5290202D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 3.2439689D 05
X 3.2375417D 08 Y 1.5784460D 08 Z 7.2809542D 07
DX-8.9375234D 02 DY-2.9191221D 02 DZ-1.1319826D 02
R 3.6746825D 08 DEC 1.1428114D 01 RA 2.5991297D 01
V 9.4700572D 02 PTH-8.0962803D 01 AZ 6.0358064D 01
ALT 3.6109092D 08 LTGD 1.1429407D 01 LON 1.0535020D 02
VE 2.6152495D 04 PTE-2.0494112D 00 AZE-8.9838667D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 5 FEB. 1968 9 HRS., 59 MIN., 5.502 SEC., GMT
SELENOCENTRIC REFERENCE

XSC-1.2306284D 07 YSC-4.5291678D 07 ZSC-2.3970929D 07
DXSC-3.7011401D 02 DYSC-1.0002457D 03 DZSC-5.1184906D 02
RSC 5.2700912D 07 DESC-2.7055183D 01 RASC-1.0520095D 02
VSC 1.1829900D 03 PTSC 8.5211341D 01 AZSC-7.3924288D 01

SELENOGRAPHIC REFERENCE

XSG 3.7918604D 07 YSG 3.6237953D 07 ZSG-5.1357890D 06
DXSG 1.0129774D 03 DYSG 6.4083670D 02 DZSG-9.6135462D 01
HSG 5.0962822D 07 LTSG-5.5924417D 00 LNSG 4.3701694D 01
VRSG 1.2025127D 03 PTSG 7.8617379D 01 AZSG-8.5447797D 01
LTS-1.4225481D 00 LNS 1.0285270D 02 LTE-1.4614332D 00
LNE 1.1065961D 00 DSMP 4.6263479D 00 RSMP 1.0174030D 02
LIN 1.6770310D 02 LAN 1.7008794D 01 LAP-1.5280704D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 3.2529689D 05
X 3.2294890D 08 Y 1.5758198D 08 Z 7.2707755D 07
DX-8.9574671D 02 DY-2.9169009D 02 DZ-1.1300086D 02
R 3.6662582D 08 DEC 1.1438498D 01 RA 2.6009927D 01
V 9.4879633D 02 PTH-8.0885920D 01 AZ 6.0388820D 01
ALT 3.6024850D 08 LTGD 1.1439795D 01 LON 1.0160857D 02
VE 2.6090043D 04 PTE-2.0577637D 00 AZE-8.9836762D 01

TIME 5 FEB. 1968 10 HRS., 14 MIN., 5.502 SEC., GMT
SELENOCENTRIC REFERENCE

XSC-1.2639457D 07 YSC-4.6191312D 07 ZSC-2.4431273D 07
DXSC-3.7027476D 02 DYSC-9.9894919D 02 DZSC-5.1114324D 02
RSC 5.3761326D 07 DESC-2.7028878D 01 RASC-1.0530339D 02
VSC 1.1816388D 03 PTSC 8.5276606D 01 AZSC-7.3913557D 01

SELENOGRAPHIC REFERENCE

XSG 3.8831463D 07 YSG 3.6812028D 07 ZSG-5.2222886D 06
DXSG 1.0156192D 03 DYSG 6.3489010D 02 DZSG-9.5964133D 01
HSG 5.2023237D 07 LTSG-5.5744095D 00 LNSG 4.3470751D 01
VRSG 1.2015727D 03 PTSG 7.8541931D 01 AZSG-8.5550931D 01
LTS-1.4225019D 00 LNS 1.0272593D 02 LTE-1.4753765D 00
LNE 1.0922624D 00 DSMP 4.6259736D 00 RSMP 1.0162714D 02
LIN 1.6773494D 02 LAN 1.6794459D 01 LAP-1.5270868D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 3.2619689D 05
X 3.2214182D 08 Y 1.5731954D 08 Z 7.2606131D 07
DX-8.9776376D 02 DY-2.9152932D 02 DZ-1.1283616D 02
R 3.6578196D 08 DEC 1.1449002D 01 RA 2.6028795D 01
V 9.5063196D 02 PTH-8.0812495D 01. AZ 6.0418152D 01
ALT 3.5940464D 08 LTGD 1.1450304D 01 LON 9.7867168D 01
VE 2.6027524D 04 PTE-2.0662743D 00 AZE-8.9834892D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 5 FEB. 1968 10 HRS., 29 MIN., 5.502 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-1.2972786D 07 YSC-4.7089803D 07 ZSC-2.4890995D 07
DXSC-3.7046043D 02 DYSC-9.9770749D 02 DZSC-5.1046644D 02
RSC 5.4820656D 07 DESC-2.7003445D 01 RASC-1.0540236D 02
VSC 1.1803547D 03 PTSC 8.5338409D 01 AZSC-7.3905701D 01

SELENOGRAPHIC REFERENCE

XSG 3.9746711D 07 YSG 3.7380766D 07 ZSG-5.3086381D 06
DXSG 1.0182898D 03 DYSG 6.2897421D 02 DZSG-9.5798938D 01
HSG 5.3082567D 07 LTSG-5.5570281D 00 LNSG 4.3242956D 01
VRSG 1.2007082D 03 PTSG 7.8463330D 01 AZSG-8.5650980D 01
LTS-1.4224556D 00 LNS 1.0259916D 02 LTE-1.4893121D 00
LNE 1.0779208D 00 DSMP 4.6255987D 00 RSMP 1.0151399D 02
LIN 1.6776790D 02 LAN 1.6577264D 01 LAP-1.5260693D 02

GEOCENTRIC REFERENCE

X 3.2133292D 08 Y 1.5705721D 08 Z 7.2504641D 07
DX-8.9980297D 02 DY-2.9142669D 02 DZ-1.1270240D 02
R 3.6493662D 08 DEC 1.1459624D 01 RA 2.6047898D 01
V 9.5251076D 02 PTH-8.0742323D 01 AZ 6.0446177D 01
ALT 3.5855930D 08 LTGD 1.1460930D 01 LON 9.4126004D 01
VE 2.5964931D 04 PTE-2.0749399D 00 AZE-8.9833055D 01

FLIGHT TIME 3.2709689D 05

TIME 5 FEB. 1968 10 HRS., 44 MIN., 5.502 SEC., GMT

SELENOCENTRIC REFERENCE

XSC-1.3306293D 07 YSC-4.7987201D 07 ZSC-2.5350121D 07
DXSC-3.7067055D 02 DYSC-9.9651761D 02 DZSC-5.0981705D 02
RSC 5.5878954D 07 DESC-2.6978834D 01 RASC-1.0549807D 02
VSC 1.1791342D 03 PTSC 8.5396920D 01 AZSC-7.3900614D 01

SELENOGRAPHIC REFERENCE

XSG 4.0664376D 07 YSG 3.7944191D 07 ZSG-5.3948427D 06
DXSG 1.0209872D 03 DYSG 6.2308607D 02 DZSG-9.5639491D 01
HSG 5.4140864D 07 LTSG-5.5402597D 00 LNSG 4.3018115D 01
VRSG 1.1999158D 03 PTSG 7.8381749D 01 AZSG-8.5748012D 01
LTS-1.4224092D 00 LNS 1.0247240D 02 LTE-1.5032399D 00
LNE 1.0635715D 00 DSMP 4.6252232D 00 RSMP 1.0140085D 02
LIN 1.6780197D 02 LAN 1.6357182D 01 LAP-1.5250177D 02

GEOCENTRIC REFERENCE

X 3.2052217D 08 Y 1.5679495D 08 Z 7.2403258D 07
DX-9.0186387D 02 DY-2.9137925D 02 DZ-1.1259794D 02
R 3.6408976D 08 DEC 1.1470361D 01 RA 2.6067231D 01
V 9.5443104D 02 PTH-8.0675210D 01 AZ 6.0472998D 01
ALT 3.5771244D 08 LTGD 1.1471671D 01 LON 9.0385070D 01
VE 2.5902261D 04 PTE-2.0837580D 00 AZE-8.9831247D 01

FLIGHT TIME 3.2799689D 05

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 10 HRS., 59 MIN., 5.502 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC-1.3640000D 07 YSC-4.8883549D 07 ZSC-2.5808674D 07
 DXSC-3.7090469D 02 DYSC-9.9537681D 02 DZSC-5.0919357D 02
 RSC 5.6936268D 07 DESC-2.6954999D 01 RASC-1.0559072D 02
 VSC 1.1779743D 03 PTSC 8.5452296D 01 AZSC-7.3898196D 01
 SELENOGRAPHIC REFERENCE
 XSG 4.1584480D 07 YSG 3.8502329D 07 ZSG-5.4809076D 06
 DXSG 1.0237097D 03 DYSG 6.1722293D 02 DZSG-9.5485441D 01
 HSG 5.5198179D 07 LTSG-5.5240694D 00 LNSG 4.2796050D 01
 VRSG 1.1991927D 03 PTSG 7.8297349D 01 AZSG-8.5842097D 01
 LTS-1.4223628D 00 LNS 1.0234563D 02 LTE-1.5171600D 00
 LNE 1.0492147D 00 DSMP 4.6248472D 00 RSMP 1.0128772D 02
 LIN 1.6783715D 02 LAN 1.6134188D 01 LAP-1.5239319D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 3.2889689D 05
 X 3.1970956D 08 Y 1.5653271D 08 Z 7.2301956D 07
 DX-9.0394601D 02 DY-2.9138426D 02 DZ-1.1252132D 02
 R 3.6324133D 08 DEC 1.1481212D 01 RA 2.6086790D 01
 V 9.5639125D 02 PTH-8.0610979D 01 AZ 6.0498708D 01
 ALT 3.5686401D 08 LTGD 1.1482526D 01 LON 8.6644362D 01
 VE 2.5839507D 04 PTE-2.0927260D 00 AZE-8.9829467D 01

TIME 5 FEB. 1968 11 HRS., 14 MIN., 5.502 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 3.2979689D 05
 X 3.1889506D 08 Y 1.5627045D 08 Z 7.2200711D 07
 DX-9.0604898D 02 DY-2.9143920D 02 DZ-1.1247115D 02
 R 3.6239130D 08 DEC 1.1492175D 01 RA 2.6106572D 01
 V 9.5838996D 02 PTH-8.0549468D 01 AZ 6.0523391D 01
 ALT 3.5601399D 08 LTGD 1.1493493D 01 LON 8.2903878D 01
 VE 2.5776665D 04 PTE-2.1018417D 00 AZE-8.9827713D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	5	FEB. 1968	11	HRS.,	44	MIN.,	5.502	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	3.3159689D	05
X	3.1726035D	08	Y	1.5574566D	08	Z	7.1998301D	07	
DX	-9.1031592D	02	DY	-2.9168980D	02	DZ	-1.1244523D	02	
R	3.6068628D	08	DEC	1.1514431D	01	RA	2.6146792D	01	
V	9.6249776D	02	PTH	-8.0434004D	01	AZ	6.0569969D	01	
ALT	3.5430897D	08	LTGD	1.1515758D	01	LCN	7.5423565D	01	
VE	2.5650699D	04	PTE	-2.1205091D	00	AZE	-8.9824271D	01	

TIME	5	FEB. 1968	12	HRS.,	14	MIN.,	5.502	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	3.3339689D	05
X	3.1561788D	08	Y	1.5522026D	08	Z	7.1795853D	07	
DX	-9.1466205D	02	DY	-2.9211443D	02	DZ	-1.1251115D	02	
R	3.5897440D	08	DEC	1.1537117D	01	RA	2.6187869D	01	
V	9.6674519D	02	PTH	-8.0327722D	01	AZ	6.0613260D	01	
ALT	3.5259709D	08	LTGD	1.1538453D	01	LON	6.7944108D	01	
VE	2.5524329D	04	PTE	-2.1397477D	00	AZE	-8.9820908D	01	

TIME	5	FEB. 1968	12	HRS.,	44	MIN.,	5.502	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	3.3519689D	05
X	3.1396752D	08	Y	1.5469395D	08	Z	7.1593210D	07	
DX	-9.1908510D	02	DY	-2.9269881D	02	DZ	-1.1266116D	02	
R	3.5725538D	08	DEC	1.1560225D	01	RA	2.6229783D	01	
V	9.7112438D	02	PTH	-8.0229673D	01	AZ	6.0653698D	01	
ALT	3.5087807D	08	LTGD	1.1561569D	01	LON	6.0465490D	01	
VF	2.5397525D	04	PTE	-2.1595481D	00	AZE	-8.9817610D	01	

TIME	5	FEB. 1968	13	HRS.,	14	MIN.,	5.502	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	3.3699689D	05
X	3.1230913D	08	Y	1.5416646D	08	Z	7.1390227D	07	
DX	-9.2358317D	02	DY	-2.9343063D	02	DZ	-1.1288857D	02	
R	3.5552897D	08	DEC	1.1583746D	01	RA	2.6272519D	01	
V	9.7562864D	02	PTH	-8.0139029D	01	AZ	6.0691650D	01	
ALT	3.4915167D	08	LTGD	1.1585099D	01	LON	5.2987693D	01	
VE	2.5270259D	04	PTE	-2.1799038D	00	AZE	-8.9814366D	01	

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	5	FEB. 1968	13	HRS.,	44	MIN.,	5.502	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	3.3879689D	05
X	3.1064257D	08	Y	1.5363752D	08	Z	7.1186769D	07	
DX	-9.2815468D	02	DY	-2.9429921D	02	DZ	-1.1318759D	02	
R	3.5379493D	08	DEC	1.1607674D	01	RA	2.6316064D	01	
V	9.8025229D	02	PTH	-8.0055063D	01	AZ	6.0727422D	01	
ALT	3.4741763D	08	LTGD	1.1609037D	01	LON	4.5510705D	01	
VE	2.5142506D	04	PTE	-2.2008106D	00	AZE	-8.9811166D	01	

TIME	5	FEB. 1968	14	HRS.,	14	MIN.,	5.502	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	3.4059689D	05
X	3.0896773D	08	Y	1.5310690D	08	Z	7.0982711D	07	
DX	-9.3279830D	02	DY	-2.9529525D	02	DZ	-1.1355321D	02	
R	3.5205301D	08	DEC	1.1632004D	01	RA	2.6360408D	01	
V	9.8499050D	02	PTH	-7.9977137D	01	AZ	6.0761277D	01	
ALT	3.4567572D	08	LTGD	1.1633376D	01	LON	3.8034515D	01	
VE	2.5014242D	04	PTE	-2.2222666D	00	AZE	-8.9808001D	01	

TIME	5	FEB. 1968	14	HRS.,	44	MIN.,	5.502	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	3.4239689D	05
X	3.0728446D	08	Y	1.5257438D	08	Z	7.0777940D	07	
DX	-9.3751299D	02	DY	-2.9641067D	02	DZ	-1.1398104D	02	
R	3.5030301D	08	DEC	1.1656732D	01	RA	2.6405542D	01	
V	9.8983916D	02	PTH	-7.9904686D	01	AZ	6.0793437D	01	
ALT	3.4392571D	08	LTGD	1.1658114D	01	LON	3.0559116D	01	
VE	2.4885446D	04	PTE	-2.2442716D	00	AZE	-8.9804863D	01	

TIME	5	FEB. 1968	15	HRS.,	14	MIN.,	5.502	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	3.4419689D	05
X	3.0559264D	08	Y	1.5203976D	08	Z	7.0572345D	07	
DX	-9.4229789D	02	DY	-2.9763838D	02	DZ	-1.1446725D	02	
R	3.4854469D	08	DEC	1.1681854D	01	RA	2.6451459D	01	
V	9.9479479D	02	PTH	-7.9837207D	01	AZ	6.0824097D	01	
ALT	3.4216740D	08	LTGD	1.1683246D	01	LON	2.3084500D	01	
VE	2.4756095D	04	PTE	-2.2668273D	00	AZE	-8.9801745D	01	

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	5	FEB. 1968	15 HRS.,	44 MIN.,	5.502 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	3.4599689D 05
X	3.0389214D	08	Y	1.5150282D	08	Z 7.0365825D 07
DX	-9.4715238D	02	DY	-2.9897218D	02	DZ -1.1500849D 02
R	3.4677787D	08	DEC	1.1707369D	01	RA 2.6498155D 01
V	9.9985446D	02	PTH	-7.9774254D	01	AZ 6.0853424D 01
ALT	3.4040058D	08	LTGD	1.1708771D	01	LON 1.5610663D 01
VE	2.4626172D	04	PTE	-2.2899366D	00	AZE -8.9798639D 01

TIME	5	FEB. 1968	16 HRS.,	14 MIN.,	5.502 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	3.4779689D 05
X	3.0218285D	08	Y	1.5096340D	08	Z 7.0158283D 07
DX	-9.5207598D	02	DY	-3.0040664D	02	DZ -1.1560182D 02
R	3.4500232D	08	DEC	1.1733275D	01	RA 2.6545627D 01
V	1.0050157D	03	PTH	-7.9715428D	01	AZ 6.0881563D 01
ALT	3.3862504D	08	LTGD	1.1734687D	01	LON 8.1376017D 00
VE	2.4495656D	04	PTE	-2.3136042D	00	AZE -8.9795540D 01

TIME	5	FEB. 1968	16 HRS.,	44 MIN.,	5.502 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	3.4959689D 05
X	3.0046463D	08	Y	1.5042130D	08	Z 6.9949628D 07
DX	-9.5706841D	02	DY	-3.0193698D	02	DZ -1.1624467D 02
R	3.4321788D	08	DEC	1.1759572D	01	RA 2.6593873D 01
V	1.0102766D	03	PTH	-7.9660369D	01	AZ 6.0908644D 01
ALT	3.3684060D	08	LTGD	1.1760994D	01	LON 6.6531499D -01
VE	2.4364531D	04	PTE	-2.3378360D	00	AZE -8.9792442D 01

TIME	5	FEB. 1968	17 HRS.,	14 MIN.,	5.502 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	3.5139689D 05
X	2.9873736D	08	Y	1.4987637D	08	Z 6.9739774D 07
DX	-9.6212952D	02	DY	-3.0355903D	02	DZ -1.1693477D 02
R	3.4142433D	08	DEC	1.1786258D	01	RA 2.6642894D 01
V	1.0156353D	03	PTH	-7.9608755D	01	AZ 6.0934779D 01
ALT	3.3504705D	08	LTGD	1.1787691D	01	LON 3.5319377D 02
VE	2.4232779D	04	PTE	-2.3626391D	00	AZE -8.9789340D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 17 HRS., 44 MIN., 5.502 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 3.5319689D 05
 X 2.9700092D 08 Y 1.4932844D 08 Z 6.9528636D 07
 DX-9.6725931D 02 DY-3.0526910D 02 DZ-1.1767014D 02
 R 3.3962149D 08 DEC 1.1813336D 01 RA 2.6692690D 01
 V 1.0210906D 03 PTH-7.9560294D 01 AZ 6.0960068D 01
 ALT 3.3324422D 08 LTGD 1.1814780D 01 LON 3.4572303D 02
 VE 2.4100385D 04 PTE-2.3880217D 00 AZE-8.9786228D 01

TIME 5 FEB. 1968 18 HRS., 14 MIN., 5.502 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 3.5499689D 05
 X 2.9525518D 08 Y 1.4877735D 08 Z 6.9316135D 07
 DX-9.7245788D 02 DY-3.0706397D 02 DZ-1.1844903D 02
 R 3.3780919D 08 DEC 1.1840806D 01 RA 2.6743264D 01
 V 1.0266415D 03 PTH-7.9514723D 01 AZ 6.0984600D 01
 ALT 3.3143193D 08 LTGD 1.1842261D 01 LON 3.3825307D 02
 VE 2.3967331D 04 PTE-2.4139932D 00 AZE-8.9783103D 01

TIME 5 FEB. 1968 18 HRS., 44 MIN., 5.502 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 3.5679689D 05
 X 2.9350003D 08 Y 1.4822296D 08 Z 6.9102194D 07
 DX-9.7772549D 02 DY-3.0894084D 02 DZ-1.1926991D 02
 R 3.3598724D 08 DEC 1.1868670D 01 RA 2.6794620D 01
 V 1.0322872D 03 PTH-7.9471801D 01 AZ 6.1008455D 01
 ALT 3.2960998D 08 LTGD 1.1870136D 01 LON 3.3078389D 02
 VE 2.3833604D 04 PTE-2.4405642D 00 AZE-8.9779960D 01

TIME 5 FEB. 1968 19 HRS., 14 MIN., 5.502 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 3.5859689D 05
 X 2.9173533D 08 Y 1.4766511D 08 Z 6.8886739D 07
 DX-9.8306248D 02 DY-3.1089725D 02 DZ-1.2013146D 02
 R 3.3415546D 08 DEC 1.1896930D 01 RA 2.6846763D 01
 V 1.0380272D 03 PTH-7.9431312D 01 AZ 6.1031704D 01
 ALT 3.2777820D 08 LTGD 1.1898407D 01 LON 3.2331550D 02
 VE 2.3699187D 04 PTE-2.4677461D 00 AZE-8.9776794D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 19 HRS., 44 MIN., 5.502 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 3.6039689D 05
 X 2.8996096D 08 Y 1.4710368D 08 Z 6.8669697D 07
 DX-9.8846932D 02 DY-3.1293106D 02 DZ-1.2103250D 02
 R 3.3231368D 08 DEC 1.1925590D 01 RA 2.6899698D 01
 V 1.0438612D 03 PTH-7.9393055D 01 AZ 6.1054413D 01
 ALT 3.2593642D 08 LTGD 1.1927078D 01 LON 3.1584790D 02
 VE 2.3564067D 04 PTE-2.4955516D 00 AZE-8.9773602D 01

TIME 5 FEB. 1968 20 HRS., 14 MIN., 5.502 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 3.6219689D 05
 X 2.8817680D 08 Y 1.4653852D 08 Z 6.8450999D 07
 DX-9.9394656D 02 DY-3.1504045D 02 DZ-1.2197205D 02
 R 3.3046171D 08 DEC 1.1954652D 01 RA 2.6953432D 01
 V 1.0497892D 03 PTH-7.9356848D 01 AZ 6.1076638D 01
 ALT 3.2408446D 08 LTGD 1.1956152D 01 LON 3.0838111D 02
 VE 2.3428228D 04 PTE-2.5239941D 00 AZE-8.9770379D 01

TIME 5 FEB. 1968 20 HRS., 44 MIN., 5.502 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 3.6399689D 05
 X 2.8638271D 08 Y 1.4596949D 08 Z 6.8230575D 07
 DX-9.9949485D 02 DY-3.1722384D 02 DZ-1.2294923D 02
 R 3.2859939D 08 DEC 1.1984120D 01 RA 2.7007973D 01
 V 1.0558113D 03 PTH-7.9322524D 01 AZ 6.1098434D 01
 ALT 3.2222215D 08 LTGD 1.1985633D 01 LON 3.0091511D 02
 VE 2.3291657D 04 PTE-2.5530883D 00 AZE-8.9767122D 01

TIME 5 FEB. 1968 21 HRS., 14 MIN., 5.502 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 3.6579689D 05
 X 2.8457857D 08 Y 1.4539647D 08 Z 6.8008360D 07
 DX-1.0051149D 03 DY-3.1947989D 02 DZ-1.2396332D 02
 R 3.2672654D 08 DEC 1.2014000D 01 RA 2.7063329D 01
 V 1.0619277D 03 PTH-7.9289928D 01 AZ 6.1119848D 01
 ALT 3.2034930D 08 LTGD 1.2015525D 01 LON 2.9344994D 02
 VE 2.3154340D 04 PTE-2.5828500D 00 AZE-8.9763828D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	5	FEB. 1968	21 HRS.,	44 MIN.,	5.502 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	3.6759689D 05
X	2.8276425D	08	Y	1.4481932D	08	Z 6.7784286D 07
DX	-1.0108077D	03	DY	-3.2180750D	02	DZ -1.2501369D 02
R	3.2484299D	08	DEC	1.2044295D	01	RA 2.7119512D 01
V	1.0681389D	03	PTH	-7.9258920D	01	AZ 6.1140926D 01
ALT	3.1846576D	08	LTGD	1.2045832D	01	LON 2.8598559D 02
VE	2.3016262D	04	PTE	-2.6132956D	00	AZE -8.9760491D 01

TIME	5	FEB. 1968	22 HRS.,	14 MIN.,	5.502 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	3.6939689D 05
X	2.8093962D	08	Y	1.4423792D	08	Z 6.7558289D 07
DX	-1.0165740D	03	DY	-3.2420577D	02	DZ -1.2609984D 02
R	3.2294856D	08	DEC	1.2075011D	01	RA 2.7176530D 01
V	1.0744455D	03	PTH	-7.9229368D	01	AZ 6.1161708D 01
ALT	3.1657133D	08	LTGD	1.2076561D	01	LON 2.7852207D 02
VE	2.2877410D	04	PTE	-2.6444429D	00	AZE -8.9757109D 01

TIME	5	FEB. 1968	22 HRS.,	44 MIN.,	5.502 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	3.7119689D 05
X	2.7910454D	08	Y	1.4365214D	08	Z 6.7330305D 07
DX	-1.0224149D	03	DY	-3.2667396D	02	DZ -1.2722135D 02
R	3.2104307D	08	DEC	1.2106154D	01	RA 2.7234396D 01
V	1.0808484D	03	PTH	-7.9201149D	01	AZ 6.1182231D 01
ALT	3.1466584D	08	LTGD	1.2107717D	01	LON 2.7105940D 02
VE	2.2737771D	04	PTE	-2.6763108D	00	AZE -8.9753678D 01

TIME	5	FEB. 1968	23 HRS.,	14 MIN.,	5.502 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	3.7299689D 05
X	2.7725888D	08	Y	1.4306185D	08	Z 6.7100271D 07
DX	-1.0283314D	03	DY	-3.2921154D	02	DZ -1.2837792D 02
R	3.1912635D	08	DEC	1.2137729D	01	RA 2.7293123D 01
V	1.0873484D	03	PTH	-7.9174152D	01	AZ 6.1202531D 01
ALT	3.1274913D	08	LTGD	1.2139305D	01	LON 2.6359760D 02
VE	2.2597329D	04	PTE	-2.7089191D	00	AZE -8.9750195D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 5 FEB. 1968 23 HRS., 44 MIN., 5.502 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 3.7479689D 05
 X 2.7540250D 08 Y 1.4246693D 08 Z 6.6868124D 07
 DX-1.0343248D 03 DY-3.3181814D 02 DZ-1.2956930D 02
 R 3.1719822D 08 DEC 1.2169744D 01 RA 2.7352724D 01
 V 1.0939467D 03 PTH-7.9148271D 01 AZ 6.1222640D 01
 ALT 3.1082101D 08 LTGD 1.2171333D 01 LON 2.5613667D 02
 VE 2.2456073D 04 PTE-2.7422888D 00 AZE-8.9746655D 01

TIME 6 FEB. 1968 0 HRS., 14 MIN., 5.502 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 3.7659689D 05
 X 2.7353527D 08 Y 1.4186726D 08 Z 6.6633801D 07
 DX-1.0403963D 03 DY-3.3449351D 02 DZ-1.3079536D 02
 R 3.1525851D 08 DEC 1.2202205D 01 RA 2.7413213D 01
 V 1.1006443D 03 PTH-7.9123409D 01 AZ 6.1242588D 01
 ALT 3.0888130D 08 LTGD 1.2203808D 01 LON 2.4867662D 02
 VE 2.2313987D 04 PTE-2.7764422D 00 AZE-8.9743055D 01

TIME 6 FEB. 1968 0 HRS., 44 MIN., 5.502 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 3.7839689D 05
 X 2.7165703D 08 Y 1.4126272D 08 Z 6.6397240D 07
 DX-1.0465473D 03 DY-3.3723758D 02 DZ-1.3205601D 02
 R 3.1330702D 08 DEC 1.2235120D 01 RA 2.7474606D 01
 V 1.1074426D 03 PTH-7.9099472D 01 AZ 6.1262405D 01
 ALT 3.0692982D 08 LTGD 1.2236737D 01 LON 2.4121748D 02
 VE 2.2171059D 04 PTE-2.8114025D 00 AZE-8.9739392D 01

TIME 6 FEB. 1968 1 HRS., 14 MIN., 5.502 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 3.8019689D 05
 X 2.6976765D 08 Y 1.4065317D 08 Z 6.6158378D 07
 DX-1.0527791D 03 DY-3.4005041D 02 DZ-1.3335126D 02
 R 3.1134359D 08 DEC 1.2268496D 01 RA 2.7536919D 01
 V 1.1143432D 03 PTH-7.9076376D 01 AZ 6.1282117D 01
 ALT 3.0496639D 08 LTGD 1.2270128D 01 LON 2.3375926D 02
 VE 2.2027274D 04 PTE-2.8471946D 00 AZE-8.9735661D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	6	FEB. 1968	1	HRS.,	44	MIN.,	5.502	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	3.8199689D	05
X	2.6786698D	08	Y	1.4003849D	08	Z	6.5917154D	07	
DX	-1.0590934D	03	DY	-3.4293219D	02	DZ	-1.3468117D	02	
R	3.0936801D	08	DEC	1.2302344D	01	RA	2.7600170D	01	
V	1.1213475D	03	PTH	-7.9054040D	01	AZ	6.1301749D	01	
ALT	3.0299082D	08	LTGD	1.2303990D	01	LON	2.2630198D	02	
VE	2.1882618D	04	PTE	-2.8838442D	00	AZE	-8.9731859D	01	

TIME	6	FEB. 1968	2	HRS.,	14	MIN.,	5.502	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	3.8379689D	05
X	2.6595486D	08	Y	1.3941857D	08	Z	6.5673505D	07	
DX	-1.0654916D	03	DY	-3.4588323D	02	DZ	-1.3604589D	02	
R	3.0738012D	08	DEC	1.2336670D	01	RA	2.7664377D	01	
V	1.1284574D	03	PTH	-7.9032387D	01	AZ	6.1321325D	01	
ALT	3.0100293D	08	LTGD	1.2338331D	01	LON	2.1884565D	02	
VE	2.1737077D	04	PTE	-2.9213789D	00	AZE	-8.9727982D	01	

TIME	6	FEB. 1968	2	HRS.,	44	MIN.,	5.502	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	3.8559689D	05
X	2.6403115D	08	Y	1.3879327D	08	Z	6.5427368D	07	
DX	-1.0719755D	03	DY	-3.4890398D	02	DZ	-1.3744560D	02	
R	3.0537970D	08	DEC	1.2371485D	01	RA	2.7729559D	01	
V	1.1356746D	03	PTH	-7.9011346D	01	AZ	6.1340869D	01	
ALT	2.9900252D	08	LTGD	1.2373161D	01	LON	2.1139030D	02	
VE	2.1590637D	04	PTE	-2.9598272D	00	AZE	-8.9724025D	01	

TIME	6	FEB. 1968	3	HRS.,	14	MIN.,	5.502	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	3.8739689D	05
X	2.6209570D	08	Y	1.3816247D	08	Z	6.5178680D	07	
DX	-1.0785469D	03	DY	-3.5199499D	02	DZ	-1.3888058D	02	
R	3.0336658D	08	DEC	1.2406798D	01	RA	2.7795737D	01	
V	1.1430012D	03	PTH	-7.8990849D	01	AZ	6.1360403D	01	
ALT	2.9698940D	08	LTGD	1.2408490D	01	LON	2.0393595D	02	
VE	2.1443283D	04	PTE	-2.9992196D	00	AZE	-8.9719985D	01	

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	6	FEB. 1968	3 HRS.,	44 MIN.,	5.502 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	3.8919689D 05		
X	2.6014833D	08	Y	1.3752605D	08	Z	6.4927377D	07
DX	-1.0852077D	03	DY	-3.5515695D	02	DZ	-1.4035114D	02
R	3.0134056D	08	DEC	1.2442620D	01	RA	2.7862932D	01
V	1.1504393D	03	PTH	-7.8970830D	01	AZ	6.1379947D	01
ALT	2.9496339D	08	LTGD	1.2444329D	01	LON	1.9648261D	02
VE	2.1295002D	04	PTE	-3.0395879D	00	AZE	-8.9715857D	01

TIME	6	FEB. 1968	4 HRS.,	14 MIN.,	5.502 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	3.9099689D 05		
X	2.5818890D	08	Y	1.3688386D	08	Z	6.4673394D	07
DX	-1.0919597D	03	DY	-3.5839066D	02	DZ	-1.4185768D	02
R	2.9930143D	08	DEC	1.2478962D	01	RA	2.7931167D	01
V	1.1579911D	03	PTH	-7.8951229D	01	AZ	6.1399522D	01
ALT	2.9292426D	08	LTGD	1.2480687D	01	LON	1.8903031D	02
VE	2.1145777D	04	PTE	-3.0809656D	00	AZE	-8.9711636D	01

TIME	6	FEB. 1968	4 HRS.,	44 MIN.,	5.502 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	3.9279689D 05		
X	2.5621722D	08	Y	1.3623580D	08	Z	6.4416667D	07
DX	-1.0988051D	03	DY	-3.6169701D	02	DZ	-1.4340063D	02
R	2.9724899D	08	DEC	1.2515836D	01	RA	2.8000466D	01
V	1.1656591D	03	PTH	-7.8931987D	01	AZ	6.1419148D	01
ALT	2.9087183D	08	LTGD	1.2517577D	01	LON	1.8157908D	02
VE	2.0995594D	04	PTE	-3.1233879D	00	AZE	-8.9707319D	01

TIME	6	FEB. 1968	5 HRS.,	14 MIN.,	5.502 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	3.9459689D 05		
X	2.5423314D	08	Y	1.3558171D	08	Z	6.4157130D	07
DX	-1.1057460D	03	DY	-3.6507704D	02	DZ	-1.4498051D	02
R	2.9518304D	08	DEC	1.2553253D	01	RA	2.8070854D	01
V	1.1734457D	03	PTH	-7.8913048D	01	AZ	6.1438844D	01
ALT	2.8880588D	08	LTGD	1.2555011D	01	LON	1.7412893D	02
VE	2.0844438D	04	PTE	-3.1668921D	00	AZE	-8.9702901D	01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	6 FEB. 1968	5 HRS., 44 MIN.,	SEC., GMT
GEOCENTRIC REFERENCE		FLIGHT TIME	689D 05
X	2.5223648D 08	Y 1.3492147D 08	715D 07
DX	-1.1127847D 03	DY -3.6853188D 02	D787D 02
R	2.9310336D 08	DEC 1.2591226D 01	R357D 01
V	1.1813536D 03	PTH -7.8894358D 01	A629D 01
ALT	2.8672621D 08	LTGD 1.2593002D 01	L1990D 02
VE	2.0692292D 04	PTE -3.2115172D 00	A1375D 01

TIME	6 FEB. 1968	6 HRS., 14 MIN.,	SEC., GMT
GEOCENTRIC REFERENCE		FLIGHT TIME	689D 05
X	2.5022705D 08	Y 1.3425495D 08	354D 07
DX	-1.1199235D 03	DY -3.7206280D 02	334D 02
R	2.9100973D 08	DEC 1.2629768D 01	5003D 01
V	1.1893857D 03	PTH -7.8875865D 01	3522D 01
ALT	2.8463259D 08	LTGD 1.2631562D 01	3201D 02
VE	2.0539142D 04	PTE -3.2573044D 00	3738D 01

TIME	6 FEB. 1968	6 HRS., 44 MIN.,	SEC., GMT
GEOCENTRIC REFERENCE		FLIGHT TIME	689D 05
X	2.4820469D 08	Y 1.3358200D 08	0979D 07
DX	-1.1271650D 03	DY -3.7567116D 02	4760D 02
R	2.8890194D 08	DEC 1.2668894D 01	18821D 01
V	1.1975450D 03	PTH -7.8857520D 01	8540D 01
ALT	2.8252481D 08	LTGD 1.2670706D 01	78530D 02
VE	2.0384971D 04	PTE -3.3042970D 00	38983D 01

TIME	6 FEB. 1968	7 HRS., 14 MIN.,	SEC., GMT
GEOCENTRIC REFERENCE		FLIGHT TIME	79689D 05
X	2.4616920D 08	Y 1.3290249D 08	89519D 07
DX	-1.1345117D 03	DY -3.7935846D 02	68139D 02
R	2.8677976D 08	DEC 1.2708617D 01	63840D 01
V	1.2058345D 03	PTH -7.8839273D 01	18702D 01
ALT	2.8040263D 08	LTGD 1.2710448D 01	33979D 02
VE	2.0229762D 04	PTE -3.3525409D 00	84106D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	6	FEB. 1968	7	HRS.,	44	MIN.,	5.502	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	4.0359689D	05
X	2.4412038D	08	Y	1.3221626D	08	Z	6.2814902D	07	
DX-	1.1419664D	03	DY-	3.8312631D	02	DZ-	1.5345554D	02	
R	2.8464296D	08	DEC	1.2748953D	01	RA	2.8440094D	01	
V	1.2142576D	03	PTH-	7.8821078D	01	AZ	6.1539025D	01	
ALT	2.7826583D	08	LTGD	1.2750803D	01	LON	1.3689551D	02	
VE	2.0073498D	04	PTE-	3.4020841D	00	AZE-	8.9679100D	01	

TIME	6	FEB. 1968	8	HRS.,	14	MIN.,	5.502	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	4.0539689D	05
X	2.4205805D	08	Y	1.3152318D	08	Z	6.2537055D	07	
DX-	1.1495319D	03	DY-	3.8697644D	02	DZ-	1.5527090D	02	
R	2.8249129D	08	DEC	1.2789919D	01	RA	2.8517615D	01	
V	1.2228178D	03	PTH-	7.8802889D	01	AZ	6.1559528D	01	
ALT	2.7611418D	08	LTGD	1.2791789D	01	LON	1.2945249D	02	
VE	1.9916163D	04	PTE-	3.4529776D	00	AZE-	8.9673958D	01	

TIME	6	FEB. 1968	8	HRS.,	44	MIN.,	5.502	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	4.0719689D	05
X	2.3998200D	08	Y	1.3082310D	08	Z	6.2255902D	07	
DX-	1.1572111D	03	DY-	3.9091073D	02	DZ-	1.5712843D	02	
R	2.8032453D	08	DEC	1.2831530D	01	RA	2.8596439D	01	
V	1.2315186D	03	PTH-	7.8784662D	01	AZ	6.1580227D	01	
ALT	2.7394742D	08	LTGD	1.2833420D	01	LON	1.2201079D	02	
VE	1.9757738D	04	PTE-	3.5052750D	00	AZE-	8.9668675D	01	

TIME	6	FEB. 1968	9	HRS.,	14	MIN.,	5.502	SEC.,	GMT
GEOCENTRIC REFERENCE							FLIGHT TIME	4.0899689D	05
X	2.3789202D	08	Y	1.3011585D	08	Z	6.1971366D	07	
DX-	1.1650074D	03	DY-	3.9493117D	02	DZ-	1.5902912D	02	
R	2.7814241D	08	DEC	1.2873805D	01	RA	2.8676603D	01	
V	1.2403641D	03	PTH-	7.8766352D	01	AZ	6.1601142D	01	
ALT	2.7176530D	08	LTGD	1.2875715D	01	LON	1.1457042D	02	
VE	1.9598206D	04	PTE-	3.5590329D	00	AZE-	8.9663244D	01	

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME	6	FEB. 1968	9 HRS.,	44 MIN.,	5.502 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	4.1079689D 05	
X	2.3578790D	08	Y	1.2940129D	08	Z	6.1683370D 07
DX	-1.1729238D	03	DY	-3.9903989D	02	DZ	-1.6097406D 02
R	2.7594468D	08	DEC	1.2916761D	01	RA	2.8758145D 01
V	1.2493581D	03	PTH	-7.8747916D	01	AZ	6.1622290D 01
ALT	2.6956758D	08	LTGD	1.2918693D	01	LON	1.0713143D 02
VE	1.9437548D	04	PTE	-3.6143113D	00	AZE	-8.9657656D 01

TIME	6	FEB. 1968	10 HRS.,	14 MIN.,	5.502 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	4.1259689D 05	
X	2.3366942D	08	Y	1.2867925D	08	Z	6.1391833D 07
DX	-1.1809638D	03	DY	-4.0323918D	02	DZ	-1.6296439D 02
R	2.7373108D	08	DEC	1.2960419D	01	RA	2.8841106D 01
V	1.2585050D	03	PTH	-7.8729313D	01	AZ	6.1643689D 01
ALT	2.6735399D	08	LTGD	1.2962373D	01	LON	9.9693853D 01
VE	1.9275745D	04	PTE	-3.6711735D	00	AZE	-8.9651905D 01

TIME	6	FEB. 1968	10 HRS.,	44 MIN.,	5.502 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	4.1439689D 05	
X	2.3153636D	08	Y	1.2794958D	08	Z	6.1096671D 07
DX	-1.1891310D	03	DY	-4.0753145D	02	DZ	-1.6500135D 02
R	2.7150135D	08	DEC	1.3004798D	01	RA	2.8925528D 01
V	1.2678091D	03	PTH	-7.8710500D	01	AZ	6.1665358D 01
ALT	2.6512426D	08	LTGD	1.3006774D	01	LON	9.2257742D 01
VE	1.9112777D	04	PTE	-3.7296864D	00	AZE	-8.9645982D 01

TIME	6	FEB. 1968	11 HRS.,	14 MIN.,	5.502 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	4.1619689D 05	
X	2.2938847D	08	Y	1.2721208D	08	Z	6.0797799D 07
DX	-1.1974293D	03	DY	-4.1191930D	02	DZ	-1.6708625D 02
R	2.6925519D	08	DEC	1.3049920D	01	RA	2.9011457D 01
V	1.2772753D	03	PTH	-7.8691434D	01	AZ	6.1687316D 01
ALT	2.6287812D	08	LTGD	1.3051919D	01	LON	8.4823138D 01
VE	1.8948625D	04	PTE	-3.7899209D	00	AZE	-8.9639880D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZ
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	6	FEB. 1968	11 HRS.,	44 MIN.,	5 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	589D 05
X	2.2722553D	08	Y	1.2646661D	08	Z 130D 07
DX-	1.2058624D	03	DY-	4.1640545D	02	DZ-147D 02
R	2.6699233D	08	DEC	1.3095806D	01	RA 139D 01
V	1.2869084D	03	PTH-	7.8672075D	01	AZ 181D 01
ALT	2.6061526D	08	LTGD	1.3097829D	01	LON 187D 01
VE	1.8783267D	04	PTE-	3.8519522D	00	AZE-88D 01

TIME	6	FEB. 1968	12 HRS.,	14 MIN.,	5 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	19D 05
X	2.2504728D	08	Y	1.2571296D	08	Z 15D 07
DX-	1.2144346D	03	DY-	4.2099284D	02	DZ-11D 02
R	2.6471247D	08	DEC	1.3142481D	01	RA 15D 01
V	1.2967136D	03	PTH-	7.8652381D	01	AZ 15D 01
ALT	2.5833541D	08	LTGD	1.3144528D	01	LON 0D 01
VE	1.8616684D	04	PTE-	3.9158598D	00	AZE-7D 01

TIME	6	FEB. 1968	12 HRS.,	44 MIN.,	5 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	9D 05
X	2.2285348D	08	Y	1.2495097D	08	Z 9D 07
DX-	1.2231502D	03	DY-	4.2568455D	02	DZ4D 02
R	2.6241532D	08	DEC	1.3189969D	01	RA5D 01
V	1.3066964D	03	PTH-	7.8632310D	01	AZ5D 01
ALT	2.5603826D	08	LTGD	1.3192040D	01	LON3D 01
VE	1.8448853D	04	PTE-	3.9817283D	00	AZE7D 01

TIME	6	FEB. 1968	13 HRS.,	14 MIN.,	5 SEC.,	GMT
GEOCENTRIC REFERENCE					FLIGHT TIME	10D 05
X	2.2064385D	08	Y	1.2418043D	08	Z 10D 07
DX-	1.2320137D	03	DY-	4.3048387D	02	D1D 02
R	2.6010054D	08	DEC	1.3238295D	01	R1D 01
V	1.3168625D	03	PTH-	7.8611819D	01	A1D 01
ALT	2.5372350D	08	LTGD	1.3240392D	01	L1D 01
VE	1.8279751D	04	PTE-	4.0496473D	00	AZD 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 6 FEB. 1968 13 HRS., 44 MIN., 5.502 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 4.2519689D 05
 X 2.1841814D 08 Y 1.2340116D 08 Z 5.9244642D 07
 DX-1.2410299D 03 DY-4.3539430D 02 DZ-1.7828175D 02
 R 2.5776784D 08 DEC 1.3287487D 01 RA 2.9465435D 01
 V 1.3272181D 03 PTH-7.8590867D 01 AZ 6.1802127D 01
 ALT 2.5139080D 08 LTGD 1.3289611D 01 LON 4.7674451D 01
 VE 1.8109357D 04 PTE-4.1197123D 00 AZE-8.9606325D 01

TIME 6 FEB. 1968 14 HRS., 14 MIN., 5.502 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 4.2699689D 05
 X 2.1617605D 08 Y 1.2261295D 08 Z 5.8921579D 07
 DX-1.2502039D 03 DY-4.4041952D 02 DZ-1.8068681D 02
 R 2.5541686D 08 DEC 1.3337574D 01 RA 2.9561482D 01
 V 1.3377693D 03 PTH-7.8569410D 01 AZ 6.1826240D 01
 ALT 2.4903983D 08 LTGD 1.3339724D 01 LON 4.0249965D 01
 VE 1.7937645D 04 PTE-4.1920245D 00 AZE-8.9598930D 01

TIME 6 FEB. 1968 14 HRS., 44 MIN., 5.502 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 4.2879689D 05
 X 2.1391731D 08 Y 1.2181558D 08 Z 5.8594133D 07
 DX-1.2595409D 03 DY-4.4556347D 02 DZ-1.8315160D 02
 R 2.5304727D 08 DEC 1.3388585D 01 RA 2.9659423D 01
 V 1.3485231D 03 PTH-7.8547405D 01 AZ 6.1850789D 01
 ALT 2.4667025D 08 LTGD 1.3390763D 01 LON 3.2827372D 01
 VE 1.7764592D 04 PTE-4.2666921D 00 AZE-8.9591278D 01

TIME 6 FEB. 1968 15 HRS., 14 MIN., 5.502 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 4.3059689D 05
 X 2.1164160D 08 Y 1.2100884D 08 Z 5.8262196D 07
 DX-1.2690465D 03 DY-4.5083032D 02 DZ-1.8567827D 02
 R 2.5065872D 08 DEC 1.3440551D 01 RA 2.9759323D 01
 V 1.3594864D 03 PTH-7.8524807D 01 AZ 6.1875797D 01
 ALT 2.4428171D 08 LTGD 1.3442758D 01 LON 2.5406740D 01
 VE 1.7590173D 04 PTE-4.3438300D 00 AZE-8.9583356D 01

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TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME 6 FEB. 1968 15 HRS., 44 MIN., 5.502 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 4.3239689D 05
X 2.0934864D 08 Y 1.2019251D 08 Z 5.7925653D 07
DX-1.2787265D 03 DY-4.5622451D 02 DZ-1.8826907D 02
R 2.4825083D 08 DEC 1.3493507D 01 RA 2.9861256D 01
V 1.3706668D 03 PTH-7.8501569D 01 AZ 6.1901291D 01
ALT 2.4187382D 08 LTGD 1.3495744D 01 LON 1.7988140D 01
VE 1.7414361D 04 PTE-4.4235609D 00 AZE-8.9575147D 01

TIME 6 FEB. 1968 16 HRS., 14 MIN., 5.502 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 4.3419689D 05
X 2.0703808D 08 Y 1.1936636D 08 Z 5.7584387D 07
DX-1.2885871D 03 DY-4.6175072D 02 DZ-1.9092642D 02
R 2.4582322D 08 DEC 1.3547488D 01 RA 2.9965297D 01
V 1.3820721D 03 PTH-7.8477646D 01 AZ 6.1927296D 01
ALT 2.3944623D 08 LTGD 1.3549755D 01 LON 1.0571647D 01
VE 1.7237129D 04 PTE-4.5060158D 00 AZE-8.9566637D 01

TIME 6 FEB. 1968 16 HRS., 44 MIN., 5.502 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 4.3599689D 05
X 2.0470961D 08 Y 1.1853013D 08 Z 5.7238277D 07
DX-1.2986347D 03 DY-4.6741397D 02 DZ-1.9365288D 02
R 2.4337550D 08 DEC 1.3602529D 01 RA 3.0071524D 01
V 1.3937107D 03 PTH-7.8452990D 01 AZ 6.1953839D 01
ALT 2.3699852D 08 LTGD 1.3604828D 01 LON 3.1573414D 00
VE 1.7058450D 04 PTE-4.5913349D 00 AZE-8.9557807D 01

TIME 6 FEB. 1968 17 HRS., 14 MIN., 5.502 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 4.3779689D 05
X 2.0236288D 08 Y 1.1768358D 08 Z 5.6887194D 07
DX-1.3088764D 03 DY-4.7321957D 02 DZ-1.9645118D 02
R 2.4090727D 08 DEC 1.3658672D 01 RA 3.0180024D 01
V 1.4055914D 03 PTH-7.8427549D 01 AZ 6.1980951D 01
ALT 2.3453030D 08 LTGD 1.3661002D 01 LON 3.5574527D 02
VE 1.6878294D 04 PTE-4.6796679D 00 AZE-8.9548641D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	6	FEB. 1968	17 HRS.,	44 MIN.,	5.502 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	4.3959689D 05	
X	1.9999753D	08	Y	1.1682645D	08	Z	5.6531008D 07
DX	-1.3193191D	03	DY	-4.7917317D	02	DZ	-1.9932423D 02
R	2.3841809D	08	DEC	1.3715956D	01	RA	3.0290884D 01
V	1.4177235D	03	PTH	-7.8401273D	01	AZ	6.2008659D 01
ALT	2.3204113D	08	LTGD	1.3718320D	01	LON	3.4833560D 02
VE	1.6696633D	04	PTE	-4.7711752D	00	AZE	-8.9539117D 01

TIME	6	FEB. 1968	18 HRS.,	14 MIN.,	5.502 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	4.4139689D 05	
X	1.9761320D	08	Y	1.1595847D	08	Z	5.6169580D 07
DX	-1.3299707D	03	DY	-4.8528079D	02	DZ	-2.0227511D 02
R	2.3590754D	08	DEC	1.3774426D	01	RA	3.0404201D 01
V	1.4301170D	03	PTH	-7.8374109D	01	AZ	6.2036998D 01
ALT	2.2953058D	08	LTGD	1.3776825D	01	LON	3.4092838D 02
VE	1.6513435D	04	PTE	-4.8660291D	00	AZE	-8.9529214D 01

TIME	6	FEB. 1968	18 HRS.,	44 MIN.,	5.502 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	4.4319689D 05	
X	1.9520951D	08	Y	1.1507934D	08	Z	5.5802768D 07
DX	-1.3408392D	03	DY	-4.9154884D	02	DZ	-2.0530714D 02
R	2.3337514D	08	DEC	1.3834128D	01	RA	3.0520075D 01
V	1.4427824D	03	PTH	-7.8346001D	01	AZ	6.2066000D 01
ALT	2.2699820D	08	LTGD	1.3836562D	01	LON	3.3352372D 02
VE	1.6328668D	04	PTE	-4.9644144D	00	AZE	-8.9518910D 01

TIME	6	FEB. 1968	19 HRS.,	14 MIN.,	5.502 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	4.4499689D 05	
X	1.9278605D	08	Y	1.1418879D	08	Z	5.5430424D 07
DX	-1.3519331D	03	DY	-4.9798417D	02	DZ	-2.0842383D 02
R	2.3082043D	08	DEC	1.3895111D	01	RA	3.0638612D 01
V	1.4557306D	03	PTH	-7.8316891D	01	AZ	6.2095701D 01
ALT	2.2444350D	08	LTGD	1.3897582D	01	LON	3.2612173D 02
VE	1.6142299D	04	PTE	-5.0665296D	00	AZE	-8.9508180D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 6 FEB. 1968 19 HRS., 44 MIN., 5.502 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 4.4679689D 05
 X 1.9034241D 08 Y 1.1328650D 08 Z 5.5052390D 07
 DX-1.3632614D 03 DY-5.0459407D 02 DZ-2.1162894D 02
 R 2.2824292D 08 DEC 1.3957427D 01 RA 3.0759927D 01
 V 1.4689737D 03 PTH-7.8286718D 01 AZ 6.2126138D 01
 ALT 2.2186599D 08 LTGD 1.3959936D 01 LON 3.1872251D 02
 VE 1.5954295D 04 PTE-5.1725886D 00 AZE-8.9496998D 01

TIME 6 FEB. 1968 20 HRS., 14 MIN., 5.502 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 4.4859689D 05
 X 1.8787816D 08 Y 1.1237214D 08 Z 5.4668504D 07
 DX-1.3748339D 03 DY-5.1138634D 02 DZ-2.1492650D 02
 R 2.2564208D 08 DEC 1.4021131D 01 RA 3.0884139D 01
 V 1.4825241D 03 PTH-7.8255418D 01 AZ 6.2157353D 01
 ALT 2.1926517D 08 LTGD 1.4023680D 01 LON 3.1132619D 02
 VE 1.5764618D 04 PTE-5.2828219D 00 AZE-8.9485333D 01

TIME 6 FEB. 1968 20 HRS., 44 MIN., 5.502 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 4.5039689D 05
 X 1.8539285D 08 Y 1.1144539D 08 Z 5.4278596D 07
 DX-1.3866607D 03 DY-5.1836930D 02 DZ-2.1832081D 02
 R 2.2301738D 08 DEC 1.4086282D 01 RA 3.1011379D 01
 V 1.4963952D 03 PTH-7.8222925D 01 AZ 6.2189386D 01
 ALT 2.1664048D 08 LTGD 1.4088872D 01 LON 3.0393289D 02
 VE 1.5573233D 04 PTE-5.3974783D 00 AZE-8.9473155D 01

TIME 6 FEB. 1968 21 HRS., 14 MIN., 5.502 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 4.5219689D 05
 X 1.8288602D 08 Y 1.1050589D 08 Z 5.3882488D 07
 DX-1.3987526D 03 DY-5.2555189D 02 DZ-2.2181648D 02
 R 2.2036826D 08 DEC 1.4152943D 01 RA 3.1141783D 01
 V 1.5106013D 03 PTH-7.8189168D 01 AZ 6.2222285D 01
 ALT 2.1399138D 08 LTGD 1.4155575D 01 LON 2.9654277D 02
 VE 1.5380100D 04 PTE-5.5168267D 00 AZE-8.9460430D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	6	FEB. 1968	21 HRS.,	44 MIN.,	5.502 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	4.5399689D 05	
X	1.8035718D	08	Y	1.0955328D	08	Z	5.3479993D 07
DX-	1.4111212D	03	DY-	5.3294365D	02	DZ-	2.2541846D 02
R	2.1769415D	08	DEC	1.4221179D	01	RA	3.1275498D 01
V	1.5251575D	03	PTH-	7.8154073D	01	AZ	6.2256096D 01
ALT	2.1131727D	08	LTGD	1.4223856D	01	LON	2.8915595D 02
VE	1.5185180D	04	PTE-	5.6411581D	00	AZE-	8.9447120D 01
TIME	6	FEB. 1968	22 HRS.,	14 MIN.,	5.502 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	4.5579689D 05	
X	1.7780581D	08	Y	1.0858716D	08	Z	5.3070915D 07
DX-	1.4237788D	03	DY-	5.4055485D	02	DZ-	2.2913206D 02
R	2.1499442D	08	DEC	1.4291063D	01	RA	3.1412681D 01
V	1.5400802D	03	PTH-	7.8117562D	01	AZ	6.2290872D 01
ALT	2.0861756D	08	LTGD	1.4293785D	01	LON	2.8177260D 02
VE	1.4988431D	04	PTE-	5.7707881D	00	AZE-	8.9433186D 01
TIME	6	FEB. 1968	22 HRS.,	44 MIN.,	5.502 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	4.5759689D 05	
X	1.7523139D	08	Y	1.0760714D	08	Z	5.2655047D 07
DX-	1.4367383D	03	DY-	5.4839649D	02	DZ-	2.3296299D 02
R	2.1226844D	08	DEC	1.4362668D	01	RA	3.1553501D 01
V	1.5553866D	03	PTH-	7.8079549D	01	AZ	6.2326669D 01
ALT	2.0589159D	08	LTGD	1.4365439D	01	LON	2.7439288D 02
VE	1.4789810D	04	PTE-	5.9060596D	00	AZE-	8.9418583D 01
TIME	6	FEB. 1968	23 HRS.,	14 MIN.,	5.502 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	4.5939689D 05	
X	1.7263337D	08	Y	1.0661279D	08	Z	5.2232174D 07
DX-	1.4500139D	03	DY-	5.5648044D	02	DZ-	2.3691741D 02
R	2.0951555D	08	DEC	1.4436078D	01	RA	3.1698136D 01
V	1.5710954D	03	PTH-	7.8039947D	01	AZ	6.2363545D 01
ALT	2.0313871D	08	LTGD	1.4438898D	01	LON	2.6701699D 02
VE	1.4589271D	04	PTE-	6.0473452D	00	AZE-	8.9403264D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH OF 72 DEGREES - SECOND OPPORTUNITY (CONTINUED)

TIME 6 FEB. 1968 23 HRS., 44 MIN., 5.502 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 4.6119689D 05
 X 1.7001115D 08 Y 1.0560366D 08 Z 5.1802067D 07
 DX-1.4636205D 03 DY-5.6481945D 02 DZ-2.4100194D 02
 R 2.0673504D 08 DEC 1.4511377D 01 RA 3.1846782D 01
 V 1.5872265D 03 PTH-7.7998661D 01 AZ 6.2401564D 01
 ALT 2.0035822D 08 LTGD 1.4514249D 01 LON 2.5964510D 02
 VE 1.4386768D 04 PTE-6.1950514D 00 AZE-8.9387174D 01

TIME 7 FEB. 1968 0 HRS., 14 MIN., 5.502 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 4.6299689D 05
 X 1.6736412D 08 Y 1.0457928D 08 Z 5.1364485D 07
 DX-1.4775741D 03 DY-5.7342729D 02 DZ-2.4522373D 02
 R 2.0392618D 08 DEC 1.4588660D 01 RA 3.1999645D 01
 V 1.6038014D 03 PTH-7.7955589D 01 AZ 6.2440796D 01
 ALT 1.9754937D 08 LTGD 1.4591585D 01 LON 2.5227743D 02
 VE 1.4182251D 04 PTE-6.3496217D 00 AZE-8.9370257D 01

TIME 7 FEB. 1968 0 HRS., 44 MIN., 5.502 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 4.6479689D 05
 X 1.6469166D 08 Y 1.0353915D 08 Z 5.0919174D 07
 DX-1.4918918D 03 DY-5.8231885D 02 DZ-2.4959055D 02
 R 2.0108819D 08 DEC 1.4668025D 01 RA 3.2156951D 01
 V 1.6208430D 03 PTH-7.7910623D 01 AZ 6.2481314D 01
 ALT 1.9471140D 08 LTGD 1.4671006D 01 LON 2.4491420D 02
 VE 1.3975670D 04 PTE-6.5115413D 00 AZE-8.9352449D 01

TIME 7 FEB. 1968 1 HRS., 14 MIN., 5.502 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 4.6659689D 05
 X 1.6199308D 08 Y 1.0248275D 08 Z 5.0465867D 07
 DX-1.5065921D 03 DY-5.9151021D 02 DZ-2.5411077D 02
 R 1.9822027D 08 DEC 1.4749580D 01 RA 3.2318941D 01
 V 1.6383761D 03 PTH-7.7863647D 01 AZ 6.2523200D 01
 ALT 1.9184349D 08 LTGD 1.4752620D 01 LON 2.3755566D 02
 VE 1.3766971D 04 PTE-6.6813419D 00 AZE-8.9333680D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH OF 72 DEGREES - SECOND OPPORTUNITY (CONTINUED)

TIME	7	FEB.	1968	1	HRS.	44	MIN.	5.502	SEC.	GMT
GEOCENTRIC REFERENCE								FLIGHT TIME	4.6839689D	05
X	1.5926769D	08		Y	1.0140952D	08		Z	5.0004278D	07
DX-	1.5216948D	03		DY-	6.0101885D	02		DZ-	2.5879351D	02
R	1.9532157D	08		DEC	1.4833441D	01		RA	3.2485875D	01
V	1.6564277D	03		PTH-	7.7814535D	01		AZ	6.2566539D	01
ALT	1.8894481D	08		LTGD	1.4836541D	01		LON	2.3020206D	02
VE	1.3556097D	04		PTE-	6.8596076D	00		AZE-	8.9313871D	01

TIME	7	FEB.	1968	2	HRS.	14	MIN.	5.502	SEC.	GMT
GEOCENTRIC REFERENCE								FLIGHT TIME	4.7019689D	05
X	1.5651473D	08		Y	1.0031888D	08		Z	4.9534106D	07
DX-	1.5372211D	03		DY-	6.1086371D	02		DZ-	2.6364866D	02
R	1.9239118D	08		DEC	1.4919731D	01		RA	3.2658039D	01
V	1.6750265D	03		PTH-	7.7763153D	01		AZ	6.2611427D	01
ALT	1.8601443D	08		LTGD	1.4922895D	01		LON	2.2285369D	02
VE	1.3342992D	04		PTE-	7.0469813D	00		AZE-	8.9292937D	01

TIME	7	FEB.	1968	2	HRS.	44	MIN.	5.502	SEC.	GMT
GEOCENTRIC REFERENCE								FLIGHT TIME	4.7199689D	05
X	1.5373342D	08		Y	9.9210201D	07		Z	4.9055033D	07
DX-	1.5531942D	03		DY-	6.2106543D	02		DZ-	2.6868702D	02
R	1.8942815D	08		DEC	1.5008585D	01		RA	3.2835736D	01
V	1.6942040D	03		PTH-	7.7709354D	01		AZ	6.2657967D	01
ALT	1.8305142D	08		LTGD	1.5011816D	01		LON	2.1551085D	02
VE	1.3127592D	04		PTE-	7.2441724D	00		AZE-	8.9270783D	01

TIME	7	FEB.	1968	3	HRS.	14	MIN.	5.502	SEC.	GMT
GEOCENTRIC REFERENCE								FLIGHT TIME	4.7379689D	05
X	1.5092295D	08		Y	9.8082819D	07		Z	4.8566716D	07
DX-	1.5696390D	03		DY-	6.3164651D	02		DZ-	2.7392035D	02
R	1.8643149D	08		DEC	1.5100149D	01		RA	3.3019303D	01
V	1.7139942D	03		PTH-	7.7652980D	01		AZ	6.2706270D	01
ALT	1.8005478D	08		LTGD	1.5103451D	01		LON	2.0817389D	02
VE	1.2909836D	04		PTE-	7.4519650D	00		AZE-	8.9247301D	01

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TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 7 FEB. 1968	3 HRS., 44 MIN.,	5.502 SEC.,GMT
GEOCENTRIC REFERENCE	FLIGHT TIME	4.7559689D 05
X 1.4808242D 08	Y 9.6936031D 07	Z 4.8068795D 07
DX-1.5865823D 03	DY-6.4263153D 02	DZ-2.7936154D 02
R 1.8340013D 08	DEC 1.5194582D 01	RA 3.3209102D 01
V 1.7344341D 03	PTH-7.7593860D 01	AZ 6.2756459D 01
ALT 1.7702343D 08	LTGD 1.5197957D 01	LON 2.0084315D 02
VE 1.2689656D 04	PTE-7.6712289D 00	AZE-8.9222374D 01

TIME 7 FEB. 1968	4 HRS., 14 MIN.,	5.502 SEC.,GMT
GEOCENTRIC REFERENCE	FLIGHT TIME	4.7739689D 05
X 1.4521093D 08	Y 9.5769087D 07	Z 4.7560882D 07
DX-1.6040535D 03	DY-6.5404742D 02	DZ-2.8502472D 02
R 1.8033294D 08	DEC 1.5292054D 01	RA 3.3405530D 01
V 1.7555640D 03	PTH-7.7531806D 01	AZ 6.2808670D 01
ALT 1.7395626D 08	LTGD 1.5295506D 01	LON 1.9351905D 02
VE 1.2466981D 04	PTE-7.9029308D 00	AZE-8.9195868D 01

TIME 7 FEB. 1968	4 HRS., 44 MIN.,	5.502 SEC.,GMT
GEOCENTRIC REFERENCE	FLIGHT TIME	4.7919689D 05
X 1.4230750D 08	Y 9.4581184D 07	Z 4.7042563D 07
DX-1.6220844D 03	DY-6.6592373D 02	DZ-2.9092541D 02
R 1.7722874D 08	DEC 1.5392752D 01	RA 3.3609022D 01
V 1.7774278D 03	PTH-7.7466615D 01	AZ 6.2863050D 01
ALT 1.7085208D 08	LTGD 1.5396285D 01	LON 1.8620201D 02
VE 1.2241740D 04	PTE-8.1481482D 00	AZE-8.9167634D 01

TIME 7 FEB. 1968	5 HRS., 14 MIN.,	5.502 SEC.,GMT
GEOCENTRIC REFERENCE	FLIGHT TIME	4.8099689D 05
X 1.3937107D 08	Y 9.3371465D 07	Z 4.6513397D 07
DX-1.6407096D 03	DY-6.7829299D 02	DZ-2.9708073D 02
R 1.7408625D 08	DEC 1.5496881D 01	RA 3.3820054D 01
V 1.8000739D 03	PTH-7.7398061D 01	AZ 6.2919762D 01
ALT 1.6770961D 08	LTGD 1.5500500D 01	LON 1.7889251D 02
VE 1.2013856D 04	PTE-8.4080859D 00	AZE-8.9137503D 01

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TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME	7	FEB. 1968	5 HRS.,	44 MIN.,	5.502 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	4.8279689D 05	
X	1.3640056D	08	Y	9.2139012D	07	Z	4.5972909D 07
DX	-1.6599669D	03	DY	-6.9119112D	02	DZ	-3.0350960D 02
R	1.7090412D	08	DEC	1.5604664D	01	RA	3.4039149D 01
V	1.8235551D	03	PTH	-7.7325901D	01	AZ	6.2978987D 01
ALT	1.6452750D	08	LTGD	1.5608374D	01	LON	1.7159107D 02
VE	1.1783247D	04	PTE	-8.6840949D	00	AZE	-8.9105284D 01

TIME	7	FEB. 1968	6 HRS.,	14 MIN.,	5.502 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	4.8459689D 05	
X	1.3339479D	08	Y	9.0882836D	07	Z	4.5420586D 07
DX	-1.6798979D	03	DY	-7.0465785D	02	DZ	-3.1023295D 02
R	1.6768091D	08	DEC	1.5716347D	01	RA	3.4266886D 01
V	1.8479297D	03	PTH	-7.7249864D	01	AZ	6.3040924D 01
ALT	1.6130432D	08	LTGD	1.5720152D	01	LON	1.6429827D 02
VE	1.1549832D	04	PTE	-8.9776951D	00	AZE	-8.9070761D 01

TIME	7	FEB. 1968	6 HRS.,	44 MIN.,	5.502 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	4.8639689D 05	
X	1.3035250D	08	Y	8.9601876D	07	Z	4.4855879D 07
DX	-1.7005481D	03	DY	-7.1873726D	02	DZ	-3.1727409D 02
R	1.6441508D	08	DEC	1.5832198D	01	RA	3.4503905D 01
V	1.8732618D	03	PTH	-7.7169649D	01	AZ	6.3105795D 01
ALT	1.5803851D	08	LTGD	1.5836105D	01	LON	1.5701476D 02
VE	1.1313522D	04	PTE	-9.2906024D	00	AZE	-8.9033688D 01

TIME	7	FEB. 1968	7 HRS.,	14 MIN.,	5.502 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	4.8819689D 05	
X	1.2727235D	08	Y	8.8294985D	07	Z	4.4278193D 07
DX	-1.7219675D	03	DY	-7.3347849D	02	DZ	-3.2465898D 02
R	1.6110498D	08	DEC	1.5952516D	01	RA	3.4750914D 01
V	1.8996227D	03	PTH	-7.7084927D	01	AZ	6.3173850D 01
ALT	1.5472843D	08	LTGD	1.5956530D	01	LON	1.4974123D 02
VE	1.1074225D	04	PTE	-9.6247612D	00	AZE	-8.8993781D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 7 FEB. 1968 7 HRS., 44 MIN., 5.502 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 4.8999689D 05
 X 1.2415292D 08 Y 8.6960924D 07 Z 4.3686883D 07
 DX-1.7442116D 03 DY-7.4893638D 02 DZ-3.3241670D 02
 R 1.5774883D 08 DEC 1.6077629D 01 RA 3.5008703D 01
 V 1.9270913D 03 PTH-7.6995329D 01 AZ 6.3245366D 01
 ALT 1.5137230D 08 LTGD 1.6081757D 01 LON 1.4247849D 02
 VE 1.0831848D 04 PTE-9.9823829D 00 AZE-8.8950716D 01

TIME 7 FEB. 1968 8 HRS., 14 MIN., 5.502 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 4.9179689D 05
 X 1.2099266D 08 Y 8.5598348D 07 Z 4.3081250D 07
 DX-1.7673416D 03 DY-7.6517249D 02 DZ-3.4057988D 02
 R 1.5434473D 08 DEC 1.6207902D 01 RA 3.5278155D 01
 V 1.9557556D 03 PTH-7.6900444D 01 AZ 6.3320656D 01
 ALT 1.4796823D 08 LTGD 1.6212152D 01 LON 1.3522741D 02
 VE 1.0586290D 04 PTE-1.0365993D 01 AZE-8.8904118D 01

TIME 7 FEB. 1968 8 HRS., 44 MIN., 5.502 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 4.9359689D 05
 X 1.1778992D 08 Y 8.4205795D 07 Z 4.2460531D 07
 DX-1.7914255D 03 DY-7.8225607D 02 DZ-3.4918532D 02
 R 1.5089061D 08 DEC 1.6343743D 01 RA 3.5560260D 01
 V 1.9857141D 03 PTH-7.6799809D 01 AZ 6.3400073D 01
 ALT 1.4451414D 08 LTGD 1.6348123D 01 LON 1.2798898D 02
 VE 1.0337449D 04 PTE-1.0778488D 01 AZE-8.8853550D 01

TIME 7 FEB. 1968 9 HRS., 14 MIN., 5.502 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 4.9539689D 05
 X 1.1454291D 08 Y 8.2781670D 07 Z 4.1823893D 07
 DX-1.8165393D 03 DY-8.0026543D 02 DZ-3.5827469D 02
 R 1.4738426D 08 DEC 1.6485606D 01 RA 3.5856133D 01
 V 2.0170772D 03 PTH-7.6692908D 01 AZ 6.3484018D 01
 ALT 1.4100782D 08 LTGD 1.6490125D 01 LON 1.2076432D 02
 VE 1.0085221D 04 PTE-1.1223206D 01 AZE-8.8798504D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	7	FEB. 1968	9 HRS.,	44 MIN.,	5.502 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	4.9719689D 05	
X	1.1124971D	08	Y	8.1324230D	07	Z	4.1170423D 07
DX	-1.8427680D	03	DY	-8.1928945D	02	DZ	-3.6789537D 02
R	1.4382327D	08	DEC	1.6634002D	01	RA	3.6167035D 01
V	2.0499697D	03	PTH	-7.6579153D	01	AZ	6.3572945D 01
ALT	1.3744685D	08	LTGD	1.6638669D	01	LON	1.1355469D 02
VE	9.8294964D	03	PTE	-1.1704011D	01	AZE	-8.8738380D 01

TIME	7	FEB. 1968	10 HRS.,	14 MIN.,	5.502 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	4.9899689D 05	
X	1.0790822D	08	Y	7.9831559D	07	Z	4.0499118D 07
DX	-1.8702069D	03	DY	-8.3942956D	02	DZ	-3.7810151D 02
R	1.4020499D	08	DEC	1.6789505D	01	RA	3.6494397D 01
V	2.0845327D	03	PTH	-7.6457878D	01	AZ	6.3667379D 01
ALT	1.3382861D	08	LTGD	1.6794333D	01	LON	1.0636152D 02
VE	9.5701659D	03	PTE	-1.2225402D	01	AZE	-8.8672474D 01

TIME	7	FEB. 1968	10 HRS.,	44 MIN.,	5.502 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	5.0079689D 05	
X	1.0451617D	08	Y	7.8301545D	07	Z	3.9808869D 07
DX	-1.8989639D	03	DY	-8.6080206D	02	DZ	-3.8895534D 02
R	1.3652658D	08	DEC	1.6952767D	01	RA	3.6839857D 01
V	2.1209268D	03	PTH	-7.6328325D	01	AZ	6.3767920D 01
ALT	1.3015024D	08	LTGD	1.6957767D	01	LON	9.9186446D 01
VE	9.3071197D	03	PTE	-1.2792644D	01	AZE	-8.8599941D 01

TIME	7	FEB. 1968	11 HRS.,	14 MIN.,	5.502 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	5.0259689D 05	
X	1.0107109D	08	Y	7.6731852D	07	Z	3.9098447D 07
DX	-1.9291611D	03	DY	-8.8354104D	02	DZ	-4.0052872D 02
R	1.3278490D	08	DEC	1.7124529D	01	RA	3.7205293D 01
V	2.1593356D	03	PTH	-7.6189620D	01	AZ	6.3875265D 01
ALT	1.2640859D	08	LTGD	1.7129715D	01	LON	9.2031349D 01
VE	9.0402498D	03	PTE	-1.3411936D	01	AZE	-8.8519773D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH OF 72 DEGREES - SECOND OPPORTUNITY (CONTINUED)

TIME	7	FEB. 1968	11 HRS.,	44 MIN.,	5.502 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	5.0439689D 05	
X	9.7570246D	07	Y	7.5119884D	07	Z	3.8366484D 07
DX-	1.9609376D	03	DY-	9.0780207D	02	DZ-	4.1290519D 02
R	1.2897650D	08	DEC	1.7305636D	01	RA	3.7592876D 01
V	2.1999708D	03	PTH-	7.6040758D	01	AZ	6.3990224D 01
ALT	1.2260022D	08	LTGD	1.7311025D	01	LON	8.4898399D 01
VE	8.7694535D	03	PTE-	1.4090622D	01	AZE-	8.8430747D 01

TIME	7	FEB. 1968	12 HRS.,	14 MIN.,	5.502 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	5.0619689D 05	
X	9.4010668D	07	Y	7.3462743D	07	Z	3.7611449D 07
DX-	1.9944529D	03	DY-	9.3376682D	02	DZ-	4.2618250D 02
R	1.2509757D	08	DEC	1.7497062D	01	RA	3.8005129D 01
V	2.2430770D	03	PTH-	7.5880568D	01	AZ	6.4113749D 01
ALT	1.1872133D	08	LTGD	1.7502672D	01	LON	7.7790119D 01
VE	8.4946373D	03	PTE-	1.4837464D	01	AZE-	8.8331373D 01

TIME	7	FEB. 1968	12 HRS.,	44 MIN.,	5.502 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	5.0799689D 05	
X	9.0389062D	07	Y	7.1757174D	07	Z	3.6831618D 07
DX-	2.0298907D	03	DY-	9.6164893D	02	DZ-	4.4047586D 02
R	1.2114389D	08	DEC	1.7699934D	01	RA	3.8445008D 01
V	2.2889395D	03	PTH-	7.5707684D	01	AZ	6.4246966D 01
ALT	1.1476770D	08	LTGD	1.7705786D	01	LON	7.0709465D 01
VE	8.2157238D	03	PTE-	1.5662989D	01	AZE-	8.8219812D 01

TIME	7	FEB. 1968	13 HRS.,	14 MIN.,	5.502 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	5.0979689D 05	
X	8.6701781D	07	Y	6.9999506D	07	Z	3.6025044D 07
DX-	2.0674640D	03	DY-	9.9170167D	02	DZ-	4.5592214D 02
R	1.1711077D	08	DEC	1.7915564D	01	RA	3.8915999D 01
V	2.3378932D	03	PTH-	7.5520493D	01	AZ	6.4391215D 01
ALT	1.1073463D	08	LTGD	1.7921681D	01	LON	6.3659923D 01
VE	7.9326607D	03	PTE-	1.6579946D	01	AZE-	8.8093771D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	7	FEB. 1968	13 HRS.,	44 MIN.,	5.502 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	5.1159689D 05	
X	8.2944762D	07	Y	6.8185565D	07	Z	3.5189509D 07
DX	-2.1074216D	03	DY	-1.0242278D	03	DZ	-4.7268539D 02
R	1.1299295D	08	DEC	1.8145490D	01	RA	3.9422252D 01
V	2.3903347D	03	PTH	-7.5317079D	01	AZ	6.4548109D 01
ALT	1.0661686D	08	LTGD	1.8151901D	01	LON	5.6645643D 01
VE	7.6454344D	03	PTE	-1.7603900D	01	AZE	-8.7950356D 01

TIME	7	FEB. 1968	14 HRS.,	14 MIN.,	5.502 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	5.1339689D 05	
X	7.9113458D	07	Y	6.6310584D	07	Z	3.4322468D 07
DX	-2.1500562D	03	DY	-1.0595930D	03	DZ	-4.9096413D 02
R	1.0878449D	08	DEC	1.8391534D	01	RA	3.9968751D 01
V	2.4467376D	03	PTH	-7.5095143D	01	AZ	6.4719606D 01
ALT	1.0240845D	08	LTGD	1.8398271D	01	LON	4.9671609D 01
VE	7.3540902D	03	PTE	-1.8754022D	01	AZE	-8.7785864D 01

TIME	7	FEB. 1968	14 HRS.,	44 MIN.,	5.502 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	5.1519689D 05	
X	7.5202747D	07	Y	6.4369062D	07	Z	3.3420984D 07
DX	-2.1957150D	03	DY	-1.0982432D	03	DZ	-5.1100125D 02
R	1.0447866D	08	DEC	1.8655869D	01	RA	4.0561549D 01
V	2.5076732D	03	PTH	-7.4851899D	01	AZ	6.4908111D 01
ALT	9.8102686D	07	LTGD	1.8662969D	01	LON	4.2743874D 01
VE	7.0587609D	03	PTE	-2.0054148D	01	AZE	-8.7595478D 01

TIME	7	FEB. 1968	15 HRS.,	14 MIN.,	5.502 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	5.1699689D 05	
X	7.1206822D	07	Y	6.2354609D	07	Z	3.2481630D 07
DX	-2.2448140D	03	DY	-1.1407292D	03	DZ	-5.3309745D 02
R	1.0006780D	08	DEC	1.8941113D	01	RA	4.1208082D 01
V	2.5738388D	03	PTH	-7.4583929D	01	AZ	6.5116617D 01
ALT	9.3691888D	07	LTGD	1.8948623D	01	LON	3.5869874D 01
VE	6.7597112D	03	PTE	-2.1534203D	01	AZE	-8.7372824D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH OF 72 DEGREES - SECOND OPPORTUNITY (CONTINUED)

TIME 7 FEB. 1968 15 HRS., 44 MIN., 5.502 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.1879689D 05
 X 6.7119053D 07 Y 6.0259725D 07 Z 3.1500373D 07
 DX-2.2978564D 03 DY-1.1877402D 03 DZ-5.5763019D 02
 R 9.5543054D 07 DEC 1.9250458D 01 RA 4.1917606D 01
 V 2.6460956D 03 PTH-7.4286991D 01 AZ 6.5348894D 01
 ALT 8.9167212D 07 LTGD 1.9258432D 01 LON 2.9058865D 01
 VE 6.4574031D 03 PTE-2.3232134D 01 AZE-8.7109283D 01

TIME 7 FEB. 1968 16 HRS., 14 MIN., 5.502 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.2059689D 05
 X 6.2931806D 07 Y 5.8075509D 07 Z 3.0472413D 07
 DX-2.3554579D 03 DY-1.2401519D 03 DZ-5.8508066D 02
 R 9.0894142D 07 DEC 1.9587842D 01 RA 4.2701822D 01
 V 2.7255234D 03 PTH-7.3955735D 01 AZ 6.5609780D 01
 ALT 8.4518378D 07 LTGD 1.9596348D 01 LON 2.2322547D 01
 VE 6.1525974D 03 PTE-2.5196555D 01 AZE-8.6792926D 01

TIME 7 FEB. 1968 16 HRS., 44 MIN., 5.502 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.2239689D 05
 X 5.8636214D 07 Y 5.5791265D 07 Z 2.9391962D 07
 DX-2.4183820D 03 DY-1.2990969D 03 DZ-6.1607316D 02
 R 8.6108991D 07 DEC 1.9958193D 01 RA 4.3575777D 01
 V 2.8134979D 03 PTH-7.3583302D 01 AZ 6.5905582D 01
 ALT 7.9733316D 07 LTGD 1.9967314D 01 LON 1.5675969D 01
 VE 5.8465106D 03 PTE-2.7490347D 01 AZE-8.6406757D 01

TIME 7 FEB. 1968 17 HRS., 14 MIN., 5.502 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.2419689D 05
 X 5.4221867D 07 Y 5.3393954D 07 Z 2.8251935D 07
 DX-2.4875886D 03 DY-1.3660694D 03 DZ-6.5143453D 02
 R 8.1173253D 07 DEC 2.0367776D 01 RA 4.4559217D 01
 V 2.9118052D 03 PTH-7.3160726D 01 AZ 6.6244714D 01
 ALT 7.4797676D 07 LTGD 2.0377616D 01 LON 9.1388762D 00
 VE 5.5410638D 03 PTE-3.0195529D 01 AZE-8.5925715D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 7 FEB. 1968 17 HRS., 44 MIN., 5.502 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.2599689D 05
 X 4.9676397D 07 Y 5.0867403D 07 Z 2.7043512D 07
 DX-2.5643047D 03 DY-1.4430881D 03 DZ-6.9228637D 02
 R 7.6069630D 07 DEC 2.0824701D 01 RA 4.5678671D 01
 V 3.0228169D 03 PTH-7.2676014D 01 AZ 6.6638666D 01
 ALT 6.9694166D 07 LTGD 2.0835395D 01 LON 2.7377974D 00
 VE 5.2392819D 03 PTE-3.3419651D 01 AZE-8.5311267D 01

TIME 7 FEB. 1968 18 HRS., 14 MIN., 5.502 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.2779689D 05
 X 4.4984916D 07 Y 4.8191150D 07 Z 2.5755484D 07
 DX-2.6501274D 03 DY-1.5329577D 03 DZ-7.4019395D 02
 R 7.0776935D 07 DEC 2.1339690D 01 RA 4.6970795D 01
 V 3.1497653D 03 PTH-7.2112682D 01 AZ 6.7103614D 01
 ALT 6.4401600D 07 LTGD 2.1351415D 01 LON 3.5650935D 02
 VE 4.9459456D 03 PTE-3.7303647D 01 AZE-8.4500932D 01

TIME 7 FEB. 1968 18 HRS., 44 MIN., 5.502 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.2959689D 05
 X 4.0129216D 07 Y 4.5338665D 07 Z 2.4373246D 07
 DX-2.7471787D 03 DY-1.6397085D 03 DZ-7.9741780D 02
 R 6.5268704D 07 DEC 2.1927266D 01 RA 4.8487982D 01
 V 3.2971973D 03 PTH-7.1447321D 01 AZ 6.7663135D 01
 ALT 5.8893519D 07 LTGD 2.1940260D 01 LON 3.5050600D 02
 VE 4.6686688D 03 PTE-4.2029852D 01 AZE-8.3386189D 01

TIME 7 FEB. 1968 19 HRS., 14 MIN., 5.502 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.3139689D 05
 X 3.5086627D 07 Y 4.2274515D 07 Z 2.2877185D 07
 DX-2.8583426D 03 DY-1.7693769D 03 DZ-8.6736279D 02
 R 5.9511105D 07 DEC 2.2607659D 01 RA 5.0308303D 01
 V 3.4717626D 03 PTH-7.0645317D 01 AZ 6.8353138D 01
 ALT 5.3136098D 07 LTGD 2.2622260D 01 LON 3.4480579D 02
 VE 4.4196913D 03 PTE-4.7825485D 01 AZE-8.1760143D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 7 FEB. 1968 19 HRS., 44 MIN., 5.502 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.3319689D 05
 X 2.9828341D 07 Y 3.8949566D 07 Z 2.1239934D 07
 DX-2.9876308D 03 DY-1.9314874D 03 DZ-9.5543612D 02
 R 5.3459643D 07 DEC 2.3409983D 01 RA 5.2554396D 01
 V 3.6836720D 03 PTH-6.9652810D 01 AZ 6.9231389D 01
 ALT 4.7084851D 07 LTGD 2.3426683D 01 LON 3.3953135D 02
 VE 4.2188600D 03 PTE-5.4947970D 01 AZE-7.9171922D 01

TIME 7 FEB. 1968 20 HRS., 14 MIN., 5.502 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.3499689D 05
 X 2.4316915D 07 Y 3.5292299D 07 Z 1.9421365D 07
 DX-3.1407343D 03 DY-2.1421167D 03 DZ-1.0708354D 03
 R 4.7053673D 07 DEC 2.4377650D 01 RA 5.5432581D 01
 V 3.9496284D 03 PTH-6.8380250D 01 AZ 7.0397684D 01
 ALT 4.0679149D 07 LTGD 2.4397216D 01 LON 3.3488900D 02
 VE 4.0985634D 03 PTE-6.3614836D 01 AZE-7.4411401D 01

TIME 7 FEB. 1968 20 HRS., 44 MIN., 5.502 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.3679689D 05
 X 1.8502633D 07 Y 3.1191576D 07 Z 1.7358571D 07
 DX-3.3257036D 03 DY-2.4309893D 03 DZ-1.2307267D 03
 R 4.0206738D 07 DEC 2.5577582D 01 RA 5.9323865D 01
 V 4.2993839D 03 PTH-6.6664673D 01 AZ 7.2041825D 01
 ALT 3.3832558D 07 LTGD 2.5601303D 01 LON 3.3125976D 02
 VE 4.1121462D 03 PTE-7.3731151D 01 AZE-6.2791954D 01

TIME 7 FEB. 1968 21 HRS., 14 MIN., 5.502 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.3859689D 05
 X 1.2319128D 07 Y 2.6457852D 07 Z 1.4943063D 07
 DX-3.5526553D 03 DY-2.8606728D 03 DZ-1.4716887D 03
 R 3.2788320D 07 DEC 2.7112779D 01 RA 6.5032683D 01
 V 4.7927733D 03 PTH-6.4168203D 01 AZ 7.4577842D 01
 ALT 2.6414596D 07 LTGD 2.7143087D 01 LON 3.2944804D 02
 VE 4.3509877D 03 PTE-8.2480531D 01 AZE-1.1658536D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME	7	FEB. 1968	21 HRS.,	15 MIN.,	58.002 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3870939D	05	
X	1.1918569D	07	Y	2.6134112D	07	Z	1.4776417D	07
DX	-3.5684201D	03	DY	-2.8948825D	03	DZ	-1.4910230D	03
R	3.2301495D	07	DEC	2.7222876D	01	RA	6.5484444D	01
V	4.8308505D	03	PTH	-6.3971934D	01	AZ	7.4784174D	01
ALT	2.5927804D	07	LTGD	2.7253725D	01	LON	3.2942977D	02
VE	4.3766852D	03	PTE	-8.2637629D	01	AZE	-5.0160424D	00

TIME	7	FEB. 1968	21 HRS.,	17 MIN.,	50.502 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3882189D	05	
X	1.1516226D	07	Y	2.5806460D	07	Z	1.4607558D	07
DX	-3.5843700D	03	DY	-2.9302364D	03	DZ	-1.5110262D	03
R	3.1811595D	07	DEC	2.7334833D	01	RA	6.5951005D	01
V	4.8700302D	03	PTH	-6.3769442D	01	AZ	7.4998071D	01
ALT	2.5437939D	07	LTGD	2.7366245D	01	LON	3.2942630D	02
VE	4.4039547D	03	PTE	-8.2696290D	01	AZE	1.8835715D	00

TIME	7	FEB. 1968	21 HRS.,	19 MIN.,	43.002 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3893439D	05	
X	1.1112079D	07	Y	2.5474764D	07	Z	1.4436409D	07
DX	-3.6005016D	03	DY	-2.9667976D	03	DZ	-1.5317361D	03
R	3.1318554D	07	DEC	2.7448676D	01	RA	6.6433191D	01
V	4.9103682D	03	PTH	-6.3560391D	01	AZ	7.5219976D	01
ALT	2.4944932D	07	LTGD	2.7480673D	01	LON	3.2943845D	02
VE	4.4328613D	03	PTE	-8.2651492D	01	AZE	8.8608251D	00

TIME	7	FEB. 1968	21 HRS.,	21 MIN.,	35.502 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3904689D	05	
X	1.0706107D	07	Y	2.5138883D	07	Z	1.4262889D	07
DX	-3.6168103D	03	DY	-3.0046340D	03	DZ	-1.5531934D	03
R	3.0822300D	07	DEC	2.7564429D	01	RA	6.6931889D	01
V	4.9519241D	03	PTH	-6.3344418D	01	AZ	7.5450368D	01
ALT	2.4448713D	07	LTGD	2.7597033D	01	LON	3.2946711D	02
VE	4.4634737D	03	PTE	-8.2502420D	01	AZE	1.5724743D	01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 7 FEB. 1968 21 HRS., 23 MIN., 28.002 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.3915939D 05
 X 1.0298290D 07 Y 2.4798670D 07 Z 1.4086911D 07
 DX-3.6332903D 03 DY-3.0438188D 03 DZ-1.5754422D 03
 R 3.0322762D 07 DEC 2.7682108D 01 RA 6.7448062D 01
 V 4.9947622D 03 PTH-6.3121133D 01 AZ 7.5689766D 01
 ALT 2.3949212D 07 LTGD 2.7715345D 01 LON 3.2951325D 02
 VE 4.4958652D 03 PTE-8.2252439D 01 AZE 2.2303543D 01

TIME 7 FEB. 1968 21 HRS., 25 MIN., 20.502 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.3927189D 05
 X 9.8886105D 06 Y 2.4453970D 07 Z 1.3908383D 07
 DX-3.6499341D 03 DY-3.0844311D 03 DZ-1.5985298D 03
 R 2.9819866D 07 DEC 2.7801728D 01 RA 6.7982746D 01
 V 5.0389514D 03 PTH-6.2890113D 01 AZ 7.5938731D 01
 ALT 2.3446352D 07 LTGD 2.7835623D 01 LON 3.2957790D 02
 VE 4.5301140D 03 PTE-8.1908280D 01 AZE 2.8468188D 01

TIME 7 FEB. 1968 21 HRS., 27 MIN., 13.002 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.3938439D 05
 X 9.4770494D 06 Y 2.4104617D 07 Z 1.3727208D 07
 DX-3.6667321D 03 DY-3.1265565D 03 DZ-1.6225080D 03
 R 2.9313534D 07 DEC 2.7923294D 01 RA 6.8537068D 01
 V 5.0845661D 03 PTH-6.2650902D 01 AZ 7.6197874D 01
 ALT 2.2940058D 07 LTGD 2.7957875D 01 LON 3.2966219D 02
 VE 4.5663033D 03 PTE-8.1478770D 01 AZE 3.4141881D 01

TIME 7 FEB. 1968 -21 HRS., 29 MIN., 5.502 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.3949689D 05
 X 9.0635904D 06 Y 2.3750435D 07 Z 1.3543283D 07
 DX-3.6836729D 03 DY-3.1702878D 03 DZ-1.6474326D 03
 R 2.8803686D 07 DEC 2.8046805D 01 RA 6.9112248D 01
 V 5.1316864D 03 PTH-6.2403005D 01 AZ 7.6467856D 01
 ALT 2.2430249D 07 LTGD 2.8082101D 01 LON 3.2976734D 02
 VE 4.6045224D 03 PTE-8.0973549D 01 AZE 3.9296219D 01

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TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME	7	FEB. 1968	21 HRS.,	30 MIN.,	58.002 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3960939D	05	
X	8.6482182D	06	Y	2.3391238D	07	Z	1.3356498D	07
DX	-3.7007421D	03	DY	-3.2157254D	03	DZ	-1.6733644D	03
R	2.8290241D	07	DEC	2.8172249D	01	RA	6.9709614D	01
V	5.1803986D	03	PTH	-6.2145884D	01	AZ	7.6749400D	01
ALT	2.1916842D	07	LTGD	2.8208292D	01	LON	3.2989467D	02
VE	4.6448669D	03	PTE	-8.0402061D	01	AZE	4.3939694D	01

TIME	7	FEB. 1968	21 HRS.,	32 MIN.,	50.502 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3972189D	05	
X	8.2309193D	06	Y	2.3026828D	07	Z	1.3166736D	07
DX	-3.7179222D	03	DY	-3.2629786D	03	DZ	-1.7003696D	03
R	2.7773113D	07	DEC	2.8299602D	01	RA	7.0330612D	01
V	5.2307965D	03	PTH	-6.1878954D	01	AZ	7.7043291D	01
ALT	2.1399754D	07	LTGD	2.8336424D	01	LON	3.3004564D	02
VE	4.6874396D	03	PTE	-7.9772926D	01	AZE	4.8104482D	01

TIME	7	FEB. 1968	21 HRS.,	34 MIN.,	43.002 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3983439D	05	
X	7.8116823D	06	Y	2.2656995D	07	Z	1.2973872D	07
DX	-3.7351924D	03	DY	-3.3121664D	03	DZ	-1.7285204D	03
R	2.7252214D	07	DEC	2.8428825D	01	RA	7.0976819D	01
V	5.2829813D	03	PTH	-6.1601577D	01	AZ	7.7350388D	01
ALT	2.0878896D	07	LTGD	2.8466463D	01	LON	3.3022181D	02
VE	4.7323508D	03	PTE	-7.9093639D	01	AZE	5.1835197D	01

TIME	7	FEB. 1968	21 HRS.,	36 MIN.,	35.502 SEC.,	GMT		
GEOCENTRIC REFERENCE					FLIGHT TIME	5.3994689D	05	
X	7.3904986D	06	Y	2.2281514D	07	Z	1.2777773D	07
DX	-3.7525272D	03	DY	-3.3634186D	03	DZ	-1.7578957D	03
R	2.6727454D	07	DEC	2.8559862D	01	RA	7.1649961D	01
V	5.3370631D	03	PTH	-6.1313056D	01	AZ	7.7671633D	01
ALT	2.0354177D	07	LTGD	2.8598354D	01	LON	3.3042492D	02
VE	4.7797199D	03	PTE	-7.8370496D	01	AZE	5.5180879D	01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 7 FEB. 1968 21 HRS., 38 MIN., 28.002 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4005939D 05
 X 6.9673624D 06 Y 2.1900143D 07 Z 1.2578297D 07
 DX-3.7698962D 03 DY-3.4168771D 03 DZ-1.7885818D 03
 R 2.6198740D 07 DEC 2.8692634D 01 RA 7.2351927D 01
 V 5.3931615D 03 PTH-6.1012627D 01 AZ 7.8008055D 01
 ALT 1.9825504D 07 LTGD 2.8732021D 01 LON 3.3065685D 02
 VE 4.8296758D 03 PTE-7.7608655D 01 AZE 5.8190014D 01

TIME 7 FEB. 1968 21 HRS., 40 MIN., 20.502 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4017189D 05
 X 6.5422720D 06 Y 2.1512628D 07 Z 1.2375290D 07
 DX-3.7872628D 03 DY-3.4726972D 03 DZ-1.8206737D 03
 R 2.5665975D 07 DEC 2.8827036D 01 RA 7.3084792D 01
 V 5.4514070D 03 PTH-6.0699452D 01 AZ 7.8360787D 01
 ALT 1.9292782D 07 LTGD 2.8867361D 01 LON 3.3091968D 02
 VE 4.8823582D 03 PTE-7.6812247D 01 AZE 6.0907834D 01

TIME 7 FEB. 1968 21 HRS., 42 MIN., 13.002 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4028439D 05
 X 6.1152300D 06 Y 2.1118692D 07 Z 1.2168588D 07
 DX-3.8045834D 03 DY-3.5310492D 03 DZ-1.8542756D 03
 R 2.5129061D 07 DEC 2.8962929D 01 RA 7.3850840D 01
 V 5.5119417D 03 PTH-6.0372611D 01 AZ 7.8731077D 01
 ALT 1.8755911D 07 LTGD 2.9004240D 01 LON 3.3121570D 02
 VE 4.9379185D 03 PTE-7.5984514D 01 AZE 6.3375131D 01

TIME 7 FEB. 1968 21 HRS., 44 MIN., 5.502 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4039689D 05
 X 5.6862444D 06 Y 2.0718040D 07 Z 1.1958017D 07
 DX-3.8218056D 03 DY-3.5921205D 03 DZ-1.8895024D 03
 R 2.4587898D 07 DEC 2.9100138D 01 RA 7.4652587D 01
 V 5.5749213D 03 PTH-6.0031086D 01 AZ 7.9120298D 01
 ALT 1.8214791D 07 LTGD 2.9142485D 01 LON 3.3154741D 02
 VE 4.9965221D 03 PTE-7.5127937D 01 AZE 6.5627971D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 7 FEB. 1968 21 HRS., 45 MIN., 58.002 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4050939D 05
 X 5.2553298D 06 Y 2.0310355D 07 Z 1.1743385D 07
 DX-3.8388669D 03 DY-3.6561176D 03 DZ-1.9264811D 03
 R 2.4042381D 07 DEC 2.9238436D 01 RA 7.5492817D 01
 V 5.6405163D 03 PTH-5.9673753D 01 AZ 7.9529970D 01
 ALT 1.7669319D 07 LTGD 2.9281874D 01 LON 3.3191761D 02
 VE 5.0583490D 03 PTE-7.4244339D 01 AZE 6.7697902D 01

TIME 7 FEB. 1968 21 HRS., 47 MIN., 50.502 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4062189D 05
 X 4.8225082D 06 Y 1.9895295D 07 Z 1.1524488D 07
 DX-3.8556923D 03 DY-3.7232683D 03 DZ-1.9653522D 03
 R 2.3492406D 07 DEC 2.9377541D 01 RA 7.6374616D 01
 V 5.7089140D 03 PTH-5.9299367D 01 AZ 7.9961776D 01
 ALT 1.7119388D 07 LTGD 2.9422129D 01 LON 3.3232937D 02
 VE 5.1235963D 03 PTE-7.3334980D 01 AZE 6.9612396D 01

TIME 7 FEB. 1968 21 HRS., 49 MIN., 43.002 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4073439D 05
 X 4.3878112D 06 Y 1.9472492D 07 Z 1.1301104D 07
 DX-3.8721923D 03 DY-3.7938250D 03 DZ-2.0062718D 03
 R 2.2937867D 07 DEC 2.9517097D 01 RA 7.7301408D 01
 V 5.7803207D 03 PTH-5.8906542D 01 AZ 8.0417585D 01
 ALT 1.6564894D 07 LTGD 2.9562898D 01 LON 3.3278613D 02
 VE 5.1924800D 03 PTE-7.2400619D 01 AZE 7.1395370D 01

TIME 7 FEB. 1968 21 HRS., 51 MIN., 35.502 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4084689D 05
 X 3.9512812D 06 Y 1.9041546D 07 Z 1.1072993D 07
 DX-3.8882592D 03 DY-3.8680677D 03 DZ-2.0494135D 03
 R 2.2378657D 07 DEC 2.9656661D 01 RA 7.8277012D 01
 V 5.8549639D 03 PTH-5.8493730D 01 AZ 8.0899473D 01
 ALT 1.6005728D 07 LTGD 2.9703744D 01 LON 3.3329170D 02
 VE 5.2652379D 03 PTE-7.1441571D 01 AZE 7.3067723D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 7 FEB. 1968 21 HRS., 53 MIN., 28.002 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4095939D 05
 X 3.5129739D 06 Y 1.8602027D 07 Z 1.0839895D 07
 DX-3.9037638D 03 DY-3.9463077D 03 DZ-2.0949712D 03
 R 2.1814667D 07 DEC 2.9795681D 01 RA 7.9305692D 01
 V 5.9330953D 03 PTH-5.8059203D 01 AZ 8.1409756D 01
 ALT 1.5441784D 07 LTGD 2.9844121D 01 LON 3.3385035D 02
 VE 5.3421318D 03 PTE-7.0457729D 01 AZE 7.4647828D 01

TIME 7 FEB. 1968 21 HRS., 55 MIN., 20.502 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4107189D 05
 X 3.0729612D 06 Y 1.8153464D 07 Z 1.0601526D 07
 DX-3.9185508D 03 DY-4.0288920D 03 DZ-2.1431615D 03
 R 2.1245792D 07 DEC 2.9933473D 01 RA 8.0392225D 01
 V 6.0149940D 03 PTH-5.7601018D 01 AZ 8.1951023D 01
 ALT 1.4872954D 07 LTGD 2.9983352D 01 LON 3.3446685D 02
 VE 5.4234514D 03 PTE-6.9448593D 01 AZE 7.6151988D 01

TIME 7 FEB. 1968 21 HRS., 57 MIN., 13.002 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4118439D 05
 X 2.6313339D 06 Y 1.7695348D 07 Z 1.0357576D 07
 DX-3.9324324D 03 DY-4.1162088D 03 DZ-2.1942276D 03
 R 2.0671929D 07 DEC 3.0069189D 01 RA 8.1541977D 01
 V 6.1009699D 03 PTH-5.7116984D 01 AZ 8.2526168D 01
 ALT 1.4299134D 07 LTGD 3.0120593D 01 LON 3.3514657D 02
 VE 5.5095174D 03 PTE-6.8413263D 01 AZE 7.7594826D 01

TIME 7 FEB. 1968 21 HRS., 59 MIN., 5.502 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4129689D 05
 X 2.1882063D 06 Y 1.7227123D 07 Z 1.0107707D 07
 DX-3.9451815D 03 DY-4.2086927D 03 DZ-2.2484433D 03
 R 2.0092978D 07 DEC 3.0201773D 01 RA 8.2760995D 01
 V 6.1913689D 03 PTH-5.6604628D 01 AZ 8.3138442D 01
 ALT 1.3720226D 07 LTGD 3.0254800D 01 LON 3.3589555D 02
 VE 5.6006866D 03 PTE-6.7350437D 01 AZE 7.8989644D 01

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TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME	7	FEB. 1968	22 HRS.,	0 MIN.,	58.002 SEC.,GMT				
GEOCENTRIC REFERENCE			FLIGHT TIME			5.4140939D	05		
X	1.7437208D	06	Y	1.6748181D	07	Z	9.8515465D	06	
DX-	3.9565224D	03	DY-	4.3068321D	03	DZ-	2.3061172D	03	
R	1.9508846D	07	DEC	3.0329919D	01	RA	8.4056115D	01	
V	6.2865769D	03	PTH-	5.6061135D	01	AZ	8.3791498D	01	
ALT	1.3136137D	07	LTGD	3.0384674D	01	LON	3.3672064D	02	
VE	5.6973565D	03	PTE-	6.6258381D	01	AZE	8.0348722D	01	

TIME	7	FEB. 1968	22 HRS.,	2 MIN.,	50.502 SEC.,GMT				
GEOCENTRIC REFERENCE			FLIGHT TIME			5.4152189D	05		
X	1.2980541D	06	Y	1.6257854D	07	Z	9.5886875D	06	
DX-	3.9661192D	03	DY-	4.4111770D	03	DZ-	2.3675986D	03	
R	1.8919452D	07	DEC	3.0451998D	01	RA	8.5435088D	01	
V	6.3870265D	03	PTH-	5.5483301D	01	AZ	8.4489447D	01	
ALT	1.2546783D	07	LTGD	3.0508595D	01	LON	3.3762958D	02	
VE	5.7999710D	03	PTE-	6.5134897D	01	AZE	8.1683599D	01	

TIME	7	FEB. 1968	22 HRS.,	4 MIN.,	43.002 SEC.,GMT				
GEOCENTRIC REFERENCE			FLIGHT TIME			5.4163439D	05		
X	8.5142469D	05	Y	1.5755410D	07	Z	9.3186793D	06	
DX-	3.9735606D	03	DY-	4.5223483D	03	DZ-	2.4332841D	03	
R	1.8324728D	07	DEC	3.0565981D	01	RA	8.6906732D	01	
V	6.4932033D	03	PTH-	5.4867450D	01	AZ	8.5236927D	01	
ALT	1.1952096D	07	LTGD	3.0624546D	01	LON	3.3863119D	02	
VE	5.9090278D	03	PTE-	6.3977263D	01	AZE	8.3005315D	01	

TIME	7	FEB. 1968	22 HRS.,	6 MIN.,	35.502 SEC.,GMT				
GEOCENTRIC REFERENCE			FLIGHT TIME			5.4174689D	05		
X	4.0410256D	05	Y	1.5240043D	07	Z	9.0410241D	06	
DX-	3.9783415D	03	DY-	4.6410483D	03	DZ-	2.5036247D	03	
R	1.7724625D	07	DEC	3.0669335D	01	RA	8.8481105D	01	
V	6.6056542D	03	PTH-	5.4209358D	01	AZ	8.6039174D	01	
ALT	1.1352027D	07	LTGD	3.0730005D	01	LON	3.3973553D	02	
VE	6.0250859D	03	PTE-	6.2782168D	01	AZE	8.4324636D	01	

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME 7 FEB. 1968 22 HRS., 8 MIN., 28.002 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4185939D 05
 X-4.3579171D 04 Y 1.4710862D 07 Z 8.7551699D 06
 DX-3.9798380D 03 DY-4.7680731D 03 DZ-2.5791352D 03
 R 1.7119123D 07 DEC 3.0758881D 01 RA 9.0169726D 01
 V 6.7249959D 03 PTH-5.3504135D 01 AZ 8.6902103D 01
 ALT 1.0746554D 07 LTGD 3.0821807D 01 LON 3.4095412D 02
 VE 6.1487742D 03 PTE-6.1545616D 01 AZE 8.5652263D 01

TIME 7 FEB. 1968 22 HRS., 10 MIN., 20.502 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4197189D 05
 X-4.9120901D 05 Y 1.4166881D 07 Z 8.4605028D 06
 DX-3.9772754D 03 DY-4.9043266D 03 DZ-2.6604042D 03
 R 1.6508237D 07 DEC 3.0830622D 01 RA 9.1985819D 01
 V 6.8519259D 03 PTH-5.2746101D 01 AZ 8.7832394D 01
 ALT 1.0135693D 07 LTGD 3.0895967D 01 LON 3.4230018D 02
 VE 6.2808029D 03 PTE-6.0262806D 01 AZE 8.6999024D 01

TIME 7 FEB. 1968 22 HRS., 12 MIN., 13.002 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4208439D 05
 X-9.3827796D 05 Y 1.3607004D 07 Z 8.1563379D 06
 DX-3.9696869D 03 DY-5.0508354D 03 DZ-2.7481063D 03
 R 1.5892035D 07 DEC 3.0879506D 01 RA 9.3944611D 01
 V 6.9872342D 03 PTH-5.1928614D 01 AZ 8.8837582D 01
 ALT 9.5195072D 06 LTGD 3.0947450D 01 LON 3.4378894D 02
 VE 6.4219739D 03 PTE-5.8927982D 01 AZE 8.8376054D 01

TIME 7 FEB. 1968 22 HRS., 14 MIN., 5.502 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4219689D 05
 X-1.3841550D 06 Y 1.3030014D 07 Z 7.8419088D 06
 DX-3.9558585D 03 DY-5.2087661D 03 DZ-2.8430153D 03
 R 1.5270648D 07 DEC 3.0899128D 01 RA 9.6063682D 01
 V 7.1318158D 03 PTH-5.1043872D 01 AZ 8.9926143D 01
 ALT 8.8981274D 06 LTGD 3.0969867D 01 LON 3.4543797D 02
 VE 6.5731944D 03 PTE-5.7534240D 01 AZE 8.9794960D 01

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	7	FEB. 1968	22 HRS.,	15 MIN.,	58.002 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	5.4230939D 05	
X-1.8280551D	06	Y	1.2434554D	07	Z	7.5163560D 06	
DX-3.9342558D	03	DY-	5.3794415D	03	DZ-	2.9460192D 03	
R	1.4644300D	07	DEC	3.0881323D	01	RA	9.8363374D 01
V	7.2866857D	03	PTH-	5.0082651D	01	AZ	9.1107563D 01
ALT	8.2717740D	06	LTGD	3.0955066D	01	LON	3.4726763D 02
VE	6.7354903D	03	PTE-	5.6073286D	01	AZE	9.1267954D 01
TIME	7	FEB. 1968	22 HRS.,	17 MIN.,	50.502 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	5.4242189D 05	
X-2.2689985D	06	Y	1.1819106D	07	Z	7.1787129D 06	
DX-3.9029274D	03	DY-	5.5643564D	03	DZ-	3.0581356D 03	
R	1.4013335D	07	DEC	3.0815636D	01	RA	1.0086726D 02
V	7.4529926D	03	PTH-	4.9033982D	01	AZ	9.2392372D 01
ALT	7.6407875D	06	LTGD	3.0892610D	01	LON	3.4930148D 02
VE	6.9100196D	03	PTE-	5.4535121D	01	AZE	9.2807947D 01
TIME	7	FEB. 1968	22 HRS.,	19 MIN.,	43.002 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	5.4253439D 05	
X-2.7057562D	06	Y	1.1181977D	07	Z	6.8278904D 06	
DX-3.8593745D	03	DY-	5.7651875D	03	DZ-	3.1805263D 03	
R	1.3378259D	07	DEC	3.0688618D	01	RA	1.0360266D 02
V	7.6320316D	03	PTH-	4.7884745D	01	AZ	9.3792098D 01
ALT	7.0056708D	06	LTGD	3.0769058D	01	LON	3.5156685D 02
VE	7.0980847D	03	PTE-	5.2907653D	01	AZE	9.4428566D 01
TIME	7	FEB. 1968	22 HRS.,	21 MIN.,	35.502 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	5.4264689D 05	
X-3.1367797D	06	Y	1.0521273D	07	Z	6.4626601D 06	
DX-3.8003759D	03	DY-	5.9837917D	03	DZ-	3.3145078D 03	
R	1.2739802D	07	DEC	3.0482890D	01	RA	1.0660125D 02
V	7.8252528D	03	PTH-	4.6619152D	01	AZ	9.5319097D 01
ALT	6.3671467D	06	LTGD	3.0567035D	01	LON	3.5409541D 02
VE	7.3011386D	03	PTE-	5.1176193D	01	AZE	9.6144024D 01

TABLE 10- VI T
 LAUNCH ON 1 FEB 1968 FACTORY CHARACTERISTICS FOR
 OF 72 DEGREES S A LAUNCH AZIMUTH
 (CONTINUED) UNITY

TIME 7 FEB. 1968 23 MIN., 28.002 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4275939D 05
 X-3.5601065D 06 Z 6.0816365D 06
 DX-3.7217529D 03 07D 03 DZ-3.4615517D 03
 R 1.2098990D 01 09D 01 RA 1.0989963D 02
 V 8.0342590D 00 06D 01 AZ 9.6986151D 01
 ALT 5.7262362D 00 88D 01 LON 3.5692375D 02
 VE 7.5207804D 00 26D 01 AZE 9.7968780D 01

TIME 7 FEB. 1968 25 MIN., 20.502 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4287189D 05
 X-3.9732358D 06 16D 06 Z 5.6832610D 06
 DX-3.6180537D 03 10D 03 DZ-3.6232631D 03
 R 1.1457263D 07 52D 01 RA 1.1353985D 02
 V 8.2607820D 03 88D 01 AZ 9.8805678D 01
 ALT 5.0843683D 06 57D 01 LON 9.3979211D-02
 VE 7.7587292D 03 14D 01 AZE 9.9916813D 01

TIME 7 FEB. 1968 27 MIN., 13.002 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4298439D 05
 X-4.3729631D 06 37D 06 Z 5.2657894D 06
 DX-3.4821356D 03 14D 03 DZ-3.8013179D 03
 R 1.0816618D 07 43D 01 RA 1.1756986D 02
 V 8.5066202D 03 90D 01 AZ 1.0078834D 02
 ALT 4.4435306D 06 LT 83D 01 LON 3.6539523D 00
 VE 8.0167558D 03 P 26D 01 AZE 1.0200029D 02

TIME 7 FEB. 1968 29 MIN., 5.502 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4309689D 05
 X-4.7551603D 06 4D 06 Z 4.8272910D 06
 DX-3.3046257D 03 5D 03 DZ-3.9973208D 03
 R 1.0179825D 07 DEC 8D 01 RA 1.2204348D 02
 V 8.7735039D 03 PTH 1D 01 AZ 1.0294070D 02
 ALT 3.8064785D 06 LTGD 3D 01 LON 7.6575457D 00
 VE 8.2965411D 03 PTE 8D 01 AZE 1.0422730D 02

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH OF 72 DEGREES - SECOND OPPORTUNITY (CONTINUED)

TIME	7	FEB. 1968	22 HRS.,	30 MIN.,	58.002 SEC.,GMT
GEOCENTRIC REFERENCE				FLIGHT TIME	5.4320939D 05
X-5.1144888D	06		Y 6.7822572D	06	Z 4.3656712D 06
DX-3.0732590D	03		DY-7.4124693D	03	DZ-4.2125224D 03
R 9.5507117D	06		DEC 2.7200408D	01	RA 1.2701988D 02
V 9.0628344D	03		PTH-3.7711679D	01	AZ 1.0526141D 02
ALT 3.1770251D	06		LTGD 2.7304876D	01	LON 1.2163907D 01
VE 8.5994042D	03		PTE-4.0169563D	01	AZE 1.0659815D 02

TIME	7	FEB. 1968	22 HRS.,	32 MIN.,	50.502 SEC.,GMT
GEOCENTRIC REFERENCE				FLIGHT TIME	5.4332189D 05
X-5.4440337D	06		Y 5.9282544D	06	Z 3.8787375D 06
DX-2.7721527D	03		DY-7.7737575D	03	DZ-4.4472920D 03
R 8.9345569D	06		DEC 2.5729791D	01	RA 1.3256187D 02
V 9.3752089D	03		PTH-3.5165771D	01	AZ 1.0773537D 02
ALT 2.5604328D	06		LTGD 2.5837248D	01	LON 1.7235863D 01
VE 8.9258114D	03		PTE-3.7259878D	01	AZE 1.0909964D 02

TIME	7	FEB. 1968	22 HRS.,	34 MIN.,	43.002 SEC.,GMT
GEOCENTRIC REFERENCE				FLIGHT TIME	5.4343439D 05
X-5.7348601D	06		Y 5.0323824D	06	Z 3.3643467D 06
DX-2.3812206D	03		DY-8.1556323D	03	DZ-4.7001879D 03
R 8.3386043D	06		DEC 2.3795059D	01	RA 1.3873280D 02
V 9.7095992D	03		PTH-3.2246249D	01	AZ 1.1032531D 02
ALT 1.9639309D	06		LTGD 2.3903786D	01	LON 2.2936762D 01
VE 9.2745327D	03		PTE-3.3998481D	01	AZE 1.1169678D 02

TIME	7	FEB. 1968	22 HRS.,	36 MIN.,	35.502 SEC.,GMT
GEOCENTRIC REFERENCE				FLIGHT TIME	5.4354689D 05
X-5.9755350D	06		Y 4.0928533D	06	Z 2.8206879D 06
DX-1.8762433D	03		DY-8.5474245D	03	DZ-4.9664273D 03
R 7.7726924D	06		DEC 2.1278226D	01	RA 1.4559138D 02
V 1.0062015D	04		PTH-2.8886217D	01	AZ 1.1296049D 02
ALT 1.3973535D	06		LTGD 2.1385123D	01	LON 2.9325311D 01
VE 9.6412754D	03		PTE-3.0319201D	01	AZE 1.1432149D 02

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TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TIME	7	FEB.	1968	22 HRS.,	38 MIN.,	28.002 SEC.,	GMT		
GEOCENTRIC REFERENCE						FLIGHT TIME	5.4365939D	05	
X-6.1517398D	06			Y	3.1095847D	06	Z	2.2467795D	06
DX-1.2306758D	03			DY-8.9288127D	03		DZ-5.2356142D	03	
R 7.2499267D	06			DEC	1.8053429D	01	RA	1.5318428D	02
V 1.0423527D	04			PTH-2.5016891D	01		AZ	1.1552350D	02
ALT 8.7382399D	05			LTGD	1.8153347D	01	LON	3.6448178D	01
VE 1.0016669D	04			PTE-2.6153029D	01		AZE	1.1685953D	02

TIME	7	FEB.	1968	22 HRS.,	40 MIN.,	20.502 SEC.,	GMT		
GEOCENTRIC REFERENCE						FLIGHT TIME	5.4377189D	05	
X-6.2462673D	06			Y	2.0855153D	06	Z	1.6432549D	06
DX-4.2102208D	02			DY-9.2657860D	03		DZ-5.4889706D	03	
R 6.7871581D	06			DEC	1.4011247D	01	RA	1.6153676D	02
V 1.0777794D	04			PTH-2.0580315D	01		AZ	1.1783894D	02
ALT 4.1025288D	05			LTGD	1.4096396D	01	LON	4.4330624D	01
VE 1.0383763D	04			PTE-2.1440393D	01		AZE	1.1913887D	02

TIME	7	FEB.	1968	22 HRS.,	42 MIN.,	13.002 SEC.,	GMT		
GEOCENTRIC REFERENCE						FLIGHT TIME	5.4388439D	05	
X-6.2399225D	06			Y	1.0282993D	06	Z	1.0134351D	06
DX 5.6221659D	02			DY-9.5085720D	03		DZ-5.6973730D	03	
R 6.4047703D	06			DEC	9.1042484D	00	RA	1.7064212D	02
V 1.1099058D	04			PTH-1.5552375D	01		AZ	1.1967163D	02
ALT 2.7144239D	04			LTGD	9.1643027D	00	LON	5.2965947D	01
VE 1.0716009D	04			PTE-1.6154043D	01		AZE	1.2092740D	02

TIME	7	FEB.	1968	22 HRS.,	44 MIN.,	5.502 SEC.,	GMT		
GEOCENTRIC REFERENCE						FLIGHT TIME	5.4399689D	05	
X-6.1139735D	06			Y-4.8101340D	04		Z	3.6444162D	05
DX 1.6984603D	03			DY-9.5965295D	03		DZ-5.8232219D	03	
R 6.1250146D	06			DEC	3.4111439D	00	RA	-1.7954923D	02
V 1.1352888D	04			PTH-9.9749465D	00		AZ	1.2074661D	02
ALT-2.5307336D	05			LTGD	3.4350292D	00	LON	6.2304530D	01
VE 1.0978066D	04			PTE-1.0331827D	01		AZE	1.2195221D	02

TABLE 10- VI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TIME	7	FEB. 1968	22 HRS.,	45 MIN.,	58.002 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	5.4410939D 05	
X	-5.8543845D	06	Y	-1.1230295D	06	Z	-2.9229423D 05
DX	2.9235330D	03	DY	-9.4751896D	03	DZ	-5.8297612D 03
R	5.9682869D	06	DEC	-2.8071584D	00	RA	-1.6914102D 02
V	1.1502712D	04	PTH	-3.9846708D	00	AZ	1.2080182D 02
ALT	-4.0982555D	05	LTGD	-2.8273501D	00	LON	7.2242705D 01
VE	1.1132494D	04	PTE	-4.1067229D	00	AZE	1.2195172D 02

FREE-RETURN VACUUM PERIGEE							
TIME	7	FEB. 1968	22 HRS.,	47 MIN.,	10.249 SEC.,	GMT	
GEOCENTRIC REFERENCE					FLIGHT TIME	5.4418164D 05	
X	-5.6146292D	06	Y	-1.8009170D	06	Z	-7.1133454D 05
DX	3.7099712D	03	DY	-9.2745665D	03	DZ	-5.7606112D 03
R	5.9391380D	06	DEC	-6.8788671D	00	RA	-1.6221612D 02
V	1.1531093D	04	PTH	-2.4819913D	-02	AZ	1.2021501D 02
ALT	-4.3871768D	05	LTGD	-6.9281867D	00	LON	7.8865751D 01
VE	1.1161634D	04	PTE	6.8957635D	-13	AZE	1.2132584D 02

TABLE 10-VII TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 81 DEGREES - SECOND OPPORTUNITY

LAUNCH TIME = 16 HRS., 53 MIN., 48.910 SEC. G. M. T.

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -4.713742E 06	YYY -9.431148E 04	ZZZ -4.591656E 06	04
DXX 5.428238E 03	DYY -8.640494E 01	DZZ -5.579185E 03	03
R 6.581152E 06	WT 2.975483E 05	F 1.382717E 01	01
V 7.784635E 03	PTH 4.308825E-C2	AZ 7.425881E 01	01
ALT 2.068891E 05	LAT -2.523600E 01	LON 8.986970E 01	01
VE 7.367754E 03	PTE 4.552598E-C2	AZE 7.334293E 01	01
ANG 3.979128E 00	NFA 7.582085E 01	IAC 9.209598E 00	00
CPA 4.191586E 01	VPA 4.191586E C1	CYA -5.791258E-01	01
VYA -5.791258E-01	CRA -0.000000E-39	VRA -0.000000E-39	39

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -1.657033E 06	YYY -1.194475E 05	ZZZ -6.370467E 06	06
DXX 7.538427E 03	DYY -1.982631E 01	DZZ -1.964454E 03	03
R 6.583530E 06	WT 2.964179E C5	F 2.073030E 05	05
V 7.790209E 03	PTH 2.842204E-02	AZ 6.365636E 01	01
ALT 2.065786E 05	LAT -1.374936E C1	LON 1.187980E 02	02
VE 7.375219E 03	PTE 3.002115E-02	AZE 6.204855E 01	01
ANG 4.191728E 00	NFA 6.638009E 01	IAC 1.185221E 01	01
CPA 1.073662E 01	VPA 1.073662E 01	CYA -7.533032E-02	02
VYA -7.533032E-02	CRA -0.000000E-39	VRA -0.000000E-39	39

TRANSLUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX 1.234744E 06	YYY -1.341432E C5	ZZZ -6.589389E 06	06
DXX 1.081659E 04	DYY -1.922390E 02	DZZ 7.051754E 02	02
R 6.705419E 06	WT 1.389987E C5	F 2.060472E 05	05
V 1.084126E 04	PTH 6.901168E 00	AZ 5.937025E 01	01
ALT 3.272722E 05	LAT -1.687150E 00	LON 1.398343E 02	02
VE 1.042684E 04	PTE 7.176872E C0	AZE 5.799096E 01	01
ANG 6.410520E 00	NFA 1.591870E C2	IAC 1.636382E 01	01
CPA -5.751894E 00	VPA -5.752440E C0	CYA -8.386434E 00	00
VYA -8.386513E 00	CRA -0.000000E-39	VRA 0.000000E-39	39

TABLE 10- VII TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 81 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TRANSLUNAR INJECTION
 TIME 1 FEB. 1968 21 HRS., 3 MIN., 36.120 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.4987210D 04

X-4.5817654D 06	Y-4.8919316D 06	Z-1.9766143D 05
DX 5.7588124D 03	DY-7.3991532D 03	DZ 5.4425631D 03
R 6.7054186D 06	DEC-1.6892019D 00	RA-1.3312481D 02
V 1.0841258D 04	PTH 6.9011668D 00	AZ 5.9371053D 01
ALT 3.2727323D 05	LTGD-1.7000192D 00	LON 1.3983390D 02
VE 1.0426836D 04	PTE 7.1711407D 00	AZE 5.7990650D 01

PERISELENUM
 TIME 4 FEB. 1968 23 HRS., 41 MIN., 56.166 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC 1.6908379D 06	YSC 8.5162517D 05	ZSC 1.6569804D 05
DXSC 1.0772854D 03	DYSC-1.8915073D 03	DZSC-1.2713479D 03
RSC 1.9004353D 06	DESC 5.0019426D 00	RASC 2.6733046D 01
VSC 2.5208469D 03	PTSC 7.2947766D-13	AZSC-1.2041513D 02

SELENOGRAPHIC REFERENCE

XSG-1.8916570D 06	YSG 8.7348815D 03	ZSG-1.8224118D 05
DXSG 5.7773823D 01	DYSG 2.4789182D 03	DZSG-4.8087483D 02
HSG 1.6234577D 05	LTSG-5.5028024D 00	LNSG 1.7973542D 02
VRSG 2.5257898D 03	PTSG-4.7119666D-09	AZSG-1.0102675D 02
LTS-1.4243918D 00	LNS 1.0806886D 02	LTE-8.8175050D-01
LNE 1.6882278D 00	DSMP 4.6412777D 00	RSMP 1.0640590D 02
LIN 1.6767223D 02	LAN 2.5891759D 01	LAP-1.5331105D 02

GEOCENTRIC REFERENCE FLIGHT TIME 2.8368726D 05

X 3.5496668D 08	Y 1.7665993D 08	Z 8.1684132D 07
DX 6.3033783D 02	DY-1.1392121D 03	DZ-8.5192799D 02
R 4.0482388D 08	DEC 1.1640890D 01	RA 2.6468624D 01
V 1.5559278D 03	PTH-4.2877615D 00	AZ-1.2303549D 02
ALT 3.9844658D 08	LTGD 1.1642084D 01	LON 2.5676857D 02
VE 3.0225832D 04	PTE-2.2054805D-01	AZE-9.1603602D 01

FREE-RETURN VACUUM PERIGEE
 TIME 7 FEB. 1968 23 HRS., 59 MIN., 59.979 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4397107D 05

X-5.7413435D 06	Y-1.9071440D 06	Z-7.1001364D 05
DX 3.6953828D 03	DY-8.7963896D 03	DZ-6.2102471D 03
R 6.0913334D 06	DEC-6.6936853D 00	RA-1.6162467D 02
V 1.1384177D 04	PTH-2.5712725D-02	AZ 1.2331985D 02
ALT-2.8653861D 05	LTGD-6.7404942D 00	LON 6.1200141D 01
VE 1.1018202D 04	PTE 2.8914825D-13	AZE 1.2458012D 02

TABLE 10-VIII TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 90 DEGREES - SECOND OPPORTUNITY

LAUNCH TIME = 18 HRS., 12 MIN., 16.360 SEC. G. M. T.

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -5.840113E 06	YYY -4.566246E 04	ZZZ -3.026491E 06	1.395700E 04
DXX 2.577645E 03	DYY -6.071542E 01	DZZ -6.917212E 03	
R 6.577891E 06	WT 2.980584E C5	F 1.456259E 01	
V 7.787878E 03	PTH 4.899535E-C2	AZ 7.551125E 01	
ALT 2.034949E 05	LAT -2.477285E C1	LON 7.152887E 01	
VE 7.367009E 03	PTE 5.179541E-C2	AZE 7.466376E 01	
ANG 3.964318E 00	NFA 7.721995E C1	IAC 9.219002E 00	
CPA 5.878158E 01	VPA 5.878158E 01	CYA -4.188528E-01	
VYA -4.188528E-01	CRA -0.000000E-39	VRA -0.000000E-39	

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -3.429671E 06	YYY -6.657031E C4	ZZZ -5.616175E 06	1.441700E 04
DXX 6.647618E 03	DYY -2.761040E C1	DZZ -4.066048E 03	
R 6.580919E C6	WT 2.969273E C5	F 2.073030E 05	
V 7.792582E 03	PTH 4.282853E-02	AZ 6.489829E 01	
ALT 2.039979E 05	LAT -1.392542E C1	LON 1.007119E 02	
VE 7.373437E 03	PTE 4.526321E-02	AZE 6.336266E 01	
ANG 4.165405E 00	NFA 6.775756E C1	IAC 1.184932E 01	
CPA 2.758243E 01	VPA 2.758243E C1	CYA -1.634379E-01	
VYA -1.634379E-01	CRA -0.000000E-39	VRA -0.000000E-39	

TRANSLUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -7.162313E 05	YYY -8.779563E 04	ZZZ -6.665400E 06	1.473521E 04
DXX 1.055939E 04	DYY -2.222672E C2	DZZ -2.450375E 03	
R 6.704346E 06	WT 1.392616E C5	F 2.060472E 05	
V 1.084226E 04	PTH 6.944864E C0	AZ 6.045386E 01	
ALT 3.262147E 05	LAT -2.272733E C0	LON 1.220840E 02	
VE 1.042331E 04	PTE 7.225462E C0	AZE 5.911897E 01	
ANG 6.192092E 00	NFA 1.592311E 02	IAC 1.633037E 01	
CPA 1.113964E 01	VPA 1.113909E C1	CYA -8.296160E 00	
VYA -8.296243E 00	CRA -0.000000E-39	VRA 0.000000E-39	

TABLE 10- VIII TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 90 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TRANSLUNAR INJECTION

TIME 1 FEB. 1968 22 HRS., 17 MIN., 51.570 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.4735210D 04

X-4.5050863D 06	Y-4.9579871D 06	Z-2.6611004D 05
DX 5.9071099D 03	DY-7.4220971D 03	DZ 5.2510071D 03
R 6.7043458D 06	DEC-2.2747913D 00	RA-1.3225992D 02
V 1.0842258D 04	PTH 6.9448614D 00	AZ 6.0454637D 01
ALT 3.2621563D 05	LTGD-2.2893539D 00	LON 1.2208359D 02
VE 1.0423305D 04	PTE 7.2179875D 00	AZE 5.9118203D 01

PERISELENUM

TIME 5 FEB. 1968 0 HRS., 51 MIN., 51.077 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC 1.6725080D 06	YSC 8.6678963D 05	ZSC 1.7045357D 05
DXSC 1.1072760D 03	DYSC-1.8894061D 03	DZSC-1.2567078D 03
RSC 1.8914708D 06	DESC 5.1703348D 00	RASC 2.7395782D 01
VSC 2.5249219D 03	PTSC 3.8251479D-12	AZSC-1.1998378D 02

SELENOGRAPHIC REFERENCE

XSG-1.8825508D 06	YSG 7.3100471D 03	ZSG-1.8333237D 05
DXSG 5.5265980D 01	DYSG 2.4854924D 03	DZSG-4.6839489D 02
HSG 1.5338127D 05	LTSG-5.5621731D 00	LNSG 1.7977751D 02
VRSG 2.5298459D 03	PTSG-1.4133134D-08	AZSG-1.0072080D 02
LTS-1.4241883D 00	LNS 1.0747789D 02	LTE-9.4795205D-01
LNE 1.6232470D 00	DSMP 4.6396320D 00	RSMP 1.0587629D 02
LIN 1.6791857D 02	LAN 2.6840984D 01	LAP-1.5241319D 02

GEOCENTRIC REFERENCE FLIGHT TIME 2.8317472D 05

X 3.5305427D 08	Y 1.7982116D 08	Z 8.3443798D 07
DX 6.5119541D 02	DY-1.1417676D 03	DZ-8.3944987D 02
R 4.0490225D 08	DEC 1.1892951D 01	RA 2.6991111D 01
V 1.5596040D 03	PTH-4.1276367D 00	AZ-1.2243108D 02
ALT 3.9852500D 08	LTGD 1.1894169D 01	LON 2.3977440D 02
VE 3.0216820D 04	PTE-2.1289280D-01	AZE-9.1582018D 01

FREE-RETURN VACUUM PERIGEE

TIME 8 FEB. 1968 1 HRS., 13 MIN., 47.247 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4369089D 05

X-5.8589401D 06	Y-2.0134744D 06	Z-7.2425841D 05
DX 3.7025103D 03	DY-8.4365025D 03	DZ-6.4533535D 03
R 6.2374521D 06	DEC-6.6679094D 00	RA-1.6103427D 02
V 1.1248508D 04	PTH-2.6302553D-02	AZ 1.2528670D 02
ALT-1.4042217D 05	LTGD-6.7134417D 00	LON 4.3293093D 01
VE 1.0882874D 04	PTE-2.2574472D-12	AZE 1.2666079D 02

TABLE 10-IX TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 59 DEGREES - SECOND OPPORTUNITY

LAUNCH TIME = 19 HRS., 20 MIN., 37.930 SEC. G. M. T.

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -6.413521E 06	YYY -1.865541E 04	ZZZ 1.373900E 04	04
DXX 1.710693E 03	DYY -1.147741E 01	ZZZ -1.449351E 06	06
R 6.575274E 06	WT 2.977345E 05	DZZ -7.600072E 03	03
V 7.790231E 03	PTH 4.901756E-02	F 1.565775E 01	01
ALT 2.011574E 05	LAT -2.574136E 01	AZ 7.449601E 01	01
VE 7.374956E 03	PTE 5.177768E-02	LON 5.595085E 01	01
ANG 3.975140E 00	NFA 7.678154E 01	AZE 7.359906E 01	01
CPA 7.344477E 01	VPA 7.344477E 01	IAC 9.225798E 00	00
VYA -7.325508E-02	CRA -0.000000E-39	CYA -7.325508E-02	-02
		VRA -0.000000E-39	-39

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -4.736251E 06	YYY -2.193735E 04	ZZZ 1.419900E 04	04
DXX 5.404769E 03	DYY -2.081291E 00	ZZZ -4.565609E 06	06
R 6.578552E 06	WT 2.966025E 05	DZZ -5.616663E 03	03
V 7.794770E 03	PTH 5.049384E-02	F 2.073030E 05	05
ALT 2.016922E 05	LAT -1.427193E 01	AZ 6.356678E 01	01
VE 7.381367E 03	PTE 5.332131E-02	LON 8.504339E 01	01
ANG 4.192423E 00	NFA 6.725643E 01	AZE 6.196012E 01	01
CPA 4.223143E 01	VPA 4.223143E 01	IAC 1.185879E 01	01
VYA -2.369246E-03	CRA -0.000000E-39	CYA -2.369246E-03	-03
		VRA -0.000000E-39	-39

TRANSLUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.374317E 06	YYY -3.713519E 04	ZZZ 1.451744E 04	04
DXX 9.599001E 03	DYY -2.099525E 02	ZZZ -6.267776E 06	06
R 6.702520E 06	WT 1.391300E 05	DZZ -5.039756E 03	03
V 1.084362E 04	PTH 6.958200E 00	F 2.060472E 05	05
ALT 3.243835E 05	LAT -2.085264E 00	AZ 5.913587E 01	01
VE 1.043058E 04	PTE 7.235184E 00	LON 1.061646E 02	02
ANG 6.061331E 00	NFA 1.596723E 02	AZE 5.774830E 01	01
CPA 2.587189E 01	VPA 2.587145E 01	IAC 1.633652E 01	01
VYA -8.174870E 00	CRA -0.000000E-39	CYA -8.174799E 00	00
		VRA 0.000000E-39	-39

TABLE 10- IX TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 99 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TRANSLUNAR INJECTION
TIME 1 FEB. 1968 23 HRS., 22 MIN., 35.368 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 1.4517438D 04

X-4.4777594D 06	Y-4.9813501D 06	Z-2.4422294D 05
DX 5.8593682D 03	DY-7.3026439D 03	DZ 5.4702128D 03
R 6.7025200D 06	DEC-2.0873205D 00	RA-1.3195252D 02
V 1.0843617D 04	PTH 6.9582000D 00	AZ 5.9136636D 01
ALT 3.2438440D 05	LTGD-2.1006890D 00	LON 1.0616420D 02
VE 1.0430573D 04	PTE 7.2280521D 00	AZE 5.7747669D 01

PERISELENUM
TIME 5 FEB. 1968 2 HRS., 4 MIN., 23.635 SEC., GMT
SELENOCENTRIC REFERENCE

XSC 1.6561719D 06	YSC 8.7327175D 05	ZSC 1.7123984D 05
DXSC 1.1251393D 03	DYSC-1.8871776D 03	DZSC-1.2579154D 03
RSC 1.8801149D 06	DESC 5.2257101D 00	RASC 2.7801930D 01
VSC 2.5317443D 03	PTSC 3.9362767D-12	AZSC-1.1992929D 02

SELENOGRAPHIC REFERENCE

XSG-1.8709369D 06	YSG 1.5811101D 04	ZSG-1.8487104D 05
DXSG 6.7551616D 01	DYSG 2.4916992D 03	DZSG-4.7053502D 02
HSG 1.4202542D 05	LTSG-5.6429921D 00	LNSG 1.7951580D 02
VRSG 2.5366378D 03	PTSG-2.0002428D-08	AZSG-1.0074269D 02
LTS-1.4239758D 00	LNS 1.0686472D 02	LTE-1.0165111D 00
LNE 1.5555525D 00	DSMP 4.6379123D 00	RSMP 1.0532709D 02
LIN 1.6786237D 02	LAN 2.6866036D 01	LAP-1.5211773D 02

GEOCENTRIC REFERENCE

X 3.5103230D 08	Y 1.8307112D 08	Z 8.5255758D 07
DX 6.5963992D 02	DY-1.1444526D 03	DZ-8.4294673D 02
R 4.0497809D 08	DEC 1.2152793D 01	RA 2.7543037D 01
V 1.5669894D 03	PTH-4.5033964D 00	AZ-1.2234494D 02
ALT 3.9860087D 08	LTGD 1.2154037D 01	LON 2.2214102D 02
VE 3.0201248D 04	PTE-2.3345291D-01	AZE-9.1585782D 01

FREE-RETURN VACUUM PERIGEE

TIME 8 FEB. 1968 2 HRS., 16 MIN., 24.296 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 5.4334637D 05

X-6.0263446D 06	Y-2.1201243D 06	Z-7.6059230D 05
DX 3.7121403D 03	DY-8.2404781D 03	DZ-6.3993372D 03
R 6.4335260D 06	DEC-6.7895715D 00	RA-1.6061764D 02
V 1.1074158D 04	PTH-2.6146627D-02	AZ 1.2569117D 02
ALT 5.5662284D 04	LTGD-6.8344971D 00	LON 2.8012494D 01
VE 1.0698769D 04	PTE 2.2158661D-12	AZE 1.2704330D 02

TABLE 10-X TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 108 DEGREES - SECOND OPPORTUNITY

LAUNCH TIME = 20 HRS., 12 MIN., 31.680 SEC. G. M. T.

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -6.569991E 06	YYY -1.160842E 04	ZZZ -2.193819E 05	04
DXX 2.534505E 02	DYY 4.682167E 01	DZZ -7.787042E 03	03
R 6.573663E 06	WT 2.965819E 05	F 1.648587E 01	01
V 7.791306E 03	PTH 4.768384E-02	AZ 7.138492E 01	01
ALT 2.001993E 05	LAT -2.790619E 01	LON 4.468048E 01	01
VE 7.391088E 03	PTE 5.026579E-02	AZE 7.033662E 01	01
ANG 4.011771E 00	NFA 7.476253E 01	IAC 9.229034E 00	00
CPA 8.426575E 01	VPA 8.426575E 01	CYA 3.503836E-01	01
VYA 3.503836E-01	CRA -0.000000E-39	VRA -0.000000E-39	01

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -5.507210E 06	YYY 9.575090E 03	ZZZ -3.595500E 05	05
DXX 4.255819E 03	DYY 4.341869E 01	DZZ -6.531880E 03	03
R 6.577011E 06	WT 2.954491E 05	F 2.073030E 05	05
V 7.796111E 03	PTH 5.374892E-02	AZ 5.995577E 01	01
ALT 2.002299E 05	LAT -1.470513E 01	LON 7.328278E 01	01
VE 7.398193E 03	PTE 5.664000E-02	AZE 5.815675E 01	01
ANG 4.269798E 00	NFA 6.516506E 01	IAC 1.187906E 01	01
CPA 5.304386E 01	VPA 5.304386E 01	CYA 3.127603E-01	01
VYA 3.127603E-01	CRA -0.000000E-39	VRA -0.000000E-39	01

TRANSLUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -3.510816E 06	YYY 7.557137E 03	ZZZ -5.707857E 05	05
DXX 8.478307E 03	DYY -1.816751E 02	DZZ -6.759096E 03	03
R 6.701158E 06	WT 1.385629E 05	F 2.060472E 05	05
V 1.084436E 04	PTH 6.965519E 00	AZ 5.565141E 01	01
ALT 3.230026E 05	LAT -1.187505E 00	LON 9.356259E 01	01
VE 1.044773E 04	PTE 7.231339E 00	AZE 5.412741E 01	01
ANG 6.307399E 00	NFA 1.628184E 02	IAC 1.636142E 01	01
CPA 3.697334E 01	VPA 3.697445E 01	CYA -8.500361E 00	00
VYA -8.500249E 00	CRA -0.000000E-39	VRA 0.000000E-39	01

TABLE 10- X TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 1 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 108 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TRANSLUNAR INJECTION
 TIME 2 FEB. 1968 0 HRS., 11 MIN., 49.591 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.4357911D 04

X-4.5013363D 06	Y-4.9622719D 06	Z-1.3911709D 05
DX 5.6144541D 03	DY-7.0383658D 03	DZ 6.0447812D 03
R 6.7011585D 06	DEC-1.1895546D 00	RA-1.3221154D 02
V 1.0844357D 04	PTH 6.9655189D 00	AZ 5.5652183D 01
ALT 3.2300365D 05	LTGD-1.1971794D 00	LON 9.3562213D 01
VE 1.0447724D 04	PTE 7.2268734D 00	AZE 5.4127434D 01

PERISELENUM
 TIME 5 FEB. 1968 3 HRS., 12 MIN., 43.617 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC 1.6424691D 06	YSC 8.7065033D 05	ZSC 1.6696561D 05
DXSC 1.1298185D 03	DYSC-1.8873574D 03	DZSC-1.2724994D 03
RSC 1.8664443D 06	DESC 5.1323415D 00	RASC 2.7927447D 01
VSC 2.5412325D 03	PTSC-7.8369069D-13	AZSC-1.2018255D 02

SELENOGRAPHIC REFERENCE

XSG-1.8566853D 06	YSG 3.3108775D 04	ZSG-1.8771738D 05
DXSG 9.3481500D 01	DYSG 2.4979014D 03	DZSG-4.8404293D 02
HSG 1.2835482D 05	LTSG-5.7722742D 00	LNSG 1.7897839D 02
VRSG 2.5460848D 03	PTSG-2.6017587D-08	AZSG-1.0101590D 02
LTS-1.4237743D 00	LNS 1.0628715D 02	LTE-1.0809647D 00
LNF 1.4915437D 00	DSMP 4.6362810D 00	RSMP 1.0481003D 02
LIN 1.6756125D 02	LAN 2.6255484D 01	LAP-1.5216475D 02

GEOCENTRIC REFERENCE FLIGHT TIME 2.8441194D 05

X 3.4909196D 08	Y 1.8610404D 08	Z 8.6948354D 07
DX 6.5550110D 02	DY-1.1493364D 03	DZ-8.5972988D 02
R 4.0504312D 08	DEC 1.2395841D 01	RA 2.8062474D 01
V 1.5779073D 03	PTH-5.3704233D 00	AZ-1.2266031D 02
ALT 3.9866594D 08	LTGD 1.2397107D 01	LON 2.0553043D 02
VE 3.0182513D 04	PTE-2.8038535D-01	AZE-9.1609591D 01

FREE-RETURN VACUUM PERIGEE
 TIME 8 FEB. 1968 3 HRS., 2 MIN., 20.244 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4298856D 05

X-6.2489145D 06	Y-2.2261073D 06	Z-8.1242612D 05
DX 3.7088310D 03	DY-8.1530894D 03	DZ-6.1475228D 03
R 6.6831521D 06	DEC-6.9823341D 00	RA-1.6039211D 02
V 1.0863716D 04	PTH-2.5338018D-02	AZ 1.2476130D 02
ALT 3.0530553D 05	LTGD-7.0267743D 00	LON 1.6723475D 01
VE 1.0469950D 04	PTE 2.5166363D-12	AZE 1.2627078D 02

TABLE 10-XI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 2 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY

LAUNCH TIME = 16 HRS..59 MIN..30.440 SEC. G. M. T.

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE			FLIGHT TIME 8.984000E 03		
XXX	-4.287707E 06	YYY	-1.267755E C5	ZZZ	-4.987250E 06
DXX	5.901103E 03	DYY	-8.039361E C1	DZZ	-5.077011E 03
R	6.578234E 06	WT	2.972640E C5	F	1.556588E 01
V	7.784955E 03	PTH	3.167646E-C2	AZ	7.697725E 01
ALT	2.054693E 05	LAT	-3.011136E C1	LON	1.190429E 02
VF	7.381261E 03	PTE	3.340876E-C2	AZE	7.625141E 01
ANG	3.939101E 00	NFA	7.823200E C1	IAC	9.214824E 00
CPA	3.683760E 01	VPA	3.683760E C1	CYA	-5.158355E-01
VYA	-5.158355E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE			FLIGHT TIME 9.444000E 03		
XXX	-1.084999E 06	YYY	-1.447436E C5	ZZZ	-6.488205E 06
DXX	7.684500E 03	DYY	4.544093E C0	DZZ	-1.287526E 03
R	6.579892E 06	WT	2.961320E C5	F	2.073030E 05
V	7.791616E 03	PTH	1.720638E-C2	AZ	6.312510E 01
ALT	2.040384E 05	LAT	-1.915340E 01	LON	1.493995E 02
VF	7.390158E 03	PTF	1.814102E-C2	AZE	6.153638E 01
ANG	4.183830E 00	NFA	6.640991E C1	IAC	1.186462E 01
CPA	5.642400E 00	VPA	5.642400E C0	CYA	1.184066E-01
VYA	1.184066E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

TRANSLUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE			FLIGHT TIME 9.777466E 03		
XXX	1.944683E 06	YYY	-1.013484E C5	ZZZ	-6.432364E 06
DXX	1.067868E 04	DYY	4.480477E C2	DZZ	1.738488E 03
R	6.720667E 06	WT	1.384198E C5	F	2.060472E 05
V	1.082854E C4	PTH	7.531450E 00	AZ	5.982096E 01
ALT	3.427552E 05	LAT	-6.229437E C0	LON	1.715672E 02
VF	1.041405E 04	PTE	7.833056E C0	AZE	5.846070E 01
ANG	1.225348E 01	NFA	5.439038E C0	IAC	1.621179E 01
CPA	-1.012339E 01	VPA	-1.012373E C1	CYA	1.321787E 01
VYA	1.321796E 01	CRA	-0.000000E-39	VRA	0.000000E-39

TABLE 10- XI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 2 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TRANSLUNAR INJECTION
 TIME 2 FEB. 1968 19 HRS., 42 MIN., 27.906 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 9.7774657D 03
 X-3.4155575D 06 Y-5.7418558D 06 Z-7.2967753D 05
 DX 6.9551247D 03 DY-6.4606101D 03 DZ 5.2099927D 03
 R 6.7206674D 06 DEC-6.2330144D 00 RA-1.2074640D 02
 V 1.0828539D 04 PTH 7.5314495D 00 AZ 5.9824654D 01
 ALT 3.4275655D 05 LTGD-6.2725434D 00 LON 1.7156645D 02
 VE 1.0414034D 04 PTE 7.8123892D 00 AZE 5.8459926D 01

PERISELENUM
 TIME 5 FEB. 1968 22 HRS., 47 MIN., 39.410 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC 1.4417167D 06 YSC 1.1216729D 06 ZSC 2.7242740D 05
 DXSC 1.5379028D 03 DYSC-1.7118493D 03 DZSC-1.0905118D 03
 RSC 1.8468659D 06 DFSC 8.4825355D 00 RASC 3.7883342D 01
 VSC 2.5465249D 03 PTSC-5.9154044D-13 AZSC-1.1565629D 02
 SELENOGRAPHIC REFERENCE
 XSG-1.8374141D 06 YSG 4.1215790D 04 ZSG-1.8200110D 05
 DXSG 9.4695692D 01 DYSG 2.5203267D 03 DZSG-3.8526107D 02
 HSG 1.0877644D 05 LTSG-5.6554438D 00 LNSG 1.7871498D 02
 VRSG 2.5513605D 03 PTSG-9.3543155D-08 AZSG-9.8727817D 01
 LTS-1.4200795D 00 LNS 9.6358260D 01 LTE-2.1648425D 00
 LNF 3.6442766D-01 DSMP 4.6064458D 00 RSMP 9.5953062D 01
 LIN 1.6959809D 02 LAN 3.1361859D 01 LAP-1.4692037D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.8008897D 05
 X 3.1032064D 08 Y 2.3526313D 08 Z 1.1466740D 08
 DX 9.2085524D 02 DY-1.0657118D 03 DZ-7.2179943D 02
 R 4.0595104D 08 DEC 1.6407442D 01 RA 3.7166825D 01
 V 1.5826277D 03 PTH-4.2604377D 00 AZ-1.1705330D 02
 ALT 3.9957458D 08 LTGD 1.6409075D 01 LON 2.8009811D 02
 VF 2.9811369D 04 PTE-2.2600990D-01 AZE-9.1379743D 01

FREE-RETURN VACUUM PERIGEE
 TIME 8 FEB. 1968 23 HRS., 12 MIN., 37.721 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4078728D 05
 X-6.6634270D 06 Y-3.7114184D 06 Z-1.2522878D 06
 DX 4.4455782D 03 DY-5.5522206D 03 DZ-7.1599972D 03
 R 7.7294315D 06 DEC-9.3239024D 00 RA-1.5088291D 02
 V 1.0092367D 04 PTH-3.6574257D-02 AZ 1.3597612D 02
 ALT 1.3518308D 06 LTGD-9.3747671D 00 LON 8.2831447D 01
 VE 9.7140732D 03 PTE-2.5098167D-12 AZE 1.3833567D 02

TABLE 10-XII TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 2 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 81 DEGREES - FIRST OPPORTUNITY

LAUNCH TIME = 18 HRS..22 MIN..16.460 SEC. G. M. T.

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE			FLIGHT TIME 8.720000E 03		
XXX	-5.591613E 06	YYY	-6.839483E C4	ZZZ	-3.457829E 06
DXX	4.092232E 03	DYY	-7.591337E 01	DZZ	-6.626543E 03
R	6.574754E 06	WT	2.986008E C5	F	1.636537E 01
V	7.788658E 03	PTH	4.080001E-C2	AZ	8.063989E 01
ALT	2.013382E 05	LAT	-2.806219E 01	LON	9.915540E 01
VE	7.371538E 03	PTE	4.310877E-C2	AZE	8.010506E 01
ANG	3.909034E 00	NFA	8.149817E C1	IAC	9.225874E 00
CPA	5.443258E 01	VPA	5.443258E 01	CYA	-5.169753E-01
VYA	-5.169753E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

S-IVB STAGE AT OPERATING THRLST LEVEL

GEOCENTRIC REFERENCE			FLIGHT TIME 9.180000E 03		
XXX	-2.991023E 06	YYY	-9.281017E C4	ZZZ	-5.857069E 06
DXX	6.939267E 03	DYY	-2.734986E 01	DZZ	-3.548451E 03
R	6.577240E 06	WT	2.974680E C5	F	2.073030E 05
V	7.793951E 03	PTH	3.414111E-02	AZ	6.713934E 01
ALT	2.013825E 05	LAT	-1.913580E C1	LON	1.299996E 02
VE	7.378525E 03	PTE	3.606376E-02	AZE	6.577228E 01
ANG	4.105851E 00	NFA	6.971622E C1	IAC	1.184936E 01
CPA	2.321367E 01	VPA	2.321367E C1	CYA	-1.460397E-01
VYA	-1.460397E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

TRANSLUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE			FLIGHT TIME 9.515243E 03		
XXX	-6.936668E 04	YYY	-6.726497E C4	ZZZ	-6.718123E 06
DXX	1.071525E 04	DYY	3.590040E 02	DZZ	-1.534023E 03
R	6.718817E 06	WT	1.390989E C5	F	2.060472E 05
V	1.083046E 04	PTH	7.531941E 00	AZ	6.319596E 01
ALT	3.410358E 05	LAT	-7.676751E C0	LON	1.531750E 02
VE	1.040327E 04	PTE	7.843128E 00	AZE	6.197859E 01
ANG	1.062325E 01	NFA	6.256610E C0	IAC	1.613514E 01
CPA	7.291832E 00	VPA	7.291357E 00	CYA	1.125062E 01
VYA	1.125070E 01	CRA	-0.000000E-39	VRA	0.000000E-39

TABLE 10- XII TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 2 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 81 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TRANSLUNAR INJECTION

TIME 2 FEB. 1968 21 HRS., 0 MIN., 51.703 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 9.5152428D 03
 X-3.2773616D 06 Y-5.7961541D 06 Z-8.9777935D 05
 DX 7.3312375D 03 DY-6.5048198D 03 DZ 4.6085856D 03
 R 6.7188175D 06 DEC-7.6789226D 00 RA-1.1948543D 02
 V 1.0830456D 04 PTH 7.5319395D 00 AZ 6.3196277D 01
 ALT 3.4103699D 05 LTGD-7.7274328D 00 LON 1.5317460D 02
 VE 1.0403274D 04 PTE 7.8203334D 00 AZE 6.1973037D 01

PERISELENUM

TIME 5 FEB. 1968 23 HRS., 46 MIN., 44.425 SEC.,GMT
 SELENOCENTRIC REFERENCE
 XSC 1.4368538D 06 YSC 1.1630399D 06 ZSC 2.9089062D 05
 DXSC 1.5743752D 03 DYSC-1.6830945D 03 DZSC-1.0472694D 03
 RSC 1.8713172D 06 DESC 8.9427204D 00 RASC 3.8987922D 01
 VSC 2.5314497D 03 PTSC 1.7093467D-12 AZSC-1.1475848D 02
 SELENOGRAPHIC REFERENCE
 XSG-1.8624912D 06 YSG 2.0865369D 04 ZSG-1.8033113D 05
 DXSG 6.2623113D 01 DYSG 2.5104248D 03 DZSG-3.5631146D 02
 HSG 1.3322771D 05 LTSG-5.5299395D 00 LNSG 1.7935814D 02
 VRSG 2.5363580D 03 PTSG-1.0203024D-07 AZSG-9.8113720D 01
 LTS-1.4198805D 00 LNS 9.5859066D 01 LTE-2.2178854D 00
 LNE 3.0693422D-01 DSMP 4.6048542D 00 RSMP 9.5508888D 01
 LIN 1.7017847D 02 LAN 3.3362430D 01 LAP-1.4560243D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.7866796D 05
 X 3.0811644D 08 Y 2.3758596D 08 Z 1.1598850D 08
 DX 9.5062519D 02 DY-1.0421019D 03 DZ-6.8107209D 02
 R 4.0600020D 08 DEC 1.6599847D 01 RA 3.7635508D 01
 V 1.5663728D 03 PTH-3.0360089D 00 AZ-1.1601104D 02
 ALT 3.9962377D 08 LTGD 1.6601497D 01 LON 2.6575546D 02
 VE 2.9785876D 04 PTE-1.5962044D-01 AZE-9.1319617D 01

FREE-RETURN VACUUM PERIGEE

TIME 9 FEB. 1968 0 HRS., 42 MIN., 32.242 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4121578D 05
 X-6.2063866D 06 Y-3.6126692D 06 Z-1.2033112D 06
 DX 4.5646943D 03 DY-5.2516626D 03 DZ-7.7310638D 03
 R 7.2813853D 06 DEC-9.5122543D 00 RA-1.4979678D 02
 V 1.0401238D 04 PTH-4.1504405D-02 AZ 1.3891775D 02
 ALT 9.0380757D 05 LTGD-9.5673170D 00 LON 6.1378869D 01
 VE 1.0064858D 04 PTE 4.2561767D-13 AZE 1.4116536D 02

TABLE 10-XIII TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 2 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 90 DEGREES - FIRST OPPORTUNITY

LAUNCH TIME = 19 HRS..43 MIN..22.840 SEC. G. M. T.

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE		FLIGHT TIME		8.458000E 03	
XXX	-6.372221E 06	YYY	-2.605134E 04	ZZZ	-1.605686E 06
DXX	1.898493E 03	DYY	-3.905934E 01	DZZ	-7.557035E 03
R	6.571462E 06	WT	2.991198E 05	F	1.722316E 01
V	7.791956E 03	PTH	4.210190E-02	AZ	8.213766E 01
ALT	1.978546E 05	LAT	-2.744023E 01	LON	8.003865E 01
VE	7.370899E 03	PTE	4.450726E-02	AZE	8.168544E 01
ANG	3.898695E 00	NFA	8.308816E 01	IAC	9.235506E 00
CPA	7.202787E 01	VPA	7.202787E 01	CYA	-2.712405E-01
VYA	-2.712405E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE		FLIGHT TIME		8.918000E 03	
XXX	-4.617373E 06	YYY	-4.046199E 04	ZZZ	-4.679738E 06
DXX	5.545741E 03	DYY	-2.180226E 01	DZZ	-5.480169E 03
R	6.574323E 06	WT	2.979863E 05	F	2.073030E 05
V	7.756664E 03	PTH	4.457989E-02	AZ	6.866695E 01
ALT	1.985086E 05	LAT	-1.932275E 01	LON	1.111010E 02
VE	7.377096E 03	PTE	4.711549E-02	AZE	6.738861E 01
ANG	4.077787E 00	NFA	7.135342E 01	IAC	1.184744E 01
CPA	4.078932E 01	VPA	4.078932E 01	CYA	-1.360626E-01
VYA	-1.360626E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

TRANSLUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE		FLIGHT TIME		9.254269E 03	
XXX	-2.081158E 06	YYY	-1.861204E 04	ZZZ	-6.384503E 06
DXX	9.769585E 03	DYY	3.277068E 02	DZZ	-4.670574E 03
R	6.715165E 06	WT	1.394264E 05	F	2.060472E 05
V	1.083358E 04	PTH	7.488450E 00	AZ	6.437093E 01
ALT	3.374578E 05	LAT	-8.393014E 00	LON	1.346872E 02
VF	1.040280E 04	PTE	7.800438E 00	AZE	6.320599E 01
ANG	1.130989E 01	NFA	8.047083E 00	IAC	1.616496E 01
CPA	2.428261E 01	VPA	2.428365E 01	CYA	1.177878E 01
VYA	1.177871E 01	CRA	-0.000000E-39	VRA	0.000000E-39

TABLE 10- XIII TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 2 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 90 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TRANSLUNAR INJECTION

TIME 2 FEB. 1968 22 HRS., 17 MIN., 37.109 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 9.25426870 03
 X-3.19342830 06 Y-5.82531100 06 Z-9.80413200 05
 DX 7.49458480 03 DY-6.47495630 03 DZ 4.39005520 03
 R 6.71516510 06 DEC-8.39518300 00 RA-1.18731490 02
 V 1.08335800 04 PTH 7.48845030 00 AZ 6.43712200 01
 ALT 3.37458900 05 LTGD-8.44812080 00 LON 1.34686810 02
 VF 1.04028010 04 PTE 7.77657120 00 AZE 6.31998370 01

PERISELENUM

TIME 6 FEB. 1968 0 HRS., 56 MIN., 55.015 SEC.,GMT
 SELENOCENTRIC REFERENCE
 XSC 1.42842000 06 YSC 1.19206740 06 ZSC 3.02799900 05
 DXSC 1.60223210 03 DYSC-1.66034110 03 DZSC-1.02186950 03
 RSC 1.88496580 06 DESC 9.24401480 00 RASC 3.98461990 01
 VSC 2.52350890 03 PTSC 1.57244350-12 AZSC-1.14221660 02
 SELENOGRAPHIC REFERENCE
 XSG-1.87630250 06 YSG 1.24991960 04 ZSG-1.80080120 05
 DXSG 4.94686290 01 DYSG 2.50479090 03 DZSG-3.41571460 02
 HSG 1.46876290 05 LTSG-5.48211010 00 LNSG 1.79618310 02
 VRSG 2.52845720 03 PTSG-9.35397120-08 AZSG-9.77997650 01
 LTS-1.41964240 00 LNS 9.52661600 01 LTE-2.28067480 00
 LNF 2.38608900-01 DSMP 4.60295240 00 RSMP 9.49814160 01
 LIN 1.70463660 02 LAN 3.44587100 01 LAP-1.44784860 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.78012170 05
 X 3.05465000 08 Y 2.40300970 08 Z 1.17535970 08
 DX 9.70584260 02 DY-1.02552130 03 DZ-6.58695140 02
 R 4.06039560 08 DEC 1.68261830 01 RA 3.81911600 01
 V 1.55807800 03 PTH-2.47998340 00 AZ-1.15403250 02
 ALT 3.99663180 08 LTGD 1.68278520 01 LON 2.48718960 02
 VF 2.97549180 04 PTE-1.29858180-01 AZE-9.12859510 01

FREE-RETURN VACUUM PERIGEE

TIME 9 FEB. 1968 2 HRS., 7 MIN., 4.088 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.41421250 05
 X-5.96944780 06 Y-3.59633200 06 Z-1.19429870 06
 DX 4.64591790 03 DY-5.02644200 03 DZ-8.03694100 03
 R 7.07066200 06 DEC-9.72439370 00 RA-1.48932860 02
 V 1.05566140 04 PTH-4.47529590-02 AZ 1.40583470 02
 ALT 6.93110530 05 LTGD-9.78232250 00 LON 4.10522390 01
 VE 1.02414630 04 PTE-2.10605410-12 AZE 1.42780450 02

TABLE 10-XIV TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH CN 2 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 99 DEGREES - FIRST OPPORTUNITY

LAUNCH TIME = 20 HRS..48 MIN..23.770 SEC. G. M. T.

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE		FLIGHT TIME		8.255000E 03	
XXX	-6.568883E 06	YYY	-8.633157E C3	ZZZ	-4.860415E 04
DXX	5.231967E 01	DYY	1.707922E C1	DZZ	-7.793820E 03
R	6.569068E 06	WT	2.987991E 05	F	1.798687E 01
V	7.794014E 03	PTH	3.914844E-02	AZ	8.090418E 01
ALT	1.957793E 05	LAT	-2.846694E 01	LON	6.536876E 01
VE	7.378504E 03	PTE	4.135274E-C2	AZE	8.038723E 01
ANG	3.906523E 00	NFA	8.232321E C1	IAC	9.241612E 00
CPA	8.574537E 01	VPA	8.574537E C1	CYA	1.303553E-01
VYA	1.303553E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE		FLIGHT TIME		8.715000E 03	
XXX	-5.592405E 06	YYY	-1.021672E C3	ZZZ	-3.451926E 06
DXX	4.090683E 03	DYY	1.547293E C1	DZZ	-6.639862E 03
R	6.571970E 06	WT	2.976649E C5	F	2.073030E 05
V	7.798826E 03	PTH	4.866962E-C2	AZ	6.709799E 01
ALT	1.962170E 05	LAT	-1.958356E C1	LON	9.639278E 01
VE	7.384995E 03	PTE	5.139690E-02	AZE	6.573464E 01
ANG	4.105380E 00	NFA	7.058762E C1	IAC	1.185716E 01
CPA	5.449362E 01	VPA	5.449362E C1	CYA	1.140237E-01
VYA	1.140237E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

TRANSLUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE		FLIGHT TIME		9.051614E 03	
XXX	-3.531776E 06	YYY	3.274268E C4	ZZZ	-5.712386E 06
DXX	8.376856E 03	DYY	3.598182E C2	DZZ	-6.858956E 03
R	6.716090E 06	WT	1.392700E C5	F	2.060472E 05
V	1.083266E 04	PTH	7.588509E C0	AZ	6.292282E 01
ALT	3.383411E C5	LAT	-8.002283E C0	LON	1.196927E 02
VE	1.040712E 04	PTE	7.900740E C0	AZE	6.169571E 01
ANG	1.131581E 01	NFA	7.948776E C0	IAC	1.615008E 01
CPA	3.806823E 01	VPA	3.807014E C1	CYA	1.189837E 01
VYA	1.189827E 01	CRA	-0.000000E-39	VRA	0.000000E-39

TABLE 10- XIV TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 2 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 99 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TRANSLUNAR INJECTION

TIME 2 FEB. 1968 23 HRS., 19 MIN., 15.384 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 9.0516139D 03

X-3.1503771D 06	Y-5.8571631D 06	Z-9.3521555D 05
DX 7.4267346D 03	DY-6.3759241D 03	DZ 4.6408688D 03
R 6.7160899D 06	DEC-8.0044491D 00	RA-1.1827435D 02
V 1.0832657D 04	PTH 7.5885090D 00	AZ 6.2923089D 01
ALT 3.3834240D 05	LTGD-8.0549830D 00	LCN 1.1969229D 02
VE 1.0407118D 04	PTE 7.8767763D 00	AZE 6.1689840D 01

PERISELENUM

TIME 6 FEB. 1968 2 HRS., 6 MIN., 43.781 SEC.,GMT
 SELENOCENTRIC REFERENCE

XSC 1.4165973D 06	YSC 1.1922996D 06	ZSC 3.1394920D 05
DXSC 1.6147604D 03	DYSC-1.6455934D 03	DZSC-1.0365529D 03
RSC 1.8780017D 06	DESC 9.6234301D 00	RASC 4.0086125D 01
VSC 2.5278194D 03	PTSC 2.9682809D-12	AZSC-1.1457669D 02

SELENOGRAPHIC REFERENCE

XSG-1.8701838D 06	YSG 2.2361105D 04	ZSG-1.6971400D 05
DXSG 6.2710280D 01	DYSG 2.5061256D 03	DZSG-3.6084238D 02
HSG 1.3991221D 05	LTSG-5.1848621D 00	LNSG 1.7931496D 02
VRSG 2.5327466D 03	PTSG-7.7626942D-08	AZSG-9.8224724D 01
LTS-1.4194034D 00	LNS 9.4676341D 01	LTE-2.3429054D 00
LNE 1.7060782D-01	DSMP 4.6010480D 00	RSMP 9.4456769D 01
LIN 1.7027338D 02	LAN 3.1278184D 01	LAP-1.4766301D 02

GEOCENTRIC REFERENCE FLIGHT TIME 2.7830001D 05

X 3.0279102D 08	Y 2.4294733D 08	Z 1.1906200D 08
DX 9.7532405D 02	DY-1.0169810D 03	DZ-6.7642422D 02
R 4.0605611D 08	DEC 1.7050569D 01	RA 3.8742154D 01
V 1.5630281D 03	PTH-2.9162426D 00	AZ-1.1595241D 02
ALT 3.9967978D 08	LTGD 1.7052259D 01	LCN 2.3176897D 02
VE 2.9720155D 04	PTE-1.5334244D-01	AZE-9.1317085D 01

FREE-RETURN VACUUM PERIGEE

TIME 9 FEB. 1968 3 HRS., 0 MIN., 10.091 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4070632D 05

X-5.8363814D 06	Y-3.5447654D 06	Z-1.2372960D 06
DX 4.9404836D 03	DY-5.4181313D 03	DZ-7.7340543D 03
R 6.9397126D 06	DEC-1.0270296D 01	RA-1.4872731D 02
V 1.0657397D 04	PTH-4.5883214D-02	AZ 1.3753248D 02
ALT 5.6223122D 05	LTGD-1.0332497D 01	LCN 2.7946437D 01
VE 1.0327734D 04	PTE-3.4273744D-12	AZE 1.3957069D 02

TABLE 10-XV TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 2 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 108 DEGREES - FIRST OPPORTUNITY

LAUNCH TIME = 21 HRS..33 MIN..26.330 SEC. G. M. T.

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE		FLIGHT TIME		8.119000E 03
XXX -6.489268E 06	YYY -9.011453E C3	ZZZ 1.011852E 06		
DXX -1.205908E 03	DYY 7.750308E 01	DZZ -7.700496E 03		
R 6.567688E 06	WT 2.976457E C5	F 1.850493E 01		
V 7.794733E 03	PTH 3.693497E-02	AZ 7.748150E 01		
ALT 1.951866E 05	LAT -3.091423E 01	LON 5.561174E 01		
VF 7.394151E 03	PTE 3.893601E-C2	AZF 7.679137E 01		
ANG 3.932951E 00	NFA 7.984548E C1	IAC 9.243935E 00		
CPA 9.503012E 01	VPA 9.503012E 01	CYA 5.737342E-01		
VYA 5.737342E-01	CRA -0.000000E-39	VRA -0.000000E-39		

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE		FLIGHT TIME		8.579000E 03
XXX -6.074420E 06	YYY 2.506601E C4	ZZZ -2.504655E 06		
DXX 2.967109E 03	DYY 6.733640E 01	DZZ -7.213265E 03		
R 6.570578E 06	WT 2.965109E C5	F 2.073030E 05		
V 7.799966E 03	PTH 5.026547E-C2	AZ 6.302893E 01		
ALT 1.949314E 05	LAT -2.002533E 01	LON 8.632752E 01		
VF 7.401578E 03	PTE 5.297143E-C2	AZF 6.144825E 01		
ANG 4.182449E 00	NFA 6.802756E C1	IAC 1.187716E 01		
CPA 6.377054E 01	VPA 6.377054E C1	CYA 4.787843E-01		
VYA 4.787843E-01	CRA -0.000000E-39	VRA -0.000000E-39		

TRANSLUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE		FLIGHT TIME		8.915132E 03
XXX -4.409051E 06	YYY 7.763096E C4	ZZZ -5.064462E 06		
DXX 7.154114E 03	DYY 4.295000E C2	DZZ -8.123177E 03		
R 6.715246E 06	WT 1.386810E 05	F 2.060472E 05		
V 1.083290E 04	PTH 7.607107E C0	AZ 5.930505E 01		
ALT 3.373877E 05	LAT -6.859406E C0	LON 1.087025E 02		
VF 1.042162E 04	PTE 7.909199E C0	AZF 5.792739E 01		
ANG 1.195133E 01	NFA 8.324853E C0	IAC 1.621512E 01		
CPA 4.722463E 01	VPA 4.722416E C1	CYA 1.273889E 01		
VYA 1.273899E 01	CRA -0.000000E-39	VRA 0.000000E-39		

TABLE 10- XV TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 2 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 108 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TRANSLUNAR INJECTION

TIME 3 FEB. 1968 0 HRS., 2 MIN., 1.462 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 8.9151322D 03
 X-3.1857194D 06 Y-5.8567976D 06 Z-8.0227658D 05
 DX 7.1177758D 03 DY-6.2378262D 03 DZ 5.2705428D 03
 R 6.7152464D 06 DEC-6.8615677D 00 RA-1.1854333D 02
 V 1.0832905D 04 PTH 7.6071052D 00 AZ 5.9305336D 01
 ALT 3.3738891D 05 LTGD-6.9050444D 00 LCN 1.0870205D 02
 VE 1.0421624D 04 PTE 7.8861107D 00 AZE 5.7922579D 01

PERISELENUM

TIME 6 FEB. 1968 3 HRS., 11 MIN., 23.900 SEC.,GMT
 SELENOCENTRIC REFERENCE
 XSC 1.4146389D 06 YSC 1.1951330D 06 ZSC 3.1354731D 05
 DXSC 1.6150988D 03 DYSC-1.6346447D 03 DZSC-1.0561843D 03
 KSC 1.8782593D 06 DESC 9.6096634D 00 RASC 4.0192210D 01
 VSC 2.5290577D 03 PTSC 3.1041490D-12 AZSC-1.1505974D 02
 SELENOGRAPHIC REFERENCE
 XSG-1.8700505D 06 YSG 3.8515217D 04 ZSG-1.7113053D 05
 DXSG 8.6621408D 01 DYSG 2.5033453D 03 DZSG-3.8315498D 02
 HSG 1.4016979D 05 LTSG-5.2275389D 00 LNSG 1.7882010D 02
 VRSG 2.5339788D 03 PTSG-6.2335732D-08 AZSG-9.8733474D 01
 LTS-1.4191802D 00 LNS 9.4129594D 01 LTE-2.4003384D 00
 LNE 1.0760038D-01 DSMP 4.5992729D 00 RSMP 9.3970855D 01
 LIN 1.6981740D 02 LAN 2.9442518D 01 LAP-1.4897734D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.7947757D 05
 X 3.0029407D 08 Y 2.4537801D 08 Z 1.2045342D 08
 DX 9.6850920D 02 DY-1.0118409D 03 DZ-6.9891053D 02
 R 4.0607379D 08 DEC 1.7255267D 01 RA 3.9253140D 01
 V 1.5653460D 03 PTH-3.7553165D 00 AZ-1.1662508D 02
 ALT 3.9969750D 08 LTGD 1.7256974D 01 LCN 2.1606853D 02
 VE 2.9683421D 04 PTE-1.9793434D-01 AZE-9.1351291D 01

FREE-RETURN VACUUM PERIGEE

TIME 9 FEB. 1968 3 HRS., 43 MIN., 51.038 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4062471D 05
 X-5.8132387D 06 Y-3.5585476D 06 Z-1.2822010D 06
 DX 5.1180541D 03 DY-5.6621636D 03 DZ-7.4436711D 03
 R 6.9354917D 06 DEC-1.0653861D 01 RA-1.4852730D 02
 V 1.0661276D 04 PTH-4.5802096D-02 AZ 1.3528328D 02
 ALT 5.5806159D 05 LTGD-1.0718317D 01 LCN 1.7195937D 01
 VE 1.0317615D 04 PTE 2.0508254D-12 AZE 1.3724498D 02

TABLE 10- XVI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 2 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY

LAUNCH TIME = 16 HRS., 59 MIN., 30.440 SEC. G. M. T.

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -4.265089E 06	YYY -1.378256E C5	ZZZ -5.013483E 06	04
DXX 5.924871E 03	DYY -1.111283E C2	DZZ -5.043379E 03	06
R 6.583692E 06	WT 2.962452E 05	F 1.358319E 01	03
V 7.781524E 03	PTH 3.366642E-C2	AZ 7.658840E 01	01
ALT 2.108761E 05	LAT -2.995377F C1	LON 9.716124E 01	01
VE 7.377535E 03	PTE 3.550997E-02	AZE 7.583908E 01	01
ANG 3.943598E 00	NFA 7.778660E C1	IAC 9.199643E 00	00
CPA 3.653568E 01	VPA 3.653568E C1	CYA -7.354765E-01	01
VYA -7.354765E-01	CRA -0.000000E-39	VRA -0.000000E-39	01

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -1.056420E 06	YYY -1.676903E C5	ZZZ -6.497956E 06	04
DXX 7.686892E 03	DYY -1.518138E C1	DZZ -1.251665E 03	06
R 6.585407E 06	WT 2.951150E C5	F 2.073030E 05	03
V 7.788145E 03	PTH 1.700500E-C2	AZ 6.292524E 01	05
ALT 2.094853E C5	LAT -1.885886E C1	LON 1.273549F 02	01
VE 7.386405E 03	PTE 1.792981E-02	AZE 6.132060E 01	02
ANG 4.189876E 00	NFA 6.600025E C1	IAC 1.186710E 01	01
CPA 5.379623E 00	VPA 5.379623E C0	CYA -1.296333E-02	01
VYA -1.296333E-02	CRA -0.000000E-39	VRA -0.000000E-39	02

TRANSLUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX 1.829602E 06	YYY -1.751470E C5	ZZZ -6.448104E 06	04
DXX 1.070537E 04	DYY -1.466844E C2	DZZ 1.705614F 03	06
R 6.704936E 06	WT 1.384350E C5	F 2.060472E 05	03
V 1.084138E 04	PTH 6.805881E 00	AZ 5.685953E 01	05
ALT 3.270236E 05	LAT -6.224818E 00	LON 1.482734E 02	01
VE 1.044076E 04	PTE 7.068338E C0	AZE 5.539001E 01	02
ANG 6.070864E 00	NFA 1.567868E C2	IAC 1.644127F 01	01
CPA -1.121582E 01	VPA -1.121460E C1	CYA -7.824386E 00	01
VYA -7.824258E 00	CRA -0.000000E-39	VRA 0.000000E-39	00

TABLE 10- XVI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 2 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TRANSLUNAR INJECTION

TIME 2 FEB. 1968 21 HRS., 10 MIN., 42.212 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 1.50717720 04

X-3.5242022D 06	Y-5.6574950D 06	Z-7.2726748D 05
DX 6.6381083D 03	DY-6.3918306D 03	DZ 5.7110066D 03
R 6.7049361D 06	DEC-6.2269793D 00	RA-1.2191986D 02
V 1.0841383D 04	PTH 6.8058796D 00	AZ 5.6859939D 01
ALT 3.2702481D 05	LTGD-6.2665640D 00	LON 1.4827299D 02
VE 1.0440759D 04	PTE 7.0458524D 00	AZE 5.5386409D 01

PERISELENUM

TIME 6 FEB. 1968 0 HRS., 21 MIN., 58.506 SEC., GMT

SELENOCENTRIC REFERENCE

XSC 1.4604627D 06	YSC 1.1805034D 06	ZSC 3.0290473D 05
DXSC 1.5601181D 03	DYSC-1.6506634D 03	DZSC-1.0890572D 03
RSC 1.9021806D 06	DESC 9.1628309D 00	RASC 3.8948877D 01
VSC 2.5188695D 03	PTSC 2.2132237D-12	AZSC-1.1597301D 02

SELENOGRAPHIC REFERENCE

XSG-1.8937697D 06	YSG 3.1009581D 04	ZSG-1.7597126D 05
DXSG 7.8590208D 01	DYSG 2.4895611D 03	DZSG-4.0706361D 02
HSG 1.6409111D 05	LTSG-5.3080380D 00	LNSG 1.7906188D 02
VRSG 2.5238446D 03	PTSG-9.5369890D-08	AZSG-9.9321936D 01
LTS-1.4197612D 00	LNS 9.5561374D 01	LTF-2.2494402D 00
LNE 2.7263345D-01	DSMP 4.6039009D 00	RSMP 9.5244039D 01
LIN 1.6926836D 02	LAN 2.8417052D 01	LAP-1.5021090D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.8574807D 05

X 3.0681719D 08	Y 2.3895526D 08	Z 1.1677309D 08
DX 9.3239411D 02	DY-1.0127617D 03	DZ-7.2437284D 02
R 4.0604477D 08	DEC 1.6713531D 01	RA 3.7912159D 01
V 1.5555581D 03	PTH-3.6779248D 00	AZ-1.1789867D 02
ALT 3.9966838D 08	LTGD 1.6715191D 01	LON 2.5719932D 02
VE 2.9739371D 04	PTE-1.9228765D-01	AZE-9.1399542D 01

FREE-RETURN VACUUM PERIGEE

TIME 9 FEB. 1968 0 HRS., 50 MIN., 25.617 SEC., GMT

GEOCENTRIC REFERENCE

FLIGHT TIME 5.4665518D 05

X-5.0548797D 06	Y-2.9792885D 06	Z-1.1094094D 06
DX 5.4923277D 03	DY-6.3809098D 03	DZ-7.8329235D 03
R 5.9714955D 06	DEC-1.0706855D 01	RA-1.4948538D 02
V 1.1499407D 04	PTH-5.2203383D-02	AZ 1.3389986D 02
ALT-4.0592664D 05	LTGD-1.0782141D 01	LON 5.9712475D 01
VE 1.1195038D 04	PTE 1.4426376D-12	AZE 1.3541848D 02

TABLE 10-XVII TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 2 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 81 DEGREES - SECOND OPPORTUNITY

LAUNCH TIME = 18 HRS., 22 MIN., 16.460 SEC. G. M. T.

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE			FLIGHT TIME					
XXX	-5.572826E 06	06	YYY	-7.702704E 04	04	ZZZ	-3.477899E 06	06
DXX	4.134528E 03	03	DYY	-1.059653E 02	02	DZZ	-6.595929E 03	03
R	6.580092E 06	06	WT	2.975763E 05	05	F	1.434926E 01	01
V	7.785359E 03	03	PTH	4.367159E-02	02	AZ	8.021940E 01	01
ALT	2.066354E 05	05	LAT	-2.792917E 01	01	LON	7.738086E 01	01
VE	7.367932E 03	03	PTE	4.614492E-02	02	AZE	7.965936E 01	01
ANG	3.912702E 00	00	NFA	8.104313E 01	01	IAC	9.210979E 00	00
CPA	5.404922E 01	01	VPA	5.404922E 01	01	CYA	-7.328580E-01	-01
VYA	-7.328580E-01	-01	CRA	-0.000000E-39	-39	VRA	-0.000000E-39	-39

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE			FLIGHT TIME					
XXX	-2.958146E 06	06	YYY	-1.133648E 05	05	ZZZ	-5.879501E 06	06
DXX	6.957422E 03	03	DYY	-4.786839E 01	01	DZZ	-3.504920E 03	03
R	6.582705E 06	06	WT	2.964454E 05	05	F	2.073030E 05	05
V	7.790537E 03	03	PTH	3.523374E-02	02	AZ	6.689765E 01	01
ALT	2.067789E 05	05	LAT	-1.883870E 01	01	LON	1.080724E 02	02
VE	7.374820E 03	03	PTE	3.722007E-02	02	AZE	6.551261E 01	01
ANG	4.111922E 00	00	NFA	6.929208E 01	01	IAC	1.185171E 01	01
CPA	2.286799E 01	01	VPA	2.286799E 01	01	CYA	-2.846661E-01	-01
VYA	-2.846661E-01	-01	CRA	-0.000000E-39	-39	VRA	-0.000000E-39	-39

TRANSLUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE			FLIGHT TIME					
XXX	-1.745213E 05	05	YYY	-1.352144E 05	05	ZZZ	-6.698822E 06	06
DXX	1.072842E 04	04	DYY	-1.906699E 02	02	DZZ	-1.566234E 03	03
R	6.702459E 06	06	WT	1.391224E 05	05	F	2.060472E 05	05
V	1.084382E 04	04	PTH	6.831551E 00	00	AZ	6.048452E 01	01
ALT	3.246699E 05	05	LAT	-7.598830E 00	00	LON	1.299804E 02	02
VE	1.042808E 04	04	PTE	7.105284E 00	00	AZE	5.916290E 01	01
ANG	5.338343E 00	00	NFA	1.554048E 02	02	IAC	1.636112E 01	01
CPA	6.337148E 00	00	VPA	6.336695E 00	00	CYA	-7.181875E 00	00
VYA	-7.181934E 00	00	CRA	-0.000000E-39	-39	VRA	0.000000E-39	-39

TABLE 10- XVII TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 2 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 81 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TRANSLUNAR INJECTION
 TIME 2 FEB. 1968 22 HRS., 29 MIN., 4.890 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.4808430D 04

X-3.3783288D 06	Y-5.7204782D 06	Z-8.8655841D 05
DX 7.0607822D 03	DY-6.4695657D 03	DZ 5.0870866D 03
R 6.7024594D 06	DEC-7.6009942D 00	RA-1.2056471D 02
V 1.0843817D 04	PTH 6.8315484D 00	AZ 6.0484884D 01
ALT 3.2467116D 05	LTGD-7.6491419D 00	LON 1.2997999D 02
VE 1.0428076D 04	PTF 7.0806004D 00	AZE 5.9158137D 01

PERISPLENUM
 TIME 6 FEB. 1968 1 HRS., 19 MIN., 34.991 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC 1.4347728D 06	YSC 1.1959115D 06	ZSC 3.1058651D 05
DXSC 1.5971903D 03	DYSC-1.6424767D 03	DZSC-1.0539689D 03
RSC 1.8934733D 06	DFSC 9.4408917D 00	RASC 3.9811871D 01
VSC 2.5218242D 03	PTSC 2.0123946D-12	AZSC-1.1506699D 02

SELENOGRAPHIC REFERENCE

XSG-1.8853359D 06	YSG 1.8620594D 04	ZSG-1.7436509D 05
DXSG 5.9625131D 01	DYSG 2.4976442D 03	DZSG-3.7797573D 02
HSG 1.5538385D 05	LTSG-5.2837065D 00	LNSG 1.7943412D 02
VRSG 2.5267860D 03	PTSG-8.7203082D-08	AZSG-9.8640011D 01
LTS-1.4195650D 00	LNS 9.5074661D 01	LTE-2.3009052D 00
LNE 2.1653357D-01	DSMP 4.6023355D 00	RSMP 9.4811068D 01
LIN 1.6986843D 02	LAN 3.0600871D 01	LAP-1.4843304D 02

GEOCENTRIC REFERENCE FLIGHT TIME 2.8423853D 05

X 3.0461060D 08	Y 2.4116679D 08	Z 1.1803699D 08
DX 9.6300622D 02	DY-1.0096651D 03	DZ-6.9177925D 02
R 4.0605636D 08	DEC 1.6899338D 01	RA 3.8369417D 01
V 1.5573578D 03	PTH-2.8834544D 00	AZ-1.1671381D 02
ALT 3.9968000D 08	LTGD 1.6901014D 01	LON 2.4321513D 02
VE 2.9729138D 04	PTF-1.5102530D-01	AZE-9.1347659D 01

FREE-RETURN VACUUM PERIGEE
 TIME 9 FEB. 1968 2 HRS., 7 MIN., 26.000 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4630954D 05

X-5.2079992D 06	Y-3.1554473D 06	Z-1.1304481D 06
DX 5.2821572D 03	DY-5.7861886D 03	DZ-8.1274792D 03
R 6.1933849D 06	DEC-1.0516873D 01	RA-1.4878896D 02
V 1.1288803D 04	PTH-5.2254153D-02	AZ 1.3709049D 02
ALT-1.8406320D 05	LTGD-1.0588217D 01	LON 4.1104593D 01
VE 1.0991294D 04	PTF 2.4070157D-12	AZE 1.3878613D 02

TABLE 10-XVII TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 2 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 90 DEGREES - SECOND OPPORTUNITY

LAUNCH TIME = 19 HRS., 43 MIN., 22.840 SEC. G. M. T.

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-6.363082E 06	YYY	-3.340528E 04	ZZZ	-1.662152E 06
DXX	1.962795E 03	DYY	-6.911085E C1	DZZ	-7.537120F 03
R	6.576677E 06	WT	2.980898E 05	F	1.550021E 01
V	7.788808E 03	PTH	4.554870E-C2	AZ	8.166396E 01
ALT	2.030299E 05	LAT	-2.731039E C1	LON	5.839331E 01
VF	7.367447E 03	PTE	4.815373E-C2	AZE	8.118351E 01
ANG	3.902253E 00	NFA	8.259802E C1	IAC	9.220932E 00
CPA	7.153331E 01	VPA	7.153331E C1	CYA	-4.876234E-01
VYA	-4.876234F-01	CRA	-0.000000E-39	VRA	-0.000000F-39

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-4.583469E 06	YYY	-5.990306E 04	ZZZ	-4.720266E 06
DXX	5.586901E 03	DYY	-4.301435E 01	DZZ	-5.433311E 03
R	6.579718E 06	WT	2.969579E 05	F	2.073030E 05
V	7.793343E 03	PTH	4.677136E-C2	AZ	6.838051E 01
ALT	2.038288E 05	LAT	-1.899930E C1	LON	8.929841E 01
VE	7.373490E 03	PTE	4.943456E-02	AZE	6.708157E 01
ANG	4.084397E 00	NFA	7.090037E 01	IAC	1.184984E 01
CPA	4.033163E 01	VPA	4.033163E 01	CYA	-2.803280F-01
VYA	-2.803280E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

TRANSLUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-2.164743E C6	YYY	-8.328815E 04	ZZZ	-6.340238E 06
DXX	9.773325E 03	DYY	-1.980645E 02	DZZ	-4.698525E 03
R	6.700125E 06	WT	1.394037E C5	F	2.060472E 05
V	1.084589E 04	PTH	6.835932E C0	AZ	6.178009E 01
ALT	3.224037E 05	LAT	-8.267159E C0	LON	1.115996E 02
VE	1.042551E 04	PTE	7.112966F C0	AZE	6.051376E 01
ANG	5.001043E 00	NFA	1.529024E 02	IAC	1.635134E 01
CPA	2.366473E 01	VPA	2.366426E 01	CYA	-6.761947E 00
VYA	-6.7620C7E 00	CRA	-0.000000E-39	VRA	0.000000E-39

TABLE 10-XVIII TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 2 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 90 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TRANSLUNAR INJECTION
TIME 2 FEB. 1968 23 HRS., 45 MIN., 50.286 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 1.4547445D 04

X-3.2855072D 06	Y-5.7592085D 06	Z-9.6365463D 05
DX 7.2460397D 03	DY-6.4476683D 03	DZ 4.8534749D 03
R 6.7001247D 06	DEC-8.2693225D 00	RA-1.1970384D 02
V 1.0845886D 04	PTH 6.8359326D 00	AZ 6.1780417D 01
ALT 3.2240494D 05	LTGD-8.3216071D 00	LON 1.1159918D 02
VE 1.0425512D 04	PTE 7.0872282D 00	AZE 6.0508443D 01

PERISELENIUM
TIME 6 FEB. 1968 2 HRS., 28 MIN., 15.359 SEC., GMT
SELENOCENTRIC REFERENCE

XSC 1.4134217D 06	YSC 1.2073097D 06	ZSC 3.1656727D 05
DXSC 1.6260000D 03	DYSC-1.6323325D 03	DZSC-1.0345126D 03
RSC 1.8856226D 06	DESC 9.6648559D 00	RASC 4.0503127D 01
VSC 2.5255894D 03	PTSC 1.8353355D-12	AZSC-1.1455142D 02

SELENOGRAPHIC REFERENCE

XSG-1.8776167D 06	YSG 1.5536417D 04	ZSG-1.7287784D 05
DXSG 5.4233963D 01	DYSG 2.5036266D 03	DZSG-3.6403277D 02
HSG 1.4753307D 05	LTSG-5.2603844D 00	LNSG 1.7952590D 02
VRSG 2.5305350D 03	PTSG-7.4092008D-08	AZSG-9.8306265D 01
LTS-1.4193293D 00	LNS 9.4494477D 01	LTE-2.3620460D 00
LNE 1.4963584D-01	DSMP 4.6004583D 00	RSMP 9.4295015D 01
LIN 1.7016429D 02	LAN 3.1602647D 01	LAP-1.4754027D 02

GEOCENTRIC REFERENCE FLIGHT TIME 2.8349252D 05

X 3.0196042D 08	Y 2.4377300D 08	Z 1.1952915D 08
DX 9.8417590D 02	DY-1.0056474D 03	DZ-6.7533064D 02
R 4.0606968D 08	DEC 1.7118938D 01	RA 3.8913977D 01
V 1.5607691D 03	PTH-2.5944801D 00	AZ-1.1605652D 02
ALT 3.9969337D 08	LTGD 1.7120633D 01	LON 2.2654449D 02
VF 2.9707849D 04	PTE-1.3629952D-01	AZE-9.1320994D 01

FREE-RETURN VACUUM PERIGEE
TIME 9 FEB. 1968 3 HRS., 21 MIN., 48.511 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 5.4590567D 05

X-5.2969767D 06	Y-3.2888271D 06	Z-1.1600875D 06
DX 5.2037438D 03	DY-5.4638290D 03	DZ-8.2148465D 03
R 6.3419357D 06	DEC-1.0540077D 01	RA-1.4816436D 02
V 1.1154196D 04	PTH-5.2306808D-02	AZ 1.3852893D 02
ALT-3.5509376D 04	LTGD-1.0609886D 01	LON 2.3084492D 01
VF 1.0858448D 04	PTE-8.4948899D-13	AZE 1.4032684D 02

TABLE 1C- XIX TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 2 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 99 DEGREES - SECOND OPPORTUNITY

LAUNCH TIME = 20 HRS..48 MIN..23.770 SEC. G. M. T.

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -6.573534E 06	YYY -1.641606E 04	ZZZ -9.007085E 04	04
DXX 1.009721E 02	DYY -1.384843E C1	DZZ -7.790340E 03	
R 6.574171E 06	WT 2.977661E 05	F 1.656219E 01	
V 7.791006E 03	PTH 4.269443E-C2	AZ 8.048938F 01	
ALT 2.008430E 05	LAT -2.834162E 01	LON 4.358416E 01	
VE 7.375203E 03	PTE 4.510141E-02	AZE 7.994777E 01	
ANG 3.910055E 00	NFA 8.188225E C1	IAC 9.227338E 00	
CPA 8.538743E 01	VPA 8.538743E 01	CYA -9.195927E-02	
VYA -9.195927E-02	CRA -0.000000E-39	VRA -0.000000E-39	

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -5.577270E 06	YYY -2.120308E 04	ZZZ -3.486287E 06	06
DXX 4.126155E 03	DYY -6.177040E 00	DZZ -6.614105E 03	
R 6.577277E 06	WT 2.966332E C5	F 2.073030E 05	
V 7.795613E 03	PTH 5.153225E-C2	AZ 6.685763E 01	
ALT 2.014571E C5	LAT -1.929493E C1	LON 7.445866E 01	
VE 7.381502E 03	PTE 5.442327E-02	AZE 6.547653E 01	
ANG 4.111446E C0	NFA 7.016885E 01	IAC 1.185976E 01	
CPA 5.417238E 01	VPA 5.417238E C1	CYA -3.283272E-02	
VYA -3.283272E-02	CRA -0.000000E-39	VRA -0.000000E-39	

TRANSLUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -3.614768E 06	YYY -3.452139E 04	ZZZ -5.639845E 06	06
DXX 8.365044E 03	DYY -1.752307E 02	DZZ -6.902617E 03	
R 6.698925E 06	WT 1.392555E 05	F 2.060472E 05	
V 1.084669E 04	PTH 6.875187E C0	AZ 6.029605E 01	
ALT 3.211704E 05	LAT -7.948438E 00	LON 9.648770F 01	
VE 1.043236E 04	PTE 7.149640E C0	AZE 5.896898E 01	
ANG 5.012205E 00	NFA 1.554851E 02	IAC 1.633833E 01	
CPA 3.772032E 01	VPA 3.772168E C1	CYA -6.807287E 00	
VYA -6.807140E 00	CRA -0.000000E-39	VRA 0.000000E-39	

TABLE 10- XIX TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 2 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 99 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TRANSLUNAR INJECTION

TIME 3 FEB. 1968 0 HRS., 47 MIN., 25.478 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.4341708D 04

X-3.2545918D 06	Y-5.7814060D 06	Z-9.2659000D 05
DX 7.1580231D 03	DY-6.3522389D 03	DZ 5.1051493D 03
R 6.6989247D 06	DEC-7.9505977D 00	RA-1.1937695D 02
V 1.0846695D 04	PTH 6.8751890D 00	AZ 6.0296366D 01
ALT 3.2117156D 05	LTGD-8.0009299D 00	LON 9.6487289D 01
VE 1.0432366D 04	PTE 7.1236924D 00	AZE 5.8963913D 01

PERISELENUM

TIME 6 FEB. 1968 3 HRS., 37 MIN., 47.881 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC 1.3941237D 06	YSC 1.2036034D 06	ZSC 3.1381564D 05
DXSC 1.6412153D 03	DYSC-1.6302489D 03	DZSC-1.0384573D 03
RSC 1.8683475D 06	DESC 9.6694785D 00	RASC 4.0805369D 01
VSC 2.5356839D 03	PTSC 2.4465136D-12	AZSC-1.1454699D 02

SELENOGRAPHIC REFERENCE

XSG-1.8600502D 06	YSG 2.6680303D 04	ZSG-1.7384972D 05
DXSG 7.0496027D 01	DYSG 2.5127081D 03	DZSG-3.6863062D 02
HSG 1.3025798D 05	LTSG-5.3390951D 00	LNSG 1.7917820D 02
VRSG 2.5405827D 03	PTSG-5.8625664D-08	AZSG-9.8379499D 01
LTS-1.4190886D 00	LNS 9.3906962D 01	LTE-2.4237246D 00
LNE 8.1876254D-02	DSMP 4.5985452D 00	RSMP 9.3772509D 01
LIN 1.7006072D 02	LAN 3.1408082D 01	LAP-1.4737796D 02

GEOCENTRIC REFERENCE FLIGHT TIME 2.8376411D 05

X 2.9924707D 08	Y 2.4637110D 08	Z 1.2101867D 08
DX 9.9172268D 02	DY-1.0098324D 03	DZ-6.8235830D 02
R 4.0607025D 08	DEC 1.7338956D 01	RA 3.9464737D 01
V 1.5712696D 03	PTH-3.1086992D 00	AZ-1.1601838D 02
ALT 3.9969398D 08	LTGD 1.7340671D 01	LON 2.0966214D 02
VE 2.9683584D 04	PTE-1.6451500D-01	AZF-9.1328564D 01

FREE-RETURN VACUUM PERIGEE

TIME 9 FEB. 1968 4 HRS., 16 MIN., 50.366 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4530660D 05

X-5.5459437D 06	Y-3.4837384D 06	Z-1.2262367D 06
DX 5.1372843D 03	DY-5.3615029D 03	DZ-7.9512781D 03
R 6.6631511D 06	DEC-1.0604733D 01	RA-1.4786461D 02
V 1.0879349D 04	PTH-4.9689129D-02	AZ 1.3804946D 02
ALT 2.8571447D 05	LTGD-1.0671544D 01	LON 9.5888486D 00
VE 1.0566060D 04	PTE 1.1024467D-12	AZE 1.3997591D 02

TABLE 10- XX TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 2 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 108 DEGREES - SECOND OPPORTUNITY

LAUNCH TIME = 21 HRS., 33 MIN., 26.330 SEC. G. M. T.

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-6.499726E 06	YYY	-1.872141E 04	ZZZ	1.342600E 04
DXX	-1.163491E 03	DYY	4.532505E 01	DZZ	9.767725E 05
R	6.572737E 06	WT	2.966108E 05	F	-7.704321E 03
V	7.791811E 03	PTH	4.045242E-02	AZ	1.727726E 01
ALT	2.001846E 05	LAT	-3.075980E 01	LON	7.707220E 01
VE	7.390961E 03	PTE	4.264636E-02	AZE	3.377481E 01
ANG	3.937454E 00	NFA	7.939891E 01	IAC	7.635788E 01
CPA	9.471775E 01	VPA	9.471775E 01	CYA	9.229834E 00
VYA	3.435636E-01	CRA	-0.000000E-39	VRA	3.435636E-01
					-0.000000E-39

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-6.066994E 06	YYY	2.693909E 03	ZZZ	1.388600E 04
DXX	3.000592E 03	DYY	4.582663E 01	DZZ	-2.536389E 06
R	6.575841E 06	WT	2.954773E 05	F	-7.196167E 03
V	7.796824E 03	PTH	5.344912E-02	AZ	2.073030E 05
ALT	2.001219E 05	LAT	-1.972287E 01	LON	6.281449E 01
VE	7.398175E 03	PTE	5.632864E-02	AZE	6.432309E 01
ANG	4.188918E 00	NFA	6.761189E 01	IAC	6.121715E 01
CPA	6.349522E 01	VPA	6.349522E 01	CYA	1.188001E 01
VYA	3.344342E-01	CRA	-0.000000E-39	VRA	3.344342E-01
					-0.000000E-39

TRANSLUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-4.483434E 06	YYY	5.255859E 03	ZZZ	1.420415E 04
DXX	7.128734E 03	DYY	-1.389558E 02	DZZ	-4.975872E 06
R	6.697799E 06	WT	1.386848E 05	F	-8.174524E 03
V	1.084717E 04	PTH	6.888282E 00	AZ	2.060472E 05
ALT	3.199413E 05	LAT	-6.870648E 00	LON	5.648940E 01
VE	1.044932E 04	PTE	7.151889E 00	AZE	8.544007E 01
ANG	5.494261E 00	NFA	1.576415E 02	IAC	5.500981E 01
CPA	4.709065E 01	VPA	4.709008E 01	CYA	1.639547E 01
VYA	-7.286353E 00	CRA	-0.000000E-39	VRA	-7.286264E 00
					0.000000E-39

TABLE 10- XX TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 2 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 108 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TRANSLUNAR INJECTION
 TIME 3 FEB. 1968 1 HRS., 30 MIN., 10.476 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.4204146D 04

X-3.2954270D 06	Y-5.7756624D 06	Z-8.0149596D 05
DX 6.8061189D 03	DY-6.1895358D 03	DZ 5.7469467D 03
R 6.6977989D 06	DEC-6.8728020D 00	RA-1.1970783D 02
V 1.0847166D 04	PTH 6.8882815D 00	AZ 5.6489731D 01
ALT 3.1994247D 05	LTGD-6.9164626D 00	LON 8.5439653D 01
VE 1.0449322D 04	PTF 7.1268509D 00	AZE 5.5005680D 01

PERISELENUM
 TIME 6 FEB. 1968 4 HRS., 42 MIN., 11.866 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC 1.3799754D 06	YSC 1.1893151D 06	ZSC 3.0488444D 05
DXSC 1.6432229D 03	DYSC-1.6345405D 03	DZSC-1.0614627D 03
RSC 1.8470942D 06	DESC 9.5008161D 00	RASC 4.0756008D 01
VSC 2.5492366D 03	PTSC-1.0439254D-12	AZSC-1.1497200D 02

SELENOGRAPHIC REFERENCE

XSG-1.8379943D 06	YSG 4.8296445D 04	ZSG-1.7663880D 05
DXSG 1.0360118D 02	DYSG 2.5222447D 03	DZSG-3.8837967D 02
HSG 1.0900469D 05	LTSG-5.4876178D 00	LNSG 1.7849479D 02
VRSG 2.5540733D 03	PTSG-4.4720352D-08	AZSG-9.8787074D 01
LTS-1.4188638D 00	LNS 9.3362903D 01	LTF-2.4806258D 00
LNE 1.9123027D-02	DSMP 4.5967626D 00	RSMP 9.3288701D 01
LIN 1.6963743D 02	LAN 3.0188816D 01	LAP-1.4788322D 02

GEOCENTRIC REFERENCE FLIGHT TIME 2.8492554D 05

X 2.9670967D 08	Y 2.4874278D 08	Z 1.2238013D 08
DX 9.8669038D 02	DY-1.0199865D 03	DZ-7.0825188D 02
R 4.0606218D 08	DEC 1.7540671D 01	RA 3.9974356D 01
V 1.5860489D 03	PTH-4.2411900D 00	AZ-1.1649840D 02
ALT 3.9968596D 08	LTGD 1.7542403D 01	LON 1.9402775D 02
VF 2.9657900D 04	PTE-2.2664561D-01	AZE-9.1363489D 01

FREE-RETURN VACUUM PERIGEE
 TIME 9 FEB. 1968 4 HRS., 51 MIN., 36.000 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4468967D 05

X-5.8774081D 06	Y-3.6946502D 06	Z-1.3141604D 06
DX 5.0999119D 03	DY-5.4344996D 03	DZ-7.4845514D 03
R 7.0655066D 06	DEC-1.0719243D 01	RA-1.4784574D 02
V 1.0562263D 04	PTH-4.5901626D-02	AZ 1.3616596D 02
ALT 6.8808536D 05	LTGD-1.0782876D 01	LON 8.9378079D-01
VE 1.0218187D 04	PTE-1.0571522D-12	AZE 1.3821402D 02

TABLE 10-XXI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 3 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - FIRST OPPORTUNITY

LAUNCH TIME = 18 HRS., 24 MIN., 15.020 SEC. G. M. T.

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-5.120399E 06	YYY	-1.125074E 05	ZZZ	-4.127116E 06
DXX	4.883126E 03	DYY	-1.043774E 02	DZZ	-6.062658E 03
R	6.577555E 06	WT	2.972911E 05	F	1.603643E 01
V	7.785347E 03	PTH	3.298193E-02	AZ	8.319589E 01
ALT	2.053868E 05	LAT	-3.191672E 01	LON	1.076780E 02
VE	7.381243E 03	PTE	3.478735E-02	AZE	8.282148E 01
ANG	3.889851E 00	NFA	8.344289E 01	IAC	9.215551E 00
CPA	4.728081E 01	VPA	4.728081E 01	CYA	-7.003104E-01
VYA	-7.003104E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-2.242833E 06	YYY	-1.431396E 05	ZZZ	-6.183696E 06
DXX	7.323653E 03	DYY	-2.527819E 01	DZZ	-2.659015E 03
R	6.579429E 06	WT	2.961586E 05	F	2.073030E 05
V	7.791463E 03	PTH	2.282882E-02	AZ	6.684707E 01
ALT	2.046990E 05	LAT	-2.358012E 01	LON	1.398849E 02
VE	7.389183E 03	PTE	2.407166E-02	AZE	6.550635E 01
ANG	4.096515E 00	NFA	6.962460E 01	IAC	1.186303E 01
CPA	1.608546E 01	VPA	1.608546E 01	CYA	-1.013381E-01
VYA	-1.013381E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

TRANSLUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	7.483261E 05	YYY	-1.145475E 05	ZZZ	-6.674761E 06
DXX	1.082144E 04	DYY	3.794808E 02	DZZ	-2.095412E 02
R	6.717555E 06	WT	1.385726E 05	F	2.060472E 05
V	1.083012E 04	PTH	7.465927E 00	AZ	6.104144E 01
ALT	3.402667E 05	LAT	-1.165302E 01	LON	1.631948E 02
VE	1.041664E 04	PTE	7.764072E 00	AZE	5.975183E 01
ANG	1.159913E 01	NFA	4.702767E 00	IAC	1.618191E 01
CPA	4.374451E-01	VPA	4.368071E-01	CYA	1.228498E 01
VYA	1.228522E 01	CRA	-0.000000E-39	VRA	0.000000E-39

TABLE 10- XXI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 3 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - FIRST OPPORTUNITY
(CONTINUED)

TRANSLUNAR INJECTION
TIME 3 FEB. 1968 21 HRS., 4 MIN., 38.634 SEC.,GMT
GEOCENTRIC REFERENCE FLIGHT TIME 9.6236140D 03

X-1.9818402D 06	Y-6.2734492D 06	Z-1.3570914D 06
DX 8.2276785D 03	DY-5.1460771D 03	DZ 4.8077650D 03
R 6.7175556D 06	DEC-1.1655201D 01	RA-1.0753180D 02
V 1.0830116D 04	PTH 7.4659261D 00	AZ 6.1041308D 01
ALT 3.4026809D 05	LTGD-1.1727679D 01	LON 1.6319447D 02
VE 1.0416640D 04	PTE 7.7275536D 00	AZE 5.9743197D 01

PERISELENUM
TIME 7 FEB. 1968 0 HRS., 31 MIN., 13.868 SEC.,GMT
SELENUCENTRIC REFERENCE

XSC 1.1640909D 06	YSC 1.3562619D 06	ZSC 4.9692858D 05
DXSC 1.9448340D 03	DYSC-1.3184499D 03	DZSC-9.5748170D 02
RSC 1.8551259D 06	DESC 1.5537430D 01	RASC 4.9360232D 01
VSC 2.5372151D 03	PTSC-2.0655148D-12	AZSC-1.1305963D 02

SELENOGRAPHIC REFERENCE

XSG-1.8521347D 06	YSG 8.7229345D 04	ZSG-5.8990943D 04
DXSG 1.3113842D 02	DYSG 2.5047939D 03	DZSG-4.1352911D 02
HSG 1.1703637D 05	LTSG-1.8222493D 00	LNSG 1.7730354D 02
VRSG 2.5420850D 03	PTSG-1.3983721D-07	AZSG-9.9366867D 01
LTS-1.4143455D 00	LNS 8.3319807D 01	LTE-3.4889056D 00
LNE-1.1296494D 00	DSMP 4.5619662D 00	RSMP 8.4357063D 01
LIN 1.7044136D 02	LAN 8.1939579D 00	LAP-1.6896000D 02

GEOCENTRIC REFERENCE FLIGHT TIME 2.8121885D 05

X 2.4528999D 08	Y 2.8866003D 08	Z 1.4573386D 08
DX 1.1695705D 03	DY-8.2152673D 02	DZ-6.6306387D 02
R 4.0586963D 08	DEC 2.1042827D 01	RA 4.9643647D 01
V 1.5755809D 03	PTH-4.2048909D 00	AZ-1.1507722D 02
ALT 3.9949421D 08	LTGD 2.1044847D 01	LCN 2.6562484D 02
VE 2.9053844D 04	PTE-2.2787221D-01	AZE-9.1313493D 01

FREE-RETURN VACUUM PERIGEE
TIME 10 FEB. 1968 0 HRS., 23 MIN., 25.749 SEC.,GMT
GEOCENTRIC REFERENCE FLIGHT TIME 5.3995073D 05

X-5.4321052D 06	Y-4.4926806D 06	Z-2.0813929D 06
DX 6.8912594D 03	DY-6.1565235D 03	DZ-4.6689834D 03
R 7.3501117D 06	DEC-1.6449993D 01	RA-1.4040718D 02
V 1.0353340D 04	PTH-4.2738344D-02	AZ 1.1806230D 02
ALT 9.7366883D 05	LTGD-1.6540842D 01	LON 7.4572976D 01
VE 9.9026857D 03	PTE-8.9630682D-13	AZE 1.1946161D 02

TABLE 10-XXII TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 3 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 81 DEGREES - FIRST OPPORTUNITY

LAUNCH TIME = 19 HRS..56 MIN..11.370 SEC. G. M. T.

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-6.201163E 06	YYY	-5.329647E 04	ZZZ	8.538000F 03
DXX	2.580092E 03	DYY	-8.934570E C1	DZZ	-2.181088E 06
R	6.573767E 06	WT	2.986345E 05	F	-7.349251E 03
V	7.789503E 03	PTH	3.866152E-02	AZ	1.692637E 01
ALT	2.007588E 05	LAT	-2.935486E C1	LON	8.741562E 01
VE	7.372136E 03	PTE	4.085000E-C2	AZE	8.589819E 01
ANG	3.874972E 00	NFA	8.732543E 01	IAC	8.726920E 01
CPA	6.678532E 01	VPA	6.678532E 01	CYA	9.227841E 00
VYA	-6.243758E-01	CRA	-0.000000E-39	VRA	-6.243758E-01
					-0.000000E-39

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-4.173863E 06	YYY	-8.587014E 04	ZZZ	8.998000E 03
DXX	6.019939E 03	DYY	-4.862281E 01	DZZ	-5.081254E 06
R	6.576295E 06	WT	2.975012E 05	F	-4.950761E 03
V	7.794360E 03	PTH	3.783350E-C2	AZ	2.073030E 05
ALT	2.015420E 05	LAT	-2.349640E 01	LON	7.168039E 01
VE	7.378156E 03	PTE	3.996726E-02	AZE	1.183523E 02
ANG	4.018002E 00	NFA	7.372099E C1	IAC	7.060687E 01
CPA	3.556394E 01	VPA	3.556394E 01	CYA	1.184884E 01
VYA	-3.061316E-01	CRA	-0.000000E-39	VRA	-3.061316E-01
					-0.000000E-39

TRANSLUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-1.500845E 06	YYY	-7.224546E 04	ZZZ	9.333442E 03
DXX	1.014916E 04	DYY	3.011227E 02	DZZ	-6.545553E 06
R	6.715803E 06	WT	1.392823E 05	F	-3.772350E 03
V	1.083175E 04	PTH	7.454773E 00	AZ	2.060472E 05
ALT	3.387898E 05	LAT	-1.338734E 01	LON	6.505948E 01
VE	1.040550E 04	PTE	7.761992E 00	AZE	1.428229E 02
ANG	1.093932E 01	NFA	7.921432E C0	IAC	6.394300E 01
CPA	1.918393E 01	VPA	1.918352E 01	CYA	1.618215E 01
VYA	1.131998E 01	CRA	-0.000000E-39	VRA	1.131989E 01
					0.000000E-39

D5-15481-1

TABLE 10- XXII TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 3 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 81 DEGREES - FIRST OPPORTUNITY
(CONTINUED)

TRANSLUNAR INJECTION
TIME 3 FEB. 1968 22 HRS., 31 MIN., 44.812 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 9.3334417D 03
X-1.8083013D 06 Y-6.2780160D 06 Z-1.5551780D 06
DX 8.6894586D 03 DY-5.0170196D 03 DZ 4.0803832D 03
R 6.7158035D 06 DEC-1.3389516D 01 RA-1.0606836D 02
V 1.0831745D 04 PTH 7.4547722D 00 AZ 6.5059298D 01
ALT 3.3879114D 05 LTGD-1.3472050D 01 LON 1.4282256D 02
VE 1.0405502D 04 PTE 7.7257269D 00 AZE 6.3932736D 01

PERISELENUM
TIME 7 FEB. 1968 1 HRS., 41 MIN., 23.639 SEC., GMT
SELENOCENTRIC REFERENCE
XSC 1.1308326D 06 YSC 1.3530515D 06 ZSC 4.9971729D 05
DXSC 1.9795986D 03 DYSC-1.3155185D 03 DZSC-9.1777952D 02
RSC 1.8328251D 06 DESC 1.5821937D 01 RASC 5.0112313D 01
VSC 2.5478851D 03 PTSC 6.9268112D-13 AZSC-1.1198703D 02
SELENOGRAPHIC REFERENCE
XSG-1.8301645D 06 YSG 8.2067360D 04 ZSG-5.4870514D 04
DXSG 1.2440482D 02 DYSG 2.5214727D 03 DZSG-3.7817528D 02
HSG 9.4735644D 04 LTSG-1.7155584D 00 LNSG 1.7743248D 02
VRSG 2.5527079D 03 PTSG-1.2787280D-07 AZSG-9.8523385D 01
LTS-1.4140545D 00 LNS 8.2727302D 01 LTE-3.5456048D 00
LNE-1.1962304D 00 DSMP 4.5598030D 00 RSMP 8.3829516D 01
LIN 1.7129108D 02 LAN 8.7080531D 00 LAP-1.6859633D 02
GEOCENTRIC REFERENCE FLIGHT TIME 2.7991227D 05
X 2.4197975D 08 Y 2.9073306D 08 Z 1.4696814D 08
DX 1.1980306D 03 DY-8.2606014D 02 DZ-6.2713861D 02
R 4.0580728D 08 DEC 2.1233055D 01 RA 5.0229079D 01
V 1.5845995D 03 PTH-3.7835996D 00 AZ-1.1356737D 02
ALT 3.9943192D 08 LTGD 2.1235090D 01 LCN 2.4862154D 02
VE 2.9039419D 04 PTE-2.0635514D-01 AZE-9.1247417D 01

FREE-RETURN VACUUM PERIGEE
TIME 10 FEB. 1968 1 HRS., 41 MIN., 49.641 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 5.3913827D 05
X-5.7493200D 06 Y-4.8464769D 06 Z-2.1699889D 06
DX 6.6403599D 03 DY-5.6415634D 03 DZ-4.9662692D 03
R 7.8263574D 06 DEC-1.6097144D 01 RA-1.3987027D 02
V 1.0029230D 04 PTH-4.3139161D-02 AZ 1.2103781D 02
ALT 1.4498429D 06 LTGD-1.6180811D 01 LON 5.5456678D 01
VE 9.5635845D 03 PTE-9.9836916D-14 AZE 1.2273188D 02

TABLE 10-XXIII TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 3 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 90 DEGREES - FIRST OPPORTUNITY

LAUNCH TIME = 21 HRS., 21 MIN., 29.220 SEC. G. M. T.

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -6.569209E 06	YYY -1.815839E 04	ZZZ -1.258430E 05	03
DXX 1.444931E 02	DYY -4.279156E 01	DZZ -7.791429E 03	03
R 6.570439E 06	WT 2.991574E 05	F 1.794316E 01	01
V 7.792886E 03	PTH 3.588534E-02	AZ 8.908787E 01	01
ALT 1.571431E 05	LAT -2.844435E 01	LON 6.610804E 01	01
VE 7.371658E 03	PTE 3.793568E-02	AZE 8.903575E 01	01
ANG 3.872419E 00	NFA 8.904913E 01	IAC 9.237767E 00	00
CPA 8.506752E 01	VPA 8.506752E 01	CYA -3.032280E-01	01
VYA -3.032280E-01	CRA -0.000000E-39	VRA -0.000000E-39	01

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -5.553005E 06	YYY -3.543443E 04	ZZZ -3.516885E 06	03
DXX 4.166967E 03	DYY -3.032786E 01	DZZ -6.590528E 03	03
R 6.573096E 06	WT 2.980232E 05	F 2.073030E 05	05
V 7.797409E 03	PTH 4.472976E-02	AZ 7.354700E 01	01
ALT 1.583624E 05	LAT -2.356436E 01	LON 9.865043E 01	01
VE 7.377101E 03	PTE 4.727851E-02	AZE 7.258050E 01	01
ANG 3.591168E 00	NFA 7.565196E 01	IAC 1.184781E 01	01
CPA 5.382625E 01	VPA 5.382625E 01	CYA -2.015085E-01	01
VYA -2.015085E-01	CRA -0.000000E-39	VRA -0.000000E-39	01

TRANSLUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -3.464698E 06	YYY -2.028057E 04	ZZZ -5.750594E 06	03
DXX 8.469094E 03	DYY 2.822570E 02	DZZ -6.749783E 03	03
R 6.713708E 06	WT 1.396029E 05	F 2.060472E 05	05
V 1.0833350E 04	PTH 7.478643E 00	AZ 6.650655E 01	01
ALT 3.368261E 05	LAT -1.414932E 01	LON 1.235803E 02	02
VE 1.040372E 04	PTE 7.789473E 00	AZE 6.545457E 01	01
ANG 1.040595E 01	NFA 9.064273E 00	IAC 1.615731E 01	01
CPA 3.722993E 01	VPA 3.722917E 01	CYA 1.072744E 01	01
VYA 1.072768E 01	CRA -0.000000E-39	VRA 0.000000E-39	01

TABLE 10-XXIII TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 3 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 90 DEGREES - FIRST OPPORTUNITY
(CONTINUED)

TRANSLUNAR INJECTION
TIME 3 FEB. 1968 23 HRS., 52 MIN., 31.768 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 9.0625478D 03

X-1.6914896D 06	Y-6.2863746D 06	Z-1.6414108D 06
DX 8.8853231D 03	DY-4.8908160D 03	DZ 3.8073276D 03
R 6.7137078D 06	DEC-1.4151488D 01	RA-1.0506002D 02
V 1.0833503D 04	PTH 7.4786446D 00	AZ 6.6506326D 01
ALT 3.3682747D 05	LTGD-1.4238364D 01	LCN 1.2357996D 02
VE 1.0403720D 04	PTE 7.7533728D 00	AZE 6.5443566D 01

PERISELENUM
TIME 7 FEB. 1968 2 HRS., 57 MIN., 44.774 SEC., GMT
SELENOCENTRIC REFERENCE

XSC 1.1298504D 06	YSC 1.4146132D 06	ZSC 5.2342357D 05
DXSC 1.9929028D 03	DYSC-1.2697438D 03	DZSC-8.7020460D 02
RSC 1.8845860D 06	DESC 1.6125323D 01	RASC 5.1385665D 01
VSC 2.5181674D 03	PTSC 5.1877819D-13	AZSC-1.1108320D 02

SELENOGRAPHIC REFERENCE

XSG-1.8826029D 06	YSG 6.5890149D 04	ZSG-5.5942125D 04
DXSG 9.7821505D 01	DYSG 2.4966340D 03	DZSG-3.5135334D 02
HSG 1.4649655D 05	LTSG-1.7010199D 00	LNSG 1.7799549D 02
VRSG 2.5231328D 03	PTSG-1.1156565D-07	AZSG-9.8008159D 01
LTS-1.4137345D 00	LNS 8.2082545D 01	LTE-3.6069145D 00
LNE-1.2684539D 00	DSMP 4.5574353D 00	RSMP 8.3255296D 01
LIN 1.7179887D 02	LAN 9.8867673D 00	LAP-1.6798940D 02

GEOCENTRIC REFERENCE FLIGHT TIME 2.7937555D 05

X 2.3838277D 08	Y 2.9301818D 08	Z 1.4831383D 08
DX 1.2045673D 03	DY-7.8847082D 02	DZ-5.8371059D 02
R 4.0581151D 08	DEC 2.1436796D 01	RA 5.0870175D 01
V 1.5535079D 03	PTH-2.7694377D 00	AZ-1.1265247D 02
ALT 3.9943620D 08	LTGD 2.1438847D 01	LON 2.3012231D 02
VE 2.8983341D 04	PTE-1.4842661D-01	AZE-9.1181484D 01

FREE-RETURN VACUUM PERIGEE
TIME 10 FEB. 1968 3 HRS., 25 MIN., 22.731 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 5.4023351D 05

X-4.9634523D 06	Y-4.4055506D 06	Z-1.9498816D 06
DX 7.1664881D 03	DY-5.5727290D 03	DZ-5.6165392D 03
R 6.9171362D 06	DEC-1.6373124D 01	RA-1.3840779D 02
V 1.0675176D 04	PTH-5.2760131D-02	AZ 1.2327376D 02
ALT 5.4067823D 05	LTGD-1.6469290D 01	LCN 3.0960403D 01
VE 1.0273997D 04	PTE 1.2576550D-12	AZE 1.2475467D 02

TABLE 10-XXIV TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 3 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 99 DEGREES - FIRST OPPORTUNITY

LAUNCH TIME = 22 HRS., 21 MIN., 36.040 SEC. G. M. T.

RESTART SEQUENCE INITIATION
GEOCENTRIC REFERENCE

XXX	-6.432256E 06	YYY	-1.164711E 04	FLIGHT TIME	8.077000E 03	ZZZ	1.329458E 06
DXX	-1.581824E 03	DYY	1.667324E 01	DZZ	-7.632490E 03	F	1.865437E 01
R	6.568220E 06	WT	2.988354E 05	AZ	8.764376E 01	LON	5.232741E 01
V	7.794700E 03	PTH	3.069406E-02	AZE	8.751092E 01	IAC	9.243237E 00
ALT	1.953161E 05	LAT	-2.968092E 01	CYA	1.291407E-01	VRA	-0.000000E-39
VE	7.378951E 03	PTE	3.242328E-02	CRA	-0.000000E-39		
ANG	3.874018E 00	NFA	8.794031E 01				
CPA	9.783871E 01	VPA	9.783871E 01				
VYA	1.291407E-01	CRA	-0.000000E-39				

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE

XXX	-6.190377E 06	YYY	-3.869639E 03	FLIGHT TIME	8.537000E 03	ZZZ	-2.203216E 06
DXX	2.609282E 03	DYY	1.648642E 01	DZZ	-7.350114E 03	F	2.073030E 05
R	6.570764E 06	WT	2.977005E 05	AZ	7.163729E 01	LON	8.495270E 01
V	7.799539E 03	PTH	4.626873E-02	AZE	7.056622E 01	IAC	1.185776E 01
ALT	1.961121E 05	LAT	-2.386239E 01	CYA	1.231178E-01	VRA	-0.000000E-39
VE	7.384951E 03	PTE	4.886631E-02	CRA	-0.000000E-39		
ANG	4.017789E 00	NFA	7.450135E 01				
CPA	6.658519E 01	VPA	6.658519E 01				
VYA	1.231178E-01	CRA	-0.000000E-39				

TRANSLUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE

XXX	-4.645279E 06	YYY	2.684439E 04	FLIGHT TIME	8.873850E 03	ZZZ	-4.844958E 06
DXX	6.772332E 03	DYY	3.298696E 02	DZZ	-8.450797E 03	F	2.060472E 05
R	6.712150E 06	WT	1.394564E 05	AZ	6.476442E 01	LON	1.095639E 02
V	1.083463E 04	PTH	7.500715E 00	AZE	6.363774E 01	IAC	1.616110E 01
ALT	3.351780E 05	LAT	-1.363371E 01	CYA	1.095806E 01	VRA	0.000000E-39
VE	1.041017E 04	PTE	7.808417E 00	CRA	-0.000000E-39		
ANG	1.045713E 01	NFA	9.058740E 00				
CPA	4.596406E 01	VPA	4.996342E 01				
VYA	1.095822E 01	CRA	-0.000000E-39				

TABLE 10- XXIV TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 3 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 99 DEGREES - FIRST OPPORTUNITY
(CONTINUED)

TRANSLUNAR INJECTION

TIME 4 FEB. 1968 0 HRS., 49 MIN., 29.890 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 8.8738499D 03
X-1.6657386D 06 Y-6.3066872D 06 Z-1.5823926D 06
DX 8.7678540D 03 DY-4.8541013D 03 DZ 4.1172456D 03
R 6.7121498D 06 DEC-1.3635865D 01 RA-1.0479524D 02
V 1.0834633D 04 PTH 7.5007158D 00 AZ 6.4764181D 01
ALT 3.3517937D 05 LTGD-1.3719846D 01 LON 1.0956357D 02
VE 1.0410177D 04 PTE 7.7711147D 00 AZE 6.3627217D 01

PERISELENUM

TIME 7 FEB. 1968 4 HRS., 2 MIN., 35.960 SEC., GMT
SELENOCENTRIC REFERENCE
XSC 1.1294590D 06 YSC 1.4479626D 06 ZSC 5.3620960D 05
DXSC 1.9969056D 03 DYSC-1.2373045D 03 DZSC-8.6505785D 02
RSC 1.9130587D 06 DESC 1.6277461D 01 RASC 5.2044581D 01
VSC 2.5033737D 03 PTSC 4.1032362D-12 AZSC-1.1109937D 02
SELENOGRAPHIC REFERENCE
XSG-1.9111181D 06 YSG 6.4965427D 04 ZSG-5.6577212D 04
DXSG 9.4952389D 01 DYSG 2.4808042D 03 DZSG-3.5877900D 02
HSG 1.7496926D 05 LTSG-1.6947247D 00 LNSG 1.7805306D 02
VRSG 2.5084114D 03 PTSG-9.5469179D-08 AZSG-9.8226857D 01
LTS-1.4134598D 00 LNS 8.1534904D 01 LTE-3.6586655D 00
LNE-1.3296007D 00 DSMP 4.5554131D 00 RSMP 8.2767435D 01
LIN 1.7158534D 02 LAN 9.5906042D 00 LAP-1.6834032D 02
GEOCENTRIC REFERENCE FLIGHT TIME 2.7965992D 05
X 2.3530376D 08 Y 2.9491064D 08 Z 1.4943451D 08
DX 1.2028986D 03 DY-7.6303428D 02 DZ-5.8211603D 02
R 4.0579652D 08 DEC 2.1607721D 01 RA 5.1414277D 01
V 1.5388455D 03 PTH-2.6589031D 00 AZ-1.1288716D 02
ALT 3.9942125D 08 LTGD 2.1609785D 01 LON 2.1440875D 02
VE 2.8934121D 04 PTE-1.4140437D-01 AZE-9.1183929D 01

FREE-RETURN VACUUM PERIGEE

TIME 10 FEB. 1968 4 HRS., 33 MIN., 37.928 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 5.4072189D 05
X-4.5362274D 06 Y-4.1382611D 06 Z-1.8596390D 06
DX 7.5915349D 03 DY-5.7528224D 03 DZ-5.6782690D 03
R 6.4156700D 06 DEC-1.6849507D 01 RA-1.3762675D 02
V 1.1089144D 04 PTH-5.6951652D-02 AZ 1.2236607D 02
ALT 3.9310609D 04 LTGD-1.6955894D 01 LON 1.4631407D 01
VE 1.0713633D 04 PTE 2.0987543D-12 AZE 1.2364810D 02

D5-15481-1

TABLE 10-XXV TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 3 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 108 DEGREES - FIRST OPPORTUNITY

LAUNCH TIME = 22 HRS..57 MIN..13.170 SEC. G. M. T.

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-6.211936E 06	YYY	-2.041997E 04	ZZZ	7.971000E 03
DXX	-2.532220E 03	DYY	7.628454E 01	DZZ	2.130087E 06
R	6.567027E 06	WT	2.976766E 05	F	-7.371967E 03
V	7.795117E 03	PTH	2.853572E-C2	AZ	1.905993E 01
ALT	1.950794E 05	LAT	-3.257001E 01	LON	8.365621E 01
VE	7.394159F 03	PTE	3.008307E-02	AZE	4.454979E 01
ANG	3.886924E 00	NFA	8.475581E 01	IAC	8.331068E 01
CPA	1.C50871E 02	VPA	1.050871E 02	CYA	9.244698E 00
VYA	5.714819E-01	CRA	-0.000000E-39	VRA	5.714819E-01
					-0.000000E-39

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-6.417530E 06	YYY	1.468003E 04	ZZZ	8.431000E 03
DXX	1.662057E 03	DYY	7.291270E 01	DZZ	-1.405016E 06
R	6.569549E 06	WT	2.965413E 05	F	-7.621002E 03
V	7.800474E 03	PTH	4.740219E-02	AZ	2.073030E 05
ALT	1.950208E 05	LAT	-2.430453E 01	LON	6.575957E 01
VE	7.401307E 03	PTE	4.995884E-02	AZE	7.711098E 01
ANG	4.C95500E 00	NFA	7.114218E 01	IAC	6.542579E 01
CPA	7.382690E 01	VPA	7.382690E 01	CYA	1.187758E 01
VYA	5.249982E-01	CRA	-0.000000E-39	VRA	5.249982E-01
					-0.000000E-39

TRANSLUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-5.221889E 06	YYY	6.647348E 04	ZZZ	8.767276E 03
DXX	5.641497E 03	DYY	4.081420E 02	DZZ	-4.216076E 06
R	6.711769E 06	WT	1.388675E 05	F	-9.241001E 03
V	1.C83463E 04	PTH	7.529258E 00	AZ	2.060472E 05
ALT	3.345547E 05	LAT	-1.214506E 01	LON	6.052932E 01
VE	1.C42446E 04	PTE	7.827333E 00	AZE	1.006612E 02
ANG	1.114208E 01	NFA	8.469451E 00	IAC	5.922321E 01
CPA	5.727097E 01	VPA	5.727196E 01	CYA	1.620338E 01
VYA	1.189032E 01	CRA	-0.000000E-39	VRA	1.189037E 01
					0.000000E-39

TABLE 10- XXV FACTORY CHARACTERISTICS FOR
 LAUNCH ON 3 FEBRUARY A LAUNCH AZIMUTH
 OF 108 DEGREES RTUNITY
 (CONTINUED)

TRANSLUNAR INJECT
 TIME 4 FEB. 1968, 23 MIN., 20.446 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 8.7672758D 03
 X-1.7219181D1315240D 06 Z-1.4123193D 06
 DX 8.3675728D1663238D 03 DZ 4.8674218D 03
 R 6.7117691D2147218D 01 RA-1.0521416D 02
 V 1.0834629D5292566D 00 AZ 6.0529099D 01
 ALT 3.3455600D 2222637D 01 LCN 1.0066084D 02
 VE 1.0424461D 7887318D 00 AZE 5.9214113D 01

PERISELENUM
 TIME 7 FEB. 1968, 55 MIN., 33.090 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC 1.1369324D 64709188D 06 ZSC 5.4464194D 05
 DXSC 1.9903422D 62100734D 03 DZSC-8.8675654D 02
 RSC 1.9372279D 66328553D 01 RASC 5.2298116D 01
 VSC 2.4924038D 0.0570145D-12 AZSC-1.1176109D 02
 SELENOGRAPHIC REFERENCE
 XSG-1.9349713D 0.3751219D 04 ZSG-5.7435062D 04
 DXSG 1.0549139D 01.4647526D 03 DZSG-3.8903586D 02
 HSG 1.9913841D 01.6989580D 00 LNSG 1.7781722D 02
 VRSG 2.4974952D 03.9991942D-08 AZSG-9.8965449D 01
 LTS-1.4132335D 08.1087768D 01 LTE-3.7006956D 00
 LNE-1.3793848D 004.5537546D 00 RSMP 8.2369012D 01
 LIN 1.7085823D 028.4387330D 00 LAP-1.6924501D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.8069992D 05
 X 2.3278128D 082.9643128D 08 Z 1.5033725D 08
 DX 1.1917571D 037.4155465D 02 DZ-6.0673520D 02
 R 4.0578310D 082.1745637D 01 RA 5.1858192D 01
 V 1.5291553D 033.1055444D 00 AZ-1.1396410D 02
 ALT 3.9940786D 082.1747712D 01 LCN 2.0157838D 02
 VE 2.8886534D 04-1.6436130D-01 AZE-9.1230194D 01

FREE-RETURN VACUUM PERI
 TIME 10 FEB. 1968, 5 HRS., 16 MIN., 2.809 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4112964D 05
 X-4.1859831D 06 Y-3.8780210D 06 Z-1.8037117D 06
 DX 8.0677668D 03 Y-6.2261975D 03 DZ-5.2988314D 03
 R 5.9845532D 06 C-1.7541381D 01 RA-1.3718704D 02
 V 1.1486166D 04 H-5.7218017D-02 AZ 1.1895592D 02
 ALT-3.9165884D 05 L-1.7659567D 01 LCN 4.4384242D 00
 VE 1.1123899D 04 TE 1.0402214D-12 AZE 1.1999365D 02

TABLE 10-XXVI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 3 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY

LAUNCH TIME = 18 HRS., 24 MIN., 15.020 SEC. G. M. T.

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-5.101983E C6	YYY	-1.186719E 05
DXX	4.913840E C3	DYY	-1.369170E 02
R	6.582965E C6	WT	2.962688E 05
V	7.781970E C3	PTH	3.556448E-02
ALT	2.107681E C5	LAT	-3.183086E 01
VE	7.377556E C3	PTE	3.751397E-02
ANG	3.892443E C0	NFA	8.301229E 01
CPA	4.696652E C1	VPA	4.696652E 01
VYA	-9.361432E-C1	CRA	-0.000000E-39

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-2.215147E C6	YYY	-1.626532E 05
DXX	7.333033E C3	DYY	-4.953408E 01
R	6.584941E C6	WT	2.951383E 05
V	7.788007E C3	PTH	2.343451E-02
ALT	2.101396E C5	LAT	-2.331812E 01
VE	7.385447E C3	PTE	2.471215E-02
ANG	4.102791E C0	NFA	6.919315E 01
CPA	1.580927E C1	VPA	1.580927E 01
VYA	-2.680568E-C1	CRA	-0.000000E-39

TRANSLUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	6.335023E C5	YYY	-1.798338E 05
DXX	1.083966E C4	DYY	-1.576963E 02
R	6.701121E C6	WT	1.385697E 05
V	1.084347E C4	PTH	6.714980E 00
ALT	3.238353E C5	LAT	-1.167171E 01
VE	1.044142E C4	PTE	6.974801E 00
ANG	5.171327E C0	NFA	1.539222E 02
CPA	-7.757445E-C1	VPA	-7.763930E-01
VYA	-6.861397E C0	CRA	-0.000000E-39

TABLE 10- XXVI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 3 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TRANSLUNAR INJECTION
TIME 3 FEB. 1968 22 HRS., 32 MIN., 52.915 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 1.4917895D 04

X-2.1013891D 06	Y-6.2169653D 06	Z-1.3559114D 06
DX 7.9346390D 03	DY-5.1951312D 03	DZ 5.2567057D 03
R 6.7011185D 06	DEC-1.1673890D 01	RA-1.0867570D 02
V 1.0843470D 04	PTH 6.7149814D 00	AZ 5.8482032D 01
ALT 3.2383379D 05	LTGD-1.1746657D 01	LON 1.3993068D 02
VE 1.0441426D 04	PTE 6.9352702D 00	AZE 5.7091454D 01

PERISELENUM
TIME 7 FEB. 1968 2 HRS., 5 MIN., 35.636 SEC., GMT
SELENOCENTRIC REFERENCE

XSC 1.1637223D 06	YSC 1.3999969D 06	ZSC 5.2926763D 05
DXSC 1.9541738D 03	DYSC-1.2602698D 03	DZSC-9.6310792D 02
RSC 1.8958811D 06	DESC 1.6210500D 01	RASC 5.0265552D 01
VSC 2.5168734D 03	PTSC 2.1108864D-12	AZSC-1.1348468D 02

SELENOGRAPHIC REFERENCE

XSG-1.8934529D 06	YSG 8.4504535D 04	ZSG-4.5388794D 04
DXSG 1.2124861D 02	DYSG 2.4800840D 03	DZSG-4.4064111D 02
HSG 1.5779161D 05	LTSG-1.3718343D 00	LNSG 1.7744458D 02
VRSG 2.5218411D 03	PTSG-1.2137475D-07	AZSG-1.0006585D 02
LTS-1.4139535D 00	LNS 8.2522944D 01	LTE-3.5650814D 00
LNE-1.2191484D 00	DSMP 4.5590540D 00	RSMP 8.3647532D 01
LIN 1.6982225D 02	LAN 5.1102707D 00	LAP-1.7221325D 02

GEOCENTRIC REFERENCE FLIGHT TIME 2.8688062D 05

X 2.4087624D 08	Y 2.9148882D 08	Z 1.4741875D 08
DX 1.1704503D 03	DY-7.7339884D 02	DZ-6.7377724D 02
R 4.0585636D 08	DEC 2.1298624D 01	RA 5.0430852D 01
V 1.5563018D 03	PTH-3.8881812D 00	AZ-1.1605584D 02
ALT 3.9948101D 08	LTGD 2.1300664D 01	LCN 2.4275676D 02
VE 2.8977268D 04	PTE-2.0871343D-01	AZE-9.1348671D 01

FREE-RETURN VACUUM PERIGEE
TIME 10 FEB. 1968 1 HRS., 59 MIN., 3.876 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 5.4568886D 05

X-4.5429889D 06	Y-3.9138546D 06	Z-1.9178081D 06
DX 7.7443749D 03	DY-6.9503096D 03	DZ-4.1328489D 03
R 6.2956329D 06	DEC-1.7735612D 01	RA-1.3925459D 02
V 1.1196543D 04	PTH-4.3971687D-02	AZ 1.1281659D 02
ALT-8.0537793D 04	LTGD-1.7849005D 01	LON 5.1751247D 01
VE 1.0794826D 04	PTE 4.8137539D-12	AZE 1.1371666D 02

TABLE 10-XXVII TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 3 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 81 DEGREES - SECOND OPPORTUNITY

LAUNCH TIME = 19 HRS., 56 MIN., 11.370 SEC. G. M. T.

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	-6.190774E C6	YYY	-5.630443E 04	ZZZ	-2.225931E 06
DXX	2.629776E C3	DYY	-1.208604E 02	DZZ	-7.327753F 03
R	6.579029E C6	WT	2.976061E 05	F	1.509349F 01
V	7.786289E C3	PTH	4.197419E-02	AZ	8.695689E 01
ALT	2.060080E C5	LAT	-2.931486E 01	LON	6.416413E 01
VE	7.368597E C3	PTE	4.435347E-02	AZE	8.678421E 01
ANG	3.876235E C0	NFA	8.689614E 01	IAC	9.213101E 00
CPA	6.638772E C1	VPA	6.638772E 01	CYA	-8.543098E-01
VYA	-8.543098E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	-4.145209E C6	YYY	-1.022509E 05	ZZZ	-5.111348E 06
DXX	6.048242E C3	DYY	-7.383291E 01	DZZ	-4.910497E 03
R	6.581724E C6	WT	2.964746E 05	F	2.073030F 05
V	7.790999E C3	PTH	3.975725E-02	AZ	7.136123E 01
ALT	2.069044E C5	LAT	-2.325024E 01	LON	9.648658E 01
VE	7.374503E C3	PTE	4.200280E-02	AZF	7.026618F 01
ANG	4.023895E C0	NFA	7.327175E 01	IAC	1.185126E 01
CPA	3.520307E C1	VPA	3.520307E 01	CYA	-4.816906E-01
VYA	-4.816906E-01	CRA	-0.000000E-39	VRA	-0.000000E-39

TRANSLUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	-1.598346E C6	YYY	-1.304713E 05	ZZZ	-6.503927E 06
DXX	1.015657E C4	DYY	-1.815347E 02	DZZ	-3.799906E 03
R	6.698716E C6	WT	1.392824E 05	F	2.060472F 05
V	1.084565E C4	PTH	6.722172E 00	AZ	6.279398E 01
ALT	3.216939E C5	LAT	-1.333844E 01	LON	1.196576E 02
VE	1.042822E C4	PTE	6.992571E 00	AZE	6.159101F 01
ANG	4.224875E C0	NFA	1.459423E 02	IAC	1.638952E 01
CPA	1.839800E C1	VPA	1.839715E 01	CYA	-5.661645E 00
VYA	-5.661706E C0	CRA	-0.000000E-39	VRA	0.000000E-39

TABLE 10-XXVII TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 3 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 81 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TRANSLUNAR INJECTION
TIME 3 FEB. 1968 23 HRS., 59 MIN., 57.972 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 1.4626602D 04
X-1.9185531D 06 Y-6.2291964D 06 Z-1.5456587D 06
DX 8.4570053D 03 DY-5.0861907D 03 DZ 4.4986574D 03
R 6.6987159D 06 DEC-1.3340615D 01 RA-1.0711850D 02
V 1.0845653D 04 PTH 6.7221710D 00 AZ 6.2793838D 01
ALT 3.2169526D 05 LTGD-1.3423081D 01 LCN 1.1965721D 02
VE 1.0428228D 04 PTE 6.9533268D 00 AZE 6.1582007D 01

PERISELENUM
TIME 7 FEB. 1968 3 HRS., 15 MIN., 12.756 SEC., GMT
SELENOCENTRIC REFERENCE
XSC 1.1340392D 06 YSC 1.4106911D 06 ZSC 5.3428411D 05
DXSC 1.9863897D 03 DYSC-1.2501955D 03 DZSC-9.1525135D 02
RSC 1.8872080D 06 DESC 1.6445801D 01 RASC 5.1204575D 01
VSC 2.5192098D 03 PTSC-8.8827100D-13 AZSC-1.1225978D 02
SELENOGRAPHIC REFERENCE
XSG-1.8852155D 06 YSG 7.4436830D 04 ZSG-4.4446780D 04
DXSG 1.0775129D 02 DYSG 2.4898824D 03 DZSG-4.0037657D 02
HSG 1.4911848D 05 LTSG-1.3495324D 00 LNSG 1.7773887D 02
VRSG 2.5241684D 03 PTSG-1.0650638D-07 AZSG-9.9129192D 01
LTS-1.4136607D 00 LNS 8.1935052D 01 LTE-3.6208817D 00
LNE-1.2849404D 00 DSMP 4.5568917D 00 RSMP 8.3123915D 01
LIN 1.7075459D 02 LAN 6.0602729D 00 LAP-1.7157064D 02
GEOCENTRIC REFERENCE FLIGHT TIME 2.8554139D 05
X 2.3755999D 08 Y 2.9351763D 08 Z 1.4862443D 08
DX 1.1965198D 03 DY-7.7080392D 02 DZ-6.2971134D 02
R 4.0580361D 08 DEC 2.1484355D 01 RA 5.1014844D 01
V 1.5563851D 03 PTH-3.2303185D 00 AZ-1.1441154D 02
ALT 3.9942831D 08 LTGD 2.1486410D 01 LON 2.2588844D 02
VE 2.8957814D 04 PTE-1.7357264D-01 AZE-9.1270779D 01

FREE-RETURN VACUUM PERIGEE
TIME 10 FEB. 1968 3 HRS., 23 MIN., 23.748 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 5.4523238D 05
X-4.6207797D 06 Y-4.0875473D 06 Z-1.9273077D 06
DX 7.6493783D 03 DY-6.3757863D 03 DZ-4.7856672D 03
R 6.4632935D 06 DEC-1.7349091D 01 RA-1.3850398D 02
V 1.1048360D 04 PTH-4.9193206D-02 AZ 1.1700512D 02
ALT 8.7039258D 04 LTGD-1.7457429D 01 LON 3.1361337D 01
VE 1.0649501D 04 PTE-2.8848232D-12 AZE 1.1810424D 02

TABLE 10-XXVIII TRANS-LUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 3 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 90 DEGREES - SECOND OPPORTUNITY

LAUNCH TIME = 21 HRS..21 MIN..29.220 SEC. G. M. T.

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	-6.573147E C6	YYY	-1.952895E 04	ZZZ	-1.769282E 05
DXX	2.044469E C2	DYY	-7.404569E 01	DZZ	-7.786806E 03
R	6.575557E C6	WT	2.981242E 05	F	1.649201E 01
V	7.789842E C3	PTH	3.947622E-02	AZ	8.861606E 01
ALT	2.022548E C5	LAT	-2.842696E 01	LON	4.442762E 01
VE	7.368290E C3	PTF	4.173480E-02	AZE	8.853687E 01
ANG	3.873077E C0	NFA	8.862133E 01	IAC	9.223396E 00
CPA	8.462586E C1	VPA	8.462586E 01	CYA	-5.319274E-01
VYA	-5.319274E-C1	CRA	-0.000000E-39	VRA	-0.000000E-39

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	-5.532319E C6	YYY	-5.028490E 04	ZZZ	-3.559007E 06
DXX	4.211674E C3	DYY	-5.624594E 01	DZZ	-6.558034E 03
R	6.578420E C6	WT	2.969914E 05	F	2.073030E 05
V	7.794176E C3	PTH	4.759585E-02	AZ	7.320044E 01
ALT	2.036215E C5	LAT	-2.332636E 01	LON	7.685044E 01
VE	7.373578E C3	PTE	5.031114E-02	AZE	7.221110E 01
ANG	3.996523E C0	NFA	7.519319E 01	IAC	1.185036E 01
CPA	5.342080E C1	VPA	5.342080E 01	CYA	-3.829935E-01
VYA	-3.829935E-C1	CRA	-0.000000E-39	VRA	-0.000000E-39

TRANS-LUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE		FLIGHT TIME			
XXX	-3.540377E C6	YYY	-7.504718E 04	ZZZ	-5.684174E 06
DXX	8.467284E C3	DYY	-1.673239E 02	DZZ	-6.777691E 03
R	6.696995E C6	WT	1.395699E 05	F	2.060472E 05
V	1.084712E C4	PTH	6.767847E 00	AZ	6.441323E 01
ALT	3.201007E C5	LAT	-1.408088E 01	LON	1.004727E 02
VE	1.042500E C4	PTE	7.043247E 00	AZE	6.328028E 01
ANG	3.758863E C0	NFA	1.419121E 02	IAC	1.635727E 01
CPA	3.662371E C1	VPA	3.662285E 01	CYA	-4.972473E 00
VYA	-4.972534E C1	CRA	-0.000000E-39	VRA	0.000000E-39

TABLE 10- XXVIII TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 3 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 90 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TRANSLUNAR INJECTION

TIME 4 FEB. 1968 1 HRS., 20 MIN., 43.900 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 1.4354680D 04

X-1.7966359D 06	Y-6.2423030D 06	Z-1.6295671D 06
DX 8.6801527D 03	DY-4.9664166D 03	DZ 4.2011484D 03
R 6.6969946D 06	DEC-1.4083052D 01	RA-1.0605667D 02
V 1.0847119D 04	PTH 6.7678463D 00	AZ 6.4413040D 01
ALT 3.2010214D 05	LTGD-1.4169760D 01	LON 1.0047239D 02
VE 1.0425003D 04	PTE 7.0042497D 00	AZE 6.3270555D 01

PERISELENUM

TIME 7 FEB. 1968 4 HRS., 29 MIN., 6.640 SEC., GMT
SELENOCENTRIC REFERENCE

XSC 1.1117570D 06	YSC 1.4215696D 06	ZSC 5.3956463D 05
DXSC 2.0098506D 03	DYSC-1.2349740D 03	DZSC-8.8750076D 02
RSC 1.8836119D 06	DESC 1.6645668D 01	RASC 5.1972349D 01
VSC 2.5203805D 03	PTSC 2.5134616D-12	AZSC-1.1156344D 02

SELENOGRAPHIC REFERENCE

XSG-1.8817550D 06	YSG 7.1469745D 04	ZSG-4.3403745D 04
DXSG 1.0351473D 02	DYSG 2.4943445D 03	DZSG-3.8059345D 02
HSG 1.4552241D 05	LTSG-1.3203736D 00	LNSG 1.7782492D 02
VRSG 2.5253359D 03	PTSG-8.8213039D-08	AZSG-9.8670391D 01
LTS-1.4133467D 00	LNS 8.1311037D 01	LTE-3.6797339D 00
LNE-1.3545422D 00	DSMP 4.5545836D 00	RSMP 8.2567969D 01
LIN 1.7121351D 02	LAN 6.4008555D 00	LAP-1.7132377D 02

GEOCENTRIC REFERENCE FLIGHT TIME 2.8485742D 05

X 2.3402121D 08	Y 2.9563637D 08	Z 1.4988677D 08
DX 1.2135456D 03	DY-7.6357958D 02	DZ-6.0601887D 02
R 4.0574972D 08	DEC 2.1679047D 01	RA 5.1635401D 01
V 1.5566006D 03	PTH-2.9569254D 00	AZ-1.1351445D 02
ALT 3.9937447D 08	LTGD 2.1681117D 01	LON 2.0798390D 02
VE 2.8927129D 04	PTE-1.5908939D-01	AZE-9.1228567D 01

FREE-RETURN VACUUM PERIGEE

TIME 10 FEB. 1968 4 HRS., 42 MIN., 3.646 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 5.4483443D 05

X-4.6203206D 06	Y-4.1887110D 06	Z-1.9423179D 06
DX 7.6402626D 03	DY-6.0661260D 03	DZ-5.0592049D 03
R 6.5318651D 06	DEC-1.7299129D 01	RA-1.3780503D 02
V 1.0989406D 04	PTH-5.1587463D-02	AZ 1.1884639D 02
ALT 1.5560005D 05	LTGD-1.7406054D 01	LUN 1.2340206D 01
VE 1.0593343D 04	PTE 2.5789910D-12	AZE 1.2003322D 02

TABLE 10-XXIX TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 3 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 99 DEGREES - SECOND OPPORTUNITY

LAUNCH TIME = 22 HRS., 21 MIN., 36.040 SEC. G. M. T.

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -6.445735E C6	YYY -1.379265E 04	ZZZ 1.338500E 04	04
DXX -1.531672E C3	DYY -1.550428E 01	DZZ -7.639741E 03	03
R 6.573237E C6	WT 2.977998E 05	F 1.747691E 01	01
V 7.791784E C3	PTH 3.418810E-02	AZ 8.719362F 01	01
ALT 2.003225E C5	LAT -2.964540E 01	LON 3.058032F 01	01
VE 7.375726F C3	PTE 3.611664E-02	AZE 8.703518E 01	01
ANG 3.875162E C0	NFA 8.752734E 01	IAC 9.229145E 00	00
CPA 9.746678E C1	VPA 9.746678E 01	CYA -1.056389F-01	01
VYA -1.056389E-C1	CRA -0.000000E-39	VRA -0.000000E-39	39

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -6.182145E C6	YYY -1.978031E 04	ZZZ -2.241531F 06	06
DXX 2.651227E C3	DYY -9.710096E 00	DZZ -7.331783F 03	03
R 6.575999E C6	WT 2.966661E 05	F 2.073030E 05	05
V 7.796418E C3	PTH 4.954897E-02	AZ 7.132254E 01	01
ALT 2.012811E C5	LAT -2.362330E 01	LON 6.307797E 01	01
VE 7.381552E C3	PTE 5.233407E-02	AZE 7.023039E 01	01
ANG 4.023628E C0	NFA 7.406130E 01	IAC 1.186054E 01	01
CPA 6.624965E C1	VPA 6.624965E 01	CYA -5.956888E-02	02
VYA -5.956888E-C2	CRA -0.000000E-39	VRA -0.000000E-39	39

TRANSLUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -4.709661E C6	YYY -3.072864E 04	ZZZ -4.757739F 06	06
DXX 6.756938E C3	DYY -1.344401E 02	DZZ -8.486741E 03	03
R 6.694620F C6	WT 1.394146E 05	F 2.060472E 05	05
V 1.084892E C4	PTH 6.767685E 00	AZ 6.260284E 01	01
ALT 3.176434E C5	LAT -1.360743E 01	LON 8.639335E 01	01
VE 1.043300E C4	PTE 7.038824E 00	AZE 6.139461E 01	01
ANG 3.959283E C0	NFA 1.464249E 02	IAC 1.635967E 01	01
CPA 4.955241E C1	VPA 4.955344E 01	CYA -5.211837E 00	00
VYA -5.211718E C0	CRA -0.000000E-39	VRA 0.000000E-39	39

TABLE 10- XXIX TRANSLUNAR CHARACTERISTICS FOR
 LAUNCH ON 3 FEBRUARY LAUNCH AZIMUTH
 OF 99 DEGREES - SECOND
 (CONTINUED)

TRANSLUNAR INJECTION
 TIME 4 FEB. 1968 7 MIN. 19.987 SEC., GMT
 GEOCENTRIC REFERENCE LIGHT T: 1.4163947D 04
 X-1.7785562D 06 D 06 1.5752768D 06
 DX 8.5421718D 03 D 03 4.5174100D 03
 R 6.6946198D 06 D 01 1.0586338D 02
 V 1.0848920D 04 PD 00 6.2602648D 01
 ALT 3.1764489D 05 LD 01 18.6393013D 01
 VE 1.0433004D 04 PD 00 16.1385335D 01

PERISELNUM
 TIME 7 FEB. 1968 32 MIN. 8.675 SEC., GMT
 SELENOCENTRIC REFERENCE
 XSC 1.0968010D 06 3D 06 5.3673746D 05
 DXSC 2.0219522D 03 D 5D 03 08.9533003D 02
 RSC 1.8707418D 06 D 5D 01 05.2264056D 01
 VSC 2.5282862D 03 P 6D-12 11.1169509D 02
 SELENOGRAPHIC REFERENCE
 XSG-1.8684696D 06 7D 04 6.4261291D 04
 DXSG 1.1745551D 02 D 3D 03 8.9145750D 02
 HSG 1.3265231D 05 D 5D 00 1.7752219D 02
 VRSG 2.5332047D 03 L 6D-08 9.8892074D 01
 LTS-1.4130740D 00 P 5D 01 3.7300163D 00
 LNE-1.4141800D 00 87D 00 8.2089866D 01
 LIN 1.7098883D 02 C 2D 00 1.7131174D 02
 GEOCENTRIC REFERENCE FLIGHT 2.8506263D 05
 X 2.3096029D 08 85D 08 1.5095027D 08
 DX 1.2201885D 03 70D 02 6.1736521D 02
 R 4.0569056D 08 94D 01 5.2168629D 01
 V 1.5650745D 03 77D 00 1.1369322D 02
 ALT 3.9931535D 08 177D 01 1.9259016D 02
 VE 2.6896911D 04 C 11D-01 9.1244862D 01

FREE-RETURN VACUUM P
 TIME 10 FEB. 1968 31 MIN. 2.660 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT 5.4419662D 05
 X-4.7402535D 06 895D 0 2.0268525D 06
 DX 7.5848620D 0 624D 0 4.8254231D 03
 R 6.7378054D 0 734D 0 1.3753584D 02
 V 1.0818630D 0 806D-0 1.1790206D 02
 ALT 3.6158449D 0 458D 0 2.0463774D-01
 VE 1.0406841D 0 1032D-1 1.1910942D 02

TABLE 10-XXX TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 3 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 108 DEGREES - SECOND OPPORTUNITY

LAUNCH TIME = 22 HRS., 57 MIN., 13.170 SEC. G. M. T.

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-6.2287C4E (6	YYY	-2.524267E 04	ZZZ	1.327800E 04
DXX	-2.489613E C3	DYY	4.258916E 01	DZZ	2.096158E 06
R	6.572C6E (6	WT	2.966399E 05	F	-7.383731E 03
V	7.792270E (3	PTH	3.191374E-02	AZ	1.803782E 01
ALT	2.000313E (5	LAT	-3.248850E 01	LON	8.320366E 01
VE	7.391028E (3	PTE	3.364641E-02	AZF	2.275591E 01
ANG	3.889436E (0	NFA	8.432593E 01	IAC	8.283282E 01
CPA	1.047628E C2	VPA	1.047628E 02	CYA	9.230744E 00
VYA	3.273078E-C1	CRA	-0.000000E-39	VRA	3.273078E-01
					-0.000000E-39

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-6.415368E (6	YYY	-4.182293E 03	ZZZ	1.373800E 04
DXX	1.699629E C3	DYY	4.697772E 01	DZZ	-1.438862E 06
R	6.574747E (6	WT	2.955056E 05	F	-7.609781E 03
V	7.797417E (3	PTH	5.082931E-02	AZ	2.073030E 05
ALT	2.001430E (5	LAT	-2.403607E 01	LON	6.648017E 01
VE	7.397993E C3	PTE	5.357342E-02	AZE	5.515809E 01
ANG	4.102123E (0	NFA	7.070651E 01	IAC	6.512675E 01
CPA	7.353967E (1	VPA	7.353967E 01	CYA	1.188061E 01
VYA	3.468908E-C1	CRA	-0.000000E-39	VRA	3.468908E-01
					-0.000000E-39

TRANSLUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE			FLIGHT TIME		
XXX	-5.278113E (6	YYY	2.419189E 03	ZZZ	1.405635E 04
DXX	5.613545E (3	DYY	-9.835275E 01	DZZ	-4.117239E 06
R	6.694038E (6	WT	1.388250E 05	F	-9.283361E 03
V	1.084907E (4	PTH	6.794977E 00	AZ	2.060472E 05
ALT	3.168289E (5	LAT	-1.217993E 01	LON	5.813423E 01
VE	1.044983E (4	PTE	7.055881E 00	AZE	7.743298E 01
ANG	4.697413E (0	NFA	1.523085E 02	IAC	5.674240E 01
CPA	5.692242E C1	VPA	5.692193E 01	CYA	1.641234E 01
VYA	-6.063091E C0	CRA	-0.000000E-39	VRA	-6.063021E 00
					0.000000E-39

TABLE 10- XXX TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 3 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 108 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TRANSLUNAR INJECTION
 TIME 4 FEB. 1968 2 HRS., 51 MIN., 29.516 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.4056346D 04

X-1.8413361D 06	Y-6.2788747D 06	Z-1.4125717D 06
DX 8.0886859D 03	DY-4.9303292D 03	DZ 5.2884184D 03
R 6.6940380D 06	DEC-1.2182096D 01	RA-1.0634424D 02
V 1.0849072D 04	PTH 6.7949767D 00	AZ 5.8134058D 01
ALT 3.1683032D 05	LTGD-1.2257919D 01	LON 7.7432630D 01
VE 1.0449832D 04	PTE 7.0142904D 00	AZE 5.6734401D 01

PERISELENUM
 TIME 7 FEB. 1968 6 HRS., 24 MIN., 31.051 SEC.,GMT
 SELENOCENTRIC REFERENCE

XSC 1.0883001D 06	YSC 1.3992500D 06	ZSC 5.2569846D 05
DXSC 2.0246278D 03	DYSC-1.2253888D 03	DZSC-9.2976769D 02
RSC 1.8489609D 06	DESC 1.6518266D 01	RASC 5.2125152D 01
VSC 2.5426686D 03	PTSC 9.7855263D-13	AZSC-1.1242086D 02

SELENOGRAPHIC REFERENCE

XSG-1.8456125D 06	YSG 1.0049321D 05	ZSG-4.7668490D 04
DXSG 1.4748459D 02	DYSG 2.5077334D 03	DZSG-4.2353340D 02
HSG 1.1087144D 05	LTSG-1.4773194D 00	LNSG 1.7688332D 02
VRSG 2.5475202D 03	PTSG-5.1684824D-08	AZSG-9.9573250D 01
LTS-1.4128493D 00	LNS 8.0336542D 01	LTE-3.7708506D 00
LNE-1.4627275D 00	DSMP 4.5509529D 00	RSMP 8.1699421D 01
LIN 1.7029634D 02	LAN 5.5577102D 00	LAP-1.7120166D 02

GEOCENTRIC REFERENCE FLIGHT TIME 2.8603788D 05

X 2.2844953D 08	Y 2.9883462D 08	Z 1.5179987D 08
DX 1.2184584D 03	DY-7.6660101D 02	DZ-6.5469352D 02
R 4.0562854D 08	DEC 2.1976957D 01	RA 5.2603238D 01
V 1.5814366D 03	PTH-4.4805972D 00	AZ-1.1459312D 02
ALT 3.9925337D 08	LTGD 2.1979051D 01	LON 1.8002103D 02
VE 2.8870837D 04	PTE-2.4522863D-01	AZE-9.1302252D 01

FREE-RETURN VACUUM PERIGEE
 TIME 10 FEB. 1968 5 HRS., 54 MIN., 11.422 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4341825D 05

X-5.0139404D 06	Y-4.5700312D 06	Z-2.1826456D 06
DX 7.4267847D 03	DY-6.0884397D 03	DZ-4.2868718D 03
R 7.1266209D 06	DEC-1.7834378D 01	RA-1.3765192D 02
V 1.0516820D 04	PTH-4.3096197D-02	AZ 1.1536855D 02
ALT 7.5047032D 05	LTGD-1.7934966D 01	LON 3.5441151D 02
VE 1.0072046D 04	PTE 1.8475917D-12	AZE 1.1657439D 02

TABLE 10-XXXI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 4 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - FIRST OPPORTUNITY

LAUNCH TIME = 19 HRS..46 MIN..34.950 SEC. G. M. T.

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -5.699966E 06	YYY -9.752521E 04	ZZZ -3.279830E 06	8.698000E 03
DXX 3.880306E 03	DYY -1.221588E 02	DZZ -6.748925E 03	
R 6.576961E 06	WT 2.973149E 05	F 1.643977E 01	
V 7.785864E 03	PTH 3.314503E-02	AZ 8.885225E 01	
ALT 2.050026E 05	LAT -3.253947E 01	LON 9.766779E 01	
VE 7.381637E 03	PTE 3.496041E-02	AZE 8.878938E 01	
ANG 3.872331E 00	NFA 8.816119E 01	IAC 9.216802E 00	
CPA 5.623319E 01	VPA 5.623319E 01	CYA -8.396343E-01	
VYA -8.396343E-01	CRA -0.000000E-39	VRA -0.000000E-39	

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -3.177442E 06	YYY -1.381618E 05	ZZZ -5.759109E 06	9.158000E 03
DXX 6.820638E 03	DYY -5.001549E 01	DZZ -3.766031E 03	
R 6.578948E 06	WT 2.961821E 05	F 2.073030E 05	
V 7.791444E 03	PTH 2.649537E-02	AZ 7.079237E 01	
ALT 2.051529E 05	LAT -2.682104E 01	LON 1.312137E 02	
VE 7.388486E 03	PTE 2.794067E-02	AZE 6.970003E 01	
ANG 4.022386E 00	NFA 7.300493E 01	IAC 1.186175E 01	
CPA 2.503619E 01	VPA 2.503619E 01	CYA -2.857615E-01	
VYA -2.857615E-01	CRA -0.000000E-39	VRA -0.000000E-39	

TRANSLUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -2.974296E 05	YYY -1.219766E 05	ZZZ -6.706817E 06	9.491746E 03
DXX 1.066493E 04	DYY 3.204702E 02	DZZ -1.866839E 03	
R 6.714517E 06	WT 1.387070E 05	F 2.060472E 05	
V 1.083183E 04	PTH 7.353943E 00	AZ 6.281038E 01	
ALT 3.379998E 05	LAT -1.608250E 01	LON 1.557504E 02	
VE 1.041915E 04	PTE 7.646928E 00	AZE 6.161752E 01	
ANG 1.097155E 01	NFA 6.023722E 00	IAC 1.621353E 01	
CPA 9.051148E 00	VPA 9.052588E 00	CYA 1.141950E 01	
VYA 1.141943E 01	CRA -0.000000E-39	VRA 0.000000E-39	

TABLE 10- XXXI TRANSLUNAR TRAJECTISTICS FOR
LAUNCH ON 4 FEBRUARY 1968 ALONG A'M
OF 72 DEGREES - FIRST OPPORTUNITY
(CONTINUED)

TRANSLUNAR INJECTION
TIME 4 FEB. 1968 22 HRS., 216 SEC., GMT
GEOCENTRIC REFERENCE F 917456D 03
X-4.3904584D 05 Y-6.436712402986D 06
DX 9.3502365D 03 DY-3.336243625673D 03
R 6.7145170D 06 DEC-1.608458702075D 01
V 1.0831832D 04 PTH 7.353941209733D 01
ALT 3.3800134D 05 LTGD-1.618211675014D 02
VE 1.0419156D 04 PTE 7.600549805382D 01

PERISELENUM
TIME 8 FEB. 1968 1 HRS., 23 SEC., GMT
SELENOCENTRIC REFERENCE
XSC 7.8622631D 05 YSC 1.486658707976D 05
DXSC 2.3030551D 03 DYSC-9.712047993649D 02
RSC 1.7709939D 06 DESC 1.826596227665D 01
VSC 2.5853701D 03 PTSC 7.123584161725D 02
SELENOGRAPHIC REFERENCE
XSG-1.7662915D 06 YSG 1.188182160819D 04
DXSG 1.8057672D 02 DYSG 2.569350443425D 02
HSG 3.2904422D 04 LTSG-1.623036315151D 02
VRSG 2.5900560D 03 PTSG 1.833900040235D 01
LTS-1.4074311D 00 LNS 7.070795746119D 00
LNE-2.4887323D 00 DSMP 4.513432185676D 01
LIN 1.7373573D 02 LAN 1.111067195505D 02
GEOCENTRIC REFERENCE F 950709D 05
X 1.6994473D 08 Y 3.258813138188D 08
DX 1.4120819D 03 DY-6.441316149067D 02
R 4.0426761D 08 DEC 2.46145058283D 01
V 1.6169523D 03 PTH-4.06112806582D 02
ALT 3.9789315D 08 LTGD 2.461679196630D 02
VE 2.8354507D 04 PTE-2.314339101976D 01

FREE-RETURN VACUUM PERIGEE
TIME 11 FEB. 1968 0 HRS., 0 SEC., GMT
GEOCENTRIC REFERENCE F 577946D 05
X-5.4544520D 06 Y-6.886941176208D 06
DX 6.8678797D 03 DY-3.23013265575D 03
R 9.2507950D 06 DEC-1.82539537919D 02
V 9.2151197D 03 PTH-4.71866469089D 02
ALT 2.8747344D 06 LTGD-1.83329203819D 01
VE 8.7098309D 03 PTE 1.34830020974D 02

TABLE 10-XXXII TRANSLUNAR TRAJECTORY CHARACTERISTICS
 LAUNCH ON 4 FEBRUARY 1968 ALONG A LAUNCH AZ
 OF 81 DEGREES - FIRST OPPORTUNITY

LAUNCH TIME = 21 HRS..29 MIN..25.300 SEC. G. M

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE			FLIGHT TIME 3		
XXX	-6.504929E 06	YYY	-3.789488E C4	ZZZ	5
DXX	1.112620E 03	DYY	-9.788925E C1	DZZ	3
R	6.572940E 06	WT	2.986660E 05	F	1
V	7.790410E 03	PTH	3.532316E-C2	AZ	1
ALT	1.998971E 05	LAT	-2.924576E C1	LON	1
VE	7.373122E 03	PTE	3.732227E-02	AZE	1
ANG	3.877687E 00	NFA	9.272654E C1	IAC	0
CPA	7.791811E 01	VPA	7.791811E 01	CYA	1
VYA	-6.560526E-01	CRA	-0.000000E-39	VRA	9

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE			FLIGHT TIME 3		
XXX	-5.075549E 06	YYY	-7.647472E C4	ZZZ	6
DXX	4.951343E 03	DYY	-6.565295E 01	DZZ	3
R	6.575388E 06	WT	2.975321E 05	F	5
V	7.754858E 03	PTH	3.904045E-C2	AZ	1
ALT	2.015082E 05	LAT	-2.653940E 01	LON	2
VE	7.378049E 03	PTE	4.124618E-02	AZE	1
ANG	3.947134E 00	NFA	7.810510E C1	IAC	1
CPA	4.669319E 01	VPA	4.669319E C1	CYA	1
VYA	-4.365302E-01	CRA	-0.000000E-39	VRA	9

TRANSLUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE			FLIGHT TIME 3		
XXX	-2.732362E 06	YYY	-7.323944E C4	ZZZ	6
DXX	9.244332E 03	DYY	2.402637E 02	DZZ	3
R	6.712356E 06	WT	1.394491E C5	F	5
V	1.083398E 04	PTH	7.369227E C0	AZ	1
ALT	3.362665E 05	LAT	-1.811247E C1	LON	2
VE	1.040875E 04	PTE	7.672058E C0	AZE	1
ANG	9.527035E 00	NFA	9.103807E C0	IAC	1
CPA	3.013567E 01	VPA	3.013489E C1	CYA	1
VYA	1.009941E 01	CRA	-0.000000E-39	VRA	9

TABLE 10- XXXII TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 4 FEBRUARY 1968 ALONG A LAUNCH PATH
 OF 81 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TRANSLUNAR INJECTION
 TIME 5 FEB. 1968 0 HRS., 2 MIN., 936 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT T. 1.1696356D 03

X-2.4040358D 05	Y-6.3751400D 06	0869890D 06
DX 9.8363358D 03	DY-2.9611012D 03	4428865D 03
R 6.7123563D 06	DEC-1.8114531D 01	2159569D 01
V 1.0833978D 04	PTH 7.3692269D 00	7700329D 01
ALT 3.3626801D 05	LTGD-1.8222807D 01	63305826D 02
VE 1.0408757D 04	PTE 7.6292475D 00	A6706447D 01

PERISELENUM
 TIME 8 FEB. 1968 2 HRS., 38 MIN., 991 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC 7.6887525D 05	YSC 1.5983153D 06	9869480D 05
DXSC 2.2952129D 03	DYSC-8.9487721D 02	5860921D 02
RSC 1.8719552D 06	DESC 1.8652235D 01	4309950D 01
VSC 2.5260347D 03	PTSC 1.1306128D-12	A0349729D 02

SELENOGRAPHIC REFERENCE

XSG-1.8695839D 06	YSG 7.8952965D 04	1370692D 04
DXSG 1.1208698D 02	DYSG 2.5201040D 03	0607762D 02
HSG 1.3386573D 05	LTSG-1.5725233D 00	7758181D 02
VRSG 2.5309989D 03	PTSG 1.7631318D-07	4672034D 01
LTS-1.4070459D 00	LNS 7.0084761D 01	6653881D 00
LNE-2.5518680D 00	DSMP 4.5109069D 00	2525603D 01
LIN 1.7506231D 02	LAN 1.6109629D 01	6140791D 02

GEOCENTRIC REFERENCE FLIGHT 12.7776669D 05

X 1.6597005D 08	Y 3.2742211D 08	6933423D 08
DX 1.3995762D 03	DY-5.7673939D 02	5579172D 02
R 4.0425904D 08	DEC 2.4763616D 01	3119576D 01
V 1.5550015D 03	PTH-1.5311607D 00	0387090D 02
ALT 3.9788463D 08	LTGD 2.4765919D 01	4611894D 02
VE 2.8279852D 04	PTE-8.4213062D-02	0755024D 01

FREE-RETURN VACUUM PERIGEE
 TIME 11 FEB. 1968 2 HRS., 56 MIN., 498 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT 5.3800620D 05

X-4.1510675D 06	Y-5.7609116D 02	3633006D 06
DX 7.3618960D 03	DY-2.5521369D 05	6714551D 03
R 7.4836257D 06	DEC-1.8408886D 01	2577491D 02
V 1.0257642D 04	PTH-6.7501868D-01	3330317D 02
ALT 1.1076017D 06	LTGD-1.8507305D 04	9924447D 01
VE 9.8872097D 03	PTE 1.8467045D-1	3536161D 02

05-15481-1

TABLE 10-XXXIII TRANSLUNAR TRAJECTORY CHARACTER
LAUNCH ON 4 FEBRUARY 1968 ALONG A LAUNCH A
OF 90 DEGREES - FIRST OPPORTUNITY

LAUNCH TIME = 23 HRS..00 MIN..38.210 SEC. G.

RESTART SEQUENCE INITIATION
GEOCENTRIC REFERENCE

XXX	-6.442905E 06	YYY	-1.020470E C4	FLIGHT TIME 03
DXX	-1.527131F 03	DYY	-4.427853E 01	ZZZ 06
R	6.569640E 06	WT	2.991944E 05	DZZ 03
V	7.793817E 03	PTH	2.855611E-02	F 01
ALT	1.961797E 05	LAT	-2.791885E C1	AZ 01
VE	7.372765E 03	PTF	3.018692E-C2	LON 01
ANG	3.885639E 00	NFA	9.476285E C1	AZE 01
CPA	9.742985E 01	VPA	9.742985E C1	IAC 00
VYA	-3.187743E-01	CRA	-0.000000E-39	CYA-01
				VRA-39

S-IVB STAGE AT OPERATING THRUST LEVEL
GEOCENTRIC REFERENCE

XXX	-6.176116E 06	YYY	-2.931168E C4	FLIGHT TIME 03
DXX	2.660077E 03	DYY	-3.671288E 01	ZZZ 06
R	6.571965E 06	WT	2.980596E C5	DZZ 03
V	7.798176E 03	PTH	4.209849E-02	F 05
ALT	1.980707E 05	LAT	-2.649146E C1	AZ 01
VE	7.377304E 03	PTF	4.450062E-C2	LON 01
ANG	3.922375E 00	NFA	8.C55810E 01	AZE 01
CPA	6.618494E 01	VPA	6.618494E C1	IAC 01
VYA	-2.518940E-01	CRA	-0.000000E-39	CYA-01
				VRA-39

TRANSLUNAR INJECTION (S-IVB CUTOFF)
GEOCENTRIC REFERENCE

XXX	-4.610004E 06	YYY	-1.935476E C4	FLIGHT TIME 03
DXX	6.846546E 03	DYY	2.455386E 02	ZZZ 06
R	6.710228E 06	WT	1.397361E C5	DZZ 03
V	1.083590E 04	PTH	7.402097E C0	F 05
ALT	3.343510E 05	LAT	-1.905182E C1	AZ 01
VE	1.040702E 04	PTF	7.708959E C0	LON 02
ANG	9.568619E 00	NFA	1.012158E 01	AZE 01
CPA	4.943126E 01	VPA	4.943059E C1	IAC 01
VYA	9.837072F 00	CRA	-0.000000E-39	CYA 00
				VRA-39

TA XXXIII TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 4 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 DEGREES - FIRST OPPORTUNITY
 (D)

TRAN INJECTION
 TIME FEB. 1968 1 HRS., 28 MIN., 39.115 SEC., GMT
 GEOC REFERENCE FLIGHT TIME 8.8809048D 03

D	52112D 05	Y-6.3415732D 06	Z-2.1906000D 06
D	33265D 04	DY-2.7147483D 03	DZ 3.0627440D 03
D	2285D 06	DEC-1.9053859D 01	RA-9.1025543D 01
ALT	35897D 04	PTH 7.4020973D 00	AZ 6.9731862D 01
VE	5274D 05	LTGD-1.9166948D 01	LCN 1.1253241D 02
	7025D 04	PTE 7.6681214D 00	AZE 6.8827457D 01

PERISEL
 TIME FEB. 1968 3 HRS., 52 MIN., 2.641 SEC., GMT
 SELENOGEOC REFERENCE

XSC	3131D 05	YSC 1.6308845D 06	ZSC 6.1045574D 05
DXSC	29986D 03	DYSC-8.6184539D 02	DZSC-5.1035395D 02
RSC	19155D 06	DESC 1.8803569D 01	RASC 6.5459445D 01
VSC	21337D 03	PTSC 2.6531883D-12	AZSC-1.0238260D 02

SELENOGEOG REFERENCE

XSG	-1.0500D 06	YSG 6.5687484D 04	ZSG-5.2422501D 04
DXSG	9.8505D 01	DYSG 2.5114715D 03	DZSG-1.7382721D 02
HSG	1.2605D 05	LTSG-1.5861169D 00	LNSG 1.7801162D 02
VRSG	2.1607D 03	PTSG 1.6427249D-07	AZSG-9.3958183D 01
LTS	-1.46597D 00	LNS 6.9467108D 01	LTE-4.7152179D 00
LNE	-0.69839D 0C	DSMP 4.5083924D 00	RSMP 7.1970141D 01
LIN	0.712901D 02	LAN 1.9775166D 01	LAP-1.5818153D 02

GEOCENTRIC REFERENCE FLIGHT TIME 2.7668443D 05

X	16200342D 08	Y 3.2883198D 08	Z 1.7022637D 08
DX	14058428D 03	DY-5.5260811D 02	DZ-3.1215149D 02
R	40416902D 08	DEC 2.4908867D 01	RA 6.3772225D 01
V	15424682D 03	PTH-6.5257299D-01	AZ-1.0258291D 02
ALT	39779465D 08	LTGD 2.4911180D 01	LCN 2.2842713D 02
VE	2.8238235D 04	PTE-3.5672511D-02	AZE-9.0681775D 01

FREE-RETURN VACUUM PERIGEE
 TIME 11 FEB. 1968 4 HRS., 31 MIN., 7.703 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.3822949D 05

X	-3.8929107D 06	Y-5.6542800D 06	Z-2.2780266D 06
DX	7.2603970D 03	DY-2.0802127D 03	DZ-7.2012309D 03
R	7.2329137D 06	DEC-1.8357965D 01	RA-1.2454698D 02
V	1.0435438D 04	PTH-7.3918723D-02	AZ 1.3667773D 02
ALT	8.5687876D 05	LTGD-1.8459570D 01	LCN 2.7353205D 01
VE	1.0098552D 04	PTE 2.9899681D-13	AZE 1.3874447D 02

TABLE 10-XXXIV TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 4 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 99 DEGREES - FIRST OPPORTUNITY

LAUNCH TIME = 23 HRS..53 MIN..13.250 SEC. G. M. T.

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-6.074097E 06	YYY	-1.419825E 04
DXX	-2.967575E 03	DYY	1.573006E C1
R	6.567653E 06	WT	2.988685E C5
V	7.755299E 03	PTH	2.224238E-C2
ALT	1.947079E C5	LAT	-2.955082E C1
VE	7.379617F 03	PTE	2.349532E-02
ANG	3.877012E 00	NFA	9.301182E C1
CPA	1.085063E 02	VPA	1.085063E C2
VYA	1.237160E-01	CRA	-0.000000E-39
		ZZZ	2.497841E 06
		DZZ	-7.208324E 03
		F	1.924312F 01
		AZ	9.374667F 01
		LON	4.069813E 01
		AZE	9.395804E 01
		IAC	9.244917E 00
		CYA	1.237160E-01
		VRA	-0.000000E-39

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-6.490291E 06	YYY	-6.501059E C3
DXX	1.203984E 03	DYY	1.699723E 01
R	6.569774E 06	WT	2.977331E C5
V	7.800144E 03	PTH	4.186619E-C2
ALT	1.559724E 05	LAT	-2.679965E C1
VE	7.384976E 03	PTE	4.421953E-02
ANG	3.948709E 00	NFA	7.864985E C1
CPA	7.725063E 01	VPA	7.725063E 01
VYA	1.284008E-01	CRA	-0.000000E-39
		ZZZ	-1.018830E 06
		DZZ	-7.706645E 03
		F	2.073030E 05
		AZ	7.652199E 01
		LON	7.425443E 01
		AZE	7.574872E 01
		IAC	1.185823E 01
		CYA	1.284008E-01
		VRA	-0.000000E-39

TRANSLUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-5.457637E 06	YYY	2.232508E C4
DXX	5.106483E 03	DYY	3.069602E C2
R	6.709285E 06	WT	1.395852E C5
V	1.083642E 04	PTH	7.441336E C0
ALT	3.332166E 05	LAT	-1.821002E 01
VF	1.041279E 04	PTE	7.745896E C0
ANG	9.806423E 00	NFA	1.038822E 01
CPA	6.041921E 01	VPA	6.041863E C1
VYA	1.028760E 01	CRA	-0.000000E-39
		ZZZ	-3.902333E 06
		DZZ	-9.552884E 03
		F	2.060472E 05
		AZ	6.735776E 01
		LON	1.002259E 02
		AZE	6.636417E 01
		IAC	1.617726E 01
		CYA	1.028749E 01
		VRA	0.000000E-39

TABLE 10- XXXIV TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 4 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 99 DEGREES - FIRST OPPORTUNITY
(CONTINUED)

TRANSLUNAR INJECTION

TIME 5 FEB. 1968 2 HRS., 18 MIN., 30.402 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 8.7171520D 03

X-9.2813260D 04	Y-6.3725161D 06	Z-2.0968849D 06
DX 9.8776396D 03	DY-2.7701556D 03	DZ 3.4909101D 03
R 6.7092848D 06	DEC-1.8212054D 01	RA-9.0834427D 01
V 1.0836419D 04	PTH 7.4413355D 00	AZ 6.7356987D 01
ALT 3.3321809D 05	LTGD-1.8320882D 01	LON 1.0022570D 02
VE 1.0412798D 04	PTE 7.7022457D 00	AZE 6.6349856D 01

PERISELENUM

TIME 8 FEB. 1968 4 HRS., 52 MIN., 14.847 SEC., GMT

SELENOCENTRIC REFERENCE

XSC 7.3375210D 05	YSC 1.6021836D 06	ZSC 6.1047924D 05
DXSC 2.3186113D 03	DYSC-8.5443297D 02	DZSC-5.4437135D 02
RSC 1.8649583D 06	DESC 1.9107526D 01	RASC 6.5393636D 01
VSC 2.5302874D 03	PTSC-2.4734429D-12	AZSC-1.0316089D 02

SELENOGRAPHIC REFERENCE

XSG-1.8626401D 06	YSG 8.3158844D 04	ZSG-4.1543582D 04
DXSG 1.1732828D 02	DYSG 2.5239379D 03	DZSG-2.0827784D 02
HSG 1.2686877D 05	LTSG-1.2764193D 00	LNSG 1.7744368D 02
VRSG 2.5352334D 03	PTSG 1.5171123D-07	AZSG-9.4713517D 01
LTS-1.4063386D 00	LNS 6.8958973D 01	LTE-4.7558387D 00
LNE-2.6647363D 00	DSMP 4.5063157D 00	RSMP 7.1512884D 01
LIN 1.7510822D 02	LAN 1.2533979D 01	LAP-1.6485706D 02

GEOCENTRIC REFERENCE FLIGHT TIME 2.7714160D 05

X 1.5873440D 08	Y 3.2990704D 08	Z 1.7093546D 08
DX 1.4148148D 03	DY-5.5255086D 02	DZ-3.4998612D 02
R 4.0404726D 08	DEC 2.5027806D 01	RA 6.4305516D 01
V 1.5586865D 03	PTH-1.5955497D 00	AZ-1.0358563D 02
ALT 3.9767292D 08	LTGD 2.5030128D 01	LON 2.1386836D 02
VE 2.8213930D 04	PTE-8.8165359D-02	AZE-9.0743254D 01

FREE-RETURN VACUUM PERIGEE

TIME 11 FEB. 1968 4 HRS., 58 MIN., 11.276 SEC., GMT

GEOCENTRIC REFERENCE FLIGHT TIME 5.3669803D 05

X-3.9694678D 06	Y-5.7188711D 06	Z-2.3858086D 06
DX 7.6286531D 03	DY-2.5679845D 03	DZ-6.4989571D 03
R 7.3589567D 06	DEC-1.8917400D 01	RA-1.2476450D 02
V 1.0345402D 04	PTH-6.8073725D-02	AZ 1.3164194D 02
ALT 9.8304835D 05	LTGD-1.9019848D 01	LON 2.0352275D 01
VE 9.9717442D 03	PTE 3.6613313D-13	AZE 1.3358049D 02

TABLE 10-XXXV TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 4 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 108 DEGREES - FIRST OPPORTUNITY

LAUNCH TIME = 24 HRS..17 MIN..31.130 SEC. G. M. T.

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE		FLIGHT TIME		7.849000E 03
XXX	-5.839120E 06	YYY	-2.957619E 04	ZZZ 3.004039E 06
DXX	-3.568886E 03	DYY	7.355920E C1	DZZ -6.930103E 03
R	6.566616E 06	WT	2.977028E 05	F 1.951743E 01
V	7.795427E 03	PTH	2.090314E-02	AZ 8.902302E 01
ALT	1.948494E 05	LAT	-3.310127E C1	LON 3.520057E 01
VE	7.394357E 03	PTE	2.203718E-C2	AZE 8.897002E 01
ANG	3.871515E 00	NFA	8.899386E C1	IAC 9.245496E 00
CPA	1.133776E 02	VPA	1.133776E C2	CYA 5.568611E-01
VYA	5.568611E-01	CRA	-0.000000E-39	VRA -0.000000E-39

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE		FLIGHT TIME		8.309000E 03
XXX	-6.552303E 06	YYY	5.606755E C3	ZZZ -4.646254E 05
DXX	5.459112E 02	DYY	7.581895E C1	DZZ -7.781348E 03
R	6.568758E 06	WT	2.965671E 05	F 2.073030E 05
V	7.800842E 03	PTH	4.345258E-02	AZ 7.051283E 01
ALT	1.951175E 05	LAT	-2.733195E C1	LON 6.904015E 01
VE	7.401053E 03	PTE	4.579994E-02	AZE 6.941382E 01
ANG	4.025069E 00	NFA	7.422818E C1	IAC 1.187776E 01
CPA	8.211673E 01	VPA	8.211673E C1	CYA 5.523437E-01
VYA	5.523437E-01	CRA	-0.000000E-39	VRA -0.000000E-39

TRANSLUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE		FLIGHT TIME		8.645488E 03
XXX	-5.771139E 06	YYY	5.719785E C4	ZZZ -3.419598E 06
DXX	4.268347E 03	DYY	3.964193E 02	DZZ -9.952736E 03
R	6.708425E 06	WT	1.389826E C5	F 2.060472E 05
V	1.083665E 04	PTH	7.448304E 00	AZ 6.221640E 01
ALT	3.319524E 05	LAT	-1.630502E 01	LON 9.379566E 01
VE	1.042720E 04	PTE	7.742534E 00	AZE 6.100268E 01
ANG	1.083252E 01	NFA	9.580566E C0	IAC 1.623179E 01
CPA	6.529554E 01	VPA	6.529517E 01	CYA 1.158018E 01
VYA	1.158025E 01	CRA	-0.000000E-39	VRA 0.000000E-39

TABLE 10- XXXV TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 4 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 108 DEGREES - FIRST OPPORTUNITY
 (CONTINUED)

TRANSLUNAR INJECTION

TIME 5 FEB. 1968 2 HRS., 41 MIN., 36.618 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 8.6454878D 03
 X-1.6550136D 05 Y-6.4364220D 06 Z-1.8836253D 06
 DX 9.4324281D 03 DY-2.9981102D 03 DZ 4.4128820D 03
 R 6.7084248D 06 DEC-1.6307063D 01 RA-9.1472931D 01
 V 1.0836646D 04 PTH 7.4483052D 00 AZ 6.2215664D 01
 ALT 3.3195381D 05 LTGD-1.6405881D 01 LON 9.3795486D 01
 VE 1.0427210D 04 PTE 7.6946156D 00 AZE 6.0990207D 01

PERISELENUM

TIME 8 FEB. 1968 5 HRS., 41 MIN., 3.480 SEC.,GMT
 SELENOCENTRIC REFERENCE
 XSC 7.3770276D 05 YSC 1.5992193D 06 ZSC 6.0576590D 05
 DXSC 2.3138167D 03 DYSC-8.4395096D 02 DZSC-5.8974316D 02
 RSC 1.8624339D 06 DESC 1.8981022D 01 RASC 6.5236626D 01
 VSC 2.5325477D 03 PTSC 4.3433823D-13 AZSC-1.0425603D 02
 SELENOGRAPHIC REFERENCE
 XSG-1.8590477D 06 YSG 1.0290955D 05 ZSG-4.4846146D 04
 DXSG 1.4565803D 02 DYSG 2.5205059D 03 DZSG-2.5422716D 02
 HSG 1.2434440D 05 LTSG-1.3797768D 00 LNSG 1.7683156D 02
 VRSG 2.5374786D 03 PTSG 1.4145065D-07 AZSG-9.5751715D 01
 LTS-1.4060760D 00 LNS 6.8547004D 01 LTE-4.7885219D 00
 LNE-2.7056474D 00 DSMP 4.5046267D 00 RSMP 7.1141973D 01
 LIN 1.7407476D 02 LAN 1.0251066D 01 LAP-1.6651104D 02
 GEOCENTRIC REFERENCE FLIGHT TIME 2.7861235D 05
 X 1.5608720D 08 Y 3.3077942D 08 Z 1.7149548D 08
 DX 1.4071199D 03 DY-5.4805345D 02 DZ-3.9846615D 02
 R 4.0396650D 08 DEC 2.5120850D 01 RA 6.4738449D 01
 V 1.5617696D 03 PTH-2.7242711D 00 AZ-1.0505813D 02
 ALT 3.9759219D 08 LTGD 2.5123179D 01 LON 2.0206525D 02
 VE 2.8180877D 04 PTE-1.5095448D-01 AZE-9.0824028D 01

FREE-RETURN VACUUM PERIGEE

TIME 11 FEB. 1968 5 HRS., 19 MIN., 27.786 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.3651666D 05
 X-3.9891721D 06 Y-5.7184807D 06 Z-2.4636328D 06
 DX 7.9253840D 03 DY-2.9692275D 03 DZ-5.9066337D 03
 R 7.3948633D 06 DEC-1.9460359D 01 RA-1.2489935D 02
 V 1.0320676D 04 PTH-6.3417692D-02 AZ 1.2740015D 02
 ALT 1.0190811D 06 LTGD-1.9564771D 01 LON 1.4884075D 01
 VE 9.9215746D 03 PTE-1.9464663D-12 AZE 1.2918384D 02

TABLE 10-XXXVI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 4 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 72 DEGREES - SECOND OPPORTUNITY

LAUNCH TIME = 19 HRS..46 MIN..34.950 SEC. G. M. T.

RESTART SEQUENCE INITIATION
 GEOCENTRIC REFERENCE

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -5.682051E 06	YYY -9.949511E 04	TIME 1.401100E 04	
DXX 3.924423E 03	DYY -1.552691F 02	ZZZ -3.321357E 06	
R 6.582326E 06	WT 2.962896F 05	DZZ -6.718829F 03	
V 7.782536E 03	PTH 3.613845E-02	F 1.441444E 01	
ALT 2.103613F 05	LAT -3.252045F 01	AZ 8.835286E 01	
VF 7.377984F 03	PTF 3.811976F-02	LON 7.593342F 01	
ANG 3.873039E 00	NFA 8.772165E 01	AZF 8.826252F 01	
CPA 5.584084E 01	VPA 5.584084F 01	IAC 9.201789F 00	
VYA -1.082161F 00	CRA -0.000000F-39	CYA -1.082161F 00	
		VRA -0.000000E-39	

S-IVB STAGE AT OPERATING THRUST LEVEL
 GEOCENTRIC REFERENCE

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -3.144566F 06	YYY -1.543724F 05	TIME 1.447100E 04	
DXX 6.840650F 03	DYY -7.731640E 01	ZZZ -5.782979F 06	
R 6.584449F 06	WT 2.951587F 05	DZZ -3.721916F 03	
V 7.788012E 03	PTH 2.773574E-02	F 2.073030F 05	
ALT 2.105799E 05	LAT -2.657478E 01	AZ 7.043950F 01	
VF 7.384775F 03	PTF 2.925008E-02	LON 1.093363F 02	
ANG 4.028808F 00	NFA 7.253424E 01	AZF 6.932397E 01	
CPA 2.468101E 01	VPA 2.468101E 01	IAC 1.186427E 01	
VYA -4.768753F-01	CRA -0.000000E-39	CYA -4.768753E-01	
		VRA -0.000000F-39	

TRANSLUNAR INJECTION (S-IVB CUTOFF)
 GEOCENTRIC REFERENCE

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -4.002663F 05	YYY -1.780842E 05	TIME 1.478695E 04	
DXX 1.068163E 04	DYY -1.414920E 02	ZZZ -6.680670E 06	
R 6.695019F 06	WT 1.387112F 05	DZZ -1.885802E 03	
V 1.084774F 04	PTH 6.600573E 00	F 2.060472E 05	
ALT 3.185036E 05	LAT -1.608875E 01	AZ 6.070180E 01	
VE 1.044399F 04	PTF 6.856939F 00	LON 1.325733E 02	
ANG 3.430103F 00	NFA 1.517110E 02	AZF 5.943331E 01	
CPA 8.611716F 00	VPA 8.612550E 00	IAC 1.635956F 01	
VYA -5.034944E 00	CRA -0.000000E-39	CYA -5.035057E 00	
		VRA 0.000000E-39	

TABLE 10- XXXVI TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 4 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 72 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TRANSLUNAR INJECTION
TIME 4 FEB. 1968 23 HRS., 53 MIN., 1.900 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 1.47869500 04
X-5.5566322D 05 Y-6.4086874D 06 Z-1.8555995D 06
DX 9.1325198D 03 DY-3.4614326D 03 DZ 4.7211217D 03
R 6.6950194D 06 DEC-1.6090847D 01 RA-9.4955414D 01
V 1.0847738D 04 PTH 6.6005700D 00 AZ 6.0701194D 01
ALT 3.1850500D 05 LTGD-1.6188695D 01 LON 1.3257304D 02
VE 1.0444002D 04 PTE 6.8071639D 00 AZE 5.9422602D 01

PERISEL ENUM
TIME 8 FEB. 1968 2 HRS., 59 MIN., 5.620 SEC., GMT
SELENOCENTRIC REFERENCE
XSC 7.8913455D 05 YSC 1.6314716D 06 ZSC 6.2308238D 05
DXSC 2.2673196D 03 DYSC-8.5510543D 02 DZSC-6.3256491D 02
RSC 1.9164197D 06 DE SC 1.8973350D 01 RASC 6.4187177D 01
VSC 2.5044125D 03 PTSC 4.2141572D-12 AZSC-1.0549125D 02
SELENOGRAPHIC REFERENCE
XSG-1.9138947D 06 YSG 8.9212403D 04 ZSG-4.1385124D 04
DXSG 1.2230954D 02 DYSG 2.4897490D 03 DZSG-2.8926100D 02
HSG 1.7833019D 05 LTSG-1.2373997D 00 LNSG 1.7733119D 02
VRSG 2.5094783D 03 PTSG 1.7284214D-07 AZSG-9.6620593D 01
LTS-1.4069396D 00 LNS 6.9914033D 01 LTE-4.6792113D 00
LNE-2.5690838D 00 DSMP 4.5102129D 00 RSMP 7.2372103D 01
LIN 1.7325210D 02 LAN 7.8498520D 00 LAP-1.6940962D 02
GEOCENTRIC REFERENCE FLIGHT TIME 2.8515067D 05
X 1.6490257D 08 Y 3.2783987D 08 Z 1.6960399D 08
DX 1.3704236D 03 DY-5.3942342D 02 DZ-4.3102033D 02
R 4.0427386D 08 DEC 2.4804757D 01 RA 6.3297724D 01
V 1.5345413D 03 PTH-2.2135003D 00 AZ-1.0696533D 02
ALT 3.9789946D 08 LTGD 2.4807063D 01 LON 2.4122646D 02
VF 2.8230631D 04 PTE-1.2032663D-01 AZE-9.0908126D 01

FREE-RETURN VACUUM PERIGEE
TIME 11 FEB. 1968 2 HRS., 52 MIN., 28.880 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 5.4395393D 05
X-3.2758374D 06 Y-4.5696648D 06 Z-2.0482997D 06
DX 8.9807641D 03 DY-3.6589288D 03 DZ-6.1557808D 03
R 5.9840186D 06 DEC-2.0016759D 01 RA-1.2563545D 02
V 1.1486319D 04 PTH-7.5490186D-02 AZ 1.2481010D 02
ALT-3.9162809D 05 LTGD-2.0148999D 01 LON 5.0994024D 01
VF 1.1152144D 04 PTE-9.8367159D-13 AZE 1.2601275D 02

TABLE 10-XXXVII TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 4 FEBRUARY 1958 ALONG A LAUNCH AZIMUTH
OF 81 DEGREES - SECOND OPPORTUNITY

LAUNCH TIME = 21 HRS., 29 MIN., 25.300 SEC. G. M. T.

RFSTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-6.503116E C6	YYY	-3.571197E 04
DXX	1.167215E C3	DYY	-1.294795E 02
R	6.578126F C6	WT	2.976344F 05
V	7.787278E C3	PTH	3.885597F-02
ALT	2.050988F C5	LAT	-2.929594E 01
VE	7.369648F C3	PTE	4.105817E-02
ANG	3.876564E C0	NFA	9.234351E 01
CPA	7.750795F 01	VPA	7.750795E 01
VYA	-9.295785E-C1	CRA	-0.000000F-39
		ZZZ	-9.899238E 05
		DZZ	-7.698217E 03
		F	1.593627F 01
		AZ	9.323715F 01
		LON	5.208848F 01
		AZE	9.342080F 01
		IAC	9.215646E 00
		CYA	-9.295785E-01
		VRA	-0.000000F-39

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-5.052243F C6	YYY	-8.844546E 04
DXX	4.988253E C3	DYY	-9.410113E 01
R	6.580770F C6	WT	2.965021F 05
V	7.791557E C3	PTH	4.160274F-02
ALT	2.068346F C5	LAT	-2.635506E 01
VE	7.374449E C3	PTE	4.395649E-02
ANG	3.951993F C0	NFA	7.764687E 01
CPA	4.631895F C1	VPA	4.631895E 01
VYA	-6.384758F-C1	CRA	-0.000000F-39
		ZZZ	-4.215868F 06
		DZZ	-5.984717F 03
		F	2.073030E 05
		AZ	7.632418E 01
		LON	8.540919F 01
		AZE	7.553428E 01
		IAC	1.185110E 01
		CYA	-6.384758F-01
		VRA	-0.000000F-39

TRANSLUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-2.818535F C6	YYY	-1.194837E 05
DXX	9.248100E C3	DYY	-1.324872E 02
R	6.694926F C6	WT	1.394242E 05
V	1.084822F C4	PTH	6.617761E 00
ALT	3.188332E C5	LAT	-1.809867E 01
VE	1.042866E 04	PTE	6.885264F 00
ANG	2.583169F 00	NFA	1.095533F 02
CPA	2.932564E C1	VPA	2.932481E 01
VYA	-2.604418E 00	CRA	-0.000000E-39
		ZZZ	-6.071542F 06
		DZZ	-5.669118E 03
		F	2.060472E 05
		AZ	6.608104E 01
		LON	1.099279E 02
		AZE	6.503979E 01
		IAC	1.641044E 01
		CYA	-2.604414F 00
		VRA	0.000000F-39

TABLE 10- XXXVII TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 4 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 81 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TRANSLUNAR INJECTION
 TIME 5 FEB. 1968 1 HRS., 30 MIN., 28.084 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.44627840 04

X-3.5244436D 05	Y-6.3538381D 06	Z-2.0800385D 06
DX 9.6943303D 03	DY-3.0874343D 03	DZ 3.7645088D 03
R 6.6949262D 06	DEC-1.8100744D 01	RA-9.3174911D 01
V 1.0848217D 04	PTH 6.6177616D 00	AZ 6.6080366D 01
ALT 3.1883483D 05	LTGD-1.8209233D 01	LON 1.0992776D 02
VE 1.0428668D 04	PTE 6.8394679D 00	AZE 6.5027267D 01

PERISELENUM
 TIME 8 FEB. 1968 4 HRS., 7 MIN., 31.180 SEC.,GMT
 SELENOCENTRIC REFERENCE

XSC 7.5016216D 05	YSC 1.6237876D 06	ZSC 6.2484698D 05
DXSC 2.2998391D 03	DYSC-8.4328147D 02	DZSC-5.6964709D 02
RSC 1.8946934D 06	DESC 1.9255902D 01	RASC 6.5203865D 01
VSC 2.5149316D 03	PTSC-1.4708257D-12	AZSC-1.0388233D 02

SELENOGRAPHIC REFERENCE

XSG-1.8928128D 06	YSG 7.6105022D 04	ZSG-3.6478585D 04
DXSG 1.0532985D 02	DYSG 2.5066933D 03	DZSG-2.3569319D 02
HSG 1.5660390D 05	LTSG-1.1031854D 00	LNSG 1.7769752D 02
VRSG 2.5199518D 03	PTSG 1.6078545D-07	AZSG-9.5367759D 01
LTS-1.4065775D 00	LNS 6.9336488D 01	LTF-4.7256921D 00
LNE-2.6270606D 00	DSMP 4.5078593D 00	RSMP 7.1852624D 01
LIN 1.7450990D 02	LAN 9.2549845D 00	LAP-1.6839071D 02

GEOCENTRIC REFERENCE FLIGHT TIME 2.8308588D 05

X 1.6117268D 08	Y 3.2911115D 08	Z 1.7042435D 08
DX 1.3987407D 03	DY-5.3593208D 02	DZ-3.7242412D 02
R 4.0414755D 08	DEC 2.4941230D 01	RA 6.3908029D 01
V 1.5435020D 03	PTH-1.3239006D 00	AZ-1.0479876D 02
ALT 3.9777318D 08	LTGD 2.4943546D 01	LON 2.2468343D 02
VE 2.8217150D 04	PTE-7.2444406D-02	AZE-9.0800339D 01

FREE-RETURN VACUUM PERIGEE
 TIME 11 FEB. 1968 4 HRS., 16 MIN., 47.090 SEC.,GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4284179D 05

X-3.4271807D 06	Y-4.9291588D 06	Z-2.1264450D 06
DX 8.4110700D 03	DY-2.9543315D 03	DZ-6.6629100D 03
R 6.3689829D 06	DEC-1.9504149D 01	RA-1.2481039D 02
V 1.1129625D 04	PTH-7.7253876D-02	AZ 1.2946351D 02
ALT-6.7870008D 03	LTGD-1.9625696D 01	LON 3.0685507D 01
VE 1.0795230D 04	PTE 4.4169988D-12	AZE 1.3094055D 02

TABLE 10-XXXVIII TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 4 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 90 DEGREES - SECOND OPPORTUNITY

LAUNCH TIME = 23 HRS..00 MIN..38.210 SEC. G. M. T.

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-6.457936E 06	YYY	-5.899602E 03
DXX	-1.465721E 03	DYY	-7.515222E 01
R	6.574669E 06	WT	2.981586E 05
V	7.790866E 03	PTH	3.208724E-02
ALT	2.012351E 05	LAT	-2.800390E 01
VE	7.369471E 03	PTE	3.392204E-02
ANG	3.883692E 00	NFA	9.439327E 01
CPA	9.697420E 01	VPA	9.697420E 01
VYA	-5.479852E-01	CRA	-0.000000E-39

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-6.164295E 06	YYY	-3.914212E 04
DXX	2.712563E 03	DYY	-6.579258E 01
R	6.577214E 06	WT	2.970249E 05
V	7.795030E 03	PTH	4.541755E-02
ALT	2.032713E 05	LAT	-2.632969E 01
VE	7.373859E 03	PTE	4.801136E-02
ANG	3.926678E 00	NFA	8.009352E 01
CPA	6.576499E 01	VPA	6.576499E 01
VYA	-4.595104E-01	CRA	-0.000000E-39

TRANSLUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-4.668441E 06	YYY	-6.173921E 04
DXX	6.843350E 03	DYY	-8.943739E 01
R	6.693015E 06	WT	1.396977E 05
V	1.084998E 04	PTH	6.668781E 00
ALT	3.171305E 05	LAT	-1.901913E 01
VE	1.042565E 04	PTE	6.941511E 00
ANG	2.375009E 00	NFA	8.723769E 01
CPA	4.878847E 01	VPA	4.878775E 01
VYA	-1.298574E 00	CRA	-0.000000E-39

TABLE 10-XXXVIII TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 4 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 90 DEGREES - SECOND OPPORTUNITY
(CONTINUED)

TRANSLUNAR INJECTION

TIME 5 FEB. 1968 2 HRS., 56 MIN., 51.201 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 1.4172991D 04

X-2.1959655D 05	Y-6.3237529D 06	Z-2.1813715D 06
DX 9.9208886D 03	DY-2.8354907D 03	DZ 3.3552876D 03
R 6.6930154D 06	DEC-1.9021176D 01	RA-9.1988830D 01
V 1.0849977D 04	PTH 6.6687814D 00	AZ 6.8306589D 01
ALT 3.1713211D 05	LTGD-1.9134392D 01	LON 8.9458391D 01
VE 1.0425658D 04	PTE 6.8979178D 00	AZE 6.7349624D 01

PERISELENUM

TIME 8 FEB. 1968 5 HRS., 19 MIN., 9.054 SEC., GMT
SELENOCENTRIC REFERENCE

XSC 7.2182826D 05	YSC 1.6297517D 06	ZSC 6.2813967D 05
DXSC 2.3195434D 03	DYSC-8.2342293D 02	DZSC-5.2908155D 02
RSC 1.8898905D 06	DESC 1.9412583D 01	RASC 6.6111113D 01
VSC 2.5175850D 03	PTSC-2.5475510D-12	AZSC-1.0287482D 02

SELENOGRAPHIC REFERENCE

XSG-1.8883047D 06	YSG 6.8846391D 04	ZSG-3.5375282D 04
DXSG 9.5453950D 01	DYSG 2.5123820D 03	DZSG-2.0572895D 02
HSG 1.5180097D 05	LTSG-1.0725344D 00	LNSG 1.7791195D 02
VRSG 2.5225977D 03	PTSG 1.4543996D-07	AZSG-9.4678735D 01
LTS-1.4061942D 00	LNS 6.8731902D 01	LTE-4.7738810D 00
LNE-2.6873122D 00	DSMP 4.5053854D 00	RSMP 7.1308466D 01
LIN 1.7519112D 02	LAN 1.0769898D 01	LAP-1.6709815D 02

GEOCENTRIC REFERENCE

FLIGHT TIME 2.8191084D 05

X 1.5726226D 08	Y 3.3041925D 08	Z 1.7126551D 08
DX 1.4141426D 03	DY-5.2483707D 02	DZ-3.3640805D 02
R 4.0402992D 08	DEC 2.5080622D 01	RA 6.4547994D 01
V 1.5454526D 03	PTH-7.9284110D-01	AZ-1.0352579D 02
ALT 3.9765559D 08	LTGD 2.5082948D 01	LON 2.0736656D 02
VE 2.8189159D 04	PTE-4.3495443D-02	AZE-9.0734618D 01

FREE-RETURN VACUUM PERIGEE

TIME 11 FEB. 1968 5 HRS., 37 MIN., 21.496 SEC., GMT
GEOCENTRIC REFERENCE FLIGHT TIME 5.4220329D 05

X-3.4003507D 06	Y-5.0543088D 06	Z-2.1371653D 06
DX 8.1745262D 03	DY-2.5196708D 03	DZ-7.0006274D 03
R 6.4556872D 06	DEC-1.9332612D 01	RA-1.2393119D 02
V 1.1053524D 04	PTH-7.9942914D-02	AZ 1.3219650D 02
ALT 7.9876852D 04	LTGD-1.9451632D 01	LON 1.1366198D 01
VE 1.0728582D 04	PTE 1.6365389D-12	AZE 1.3379019D 02

TABLE 10-XXXIX TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
LAUNCH ON 4 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
OF 99 DEGREES - SECOND OPPORTUNITY

LAUNCH TIME = 23 HRS., 53 MIN., 13.250 SEC. G. M. T.

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -6.095422E C6	YYY -1.128402E 04	ZZZ 1.322800F 04	
DXX -2.918111E C3	DYY -1.636105F 01	DZZ 2.458608E 06	
R 6.572599F C6	WT 2.978311F 05	F -7.225424F 03	
V 7.792457F C3	PTH 2.552568E-02	A7 1.828372F 01	
ALT 1.996691F 05	LAT -2.960004F 01	LON 9.329167E 01	
VF 7.376451F C3	PTE 2.696506E-02	AZE 1.896326F 01	
ANG 3.875901F 00	NFA 9.264445E 01	IAC 9.347753F 01	
CPA 1.081222F C2	VPA 1.081222F 02	CYA 9.230971E 00	
VYA -1.133885E-C1	CRA -0.000000F-39	VRA -1.133885E-01	
		VRA -0.000000E-39	

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -6.488999F 06	YYY -1.805049E 04	ZZZ 1.368800E 04	
DXX 1.250293E C3	DYY -1.224857E 01	DZZ -1.059422F 06	
R 6.574938F 06	WT 2.966966E 05	F -7.696200E 03	
V 7.797107E C3	PTH 4.537223E-02	A7 2.073030E 05	
ALT 2.010813E C5	LAT -2.661883E 01	LON 7.614684E 01	
VF 7.381655E 03	PTE 4.792585E-02	AZE 5.243256E 01	
ANG 3.953529F 00	NFA 7.820349E 01	IAC 7.535021F 01	
CPA 7.690259E C1	VPA 7.690259E 01	CYA 1.186118F 01	
VYA -7.918982F-C2	CRA -0.000000F-39	VRA -7.918982F-02	
		VRA -0.000000F-39	

TRANSLUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX -5.503619E C6	YYY -2.444822E 04	ZZZ 1.400719E 04	
DXX 5.091489F 03	DYY -5.694982F 01	DZZ -3.805170E 06	
R 6.691019F C6	WT 1.395529E 05	F -9.582552E 03	
V 1.085135F C4	PTH 6.677709E 00	AZ 2.060472E 05	
ALT 3.149522E C5	LAT -1.821463F 01	LON 6.579337F 01	
VF 1.043335E C4	PTE 6.946539E 00	AZE 7.708124E 01	
ANG 2.528439F C0	NFA 1.065613E 02	IAC 6.474200F 01	
CPA 5.986033F 01	VPA 5.985967E 01	CYA 1.639597F 01	
VYA -2.067513F C0	CRA -0.000000E-39	VRA -2.067482F 00	
		VRA 0.000000F-39	

TABLE 10- XXXIX TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR
 LAUNCH ON 4 FEBRUARY 1968 ALONG A LAUNCH AZIMUTH
 OF 99 DEGREES - SECOND OPPORTUNITY
 (CONTINUED)

TRANSLUNAR INJECTION

TIME 5 FEB. 1968 3 HRS., 46 MIN., 40.436 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 1.40071860 04

X-2.0816301D 05	Y-6.3522629D 06	Z-2.0916896D 06
DX 9.7402419D 03	DY-2.9006967D 03	DZ 3.8033464D 03
R 6.6910194D 06	DEC-1.8216681D 01	RA-9.1876900D 01
V 1.0851350D 04	PTH 6.6777091D 00	AZ 6.5792641D 01
ALT 3.1495380D 05	LTGD-1.8325831D 01	LON 7.7081076D 01
VF 1.0433355D 04	PTE 6.8999477D 00	AZE 6.4729264D 01

PERISELENUM

TIME 8 FEB. 1968 6 HRS., 19 MIN., 51.597 SEC., GMT
 SELENOCENTRIC REFERENCE

XSC 7.1112184D 05	YSC 1.6060717D 06	ZSC 6.1888084D 05
DXSC 2.3323296D 03	DYSC-8.2002767D 02	DZSC-5.5187894D 02
RSC 1.8623034D 06	DESC 1.9409655D 01	RASC 6.6117627D 01
VSC 2.5331358D 03	PTSC-3.3636709D-12	AZSC-1.0335548D 02

SELENOGRAPHIC REFERENCE

XSG-1.8600017D 06	YSG 8.5695602D 04	ZSG-3.4984795D 04
DXSG 1.2062324D 02	DYSG 2.5249058D 03	DZSG-2.2827418D 02
HSG 1.2421391D 05	LTSG-1.0764083D 00	LNSG 1.7736208D 02
VRSG 2.5380718D 03	PTSG 1.3118845D-07	AZSG-9.5161063D 01
LTS-1.4058658D 00	LNS 6.8219513D 01	LTE-4.8143421D 00
LNE-2.7380162D 00	DSMP 4.5032807D 00	RSMP 7.0846995D 01
LIN 1.7471835D 02	LAN 9.0890610D 00	LAP-1.6822441D 02

GEOCENTRIC REFERENCE FLIGHT TIME 2.8239835D 05

X 1.5394707D 08	Y 3.3146960D 08	Z 1.7195102D 08
DX 1.4233602D 03	DY-5.2890106D 02	DZ-3.6308127D 02
R 4.0390463D 08	DEC 2.5196361D 01	RA 6.5088051D 01
V 1.5612554D 03	PTH-1.6924743D 00	AZ-1.0407672D 02
ALT 3.9753034D 08	LTGD 2.5198695D 01	LON 1.9268780D 02
VE 2.8167147D 04	PTE-9.3828733D-02	AZE-9.0772101D 01

FREE-RETURN VACUUM PERIGEE

TIME 11 FEB. 1968 6 HRS., 11 MIN., 20.557 SEC., GMT
 GEOCENTRIC REFERENCE FLIGHT TIME 5.4108731D 05

X-3.6248827D 06	Y-5.3698942D 06	Z-2.3013956D 06
DX 8.1497744D 03	DY-2.7514193D 03	DZ-6.3767747D 03
R 6.8754607D 06	DEC-1.9555877D 01	RA-1.2402084D 02
V 1.0707585D 04	PTH-7.1339140D-02	AZ 1.2923015D 02
ALT 4.9970198D 05	LTGD-1.9668678D 01	LON 2.7572071D 00
VE 1.0345939D 04	PTE-1.4763614D-12	AZE 1.3088515D 02

TABLE 10-XL TRANSLUNAR TRAJECTORY CHARACTERISTICS FOR LAUNCH ON 4 FEBRUARY 1958 ALONG A LAUNCH AZIMUTH OF 108 DEGREES - SECOND OPPORTUNITY

LAUNCH TIME = 24 HRS..17 MIN..31.130 SEC. G. M. T.

RESTART SEQUENCE INITIATION

GEOCENTRIC REFERENCE

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-5.864559E 06	YYY	-3.021279E 04
DXX	-3.519023E 03	DYY	3.942506E 01
R	6.571545E 06	WT	2.966646E 05
V	7.792632E 03	PTH	2.413227E-02
ALT	1.997722E 05	LAT	-3.308427E 01
VE	7.391265E 03	PTF	2.544241E-02
ANG	3.872179E 00	NFA	8.855586E 01
CPA	1.129757E 02	VPA	1.129757E 02
VYA	3.070033E-01	CRA	-0.000000E-39
		FLIGHT TIME	1.315700E 04
		ZZZ	2.965001E 06
		DZZ	-6.952700E 03
		F	1.851383E 01
		A7	8.850724E 01
		LON	1.350535E 01
		A7E	8.842616E 01
		IAC	9.231641E 00
		CYA	3.070033E-01
		VRA	-0.000000E-39

S-IVB STAGE AT OPERATING THRUST LEVEL

GEOCENTRIC REFERENCE

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-6.554796E 06	YYY	-9.872424E 03
DXX	5.952650E 02	DYY	4.701731E 01
R	6.573905E 06	WT	2.955298E 05
V	7.797851E 03	PTH	4.703048E-02
ALT	2.001873E 05	LAT	-2.707809E 01
VE	7.397808E 03	PTE	4.957398E-02
ANG	4.031796E 00	NFA	7.375531E 01
CPA	8.175180E 01	VPA	8.175180E 01
VYA	3.505074E-01	CRA	-0.000000E-39
		FLIGHT TIME	1.361700E 04
		ZZZ	-5.072808E 05
		DZZ	-7.774955E 03
		F	2.073030E 05
		AZ	7.014686E 01
		LON	4.720096E 01
		AZE	6.902411E 01
		IAC	1.188093E 01
		CYA	3.505074E-01
		VRA	-0.000000E-39

TRANSLUNAR INJECTION (S-IVB CUTOFF)

GEOCENTRIC REFERENCE

GEOCENTRIC REFERENCE		FLIGHT TIME	
XXX	-5.808750E 06	YYY	1.676780E 03
DXX	4.246967E 03	DYY	-3.202295E 01
R	6.690841E 06	WT	1.389766E 05
V	1.085101E 04	PTH	6.712837E 00
ALT	3.143747E 05	LAT	-1.633600E 01
VE	1.044984E 04	PTF	6.971799E 00
ANG	3.144597E 00	NFA	1.340341E 02
CPA	6.496000E 01	VPA	6.495953E 01
VYA	-3.629489E 00	CRA	-0.000000E-39
		FLIGHT TIME	1.393545E 04
		ZZZ	-3.320507E 06
		DZZ	-9.985328E 03
		F	2.060472E 05
		AZ	6.078633E 01
		LON	7.063964E 01
		AZE	5.900430E 01
		IAC	1.642287E 01
		CYA	-3.629442E 00
		VRA	0.000000E-39

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